



Project: WELD COUNTY, COLORADO (TRUE)
Site: SW NE SEC. 6 T3N R65W 6th P.M.
Well: ELKHEAD 8N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 2314ft FNL & 2200ft FEL of Sec 6	
1000.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft BUR)	
2429.97	2497.20	29.94	114.17	-156.56	348.89	-56.71	382.41	EOB TO 29.94° INC	
5026.83	5494.11	29.94	114.17	-769.00	1713.69	-278.56	1878.33	END OF TANGENT	
6456.80	6991.31	0.00	0.00	-925.57	2062.59	-335.27	2260.74	EOD TO VERTICAL	
6556.80	7091.31	0.00	0.00	-925.57	2062.59	-335.27	2260.74	KOP (8°/100ft BUR)	
7273.00	8216.30	90.00	0.15	-209.38	2064.45	354.90	2976.93	EP: 2530ft FNL & 135ft FEL of Sec 6	
7273.00	15873.54	90.00	0.16	7447.83	2084.96	7734.16	10634.16	BHL: 150ft FNL & 135ft FEL of Sec 31	

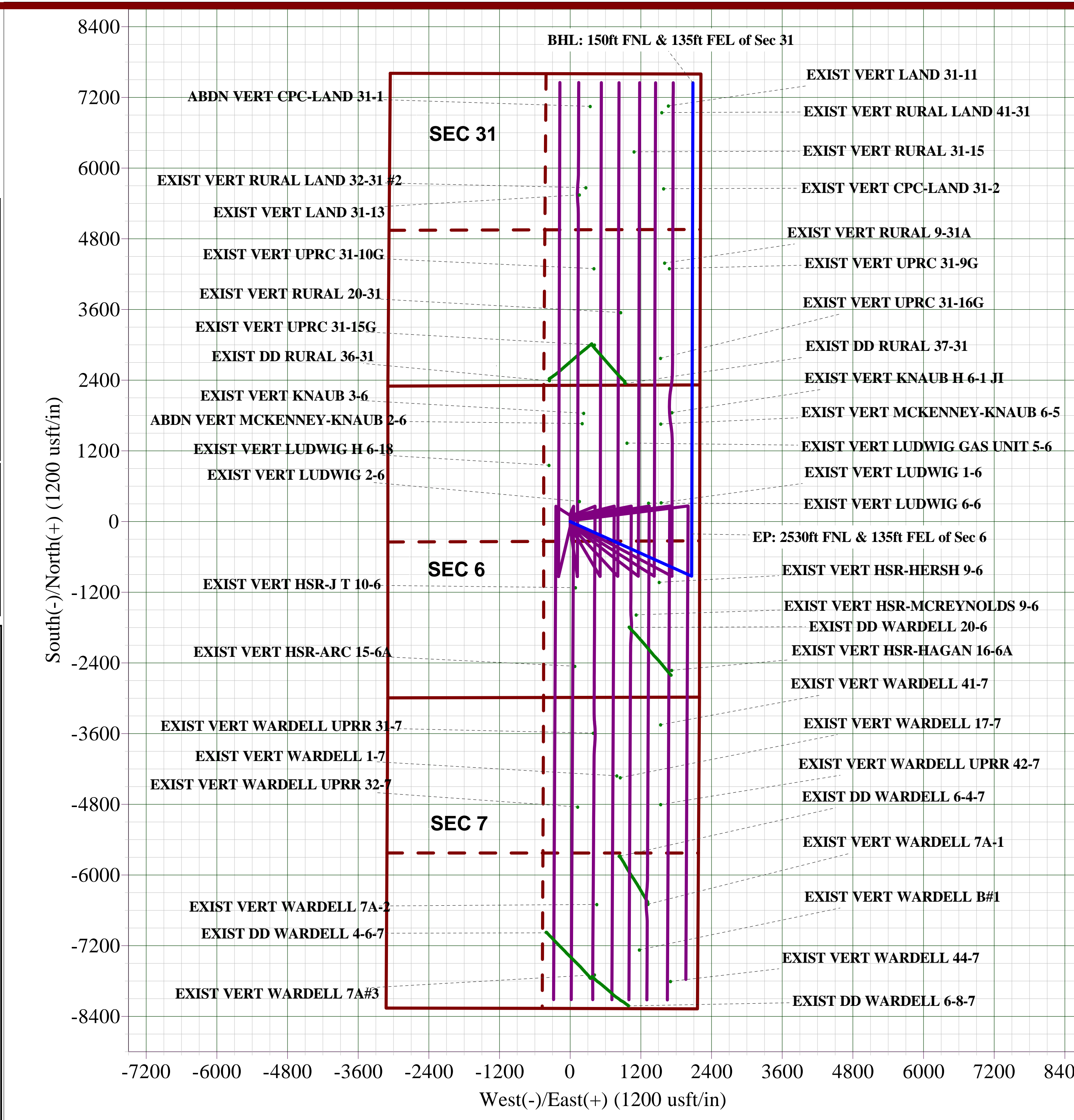
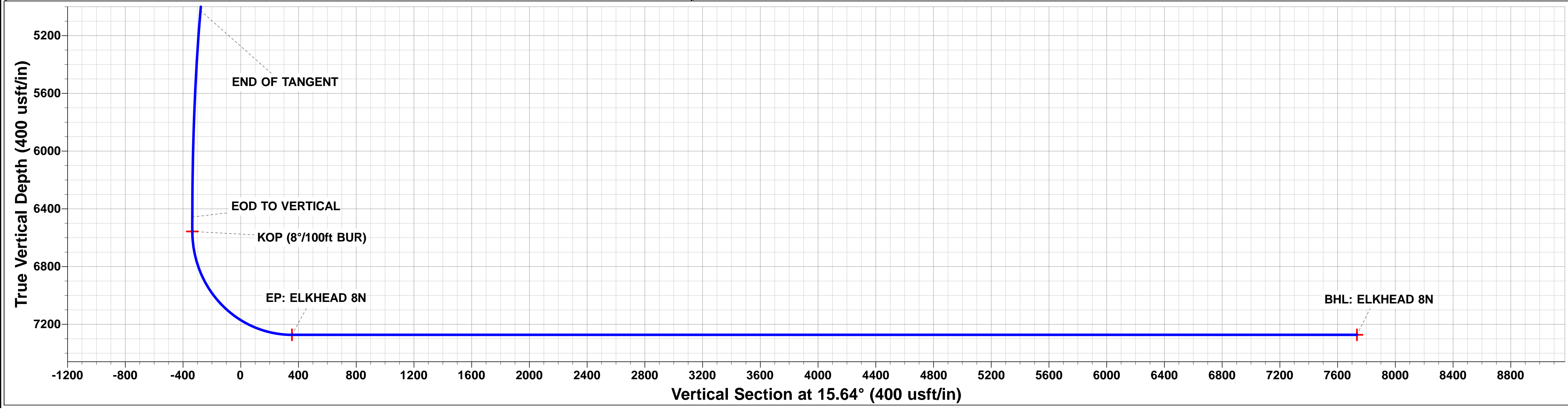
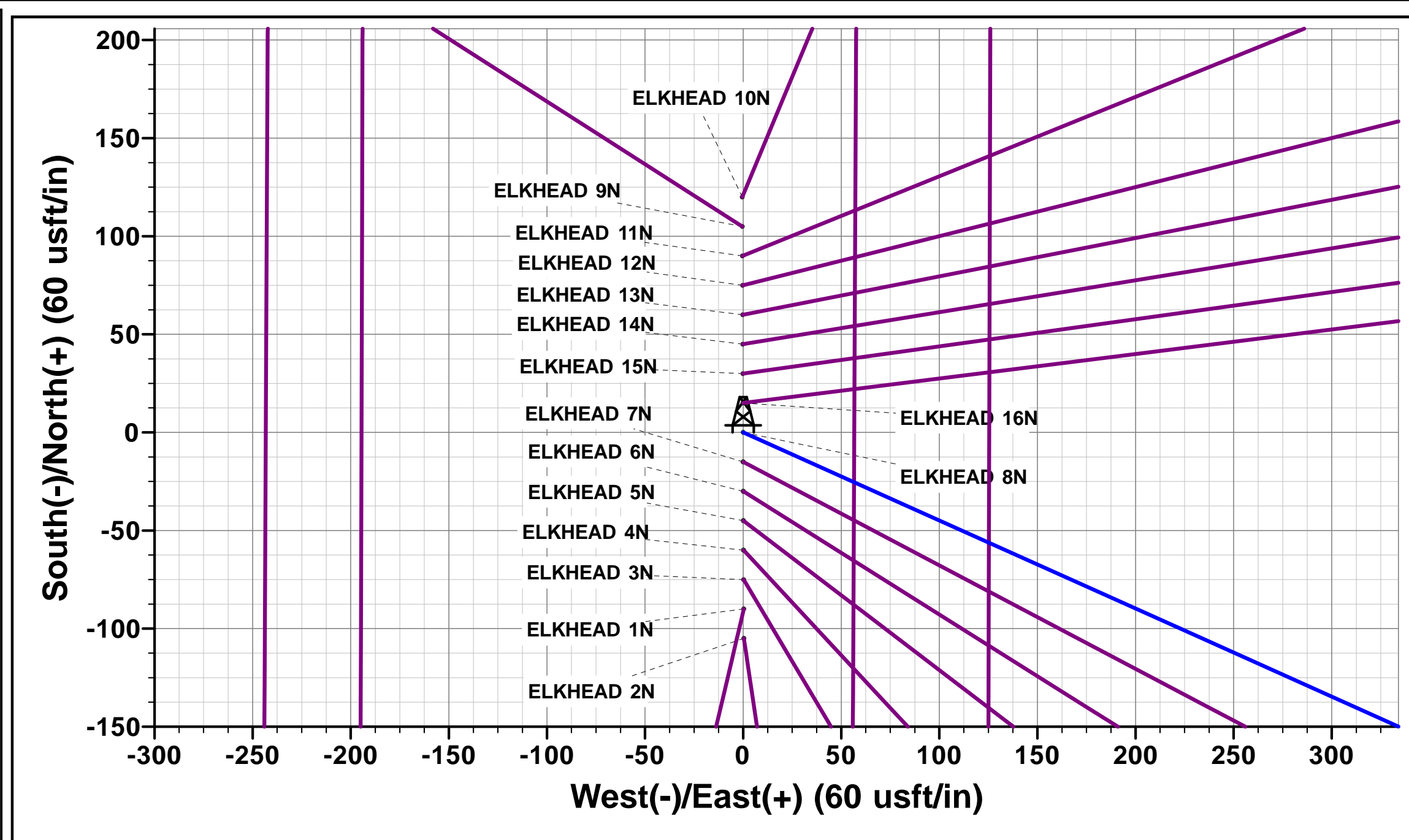
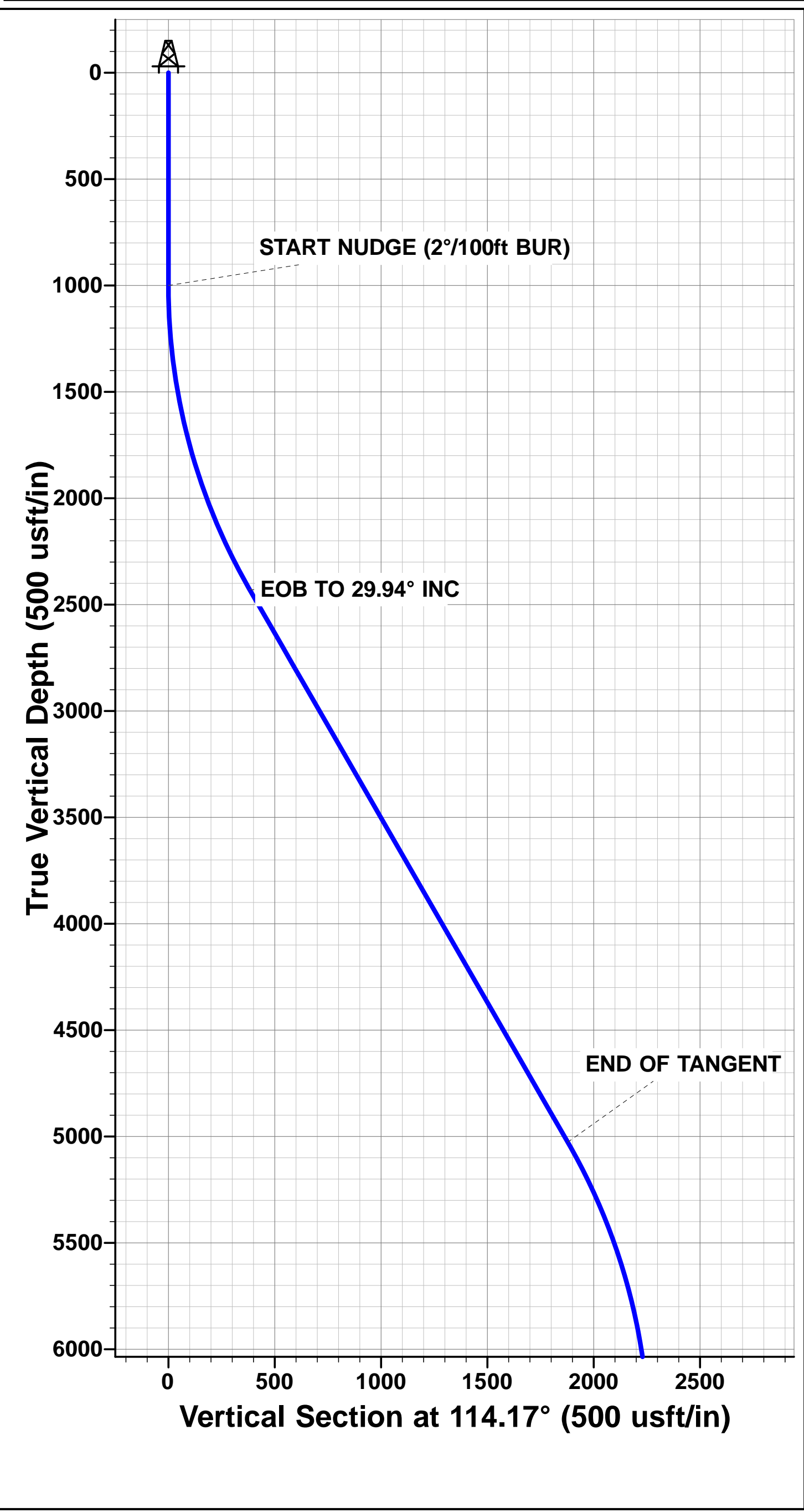
PROPOSED LOCAL COORDINATES:

SHL: 2314ft FNL & 2200ft FEL of Sec 6

EP: 2530ft FNL & 135ft FEL of Sec 6

BHL: 150ft FNL & 135ft FEL of Sec 31

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP: ELKHEAD 8N	6556.80	-925.57	2062.59	40.252787	-104.697176
EP: ELKHEAD 8N	7273.00	-209.38	2064.45	40.254753	-104.697169
BHL: ELKHEAD 8N	7273.00	7447.83	2084.96	40.275772	-104.697093



PDC ENERGY

**WELD COUNTY, COLORADO (TRUE)
SW NE SEC. 6 T3N R65W 6th P.M. (Elkhead)
ELKHEAD 8N**

**ORIGINAL WELLBORE
PROPOSAL #1**

Anticollision Report

29 January, 2018



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well ELKHEAD 8N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	WELL @ 4998.00usft (Original Well Elev)
Reference Site:	SW NE SEC. 6 T3N R65W 6th P.M. (Elkhead)	MD Reference:	WELL @ 4998.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ELKHEAD 8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	29/01/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	15,873.54	PROPOSAL #1 (ORIGINAL WELLBORE)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SW NE SEC. 6 T3N R65W 6th P.M. (Elkhead)						
