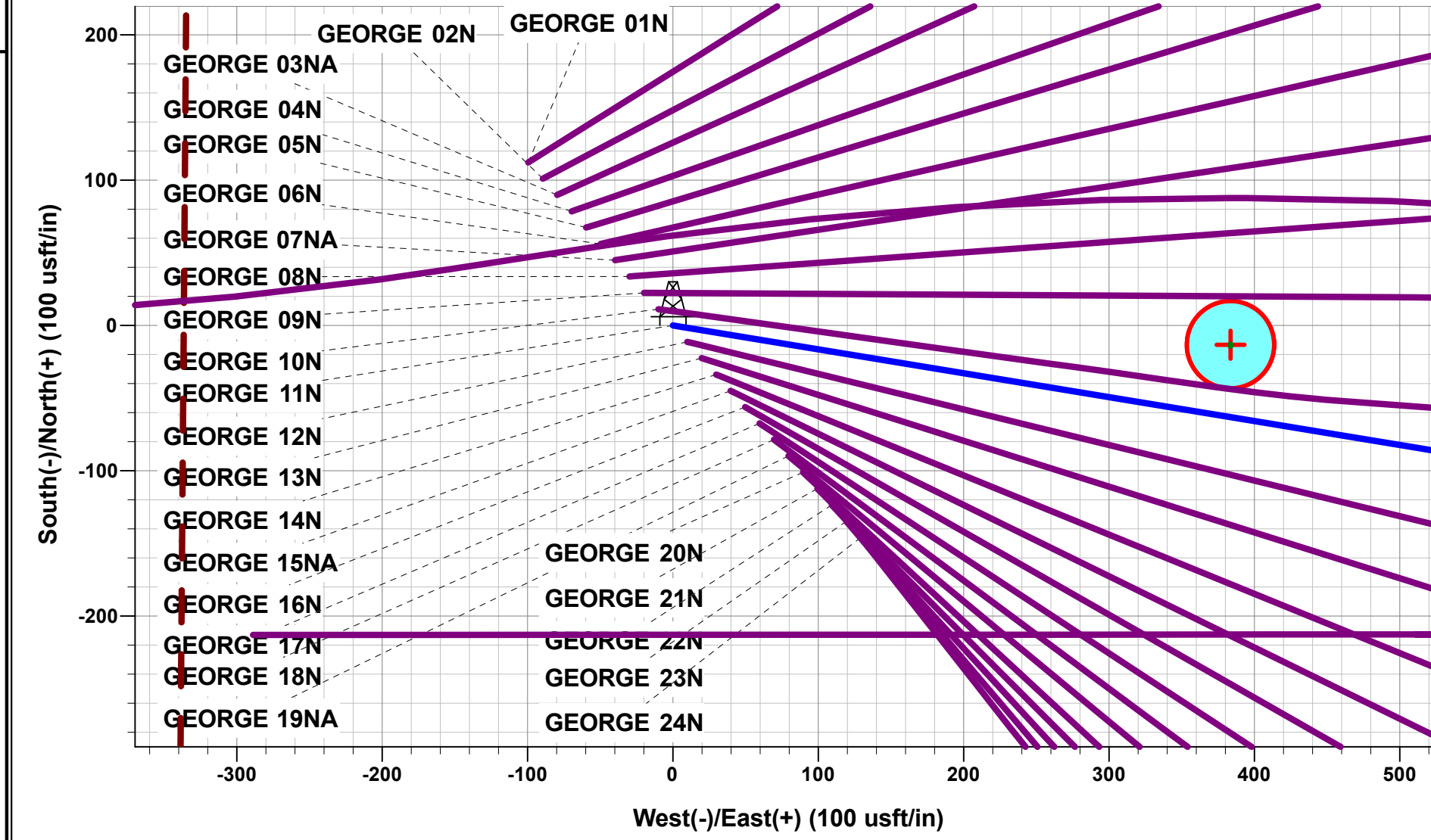




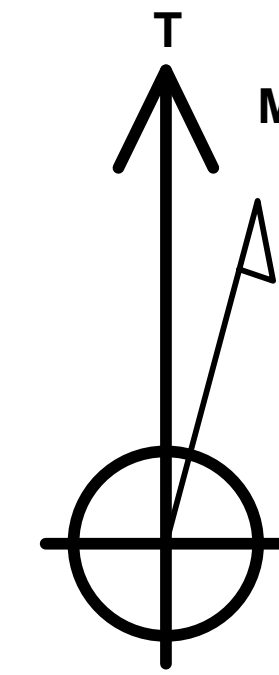
Project: WELD COUNTY, COLORADO (TRUE)
 Site: SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE)
 Well: GEORGE 11N
 Wellbore: ORIGINAL WELLBORE
 Design: PROPOSAL #1

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Dep	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 1884ft FNL & 2296ft FEL of Sec 21
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	START NUDDGE (4°/100ft BUR)
2553.96	38.16	99.33	2484.99	-49.64	302.04	-298.94	306.09	EOB TO 38.16° INC
5862.90	38.16	99.33	5086.82	-381.18	2319.37	-2295.50	2350.48	END OF TANGENT
6816.86	0.00	0.00	5971.81	-430.82	2621.41	-2594.44	2656.58	EOD TO VERTICAL
6916.86	0.00	0.00	6071.81	-430.82	2621.41	-2594.44	2656.58	KOP (8°/100ft BUR)
7854.35	75.00	269.98	6763.60	-431.01	2090.58	-2064.37	3187.40	EP: 2310ft FNL & 200ft FEL of Sec 21
8037.98	89.69	269.98	6787.99	-431.08	1909.09	-1883.13	3368.90	HZ LANDING POINT
18000.52	89.68	269.99	6843.00	-433.87	-8053.30	8064.98	13331.29	BHL: 2311ft FNL & 200ft FWL of Sec 20



PROPOSED LOCAL COORDINATES:
 SHL: 1884ft FNL & 2296ft FEL of Sec 21
 EP: 2310ft FNL & 200ft FEL of Sec 21
 BHL: 2311ft FNL & 200ft FWL of Sec 20

