

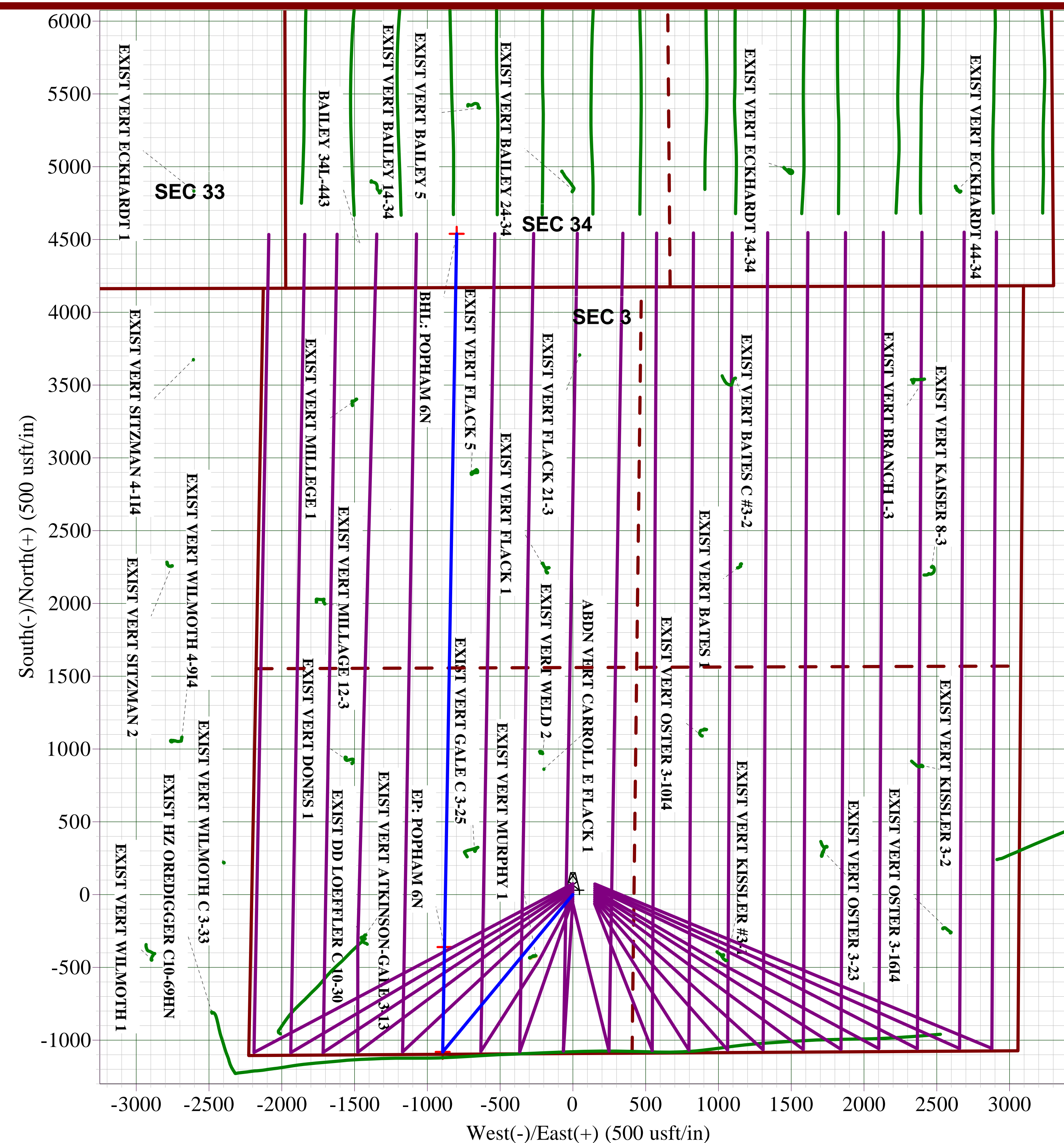
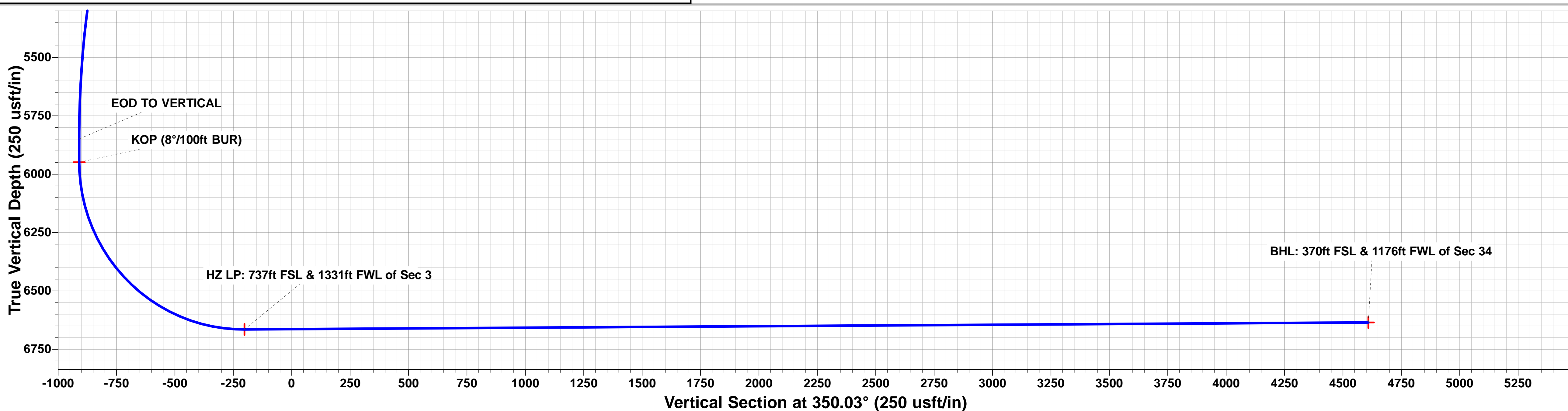
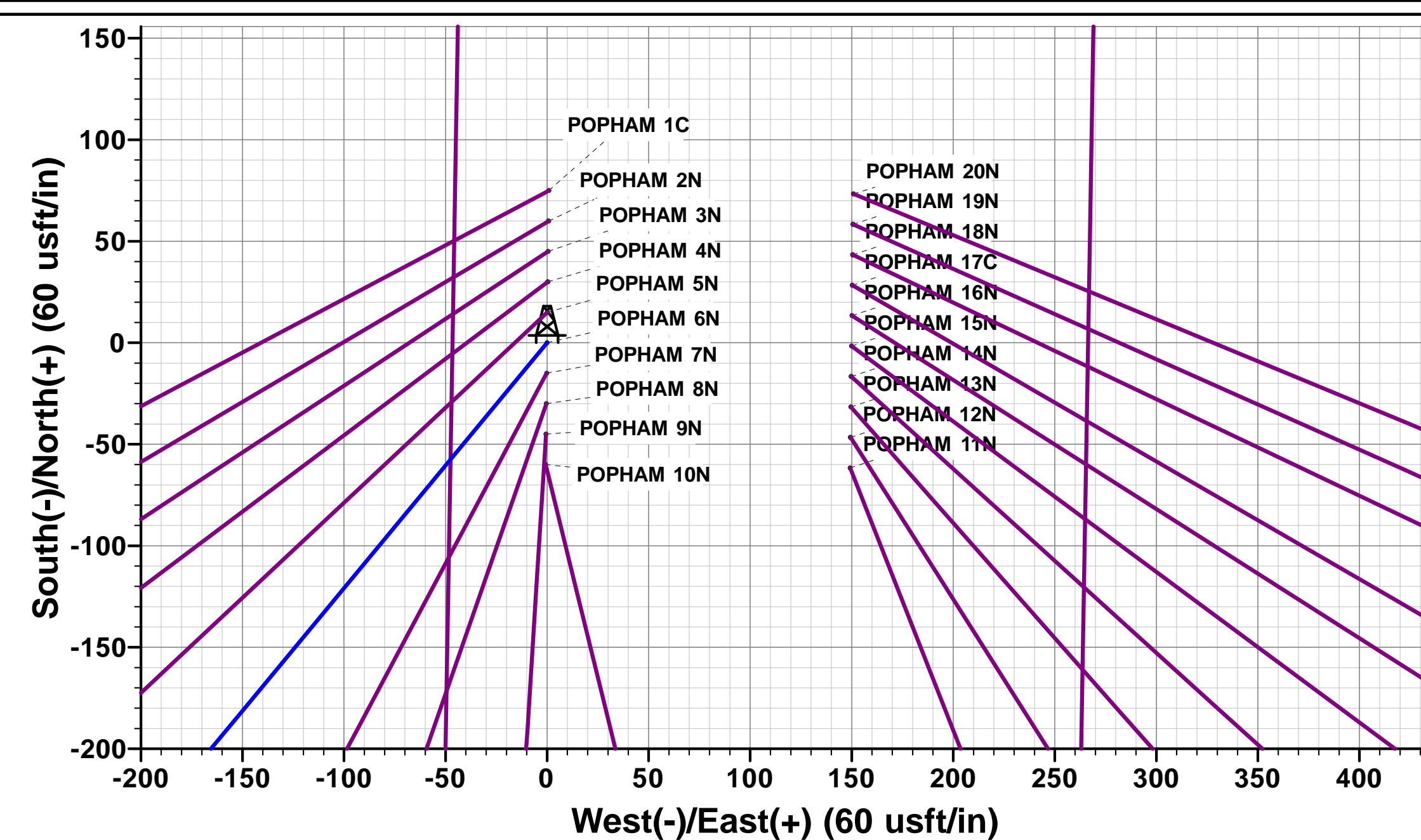
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 1092ft FSL & 2206ft FWL of Sec 3
700.0	700.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2"/100ft BUR)
1603.2	1618.9	18.38	219.60	-112.6	-93.1	-94.7	146.1	EOB TO 18.38° INC
4945.6	5140.9	18.38	219.60	-968.1	-801.0	-814.8	1256.5	END OF TANGENT
5848.8	6059.8	0.00	0.00	-1080.7	-894.1	-909.5	1402.6	EOD TO VERTICAL
5948.8	6159.8	0.00	0.00	-1080.7	-894.1	-909.5	1402.6	KOP (8"/100ft BUR)
6665.0	7289.1	90.35	0.98	-360.2	-881.8	-202.1	2123.2	HZ LP: 737ft FSL & 1331ft FWL of Sec 3
6635.0	12189.4	90.35	0.98	4539.2	-798.1	4608.9	7023.4	BHL: 370ft FSL & 1176ft FWL of Sec 34

