



Crestone Peak Resources

Schlumberger

Plan 0

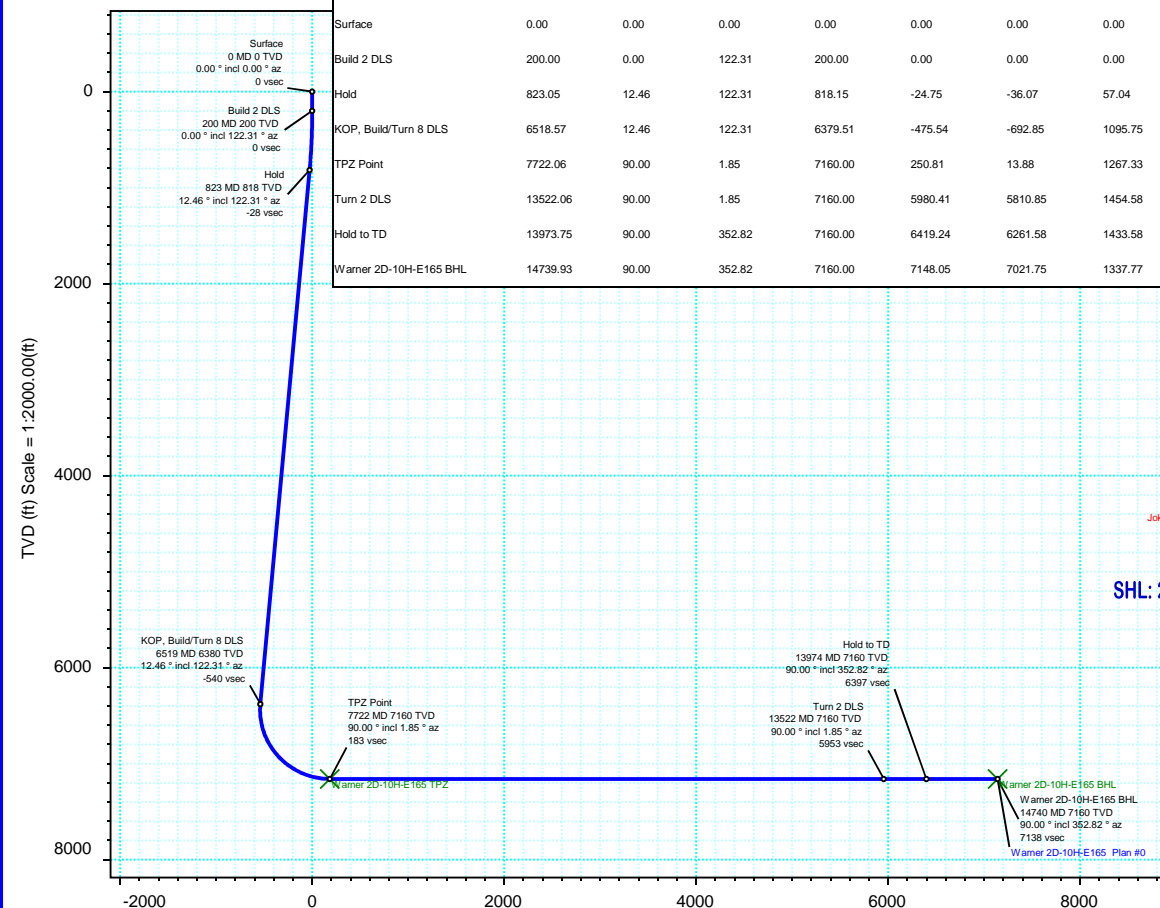
Borehole:	Well:	Field:	Structure:
Original Hole	Warner 2D-10H-E165	CO, Weld County (NAD 83 NZ) - 2019	Crestone Peak 10-1N-65W (Warner Pad)

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:	1268463.03fTUS	Grid Conv:	0.5438°	Slot:	Warner 2D-10H-E165	TVD Ref:	KB 13ft(4984ft above MSL)	
MagDec:	7.931°	FS:	51748.543nT	Gravity FS:	998.998mgn (9.80665 Based)	Lon:	W 104 39 29.95	Easting:	3235563.61fTUS	Scale Fact:	0.99996195	Plan:	Warner 2D-10H-E165	Plan #0		