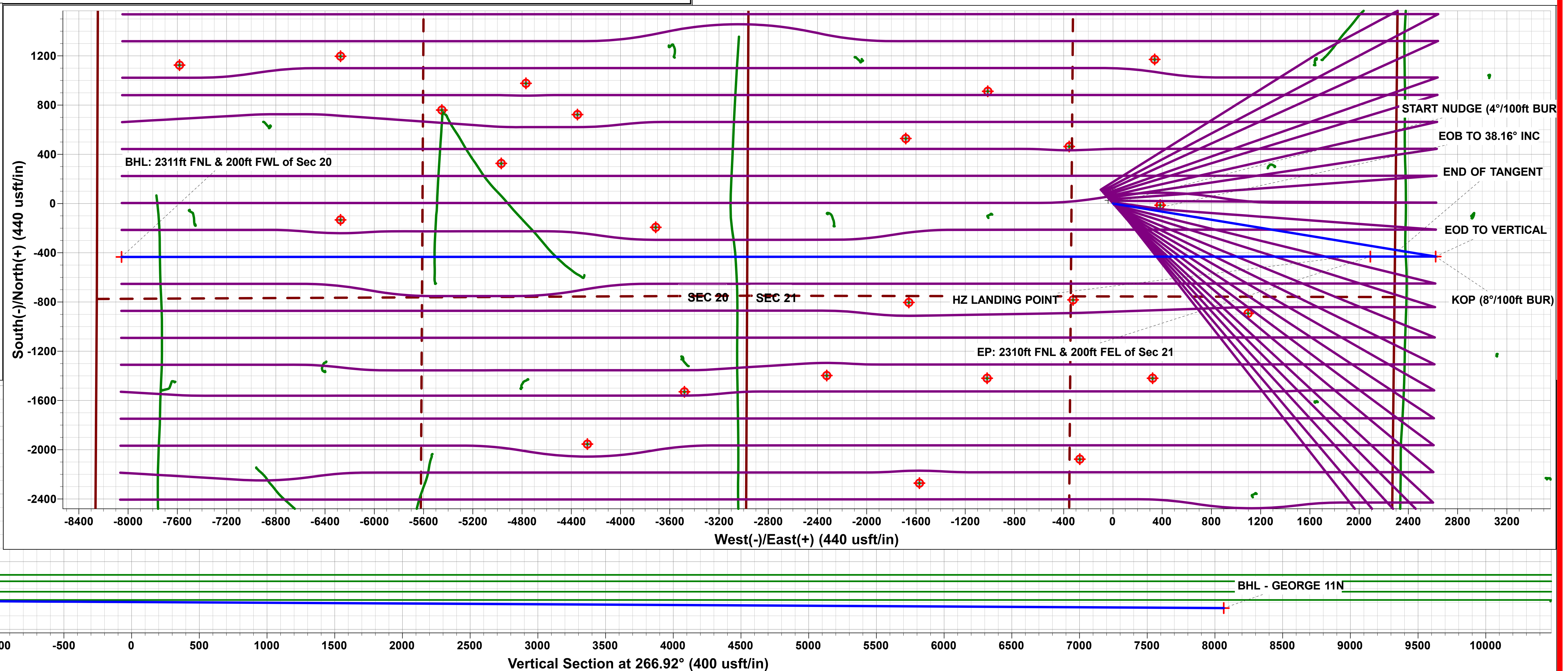
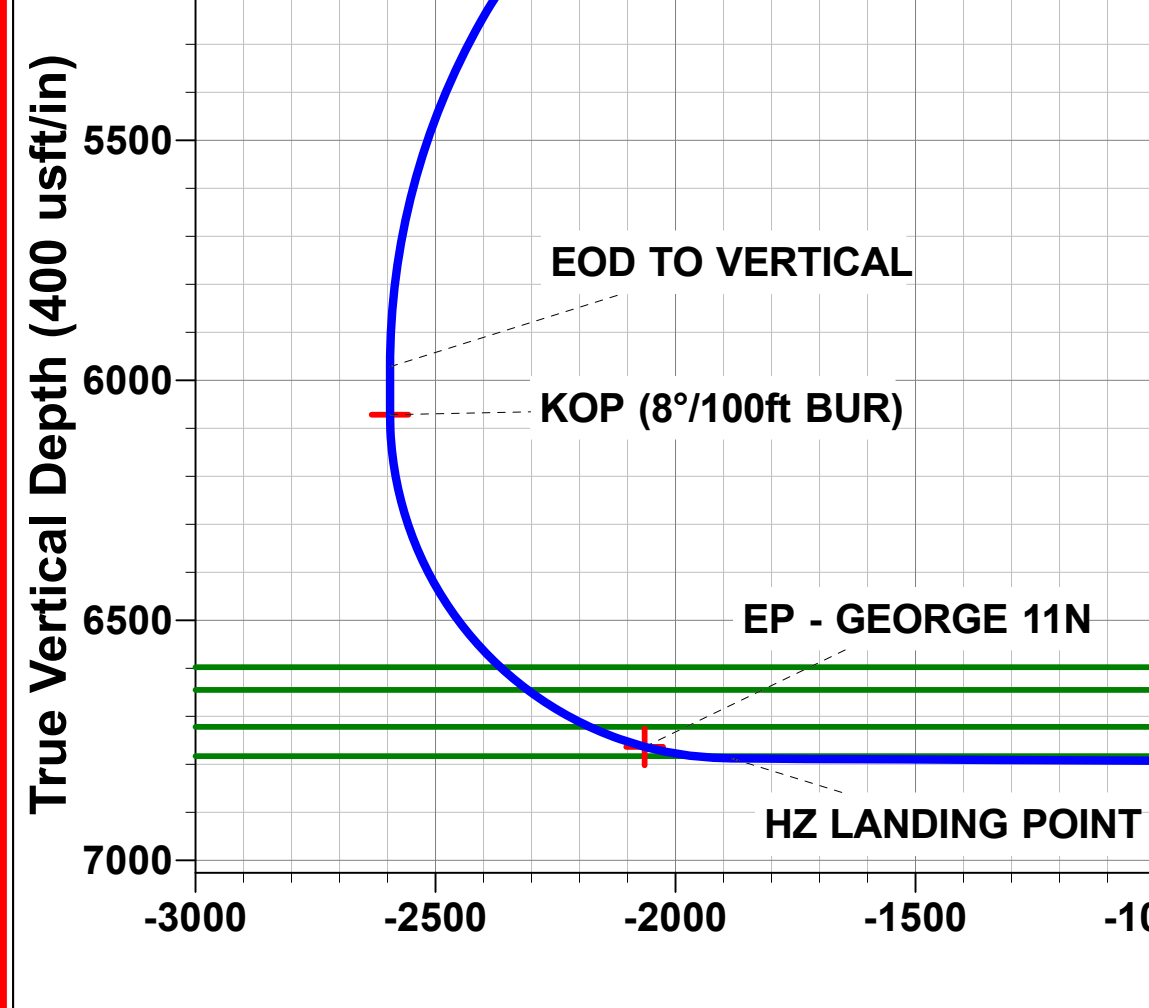
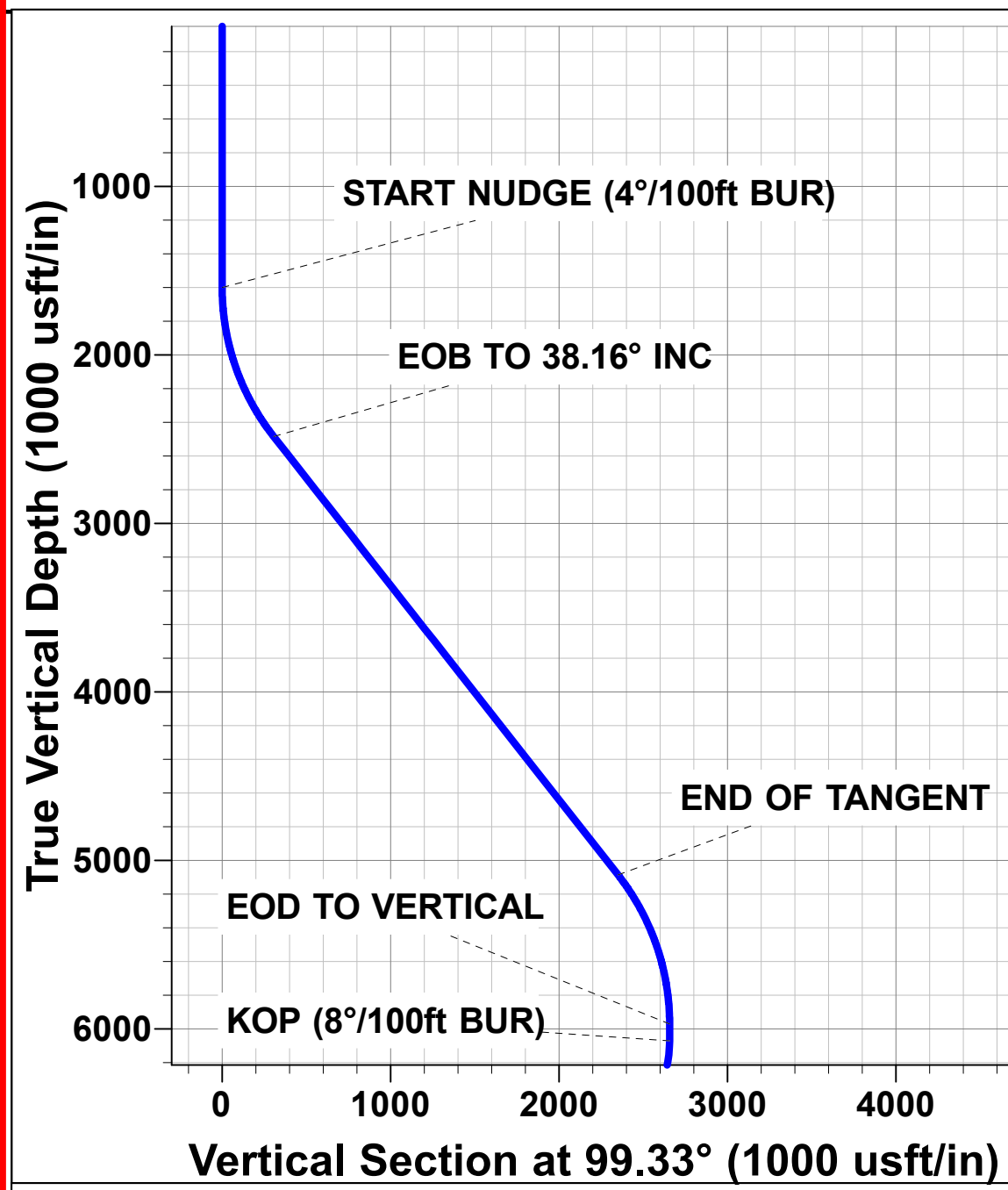


