



# Crestone Peak Resources

Schlumberger

Plan 0

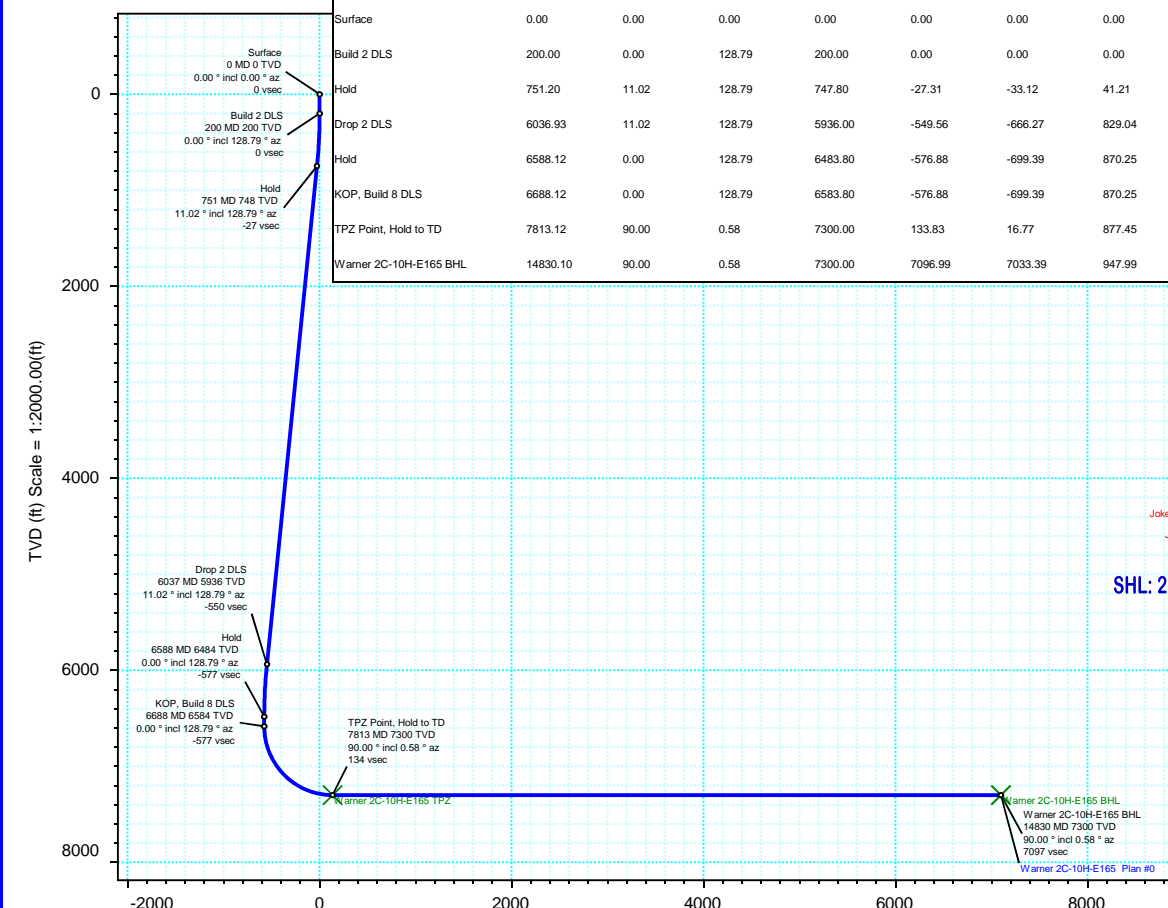
Borehole:	Well:	Field:	Structure:
Original Hole	Warner 2C-10H-E165	CO, Weld County (NAD 83 NZ) - 2019	Crestone Peak 10-1N-65W (Warner Pad)

Gravity & Magnetic Parameters					Surface Location				NAD83 Colorado State Plane, Northern Zone, US Feet				Miscellaneous			
Model:	HDGM 2021	Dip:	66.328°	Date:	29-Jul-2021	Lat:	N 40 4 2.11	Northing:	1268462.93ftUS	Grid Conv:	0.5438°	Slot:	Warner 2C-10H-E165	TVD Ref:	KB 13ft(4984ft above MSL)	
MagDec:	7.93°	FS:	51748.543nT	Gravity FS:	998.998mgm(9.80665 Based)	Lon:	W 104 39 30.08	Easting:	3235553.53ftUS	Scale Fact:	0.99996195	Plan:	Warner 2C-10H-E165	Plan #0		

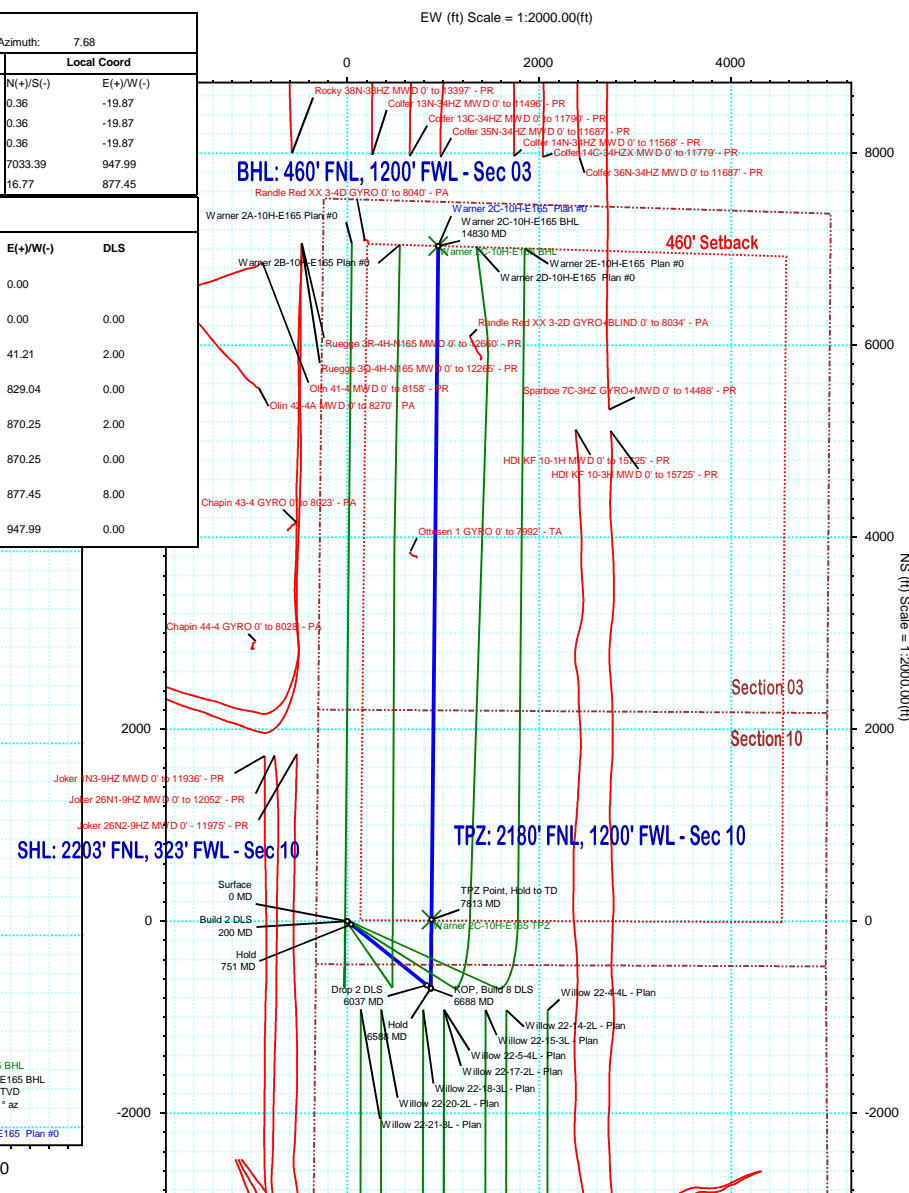
Proposal



True North  
Tot Corr (M->T 7.930°)  
Mag Dec (7.930°)  
Grid Conv (0.544°)



Surface Location									
Northing: 1268462.930717 55		Easting: 3235553.530472 74		Latitude: N 40 4 2.11		Longitude: W 104 39 30.08		VSec Azimuth: 7.68	
Target Description		Grid Coord					Local Coord		
Target Name	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)	
Warner Pad Sec 10 - Mid	N 40 4 2.11	W 104 39 30.34	1268463.11	3235533.66	4984.00	-2.29	0.36	-19.87	
Warner Pad Sec 10-03 - 460' SB	N 40 4 2.11	W 104 39 30.34	1268463.11	3235533.66	4984.00	-2.29	0.36	-19.87	
Warner Pad Sec 10-03	N 40 4 2.11	W 104 39 30.34	1268463.11	3235533.66	4984.00	-2.29	0.36	-19.87	
Warner 2C-10H-E165 BHL	N 40 5 11.61	W 104 39 17.88	1275504.72	3236434.69	7300.00	7096.99	7033.39	947.99	
Warner 2C-10H-E165 TPZ	N 40 4 2.27	W 104 39 18.80	1268488.03	3236430.75	7300.00	133.83	16.77	877.45	
Critical Points									
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS	
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Build 2 DLS	200.00	0.00	128.79	200.00	0.00	0.00	0.00	0.00	
Hold	751.20	11.02	128.79	747.80	-27.31	-33.12	41.21	2.00	
Drop 2 DLS	6036.93	11.02	128.79	5936.00	-549.56	-666.27	829.04	0.00	
Hold	6588.12	0.00	128.79	6483.80	-576.88	-699.39	870.25	2.00	
KOP, Build 8 DLS	6688.12	0.00	128.79	6583.80	-576.88	-699.39	870.25	0.00	
TPZ Point, Hold to TD	7813.12	90.00	0.58	7300.00	133.83	16.77	877.45	8.00	
Warner 2C-10H-E165 BHL	14830.10	90.00	0.58	7300.00	7096.99	7033.39	947.99	0.00	



Vertical Section (ft) Azim = 7.68° Scale = 1:2000.00(ft) Origin = 0N/-S, 0E/-W

## Warner 2C-10H-E165 Plan #0 Proposal Geodetic Report



(Def Plan)