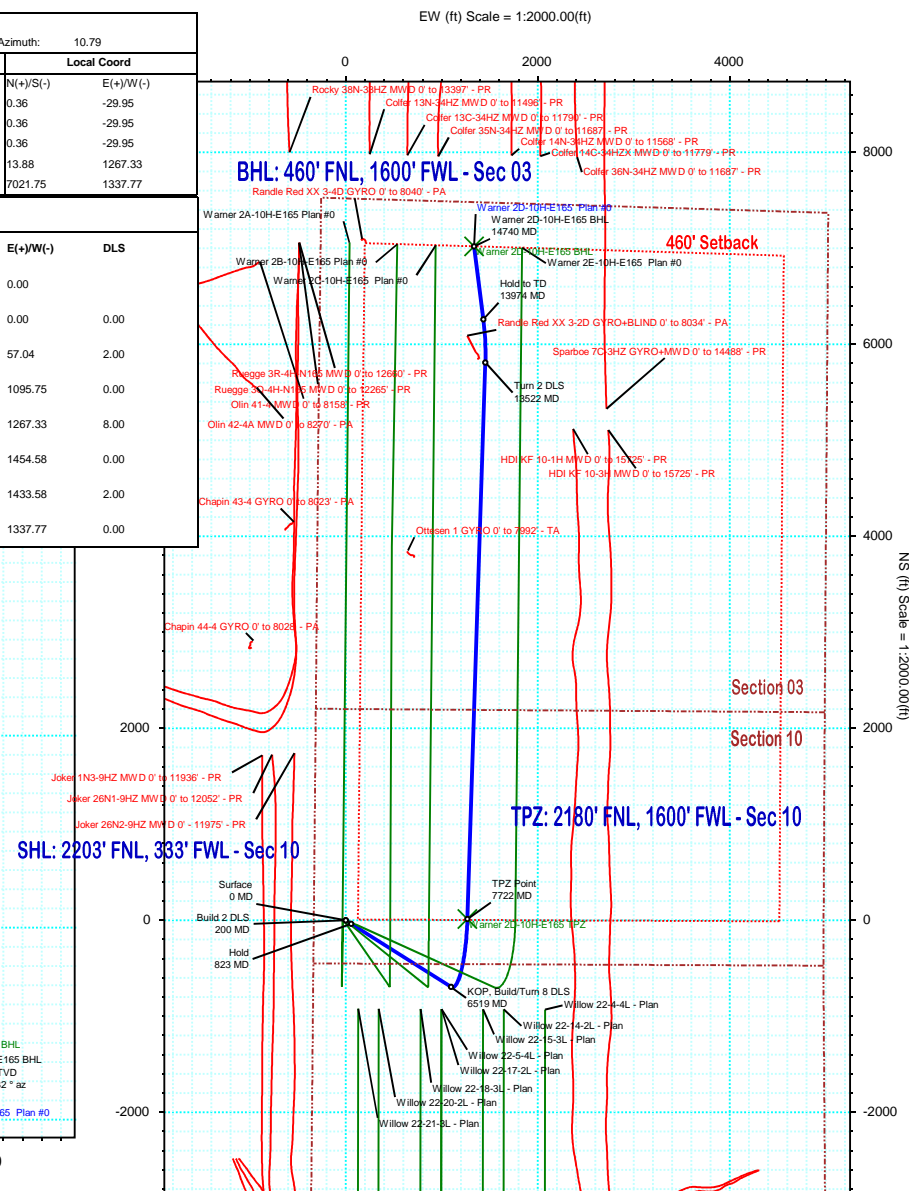
Proposal



True North
Tot Corr (M->T 7.931°)
Mag Dec (7.931°)
Grid Conv (0.544°)