Azimuths to True North
 Magnetic North: 7.73°

Magnetic Field
 Strength: 51929.1nT
 Dip Angle: 66.61°
 Date: 2021-05-29
 Model: IGRF2020

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL - GEORGE 11N	6843.00	-433.87	-8053.30	1353015.88	3255657.27	40.298802	-104.583407
EP - GEORGE 11N	6763.60	-431.01	-2090.58	1353126.88	3265800.12	40.298813	-104.547040
KOP - GEORGE 11N	6071.81	-430.82	2621.41	1353132.74	3266330.89	40.298813	-104.545137



PDC ENERGY

**WELD COUNTY, COLORADO (TRUE)
SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE)
GEORGE 11N**

**ORIGINAL WELLBORE
PROPOSAL #1**

Anticollision Report

29 May, 2021

Anticollision Report

Company:	PDC ENERGY	Local Co-ordinate Reference:	Well GEORGE 11N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB 23ft @ 4743.00usft
Reference Site:	SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE)	MD Reference:	KB 23ft @ 4743.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	GEORGE 11N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	Database 1
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 centre distance of 9,999.98usft	Error Surface:	Ellipsoid Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	2021-05-29		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	18,000.53	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. 21 T4N R64W 6th P.M. (GEORGE)						
ABDN DD BALBOA C20-24D - Wellbore #1 - Wellbore #	15,477.93	7,039.45	1,602.98	1,354.23	6.444	CC
ABDN DD BALBOA C20-24D - Wellbore #1 - Wellbore #	15,500.00	7,039.23	1,603.13	1,353.74	6.428	ES
ABDN DD BALBOA C20-24D - Wellbore #1 - Wellbore #	15,600.00	7,038.21	1,607.62	1,355.91	6.387	SF
ABDN DD DINNEL C27-28D - Wellbore #1 - Wellbore #1	6,809.23	5,996.86	3,709.06	3,652.83	65.964	CC
ABDN DD DINNEL C27-28D - Wellbore #1 - Wellbore #1	6,816.86	6,004.92	3,709.07	3,652.83	65.944	ES
ABDN DD DINNEL C27-28D - Wellbore #1 - Wellbore #1	6,950.00	6,143.90	3,709.98	3,653.44	65.616	SF
ABDN DD DINNEL C27-29D - Wellbore #1 - Wellbore #1	6,920.34	6,107.37	2,996.79	2,939.33	52.159	CC, ES, SF
ABDN DD HANSCOME C28-29D - Wellbore #1 - Wellbo	11,579.62	6,965.26	2,890.60	2,736.62	18.773	CC
ABDN DD HANSCOME C28-29D - Wellbore #1 - Wellbo	11,600.00	6,964.78	2,890.67	2,736.24	18.719	ES
ABDN DD HANSCOME C28-29D - Wellbore #1 - Wellbo	12,200.00	6,951.00	2,956.39	2,792.01	17.985	SF
ABDN DD LEONARD C21-16 - Wellbore #1 - Wellbore #	8,224.30	6,773.50	2,430.54	2,352.89	31.299	CC, ES
ABDN DD LEONARD C21-16 - Wellbore #1 - Wellbore #	8,600.00	6,783.03	2,459.39	2,379.84	30.916	SF
ABDN VERT BALBOA 20-3 - Wellbore #1 - Wellbore #1	14,697.25	6,824.87	997.05	784.81	4.698	CC
ABDN VERT BALBOA 20-3 - Wellbore #1 - Wellbore #1	14,700.00	6,824.88	997.05	784.75	4.696	ES, SF
ABDN VERT BALBOA C20-2 - Wellbore #1 - Design #1	13,428.39	6,809.48	1,096.77	783.73	3.504	CC, ES
ABDN VERT BALBOA C20-2 - Wellbore #1 - Design #1	13,500.00	6,809.88	1,099.11	784.82	3.497	SF
ABDN VERT CHENOWETH #2 - Wellbore #1 - Wellbore	17,572.46	6,891.53	2,299.01	2,008.41	7.911	CC
ABDN VERT CHENOWETH #2 - Wellbore #1 - Wellbore	17,600.00	6,891.86	2,299.17	2,007.86	7.893	ES
ABDN VERT CHENOWETH #2 - Wellbore #1 - Wellbore	17,800.00	6,894.20	2,310.24	2,015.17	7.830	SF
ABDN VERT CPC OSTER 19-1 - Wellbore #1 - Wellbore	18,000.53	6,954.60	1,858.12	1,594.53	7.049	CC, ES, SF
ABDN VERT HANSCOME C21-18 - Wellbore #1 - Desig	1,600.00	1,575.00	584.01	549.23	16.791	CC, ES
ABDN VERT HANSCOME C21-18 - Wellbore #1 - Desig	10,400.00	6,775.84	900.47	663.89	3.806	SF
ABDN VERT HANSCOME C21-19 - Wellbore #1 - Desig	11,629.79	6,794.57	960.84	694.49	3.607	CC, ES
ABDN VERT HANSCOME C21-19 - Wellbore #1 - Desig	11,700.00	6,794.96	963.41	695.36	3.594	SF
ABDN VERT HANSCOME C28-1 - Wellbore #1 - Design	10,976.49	6,817.99	3,625.99	3,375.08	14.452	CC
ABDN VERT HANSCOME C28-1 - Wellbore #1 - Design	11,100.00	6,818.67	3,628.09	3,374.44	14.303	ES
ABDN VERT HANSCOME C28-1 - Wellbore #1 - Design	11,800.00	6,822.51	3,718.33	3,451.36	13.928	SF
ABDN VERT HIGHLAND 11-20 - Wellbore #1 - Wellbore	16,338.76	6,843.97	852.74	596.13	3.323	CC, ES, SF
ABDN VERT JOHNSON C29-29 - Wellbore #1 - Design	16,944.73	6,892.07	3,146.21	2,736.49	7.679	CC
ABDN VERT JOHNSON C29-29 - Wellbore #1 - Design	17,000.00	6,892.38	3,146.69	2,735.52	7.653	ES
ABDN VERT JOHNSON C29-29 - Wellbore #1 - Design	17,300.00	6,894.06	3,166.20	2,748.81	7.586	SF
ABDN VERT LEONARD #1 - Wellbore #1 - Wellbore #1	9,684.39	6,724.16	2,346.68	2,259.68	26.974	CC
ABDN VERT LEONARD #1 - Wellbore #1 - Wellbore #1	9,700.00	6,724.56	2,346.73	2,259.47	26.892	ES
ABDN VERT LEONARD #1 - Wellbore #1 - Wellbore #1	10,300.00	6,739.68	2,426.05	2,330.62	25.423	SF
ABDN VERT LEONARD 21-1414 - Wellbore #1 - Design	10,982.44	6,819.02	2,321.78	2,070.77	9.250	CC
ABDN VERT LEONARD 21-1414 - Wellbore #1 - Design	11,000.00	6,819.12	2,321.85	2,070.46	9.236	ES