**Report Date:** August 02, 2021 - 02:49 PM  
**Client:** Crestone Peak Resources  
**Field:** CO, Weld County (NAD 83 NZ) - 2019  
**Structure / Slot:** Crestone Peak 10-1N-65W (Warner Pad) / Warner 2C-10H-E165  
**Well:** Warner 2C-10H-E165  
**Borehole:** Original Hole  
**UWI / API#:** Unknown / Unknown  
**Survey Name:** Warner 2C-10H-E165 Plan #0  
**Survey Date:** July 29, 2021  
**Tort / AHD / DDI / ERD Ratio:** 112.048 ° / 8849.634 ft / 6.304 / 1.212  
**Coordinate Reference System:** NAD83 Colorado State Plane, Northern Zone, US Feet  
**Location Lat / Long:** N 40° 4' 2.10720", W 104° 39' 30.08160"  
**Location Grid N/E Y/X:** N 1268462.931 ftUS, E 3235553.530 ftUS  
**CRS Grid Convergence Angle:** 0.5438 °  
**Grid Scale Factor:** 0.99996195  
**Version / Patch:** 2.10.826.8

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 7.676 ° (True North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** KB 13ft  
**TVD Reference Elevation:** 4984.000 ft above MSL  
**Seabed / Ground Elevation:** 4971.000 ft above MSL  
**Magnetic Declination:** 7.930 °  
**Total Gravity Field Strength:** 998.9975mgn (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 51748.543 nT  
**Magnetic Dip Angle:** 66.328 °  
**Declination Date:** July 29, 2021  
**Magnetic Declination Model:** HDGM 2021  
**North Reference:** True North  
**Grid Convergence Used:** 0.0000 °  
**Total Corr Mag North->True North:** 7.9305 °  
**Local Coord Referenced To:** Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	
Surface	0.00	0.00	0.00	0.00	-4984.00	0.00	0.00	0.00	N/A	1268462.93	3235553.53	40.067252	-104.658356	
Build 2 DLS	100.00	0.00	128.79	100.00	-4884.00	0.00	0.00	0.00	0.00	1268462.93	3235553.53	40.067252	-104.658356	
	200.00	0.00	128.79	200.00	-4784.00	0.00	0.00	0.00	0.00	1268462.93	3235553.53	40.067252	-104.658356	
	300.00	2.00	128.79	299.98	-4684.02	-0.90	-1.09	1.36	2.00	1268461.85	3235554.90	40.067249	-104.658351	
	400.00	4.00	128.79	399.84	-4584.16	-3.61	-4.37	5.44	2.00	1268458.61	3235559.01	40.067240	-104.658337	
	500.00	6.00	128.79	499.45	-4484.55	-8.11	-9.83	12.23	2.00	1268453.22	3235565.86	40.067225	-104.658312	
Hold	600.00	8.00	128.79	598.70	-4385.30	-14.41	-17.46	21.73	2.00	1268445.67	3235575.43	40.067204	-104.658278	
	700.00	10.00	128.79	697.47	-4286.53	-22.49	-27.26	33.92	2.00	1268435.99	3235587.71	40.067177	-104.658235	
	751.20	11.02	128.79	747.80	-4236.20	-27.31	-33.12	41.21	2.00	1268430.21	3235595.05	40.067161	-104.658209	
	800.00	11.02	128.79	795.70	-4188.30	-32.14	-38.96	48.48	0.00	1268424.43	3235602.38	40.067145	-104.658183	
	900.00	11.02	128.79	893.86	-4090.14	-42.02	-50.94	63.38	0.00	1268412.60	3235617.39	40.067112	-104.658130	
	1000.00	11.02	128.79	992.01	-3991.99	-51.90	-62.92	78.29	0.00	1268400.76	3235632.41	40.067079	-104.658076	
	1100.00	11.02	128.79	1090.17	-3893.83	-61.78	-74.90	93.19	0.00	1268388.92	3235647.43	40.067046	-104.658023	
	1200.00	11.02	128.79	1188.32	-3795.68	-71.66	-86.88	108.10	0.00	1268377.09	3235662.45	40.067014	-104.657970	
	1300.00	11.02	128.79	1286.48	-3697.52	-81.54	-98.85	123.00	0.00	1268365.25	3235677.46	40.066981	-104.657917	
	1400.00	11.02	128.79	1384.63	-3599.37	-91.42	-110.83	137.91	0.00	1268353.42	3235692.48	40.066948	-104.657863	
	1500.00	11.02	128.79	1482.79	-3501.21	-101.30	-122.81	152.81	0.00	1268341.58	3235707.50	40.066915	-104.657810	
	1600.00	11.02	128.79	1580.94	-3403.06	-111.18	-134.79	167.72	0.00	1268329.74	3235722.51	40.066882	-104.657757	
	1700.00	11.02	128.79	1679.10	-3304.90	-121.06	-146.77	182.62	0.00	1268317.91	3235737.53	40.066849	-104.657704	
	1800.00	11.02	128.79	1777.25	-3206.75	-130.94	-158.75	197.53	0.00	1268306.07	3235752.55	40.066816	-104.657650	
	1900.00	11.02	128.79	1875.41	-3108.59	-140.82	-170.73	212.43	0.00	1268294.24	3235767.57	40.066783	-104.657597	
	2000.00	11.02	128.79	1973.56	-3010.44	-150.70	-182.71	227.34	0.00	1268282.40	3235782.58	40.066750	-104.657544	
	2100.00	11.02	128.79	2071.72	-2912.28	-160.58	-194.68	242.24	0.00	1268270.56	3235797.60	40.066718	-104.657491	
	2200.00	11.02	128.79	2169.87	-2814.13	-170.46	-206.66	257.15	0.00	1268258.73	3235812.62	40.066685	-104.657437	
	2300.00	11.02	128.79	2268.03	-2715.97	-180.34	-218.64	272.05	0.00	1268246.89	3235827.64	40.066652	-104.657384	
	2400.00	11.02	128.79	2366.18	-2617.82	-190.22	-230.62	286.96	0.00	1268235.05	3235842.65	40.066619	-104.657331	
	2500.00	11.02	128.79	2464.34	-2519.66	-200.10	-242.60	301.86	0.00	1268223.22	3235857.67	40.066586	-104.657277	
	2600.00	11.02	128.79	2562.49	-2421.51	-209.98	-254.58	316.77	0.00	1268211.38	3235872.69	40.066553	-104.657224	
	2700.00	11.02	128.79	2660.64	-2323.36	-219.86	-266.56	331.67	0.00	1268199.55	3235887.71	40.066520	-104.657171	
	2800.00	11.02	128.79	2758.80	-2225.20	-229.74	-278.53	346.58	0.00	1268187.71	3235902.72	40.066487	-104.657118	
	2900.00	11.02	128.79	2856.95	-2127.05	-239.62	-290.51	361.48	0.00	1268175.87	3235917.74	40.066455	-104.657064	
	3000.00	11.02	128.79	2955.11	-2028.89	-249.50	-302.49	376.39	0.00	1268164.04	3235932.76	40.066422	-104.657011	
	3100.00	11.02	128.79	3053.26	-1930.74	-259.38	-314.47	391.29	0.00	1268152.20	3235947.78	40.066389	-104.656958	
	3200.00	11.02	128.79	3151.42	-1832.58	-269.26	-326.45	406.20	0.00	1268140.36	3235962.79	40.066356	-104.656905	
	3300.00	11.02	128.79	3249.57	-1734.43	-279.14	-338.43	421.10	0.00	1268128.53	3235977.81	40.066323	-104.656851	
	3400.00	11.02	128.79	3347.73	-1636.27	-289.03	-350.41	436.01	0.00	1268116.69	3235992.83	40.066290	-104.656798	
	3500.00	11.02	128.79	3445.88	-1538.12	-298.91	-362.38	450.92	0.00	1268104.86	3236007.85	40.066257	-104.656745	
	3600.00	11.02	128.79	3544.04	-1439.96	-308.79	-374.36	465.82	0.00	1268093.02	3236022.86	40.066224	-104.656692	
	3700.00	11.02	128.79	3642.19	-1341.81	-318.67	-386.34	480.73	0.00	1268081.18	3236037.88	40.066191	-104.656638	
	3800.00	11.02	128.79	3740.35	-1243.65	-328.55	-398.32	495.63	0.00	1268069.35	3236052.90	40.066159	-104.656585	
	3900.00	11.02	128.79	3838.50	-1145.50	-338.43	-410.30	510.54	0.00	1268057.51	3236067.92	40.066126	-104.656532	
	4000.00	11.02	128.79	3936.66	-1047.34	-348.31	-422.28	525.44	0.00	1268045.68	3236082.93	40.066093	-104.656479	
	4100.00	11.02	128.79	4034.81	-949.19	-358.19	-434.26	540.35	0.00	1268033.84	3236097.95	40.066060	-104.656425	
	4200.00	11.02	128.79	4132.97	-851.03	-368.07	-446.24	555.25	0.00	1268022.00	3236112.97	40.066027	-104.656372	
	4300.00	11.02	128.79	4231.12	-752.88	-377.95	-458.21	570.16	0.00	1268010.17	3236127.99	40.065994	-104.656319	
	4400.00	11.02	128.79	4329.28	-654.72	-387.83	-470.19	585.06	0.00	1267998.33	3236143.00	40.065961	-104.656266	
	4500.00	11.02	128.79	4427.43	-556.57	-397.71	-482.17	599.97	0.00	1267986.49	3236158.02	40.065928	-104.656212	
	4600.00	11.02	128.79	4525.58	-458.42	-407.59	-494.15	614.87	0.00	1267974.66	3236173.04	40.065896	-104.656159	
	4700.00	11.02	128.79	4623.74	-360.26	-417.47	-506.13	629.78	0.00	1267962.82	3236188.06	40.065863	-104.656106	
	4800.00	11.02	128.79	4721.89	-262.11	-427.35	-518.11	644.68	0.00	1267950.99	3236203.07	40.065830	-104.656053	
	4900.00	11.02	128.79	4820.05	-163.95	-437.23	-530.09	659.59	0.00	1267939.15	3236218.09	40.065797	-104.655999	
	5000.00	11.02	128.79	4918.20	-65.80	-447.11	-542.06	674.49	0.00	1267927.31	3236233.11	40.065764	-104.655946	
	5100.00	11.02	128.79	5016.36	32.36	-456.99	-554.04	689.40	0.00	1267915.48	3236248.13	40.065731	-104.655893	
	5200.00	11.02	128.79	5114.51	130.51	-466.87	-566.02	704.30	0.00	1267903.64	3236263.14	40.065698	-104.655840	
	5300.00	11.02	128.79	5212.67	228.67	-476.75	-578.00	719.21	0.00	1267891.81	3236278.16	40.065665	-104.655786	
	5400.00	11.02	128.79	5310.82	326.82	-486.63	-589.98	734.11	0.00	1267879.97	3236293.18	40.065632	-104.655733	
	5500.00	11.02	128.79	5408.98	424.98	-496.51	-601.96	749.02	0.00	1267868.13	3236308.20	40.065600	-104.655680	
	5600.00	11.02	128.79	5507.13	523.13	-506.39	-613.94	763.92	0.00	1267856.30	3236323.21	40.065567	-104.655627	
	5700.00	11.02	128.79	5605.29	621.29	-516.27	-625.92	778.83	0.00	1267844.46	3236338.23	40.065534	-104.655573	
	5800.00	11.02	128.79	5703.44	719.44	-526.15	-637.89	793.73	0.00	1267832.62	3236353.25	40.065501	-104.655520	
	5900.00	11.02	128.79	5801.60	817.60	-536.03	-649.87	808.64	0.00	1267820.79	3236368.27	40.065468	-104.655467	
	6000.00	11.02	128.79	5899.75	915.75	-545.91	-661.85	823.54	0.00	1267808.95	3236383.28	40.065435	-104.655414	
	Drop 2 DLS	6036.93	11.02	128.79	5936.00	952.00	-549.56	-666.27	829.04	0.00	1267804.58	3236388.83	40.065403	-104.655394
		6100.00	9.76	128.79	5998.03	1014.03	-555.44	-673.40	837.91	2.00	1267797.54	3236397.76	40.065403	-104.655362
		6200.00	7.76	128.79	6096.86	1112.86	-563.31	-682.95	849.79	2.00	1267788.11	3236409.73	40.065377	-104.655320
6300.00		5.76	128.79	6196.16	1212.16	-569.40	-690.32	858.97	2.00	1267780.82	3236418.97	40.065357	-104.655287	
6400.00		3.76	128.79	6295.81	1311.81	-573.89	-696.52	865.44	2.00	1267775.78	3236428.49	40.065334	-104.655264	
Hold	6500.00	1.76	128.79	6395.69	1411.69	-577.88	-698.54	869.19	2.00	1267772.70	3236428.28	40.065343	-104.655251	
	6558.12	0.00	128.79	6499.80	1499.80	-576.88	-697.55	870.25	0.00	1267771.86	3236430.34	40.065342	-104.655247	
	6600.00	0.00	128.79	6495.68	1511.68	-576.88	-699.39	870.25	0.00	1267771.86	3236430.34	40.065332	-104.655247	
	6688.12	0.00	128.79	6583.80	1599.80	-576.88	-699.39	870.25	0.00	1267771.86	3236430.34	40.065332	-104.655247	
	6700.00	0.95	0.58	6595.67	1611.67	-576.78	-699.29	870.25	8.00	1267771.96	3236430.34	40.065332	-104.655247	

