

EXTRACTION OIL & GAS

WELD COUNTY, COLORADO (NAD 83)

NE NW SEC. 22 T12N R64W 6th P.M.

COX 4

ORIGINAL WELLBORE

01 July, 2015

Plan: PROPOSAL #5

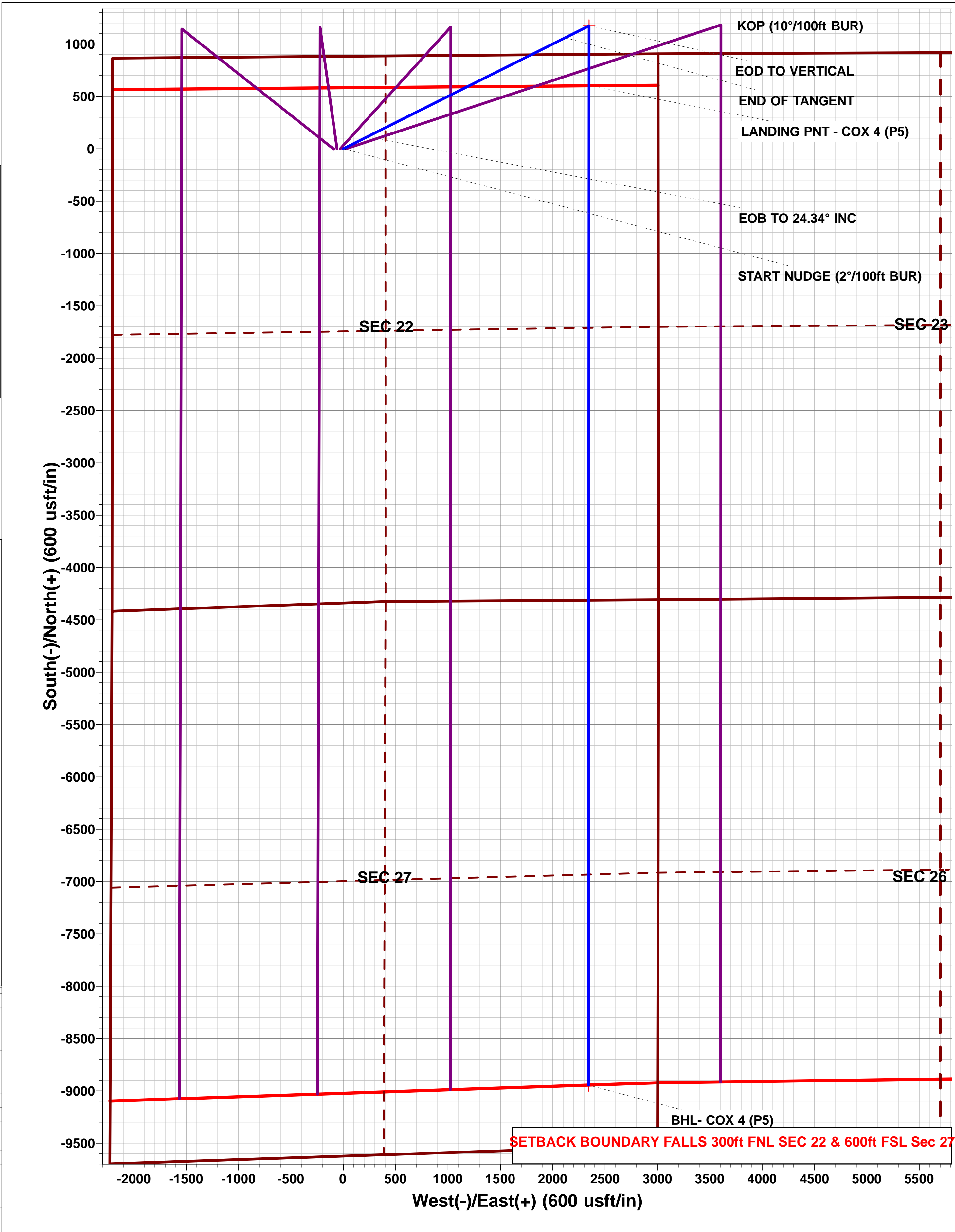
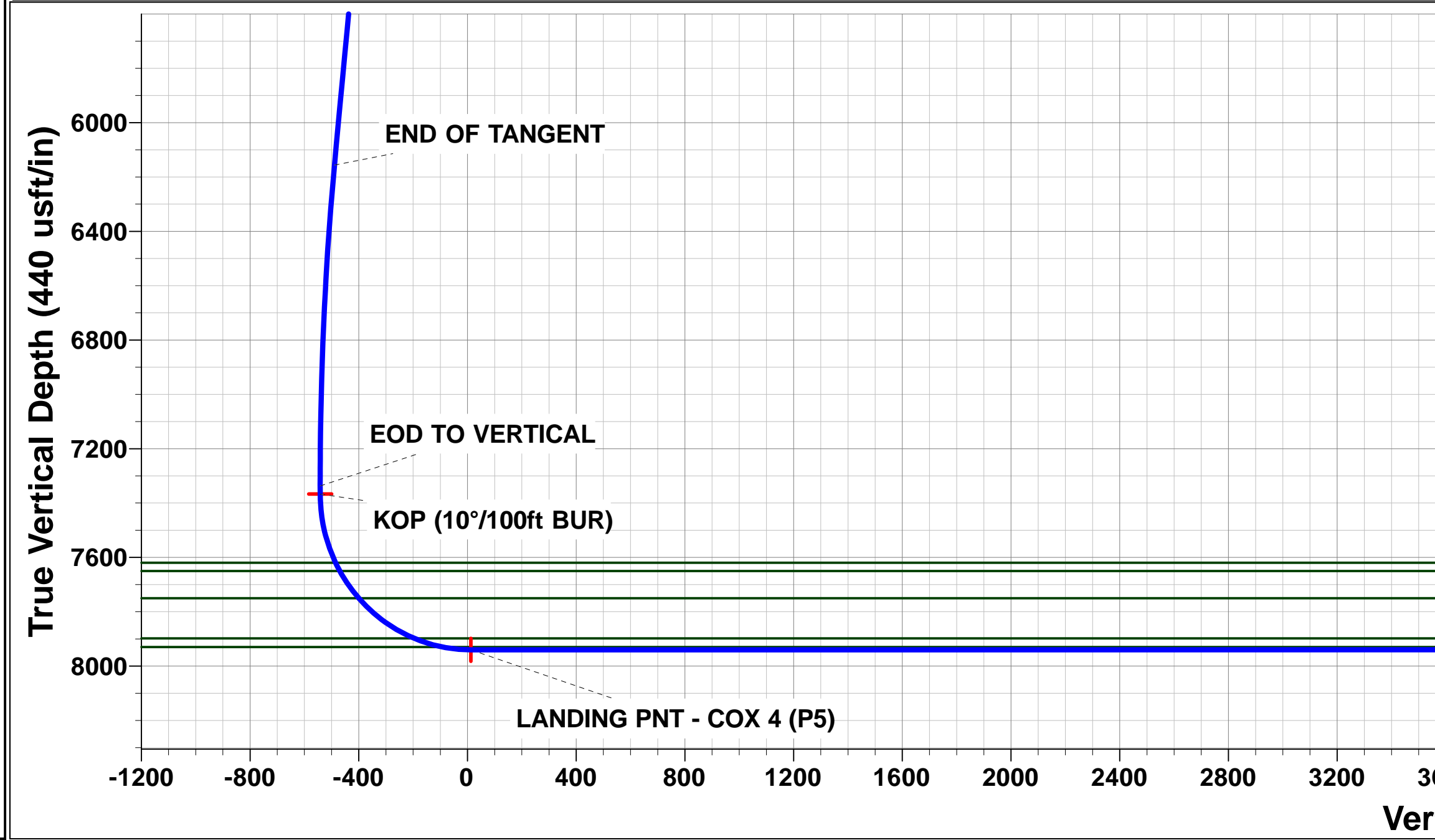