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 GEORGE 11N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB 23ft @ 4743.00usft
Reference Site:	SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE)	MD Reference:	KB 23ft @ 4743.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	GEORGE 11N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	Database 1
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE)						
ABDN VERT LEONARD 21-1414 - Wellbore #1 - Design	11,300.00	6,820.76	2,343.40	2,086.43	9.120	SF
ABDN VERT LEONARD 21-614 - Wellbore #1 - Wellbore	10,965.81	6,789.71	325.42	209.96	2.819	CC, ES, SF
ABDN VERT PREBISH #1 - Wellbore #1 - Design #1	16,221.04	6,844.01	1,630.57	1,241.58	4.192	CC
ABDN VERT PREBISH #1 - Wellbore #1 - Design #1	16,300.00	6,844.45	1,632.48	1,241.57	4.176	ES, SF
ABDN VERT PREBISH #2 - Wellbore #1 - Wellbore #1	17,450.03	6,884.03	380.18	92.84	1.323	Level 3, CC, ES, SF
ABDN VERT TODD #1 - Wellbore #1 - Wellbore #1	13,554.29	6,742.28	1,711.61	1,529.69	9.408	CC
ABDN VERT TODD #1 - Wellbore #1 - Wellbore #1	13,600.00	6,742.38	1,712.22	1,529.09	9.349	ES
ABDN VERT TODD #1 - Wellbore #1 - Wellbore #1	13,800.00	6,742.84	1,729.16	1,542.45	9.261	SF
ABDN VERT TODD #2 - Wellbore #1 - Design #1	14,916.03	6,819.73	759.27	406.21	2.151	CC, ES, SF
ABDN VERT UPRC #29-4H - Wellbore #1 - Design #1	17,689.82	6,904.25	3,628.53	3,198.08	8.430	CC
ABDN VERT UPRC #29-4H - Wellbore #1 - Design #1	17,800.00	6,904.87	3,630.21	3,196.90	8.378	ES
ABDN VERT UPRC #29-4H - Wellbore #1 - Design #1	18,000.53	6,906.00	3,641.81	3,204.09	8.320	SF
ABDN VERT VICTOR C19-9 - Wellbore #1 - Wellbore #1	18,000.53	6,900.00	1,235.89	1,038.84	6.272	CC, ES, SF
ABDN VERT VICTOR C29-4 - Wellbore #1 - Design #1	17,546.34	4,554.00	4,321.13	4,002.71	13.571	CC
ABDN VERT VICTOR C29-4 - Wellbore #1 - Design #1	17,600.00	4,554.00	4,321.46	4,001.83	13.520	ES
ABDN VERT VICTOR C29-4 - Wellbore #1 - Design #1	18,000.53	4,554.00	4,344.93	4,017.29	13.261	SF
EXIST DD CHENOWETH C20-25D - Wellbore #1 - Wellb	16,906.84	7,137.68	1,714.33	1,418.70	5.799	CC, ES
EXIST DD CHENOWETH C20-25D - Wellbore #1 - Wellb	17,000.00	7,138.56	1,716.85	1,420.18	5.787	SF
EXIST DD HANSCOME C28-28D - Wellbore #1 - Wellbo	10,217.17	6,827.98	3,016.28	2,905.66	27.267	CC
EXIST DD HANSCOME C28-28D - Wellbore #1 - Wellbo	10,300.00	6,827.72	3,017.42	2,905.14	26.875	ES
EXIST DD HANSCOME C28-28D - Wellbore #1 - Wellbo	11,100.00	6,825.26	3,142.83	3,017.65	25.108	SF
EXIST DD HANSCOME C28-30D - Wellbore #1 - Wellbo	12,863.01	6,978.03	2,868.38	2,688.47	15.944	CC
EXIST DD HANSCOME C28-30D - Wellbore #1 - Wellbo	12,900.00	6,978.56	2,868.61	2,687.88	15.872	ES
EXIST DD HANSCOME C28-30D - Wellbore #1 - Wellbo	13,400.00	6,985.72	2,918.20	2,729.09	15.431	SF
EXIST DD HANSCOME C29-27D - Wellbore #1 - Wellbo	14,246.92	6,957.58	2,825.27	2,608.05	13.006	CC
EXIST DD HANSCOME C29-27D - Wellbore #1 - Wellbo	14,300.00	6,957.46	2,825.77	2,607.10	12.922	ES
EXIST DD HANSCOME C29-27D - Wellbore #1 - Wellbo	14,700.00	6,956.59	2,861.37	2,634.27	12.599	SF
EXIST DD LONG C20-21D - Wellbore #1 - Wellbore #1	15,449.76	7,058.17	218.07	-28.48	0.884	Level 3, CC, ES, SF
EXIST DD LONG C20-22D - Wellbore #1 - Wellbore #1	14,242.72	7,149.99	160.33	-41.56	0.794	Level 3, CC, ES, SF
EXIST DD NOVACEK C28-27D - Wellbore #1 - Wellbore	3,609.96	2,763.30	3,027.34	2,997.76	102.326	CC
EXIST DD NOVACEK C28-27D - Wellbore #1 - Wellbore	9,100.00	6,883.81	3,048.32	2,956.47	33.189	ES
EXIST DD NOVACEK C28-27D - Wellbore #1 - Wellbore	10,100.00	6,887.06	3,234.00	3,128.24	30.577	SF
EXIST HZ HANSCOME C21-79HN - Wellbore #1 - Wellb	13,012.56	9,076.15	100.79	28.73	1.399	Level 3, CC, ES, SF
EXIST HZ KLINGENBERG C20-780 - SIDETRACK - SID	17,691.02	9,674.36	348.27	241.86	3.273	CC, ES, SF
EXIST HZ KLINGENBERG C20-780 - VERTICAL PILOT	17,699.06	6,896.16	2,707.59	2,401.24	8.838	CC
EXIST HZ KLINGENBERG C20-780 - VERTICAL PILOT	17,800.00	6,896.24	2,709.47	2,400.63	8.773	ES
EXIST HZ KLINGENBERG C20-780 - VERTICAL PILOT	18,000.53	6,896.38	2,724.32	2,411.91	8.720	SF
EXIST HZ THOMPSON C28-79HN - Wellbore #1 - Wellb	12,882.70	10,884.00	3,489.56	3,312.75	19.737	CC
EXIST HZ THOMPSON C28-79HN - Wellbore #1 - Wellb	13,000.00	10,884.00	3,491.53	3,312.34	19.485	ES
EXIST HZ THOMPSON C28-79HN - Wellbore #1 - Wellb	14,300.00	10,884.00	3,766.42	3,552.87	17.638	SF
EXIST VERT API #20-614 - Wellbore #1 - Design #1	16,221.68	6,855.02	300.86	-88.35	0.773	Level 3, CC, ES, SF
EXIST VERT API 20-414 - Wellbore #1 - Design #1	17,529.27	6,884.35	1,558.36	1,132.73	3.661	CC
EXIST VERT API 20-414 - Wellbore #1 - Design #1	17,600.00	6,884.75	1,559.96	1,132.66	3.651	ES, SF
EXIST VERT BALBOA 20-1 - Wellbore #1 - Design #1	13,564.44	6,833.23	2,246.83	1,929.74	7.086	CC
EXIST VERT BALBOA 20-1 - Wellbore #1 - Design #1	13,600.00	6,833.43	2,247.11	1,929.14	7.067	ES
EXIST VERT BALBOA 20-1 - Wellbore #1 - Design #1	13,800.00	6,834.54	2,259.14	1,937.15	7.016	SF
EXIST VERT BALBOA C20-23 - Wellbore #1 - Design #1	14,216.88	6,828.85	1,521.58	1,187.17	4.550	CC, ES
EXIST VERT BALBOA C20-23 - Wellbore #1 - Design #1	14,300.00	6,829.31	1,523.85	1,187.69	4.533	SF
EXIST VERT BALBOA C20-4 - Wellbore #1 - Design #1	15,028.99	6,850.36	2,319.05	1,962.46	6.503	CC
EXIST VERT BALBOA C20-4 - Wellbore #1 - Design #1	15,100.00	6,850.76	2,320.14	1,961.80	6.475	ES
EXIST VERT BALBOA C20-4 - Wellbore #1 - Design #1	15,300.00	6,851.87	2,334.83	1,972.82	6.450	SF
EXIST VERT BALBOA C20-9X - Wellbore #1 - Wellbore	13,446.89	6,778.19	823.93	645.23	4.611	CC, ES