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	8100.00	90.00	0.58	7300.00	2316.00	418.50	303.63	880.33	0.00	1268774.89	3236430.91	40.068085	-104.655211
	8200.00	90.00	0.58	7300.00	2316.00	517.74	403.63	881.34	0.00	1268874.89	3236430.96	40.068360	-104.655207
	8300.00	90.00	0.58	7300.00	2316.00	616.97	503.62	882.34	0.00	1268974.88	3236431.02	40.068634	-104.655203
	8400.00	90.00	0.58	7300.00	2316.00	716.20	603.62	883.35	0.00	1269074.88	3236431.08	40.068909	-104.655200
	8500.00	90.00	0.58	7300.00	2316.00	815.44	703.61	884.36	0.00	1269174.88	3236431.13	40.069183	-104.655196
	8600.00	90.00	0.58	7300.00	2316.00	914.67	803.61	885.36	0.00	1269274.87	3236431.19	40.069458	-104.655193
	8700.00	90.00	0.58	7300.00	2316.00	1013.90	903.60	886.37	0.00	1269374.87	3236431.25	40.069732	-104.655189
	8800.00	90.00	0.58	7300.00	2316.00	1113.13	1003.60	887.37	0.00	1269474.86	3236431.30	40.070007	-104.655185
	8900.00	90.00	0.58	7300.00	2316.00	1212.37	1103.59	888.38	0.00	1269574.86	3236431.36	40.070281	-104.655182
	9000.00	90.00	0.58	7300.00	2316.00	1311.60	1203.59	889.38	0.00	1269674.86	3236431.41	40.070556	-104.655178
	9100.00	90.00	0.58	7300.00	2316.00	1410.83	1303.58	890.39	0.00	1269774.85	3236431.47	40.070830	-104.655175
	9200.00	90.00	0.58	7300.00	2316.00	1510.07	1403.58	891.39	0.00	1269874.85	3236431.53	40.071105	-104.655171
	9300.00	90.00	0.58	7300.00	2316.00	1609.30	1503.57	892.40	0.00	1269974.84	3236431.58	40.071379	-104.655167
	9400.00	90.00	0.58	7300.00	2316.00	1708.53	1603.57	893.40	0.00	1270074.84	3236431.64	40.071654	-104.655164
	9500.00	90.00	0.58	7300.00	2316.00	1807.77	1703.56	894.41	0.00	1270174.84	3236431.69	40.071928	-104.655160
	9600.00	90.00	0.58	7300.00	2316.00	1907.00	1803.56	895.41	0.00	1270274.83	3236431.75	40.072203	-104.655157
	9700.00	90.00	0.58	7300.00	2316.00	2006.23	1903.55	896.42	0.00	1270374.83	3236431.81	40.072477	-104.655153
	9800.00	90.00	0.58	7300.00	2316.00	2105.47	2003.55	897.42	0.00	1270474.82	3236431.86	40.072752	-104.655149
	9900.00	90.00	0.58	7300.00	2316.00	2204.70	2103.54	898.43	0.00	1270574.82	3236431.92	40.073026	-104.655146
	10000.00	90.00	0.58	7300.00	2316.00	2303.93	2203.54	899.44	0.00	1270674.82	3236431.98	40.073301	-104.655142
	10100.00	90.00	0.58	7300.00	2316.00	2403.17	2303.53	900.44	0.00	1270774.81	3236432.03	40.073575	-104.655139
	10200.00	90.00	0.58	7300.00	2316.00	2502.40	2403.53	901.45	0.00	1270874.81	3236432.09	40.073850	-104.655135
	10300.00	90.00	0.58	7300.00	2316.00	2601.63	2503.52	902.45	0.00	1270974.80	3236432.14	40.074124	-104.655131
	10400.00	90.00	0.58	7300.00	2316.00	2700.86	2603.52	903.46	0.00	1271074.80	3236432.20	40.074399	-104.655128
	10500.00	90.00	0.58	7300.00	2316.00	2800.10	2703.51	904.46	0.00	1271174.80	3236432.26	40.074673	-104.655124
	10600.00	90.00	0.58	7300.00	2316.00	2899.33	2803.51	905.47	0.00	1271274.79	3236432.31	40.074948	-104.655121
	10700.00	90.00	0.58	7300.00	2316.00	2998.56	2903.50	906.47	0.00	1271374.79	3236432.37	40.075222	-104.655117
	10800.00	90.00	0.58	7300.00	2316.00	3097.80	3003.50	907.48	0.00	1271474.78	3236432.43	40.075497	-104.655113
	10900.00	90.00	0.58	7300.00	2316.00	3197.03	3103.49	908.48	0.00	1271574.78	3236432.48	40.075771	-104.655110
	11000.00	90.00	0.58	7300.00	2316.00	3296.26	3203.49	909.49	0.00	1271674.78	3236432.54	40.076046	-104.655106
	11100.00	90.00	0.58	7300.00	2316.00	3395.50	3303.48	910.49	0.00	1271774.77	3236432.59	40.076320	-104.655103
	11200.00	90.00	0.58	7300.00	2316.00	3494.73	3403.48	911.50	0.00	1271874.77	3236432.65	40.076595	-104.655099
	11300.00	90.00	0.58	7300.00	2316.00	3593.96	3503.47	912.50	0.00	1271974.76	3236432.71	40.076869	-104.655095
	11400.00	90.00	0.58	7300.00	2316.00	3693.20	3603.46	913.51	0.00	1272074.76	3236432.76	40.077144	-104.655092
	11500.00	90.00	0.58	7300.00	2316.00	3792.43	3703.46	914.52	0.00	1272174.75	3236432.82	40.077418	-104.655088
	11600.00	90.00	0.58	7300.00	2316.00	3891.66	3803.45	915.52	0.00	1272274.75	3236432.88	40.077693	-104.655084
	11700.00	90.00	0.58	7300.00	2316.00	3990.90	3903.45	916.53	0.00	1272374.75	3236432.93	40.077967	-104.655081
	11800.00	90.00	0.58	7300.00	2316.00	4090.13	4003.44	917.53	0.00	1272474.74	3236432.99	40.078242	-104.655077
	11900.00	90.00	0.58	7300.00	2316.00	4189.36	4103.44	918.54	0.00	1272574.74	3236433.04	40.078516	-104.655074
	12000.00	90.00	0.58	7300.00	2316.00	4288.59	4203.43	919.54	0.00	1272674.73	3236433.10	40.078791	-104.655070
	12100.00	90.00	0.58	7300.00	2316.00	4387.83	4303.43	920.55	0.00	1272774.73	3236433.16	40.079065	-104.655066
	12200.00	90.00	0.58	7300.00	2316.00	4487.06	4403.42	921.55	0.00	1272874.73	3236433.21	40.079340	-104.655063
	12300.00	90.00	0.58	7300.00	2316.00	4586.29	4503.42	922.56	0.00	1272974.72	3236433.27	40.079614	-104.655059
	12400.00	90.00	0.58	7300.00	2316.00	4685.53	4603.41	923.56	0.00	1273074.72	3236433.32	40.079889	-104.655056
	12500.00	90.00	0.58	7300.00	2316.00	4784.76	4703.41	924.57	0.00	1273174.71	3236433.38	40.080163	-104.655052
	12600.00	90.00	0.58	7300.00	2316.00	4883.99	4803.40	925.57	0.00	1273274.71	3236433.44	40.080438	-104.655048
	12700.00	90.00	0.58	7300.00	2316.00	4983.23	4903.40	926.58	0.00	1273374.71	3236433.49	40.080712	-104.655045
	12800.00	90.00	0.58	7300.00	2316.00	5082.46	5003.39	927.58	0.00	1273474.70	3236433.55	40.080987	-104.655041
	12900.00	90.00	0.58	7300.00	2316.00	5181.69	5103.39	928.59	0.00	1273574.70	3236433.61	40.081261	-104.655038
	13000.00	90.00	0.58	7300.00	2316.00	5280.93	5203.38	929.60	0.00	1273674.69	3236433.66	40.081536	-104.655034
	13100.00	90.00	0.58	7300.00	2316.00	5380.16	5303.38	930.60	0.00	1273774.69	3236433.72	40.081810	-104.655030
	13200.00	90.00	0.58	7300.00	2316.00	5479.39	5403.37	931.61	0.00	1273874.69	3236433.77	40.082085	-104.655027
	13300.00	90.00	0.58	7300.00	2316.00	5578.63	5503.37	932.61	0.00	1273974.68	3236433.83	40.082359	-104.655023
	13400.00	90.00	0.58	7300.00	2316.00	5677.86	5603.36	933.62	0.00	1274074.68	3236433.89	40.082633	-104.655020
	13500.00	90.00	0.58	7300.00	2316.00	5777.09	5703.36	934.62	0.00	1274174.67	3236433.94	40.082908	-104.655016
	13600.00	90.00	0.58	7300.00	2316.00	5876.32	5803.35	935.63	0.00	1274274.67	3236434.00	40.083182	-104.655012
	13700.00	90.00	0.58	7300.00	2316.00	5975.56	5903.35	936.63	0.00	1274374.67	3236434.06	40.083457	-104.655009
	13800.00	90.00	0.58	7300.00	2316.00	6074.79	6003.34	937.64	0.00	1274474.66	3236434.11	40.083731	-104.655005
	13900.00	90.00	0.58	7300.00	2316.00	6174.02	6103.34	938.64	0.00	1274574.66	3236434.17	40.084006	-104.655002
	14000.00	90.00	0.58	7300.00	2316.00	6273.26	6203.33	939.65	0.00	1274674.65	3236434.22	40.084280	-104.654998
	14100.00	90.00	0.58	7300.00	2316.00	6372.49	6303.33	940.65	0.00	1274774.65	3236434.28	40.084555	-104.654994
	14200.00	90.00	0.58	7300.00	2316.00	6471.72	6403.32	941.66	0.00	1274874.65	3236434.34	40.084829	-104.654991
	14300.00	90.00	0.58	7300.00	2316.00	6570.96	6503.32	942.66	0.00	1274974.64	3236434.39	40.085104	-104.654987
	14400.00	90.00	0.58	7300.00	2316.00	6670.19	6603.31	943.67	0.00	1275074.64	3236434.45	40.085378	-104.654984
	14500.00	90.00	0.58	7300.00	2316.00	6769.42	6703.31	944.68	0.00	1275174.63	3236434.51	40.085653	-104.654980
	14600.00	90.00	0.58	7300.00	2316.00	6868.66	6803.30	945.68	0.00	1275274.63	3236434.56	40.085927	-104.654976
	14700.00	90.00	0.58	7300.00	2316.00	6967.89	6903.30	946.69	0.00	1275374.63	3236434.62	40.086202	-104.654973
	14800.00	90.00	0.58	7300.00	2316.00	7067.12	7003.29	947.69	0.00	1275474.62	3236434.67	40.086476	-104.654969
Warner 2C-10H-E165 BHL	14830.10	90.00	0.58	7300.00	2316.00	7096.99	7033.39	947.99	0.00	1275504.72	3236434.69	40.086559	-104.654968