SHL: 1092ft FSL & 2206ft FWL of Sec 3

HZ LP: 737ft FSL & 1331ft FWL of Sec 3

BHL: 370ft FSL & 1176ft FWL of Sec 34

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP: POPHAM 6N	5948.8	-1080.7	-894.1	40.334154	-104.541255
EP: POPHAM 6N	6665.0	-360.2	-881.8	40.336132	-104.541211
BHL: POPHAM 6N	6635.0	4539.2	-798.1	40.349581	-104.540911



PDC ENERGY

**WELD COUNTY, COLORADO
SE SW SEC. 3 T4N R64W 6th P.M.
POPHAM 6N**

**ORIGINAL WELLBORE
PROPOSAL #1**

Anticollision Report

19 September, 2017



Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well POPHAM 6N
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4685.0usft (Original Well Elev)
Reference Site:	SE SW SEC. 3 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4685.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	POPHAM 6N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 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 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	19/09/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	12,189.4	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						
SE SW SEC. 3 T4N R64W 6th P.M.						
POPHAM 10N - ORIGINAL WELLBORE - PROPOSAL #	300.0	300.0	60.0	58.9	55.935	CC, ES
POPHAM 10N - ORIGINAL WELLBORE - PROPOSAL #	12,189.4	12,069.1	1,141.5	959.5	6.273	SF
POPHAM 11N - ORIGINAL WELLBORE - PROPOSAL #	300.0	297.0	161.5	160.4	151.551	CC, ES
POPHAM 11N - ORIGINAL WELLBORE - PROPOSAL #	12,189.4	12,129.1	1,375.4	1,185.7	7.249	SF
POPHAM 12N - ORIGINAL WELLBORE - PROPOSAL #	400.0	398.0	156.5	155.0	103.167	CC, ES
POPHAM 12N - ORIGINAL WELLBORE - PROPOSAL #	12,189.4	12,090.1	1,626.8	1,440.5	8.732	SF
POPHAM 13N - ORIGINAL WELLBORE - PROPOSAL #	500.0	497.0	152.9	150.9	77.819	CC, ES
POPHAM 13N - ORIGINAL WELLBORE - PROPOSAL #	12,189.4	12,203.3	1,894.0	1,708.1	10.190	SF
POPHAM 14N - ORIGINAL WELLBORE - PROPOSAL #	600.0	597.0	150.7	148.3	62.431	CC, ES
POPHAM 14N - ORIGINAL WELLBORE - PROPOSAL #	12,189.4	12,196.5	2,136.7	1,954.9	11.752	SF
POPHAM 15N - ORIGINAL WELLBORE - PROPOSAL #	700.0	698.0	150.0	147.1	52.330	CC, ES
POPHAM 15N - ORIGINAL WELLBORE - PROPOSAL #	12,189.4	12,340.3	2,413.3	2,227.9	13.018	SF
POPHAM 16N - ORIGINAL WELLBORE - PROPOSAL #	700.0	698.0	150.7	147.9	52.592	CC, ES
POPHAM 16N - ORIGINAL WELLBORE - PROPOSAL #	12,189.4	12,395.4	2,671.5	2,485.5	14.363	SF
POPHAM 17C - ORIGINAL WELLBORE - PROPOSAL #	700.0	698.0	153.0	150.1	53.375	CC, ES
POPHAM 17C - ORIGINAL WELLBORE - PROPOSAL #	12,189.4	12,622.5	2,937.0	2,750.9	15.777	SF
POPHAM 18N - ORIGINAL WELLBORE - PROPOSAL #	700.0	698.0	156.6	153.8	54.656	CC, ES
POPHAM 18N - ORIGINAL WELLBORE - PROPOSAL #	12,189.4	12,629.9	3,196.4	3,006.1	16.798	SF
POPHAM 19N - ORIGINAL WELLBORE - PROPOSAL #	700.0	698.0	161.6	158.7	56.381	CC, ES
POPHAM 19N - ORIGINAL WELLBORE - PROPOSAL #	12,189.4	12,804.1	3,486.7	3,299.9	18.667	SF
POPHAM 1C - ORIGINAL WELLBORE - PROPOSAL #1	700.0	700.0	75.0	72.1	26.126	CC, ES
POPHAM 1C - ORIGINAL WELLBORE - PROPOSAL #1	12,189.4	12,832.6	1,304.6	1,133.0	7.599	SF
POPHAM 20N - ORIGINAL WELLBORE - PROPOSAL #	700.0	698.0	167.7	164.9	58.506	CC, ES
POPHAM 20N - ORIGINAL WELLBORE - PROPOSAL #	12,189.4	12,907.8	3,708.3	3,521.3	19.827	SF
POPHAM 2N - ORIGINAL WELLBORE - PROPOSAL #1	700.0	700.0	59.9	57.1	20.879	CC, ES
POPHAM 2N - ORIGINAL WELLBORE - PROPOSAL #1	12,189.4	12,551.9	1,043.8	861.9	5.740	SF
POPHAM 3N - ORIGINAL WELLBORE - PROPOSAL #1	700.0	700.0	45.0	42.1	15.676	CC, ES
POPHAM 3N - ORIGINAL WELLBORE - PROPOSAL #1	12,189.4	12,502.5	824.8	643.6	4.553	SF
POPHAM 4N - ORIGINAL WELLBORE - PROPOSAL #1	700.0	700.0	30.0	27.2	10.459	CC, ES
POPHAM 4N - ORIGINAL WELLBORE - PROPOSAL #1	12,189.4	12,369.5	548.9	366.9	3.017	SF
POPHAM 5N - ORIGINAL WELLBORE - PROPOSAL #1	700.0	700.0	15.0	12.1	5.228	CC, ES
POPHAM 5N - ORIGINAL WELLBORE - PROPOSAL #1	12,189.4	12,319.8	284.7	107.6	1.608	SF
POPHAM 7N - ORIGINAL WELLBORE - PROPOSAL #1	600.0	600.0	15.0	12.6	6.186	CC, ES
POPHAM 7N - ORIGINAL WELLBORE - PROPOSAL #1	12,189.4	12,198.8	271.1	90.6	1.502	SF
POPHAM 8N - ORIGINAL WELLBORE - PROPOSAL #1	500.0	500.0	30.0	28.0	15.230	CC, ES
POPHAM 8N - ORIGINAL WELLBORE - PROPOSAL #1	12,189.4	12,112.9	528.8	342.0	2.831	SF
POPHAM 9N - ORIGINAL WELLBORE - PROPOSAL #1	400.0	399.0	45.0	43.5	29.614	CC, ES

