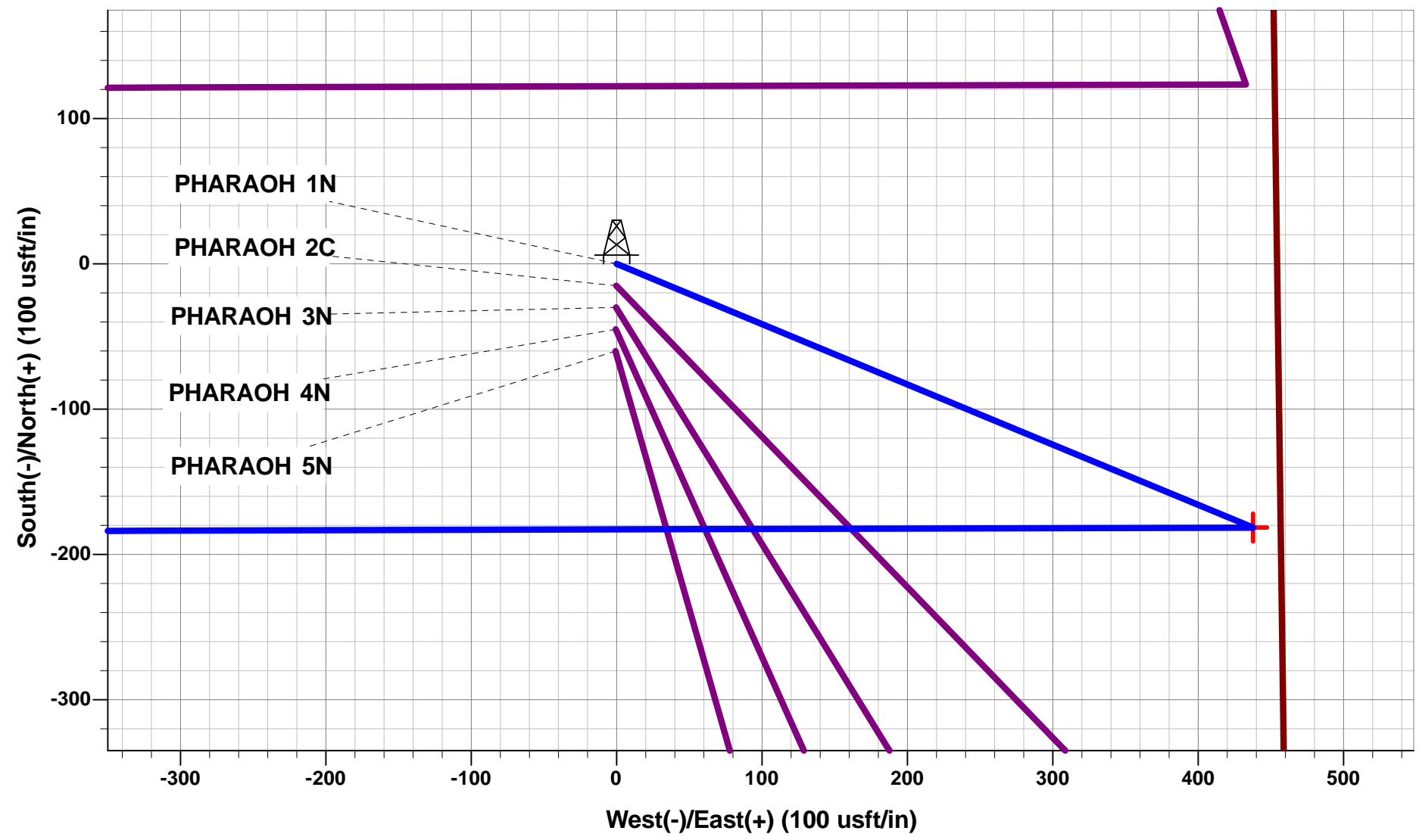




Project: WELD COUNTY, COLORADO (TRUE)
Site: NE SE SEC. 36 T5N R64W 6th P.M. (PHARAOH)
Well: PHARAOH 1N
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Dep	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 1713ft FSL & 455ft FEL of Sec 36	
1600.00	1600.00	0.00	0.00	0.00	0.00	0.00	0.00	START NUDGE (2°/100ft BUR)	
2195.62	2200.00	12.00	112.52	-23.97	57.83	-57.32	62.60	EOB TO 12° INC	
3836.47	3877.50	12.00	112.52	-157.53	380.02	-376.65	411.38	END OF TANGENT	
4432.09	4477.50	0.00	0.00	-181.50	437.85	-433.97	473.98	EOD TO VERTICAL	
5886.80	5932.21	0.00	0.00	-181.50	437.85	-433.97	473.98	KOP (8°/100ft BUR)	
6603.00	7058.84	90.13	269.84	-183.50	-279.97	283.74	1191.80	EP: 1530ft FSL & 737ft FEL of Sec 36	
6581.00	16860.61	90.13	269.84	-210.52	-10081.68	10083.88	10993.55	BHL: 1530ft FSL & 50ft FWL of Sec 35	

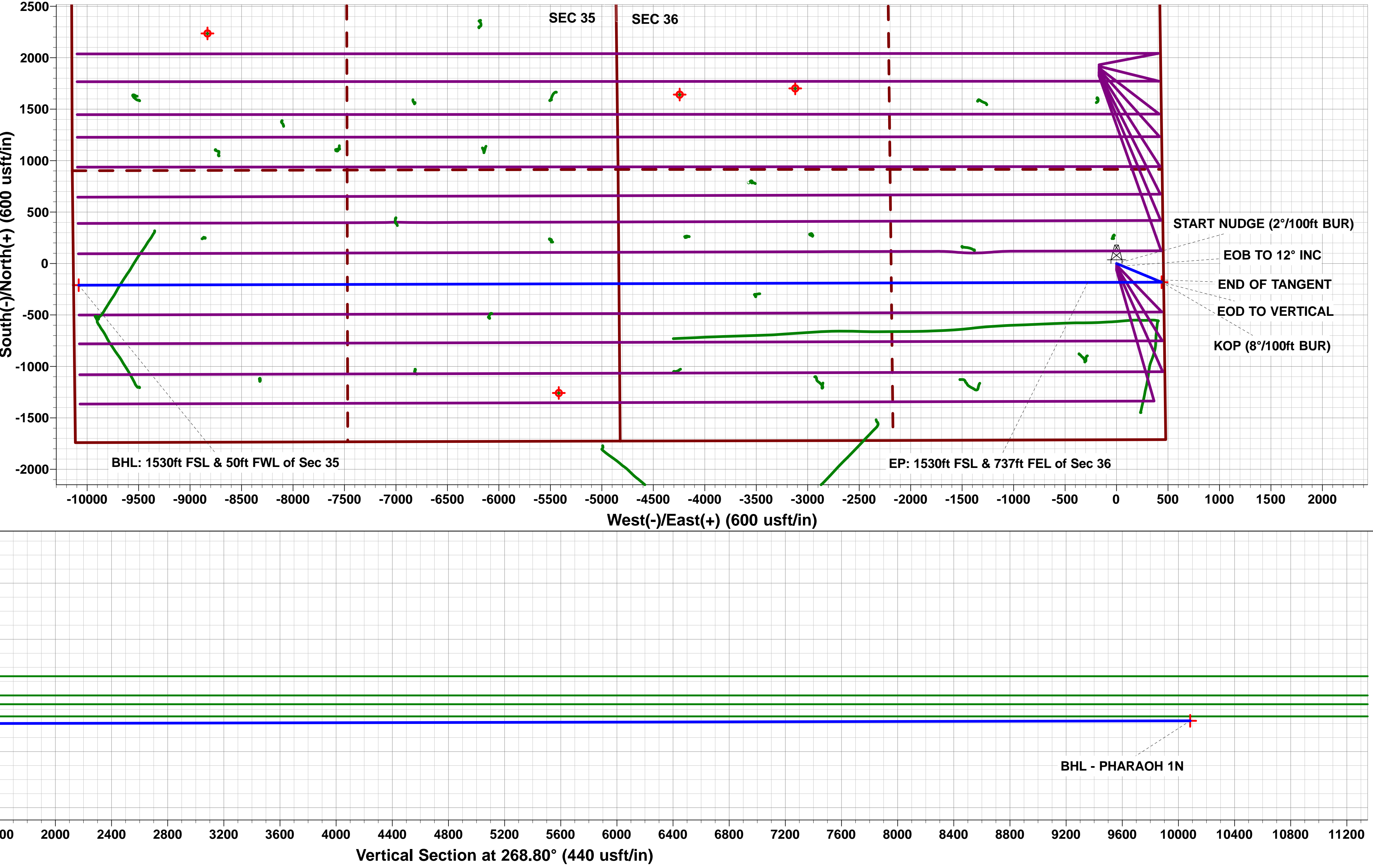
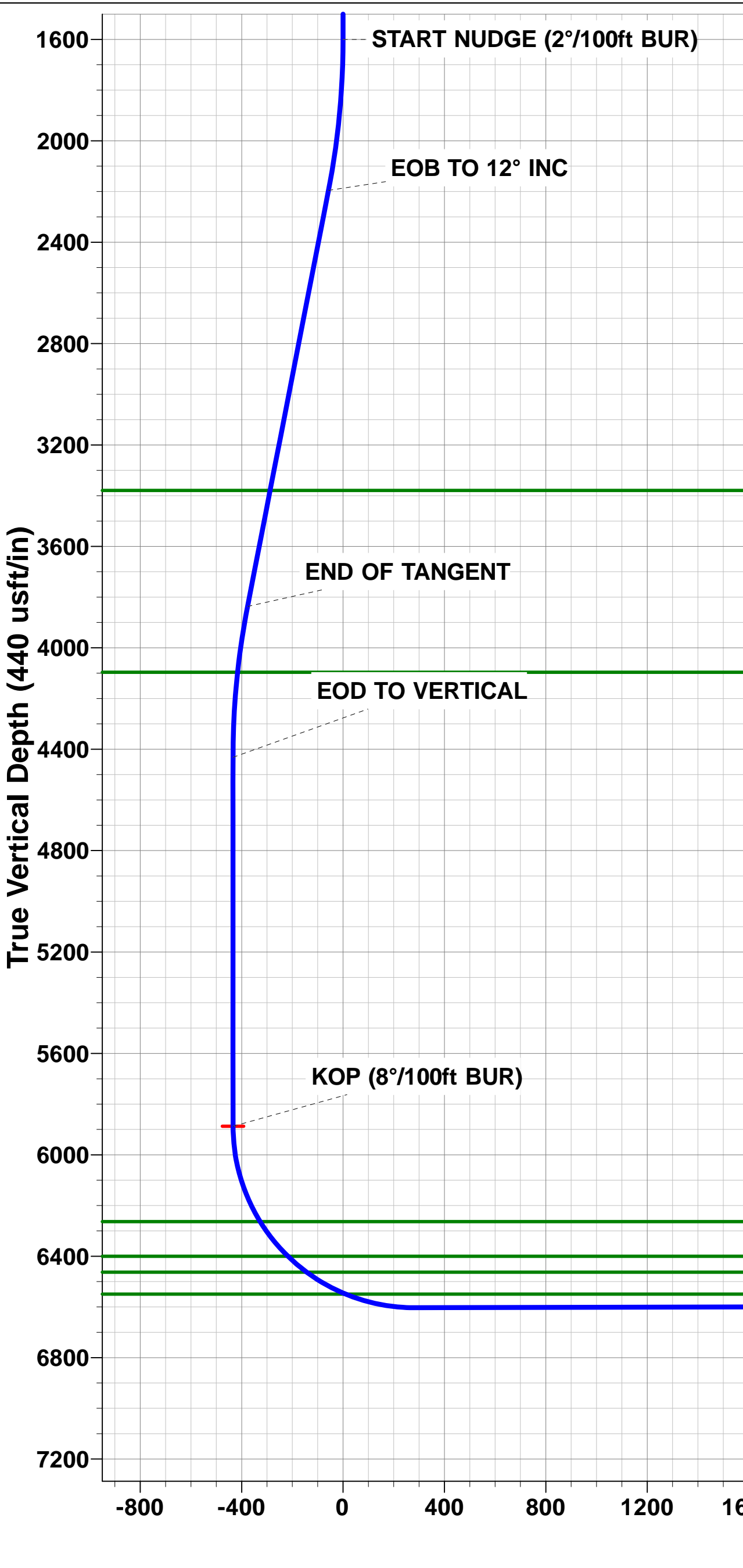
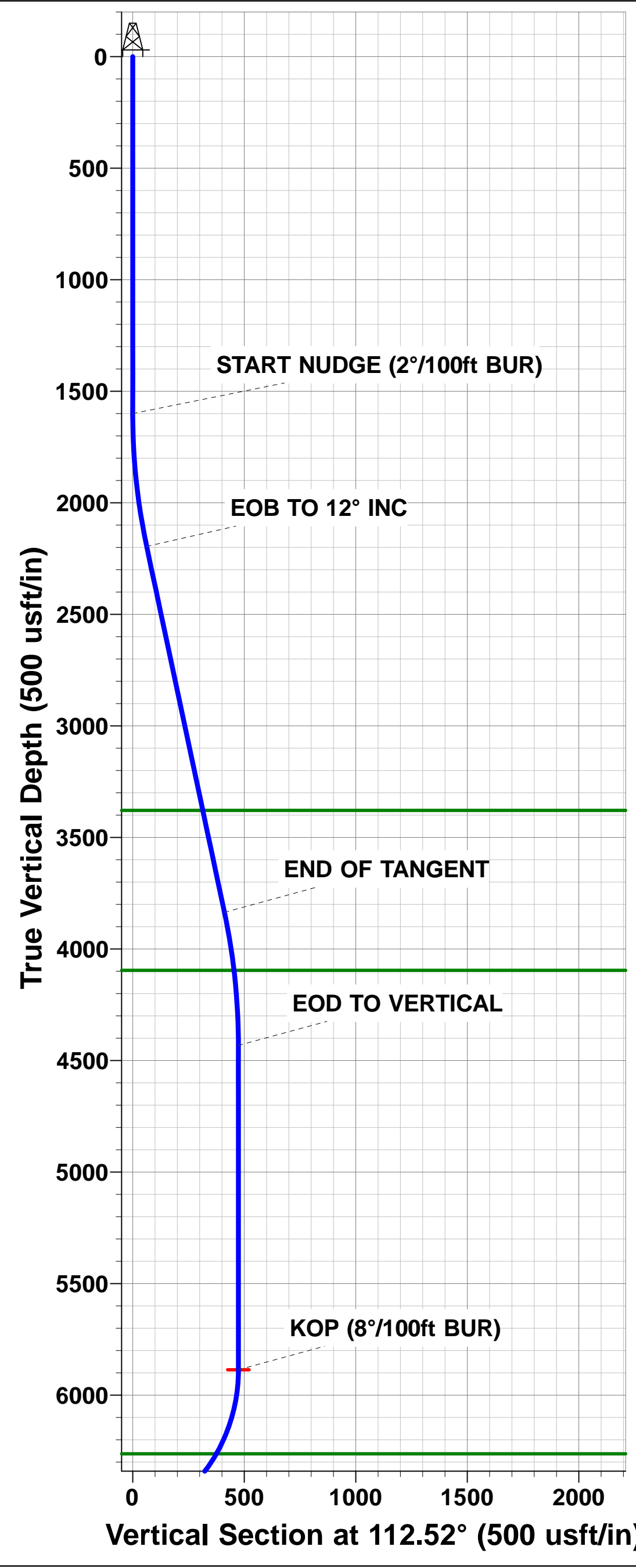
WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - PHARAOH 1N	5886.80	-181.50	437.85	40.352887	-104.488341
EP - PHARAOH 1N	6603.00	-183.50	-279.97	40.352881	-104.490917
BHL - PHARAOH 1N	6581.00	-210.52	-10081.68	40.352802	-104.526084



PROPOSED LOCAL COORDINATES:
SHL: 1713ft FSL & 455ft FEL of Sec 36
EP: 1530ft FSL & 737ft FEL of Sec 36
BHL: 1530ft FSL & 50ft FWL of Sec 35

Azimuths to True North
Magnetic North: 7.99°

Magnetic Field
Strength: 52321.3snT
Dip Angle: 66.84°
Date: 19/02/2018
Model: IGRF2015



PDC ENERGY

**WELD COUNTY, COLORADO (TRUE)
NE SE SEC. 36 T5N R64W 6th P.M. (PHARAOH)
PHARAOH 1N**

**ORIGINAL WELLBORE
PROPOSAL #1**

Anticollision Report

08 May, 2018



Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well PHARAOH 1N - Slot PHARAOH 1N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB-EST @ 4616.00usft (Original Well Elev)