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 \*\*\* 3-D 95.000% Confidence 2.7955 sigma  
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	13.000	1/100.000	13.500	9.625		NAL_MWD_PLUS_0.5_DEG- Depth Only	Original Hole / Warner 2C-10H-E165 Plan #0
	1	13.000	1800.000	1/100.000	13.500	9.625		NAL_MWD_PLUS_0.5_DEG	Original Hole / Warner 2C-10H-E165 Plan #0
	1	1800.000	14830.103	1/100.000	8.500	5.500		NAL_MWD_PLUS_0.5_DEG	Original Hole / Warner 2C-10H-E165 Plan #0

# Warner 2C-10H-E165 Plan #0 Anti-Collision Summary Report

**Analysis Date-24hr Time:** August 02, 2021 - 14:50  
**Client:** Crestone Peak Resources  
**Field:** CO, Weld County (NAD 83 NZ) - 2019  
**Structure:** Crestone Peak 10-1N-65W (Warner Pad)  
**Slot:** Warner 2C-10H-E165  
**Well:** Warner 2C-10H-E165  
**Borehole:** Original Hole  
**Scan MD Range:** 0.00ft - 14830.10ft

**Analysis Method:** 3D Least Distance  
**Reference Trajectory:** Warner 2C-10H-E165 Plan #0 (Def Plan)  
**Depth Interval:** Every 10.00 Measured Depth (ft)  
**Rule Set:** NAL Procedure: D&M AntiCollision Standard S002  
**Min Pts:** All local minima indicated.  
**Version / Patch:** 2.10.826.8  
**Database \ Project:** localhost\drilling-Colorado

**Trajectory Error Model:** ISCWSA0 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

## Offset Trajectories Summary

### Offset Selection Criteria

Wellhead distance scan: Not performed!  
 Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans  
 - All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		

Results highlighted: Sep-Factor separation <= 1.50 ft

Randle Red XX 3-2D  
 GYRO+BLIND 0' to 8034' - PA  
 (Def Survey)

Fail Minor

6008.78	32.81	6006.97	5975.97	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
6008.73	32.81	6006.91	5975.93	567911.18	MAS = 10.00 (m)	13.00	13.00					WRP
6008.72	32.81	6006.87	5975.91	159025.38	MAS = 10.00 (m)	30.00	30.00					MinPts
6008.81	32.81	6006.81	5976.00	31662.69	MAS = 10.00 (m)	90.00	90.00					MINPT-O-EOU
6008.97	32.81	6006.80	5976.16	16685.02	MAS = 10.00 (m)	130.00	130.00					MINPT-O-EOU
883.25	271.48	700.02	611.77	4.97	OSF1.50	13040.00	7300.00	OSF<5.00				Enter Alert
389.27	391.65	126.60	-2.39	1.49	OSF1.50	13700.00	7300.00		OSF<1.50			Enter Minor
362.20	395.44	97.51	-33.23	1.37	OSF1.50	13810.00	7300.00					MinPts
361.30	394.48	97.33	-33.14	1.37	OSF1.50	13820.00	7300.00					MINPT-O-EOU
360.24	390.02	99.38	-29.77	1.38	OSF1.50	13850.00	7300.00					MinPt-CtCt
367.39	372.12	118.78	-4.73	1.48	OSF1.50	13920.00	7300.00					Exit Minor
709.53	216.36	564.76	493.17	4.94	OSF1.50	14460.00	7300.00	OSF<5.00		OSF<1.50		Exit Alert
1044.85	191.56	916.61	853.30	8.24	OSF1.50	14830.10	7300.00					TD

Warner 2D-10H-E165 Plan #0  
 (Def Plan)

Warning Alert

10.08	8.25	9.09	1.82	N/A	MAS = 2.52 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert
10.08	8.25	9.09	1.82	N/A	MAS = 2.52 (m)	13.00	13.00					WRP
10.08	8.25	8.19	1.82	10.08	MAS = 2.52 (m)	200.00	200.00					MinPts
10.15	8.25	8.12	1.89	8.80	MAS = 2.52 (m)	280.00	279.99					MINPT-O-EOU
10.19	8.25	8.13	1.93	8.58	MAS = 2.52 (m)	300.00	299.98					MinPt-O-SF
30.40	12.67	21.62	17.73	3.78	OSF1.50	1250.00	1237.40					MinPt-O-SF
32.08	13.34	22.87	18.75	3.78	OSF1.50	1300.00	1286.48					MinPt-O-SF
49.01	20.11	35.27	28.89	3.77	OSF1.50	1800.00	1777.25					MinPt-O-SF
192.96	66.31	148.42	126.65	4.41	OSF1.50	6036.93	5936.00					MinPt-O-SF
219.13	66.52	174.46	152.61	4.99	OSF1.50	6380.00	6275.86	OSF<5.00				Exit Alert
465.78	140.61	371.71	325.17	4.99	OSF1.50	9810.00	7300.00	OSF<5.00				Enter Alert
423.75	419.83	143.53	3.92	1.51	OSF1.50	14820.00	7300.00					MinPt-CtCt
423.81	421.40	142.55	2.41	1.51	OSF1.50	14830.10	7300.00					MinPts

Warner 2B-10H-E165 Plan #0  
 (Def Plan)

Warning Alert

10.08	8.25	9.09	1.82	N/A	MAS = 2.52 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert
10.08	8.25	9.09	1.82	N/A	MAS = 2.52 (m)	13.00	13.00					WRP
10.08	8.25	8.19	1.82	10.08	MAS = 2.52 (m)	200.00	200.00					MinPts
10.09	8.25	8.16	1.84	9.84	MAS = 2.52 (m)	220.00	220.00					MINPT-O-EOU
10.45	8.25	8.45	2.20	9.32	MAS = 2.52 (m)	300.00	299.98					MinPt-O-SF
49.11	12.70	40.31	36.41	6.16	OSF1.50	1220.00	1207.95	CtCt<=15m<15.00				Exit Alert
80.85	21.30	66.32	59.55	5.90	OSF1.50	1800.00	1777.25					MinPt-O-SF
240.04	55.79	202.52	184.25	6.54	OSF1.50	4700.00	4623.74					MinPt-O-SF
472.41	142.76	376.91	329.65	4.99	OSF1.50	10250.00	7300.00	OSF<5.00				Enter Alert
456.26	390.82	195.38	65.43	1.75	OSF1.50	14830.10	7300.00					MinPts

Warner 2A-10H-E165 Plan #0  
 (Def Plan)