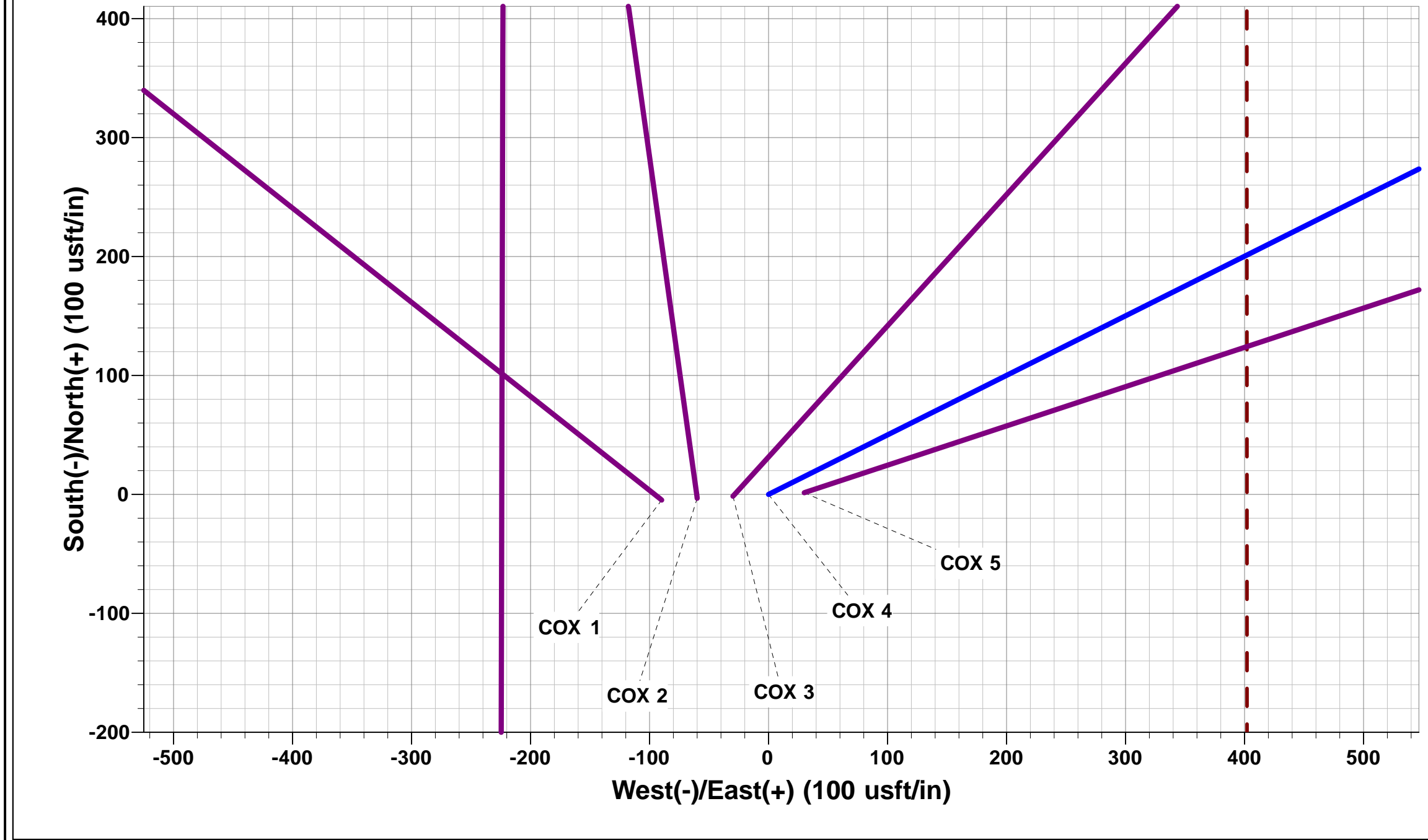
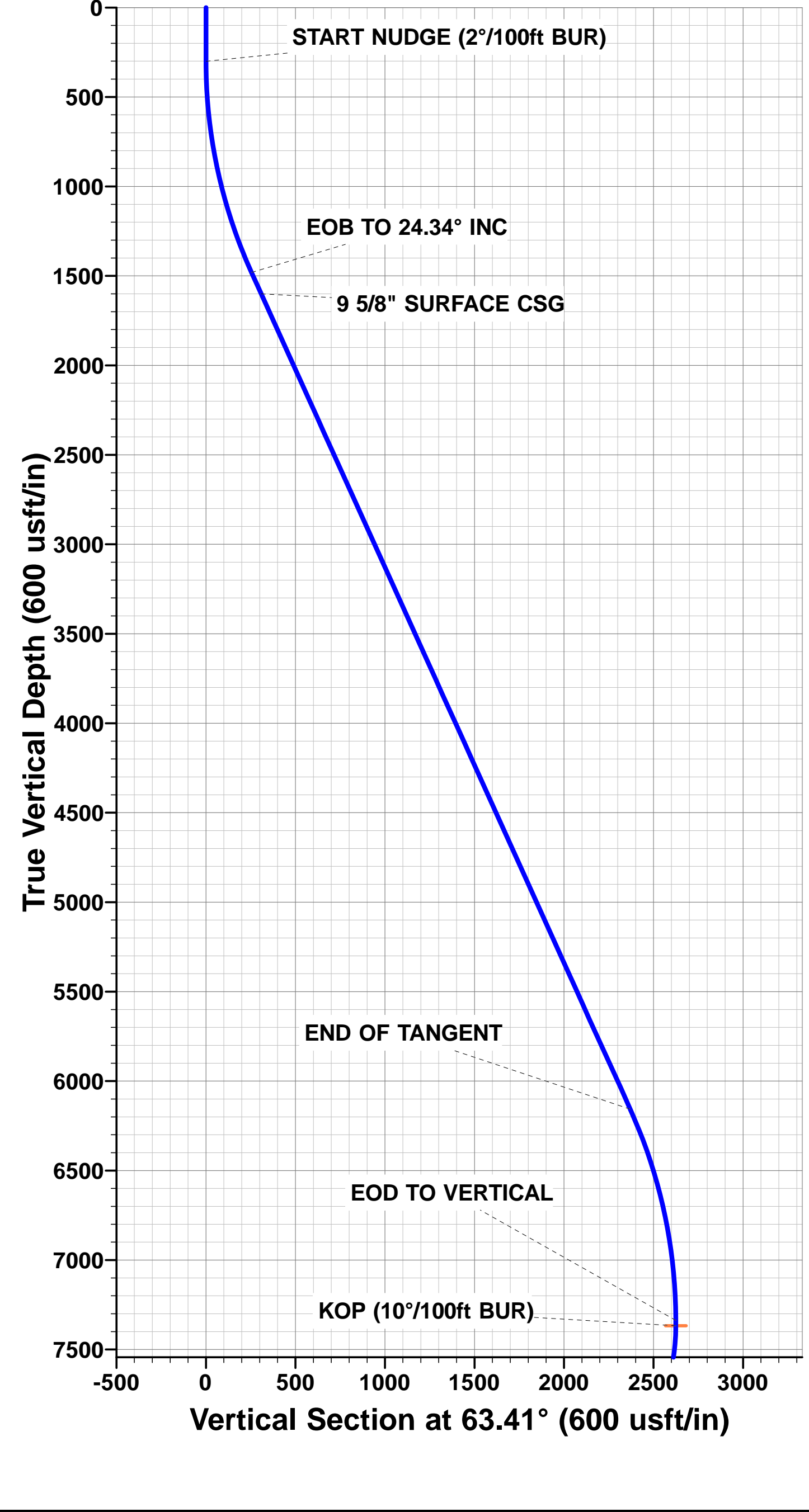