Reference Site:	NE SE SEC. 36 T5N R64W 6th P.M. (PHARAOH)	MD Reference:	KB-EST @ 4616.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	PHARAOH 1N	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 10,000.00 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	08/05/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	16,860.61	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
NE SE SEC. 36 T5N R64W 6th P.M. (PHARAOH)						
PHARAOH 2C - ORIGINAL WELLBORE - PROPOSAL #	600.00	600.00	15.02	12.60	6.204 CC	
PHARAOH 2C - ORIGINAL WELLBORE - PROPOSAL #	16,860.61	16,934.77	299.55	-263.16	0.532	Level 1, ES, SF
PHARAOH 3N - ORIGINAL WELLBORE - PROPOSAL #	500.00	500.00	29.99	28.02	15.216	CC
PHARAOH 3N - ORIGINAL WELLBORE - PROPOSAL #	16,860.61	16,829.37	573.73	-2.58	0.996	Level 1, ES, SF
PHARAOH 4N - ORIGINAL WELLBORE - PROPOSAL #	400.00	400.00	45.01	43.49	29.578	CC, ES
PHARAOH 4N - ORIGINAL WELLBORE - PROPOSAL #	16,860.61	16,937.66	870.12	290.57	1.501	SF
PHARAOH 5N - ORIGINAL WELLBORE - PROPOSAL #	300.00	300.00	60.02	58.95	55.980	CC, ES
PHARAOH 5N - ORIGINAL WELLBORE - PROPOSAL #	16,860.61	16,832.70	1,156.91	579.81	2.005	SF
SE NE SEC. 36 T5N R64W 6th P.M. (PYRAMID)						
ABDN VERT HOSHIKO #1 - Wellbore #1 - Wellbore #1	12,255.56	6,587.46	406.33	243.78	2.500	CC, ES
ABDN VERT HOSHIKO #1 - Wellbore #1 - Wellbore #1	12,360.00	6,587.29	408.76	244.96	2.495	SF
ABDN VERT ROTHE STATE B #36-15 - Wellbore #1 - W	8,110.27	6,550.00	977.26	929.04	20.266	CC, ES
ABDN VERT ROTHE STATE B #36-15 - Wellbore #1 - W	8,700.00	6,550.00	1,141.41	1,077.38	17.826	SF
ABDN VERT ROTHE STATE B #36-16 - Wellbore #1 - W	7,063.78	6,550.00	713.97	690.67	30.642	CC, ES
ABDN VERT ROTHE STATE B #36-16 - Wellbore #1 - W	7,600.00	6,550.00	892.91	857.68	25.348	SF
ABDN VERT STATE #1-36 - Wellbore #1 - Design #1	11,017.79	6,568.07	1,835.99	1,578.67	7.135	CC
ABDN VERT STATE #1-36 - Wellbore #1 - Design #1	11,100.00	6,567.89	1,837.83	1,578.22	7.079	ES
ABDN VERT STATE #1-36 - Wellbore #1 - Design #1	11,400.00	6,567.21	1,875.35	1,607.38	6.999	SF