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 GEORGE 11N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB 23ft @ 4743.00usft
Reference Site:	SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE)	MD Reference:	KB 23ft @ 4743.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	GEORGE 11N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	Database 1
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. 21 T4N R64W 6th P.M. (GEORGE)						
EXIST VERT BALBOA C20-9X - Wellbore #1 - Wellbore	13,500.00	6,779.15	825.64	646.18	4.601	SF
EXIST VERT BORYS C22-20 - Wellbore #1 - Design #1	6,916.86	6,009.81	1,171.98	1,031.61	8.350	CC, ES
EXIST VERT BORYS C22-20 - Wellbore #1 - Design #1	7,050.00	6,142.19	1,184.20	1,041.09	8.275	SF
EXIST VERT CANTRELL #1 - Wellbore #1 - Design #1	6,916.86	5,991.81	1,936.94	1,787.17	12.933	CC
EXIST VERT CANTRELL #1 - Wellbore #1 - Design #1	6,950.00	6,024.94	1,937.58	1,787.14	12.879	ES
EXIST VERT CANTRELL #1 - Wellbore #1 - Design #1	7,100.00	6,172.96	1,956.65	1,803.50	12.776	SF
EXIST VERT CANTRELL 22-12 - Wellbore #1 - Wellbore	6,812.74	5,892.24	948.60	899.60	19.362	CC, ES
EXIST VERT CANTRELL 22-12 - Wellbore #1 - Wellbore	6,916.86	5,995.49	948.82	899.75	19.337	SF
EXIST VERT CONRAD #1 - Wellbore #1 - Design #1	6,916.86	5,984.81	2,357.32	2,185.97	13.757	CC
EXIST VERT CONRAD #1 - Wellbore #1 - Design #1	6,950.00	6,017.94	2,357.86	2,185.84	13.707	ES
EXIST VERT CONRAD #1 - Wellbore #1 - Design #1	7,150.00	6,213.86	2,384.12	2,208.67	13.589	SF
EXIST VERT CPC-JOHNSON 29-1 - Wellbore #1 - Desig	13,463.41	6,842.68	3,476.03	3,161.43	11.049	CC
EXIST VERT CPC-JOHNSON 29-1 - Wellbore #1 - Desig	13,500.00	6,842.88	3,476.22	3,160.69	11.017	ES
EXIST VERT CPC-JOHNSON 29-1 - Wellbore #1 - Desig	14,100.00	6,846.20	3,533.84	3,206.02	10.780	SF
EXIST VERT DARLENE DINNEL #1 - Wellbore #1 - Des	6,916.86	6,003.81	2,820.57	2,654.36	16.969	CC
EXIST VERT DARLENE DINNEL #1 - Wellbore #1 - Des	6,950.00	6,036.94	2,821.01	2,654.13	16.904	ES
EXIST VERT DARLENE DINNEL #1 - Wellbore #1 - Des	7,200.00	6,279.63	2,852.60	2,681.68	16.690	SF
EXIST VERT HAMLIN C21-22 - Wellbore #1 - Design #1	8,849.24	6,754.39	460.89	254.67	2.235	CC, ES, SF
EXIST VERT HANSCOME 28-4 - Wellbore #1 - Wellbore	12,314.15	6,850.27	3,751.68	3,602.70	25.182	CC
EXIST VERT HANSCOME 28-4 - Wellbore #1 - Wellbore	12,400.00	6,850.85	3,752.66	3,601.59	24.840	ES
EXIST VERT HANSCOME 28-4 - Wellbore #1 - Wellbore	13,400.00	6,856.91	3,905.66	3,736.27	23.057	SF
EXIST VERT HANSCOME C21-20 - Wellbore #1 - Desig	11,605.18	6,809.44	371.06	105.05	1.395	Level 3, CC, ES, SF
EXIST VERT HANSCOME C21-21 - Wellbore #1 - Desig	10,270.99	6,796.13	350.77	116.66	1.498	Level 3, CC, ES, SF
EXIST VERT HANSCOME C21-24 - Wellbore #1 - Desig	10,217.03	6,796.84	1,644.80	1,411.82	7.060	CC, ES
EXIST VERT HANSCOME C21-24 - Wellbore #1 - Desig	10,400.00	6,797.84	1,654.95	1,419.12	7.018	SF
EXIST VERT HERBST #1 - Wellbore #1 - Wellbore #1	6,862.80	5,951.03	2,311.29	2,250.53	38.045	CC, ES
EXIST VERT HERBST #1 - Wellbore #1 - Wellbore #1	6,916.86	6,000.00	2,311.37	2,250.59	38.029	SF
EXIST VERT HERBST 22-614 - Wellbore #1 - Design #1	6,916.86	6,002.81	1,389.80	1,228.11	8.596	CC
EXIST VERT HERBST 22-614 - Wellbore #1 - Design #1	6,950.00	6,035.94	1,390.46	1,228.11	8.564	ES
EXIST VERT HERBST 22-614 - Wellbore #1 - Design #1	7,050.00	6,135.19	1,400.55	1,236.38	8.531	SF
EXIST VERT HERBST C22-25 - Wellbore #1 - Wellbore	6,795.69	5,862.82	2,017.10	1,964.76	38.543	CC
EXIST VERT HERBST C22-25 - Wellbore #1 - Wellbore	6,800.00	5,867.63	2,017.10	1,964.76	38.540	ES
EXIST VERT HERBST C22-25 - Wellbore #1 - Wellbore	6,916.86	5,986.30	2,017.89	1,965.50	38.518	SF
EXIST VERT HERBST C27-30 - Wellbore #1 - Design #1	7,425.40	6,491.68	3,146.57	2,956.19	16.528	CC
EXIST VERT HERBST C27-30 - Wellbore #1 - Design #1	7,500.00	6,545.62	3,146.99	2,955.73	16.454	ES
EXIST VERT HERBST C27-30 - Wellbore #1 - Design #1	7,800.00	6,700.56	3,161.40	2,967.45	16.300	SF
EXIST VERT HERBST, CONRAD #1 - Wellbore #1 - Des	6,916.86	6,009.81	3,987.16	3,814.30	23.066	CC
EXIST VERT HERBST, CONRAD #1 - Wellbore #1 - Des	6,950.00	6,042.94	3,987.48	3,813.95	22.978	ES
EXIST VERT HERBST, CONRAD #1 - Wellbore #1 - Des	7,350.00	6,417.03	4,040.86	3,861.25	22.498	SF
EXIST VERT HIGHLAND 12-20 - Wellbore #1 - Wellbore	17,566.11	6,850.29	1,015.02	724.76	3.497	CC
EXIST VERT HIGHLAND 12-20 - Wellbore #1 - Wellbore	17,600.00	6,850.23	1,015.58	724.70	3.491	ES, SF
EXIST VERT JOHNSON C29-28 - Wellbore #1 - Design	15,760.09	6,866.44	2,814.17	2,437.54	7.472	CC
EXIST VERT JOHNSON C29-28 - Wellbore #1 - Design	15,800.00	6,866.66	2,814.45	2,436.79	7.452	ES
EXIST VERT JOHNSON C29-28 - Wellbore #1 - Design	16,100.00	6,868.34	2,834.62	2,450.88	7.387	SF
EXIST VERT JOHNSON R C29-2 - Wellbore #1 - Design	14,909.61	6,872.70	3,586.88	3,232.95	10.134	CC
EXIST VERT JOHNSON R C29-2 - Wellbore #1 - Design	15,000.00	6,873.20	3,588.02	3,231.77	10.071	ES
EXIST VERT JOHNSON R C29-2 - Wellbore #1 - Design	15,500.00	6,875.99	3,635.15	3,268.76	9.922	SF
EXIST VERT JOHNSTON #22-4 - Wellbore #1 - Wellbor	6,941.36	6,030.87	1,521.82	1,459.08	24.253	CC, ES
EXIST VERT JOHNSTON #22-4 - Wellbore #1 - Wellbor	6,950.00	6,039.31	1,521.84	1,459.09	24.253	SF
EXIST VERT JULIE C21-25 - Wellbore #1 - Design #1	11,519.53	6,833.97	1,839.61	1,575.20	6.957	CC, ES
EXIST VERT JULIE C21-25 - Wellbore #1 - Design #1	11,700.00	6,834.96	1,848.44	1,580.58	6.901	SF