ABDN VERT CPC-LAND 31-1 - Wellbore #1 - Design #1	15,470.17	7,273.01	1,744.21	1,589.02	11.239	CC
ABDN VERT CPC-LAND 31-1 - Wellbore #1 - Design #1	15,500.00	7,273.01	1,744.47	1,588.71	11.200	ES
ABDN VERT CPC-LAND 31-1 - Wellbore #1 - Design #1	15,873.54	7,273.00	1,790.25	1,627.40	10.993	SF
ABDN VERT MCKENNEY-KNAUB 2-6 - Wellbore #1 - D	1,000.00	978.00	1,678.18	1,673.99	400.126	CC, ES
ABDN VERT MCKENNEY-KNAUB 2-6 - Wellbore #1 - D	13,500.00	4,975.00	4,506.53	4,427.81	57.248	SF
ELKHEAD 10N - ORIGINAL WELLBORE - PROPOSAL	300.00	300.00	119.97	118.89	111.894	CC, ES
ELKHEAD 10N - ORIGINAL WELLBORE - PROPOSAL	2,000.00	1,991.38	345.68	336.44	37.419	SF
ELKHEAD 11N - ORIGINAL WELLBORE - PROPOSAL #	500.00	500.00	89.96	87.99	45.639	CC, ES
ELKHEAD 11N - ORIGINAL WELLBORE - PROPOSAL #	1,800.00	1,788.18	177.51	168.99	20.842	SF
ELKHEAD 12N - ORIGINAL WELLBORE - PROPOSAL	600.00	600.00	74.97	72.55	30.972	CC
ELKHEAD 12N - ORIGINAL WELLBORE - PROPOSAL	700.00	699.34	75.41	72.55	26.369	ES
ELKHEAD 12N - ORIGINAL WELLBORE - PROPOSAL	2,300.00	2,267.68	263.43	249.08	18.352	SF
ELKHEAD 13N - ORIGINAL WELLBORE - PROPOSAL	700.00	700.00	59.96	57.09	20.892	CC
ELKHEAD 13N - ORIGINAL WELLBORE - PROPOSAL	800.00	799.57	60.32	57.01	18.229	ES
ELKHEAD 13N - ORIGINAL WELLBORE - PROPOSAL	1,100.00	1,096.07	70.69	66.05	15.219	SF
ELKHEAD 14N - ORIGINAL WELLBORE - PROPOSAL	800.00	800.00	44.99	41.67	13.553	CC
ELKHEAD 14N - ORIGINAL WELLBORE - PROPOSAL	900.00	899.71	45.30	41.54	12.054	ES
ELKHEAD 14N - ORIGINAL WELLBORE - PROPOSAL	1,100.00	1,098.31	50.12	45.49	10.840	SF
ELKHEAD 15N - ORIGINAL WELLBORE - PROPOSAL	900.00	900.00	29.98	26.21	7.954	CC
ELKHEAD 15N - ORIGINAL WELLBORE - PROPOSAL	1,000.00	999.82	30.26	26.06	7.193	ES
ELKHEAD 15N - ORIGINAL WELLBORE - PROPOSAL	7,550.00	8,193.69	415.25	353.51	6.725	SF