EXIST DD ECKHARDT B #35-12 - Wellbore #1 - Wellbor	16,122.01	6,714.03	522.63	250.20	1.918	CC, ES, SF
EXIST DD ECKHARDT B #35-13 - Wellbore #1 - Wellbor	16,272.99	6,671.00	992.72	716.41	3.593	CC
EXIST DD ECKHARDT B #35-13 - Wellbore #1 - Wellbor	16,300.00	6,671.00	993.09	716.02	3.584	ES
EXIST DD ECKHARDT B #35-13 - Wellbore #1 - Wellbor	16,400.00	6,671.00	1,000.81	720.94	3.576	SF
EXIST DD MARLEY C #1-28D - Wellbore #1 - Wellbore #	9,115.05	6,787.87	1,339.71	1,246.65	14.396	CC, ES
EXIST DD MARLEY C #1-28D - Wellbore #1 - Wellbore #	9,600.00	6,792.75	1,424.78	1,318.36	13.389	SF
EXIST DD MARLEY C #1-30D - Wellbore #1 - Wellbore #	11,775.04	6,682.72	1,575.17	1,410.79	9.583	CC
EXIST DD MARLEY C #1-30D - Wellbore #1 - Wellbore #	11,800.00	6,682.69	1,575.36	1,410.29	9.543	ES
EXIST DD MARLEY C #1-30D - Wellbore #1 - Wellbore #	12,200.00	6,682.18	1,631.48	1,455.23	9.256	SF
EXIST HZ SOONER STATE B #36-63HN - Wellbore #1 -	6,108.39	6,172.64	372.09	343.27	12.908	CC
EXIST HZ SOONER STATE B #36-63HN - Wellbore #1 -	11,100.00	11,043.53	537.60	282.03	2.104	ES, SF
EXIST VERT BAKER STATE B #36-11 - Wellbore #1 - W	9,731.90	6,583.05	455.37	363.15	4.938	CC, ES
EXIST VERT BAKER STATE B #36-11 - Wellbore #1 - W	9,800.00	6,582.47	460.43	366.33	4.893	SF
EXIST VERT BAKER STATE B #36-12 - Wellbore #1 - W	10,928.46	6,583.77	454.83	329.35	3.625	CC, ES
EXIST VERT BAKER STATE B #36-12 - Wellbore #1 - W	11,000.00	6,583.47	460.42	332.95	3.612	SF
EXIST VERT BAKER STATE B #36-13 - Wellbore #1 - W	11,016.38	6,600.00	832.47	704.45	6.503	CC, ES
EXIST VERT BAKER STATE B #36-13 - Wellbore #1 - W	11,200.00	6,593.37	852.45	719.30	6.402	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 PHARAOH 1N - Slot PHARAOH 1N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB-EST @ 4616.00usft (Original Well Elev)
Reference Site:	NE SE SEC. 36 T5N R64W 6th P.M. (PHARAOH)	MD Reference:	KB-EST @ 4616.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	PHARAOH 1N	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