Surface Location									
Northing: 1268463.026349 06		Easting: 3235563.605602 41		Latitude: N 40 4 2.11		Longitude: W 104 39 29.95		VSec Azimuth: 10.79	
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	-5.25	0.36	-29.95	
Warner Pad Sec 10-03 - 460' SB	N 40 4 2.11	W 104 39 30.34	1268463.11	3235533.66	4984.00	-5.25	0.36	-29.95	
Warner Pad Sec 10-03	N 40 4 2.11	W 104 39 30.34	1268463.11	3235533.66	4984.00	-5.25	0.36	-29.95	
Warner 2D-10H-E165 TPZ	N 40 4 2.24	W 104 39 13.65	1268488.93	3236830.70	7160.00	250.81	13.88	1267.33	
Warner 2D-10H-E165 BHL	N 40 5 11.50	W 104 39 12.74	1275496.88	3236834.62	7160.00	7148.05	7021.75	1337.77	
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	122.31	200.00	0.00	0.00	0.00	0.00	
Hold	823.05	12.46	122.31	818.15	-24.75	-36.07	57.04	2.00	
KOP, Build/Turn 8 DLS	6518.57	12.46	122.31	6379.51	-475.54	-692.85	1095.75	0.00	
TPZ Point	7722.06	90.00	1.85	7160.00	250.81	13.88	1267.33	8.00	
Turn 2 DLS	13522.06	90.00	1.85	7160.00	5980.41	5810.85	1454.58	0.00	
Hold to TD	13973.75	90.00	352.82	7160.00	6419.24	6261.58	1433.58	2.00	
Warner 2D-10H-E165 BHL	14739.93	90.00	352.82	7160.00	7148.05	7021.75	1337.77	0.00	



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

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



(Def Plan)