ELKHEAD 16N - ORIGINAL WELLBORE - PROPOSAL	1,000.00	1,000.00	14.97	10.75	3.549	CC, ES
ELKHEAD 16N - ORIGINAL WELLBORE - PROPOSAL	8,000.00	8,063.54	68.30	15.89	1.303	Level 3, SF
ELKHEAD 1N - ORIGINAL WELLBORE - PROPOSAL #	2,009.92	2,005.45	58.38	48.06	5.657	CC, ES, SF
ELKHEAD 2N - ORIGINAL PROPOSAL - PROPOSAL #1	300.00	300.00	104.99	103.92	97.929	CC, ES
ELKHEAD 2N - ORIGINAL PROPOSAL - PROPOSAL #1	15,873.54	15,434.29	1,939.59	1,644.22	6.567	SF
ELKHEAD 3N - ORIGINAL WELLBORE - PROPOSAL #	500.00	500.00	75.01	73.04	38.055	CC, ES
ELKHEAD 3N - ORIGINAL WELLBORE - PROPOSAL #	15,873.54	15,362.58	1,556.99	1,265.58	5.343	SF
ELKHEAD 4N - ORIGINAL WELLBORE - PROPOSAL #	600.00	600.00	60.00	57.58	24.786	CC, ES
ELKHEAD 4N - ORIGINAL WELLBORE - PROPOSAL #	15,873.54	15,473.79	1,254.73	963.01	4.301	SF
ELKHEAD 5N - ORIGINAL WELLBORE - PROPOSAL #	700.00	700.00	45.00	42.13	15.677	CC, ES
ELKHEAD 5N - ORIGINAL WELLBORE - PROPOSAL #	15,873.54	15,461.67	908.72	618.12	3.127	SF
ELKHEAD 6N - ORIGINAL WELLBORE - PROPOSAL #	800.00	800.00	30.02	26.70	9.042	CC, ES
ELKHEAD 6N - ORIGINAL WELLBORE - PROPOSAL #	15,873.54	15,618.43	634.78	342.58	2.172	SF
ELKHEAD 7N - ORIGINAL WELLBORE - PROPOSAL #	900.00	900.00	15.01	11.24	3.982	CC, ES
ELKHEAD 7N - ORIGINAL WELLBORE - PROPOSAL #	15,873.54	15,652.77	345.46	62.41	1.220	Level 2, SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	PDC ENERGY	Local Co-ordinate Reference:	Well ELKHEAD 8N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	WELL @ 4998.00usft (Original Well Elev)
Reference Site:	SW NE SEC. 6 T3N R65W 6th P.M. (Elkhead)	MD Reference:	WELL @ 4998.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ELKHEAD 8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SW NE SEC. 6 T3N R65W 6th P.M. (Elkhead)						
ELKHEAD 9N - ORIGINAL WELLBORE - PROPOSAL #	400.00	400.00	104.96	103.43	68.975	CC, ES
ELKHEAD 9N - ORIGINAL WELLBORE - PROPOSAL #	1,000.00	980.25	147.20	142.79	33.368	SF