SE NE SEC. 36 T5N R64W 6th P.M. (PYRAMID)						
EXIST VERT BAKER STATE B #36-14 - Wellbore #1 - W	9,633.21	6,600.00	970.49	880.88	10.830	CC, ES
EXIST VERT BAKER STATE B #36-14 - Wellbore #1 - W	9,900.00	6,600.00	1,006.49	909.50	10.377	SF
EXIST VERT CLYNCKE STATE B #36-20 - Wellbore #1	10,285.61	6,550.00	969.86	862.28	9.015	CC
EXIST VERT CLYNCKE STATE B #36-20 - Wellbore #1	10,300.00	6,550.00	969.97	861.98	8.983	ES
EXIST VERT CLYNCKE STATE B #36-20 - Wellbore #1	10,500.00	6,550.00	993.27	879.73	8.748	SF
EXIST VERT CLYNCKE STATE B #36-25 - Wellbore #1	10,244.63	6,550.00	106.29	3.02	1.029	Level 2, CC, ES, SF
EXIST VERT CPC-HOSHIKO #35-1 - Wellbore #1 - Well	15,645.22	6,592.00	462.25	204.49	1.793	CC, ES, SF
EXIST VERT ECKHARDT B #35-33 - Wellbore #1 - Well	16,671.95	6,588.94	327.40	41.01	1.143	Level 2, CC, ES, SF
EXIST VERT HOSHIKO #2 - Wellbore #1 - Wellbore #1	13,593.54	6,617.86	828.01	627.74	4.134	CC
EXIST VERT HOSHIKO #2 - Wellbore #1 - Wellbore #1	13,600.00	6,617.90	828.04	627.58	4.131	ES
EXIST VERT HOSHIKO #2 - Wellbore #1 - Wellbore #1	13,700.00	6,618.46	834.83	631.57	4.107	SF
EXIST VERT HOSHIKO #35-10H4 - Wellbore #1 - Wellb	13,764.06	6,600.00	570.84	365.76	2.784	CC, ES
EXIST VERT HOSHIKO #35-10H4 - Wellbore #1 - Wellb	13,800.00	6,600.00	571.97	365.88	2.775	SF
EXIST VERT HOSHIKO #35-16H4 - Wellbore #1 - Desig	12,199.73	6,610.42	1,060.43	770.71	3.660	CC
EXIST VERT HOSHIKO #35-16H4 - Wellbore #1 - Desig	12,200.00	6,610.42	1,060.43	770.70	3.660	ES
EXIST VERT HOSHIKO #35-16H4 - Wellbore #1 - Desig	12,300.00	6,610.19	1,065.16	772.64	3.641	SF
EXIST VERT HOSHIKO B #35-14 - Wellbore #1 - Wellbo	15,102.98	6,618.86	912.33	669.95	3.764	CC, ES
EXIST VERT HOSHIKO B #35-14 - Wellbore #1 - Wellbo	15,200.00	6,617.62	917.48	672.37	3.743	SF
EXIST VERT HOSHIKO B #35-23 - Wellbore #1 - Wellbo	12,870.49	6,614.95	329.10	149.13	1.829	CC, ES