Project: WELD COUNTY, COLORADO (NAD 83)
Site: NE NW SEC. 22 T12N R64W 6th P.M.
Well: COX 4
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #5

ANNOTATIONS										PROPOSED LOCAL COORDINATES: SHL: 883ft FNL & 2203ft FWL Sec 22 LANDING PNT: 300ft FNL & 660ft FEL Sec 22 BHL: 600ft FSL & 660ft FEL Sec 27
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation		
300.0	300.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)		
1480.7	1517.0	24.34	63.41	114.0	227.7	-52.6	254.6	EOB TO 24.34° INC		
1600.0	1647.9	24.34	63.41	138.1	275.9	-63.7	308.6	9 5/8" SURFACE CSG		
6156.3	6648.7	24.34	63.41	1060.7	2118.9	-489.5	2369.6	END OF TANGENT		
7337.0	7865.6	0.00	63.41	1174.7	2346.6	-542.1	2624.2	EOD TO VERTICAL		
7367.0	7895.6	0.00	0.00	1174.7	2346.6	-542.1	2624.2	KOP (10°/100ft BUR)		
7940.0	8795.7	90.00	180.03	601.7	2346.3	12.2	3197.2	LANDING PNT - COX 4 (P5)		
7940.0	18342.4	90.00	180.02	-8945.0	2341.9	9246.5	12743.9	BHL - COX 4 (P5)		

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - COX 4 (P5)	7367.0	1174.7	2346.6	41.001856	-104.526299
BHL- COX 4 (P5)	7940.0	-8945.0	2341.9	40.974081	-104.526319
LANDING PNT - COX 4 (P5)	7940.0	601.7	2346.3	41.000283	-104.526300



Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 4
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5572.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5572.0usft
Site:	NE NW SEC. 22 T12N R64W 6th P.M.	North Reference:	True
Well:	COX 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #5		

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. 22 T12N R64W 6th P.M.		
Site Position:		Northing:	1,608,102.79 usft
From:	Lat/Long	Easting:	3,266,349.34 usft
Position Uncertainty:	0.0 usft	Slot Radius:	1.10000ft
		Latitude:	40.998619
		Longitude:	-104.535125
		Grid Convergence:	0.62 °

Well	COX 4		
Well Position	+N/-S	4.7 usft	Northing:
	+E/-W	89.7 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	17/04/2015	8.37	67.42	52,967

Design	PROPOSAL #5			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	7,940.0	0.0	0.0	165.33