Report Date: August 02, 2021 - 02:58 PM
Client: Crestone Peak Resources
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure / Slot: Crestone Peak 10-1N-65W (Warner Pad) / Warner 2D-10H-E165
Well: Warner 2D-10H-E165
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Warner 2D-10H-E165 Plan #0
Survey Date: July 29, 2021
Tort / AHD / DDI / ERD Ratio: 117.774 ° / 9078.419 ft / 6.343 / 1.268
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 4' 2.10720", W 104° 39' 29.95200"
Location Grid N/E Y/X: N 1268463.026 ftUS, E 3235563.606 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: 10.787 ° (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: 7.931 °
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 (ft/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	1268463.03	3235563.61	40.067252	-104.658320
Build 2 DLS	100.00	0.00	122.31	100.00	-4884.00	0.00	0.00	0.00	0.00	1268463.03	3235563.61	40.067252	-104.658320
	200.00	0.00	122.31	200.00	-4784.00	0.00	0.00	0.00	0.00	1268463.03	3235563.61	40.067252	-104.658320
	300.00	2.00	122.31	299.98	-4684.02	-0.64	-0.93	1.48	2.00	1268462.11	3235565.09	40.067249	-104.658315
	400.00	4.00	122.31	399.84	-4584.16	-2.56	-3.73	5.90	2.00	1268459.35	3235569.54	40.067242	-104.658299
	500.00	6.00	122.31	499.45	-4484.55	-5.76	-8.39	13.26	2.00	1268454.77	3235576.95	40.067229	-104.658273
	600.00	8.00	122.31	598.70	-4385.30	-10.23	-14.90	23.56	2.00	1268448.35	3235587.31	40.067211	-104.658236
	700.00	10.00	122.31	697.47	-4286.53	-15.96	-23.26	36.79	2.00	1268440.12	3235600.61	40.067188	-104.658189
	800.00	12.00	122.31	795.62	-4188.38	-22.96	-33.46	52.91	2.00	1268430.07	3235616.83	40.067160	-104.658131
	823.05	12.46	122.31	818.15	-4165.85	-24.75	-36.07	57.04	2.00	1268427.50	3235620.98	40.067153	-104.658116
	900.00	12.46	122.31	893.29	-4090.71	-30.84	-44.94	71.07	0.00	1268418.76	3235635.10	40.067129	-104.658066
Hold	1000.00	12.46	122.31	990.93	-3993.07	-38.76	-56.47	89.31	0.00	1268407.41	3235653.44	40.067097	-104.658001
	1100.00	12.46	122.31	1088.58	-3895.42	-46.67	-68.00	107.55	0.00	1268396.05	3235671.79	40.067065	-104.657936
	1200.00	12.46	122.31	1186.22	-3797.78	-54.59	-79.54	125.79	0.00	1268384.69	3235690.14	40.067034	-104.657871
	1300.00	12.46	122.31	1283.86	-3700.14	-62.50	-91.07	144.02	0.00	1268373.33	3235708.48	40.067002	-104.657805
	1400.00	12.46	122.31	1381.51	-3602.49	-70.42	-102.60	162.26	0.00	1268361.98	3235726.83	40.066970	-104.657740
	1500.00	12.46	122.31	1479.15	-3504.85	-78.33	-114.13	180.50	0.00	1268350.62	3235745.17	40.066939	-104.657675
	1600.00	12.46	122.31	1576.80	-3407.20	-86.25	-125.66	198.73	0.00	1268339.26	3235763.52	40.066907	-104.657610
	1700.00	12.46	122.31	1674.44	-3309.56	-94.16	-137.19	216.97	0.00	1268327.90	3235781.86	40.066875	-104.657545
	1800.00	12.46	122.31	1772.09	-3211.91	-102.08	-148.73	235.21	0.00	1268316.55	3235800.21	40.066844	-104.657480
	1900.00	12.46	122.31	1869.73	-3114.27	-109.99	-160.26	253.45	0.00	1268305.19	3235818.55	40.066812	-104.657414
	2000.00	12.46	122.31	1967.38	-3016.62	-117.91	-171.79	271.68	0.00	1268293.83	3235836.90	40.066780	-104.657349
	2100.00	12.46	122.31	2065.02	-2918.98	-125.82	-183.32	289.92	0.00	1268282.47	3235855.24	40.066749	-104.657284
	2200.00	12.46	122.31	2162.66	-2821.34	-133.74	-194.85	308.16	0.00	1268271.12	3235873.59	40.066717	-104.657219
	2300.00	12.46	122.31	2260.31	-2723.69	-141.65	-206.38	326.40	0.00	1268259.76	3235891.93	40.066685	-104.657154
	2400.00	12.46	122.31	2357.95	-2626.05	-149.57	-217.91	344.63	0.00	1268248.40	3235910.28	40.066654	-104.657089
	2500.00	12.46	122.31	2455.60	-2528.40	-157.48	-229.45	362.87	0.00	1268237.04	3235928.62	40.066622	-104.657024
	2600.00	12.46	122.31	2553.24	-2430.76	-165.40	-240.98	381.11	0.00	1268225.69	3235946.97	40.066590	-104.656958
	2700.00	12.46	122.31	2650.89	-2333.11	-173.31	-252.51	399.35	0.00	1268214.33	3235965.31	40.066559	-104.656893
	2800.00	12.46	122.31	2748.53	-2235.47	-181.22	-264.04	417.58	0.00	1268202.97	3235983.66	40.066527	-104.656828
	2900.00	12.46	122.31	2846.17	-2137.83	-189.14	-275.57	435.82	0.00	1268191.61	3236002.01	40.066496	-104.656763
	3000.00	12.46	122.31	2943.82	-2040.18	-197.05	-287.10	454.06	0.00	1268180.26	3236020.35	40.066464	-104.656698
	3100.00	12.46	122.31	3041.46	-1942.54	-204.97	-298.64	472.30	0.00	1268168.90	3236038.70	40.066432	-104.656633