EXIST VERT HOSHIKO B #35-23 - Wellbore #1 - Wellbo	12,900.00	6,615.04	330.42	149.63	1.828	SF
EXIST VERT LOLOFF #35-6 - Wellbore #1 - Wellbore #1	14,866.74	6,569.65	1,546.11	1,310.19	6.554	CC
EXIST VERT LOLOFF #35-6 - Wellbore #1 - Wellbore #1	14,900.00	6,569.54	1,546.46	1,309.61	6.529	ES
EXIST VERT LOLOFF #35-6 - Wellbore #1 - Wellbore #1	15,200.00	6,568.57	1,581.61	1,336.35	6.449	SF
EXIST VERT LOLOFF #35-8 - Wellbore #1 - Wellbore #1	12,215.09	6,577.76	1,861.80	1,700.34	11.531	CC
EXIST VERT LOLOFF #35-8 - Wellbore #1 - Wellbore #1	12,300.00	6,577.51	1,863.73	1,699.90	11.376	ES
EXIST VERT LOLOFF #35-8 - Wellbore #1 - Wellbore #1	12,800.00	6,575.99	1,951.51	1,773.68	10.974	SF
EXIST VERT LOLOFF #4 - Wellbore #1 - Wellbore #1	13,608.52	6,555.02	1,792.74	1,591.99	8.931	CC
EXIST VERT LOLOFF #4 - Wellbore #1 - Wellbore #1	13,700.00	6,554.71	1,795.07	1,591.76	8.829	ES
EXIST VERT LOLOFF #4 - Wellbore #1 - Wellbore #1	14,100.00	6,553.31	1,858.88	1,644.37	8.666	SF
EXIST VERT LOLOFF B #35-17 - Wellbore #1 - Wellbore	12,966.04	6,589.61	2,490.36	2,307.59	13.626	CC
EXIST VERT LOLOFF B #35-17 - Wellbore #1 - Wellbore	13,000.00	6,589.39	2,490.59	2,306.87	13.557	ES
EXIST VERT LOLOFF B #35-17 - Wellbore #1 - Wellbore	13,900.00	6,583.27	2,659.72	2,450.79	12.730	SF
EXIST VERT LOLOFF B #35-19 - Wellbore #1 - Design #	15,603.04	6,611.80	2,442.90	2,057.85	6.344	CC
EXIST VERT LOLOFF B #35-19 - Wellbore #1 - Design #	15,700.00	6,611.59	2,444.82	2,057.05	6.305	ES
EXIST VERT LOLOFF B #35-19 - Wellbore #1 - Design #	16,000.00	6,610.92	2,474.94	2,078.77	6.247	SF
EXIST VERT LOLOFF B #35-20 - Wellbore #1 - Wellbore	15,493.76	6,603.91	1,254.68	1,000.95	4.945	CC
EXIST VERT LOLOFF B #35-20 - Wellbore #1 - Wellbore	15,500.00	6,603.86	1,254.70	1,000.79	4.941	ES
EXIST VERT LOLOFF B #35-20 - Wellbore #1 - Wellbore	15,700.00	6,600.00	1,271.52	1,012.00	4.899	SF
EXIST VERT LOLOFF B #35-21 - Wellbore #1 - Wellbore	14,325.46	6,544.51	1,347.53	1,127.09	6.113	CC