EXIST DD RURAL 36-31 - Wellbore #1 - Wellbore #1	10,825.68	7,367.69	2,423.91	2,351.35	33.405	CC
EXIST DD RURAL 36-31 - Wellbore #1 - Wellbore #1	10,900.00	7,365.58	2,425.05	2,351.22	32.848	ES
EXIST DD RURAL 36-31 - Wellbore #1 - Wellbore #1	12,300.00	7,330.83	2,836.83	2,738.13	28.743	SF
EXIST DD RURAL 37-31 - Wellbore #1 - Wellbore #1	10,770.02	7,336.60	1,141.92	1,070.09	15.899	CC
EXIST DD RURAL 37-31 - Wellbore #1 - Wellbore #1	10,800.00	7,336.81	1,142.31	1,069.98	15.792	ES
EXIST DD RURAL 37-31 - Wellbore #1 - Wellbore #1	11,100.00	7,338.90	1,188.64	1,111.10	15.329	SF
EXIST DD WARDELL 20-6 - Wellbore #1 - Wellbore #1	5,550.23	5,271.10	1,281.18	1,218.84	20.553	CC
EXIST DD WARDELL 20-6 - Wellbore #1 - Wellbore #1	5,600.00	5,300.77	1,281.69	1,218.79	20.377	ES
EXIST DD WARDELL 20-6 - Wellbore #1 - Wellbore #1	6,100.00	5,717.35	1,317.23	1,250.52	19.745	SF
EXIST DD WARDELL 4-6-7 - Wellbore #1 - Wellbore #1	7,114.64	6,882.91	6,535.64	6,464.03	91.265	CC, ES, SF
EXIST DD WARDELL 6-4-7 - Wellbore #1 - Wellbore #1	7,110.20	6,766.81	4,917.26	4,850.41	73.552	CC, ES, SF
EXIST DD WARDELL 6-8-7 - Wellbore #1 - Wellbore #1	6,335.84	5,404.00	7,316.09	7,255.75	121.242	CC, ES
EXIST DD WARDELL 6-8-7 - Wellbore #1 - Wellbore #1	7,100.00	6,262.00	7,333.13	7,268.89	114.153	SF
EXIST VERT CPC-LAND 31-2 - Wellbore #1 - Design #1	14,075.48	7,268.02	493.57	364.75	3.831	CC, ES
EXIST VERT CPC-LAND 31-2 - Wellbore #1 - Design #1	14,100.00	7,268.02	494.18	364.89	3.822	SF
EXIST VERT HSR-ARC 15-6A - Wellbore #1 - Design #1	3,889.93	3,614.79	2,206.92	2,174.47	68.000	CC
EXIST VERT HSR-ARC 15-6A - Wellbore #1 - Design #1	4,000.00	3,710.17	2,207.61	2,173.72	65.150	ES
EXIST VERT HSR-ARC 15-6A - Wellbore #1 - Design #1	7,150.00	6,593.43	2,505.54	2,446.29	42.289	SF
EXIST VERT HSR-HAGAN 16-6A - Wellbore #1 - Design	7,091.31	6,534.80	1,633.77	1,570.93	25.995	CC, ES
EXIST VERT HSR-HAGAN 16-6A - Wellbore #1 - Design	7,100.00	6,543.49	1,633.83	1,570.94	25.980	SF