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	-5,572.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	-5,272.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,517.0	24.34	63.41	1,480.7	-4,091.3	114.0	227.7	2.00	2.00	0.00	63.41	
6,648.7	24.34	63.41	6,156.3	584.3	1,060.7	2,118.9	0.00	0.00	0.00	0.00	
7,865.6	0.00	0.00	7,337.0	1,765.0	1,174.7	2,346.6	2.00	-2.00	0.00	180.00	
7,895.6	0.00	0.00	7,367.0	1,795.0	1,174.7	2,346.6	0.00	0.00	0.00	0.00	KOP - COX 4 (P5)
8,795.7	90.00	180.03	7,940.0	2,368.0	601.7	2,346.3	10.00	10.00	-19.99	180.03	LANDING PNT - C
18,342.4	90.00	180.02	7,940.0	2,368.0	-8,945.0	2,341.9	0.00	0.00	0.00	-115.94	BHL- COX 4 (P5)

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Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5572.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5572.0usft
Site:	NE NW SEC. 22 T12N R64W 6th P.M.	North Reference:	True
Well:	COX 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #5		

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	5,572.00	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	5,472.00	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	5,372.00	0.0	0.0	0.0	0.00	0.00	0.00
START NUDGE (2°/100ft BUR)										
300.0	0.00	0.00	300.0	5,272.00	0.0	0.0	0.0	0.00	0.00	0.00
400.0	2.00	63.41	400.0	5,172.02	0.8	1.6	-0.4	2.00	2.00	0.00
500.0	4.00	63.41	499.8	5,072.16	3.1	6.2	-1.4	2.00	2.00	0.00
600.0	6.00	63.41	599.5	4,972.55	7.0	14.0	-3.2	2.00	2.00	0.00
700.0	8.00	63.41	698.7	4,873.30	12.5	24.9	-5.8	2.00	2.00	0.00
800.0	10.00	63.41	797.5	4,774.53	19.5	38.9	-9.0	2.00	2.00	0.00
900.0	12.00	63.41	895.6	4,676.38	28.0	56.0	-12.9	2.00	2.00	0.00
1,000.0	14.00	63.41	993.1	4,578.94	38.1	76.1	-17.6	2.00	2.00	0.00
1,100.0	16.00	63.41	1,089.6	4,482.36	49.7	99.2	-22.9	2.00	2.00	0.00
1,200.0	18.00	63.41	1,185.3	4,386.73	62.8	125.4	-29.0	2.00	2.00	0.00
1,300.0	20.00	63.41	1,279.8	4,292.18	77.3	154.5	-35.7	2.00	2.00	0.00
1,400.0	22.00	63.41	1,373.2	4,198.83	93.4	186.5	-43.1	2.00	2.00	0.00
1,500.0	24.00	63.41	1,465.2	4,106.79	110.9	221.5	-51.2	2.00	2.00	0.00
EOB TO 24.34° INC										
1,517.0	24.34	63.41	1,480.7	4,091.28	114.0	227.7	-52.6	1.99	1.99	0.00
1,600.0	24.34	63.41	1,556.3	4,015.65	129.3	258.3	-59.7	0.00	0.00	0.00
9 5/8" SURFACE CSG										
1,647.9	24.34	63.41	1,600.0	3,972.00	138.1	275.9	-63.7	0.00	0.00	0.00
1,700.0	24.34	63.41	1,647.5	3,924.54	147.7	295.1	-68.2	0.00	0.00	0.00
1,800.0	24.34	63.41	1,738.6	3,833.43	166.2	332.0	-76.7	0.00	0.00	0.00
1,900.0	24.34	63.41	1,829.7	3,742.32	184.6	368.8	-85.2	0.00	0.00	0.00
2,000.0	24.34	63.41	1,920.8	3,651.20	203.1	405.7	-93.7	0.00	0.00	0.00
2,100.0	24.34	63.41	2,011.9	3,560.09	221.5	442.6	-102.2	0.00	0.00	0.00
2,200.0	24.34	63.41	2,103.0	3,468.98	240.0	479.4	-110.7	0.00	0.00	0.00
2,300.0	24.34	63.41	2,194.1	3,377.87	258.4	516.3	-119.3	0.00	0.00	0.00
2,400.0	24.34	63.41	2,285.2	3,286.75	276.9	553.1	-127.8	0.00	0.00	0.00
2,500.0	24.34	63.41	2,376.4	3,195.64	295.3	590.0	-136.3	0.00	0.00	0.00
2,600.0	24.34	63.41	2,467.5	3,104.53	313.8	626.8	-144.8	0.00	0.00	0.00
2,700.0	24.34	63.41	2,558.6	3,013.42	332.2	663.7	-153.3	0.00	0.00	0.00
2,800.0	24.34	63.41	2,649.7	2,922.31	350.7	700.5	-161.8	0.00	0.00	0.00
2,900.0	24.34	63.41	2,740.8	2,831.19	369.1	737.4	-170.3	0.00	0.00	0.00
3,000.0	24.34	63.41	2,831.9	2,740.08	387.6	774.2	-178.8	0.00	0.00	0.00
3,100.0	24.34	63.41	2,923.0	2,648.97	406.0	811.1	-187.4	0.00	0.00	0.00
3,200.0	24.34	63.41	3,014.1	2,557.86	424.5	847.9	-195.9	0.00	0.00	0.00
3,300.0	24.34	63.41	3,105.3	2,466.74	442.9	884.8	-204.4	0.00	0.00	0.00
PARKMAN										
3,373.3	24.34	63.41	3,172.0	2,400.00	456.4	911.8	-210.6	0.00	0.00	0.00
3,400.0	24.34	63.41	3,196.4	2,375.63	461.4	921.7	-212.9	0.00	0.00	0.00
3,500.0	24.34	63.41	3,287.5	2,284.52	479.8	958.5	-221.4	0.00	0.00	0.00
3,600.0	24.34	63.41	3,378.6	2,193.41	498.3	995.4	-229.9	0.00	0.00	0.00
3,700.0	24.34	63.41	3,469.7	2,102.30	516.7	1,032.2	-238.4	0.00	0.00	0.00
3,800.0	24.34	63.41	3,560.8	2,011.18	535.2	1,069.1	-246.9	0.00	0.00	0.00
3,900.0	24.34	63.41	3,651.9	1,920.07	553.6	1,105.9	-255.5	0.00	0.00	0.00
4,000.0	24.34	63.41	3,743.0	1,828.96	572.1	1,142.8	-264.0	0.00	0.00	0.00
4,100.0	24.34	63.41	3,834.2	1,737.85	590.5	1,179.6	-272.5	0.00	0.00	0.00
4,200.0	24.34	63.41	3,925.3	1,646.73	609.0	1,216.5	-281.0	0.00	0.00	0.00
4,300.0	24.34	63.41	4,016.4	1,555.62	627.4	1,253.3	-289.5	0.00	0.00	0.00
4,400.0	24.34	63.41	4,107.5	1,464.51	645.9	1,290.2	-298.0	0.00	0.00	0.00
4,500.0	24.34	63.41	4,198.6	1,373.40	664.3	1,327.0	-306.5	0.00	0.00	0.00
4,600.0	24.34	63.41	4,289.7	1,282.29	682.8	1,363.9	-315.1	0.00	0.00	0.00