EXIST VERT LOLOFF B #35-21 - Wellbore #1 - Wellbore	14,400.00	6,544.12	1,349.59	1,127.06	6.065	ES
EXIST VERT LOLOFF B #35-21 - Wellbore #1 - Wellbore	14,600.00	6,543.06	1,375.21	1,147.09	6.028	SF
EXIST VERT LOLOFF B #35-22 - Wellbore #1 - Wellbore	12,901.18	6,547.98	1,338.14	1,157.42	7.404	CC, ES
EXIST VERT LOLOFF B #35-22 - Wellbore #1 - Wellbore	13,200.00	6,543.29	1,371.09	1,182.02	7.252	SF
EXIST VERT ROTHE STATE B #36-10 - Wellbore #1 - W	8,159.16	6,550.00	321.68	272.44	6.533	CC, ES
EXIST VERT ROTHE STATE B #36-10 - Wellbore #1 - W	8,200.00	6,550.00	324.26	273.95	6.445	SF
EXIST VERT ROTHE STATE B #36-7 - Wellbore #1 - We	8,035.18	6,500.00	1,731.95	1,685.90	37.609	CC
EXIST VERT ROTHE STATE B #36-7 - Wellbore #1 - We	8,100.00	6,500.00	1,733.16	1,685.41	36.296	ES
EXIST VERT ROTHE STATE B #36-7 - Wellbore #1 - We	9,900.00	6,500.00	2,545.02	2,448.23	26.293	SF
EXIST VERT ROTHE STATE B #36-8 - Wellbore #1 - We	100.00	70.48	1,612.15	1,612.05	10,000.000	CC
EXIST VERT ROTHE STATE B #36-8 - Wellbore #1 - We	1,500.00	1,469.11	1,614.89	1,610.95	409.915	ES
EXIST VERT ROTHE STATE B #36-8 - Wellbore #1 - We	12,800.00	6,500.00	6,084.61	5,906.97	34.252	SF
EXIST VERT ROTHE STATE B #36-9 - Wellbore #1 - We	415.00	390.01	245.27	244.19	226.573	CC

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well PHARAOH 1N - Slot PHARAOH 1N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB-EST @ 4616.00usft (Original Well Elev)
Reference Site:	NE SE SEC. 36 T5N R64W 6th P.M. (PHARAOH)	MD Reference:	KB-EST @ 4616.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	PHARAOH 1N	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
SE NE SEC. 36 T5N R64W 6th P.M. (PYRAMID)						
EXIST VERT ROTHE STATE B #36-9 - Wellbore #1 - We	500.00	473.84	245.48	244.15	185.439	ES
EXIST VERT ROTHE STATE B #36-9 - Wellbore #1 - We	7,000.00	6,550.00	498.86	476.95	22.775	SF