EXIST VERT HSR-HERSH 9-6 - Wellbore #1 - Design #1	5,338.85	4,870.29	321.07	269.71	6.252	CC, ES
EXIST VERT HSR-HERSH 9-6 - Wellbore #1 - Design #1	5,400.00	4,923.29	322.52	270.45	6.195	SF
EXIST VERT HSR-J T 10-6 - Wellbore #1 - Design #1	2,816.71	2,684.83	985.88	967.21	52.823	CC
EXIST VERT HSR-J T 10-6 - Wellbore #1 - Design #1	2,900.00	2,757.00	986.75	967.04	50.059	ES
EXIST VERT HSR-J T 10-6 - Wellbore #1 - Design #1	4,200.00	3,883.47	1,203.62	1,170.48	36.320	SF
EXIST VERT HSR-MCREYNOLDS 9-6 - Wellbore #1 - D	5,078.82	4,644.98	986.27	938.31	20.567	CC
EXIST VERT HSR-MCREYNOLDS 9-6 - Wellbore #1 - D	5,100.00	4,663.33	986.33	938.09	20.449	ES
EXIST VERT HSR-MCREYNOLDS 9-6 - Wellbore #1 - D	5,600.00	5,097.54	1,019.57	965.92	19.003	SF
EXIST VERT KNAUB 3-6 - Wellbore #1 - Design #1	10,261.28	7,251.02	1,839.51	1,779.43	30.619	CC
EXIST VERT KNAUB 3-6 - Wellbore #1 - Design #1	10,300.00	7,251.02	1,839.92	1,779.22	30.314	ES
EXIST VERT KNAUB 3-6 - Wellbore #1 - Design #1	11,300.00	7,251.03	2,112.53	2,034.82	27.187	SF
EXIST VERT KNAUB H 6-1 JI - Wellbore #1 - Design #1	10,276.24	7,251.02	340.80	280.48	5.650	CC, ES
EXIST VERT KNAUB H 6-1 JI - Wellbore #1 - Design #1	10,300.00	7,251.02	341.63	280.93	5.629	SF
EXIST VERT LAND 31-11 - Wellbore #1 - Design #1	15,480.80	7,268.01	416.58	261.19	2.681	CC, ES
EXIST VERT LAND 31-11 - Wellbore #1 - Design #1	15,500.00	7,268.01	417.02	261.27	2.677	SF
EXIST VERT LAND 31-13 - Wellbore #1 - Design #1	13,967.72	7,268.02	1,922.87	1,796.07	15.165	CC
EXIST VERT LAND 31-13 - Wellbore #1 - Design #1	14,000.00	7,268.02	1,923.14	1,795.74	15.095	ES
EXIST VERT LAND 31-13 - Wellbore #1 - Design #1	14,500.00	7,268.02	1,995.18	1,858.36	14.582	SF
EXIST VERT LUDWIG 1-6 - Wellbore #1 - Design #1	4,291.35	3,962.63	925.71	888.03	24.570	CC
EXIST VERT LUDWIG 1-6 - Wellbore #1 - Design #1	4,300.00	3,970.12	925.72	887.93	24.498	ES
EXIST VERT LUDWIG 1-6 - Wellbore #1 - Design #1	5,000.00	4,576.68	990.99	945.81	21.932	SF