Warning Alert

19.88	16.09	18.89	3.78	N/A	MAS = 4.91 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert
19.88	16.09	18.89	3.78	N/A	MAS = 4.91 (m)	13.00	13.00					WRP
19.88	16.09	17.99	3.78	20.95	MAS = 4.91 (m)	200.00	200.00					MinPts
20.37	16.09	18.44	4.28	20.43	MAS = 4.91 (m)	260.00	260.00					MinPt-O-SF
48.17	16.09	45.03	32.08	21.93	MAS = 4.91 (m)	640.00	638.27	CtCt<=15m<15.00				Exit Alert
236.41	20.19	222.63	216.22	18.39	OSF1.50	1800.00	1777.25					MinPt-O-SF
602.00	43.40	572.75	558.61	21.26	OSF1.50	4030.00	3966.10					MinPt-O-SF
899.89	52.02	864.88	847.86	26.42	OSF1.50	6610.00	6505.68					MinPt-CtCt
910.26	35.45	886.30	874.81	39.57	OSF1.50	7670.00	7285.74					MinPt-O-SF
910.48	274.31	727.28	636.17	4.99	OSF1.50	12240.00	7300.00	OSF<5.00				Enter Alert
910.36	427.92	624.74	482.43	3.19	OSF1.50	14830.10	7300.00					MinPts

Warner 2E-10H-E165 Plan #0  
 (Def Plan)

Warning Alert

20.15	16.31	19.17	3.84	N/A	MAS = 4.97 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert
20.15	16.31	19.17	3.84	N/A	MAS = 4.97 (m)	13.00	13.00					WRP
20.15	16.31	18.27	3.84	21.26	MAS = 4.97 (m)	200.00	200.00					MinPts
20.21	16.31	18.22	3.89	19.21	MAS = 4.97 (m)	250.00	250.00					MINPT-O-EOU
20.59	16.31	18.50	4.28	17.59	MAS = 4.97 (m)	340.00	339.94					MinPt-O-SF
36.67	16.31	31.05	20.35	7.70	MAS = 4.97 (m)	890.00	884.04					MinPt-O-SF
48.81	16.31	41.92	32.50	8.10	MAS = 4.97 (m)	1030.00	1021.46	CtCt<=15m<15.00				Exit Alert
609.34	65.57	565.29	543.76	14.13	OSF1.50	6036.93	5936.00					MinPt-O-SF
926.23	278.83	740.02	647.40	5.00	OSF1.50	12230.00	7300.00	OSF<5.00				Enter Alert
926.47	430.43	639.19	496.04	3.23	OSF1.50	14830.10	7300.00					MinPts

Ottosen 1 GYRO 0' to 7992' -  
 TA (Def Survey)

Warning Alert

3850.27	32.81	3848.46	3817.46	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
3850.26	32.81	3848.44	3817.45	N/A	MAS = 10.00 (m)	10.00	10.00					MinPts
3850.26	32.81	3848.44	3817.45	N/A	MAS = 10.00 (m)	13.00	13.00					WRP
3850.21	32.81	3848.05	3817.40	11106.76	MAS = 10.00 (m)	120.00	120.00					MinPts
3850.37	32.81	3847.87	3817.56	5600.18	MAS = 10.00 (m)	200.00	200.00					MINPT-O-EOU
4497.18	49.56	4463.60	4447.61	140.61	OSF1.50	6100.00	5998.03					MinPt-O-SF

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	4531.42	49.56	4497.84	4481.86	141.68	OSF1.50	6630.00	6495.68				MinPt-O-SF	
	421.29	131.33	332.40	289.96	4.92	OSF1.50	11310.00	7300.00	OSF<5.00			Enter Alert	
	265.17	173.70	148.84	91.47	2.30	OSF1.50	11620.00	7300.00				MinPts	
	264.69	173.19	148.69	91.50	2.30	OSF1.50	11630.00	7300.00				MINPT-O-EOU	
	264.58	172.44	149.08	92.14	2.31	OSF1.50	11640.00	7300.00				MinPt-CtCt	
	365.42	113.35	289.32	252.07	4.88	OSF1.50	11890.00	7300.00	OSF>5.00			Exit Alert	
	3202.74	39.39	3175.94	3163.35	127.08	OSF1.50	14830.10	7300.00				TD	
Willow 22-17-2L - Plan (Def Plan)													Warning Alert
	7301.18	290.03	7107.22	7011.15	37.99	OSF1.50	0.00	0.00				Surface	
	7288.41	290.15	7094.37	6998.26	37.91	OSF1.50	13.00	13.00				WRP	
	945.87	288.70	752.32	657.17	4.95	OSF1.50	6370.00	6265.89	OSF<5.00			Enter Alert	
	422.82	300.26	219.05	122.56	2.14	OSF1.50	7030.00	6912.84				MinPt-O-SF	
	420.85	298.64	218.09	122.22	2.14	OSF1.50	7040.00	6921.69				MinPt-O-ADP	
	418.00	294.95	217.57	123.05	2.15	OSF1.50	7060.00	6939.19				MINPT-O-EOU	
	416.47	288.32	220.27	128.15	2.20	OSF1.50	7090.00	6964.92				MinPt-CtCt	
	600.55	191.52	468.22	409.03	4.96	OSF1.50	7440.00	7204.98	OSF>5.00			Exit Alert	
	7958.85	71.01	7909.23	7887.84	185.92	OSF1.50	14830.10	7300.00				TD	
	7322.38	285.98	7131.13	7036.40	38.64	OSF1.50	0.00	0.00				Surface	
	7309.56	286.08	7118.24	7023.48	38.56	OSF1.50	13.00	13.00				WRP	
	907.25	277.32	721.30	629.93	4.95	OSF1.50	6450.00	6345.73	OSF<5.00			Enter Alert	
	450.76	252.10	279.57	198.66	2.73	OSF1.50	7000.00	6885.91				MinPt-O-SF	
	437.28	242.17	272.42	195.11	2.76	OSF1.50	7040.00	6921.69				MinPt-O-ADP	
	431.96	235.51	271.39	196.46	2.81	OSF1.50	7063.12	6941.90				MINPT-O-EOU	
	427.10	220.26	276.36	206.84	2.99	OSF1.50	7110.00	6981.70	OSF>5.00			MinPt-CtCt	
	486.38	157.27	376.94	329.11	4.94	OSF1.50	7300.00	7123.91				Exit Alert	
	7958.14	66.20	7911.69	7891.94	201.26	OSF1.50	14830.10	7300.00				TD	
	7485.90	291.70	7290.83	7194.20	38.73	OSF1.50	0.00	0.00				Surface	
	7473.12	291.82	7277.97	7181.31	38.64	OSF1.50	13.00	13.00				WRP	
	951.55	289.44	757.53	662.11	4.97	OSF1.50	6550.00	6445.68	OSF<5.00			Enter Alert	
	535.26	285.00	342.11	250.25	2.86	OSF1.50	7090.00	6964.92				MinPt-O-SF	
	525.95	278.24	337.05	247.70	2.89	OSF1.50	7130.00	6998.17				MinPt-O-ADP	
	524.40	276.28	336.74	248.11	2.90	OSF1.50	7140.00	7006.29				MINPT-O-EOU	
	521.45	267.49	339.41	253.96	2.99	OSF1.50	7180.00	7037.91				MinPt-CtCt	
	617.84	195.65	482.81	422.20	4.98	OSF1.50	7438.12	7204.04	OSF>5.00			Exit Alert	
	7957.83	70.36	7908.51	7887.47	188.89	OSF1.50	14830.10	7300.00				TD	
	7236.54	280.54	7048.91	6955.99	38.93	OSF1.50	0.00	0.00				Surface	
	7223.66	280.62	7035.97	6943.04	38.85	OSF1.50	13.00	13.00				WRP	
	1248.50	378.58	995.50	869.91	4.96	OSF1.50	6150.00	6047.38	OSF<5.00			Enter Alert	
	648.75	596.97	248.43	51.77	1.63	OSF1.50	7080.00	6956.41				MinPts	
	648.73	596.87	248.44	51.86	1.63	OSF1.50	7090.00	6964.92				MinPt-CtCt	
	1159.28	360.67	914.93	798.61	4.93	OSF1.50	7900.00	7300.00	OSF>5.00			Exit Alert	
	7977.91	97.83	7910.43	7880.08	131.29	OSF1.50	14830.10	7300.00				TD	
	7418.23	304.98	7214.30	7113.24	36.69	OSF1.50	0.00	0.00				Surface	
	7405.58	305.14	7201.55	7100.44	36.61	OSF1.50	13.00	13.00				WRP	
	1336.59	402.85	1067.29	933.75	5.00	OSF1.50	6150.00	6047.38	OSF<5.00			Enter Alert	
	706.86	602.32	302.65	104.55	1.76	OSF1.50	7110.00	6981.70				MinPts	
	1210.83	373.42	957.76	837.41	4.98	OSF1.50	7940.00	7300.00	OSF>5.00			Exit Alert	
	7975.17	110.82	7898.98	7864.36	115.08	OSF1.50	14830.10	7300.00				TD	
Randie Red XX 3-4D GYRO 0' to 8040' - PA (Def Survey)													Warning Alert
	7061.62	32.81	7059.81	7028.81	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	7061.58	32.81	7059.76	7028.77	844739.17	MAS = 10.00 (m)	13.00	13.00				WRP	
	7061.49	32.81	7059.03	7028.68	10896.46	MAS = 10.00 (m)	190.00	190.00				MinPts	
	7061.50	32.81	7058.98	7028.69	9986.64	MAS = 10.00 (m)	210.00	210.00				MINPT-O-EOU	
	7062.54	32.81	7059.92	7029.73	8765.36	MAS = 10.00 (m)	300.00	299.98				MinPt-O-SF	
	7791.52	46.49	7760.00	7745.03	260.34	OSF1.50	6100.00	5998.03				MinPt-O-ADP	
	7812.70	45.48	7781.84	7767.21	267.02	OSF1.50	6670.00	6565.68				MINPT-O-EOU	
	7812.68	45.46	7781.84	7767.22	267.17	OSF1.50	6680.00	6575.68				Enter Alert	
	891.08	272.67	707.89	618.41	4.96	OSF1.50	14450.00	7300.00	OSF<5.00			MinPts	
	780.09	308.14	574.12	471.94	3.81	OSF1.50	14830.10	7300.00					
	7284.72	278.95	7098.14	7005.76	39.42	OSF1.50	0.00	0.00				Surface	
	7271.82	279.03	7085.20	6992.80	39.34	OSF1.50	13.00	13.00				WRP	
	1417.30	427.42	1131.81	989.88	4.99	OSF1.50	6120.00	6017.76	OSF<5.00			Enter Alert	
	843.57	643.34	412.81	200.23	1.97	OSF1.50	7120.00	6989.97				MinPts	
	1381.42	423.32	1095.55	958.10	4.99	OSF1.50	8040.00	7300.00	OSF>5.00			Exit Alert	
	7995.06	122.47	7911.15	7872.58	103.56	OSF1.50	14830.10	7300.00				TD	
Willow 22-21-3L - Plan (Def Plan)													Warning Alert
	7411.43	314.07	7201.45	7097.36	35.59	OSF1.50	0.00	0.00				Surface	
	7398.87	314.25	7188.76	7084.61	35.51	OSF1.50	13.00	13.00				WRP	
	1510.37	456.05	1205.67	1054.31	4.98	OSF1.50	6030.00	5929.20	OSF<5.00			Enter Alert	
	878.41	662.87	434.34	215.54	1.99	OSF1.50	7090.00	6964.92				MinPts	
	1428.63	436.89	1133.53	991.74	5.00	OSF1.50	8060.00	7300.00	OSF>5.00			Exit Alert	
	7993.20	136.74	7899.76	7856.46	92.22	OSF1.50	14830.10	7300.00				TD	
	7649.74	331.74	7427.98	7318.00	34.77	OSF1.50	0.00	0.00				Surface	
	7637.34	331.96	7415.43	7305.38	34.69	OSF1.50	13.00	13.00				WRP	
	1782.21	538.12	1422.93	1244.09	4.98	OSF1.50	6150.00	6047.38	OSF<5.00			Enter Alert	
	1302.40	689.29	841.26	613.11	2.84	OSF1.50	7160.00	7022.27				MinPt-CtCt	
	1302.50	689.46	841.23	613.05	2.84	OSF1.50	7170.00	7030.13				MinPts	
	1774.84	539.61	1411.74	1235.23	5.00	OSF1.50	8170.00	7300.00	OSF>5.00			Exit Alert	
	8043.88	191.32	7914.03	7852.57	65.38	OSF1.50	14830.10	7300.00				TD	
HDI KF 10-1H MWD 0' to 15725' - PR (Def Survey)													Warning Alert
	5030.02	32.81	5028.13	4997.21	61565.62	MAS = 10.00 (m)	0.00	0.00				Surface	