	3200.00	12.46	122.31	3139.11	-1844.89	-212.88	-310.17	490.53	0.00	1268157.54	3236057.04	40.066401	-104.656567
	3300.00	12.46	122.31	3236.75	-1747.25	-220.80	-321.70	508.77	0.00	1268146.18	3236075.39	40.066369	-104.656502
	3400.00	12.46	122.31	3334.40	-1649.60	-228.71	-333.23	527.01	0.00	1268134.83	3236093.73	40.066337	-104.656437
	3500.00	12.46	122.31	3432.04	-1551.96	-236.63	-344.76	545.25	0.00	1268123.47	3236112.08	40.066306	-104.656372
	3600.00	12.46	122.31	3529.68	-1454.32	-244.54	-356.29	563.48	0.00	1268112.11	3236130.42	40.066274	-104.656307
	3700.00	12.46	122.31	3627.33	-1356.67	-252.46	-367.83	581.72	0.00	1268100.75	3236148.77	40.066242	-104.656242
	3800.00	12.46	122.31	3724.97	-1259.03	-260.37	-379.36	599.96	0.00	1268089.39	3236167.11	40.066211	-104.656177
	3900.00	12.46	122.31	3822.62	-1161.38	-268.29	-390.89	618.19	0.00	1268078.04	3236185.46	40.066179	-104.656111
	4000.00	12.46	122.31	3920.26	-1063.74	-276.20	-402.42	636.43	0.00	1268066.68	3236203.80	40.066147	-104.656046
	4100.00	12.46	122.31	4017.91	-966.09	-284.12	-413.95	654.67	0.00	1268055.32	3236222.15	40.066116	-104.655981
	4200.00	12.46	122.31	4115.55	-868.45	-292.03	-425.48	672.91	0.00	1268043.96	3236240.49	40.066084	-104.655916
	4300.00	12.46	122.31	4213.20	-770.80	-299.95	-437.02	691.14	0.00	1268032.61	3236258.84	40.066052	-104.655851
	4400.00	12.46	122.31	4310.84	-673.16	-307.86	-448.55	709.38	0.00	1268021.25	3236277.18	40.066021	-104.655786
	4500.00	12.46	122.31	4408.48	-575.52	-315.78	-460.08	727.62	0.00	1268009.89	3236295.53	40.065989	-104.655720
	4600.00	12.46	122.31	4506.13	-477.87	-323.69	-471.61	745.86	0.00	1267998.53	3236313.87	40.065957	-104.655655
	4700.00	12.46	122.31	4603.77	-380.23	-331.61	-483.14	764.09	0.00	1267987.18	3236332.22	40.065926	-104.655590
	4800.00	12.46	122.31	4701.42	-282.58	-339.52	-494.67	782.33	0.00	1267975.82	3236350.56	40.065894	-104.655525
	4900.00	12.46	122.31	4799.06	-184.94	-347.43	-506.21	800.57	0.00	1267964.46	3236368.91	40.065862	-104.655460
5000.00	12.46	122.31	4896.71	-87.29	-355.35	-517.74	818.81	0.00	1267953.10	3236387.26	40.065831	-104.655395	
5100.00	12.46	122.31	4994.35	10.35	-363.26	-529.27	837.04	0.00	1267941.75	3236405.60	40.065799	-104.655329	
5200.00	12.46	122.31	5091.99	107.99	-371.18	-540.80	855.28	0.00	1267930.39	3236423.95	40.065767	-104.655264	
5300.00	12.46	122.31	5189.64	205.64	-379.09	-552.33	873.52	0.00	1267919.03	3236442.29	40.065736	-104.655199	
5400.00	12.46	122.31	5287.28	303.28	-387.01	-563.86	891.76	0.00	1267907.67	3236460.64	40.065704	-104.655134	
5500.00	12.46	122.31	5384.93	400.93	-394.92	-575.40	909.99	0.00	1267896.32	3236478.98	40.065672	-104.655069	
5600.00	12.46	122.31	5482.57	498.57	-402.84	-586.93	928.23	0.00	1267884.96	3236497.33	40.065641	-104.655004	
5700.00	12.46	122.31	5580.22	596.22	-410.75	-598.46	946.47	0.00	1267873.60	3236515.67	40.065609	-104.654938	
5800.00	12.46	122.31	5677.86	693.86	-418.67	-609.99	964.71	0.00	1267862.24	3236534.02	40.065577	-104.654873	
5900.00	12.46	122.31	5775.50	791.50	-426.58	-621.52	982.94	0.00	1267850.89	3236552.36	40.065546	-104.654808	
6000.00	12.46	122.31	5873.15	889.15	-434.50	-633.05	1001.18	0.00	1267839.53	3236570.71	40.065514	-104.654743	
6100.00	12.46	122.31	5970.79	986.79	-442.41	-644.59	1019.42	0.00	1267828.17	3236589.05	40.065483	-104.654678	
6200.00	12.46	122.31	6068.44	1084.44	-450.33	-656.12	1037.65	0.00	1267816.81	3236607.40	40.065451	-104.654613	
6300.00	12.46	122.31	6166.08	1182.08	-458.24	-667.65	1055.89	0.00	1267805.46	3236625.74	40.065419	-104.654548	
6400.00	12.46	122.31	6263.73	1279.73	-466.16	-679.18	1074.13	0.00	1267794.10	3236644.09	40.065388	-104.654482	
6500.00	12.46	122.31	6361.37	1377.37	-474.07	-690.71	1092.37	0.00	1267782.74	3236662.44	40.065356	-104.654417	
KOP, Build/Turn 8 DLS	6518.57	12.46	122.31	6379.51	1395.51	-475.54	-692.85	1095.75	0.00	1267780.63	3236665.84	40.065350	-104.654405
6600.00	10.79	90.59	6459.34	1475.34	-477.42	-697.63	1110.82	8.00	1267775.99	3236680.95	40.065337	-104.654351	
6700.00	13.54	54.13	6557.23	1573.23	-467.23	-690.86	1129.69	8.00	1267782.95	3236699.76	40.065355	-104.654284	
6800.00	19.41	34.58	6653.15	1669.15	-443.47	-670.29	1148.64	8.00	1267803.70	3236718.51	40.065412	-104.654216	
6900.00	26.39	24.42	6745.25	1761.25	-406.61	-636.31	1167.29	8.00	1267837.85	3236736.83	40.065505	-1	