EXIST VERT LUDWIG 2-6 - Wellbore #1 - Design #1	1,140.19	1,118.13	377.68	372.89	78.791	CC
EXIST VERT LUDWIG 2-6 - Wellbore #1 - Design #1	1,300.00	1,277.45	377.88	372.40	68.959	ES
EXIST VERT LUDWIG 2-6 - Wellbore #1 - Design #1	10,500.00	7,251.02	2,579.77	2,515.81	40.335	SF
EXIST VERT LUDWIG 6-6 - Wellbore #1 - Design #1	8,737.82	7,251.01	735.78	694.06	17.636	CC, ES
EXIST VERT LUDWIG 6-6 - Wellbore #1 - Design #1	8,800.00	7,251.01	738.40	696.34	17.556	SF
EXIST VERT LUDWIG GAS UNIT 5-6 - Wellbore #1 - De	9,756.87	7,251.02	1,104.13	1,051.71	21.060	CC, ES
EXIST VERT LUDWIG GAS UNIT 5-6 - Wellbore #1 - De	10,100.00	7,251.02	1,156.22	1,098.69	20.097	SF
EXIST VERT LUDWIG H 6-18 - Wellbore #1 - Design #1	1,000.00	978.00	1,021.95	1,017.76	243.663	CC, ES
EXIST VERT LUDWIG H 6-18 - Wellbore #1 - Design #1	11,900.00	7,251.03	3,501.57	3,413.11	39.585	SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	PDC ENERGY	Local Co-ordinate Reference:	Well ELKHEAD 8N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	WELL @ 4998.00usft (Original Well Elev)
Reference Site:	SW NE SEC. 6 T3N R65W 6th P.M. (Elkhead)	MD Reference:	WELL @ 4998.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ELKHEAD 8N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SW NE SEC. 6 T3N R65W 6th P.M. (Elkhead)						
EXIST VERT MCKENNEY-KNAUB 6-5 - Wellbore #1 - D	3,184.39	3,003.42	2,143.20	2,119.85	91.824	CC
EXIST VERT MCKENNEY-KNAUB 6-5 - Wellbore #1 - D	3,300.00	3,103.61	2,143.97	2,119.16	86.392	ES
EXIST VERT MCKENNEY-KNAUB 6-5 - Wellbore #1 - D	5,600.00	4,795.00	2,476.81	2,426.15	48.892	SF
EXIST VERT RURAL 20-31 - Wellbore #1 - Design #1	11,971.49	7,268.03	1,216.15	1,126.38	13.547	CC
EXIST VERT RURAL 20-31 - Wellbore #1 - Design #1	12,000.00	7,268.03	1,216.48	1,126.19	13.473	ES
EXIST VERT RURAL 20-31 - Wellbore #1 - Design #1	12,300.00	7,268.03	1,259.74	1,163.97	13.154	SF