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 POPHAM 6N
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4685.0usft (Original Well Elev)
Reference Site:	SE SW SEC. 3 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4685.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	POPHAM 6N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 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 Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SE SW SEC. 3 T4N R64W 6th P.M.						
POPHAM 9N - ORIGINAL WELLBORE - PROPOSAL #1	12,189.4	12,121.0	831.6	644.5	4.445	SF
SE SW SEC. 3 T4N R64W 6th P.M. (OFFSETS FOR POPHAM)						
ABDN VERT HOFF 31-10 - Wellbore #1 - Wellbore #1	3,542.1	3,416.6	1,915.1	1,897.1	106.589	CC
ABDN VERT HOFF 31-10 - Wellbore #1 - Wellbore #1	3,600.0	3,468.6	1,915.2	1,896.9	104.327	ES
ABDN VERT HOFF 31-10 - Wellbore #1 - Wellbore #1	6,200.0	5,950.5	2,011.0	1,980.4	65.807	SF
EXIST DD HOFFMAN C 02-33D - Wellbore #1 - Wellbore	7,955.5	7,530.4	3,791.0	3,739.4	73.483	CC, ES
EXIST DD HOFFMAN C 02-33D - Wellbore #1 - Wellbore	12,189.4	7,466.2	5,682.8	5,561.5	46.862	SF
EXIST HZ SUDEN 34M-223 - Wellbore #1 - Wellbore #1	12,189.4	11,092.0	1,920.8	1,749.1	11.188	CC, ES, SF
EXIST HZ SUDEN 34M-423 - Wellbore #1 - Wellbore #1	12,189.4	11,065.0	1,743.5	1,574.9	10.343	CC, ES, SF
EXIST HZ SUDEN 34R-203 - Wellbore #1 - Wellbore #1	12,189.4	11,081.0	2,626.4	2,455.1	15.336	CC, ES, SF
EXIST HZ SUDEN 34R-323 - Wellbore #1 - Wellbore #1	12,189.4	11,162.0	3,191.8	3,018.3	18.389	CC, ES, SF
EXIST HZ SUDEN 34R-343 - Wellbore #1 - Wellbore #1	12,189.4	11,135.0	2,375.8	2,204.2	13.853	CC, ES, SF
EXIST HZ SUDEN 34R-423 - Wellbore #1 - Wellbore #1	12,189.4	11,245.0	3,027.5	2,854.0	17.449	CC, ES, SF
EXIST HZ SUDEN 34U-243 - Wellbore #1 - Wellbore #1	12,189.4	11,118.0	3,688.4	3,514.9	21.254	CC, ES, SF
EXIST HZ SUDEN 34U-403 - Wellbore #1 - Wellbore #1	12,189.4	11,309.0	4,032.3	3,858.6	23.216	CC, ES, SF
EXIST VERT BATES 1 - Wellbore #1 - Wellbore #1	9,955.6	6,608.8	1,994.5	1,944.1	39.534	CC
EXIST VERT BATES 1 - Wellbore #1 - Wellbore #1	10,000.0	6,608.6	1,995.0	1,943.8	38.934	ES
EXIST VERT BATES 1 - Wellbore #1 - Wellbore #1	11,500.0	6,599.8	2,522.6	2,443.7	31.981	SF
EXIST VERT BATES C #3-2 - Wellbore #1 - Wellbore #1	11,237.3	6,659.5	1,844.0	1,769.5	24.768	CC
EXIST VERT BATES C #3-2 - Wellbore #1 - Wellbore #1	11,300.0	6,662.4	1,845.1	1,769.4	24.396	ES
EXIST VERT BATES C #3-2 - Wellbore #1 - Wellbore #1	12,100.0	6,702.5	2,035.5	1,944.7	22.434	SF
EXIST VERT BRANCH 1-3 - Wellbore #1 - Wellbore #1	11,230.5	6,568.7	3,156.4	3,082.6	42.731	CC