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
Coffer 35N-34HZ MWD 0' to 11687' - PR (Def Survey)	5030.00	32.81	5028.06	4997.19	41888.94	MAS = 10.00 (m)	13.00	13.00				WRP	
	2698.84	111.84	2623.74	2587.00	36.70	OSF1.50	5120.00	5035.99				MinPt-O-SF	
	1484.36	157.78	1377.82	1326.57	14.44	OSF1.50	8040.00	7300.00				MinPt-CtCt	
	1484.40	157.92	1377.77	1326.48	14.43	OSF1.50	8060.00	7300.00				MINPT-O-EOU	
	1484.46	157.99	1377.78	1326.48	14.43	OSF1.50	8070.00	7300.00				MinPt-O-ADP	
	1483.02	182.75	1359.83	1300.27	12.41	OSF1.50	8490.00	7300.00				MinPts	
	1525.22	217.21	1379.04	1308.01	10.71	OSF1.50	9190.00	7300.00				MINPT-O-EOU	
	1529.47	221.97	1380.11	1307.50	10.50	OSF1.50	9290.00	7300.00				MinPt-O-ADP	
	1540.48	234.02	1383.10	1306.47	10.02	OSF1.50	9500.00	7300.00				MinPt-O-ADP	
	1478.90	310.74	1270.41	1168.16	7.21	OSF1.50	10520.00	7300.00				MinPt-O-SF	
	1478.28	310.54	1269.91	1167.74	7.21	OSF1.50	10560.00	7300.00				MinPt-O-ADP	
	1478.24	310.48	1269.91	1167.77	7.22	OSF1.50	10570.00	7300.00				MinPts	
	1534.04	376.37	1281.79	1157.67	6.16	OSF1.50	11610.00	7300.00				MinPt-CtCt	
	1491.95	450.32	1190.47	1041.63	5.00	OSF1.50	12550.00	7300.00	OSF<5.00			Enter Alert	
	1464.58	464.88	1153.35	999.71	4.73	OSF1.50	12850.00	7300.00				MinPt-O-SF	
	1462.93	464.05	1152.23	998.88	4.76	OSF1.50	12890.00	7300.00				MinPt-O-ADP	
	1462.69	463.79	1152.16	998.90	4.76	OSF1.50	12900.00	7300.00				MINPT-O-EOU	
	1462.38	462.91	1152.42	999.47	4.77	OSF1.50	12930.00	7300.00				MinPt-CtCt	
	1483.54	448.93	1182.79	1034.60	4.99	OSF1.50	13180.00	7300.00	OSF<5.00			Exit Alert	
	2397.42	269.60	2216.55	2127.82	13.49	OSF1.50	14830.10	7300.00				TD	
	Coffer 35N-34HZ MWD 0' to 11687' - PR (Def Survey)												
10726.22	79.30	10672.75	10646.92	207.60	OSF1.50	0.00	0.00				Surface		
10717.59	79.40	10664.05	10638.19	207.18	OSF1.50	13.00	13.00				WRP		
10384.13	77.68	10331.74	10306.45	205.28	OSF1.50	540.00	539.20				MinPt-O-SF		
8707.90	65.55	8662.52	8642.34	215.72	OSF1.50	6036.93	5936.00				MinPt-O-SF		
8706.57	65.57	8661.17	8641.00	215.69	OSF1.50	6100.00	5998.03				MinPt-O-SF		
8681.73	64.34	8637.10	8617.39	220.06	OSF1.50	6600.00	6495.68				MinPt-O-SF		
942.35	78.78	885.53	863.57	21.16	OSF1.50	14830.10	7300.00				MinPts		
Coffer 13C-34HZ MWD 0' to 11790' - PR (Def Survey)													Pass
10817.37	72.35	10768.54	10745.03	230.01	OSF1.50	0.00	0.00				Surface		
10808.62	72.44	10759.73	10736.18	229.51	OSF1.50	13.00	13.00				WRP		
10663.90	71.55	10615.59	10592.35	229.33	OSF1.50	230.00	230.00				MinPt-O-SF		
8740.41	55.43	8701.80	8684.97	259.59	OSF1.50	6100.00	5998.03				MinPt-O-SF		
982.03	151.66	876.74	830.37	10.45	OSF1.50	14830.10	7300.00				MinPts		
Coffer 13N-34HZ MWD 0' to 11496' - PR (Def Survey)													Pass
10668.52	65.35	10624.34	10603.16	251.80	OSF1.50	0.00	0.00				Surface		
10659.90	65.45	10615.66	10594.45	251.23	OSF1.50	13.00	13.00				MinPt-O-SF		
8741.46	54.81	8703.25	8686.66	263.20	OSF1.50	6030.00	5929.20				MinPt-CtCt		
8741.25	55.06	8702.87	8686.19	261.98	OSF1.50	6100.00	5998.03				MinPt-O-SF		
1193.39	255.14	1019.89	938.25	7.25	OSF1.50	14830.10	7300.00				MinPts		
Coffer 14N-34HZ MWD 0' to 11568' - PR (Def Survey)													Pass
10789.71	74.22	10739.63	10715.50	223.49	OSF1.50	0.00	0.00				Surface		
10781.21	74.30	10731.07	10706.91	223.06	OSF1.50	13.00	13.00				WRP		
10647.01	73.43	10697.45	10673.57	222.95	OSF1.50	220.00	220.00				MinPt-O-SF		
8754.16	57.93	8713.70	8696.23	250.30	OSF1.50	6100.00	5998.03				MinPt-O-SF		
7925.57	52.90	7888.04	7872.67	257.63	OSF1.50	7890.00	7300.00				MinPt-O-SF		
1246.34	232.32	1087.71	1014.02	8.38	OSF1.50	14830.10	7300.00				MinPts		
Ruegge 3R-4H-N165 MWD 0' to 12660' - PR (Def Survey)													Pass
4424.50	32.81	4412.70	4391.69	442.95	MAS = 10.00 (m)	0.00	0.00				Surface		
4419.01	32.81	4407.00	4386.21	433.17	MAS = 10.00 (m)	13.00	13.00				WRP		
1411.66	143.11	1314.97	1268.55	15.16	OSF1.50	10560.00	7300.00				MinPt-CtCt		
1412.27	145.01	1314.33	1267.26	14.96	OSF1.50	10620.00	7300.00				MINPT-O-EOU		
1413.04	145.95	1314.49	1267.10	14.87	OSF1.50	10650.00	7300.00				MinPt-O-ADP		
1407.17	246.96	1241.25	1160.22	8.66	OSF1.50	12580.00	7300.00				MinPt-CtCt		
1412.85	263.24	1236.11	1149.61	8.15	OSF1.50	12910.00	7300.00				MINPT-O-EOU		
1417.51	270.87	1235.68	1146.64	7.94	OSF1.50	13040.00	7300.00				MINPT-O-EOU		
1422.17	318.30	1208.69	1103.87	6.77	OSF1.50	13730.00	7300.00				MinPt-CtCt		
1421.81	389.38	1160.94	1032.43	5.52	OSF1.50	14830.10	7300.00				MinPts		
Joker 26N2-9HZ MWD 0' - 11975' - PR (Def Survey)													Pass
2717.62	32.81	2715.81	2684.81	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
2717.61	32.81	2715.79	2684.80	371944.92	MAS = 10.00 (m)	13.00	13.00				WRP		
2709.68	32.81	2703.20	2676.88	580.31	MAS = 10.00 (m)	920.00	913.49				MinPts		
2710.27	32.81	2702.83	2677.46	481.36	MAS = 10.00 (m)	1040.00	1031.28				MINPT-O-EOU		
1422.98	115.87	1345.19	1307.10	18.66	OSF1.50	7180.00	7037.91				MinPt-CtCt		
1423.23	116.51	1345.02	1306.71	18.56	OSF1.50	7210.00	7060.70				MINPT-O-EOU		
1423.41	116.73	1345.05	1306.68	18.53	OSF1.50	7220.00	7068.12				MinPt-O-ADP		
1436.85	125.28	1352.80	1311.58	17.41	OSF1.50	7450.00	7209.90				MinPt-O-ADP		
1446.71	134.17	1356.73	1312.54	16.35	OSF1.50	7610.00	7271.39				MINPT-O-EOU		
1448.05	163.37	1338.60	1284.68	13.41	OSF1.50	8190.00	7300.00				MinPt-CtCt		
1446.33	178.54	1326.77	1267.79	12.25	OSF1.50	8470.00	7300.00				MinPt-CtCt		
1434.94	240.85	1273.83	1194.08	8.99	OSF1.50	9510.00	7300.00				MinPts		
1434.88	240.77	1273.83	1194.11	8.99	OSF1.50	9520.00	7300.00				MinPts		
5496.89	71.20	5448.89	5425.69	118.44	OSF1.50	14830.10	7300.00				TD		
Coffer 14C-34HZX MWD 0' to 11779' - PR (Def Survey)													Pass
10967.93	80.36	10913.75	10887.57	209.41	OSF1.50	0.00	0.00				Surface		
10959.33	80.45	10905.09	10878.87	209.01	OSF1.50	13.00	13.00				WRP		
10654.69	78.84	10601.53	10575.85	207.45	OSF1.50	490.00	489.50				MinPt-O-SF		
8811.45	63.99	8766.98	8747.46	225.65	OSF1.50	6036.93	5936.00				MinPt-O-SF		
8808.08	63.98	8763.60	8744.10	225.68	OSF1.50	6100.00	5998.03				MinPt-O-SF		
1430.60	286.99	1235.88	1143.61	7.70	OSF1.50	14830.10	7300.00				MinPts		
Ruegge 3Q-4H-N165 MWD 0' to 12265' - PR (Def Survey)													Pass
4497.44	32.81	4495.63	4464.63	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
4497.33	32.81	4495.48	4464.52	134956.25	MAS = 10.00 (m)	13.00	13.00				MinPt-O-SF		
4497.20	32.81	4495.31	4464.40	54688.33	MAS = 10.00 (m)	50.00	50.00				MinPts		
3328.45	123.29	3245.46	3205.19	41.30	OSF1.50	5990.00	5889.94				MinPt-CtCt		
3328.58	123.60	3245.34	3204.98	41.20	OSF1.50	6020.00	5919.38				MINPT-O-EOU		
3328.66	123.70	3245.36	3204.96	41.17	OSF1.50	6030.00	5929.20				MinPt-O-ADP		
3329.30	124.28	3245.61	3205.02	40.98	OSF1.50	6100.00	5998.03				MinPt-O-ADP		
3323.63	127.72	3237.63	3195.91	39.80	OSF1.50	6680.00	6575.68				MinPt-CtCt		