EXIST VERT STATE #22-36 - Wellbore #1 - Design #1	9,894.74	6,584.60	1,893.19	1,667.92	8.404	CC
EXIST VERT STATE #22-36 - Wellbore #1 - Design #1	9,900.00	6,584.59	1,893.20	1,667.78	8.399	ES
EXIST VERT STATE #22-36 - Wellbore #1 - Design #1	10,300.00	6,583.69	1,936.08	1,699.58	8.187	SF
EXIST VERT STROH #1 - Wellbore #1 - Wellbore #1	16,288.46	6,400.00	1,845.64	1,571.24	6.726	CC
EXIST VERT STROH #1 - Wellbore #1 - Wellbore #1	16,300.00	6,400.00	1,845.68	1,570.95	6.718	ES
EXIST VERT STROH #1 - Wellbore #1 - Wellbore #1	16,600.00	6,400.00	1,871.75	1,588.65	6.612	SF
PYRAMID 1N - ORIGINAL WELLBORE - PROPOSAL #1	1,600.00	1,595.00	1,938.53	1,931.62	280.750	CC
PYRAMID 1N - ORIGINAL WELLBORE - PROPOSAL #1	16,860.61	16,832.50	2,247.08	1,668.68	3.885	ES, SF
PYRAMID 2N - ORIGINAL WELLBORE - PROPOSAL #1	1,600.00	1,595.00	1,923.58	1,916.68	278.586	CC
PYRAMID 2N - ORIGINAL WELLBORE - PROPOSAL #1	16,860.61	16,759.18	1,978.32	1,400.12	3.422	ES, SF
PYRAMID 3N - ORIGINAL WELLBORE - PROPOSAL #1	5,916.65	5,939.37	1,633.52	1,604.58	56.454	CC
PYRAMID 3N - ORIGINAL WELLBORE - PROPOSAL #1	16,860.61	16,851.04	1,657.04	1,078.70	2.865	ES, SF
PYRAMID 4N - ORIGINAL WELLBORE - PROPOSAL #1	5,830.23	5,867.90	1,413.49	1,382.20	45.178	CC
PYRAMID 4N - ORIGINAL WELLBORE - PROPOSAL #1	16,860.61	16,791.97	1,438.98	861.55	2.492	ES, SF
PYRAMID 5N - ORIGINAL WELLBORE - PROPOSAL #1	5,912.20	5,991.80	1,123.44	1,087.87	31.589	CC
PYRAMID 5N - ORIGINAL WELLBORE - PROPOSAL #1	16,860.61	16,909.56	1,147.00	568.72	1.983	ES, SF
PYRAMID 6N - ORIGINAL WELLBORE - PROPOSAL #1	5,835.17	5,974.23	855.08	815.72	21.725	CC
PYRAMID 6N - ORIGINAL WELLBORE - PROPOSAL #1	16,860.61	16,904.60	858.17	281.79	1.489	Level 3, ES, SF
PYRAMID 7N - ORIGINAL WELLBORE - PROPOSAL #1	13,605.17	13,783.04	599.87	203.90	1.515	CC
PYRAMID 7N - ORIGINAL WELLBORE - PROPOSAL #1	16,860.61	17,038.52	600.04	21.48	1.037	Level 2, ES, SF
PYRAMID 8N - ORIGINAL WELLBORE - PROPOSAL #1	8,159.54	8,374.08	298.59	207.19	3.267	CC