EXIST VERT BRANCH 1-3 - Wellbore #1 - Wellbore #1	11,300.0	6,564.6	3,157.2	3,082.0	42.004	ES
EXIST VERT BRANCH 1-3 - Wellbore #1 - Wellbore #1	12,189.4	6,515.6	3,298.6	3,206.8	35.905	SF
EXIST VERT ECKHARDT 34-34 - Wellbore #1 - Wellbor	12,189.4	6,475.0	2,296.2	2,204.6	25.049	CC, ES, SF
EXIST VERT ECKHARDT 44-34 - Wellbore #1 - Wellbor	12,189.4	6,300.0	3,451.9	3,360.4	37.730	CC, ES, SF
EXIST VERT FLACK 1 - Wellbore #1 - Wellbore #1	9,935.7	6,650.0	625.5	575.4	12.473	CC, ES
EXIST VERT FLACK 1 - Wellbore #1 - Wellbore #1	10,100.0	6,650.0	646.7	593.6	12.182	SF
EXIST VERT FLACK 5 - Wellbore #1 - Wellbore #1	10,538.9	6,637.1	129.1	68.1	2.116	CC, ES, SF
EXIST VERT GALE C 3-25 - Wellbore #1 - Wellbore #1	7,912.8	6,646.7	144.2	122.7	6.700	CC, ES, SF
EXIST VERT KAISER 8-3 - Wellbore #1 - Wellbore #1	9,900.3	6,750.0	3,252.7	3,203.0	65.511	CC
EXIST VERT KAISER 8-3 - Wellbore #1 - Wellbore #1	10,000.0	6,750.0	3,254.2	3,202.8	63.281	ES
EXIST VERT KAISER 8-3 - Wellbore #1 - Wellbore #1	12,189.4	6,750.0	3,977.5	3,885.5	43.214	SF
EXIST VERT KISSLER #3-1 - Wellbore #1 - Wellbore #1	784.4	760.0	1,146.3	1,144.1	522.504	CC
EXIST VERT KISSLER #3-1 - Wellbore #1 - Wellbore #1	800.0	774.5	1,146.3	1,144.0	513.578	ES
EXIST VERT KISSLER #3-1 - Wellbore #1 - Wellbore #1	12,189.4	6,700.0	5,246.9	5,154.7	56.865	SF
EXIST VERT KISSLER 3-2 - Wellbore #1 - Wellbore #1	100.0	46.5	2,551.2	2,551.1	10,000.000	CC, ES
EXIST VERT KISSLER 3-2 - Wellbore #1 - Wellbore #1	12,189.4	6,800.0	4,788.2	4,696.0	51.920	SF
EXIST VERT MURPHY 1 - Wellbore #1 - Wellbore #1	2,725.3	2,630.7	62.3	50.0	5.076	CC, ES, SF
EXIST VERT OSTER 3-1014 - Wellbore #1 - Wellbore #1	100.0	61.5	1,405.7	1,405.5	9,254.392	CC
EXIST VERT OSTER 3-1014 - Wellbore #1 - Wellbore #1	500.0	463.0	1,406.5	1,405.2	1,068.121	ES
EXIST VERT OSTER 3-1014 - Wellbore #1 - Wellbore #1	10,800.0	6,607.6	2,663.1	2,597.5	40.553	SF
EXIST VERT OSTER 3-1614 - Wellbore #1 - Wellbore #1	217.8	160.8	2,609.3	2,608.8	4,906.347	CC
EXIST VERT OSTER 3-1614 - Wellbore #1 - Wellbore #1	700.0	638.1	2,609.7	2,607.9	1,430.818	ES
EXIST VERT OSTER 3-1614 - Wellbore #1 - Wellbore #1	12,189.4	6,539.6	5,826.8	5,734.9	63.378	SF
EXIST VERT OSTER 3-23 - Wellbore #1 - Wellbore #1	750.7	737.1	1,740.8	1,738.7	849.317	CC, ES
EXIST VERT OSTER 3-23 - Wellbore #1 - Wellbore #1	12,189.4	6,500.0	4,867.8	4,776.2	53.099	SF
EXIST VERT WELD 2 - Wellbore #1 - Wellbore #1	8,643.7	6,665.6	638.0	609.1	22.054	CC, ES
EXIST VERT WELD 2 - Wellbore #1 - Wellbore #1	8,900.0	6,664.4	687.6	655.0	21.075	SF