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	1440.61	137.47	1347.75	1303.14	16.11	OSF1.50	10630.00	7300.00				MinPt-CtCt	
	1440.90	138.31	1347.59	1302.59	16.00	OSF1.50	10660.00	7300.00				MinPt-O-EOU	
	1441.36	138.87	1347.60	1302.49	15.94	OSF1.50	10680.00	7300.00				MinPt-O-ADP	
	1466.01	203.38	1329.20	1262.63	10.98	OSF1.50	11970.00	7300.00				MinPt-CtCt	
	1454.95	270.49	1273.40	1184.46	8.16	OSF1.50	13120.00	7300.00				MinPt-CtCt	
	1444.77	377.39	1191.95	1067.38	5.78	OSF1.50	14830.10	7300.00				MinPts	
Chapin 43-4 GYRO 0' to 8023' - PA (Def Survey)													Pass
	4111.72	32.81	4109.91	4078.91	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	4111.66	32.81	4109.83	4078.85	286334.19	MAS = 10.00 (m)	13.00	13.00				WRP	
	4111.39	32.81	4108.76	4078.58	5031.40	MAS = 10.00 (m)	210.00	210.00				MinPts	
	4111.40	32.81	4108.74	4078.59	4883.32	MAS = 10.00 (m)	220.00	220.00				MINPT-O-EOU	
	4112.91	32.81	4110.03	4080.10	3849.03	MAS = 10.00 (m)	320.00	319.96				MinPt-O-SF	
	5000.12	44.56	4969.87	4955.55	174.53	OSF1.50	6036.93	5936.00				MinPt-O-SF	
	5008.68	44.63	4978.39	4964.04	174.54	OSF1.50	6100.00	5998.03				MinPt-O-SF	
	5032.72	43.14	5003.42	4989.57	181.68	OSF1.50	6630.00	6525.68				MinPt-O-ADP	
	5032.70	43.12	5003.42	4989.58	181.79	OSF1.50	6640.00	6535.68				MINPT-O-EOU	
	5032.69	43.09	5003.43	4989.60	181.89	OSF1.50	6650.00	6545.68				MinPt-CtCt	
	1461.35	184.47	1337.84	1276.88	11.97	OSF1.50	11930.00	7300.00				MinPt-CtCt	
	1461.53	184.87	1337.75	1276.66	11.95	OSF1.50	11950.00	7300.00				MinPts	
	1466.51	186.37	1341.72	1280.14	11.88	OSF1.50	12050.00	7300.00				MinPt-O-SF	
	3249.80	115.63	3172.18	3134.17	42.73	OSF1.50	14830.10	7300.00				TD	
Joker 26N1-9HZ MWD 0' to 12052' - PR (Def Survey)													Pass
	2728.48	32.81	2726.67	2695.68	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2728.47	32.81	2726.65	2695.66	205801.42	MAS = 10.00 (m)	13.00	13.00				WRP	
	2728.14	32.81	2725.83	2695.33	5510.00	MAS = 10.00 (m)	140.00	140.00				MinPts	
	2728.28	32.81	2725.66	2695.47	3410.05	MAS = 10.00 (m)	200.00	200.00				MINPT-O-EOU	
	2728.42	32.81	2725.49	2695.61	2442.12	MAS = 10.00 (m)	310.00	309.97				MinPts	
	2728.48	32.81	2725.43	2695.67	2207.71	MAS = 10.00 (m)	370.00	369.90				MINPT-O-EOU	
	2728.63	32.81	2725.45	2695.83	1984.34	MAS = 10.00 (m)	420.00	419.78				MINPT-O-EOU	
	2729.50	32.81	2724.40	2696.69	829.26	MAS = 10.00 (m)	770.00	766.26				MinPts	
	2729.74	32.81	2724.13	2696.93	718.15	MAS = 10.00 (m)	840.00	834.97				MINPT-O-EOU	
	1609.80	122.28	1527.74	1487.52	19.99	OSF1.50	7360.00	7161.37				MinPt-CtCt	
	1611.93	184.26	1488.55	1427.67	13.22	OSF1.50	8580.00	7300.00				MinPt-CtCt	
	1617.34	207.74	1478.30	1409.59	11.76	OSF1.50	9020.00	7300.00				MINPT-O-EOU	
	1619.31	210.12	1478.70	1409.19	11.64	OSF1.50	9080.00	7300.00				MinPt-O-ADP	
	1621.96	212.68	1479.64	1409.28	11.51	OSF1.50	9140.00	7300.00				MinPt-O-ADP	
	1670.35	239.54	1510.12	1430.81	10.52	OSF1.50	9700.00	7300.00				MinPt-O-SF	
	5577.35	88.21	5518.02	5489.15	96.57	OSF1.50	14830.10	7300.00				TD	
Joker 1N3-9HZ MWD 0' to 11936' - PR (Def Survey)													Pass
	2742.14	32.81	2740.33	2709.33	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	
	2742.15	32.81	2740.33	2709.34	745941.43	MAS = 10.00 (m)	13.00	13.00				WRP	
	2742.29	32.81	2740.24	2709.48	11817.83	MAS = 10.00 (m)	90.00	90.00				MINPT-O-EOU	
	2742.45	32.81	2740.20	2709.64	6371.80	MAS = 10.00 (m)	130.00	130.00				MINPT-O-EOU	
	2743.65	32.81	2740.63	2710.85	2252.80	MAS = 10.00 (m)	340.00	339.94				MINPT-O-EOU	
	1713.33	115.69	1635.67	1597.64	22.51	OSF1.50	7160.00	7022.27				MinPt-CtCt	
	1713.43	115.92	1635.62	1597.52	22.46	OSF1.50	7180.00	7037.91				MINPT-O-EOU	
	1713.55	116.04	1635.66	1597.51	22.44	OSF1.50	7190.00	7045.60				MinPt-O-ADP	
	1755.49	165.08	1644.90	1590.41	16.09	OSF1.50	8340.00	7300.00				MINPT-O-EOU	
	1773.27	217.95	1627.43	1555.32	12.28	OSF1.50	9180.00	7300.00				MinPt-CtCt	
	1779.59	237.97	1620.41	1541.62	11.28	OSF1.50	9550.00	7300.00				MinPts	
	5619.61	96.00	5555.08	5523.61	89.27	OSF1.50	14830.10	7300.00				TD	
Coffer 36N-34HZ MWD 0' to 11687' - PR (Def Survey)													Pass
	10908.33	91.35	10846.82	10816.98	182.72	OSF1.50	0.00	0.00				Surface	
	10899.91	91.44	10838.34	10808.47	182.39	OSF1.50	13.00	13.00				WRP	
	9933.20	86.01	9875.18	9847.19	177.39	OSF1.50	1800.00	1777.25				MinPt-O-SF	
	8835.15	80.47	8779.70	8754.68	176.48	OSF1.50	6036.93	5936.00				MinPt-O-SF	
	1750.57	328.11	1529.04	1422.46	8.17	OSF1.50	14830.10	7300.00				MinPts	
Sparboe 7C-3HZ GYRO+MWD 0' to 14488' - PR (Def Survey)													Pass
	9413.82	155.33	9309.66	9258.48	91.96	OSF1.50	0.00	0.00				Surface	
	9403.79	155.41	9299.58	9248.38	91.82	OSF1.50	13.00	13.00				WRP	
	7508.11	138.92	7414.23	7369.19	83.31	OSF1.50	2930.00	2886.40				MinPt-O-SF	
	1800.29	443.50	1503.35	1356.79	6.13	OSF1.50	13050.00	7300.00				MinPt-O-SF	
	1794.19	441.52	1498.60	1352.67	6.13	OSF1.50	13170.00	7300.00				MinPt-O-SF	
	1769.98	431.44	1481.17	1338.54	6.19	OSF1.50	13800.00	7300.00				MinPt-O-SF	
	1765.02	430.35	1477.06	1334.67	6.19	OSF1.50	14090.00	7300.00				MinPts	
	1765.02	430.34	1477.07	1334.67	6.19	OSF1.50	14100.00	7300.00				MinPts	
	1764.49	427.31	1478.56	1337.18	6.23	OSF1.50	14360.00	7300.00				MinPt-CtCt	
	1764.78	425.56	1480.02	1339.22	6.26	OSF1.50	14550.00	7300.00				MinPt-CtCt	
	1764.79	425.59	1480.01	1339.20	6.26	OSF1.50	14560.00	7300.00				MINPT-O-EOU	
	1764.85	425.66	1480.03	1339.19	6.25	OSF1.50	14580.00	7300.00				MinPt-O-ADP	
	1765.18	425.84	1480.27	1339.34	6.25	OSF1.50	14630.00	7300.00				MinPt-O-SF	
	1765.09	423.21	1481.88	1341.89	6.29	OSF1.50	14830.10	7300.00				MinPts	
Rocky 38N-33HZ MWD 0' to 13397' - PR (Def Survey)													Pass
	10752.56	76.70	10700.82	10675.85	215.33	OSF1.50	0.00	0.00				Surface	
	10743.90	76.73	10692.14	10667.17	215.07	OSF1.50	13.00	13.00				MinPt-O-SF	
	8865.00	60.05	8823.14	8804.94	243.41	OSF1.50	5990.00	5889.94				MinPt-CtCt	
	1809.99	349.80	1574.31	1460.20	7.90	OSF1.50	14830.10	7300.00				MinPts	
HDI KF 10-3H MWD 0' to 15725' - PR (Def Survey)													Pass
	5042.99	32.81	5041.12	5010.18	88509.14	MAS = 10.00 (m)	0.00	0.00				MinPts	
	5043.00	32.81	5041.10	5010.19	60406.78	MAS = 10.00 (m)	13.00	13.00				WRP	
	5043.26	32.81	5040.66	5010.45	6430.24	MAS = 10.00 (m)	180.00	180.00				MinPt-O-SF	
	1892.88	128.18	1806.19	1764.70	22.77	OSF1.50	7210.00	7060.70				MinPt-O-SF	
	1881.65	126.58	1795.97	1755.07	22.96	OSF1.50	7410.00	7189.51				MinPt-O-ADP	
	1881.56	126.49	1795.94	1755.07	22.97	OSF1.50	7420.00	7194.78				MINPT-O-EOU	
	1881.52	126.33	1796.00	1755.20	23.01	OSF1.50	7438.12	7204.04				MinPt-CtCt	
	1884.56	136.33	1792.38	1748.24	21.30	OSF1.50	7640.00	7279.17				MINPT-O-EOU	
	1885.20	137.11	1792.50	1748.09	21.18	OSF1.50	7680.00	7287.66				MinPt-O-ADP	
	1888.98	143.97	1791.71	1745.02	20.19	OSF1.50	7830.00	7300.00				MinPts	
	1889.20	144.07	1791.85	1745.13	20.19	OSF1.50	7840.00	7300.00				MinPt-O-SF	
	1844.87	210.92	1702.96	1633.95	13.34	OSF1.50	8950.00	7300.00				MinPt-CtCt	
	1845.06	211.47	1702.77	1633.58	13.31	OSF1.50	8990.00	7300.00				MINPT-O-EOU	
	1845.17	211.61	1702.78	1633.56	13.30	OSF1.50	9000.00	7300.00				MinPt-O-ADP	



Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	1852.38	227.98	1899.08	1624.40	12.38	OSF1.50	9290.00	7300.00				MINPT-O-EOU	
	1853.93	229.88	1899.36	1624.05	12.28	OSF1.50	9350.00	7300.00				MinPt-O-ADP	
	1824.55	313.88	1614.00	1510.68	8.81	OSF1.50	10590.00	7300.00				MinPt-CtCt	
	1824.86	314.90	1613.61	1509.96	8.78	OSF1.50	10640.00	7300.00				MINPT-O-EOU	
	1825.19	315.30	1613.67	1509.89	8.77	OSF1.50	10660.00	7300.00				MinPt-O-ADP	
	1816.86	417.29	1537.36	1399.57	6.58	OSF1.50	12180.00	7300.00				MinPt-CtCt	
	1818.51	421.90	1535.92	1396.62	6.51	OSF1.50	12310.00	7300.00				MINPT-O-EOU	
	1820.71	424.55	1536.33	1396.15	6.48	OSF1.50	12380.00	7300.00				MinPt-O-ADP	
	1814.74	466.72	1502.31	1348.02	5.87	OSF1.50	12870.00	7300.00				MinPt-O-SF	
	1814.11	466.48	1501.83	1347.63	5.87	OSF1.50	12900.00	7300.00				MinPt-O-ADP	
	1814.02	466.38	1501.79	1347.64	5.87	OSF1.50	12910.00	7300.00				MINPT-O-EOU	
	1813.97	466.26	1501.82	1347.71	5.87	OSF1.50	12920.00	7300.00				MinPt-CtCt	
	2632.21	321.64	2416.57	2310.57	12.40	OSF1.50	14830.10	7300.00				TD	

Olin 41-4 MWD 0' to 8158' - PR  
(Def Survey)

Pass

6771.79	32.81	6769.98	6738.98	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
6771.70	32.81	6769.85	6738.89	229508.83	MAS = 10.00 (m)	13.00	13.00					MinPt-O-SF	
6771.55	32.81	6769.64	6738.75	64833.95	MAS = 10.00 (m)	60.00	60.00					MinPts	
6771.67	32.81	6769.17	6738.86	9861.30	MAS = 10.00 (m)	200.00	200.00					MINPT-O-EOU	
6993.78	32.81	6982.89	6960.97	753.31	MAS = 10.00 (m)	1800.00	1777.25					MinPt-O-SF	
7001.86	32.81	6990.96	6969.05	753.27	MAS = 10.00 (m)	1850.00	1826.33					MinPt-O-SF	
7615.46	46.71	7583.79	7568.75	253.21	OSF1.50	5710.00	5615.10					MinPts	
7715.67	52.80	7679.94	7662.87	226.02	OSF1.50	6400.00	6295.81					MinPt-O-SF	
7718.44	55.58	7680.85	7662.86	214.46	OSF1.50	6430.00	6325.76					MinPts	
7726.36	57.50	7687.50	7668.86	207.30	OSF1.50	6570.00	6465.68					MinPts	
7727.61	58.67	7687.96	7668.94	203.07	OSF1.50	6610.00	6505.68					MinPts	
1852.78	300.25	1651.87	1552.53	9.31	OSF1.50	14630.00	7300.00					MinPt-CtCt	
1852.91	300.62	1651.78	1552.29	9.30	OSF1.50	14650.00	7300.00					MINPT-O-EOU	
1853.06	300.79	1651.82	1552.26	9.30	OSF1.50	14660.00	7300.00					MinPt-O-ADP	
1857.48	302.06	1655.52	1555.42	9.27	OSF1.50	14760.00	7300.00					MinPt-O-SF	
1863.77	302.54	1661.54	1561.23	9.28	OSF1.50	14830.10	7300.00					TD	

Chapin 44-4 GYRO 0' to 8028' - PA  
(Def Survey)

Pass

3003.59	32.81	3001.77	2970.78	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
3003.51	32.81	3001.68	2970.70	165495.93	MAS = 10.00 (m)	13.00	13.00					MinPt-O-SF	
3002.04	32.81	2999.38	2969.23	3516.72	MAS = 10.00 (m)	220.00	220.00					MinPts	
3002.06	32.81	2999.37	2969.25	3433.18	MAS = 10.00 (m)	230.00	230.00					MINPT-O-EOU	
4008.36	41.02	3980.48	3967.34	152.47	OSF1.50	6100.00	5998.03					MinPt-O-SF	
4016.40	41.09	3988.47	3975.31	152.51	OSF1.50	6150.00	6047.38					MinPt-O-SF	
4018.40	39.17	3991.75	3979.22	160.38	OSF1.50	6890.00	6783.01					MinPt-O-SF	
1866.95	132.48	1778.09	1734.47	21.38	OSF1.50	10680.00	7300.00					MinPt-CtCt	
1867.16	133.20	1777.82	1733.95	21.26	OSF1.50	10710.00	7300.00					MINPT-O-EOU	
1867.33	133.44	1777.84	1733.90	21.23	OSF1.50	10720.00	7300.00					MinPt-O-ADP	
1895.56	138.61	1802.62	1756.95	20.74	OSF1.50	11010.00	7300.00					MinPt-O-SF	
4548.86	101.85	4480.42	4447.01	68.04	OSF1.50	14830.10	7300.00					TD	

Olin 42-4A MWD 0' to 8270' - PA  
(Def Survey)

Pass

6765.44	32.81	6763.62	6732.63	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
6765.32	32.81	6763.48	6732.52	193834.43	MAS = 10.00 (m)	13.00	13.00					MinPt-O-SF	
6765.12	32.81	6762.62	6732.32	9798.44	MAS = 10.00 (m)	200.00	200.00					MinPts	
6765.14	32.81	6762.62	6732.33	9538.00	MAS = 10.00 (m)	210.00	210.00					MINPT-O-EOU	
7037.60	32.81	7025.82	7004.79	691.36	MAS = 10.00 (m)	2150.00	2120.79					MinPt-O-SF	
6588.12	57.90	6548.79	6530.23	177.39	OSF1.50	5940.00	5840.86					MinPt-CtCt	
6588.21	58.17	6548.69	6530.03	176.53	OSF1.50	5980.00	5880.12					MINPT-O-EOU	
6588.32	58.32	6548.70	6530.01	176.10	OSF1.50	6000.00	5899.75					MinPt-O-ADP	
6588.24	58.90	6548.22	6529.34	174.35	OSF1.50	6180.00	6077.05					MinPt-O-SF	
6563.20	58.66	6523.32	6504.54	174.70	OSF1.50	6600.00	6495.68					MinPt-O-SF	
6551.90	58.60	6512.05	6493.31	174.71	OSF1.50	6720.00	6615.66					MinPt-O-SF	
1878.30	250.78	1710.42	1627.52	11.32	OSF1.50	13340.00	7300.00					MinPt-CtCt	
1878.54	251.52	1710.21	1627.03	11.28	OSF1.50	13370.00	7300.00					MINPT-O-EOU	
1878.73	251.75	1710.25	1626.98	11.27	OSF1.50	13380.00	7300.00					MinPt-O-ADP	
1890.01	254.97	1719.50	1635.05	11.18	OSF1.50	13550.00	7300.00					MinPt-O-SF	
2397.41	233.29	2241.35	2164.12	15.51	OSF1.50	14830.10	7300.00					TD	