EXIST VERT KLEIN #1 - Wellbore #1 - Design #1	12,264.52	6,836.06	2,309.28	2,026.06	8.154	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 GEORGE 11N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB 23ft @ 4743.00usft
Reference Site:	SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE)	MD Reference:	KB 23ft @ 4743.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	GEORGE 11N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	Database 1
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE)						
EXIST VERT KLEIN #1 - Wellbore #1 - Design #1	12,300.00	6,836.26	2,309.55	2,025.50	8.131	ES
EXIST VERT KLEIN #1 - Wellbore #1 - Design #1	12,600.00	6,837.91	2,333.52	2,043.81	8.055	SF
EXIST VERT KLEIN 21-12 - Wellbore #1 - Design #1	12,272.37	6,812.10	964.99	682.02	3.410	CC
EXIST VERT KLEIN 21-12 - Wellbore #1 - Design #1	12,300.00	6,812.26	965.39	681.89	3.405	ES, SF
EXIST VERT LEHFELDT C27-04 - Wellbore #1 - Design	6,916.86	6,015.81	3,831.58	3,650.35	21.142	CC
EXIST VERT LEHFELDT C27-04 - Wellbore #1 - Design	7,200.00	6,291.63	3,833.53	3,647.24	20.579	ES
EXIST VERT LEHFELDT C27-04 - Wellbore #1 - Design	7,800.00	6,691.56	3,874.69	3,681.81	20.089	SF
EXIST VERT LEONARD #2 - Wellbore #1 - Wellbore #1	12,208.38	6,783.90	248.64	102.20	1.698	CC, ES, SF
EXIST VERT LEONARD #3 - Wellbore #1 - Design #1	10,969.69	6,823.95	987.34	736.49	3.936	CC
EXIST VERT LEONARD #3 - Wellbore #1 - Design #1	11,000.00	6,824.12	987.80	736.45	3.930	ES, SF
EXIST VERT LEONARD #4 - Wellbore #1 - Design #1	2,674.68	2,551.91	49.18	-11.81	0.806	Level 3, CC, ES, SF
EXIST VERT LEONARD 21-10 - Wellbore #1 - Design #1	9,625.16	6,776.61	987.79	767.57	4.485	CC, ES
EXIST VERT LEONARD 21-10 - Wellbore #1 - Design #1	9,700.00	6,777.02	990.62	769.68	4.484	SF
EXIST VERT LEONARD 21-1614 - Wellbore #1 - Wellbor	8,818.84	6,744.10	1,944.51	1,872.52	27.010	CC, ES
EXIST VERT LEONARD 21-1614 - Wellbore #1 - Wellbor	9,200.00	6,743.52	1,981.52	1,906.26	26.329	SF
EXIST VERT LONG C20-17 - Wellbore #1 - Design #1	14,296.61	6,800.29	1,156.09	820.08	3.441	CC
EXIST VERT LONG C20-17 - Wellbore #1 - Design #1	14,300.00	6,800.31	1,156.10	819.98	3.440	ES
EXIST VERT LONG C20-17 - Wellbore #1 - Design #1	14,400.00	6,800.87	1,160.71	822.61	3.433	SF
EXIST VERT LONG C20-18 - Wellbore #1 - Design #1	15,398.39	6,832.42	1,193.02	826.68	3.257	CC
EXIST VERT LONG C20-18 - Wellbore #1 - Design #1	15,400.00	6,832.43	1,193.02	826.64	3.256	ES
EXIST VERT LONG C20-18 - Wellbore #1 - Design #1	15,500.00	6,832.99	1,197.34	829.05	3.251	SF
EXIST VERT LYMAN #1 - Wellbore #1 - Wellbore #1	6,950.00	6,050.11	444.40	391.81	8.451	SF
EXIST VERT LYMAN #1 - Wellbore #1 - Wellbore #1	6,968.06	6,068.01	444.23	391.73	8.461	CC, ES
EXIST VERT NIX #1 - Wellbore #1 - Design #1	8,381.87	6,739.86	3,756.89	3,556.77	18.773	CC
EXIST VERT NIX #1 - Wellbore #1 - Design #1	8,400.00	6,739.95	3,756.94	3,556.67	18.760	ES
EXIST VERT NIX #1 - Wellbore #1 - Design #1	9,200.00	6,744.30	3,844.95	3,636.42	18.438	SF
EXIST VERT NOVACEK #1 - Wellbore #1 - Design #1	9,651.12	6,780.75	3,628.99	3,408.14	16.432	CC
EXIST VERT NOVACEK #1 - Wellbore #1 - Design #1	9,700.00	6,781.02	3,629.32	3,407.59	16.368	ES
EXIST VERT NOVACEK #1 - Wellbore #1 - Design #1	10,500.00	6,785.38	3,726.96	3,491.70	15.842	SF
EXIST VERT OSTER PM C19-8 - Wellbore #1 - Design #1	18,000.53	6,908.00	754.10	536.50	3.466	CC, ES, SF
EXIST VERT PREBISH C20-19 - Wellbore #1 - Wellbore	16,792.12	6,862.63	1,056.66	787.73	3.929	CC
EXIST VERT PREBISH C20-19 - Wellbore #1 - Wellbore	16,800.00	6,862.54	1,056.69	787.54	3.926	ES, SF
EXIST VERT THOUTT #2 - Wellbore #1 - Wellbore #1	8,304.02	6,904.26	1,186.98	1,121.27	18.064	CC, ES, SF
EXIST VERT TODD #20-2 - Wellbore #1 - Design #1	14,714.91	6,815.62	1,410.20	1,062.66	4.058	CC, ES
EXIST VERT TODD #20-2 - Wellbore #1 - Design #1	14,800.00	6,816.09	1,412.76	1,063.21	4.042	SF
EXIST VERT TODD 20-8 - Wellbore #1 - Design #1	13,661.03	6,807.77	239.96	-79.19	0.752	Level 3, CC, ES, SF
EXIST VERT TRAVELERS 21-814 - Wellbore #1 - Wellbo	4,034.27	3,592.48	521.43	491.09	17.183	CC, ES
EXIST VERT TRAVELERS 21-814 - Wellbore #1 - Wellbo	8,800.00	6,725.99	731.25	659.12	10.137	SF
EXIST VERT VICTOR C19-16 - Wellbore #1 - Design #1	18,000.53	6,921.00	2,456.68	2,037.61	5.862	CC, ES, SF
GEORGE 01N - ORIGINAL WELLBORE - PROPOSAL #	608.44	606.76	147.94	145.42	58.683	CC, ES
GEORGE 01N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	18,121.45	2,191.04	1,596.79	3.687	SF
GEORGE 02N - ORIGINAL WELLBORE - PROPOSAL #	751.52	750.49	131.11	127.91	41.036	CC, ES
GEORGE 02N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	18,000.00	1,972.33	1,377.69	3.317	SF
GEORGE 03NA - ORIGINAL WELLBORE - PROPOSAL	869.07	868.35	114.64	110.92	30.782	CC
GEORGE 03NA - ORIGINAL WELLBORE - PROPOSAL	900.00	898.61	114.81	110.92	29.492	ES
GEORGE 03NA - ORIGINAL WELLBORE - PROPOSAL	18,000.53	17,952.53	1,756.20	1,162.39	2.958	SF
GEORGE 04N - ORIGINAL WELLBORE - PROPOSAL #	989.62	990.34	97.14	92.87	22.736	CC
GEORGE 04N - ORIGINAL WELLBORE - PROPOSAL #	1,000.00	1,000.48	97.16	92.83	22.448	ES
GEORGE 04N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	17,988.98	1,456.09	860.27	2.444	SF
GEORGE 05N - ORIGINAL WELLBORE - PROPOSAL #	1,078.94	1,079.43	81.79	77.14	17.591	CC, ES
GEORGE 05N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	17,909.84	1,316.17	720.46	2.209	SF
GEORGE 06N - ORIGINAL WELLBORE - PROPOSAL #	1,170.28	1,171.62	65.77	60.73	13.043	CC, ES