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 POPHAM 6N
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4685.0usft (Original Well Elev)
Reference Site:	SE SW SEC. 3 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4685.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	POPHAM 6N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 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
Offset Well - Wellbore - Design						
SW SW SEC. 34 T5N R64W 6th P.M.						
ABDN VERT CARROLL E FLACK 1 - Wellbore #1 - Desi	8,524.0	6,651.4	662.2	503.8	4.180	CC, ES, SF
EXIST DD LOEFFLER C 10-30 - Wellbore #1 - Wellbore	6,250.0	6,150.0	1,132.1	1,088.2	25.790	SF
EXIST DD LOEFFLER C 10-30 - Wellbore #1 - Wellbore	6,550.0	6,427.2	1,123.1	1,081.2	26.823	ES
EXIST DD LOEFFLER C 10-30 - Wellbore #1 - Wellbore	6,603.1	6,475.0	1,122.7	1,081.4	27.194	CC
EXIST HZ CHESNUT 27G-203 - Wellbore #1 - Wellbore	12,189.4	13,769.0	1,087.1	857.2	4.728	CC, ES, SF
EXIST HZ CHESNUT 27G-423 - Wellbore #1 - Wellbore	12,189.4	13,972.0	746.1	523.8	3.355	CC, ES, SF
EXIST HZ CHESNUT 27K-203 - Wellbore #1 - Wellbore	12,189.4	13,900.0	134.0	-94.6	0.586	Level 1, CC, ES, SF
EXIST HZ CHESNUT 27K-323 - Wellbore #1 - Wellbore	12,189.4	14,120.0	605.4	388.3	2.789	CC, ES, SF
EXIST HZ CHESNUT 27K-343 - Wellbore #1 - Wellbore	12,189.4	13,920.0	408.0	180.7	1.795	CC, ES, SF
EXIST HZ CHESNUT 27K-403 - Wellbore #1 - Wellbore	12,189.4	14,160.0	359.2	168.5	1.883	CC, ES, SF
EXIST HZ CHESNUT 27O-243 - Wellbore #1 - Wellbore	12,189.4	14,066.0	945.5	726.9	4.326	CC, ES, SF
EXIST HZ CHESNUT 27O-303 - Wellbore #1 - Wellbore	12,189.4	14,196.0	1,266.6	1,047.3	5.776	CC, ES, SF
EXIST HZ OREDIGGER C10-69HN - Wellbore #1 - Well	6,600.0	7,835.0	313.4	260.9	5.973	SF
EXIST HZ OREDIGGER C10-69HN - Wellbore #1 - Well	6,682.4	7,838.9	297.7	249.3	6.148	CC, ES
EXIST VERT ATKINSON-GALE 3-13 - Wellbore #1 - We	7,250.0	6,671.8	539.8	517.8	24.494	SF
EXIST VERT ATKINSON-GALE 3-13 - Wellbore #1 - We	7,304.5	6,671.8	537.1	515.2	24.533	CC, ES
EXIST VERT BAILEY 14-34 - Wellbore #1 - Wellbore #1	12,189.4	6,525.0	693.2	601.2	7.540	CC, ES, SF
EXIST VERT BAILEY 24-34 - Wellbore #1 - Wellbore #1	12,189.4	6,500.0	846.1	755.1	9.300	CC, ES, SF
EXIST VERT BAILEY 5 - Wellbore #1 - Wellbore #1	12,189.4	6,613.1	882.9	791.5	9.656	CC, ES, SF
EXIST VERT DONES 1 - Wellbore #1 - Wellbore #1	8,581.9	6,665.5	702.0	673.9	25.019	CC
EXIST VERT DONES 1 - Wellbore #1 - Wellbore #1	8,600.0	6,665.3	702.2	673.9	24.818	ES