Planning Report



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Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #5		

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)
4,700.0	24.34	63.41	4,380.8	1,191.17	701.2	1,400.8	-323.6	0.00	0.00	0.00
4,800.0	24.34	63.41	4,471.9	1,100.06	719.7	1,437.6	-332.1	0.00	0.00	0.00
4,900.0	24.34	63.41	4,563.1	1,008.95	738.1	1,474.5	-340.6	0.00	0.00	0.00
5,000.0	24.34	63.41	4,654.2	917.84	756.6	1,511.3	-349.1	0.00	0.00	0.00
5,100.0	24.34	63.41	4,745.3	826.72	775.0	1,548.2	-357.6	0.00	0.00	0.00
5,200.0	24.34	63.41	4,836.4	735.61	793.5	1,585.0	-366.1	0.00	0.00	0.00
5,300.0	24.34	63.41	4,927.5	644.50	811.9	1,621.9	-374.6	0.00	0.00	0.00
SUSSEX										
5,398.2	24.34	63.41	5,017.0	555.00	830.0	1,658.1	-383.0	0.00	0.00	0.00
5,400.0	24.34	63.41	5,018.6	553.39	830.4	1,658.7	-383.2	0.00	0.00	0.00
5,500.0	24.34	63.41	5,109.7	462.28	848.8	1,695.6	-391.7	0.00	0.00	0.00
5,600.0	24.34	63.41	5,200.8	371.16	867.3	1,732.4	-400.2	0.00	0.00	0.00
5,700.0	24.34	63.41	5,291.9	280.05	885.7	1,769.3	-408.7	0.00	0.00	0.00
5,800.0	24.34	63.41	5,383.1	188.94	904.2	1,806.1	-417.2	0.00	0.00	0.00
SHANNON										
5,840.5	24.34	63.41	5,420.0	152.00	911.6	1,821.1	-420.7	0.00	0.00	0.00
5,900.0	24.34	63.41	5,474.2	97.83	922.6	1,843.0	-425.7	0.00	0.00	0.00
6,000.0	24.34	63.41	5,565.3	6.72	941.0	1,879.9	-434.2	0.00	0.00	0.00
6,100.0	24.34	63.41	5,656.4	-84.40	959.5	1,916.7	-442.7	0.00	0.00	0.00
6,200.0	24.34	63.41	5,747.5	-175.51	977.9	1,953.6	-451.3	0.00	0.00	0.00
6,300.0	24.34	63.41	5,838.6	-266.62	996.4	1,990.4	-459.8	0.00	0.00	0.00
6,400.0	24.34	63.41	5,929.7	-357.73	1,014.8	2,027.3	-468.3	0.00	0.00	0.00
6,500.0	24.34	63.41	6,020.8	-448.85	1,033.3	2,064.1	-476.8	0.00	0.00	0.00
6,600.0	24.34	63.41	6,112.0	-539.96	1,051.7	2,101.0	-485.3	0.00	0.00	0.00
END OF TANGENT										
6,648.7	24.34	63.41	6,156.3	-584.33	1,060.7	2,118.9	-489.5	0.00	0.00	0.00
6,700.0	23.31	63.41	6,203.3	-631.26	1,070.0	2,137.5	-493.7	2.00	-2.00	0.00
6,800.0	21.31	63.41	6,295.8	-723.77	1,087.0	2,171.4	-501.6	2.00	-2.00	0.00
6,900.0	19.31	63.41	6,389.5	-817.54	1,102.5	2,202.4	-508.8	2.00	-2.00	0.00
7,000.0	17.31	63.41	6,484.5	-912.47	1,116.6	2,230.5	-515.2	2.00	-2.00	0.00
7,100.0	15.31	63.41	6,580.4	-1,008.44	1,129.2	2,255.7	-521.0	2.00	-2.00	0.00
7,200.0	13.31	63.41	6,677.3	-1,105.33	1,140.2	2,277.8	-526.1	2.00	-2.00	0.00
7,300.0	11.31	63.41	6,775.0	-1,203.03	1,149.8	2,296.8	-530.6	2.00	-2.00	0.00
7,400.0	9.31	63.41	6,873.4	-1,301.41	1,157.8	2,312.8	-534.3	2.00	-2.00	0.00
7,500.0	7.31	63.41	6,972.4	-1,400.35	1,164.3	2,325.8	-537.2	2.00	-2.00	0.00
7,600.0	5.31	63.41	7,071.7	-1,499.74	1,169.2	2,335.6	-539.5	2.00	-2.00	0.00
7,700.0	3.31	63.41	7,171.5	-1,599.45	1,172.6	2,342.3	-541.1	2.00	-2.00	0.00
7,800.0	1.31	63.41	7,271.4	-1,699.37	1,174.4	2,345.9	-541.9	2.00	-2.00	0.00
EOD TO VERTICAL										
7,865.6	0.00	63.41	7,337.0	-1,764.96	1,174.7	2,346.6	-542.0	2.00	-2.00	0.00
KOP (10°/100ft BUR)										
7,895.6	0.00	0.00	7,367.0	-1,794.96	1,174.7	2,346.6	-542.0	0.00	0.00	0.00
7,900.0	0.44	180.03	7,371.4	-1,799.36	1,174.7	2,346.6	-542.0	9.91	9.91	0.00
8,000.0	10.44	180.03	7,470.8	-1,898.78	1,165.2	2,346.6	-532.9	10.00	10.00	0.00
8,100.0	20.43	180.03	7,567.1	-1,995.05	1,138.6	2,346.6	-507.2	10.00	10.00	0.00
SHARON SPRINGS										
8,157.7	26.20	180.03	7,620.0	-2,048.00	1,115.8	2,346.6	-485.1	10.00	10.00	0.00
NIOBRARA										
8,191.6	29.60	180.03	7,650.0	-2,078.00	1,099.9	2,346.6	-469.7	10.00	10.00	0.00
8,200.0	30.43	180.03	7,657.2	-2,085.25	1,095.7	2,346.6	-465.7	10.00	10.00	0.00
8,300.0	40.43	180.03	7,738.6	-2,166.62	1,037.8	2,346.5	-409.7	10.00	10.00	0.00
NIO B										
8,315.1	41.94	180.03	7,750.0	-2,178.00	1,027.9	2,346.5	-400.1	10.00	10.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 4
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5572.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5572.0usft
Site:	NE NW SEC. 22 T12N R64W 6th P.M.	North Reference:	True
Well:	COX 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #5		