PYRAMID 8N - ORIGINAL WELLBORE - PROPOSAL #1	16,860.61	17,075.82	311.86	-254.57	0.551	Level 1, ES, SF

Offset Design NE SE SEC. 36 T5N R64W 6th P.M. (PHARAOH) - PHARAOH 2C - ORIGINAL WELLBORE - PROPO													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-179.26	-15.02	-0.20	15.02	14.85	0.17	86.780		
100.00	100.00	100.00	100.00	0.09	0.09	-179.26	-15.02	-0.20	15.02	14.40	0.62	24.123		
200.00	200.00	200.00	200.00	0.31	0.31	-179.26	-15.02	-0.20	15.02	13.95	1.07	14.008		
300.00	300.00	300.00	300.00	0.54	0.54	-179.26	-15.02	-0.20	15.02	13.50	1.52	9.870		
400.00	400.00	400.00	400.00	0.76	0.76	-179.26	-15.02	-0.20	15.02	13.05	1.97	7.619		
500.00	500.00	500.00	500.00	0.99	0.99	-179.26	-15.02	-0.20	15.02	12.60	2.42	6.204	CC	
600.00	600.00	600.00	600.00	1.21	1.21	-179.26	-15.02	-0.20	15.02	13.45	2.85	5.727		
700.00	700.00	699.59	699.57	1.44	1.41	176.46	-16.26	1.01	16.30	17.28	3.26	6.299		
800.00	800.00	798.94	798.78	1.66	1.60	167.04	-19.99	4.60	20.54	24.62	3.70	7.655		
900.00	900.00	897.81	897.27	1.88	1.82	158.03	-26.14	10.55	28.32	35.62	4.17	9.546		
1,000.00	1,000.00	995.97	994.72	2.11	2.06	151.56	-34.68	18.78	39.79	50.17	4.67	11.741		
1,100.00	1,100.00	1,093.21	1,090.78	2.33	2.34	147.29	-45.49	29.22	54.85	68.15	5.21	14.071		
1,200.00	1,200.00	1,189.32	1,185.17	2.56	2.67	144.47	-58.47	41.75	73.37	88.17	5.80	16.213		
1,300.00	1,300.00	1,286.86	1,280.59	2.78	3.04	142.61	-73.05	55.83	93.97	108.25	6.40	17.924		
1,400.00	1,400.00	1,384.68	1,376.26	3.01	3.43	141.42	-87.68	69.95	114.65	128.36	7.01	19.314		
1,500.00	1,500.00	1,482.49	1,471.94	3.23	3.84	140.59	-102.32	84.07	135.37	156.10	7.63	20.460		
1,600.00	1,600.00	1,580.31	1,567.62	3.46	4.25	139.98	-116.95	98.20	156.10	168.05	7.28	24.075		
1,700.00	1,699.98	1,678.43	1,663.60	3.66	4.68	27.08	-131.63	112.37	175.33	183.78	7.72	24.821		
1,800.00	1,799.84	1,777.11	1,760.12	3.86	5.12	27.25	-146.39	126.62	191.50					

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