EXIST VERT RURAL 31-15 - Wellbore #1 - Design #1	14,700.67	7,268.02	997.60	856.98	7.095	CC, ES
EXIST VERT RURAL 31-15 - Wellbore #1 - Design #1	14,800.00	7,268.01	1,002.53	860.04	7.036	SF
EXIST VERT RURAL 9-31A - Wellbore #1 - Design #1	12,815.05	7,268.03	473.33	368.06	4.496	CC, ES, SF
EXIST VERT RURAL LAND 32-31 #2 - Wellbore #1 - De	14,090.05	7,268.02	1,813.53	1,684.44	14.048	CC
EXIST VERT RURAL LAND 32-31 #2 - Wellbore #1 - De	14,100.00	7,268.02	1,813.56	1,684.28	14.028	ES
EXIST VERT RURAL LAND 32-31 #2 - Wellbore #1 - De	14,600.00	7,268.02	1,883.87	1,745.16	13.581	SF
EXIST VERT RURAL LAND 41-31 - Wellbore #1 - Design	15,368.64	7,268.01	527.88	374.62	3.444	CC, ES
EXIST VERT RURAL LAND 41-31 - Wellbore #1 - Design	15,400.00	7,268.01	528.81	374.96	3.437	SF
EXIST VERT UPRC 31-10G - Wellbore #1 - Design #1	12,717.05	7,268.03	1,673.06	1,569.61	16.172	CC, ES
EXIST VERT UPRC 31-10G - Wellbore #1 - Design #1	13,200.00	7,268.03	1,741.37	1,628.95	15.489	SF
EXIST VERT UPRC 31-15G - Wellbore #1 - Design #1	11,420.21	7,268.03	1,658.96	1,579.10	20.775	CC, ES
EXIST VERT UPRC 31-15G - Wellbore #1 - Design #1	12,000.00	7,268.03	1,757.36	1,667.07	19.463	SF
EXIST VERT UPRC 31-16G - Wellbore #1 - Design #1	11,197.38	7,268.03	538.67	462.75	7.096	CC
EXIST VERT UPRC 31-16G - Wellbore #1 - Design #1	11,200.00	7,268.03	538.67	462.71	7.092	ES
EXIST VERT UPRC 31-16G - Wellbore #1 - Design #1	11,300.00	7,268.03	548.35	470.63	7.055	SF
EXIST VERT UPRC 31-9G - Wellbore #1 - Design #1	12,720.55	7,268.03	392.14	288.62	3.788	CC, ES, SF
EXIST VERT WARDELL 1-7 - Wellbore #1 - Design #1	7,091.31	6,534.80	3,619.88	3,556.12	56.780	CC, ES
EXIST VERT WARDELL 1-7 - Wellbore #1 - Design #1	7,100.00	6,543.49	3,619.92	3,556.14	56.756	SF
EXIST VERT WARDELL 17-7 - Wellbore #1 - Design #1	7,091.31	6,534.80	3,628.39	3,564.69	56.967	CC, ES
EXIST VERT WARDELL 17-7 - Wellbore #1 - Design #1	7,100.00	6,543.49	3,628.44	3,564.72	56.941	SF