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)
8,400.0	50.43	180.03	7,808.7	-2,236.71	966.7	2,346.5	-340.9	10.00	10.00	0.00
8,500.0	60.43	180.03	7,865.4	-2,293.38	884.5	2,346.4	-261.3	10.00	10.00	0.00
FORT HAYS										
8,575.0	67.93	180.03	7,898.0	-2,326.00	817.0	2,346.4	-196.1	10.00	10.00	0.00
8,600.0	70.43	180.03	7,906.9	-2,334.90	793.6	2,346.4	-173.5	10.00	10.00	0.00
CODELL										
8,688.5	79.28	180.03	7,930.0	-2,358.00	708.3	2,346.3	-90.9	10.00	10.00	0.00
8,700.0	80.43	180.03	7,932.0	-2,360.03	697.0	2,346.3	-80.0	10.00	10.00	0.00
LANDING PNT - COX 4 (P5)										
8,795.7	90.00	180.03	7,940.0	-2,368.00	601.7	2,346.3	12.2	10.00	10.00	0.00
8,800.0	90.00	180.03	7,940.0	-2,368.00	597.4	2,346.3	16.3	0.09	0.09	0.00
8,900.0	90.00	180.03	7,940.0	-2,367.99	497.4	2,346.2	113.1	0.00	0.00	0.00
9,000.0	90.00	180.03	7,940.0	-2,367.99	397.4	2,346.2	209.8	0.00	0.00	0.00
9,100.0	90.00	180.03	7,940.0	-2,367.98	297.4	2,346.1	306.5	0.00	0.00	0.00
9,200.0	90.00	180.03	7,940.0	-2,367.98	197.4	2,346.0	403.2	0.00	0.00	0.00
9,300.0	90.00	180.03	7,940.0	-2,367.97	97.4	2,346.0	500.0	0.00	0.00	0.00
9,400.0	90.00	180.03	7,940.0	-2,367.97	-2.6	2,345.9	596.7	0.00	0.00	0.00
9,500.0	90.00	180.03	7,940.0	-2,367.96	-102.6	2,345.9	693.4	0.00	0.00	0.00
9,600.0	90.00	180.03	7,940.0	-2,367.96	-202.6	2,345.8	790.1	0.00	0.00	0.00
9,700.0	90.00	180.03	7,940.0	-2,367.96	-302.6	2,345.8	886.9	0.00	0.00	0.00
9,800.0	90.00	180.03	7,940.0	-2,367.95	-402.6	2,345.7	983.6	0.00	0.00	0.00
9,900.0	90.00	180.03	7,939.9	-2,367.95	-502.6	2,345.7	1,080.3	0.00	0.00	0.00
10,000.0	90.00	180.03	7,939.9	-2,367.94	-602.6	2,345.6	1,177.0	0.00	0.00	0.00
10,100.0	90.00	180.03	7,939.9	-2,367.94	-702.6	2,345.6	1,273.8	0.00	0.00	0.00
10,200.0	90.00	180.03	7,939.9	-2,367.93	-802.6	2,345.5	1,370.5	0.00	0.00	0.00
10,300.0	90.00	180.03	7,939.9	-2,367.93	-902.6	2,345.5	1,467.2	0.00	0.00	0.00
10,400.0	90.00	180.03	7,939.9	-2,367.93	-1,002.6	2,345.4	1,563.9	0.00	0.00	0.00
10,500.0	90.00	180.03	7,939.9	-2,367.92	-1,102.6	2,345.3	1,660.7	0.00	0.00	0.00
10,600.0	90.00	180.03	7,939.9	-2,367.92	-1,202.6	2,345.3	1,757.4	0.00	0.00	0.00
10,700.0	90.00	180.03	7,939.9	-2,367.92	-1,302.6	2,345.2	1,854.1	0.00	0.00	0.00
10,800.0	90.00	180.03	7,939.9	-2,367.91	-1,402.6	2,345.2	1,950.8	0.00	0.00	0.00
10,900.0	90.00	180.03	7,939.9	-2,367.91	-1,502.6	2,345.1	2,047.6	0.00	0.00	0.00
11,000.0	90.00	180.03	7,939.9	-2,367.91	-1,602.6	2,345.1	2,144.3	0.00	0.00	0.00
11,100.0	90.00	180.03	7,939.9	-2,367.90	-1,702.6	2,345.0	2,241.0	0.00	0.00	0.00
11,200.0	90.00	180.03	7,939.9	-2,367.90	-1,802.6	2,345.0	2,337.8	0.00	0.00	0.00
11,300.0	90.00	180.03	7,939.9	-2,367.90	-1,902.6	2,344.9	2,434.5	0.00	0.00	0.00
11,400.0	90.00	180.03	7,939.9	-2,367.90	-2,002.6	2,344.9	2,531.2	0.00	0.00	0.00
11,500.0	90.00	180.03	7,939.9	-2,367.89	-2,102.6	2,344.8	2,627.9	0.00	0.00	0.00
11,600.0	90.00	180.03	7,939.9	-2,367.89	-2,202.6	2,344.8	2,724.7	0.00	0.00	0.00
11,700.0	90.00	180.03	7,939.9	-2,367.89	-2,302.6	2,344.7	2,821.4	0.00	0.00	0.00
11,800.0	90.00	180.03	7,939.9	-2,367.88	-2,402.6	2,344.7	2,918.1	0.00	0.00	0.00
11,900.0	90.00	180.03	7,939.9	-2,367.88	-2,502.6	2,344.6	3,014.8	0.00	0.00	0.00
12,000.0	90.00	180.03	7,939.9	-2,367.88	-2,602.6	2,344.6	3,111.6	0.00	0.00	0.00
12,100.0	90.00	180.03	7,939.9	-2,367.88	-2,702.6	2,344.5	3,208.3	0.00	0.00	0.00
12,200.0	90.00	180.03	7,939.9	-2,367.88	-2,802.6	2,344.5	3,305.0	0.00	0.00	0.00
12,300.0	90.00	180.03	7,939.9	-2,367.88	-2,902.6	2,344.4	3,401.7	0.00	0.00	0.00
12,400.0	90.00	180.03	7,939.9	-2,367.88	-3,002.6	2,344.4	3,498.5	0.00	0.00	0.00
12,500.0	90.00	180.03	7,939.9	-2,367.88	-3,102.6	2,344.3	3,595.2	0.00	0.00	0.00
12,600.0	90.00	180.03	7,939.9	-2,367.88	-3,202.6	2,344.3	3,691.9	0.00	0.00	0.00
12,700.0	90.00	180.03	7,939.9	-2,367.87	-3,302.6	2,344.2	3,788.7	0.00	0.00	0.00
12,800.0	90.00	180.03	7,939.9	-2,367.87	-3,402.6	2,344.2	3,885.4	0.00	0.00	0.00
12,900.0	90.00	180.03	7,939.9	-2,367.87	-3,502.6	2,344.2	3,982.1	0.00	0.00	0.00
13,000.0	90.00	180.03	7,939.9	-2,367.87	-3,602.6	2,344.1	4,078.8	0.00	0.00	0.00

Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 4
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5572.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5572.0usft
Site:	NE NW SEC. 22 T12N R64W 6th P.M.	North Reference:	True
Well:	COX 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #5		

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	180.03	7,939.9	-2,367.87	-3,702.6	2,344.1	4,175.6	0.00	0.00	0.00
13,200.0	90.00	180.03	7,939.9	-2,367.87	-3,802.6	2,344.0	4,272.3	0.00	0.00	0.00
13,300.0	90.00	180.03	7,939.9	-2,367.87	-3,902.6	2,344.0	4,369.0	0.00	0.00	0.00
13,400.0	90.00	180.03	7,939.9	-2,367.87	-4,002.6	2,343.9	4,465.7	0.00	0.00	0.00
13,500.0	90.00	180.03	7,939.9	-2,367.87	-4,102.6	2,343.9	4,562.5	0.00	0.00	0.00
13,600.0	90.00	180.03	7,939.9	-2,367.87	-4,202.6	2,343.8	4,659.2	0.00	0.00	0.00
13,700.0	90.00	180.03	7,939.9	-2,367.87	-4,302.6	2,343.8	4,755.9	0.00	0.00	0.00
13,800.0	90.00	180.03	7,939.9	-2,367.87	-4,402.6	2,343.7	4,852.7	0.00	0.00	0.00
13,900.0	90.00	180.03	7,939.9	-2,367.87	-4,502.6	2,343.7	4,949.4	0.00	0.00	0.00
14,000.0	90.00	180.03	7,939.9	-2,367.87	-4,602.6	2,343.6	5,046.1	0.00	0.00	0.00
14,100.0	90.00	180.03	7,939.9	-2,367.87	-4,702.6	2,343.6	5,142.8	0.00	0.00	0.00
14,200.0	90.00	180.03	7,939.9	-2,367.87	-4,802.6	2,343.6	5,239.6	0.00	0.00	0.00
14,300.0	90.00	180.03	7,939.9	-2,367.87	-4,902.6	2,343.5	5,336.3	0.00	0.00	0.00
14,400.0	90.00	180.02	7,939.9	-2,367.87	-5,002.6	2,343.5	5,433.0	0.00	0.00	0.00
14,500.0	90.00	180.02	7,939.9	-2,367.87	-5,102.6	2,343.4	5,529.8	0.00	0.00	0.00
14,600.0	90.00	180.02	7,939.9	-2,367.88	-5,202.6	2,343.4	5,626.5	0.00	0.00	0.00
14,700.0	90.00	180.02	7,939.9	-2,367.88	-5,302.6	2,343.3	5,723.2	0.00	0.00	0.00
14,800.0	90.00	180.02	7,939.9	-2,367.88	-5,402.6	2,343.3	5,819.9	0.00	0.00	0.00
14,900.0	90.00	180.02	7,939.9	-2,367.88	-5,502.6	2,343.3	5,916.7	0.00	0.00	0.00
15,000.0	90.00	180.02	7,939.9	-2,367.88	-5,602.6	2,343.2	6,013.4	0.00	0.00	0.00
15,100.0	90.00	180.02	7,939.9	-2,367.88	-5,702.6	2,343.2	6,110.1	0.00	0.00	0.00
15,200.0	90.00	180.02	7,939.9	-2,367.89	-5,802.6	2,343.1	6,206.9	0.00	0.00	0.00
15,300.0	90.00	180.02	7,939.9	-2,367.89	-5,902.6	2,343.1	6,303.6	0.00	0.00	0.00
15,400.0	90.00	180.02	7,939.9	-2,367.89	-6,002.6	2,343.1	6,400.3	0.00	0.00	0.00
15,500.0	90.00	180.02	7,939.9	-2,367.89	-6,102.6	2,343.0	6,497.0	0.00	0.00	0.00
15,600.0	90.00	180.02	7,939.9	-2,367.89	-6,202.6	2,343.0	6,593.8	0.00	0.00	0.00
15,700.0	90.00	180.02	7,939.9	-2,367.90	-6,302.6	2,342.9	6,690.5	0.00	0.00	0.00
15,800.0	90.00	180.02	7,939.9	-2,367.90	-6,402.6	2,342.9	6,787.2	0.00	0.00	0.00
15,900.0	90.00	180.02	7,939.9	-2,367.90	-6,502.6	2,342.8	6,884.0	0.00	0.00	0.00
16,000.0	90.00	180.02	7,939.9	-2,367.90	-6,602.6	2,342.8	6,980.7	0.00	0.00	0.00
16,100.0	90.00	180.02	7,939.9	-2,367.91	-6,702.6	2,342.8	7,077.4	0.00	0.00	0.00
16,200.0	90.00	180.02	7,939.9	-2,367.91	-6,802.6	2,342.7	7,174.1	0.00	0.00	0.00
16,300.0	90.00	180.02	7,939.9	-2,367.91	-6,902.6	2,342.7	7,270.9	0.00	0.00	0.00
16,400.0	90.00	180.02	7,939.9	-2,367.92	-7,002.6	2,342.7	7,367.6	0.00	0.00	0.00
16,500.0	90.00	180.02	7,939.9	-2,367.92	-7,102.6	2,342.6	7,464.3	0.00	0.00	0.00
16,600.0	90.00	180.02	7,939.9	-2,367.92	-7,202.6	2,342.6	7,561.1	0.00	0.00	0.00
16,700.0	90.00	180.02	7,939.9	-2,367.93	-7,302.6	2,342.5	7,657.8	0.00	0.00	0.00
16,800.0	90.00	180.02	7,939.9	-2,367.93	-7,402.6	2,342.5	7,754.5	0.00	0.00	0.00
16,900.0	90.00	180.02	7,939.9	-2,367.93	-7,502.6	2,342.5	7,851.3	0.00	0.00	0.00
17,000.0	90.00	180.02	7,939.9	-2,367.94	-7,602.6	2,342.4	7,948.0	0.00	0.00	0.00
17,100.0	90.00	180.02	7,939.9	-2,367.94	-7,702.6	2,342.4	8,044.7	0.00	0.00	0.00
17,200.0	90.00	180.02	7,939.9	-2,367.95	-7,802.6	2,342.3	8,141.4	0.00	0.00	0.00
17,300.0	90.00	180.02	7,939.9	-2,367.95	-7,902.6	2,342.3	8,238.2	0.00	0.00	0.00
17,400.0	90.00	180.02	7,940.0	-2,367.95	-8,002.6	2,342.3	8,334.9	0.00	0.00	0.00
17,500.0	90.00	180.02	7,940.0	-2,367.96	-8,102.6	2,342.2	8,431.6	0.00	0.00	0.00
17,600.0	90.00	180.02	7,940.0	-2,367.96	-8,202.6	2,342.2	8,528.4	0.00	0.00	0.00
17,700.0	90.00	180.02	7,940.0	-2,367.97	-8,302.6	2,342.2	8,625.1	0.00	0.00	0.00
17,800.0	90.00	180.02	7,940.0	-2,367.97	-8,402.6	2,342.1	8,721.8	0.00	0.00	0.00
17,900.0	90.00	180.02	7,940.0	-2,367.98	-8,502.6	2,342.1	8,818.6	0.00	0.00	0.00
18,000.0	90.00	180.02	7,940.0	-2,367.98	-8,602.6	2,342.1	8,915.3	0.00	0.00	0.00
18,100.0	90.00	180.02	7,940.0	-2,367.99	-8,702.6	2,342.0	9,012.0	0.00	0.00	0.00
18,200.0	90.00	180.02	7,940.0	-2,367.99	-8,802.6	2,342.0	9,108.7	0.00	0.00	0.00
18,300.0	90.00	180.02	7,940.0	-2,368.00	-8,902.6	2,342.0	9,205.5	0.00	0.00	0.00
BHL - COX 4 (P5)										

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well COX 4
Company:	EXTRACTION OIL & GAS	TVD Reference:	KB-EST @ 5572.0usft
Project:	WELD COUNTY, COLORADO (NAD 83)	MD Reference:	KB-EST @ 5572.0usft
Site:	NE NW SEC. 22 T12N R64W 6th P.M.	North Reference:	True
Well:	COX 4	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #5		

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)
18,342.4	90.00	180.02	7,940.0	-2,368.00	-8,945.0	2,341.9	9,246.5	0.00	0.00	0.00

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,373.3	3,172.0	PARKMAN		0.00	
5,398.2	5,017.0	SUSSEX		0.00	
5,840.5	5,420.0	SHANNON		0.00	
8,157.7	7,620.0	SHARON SPRINGS		0.00	
8,191.6	7,650.0	NIOBRARA		0.00	
8,315.1	7,750.0	NIO B		0.00	
8,575.0	7,898.0	FORT HAYS		0.00	
8,688.5	7,930.0	CODELL		0.00	

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
300.0	300.0	0.0	0.0	START NUDGE (2°/100ft BUR)
1,517.0	1,480.7	114.0	227.7	EOB TO 24.34° INC
1,647.9	1,600.0	138.1	275.9	9 5/8" SURFACE CSG
6,648.7	6,156.3	1,060.7	2,118.9	END OF TANGENT
7,865.6	7,337.0	1,174.7	2,346.6	EOD TO VERTICAL
7,895.6	7,367.0	1,174.7	2,346.6	KOP (10°/100ft BUR)
8,795.7	7,940.0	601.7	2,346.3	LANDING PNT - COX 4 (P5)
18,342.4	7,940.0	-8,945.0	2,341.9	BHL - COX 4 (P5)