EXIST VERT DONES 1 - Wellbore #1 - Wellbore #1	8,800.0	6,663.2	735.1	704.0	23.622	SF
EXIST VERT ECKHARDT 1 - Wellbore #1 - Design #1	12,189.4	6,633.0	1,829.7	1,607.2	8.224	CC, ES, SF
EXIST VERT FLACK 21-3 - Wellbore #1 - Design #1	11,373.0	6,630.0	858.9	651.8	4.147	CC
EXIST VERT FLACK 21-3 - Wellbore #1 - Design #1	11,400.0	6,629.8	859.4	651.8	4.139	ES, SF
EXIST VERT MILLAGE 12-3 - Wellbore #1 - Wellbore #1	9,643.1	6,661.1	921.1	876.1	20.474	CC, ES
EXIST VERT MILLAGE 12-3 - Wellbore #1 - Wellbore #1	10,000.0	6,657.6	987.8	936.5	19.259	SF
EXIST VERT MILLEGE 1 - Wellbore #1 - Wellbore #1	10,998.2	6,647.4	695.5	626.1	10.017	CC
EXIST VERT MILLEGE 1 - Wellbore #1 - Wellbore #1	11,000.0	6,647.4	695.5	626.1	10.012	ES
EXIST VERT MILLEGE 1 - Wellbore #1 - Wellbore #1	11,100.0	6,646.5	702.9	631.6	9.854	SF
EXIST VERT MURPHY 1 - Wellbore #1 - Wellbore #1	2,722.6	2,628.1	69.0	56.8	5.634	CC, ES, SF
EXIST VERT SITZMAN 2 - Wellbore #1 - Wellbore #1	9,884.4	6,525.0	1,953.8	1,904.4	39.588	CC
EXIST VERT SITZMAN 2 - Wellbore #1 - Wellbore #1	9,900.0	6,525.0	1,953.8	1,904.2	39.370	ES
EXIST VERT SITZMAN 2 - Wellbore #1 - Wellbore #1	11,300.0	6,525.0	2,412.7	2,337.5	32.074	SF
EXIST VERT SITZMAN 4-114 - Wellbore #1 - Design #1	11,295.1	6,653.5	1,793.7	1,587.8	8.712	CC
EXIST VERT SITZMAN 4-114 - Wellbore #1 - Design #1	11,300.0	6,653.4	1,793.7	1,587.7	8.708	ES
EXIST VERT SITZMAN 4-114 - Wellbore #1 - Design #1	11,600.0	6,651.6	1,819.4	1,607.9	8.599	SF
EXIST VERT WILMOTH 1 - Wellbore #1 - Wellbore #1	7,269.2	6,682.2	2,050.4	2,028.2	92.424	CC, ES
EXIST VERT WILMOTH 1 - Wellbore #1 - Wellbore #1	12,189.4	6,760.0	5,329.7	5,237.8	58.022	SF
EXIST VERT WILMOTH 4-914 - Wellbore #1 - Wellbore #	8,673.7	6,700.0	1,884.8	1,855.4	63.969	CC
EXIST VERT WILMOTH 4-914 - Wellbore #1 - Wellbore #	8,700.0	6,700.0	1,885.0	1,855.2	63.200	ES
EXIST VERT WILMOTH 4-914 - Wellbore #1 - Wellbore #	11,200.0	6,660.5	3,151.6	3,078.2	42.945	SF
EXIST VERT WILMOTH C 3-33 - Wellbore #1 - Wellbore	7,842.8	6,662.3	1,524.1	1,503.1	72.485	CC, ES
EXIST VERT WILMOTH C 3-33 - Wellbore #1 - Wellbore	12,189.4	6,650.7	4,606.0	4,514.5	50.332	SF

Offset Design SE SW SEC. 3 T4N R64W 6th P.M. - POPHAM 10N - ORIGINAL WELLBORE - PROPOSAL #1										Offset Site Error:	0.0 usft
Survey Program: 0-MWD										Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor

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