EXIST VERT WARDELL 41-7 - Wellbore #1 - Design #1	7,091.31	6,534.80	2,576.76	2,513.93	41.015	CC, ES
EXIST VERT WARDELL 41-7 - Wellbore #1 - Design #1	7,100.00	6,543.49	2,576.81	2,513.95	40.990	SF
EXIST VERT WARDELL 44-7 - Wellbore #1 - Design #1	7,091.31	6,534.80	6,888.93	6,827.98	113.021	CC, ES
EXIST VERT WARDELL 44-7 - Wellbore #1 - Design #1	7,100.00	6,543.49	6,888.98	6,827.98	112.933	SF
EXIST VERT WARDELL 7A#3 - Wellbore #1 - Design #1	7,091.31	6,534.80	6,965.89	6,902.78	110.387	CC, ES
EXIST VERT WARDELL 7A#3 - Wellbore #1 - Design #1	7,100.00	6,543.49	6,965.94	6,902.80	110.323	SF
EXIST VERT WARDELL 7A-1 - Wellbore #1 - Design #1	7,091.31	6,534.80	5,618.19	5,556.15	90.559	CC, ES
EXIST VERT WARDELL 7A-1 - Wellbore #1 - Design #1	7,100.00	6,543.49	5,618.24	5,556.16	90.497	SF
EXIST VERT WARDELL 7A-2 - Wellbore #1 - Design #1	7,091.31	6,534.80	5,800.66	5,737.26	91.494	CC, ES
EXIST VERT WARDELL 7A-2 - Wellbore #1 - Design #1	7,100.00	6,543.49	5,800.71	5,737.28	91.446	SF
EXIST VERT WARDELL B#1 - Wellbore #1 - Design #1	7,091.31	6,534.80	6,406.60	6,344.48	103.132	CC, ES
EXIST VERT WARDELL B#1 - Wellbore #1 - Design #1	7,100.00	6,543.49	6,406.66	6,344.49	103.061	SF
EXIST VERT WARDELL UPRR 31-7 - Wellbore #1 - Des	5,395.75	4,919.60	3,113.45	3,061.35	59.760	CC
EXIST VERT WARDELL UPRR 31-7 - Wellbore #1 - Des	5,500.00	5,009.94	3,113.89	3,060.43	58.248	ES
EXIST VERT WARDELL UPRR 31-7 - Wellbore #1 - Des	7,100.00	6,543.49	3,143.26	3,079.72	49.476	SF
EXIST VERT WARDELL UPRR 32-7 - Wellbore #1 - Des	6,026.76	5,488.37	4,366.39	4,307.89	74.643	CC
EXIST VERT WARDELL UPRR 32-7 - Wellbore #1 - Des	7,091.31	6,534.80	4,369.35	4,305.51	68.438	ES
EXIST VERT WARDELL UPRR 32-7 - Wellbore #1 - Des	7,100.00	6,543.49	4,369.40	4,305.53	68.417	SF
EXIST VERT WARDELL UPRR 42-7 - Wellbore #1 - Des	7,091.31	6,534.80	3,911.77	3,849.70	63.021	CC, ES
EXIST VERT WARDELL UPRR 42-7 - Wellbore #1 - Des	7,100.00	6,543.49	3,911.82	3,849.71	62.978	SF