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 GEORGE 11N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB 23ft @ 4743.00usft
Reference Site:	SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE)	MD Reference:	KB 23ft @ 4743.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	GEORGE 11N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	Database 1
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. 21 T4N R64W 6th P.M. (GEORGE)						
GEORGE 06N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	17,950.05	1,095.48	498.50	1.835	SF
GEORGE 07NA - ORIGINAL WELLBORE - PROPOSAL	1,252.52	1,253.54	50.32	44.93	9.339	CC, ES
GEORGE 07NA - ORIGINAL WELLBORE - PROPOSAL	18,000.53	17,841.50	884.55	298.54	1.509	SF
GEORGE 08N - ORIGINAL WELLBORE - PROPOSAL #	1,322.81	1,323.36	35.81	30.13	6.310	CC, ES
GEORGE 08N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	17,878.45	661.00	77.88	1.134	Level 3, SF
GEORGE 09N - ORIGINAL WELLBORE - PROPOSAL #	1,600.00	1,600.00	30.00	23.09	4.338	CC
GEORGE 09N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	18,050.99	438.22	-161.49	0.731	Level 3, ES, SF
GEORGE 10N - ORIGINAL WELLBORE - PROPOSAL #	1,600.00	1,600.00	15.00	8.09	2.169	CC
GEORGE 10N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	17,973.12	230.00	-140.43	0.621	Level 3, ES, SF
GEORGE 12N - ORIGINAL WELLBORE - PROPOSAL #	1,500.00	1,500.00	15.00	8.54	2.320	CC
GEORGE 12N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	17,952.61	230.00	-141.91	0.618	Level 3, ES, SF
GEORGE 13N - ORIGINAL WELLBORE - PROPOSAL #	1,400.00	1,400.00	30.00	23.99	4.986	CC
GEORGE 13N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	17,997.71	438.19	-129.79	0.771	Level 3, ES, SF
GEORGE 14N - ORIGINAL WELLBORE - PROPOSAL #	1,300.00	1,300.00	45.03	39.47	8.089	CC, ES
GEORGE 14N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	17,957.14	659.18	67.86	1.115	Level 3, SF
GEORGE 15NA - ORIGINAL WELLBORE - PROPOSAL	1,200.00	1,199.00	59.99	54.87	11.727	CC, ES
GEORGE 15NA - ORIGINAL WELLBORE - PROPOSAL	18,000.53	17,948.18	884.55	297.91	1.508	SF
GEORGE 16N - ORIGINAL WELLBORE - PROPOSAL #	1,100.00	1,099.00	74.99	70.33	16.071	CC, ES
GEORGE 16N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	18,062.11	1,095.48	497.40	1.832	SF
GEORGE 17N - ORIGINAL WELLBORE - PROPOSAL #	1,000.00	999.00	89.95	85.73	21.332	CC, ES
GEORGE 17N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	18,033.93	1,316.42	719.81	2.207	SF
GEORGE 18N - ORIGINAL WELLBORE - PROPOSAL #	900.00	899.00	104.96	101.19	27.862	CC, ES
GEORGE 18N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	18,135.02	1,533.65	937.06	2.571	SF
GEORGE 19NA - ORIGINAL WELLBORE - PROPOSAL	800.00	798.00	119.96	116.65	36.184	CC, ES
GEORGE 19NA - ORIGINAL WELLBORE - PROPOSAL	18,000.53	18,103.37	1,756.54	1,161.13	2.950	SF
GEORGE 20N - ORIGINAL WELLBORE - PROPOSAL #	700.00	698.00	134.99	132.12	47.104	CC, ES
GEORGE 20N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	18,245.81	1,971.83	1,376.31	3.311	SF
GEORGE 21N - ORIGINAL WELLBORE - PROPOSAL #	600.00	598.00	149.95	147.53	62.058	CC, ES
GEORGE 21N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	18,238.62	2,192.04	1,597.37	3.686	SF
GEORGE 22N - ORIGINAL WELLBORE - PROPOSAL #	500.00	497.00	164.98	163.02	83.985	CC, ES
GEORGE 22N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	18,295.17	2,411.18	1,816.51	4.055	SF
GEORGE 23N - ORIGINAL WELLBORE - PROPOSAL #	400.00	397.00	179.94	178.43	118.779	CC, ES
GEORGE 23N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	18,421.87	2,629.11	2,034.96	4.425	SF
GEORGE 24N - ORIGINAL WELLBORE - PROPOSAL #	300.00	296.00	194.92	193.86	183.347	CC, ES
GEORGE 24N - ORIGINAL WELLBORE - PROPOSAL #	18,000.53	18,454.83	2,849.18	2,256.29	4.806	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 GEORGE 11N
Project:	WELD COUNTY, COLORADO (TRUE)	TVD Reference:	KB 23ft @ 4743.00usft
Reference Site:	SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE)	MD Reference:	KB 23ft @ 4743.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	GEORGE 11N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	Database 1
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)						
ABDN VERT CHENOWETH 21-4 - Wellbore #1 - Wellbo	11,984.52	6,739.70	1,597.11	1,456.54	11.362	CC
ABDN VERT CHENOWETH 21-4 - Wellbore #1 - Wellbo	12,000.00	6,739.98	1,597.19	1,456.20	11.328	ES
ABDN VERT CHENOWETH 21-4 - Wellbore #1 - Wellbo	12,200.00	6,743.49	1,611.58	1,466.40	11.101	SF
ABDN VERT CHENOWETH #1 - Wellbore #1 - Design #1	10,963.28	6,789.92	1,344.21	1,094.21	5.377	CC
ABDN VERT CHENOWETH #1 - Wellbore #1 - Design #1	11,000.00	6,790.12	1,344.72	1,093.75	5.358	ES
ABDN VERT CHENOWETH #1 - Wellbore #1 - Design #1	11,100.00	6,790.67	1,351.15	1,098.00	5.337	SF
DRAKE 23N - ORIGINAL WELLBORE - PROPOSAL #1	7,800.00	18,757.30	2,648.25	2,284.06	7.272	ES, SF
DRAKE 23N - ORIGINAL WELLBORE - PROPOSAL #1	18,000.53	8,584.38	2,643.26	2,299.54	7.690	CC
DRAKE 24N - ORIGINAL WELLBORE - PROPOSAL #1	7,815.03	18,931.07	2,504.69	2,137.97	6.830	SF
DRAKE 24N - ORIGINAL WELLBORE - PROPOSAL #1	18,000.53	8,755.20	2,425.21	2,079.10	7.007	CC, ES
EXIST DD CRICKET C22-30D - Wellbore #1 - Wellbore #	4,044.27	3,267.72	1,972.06	1,936.70	55.771	CC
EXIST DD CRICKET C22-30D - Wellbore #1 - Wellbore #	4,100.00	3,299.23	1,972.47	1,936.15	54.313	ES
EXIST DD CRICKET C22-30D - Wellbore #1 - Wellbore #	8,000.00	6,842.08	2,243.46	2,164.62	28.455	SF
EXIST HZ STOCKLEY C22-79HN - Wellbore #1 - Wellbo	7,586.86	8,773.93	80.36	42.71	2.135	CC
EXIST HZ STOCKLEY C22-79HN - Wellbore #1 - Wellbo	7,600.00	8,773.37	81.55	40.15	1.970	ES
EXIST HZ STOCKLEY C22-79HN - Wellbore #1 - Wellbo	7,650.00	8,771.16	104.32	45.05	1.760	SF
EXIST VERT CHENOWETH #21-2 - Wellbore #1 - Desig	2,249.21	2,195.21	1,210.25	1,160.85	24.499	CC
EXIST VERT CHENOWETH #21-2 - Wellbore #1 - Desig	2,400.00	2,327.05	1,212.45	1,159.23	22.784	ES
EXIST VERT CHENOWETH #21-2 - Wellbore #1 - Desig	9,800.00	6,765.56	1,613.91	1,390.34	7.219	SF
EXIST VERT RYANN STATE C21-27 - Wellbore #1 - We	3,453.24	3,175.22	2,175.71	2,153.66	98.638	CC
EXIST VERT RYANN STATE C21-27 - Wellbore #1 - We	3,500.00	3,212.04	2,175.91	2,153.19	95.749	ES
EXIST VERT RYANN STATE C21-27 - Wellbore #1 - We	9,600.00	6,736.93	2,520.45	2,436.53	30.034	SF
EXIST VERT THOUTT #1 - Wellbore #1 - Wellbore #1	4,432.48	3,932.10	1,412.10	1,375.89	38.999	CC
EXIST VERT THOUTT #1 - Wellbore #1 - Wellbore #1	4,500.00	3,983.99	1,412.74	1,375.59	38.024	ES
EXIST VERT THOUTT #1 - Wellbore #1 - Wellbore #1	8,600.00	6,728.64	1,582.91	1,513.39	22.768	SF

Offset Design: SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE) - ABDN DD BALBOA C20-24D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 378-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance			Rule Assigned:		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	35.81	35.81	0.00	0.04	-118.92	-3,240.26	-5,865.25	6,700.78					
100.00	100.00	135.30	135.30	0.09	0.15	-118.92	-3,240.30	-5,865.24	6,700.79	6,700.55	0.24	N/A		
200.00	200.00	1,523.60	1,503.20	0.31	4.40	-117.79	-3,063.56	-5,812.52	6,691.53	6,687.20	4.33	1,544.563		
300.00	300.00	1,589.00	1,566.12	0.54	4.72	-117.68	-3,046.30	-5,808.08	6,672.85	6,668.11	4.74	1,407.541		
400.00	400.00	1,674.00	1,648.03	0.76	5.10	-117.53	-3,024.31	-5,802.39	6,654.56	6,649.32	5.24	1,269.845		
500.00	500.00	1,791.25	1,761.10	0.99	5.66	-117.33	-2,994.47	-5,793.79	6,635.94	6,630.04	5.90	1,124.816		
600.00	600.00	1,845.00	1,812.91	1.21	5.93	-117.24	-2,980.66	-5,790.21	6,617.85	6,611.53	6.32	1,046.571		
700.00	700.00	1,915.61	1,881.04	1.44	6.26	-117.11	-2,962.62	-5,785.85	6,600.33	6,593.51	6.82	968.149		
800.00	800.00	2,080.39	2,040.26	1.66	7.05	-116.84	-2,921.77	-5,774.30	6,582.52	6,574.83	7.68	856.745		
900.00	900.00	2,236.56	2,190.84	1.88	7.85	-116.58	-2,882.36	-5,761.78	6,563.59	6,555.05	8.54	768.281		
1,000.00	1,000.00	2,331.29	2,281.91	2.11	8.34	-116.41	-2,857.32	-5,754.40	6,544.44	6,535.27	9.16	714.074		
1,100.00	1,100.00	2,415.01	2,362.43	2.33	8.77	-116.26	-2,835.32	-5,747.98	6,525.53	6,515.79	9.74	669.974		
1,200.00	1,200.00	2,512.41	2,456.04	2.56	9.27	-116.08	-2,809.35	-5,740.85	6,506.79	6,496.41	10.38	626.875		
1,300.00	1,300.00	2,675.20	2,612.15	2.78	10.14	-115.77	-2,765.16	-5,727.66	6,486.97	6,475.65	11.31	573.411		
1,400.00	1,400.00	2,797.49	2,729.06	3.01	10.82	-115.53	-2,730.56	-5,718.17	6,467.26	6,455.16	12.10	534.662		
1,500.00	1,500.00	2,875.85	2,803.93	3.23	11.25	-115.37	-2,708.27	-5,712.01	6,447.43	6,434.75	12.68	508.367		
1,600.00	1,600.00	2,957.00	2,881.49	3.46	11.69	-115.20	-2,685.27	-5,705.65	6,427.78	6,414.49	13.28	483.947		
1,700.00	1,699.92	2,999.32	2,921.98	3.67	11.92	-115.20	-2,673.35	-5,702.54	6,411.61	6,397.92	13.69	468.323		

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