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	8300.00	90.00	1.85	7160.00	2176.00	821.74	591.51	1285.99	0.00	1269066.69	3236843.87	40.068876	-104.653725
	8400.00	90.00	1.85	7160.00	2176.00	920.52	691.46	1289.22	0.00	1269166.66	3236846.15	40.069150	-104.653714
	8500.00	90.00	1.85	7160.00	2176.00	1019.31	791.41	1292.45	0.00	1269266.63	3236848.43	40.069424	-104.653702
	8600.00	90.00	1.85	7160.00	2176.00	1118.10	891.36	1295.68	0.00	1269366.60	3236850.71	40.069699	-104.653691
	8700.00	90.00	1.85	7160.00	2176.00	1216.88	991.30	1298.91	0.00	1269466.57	3236852.99	40.069973	-104.653679
	8800.00	90.00	1.85	7160.00	2176.00	1315.67	1091.25	1302.13	0.00	1269566.54	3236855.27	40.070247	-104.653667
	8900.00	90.00	1.85	7160.00	2176.00	1414.45	1191.20	1305.36	0.00	1269666.51	3236857.55	40.070522	-104.653656
	9000.00	90.00	1.85	7160.00	2176.00	1513.24	1291.15	1308.59	0.00	1269766.48	3236859.83	40.070796	-104.653644
	9100.00	90.00	1.85	7160.00	2176.00	1612.03	1391.10	1311.82	0.00	1269866.45	3236862.11	40.071071	-104.653633
	9200.00	90.00	1.85	7160.00	2176.00	1710.81	1491.04	1315.05	0.00	1269966.42	3236864.39	40.071345	-104.653621
	9300.00	90.00	1.85	7160.00	2176.00	1809.60	1590.99	1318.28	0.00	1270066.39	3236866.67	40.071619	-104.653610
	9400.00	90.00	1.85	7160.00	2176.00	1908.38	1690.94	1321.50	0.00	1270166.37	3236868.95	40.071894	-104.653598
	9500.00	90.00	1.85	7160.00	2176.00	2007.17	1790.89	1324.73	0.00	1270266.34	3236871.23	40.072168	-104.653587
	9600.00	90.00	1.85	7160.00	2176.00	2105.96	1890.84	1327.96	0.00	1270366.31	3236873.51	40.072442	-104.653575
	9700.00	90.00	1.85	7160.00	2176.00	2204.74	1990.78	1331.19	0.00	1270466.28	3236875.79	40.072717	-104.653563
	9800.00	90.00	1.85	7160.00	2176.00	2303.53	2090.73	1334.42	0.00	1270566.25	3236878.07	40.072991	-104.653552
	9900.00	90.00	1.85	7160.00	2176.00	2402.31	2190.68	1337.64	0.00	1270666.22	3236880.34	40.073265	-104.653540
	10000.00	90.00	1.85	7160.00	2176.00	2501.10	2290.63	1340.87	0.00	1270766.19	3236882.62	40.073540	-104.653529
	10100.00	90.00	1.85	7160.00	2176.00	2599.89	2390.57	1344.10	0.00	1270866.16	3236884.90	40.073814	-104.653517
	10200.00	90.00	1.85	7160.00	2176.00	2698.67	2490.52	1347.33	0.00	1270966.13	3236887.18	40.074089	-104.653506
	10300.00	90.00	1.85	7160.00	2176.00	2797.46	2590.47	1350.56	0.00	1271066.10	3236889.46	40.074363	-104.653494
	10400.00	90.00	1.85	7160.00	2176.00	2896.24	2690.42	1353.79	0.00	1271166.07	3236891.74	40.074637	-104.653483
	10500.00	90.00	1.85	7160.00	2176.00	2995.03	2790.37	1357.01	0.00	1271266.04	3236894.02	40.074912	-104.653471
	10600.00	90.00	1.85	7160.00	2176.00	3093.82	2890.31	1360.24	0.00	1271366.01	3236896.30	40.075186	-104.653459
	10700.00	90.00	1.85	7160.00	2176.00	3192.60	2990.26	1363.47	0.00	1271466.98	3236898.58	40.075460	-104.653448
	10800.00	90.00	1.85	7160.00	2176.00	3291.39	3090.21	1366.70	0.00	1271566.95	3236900.86	40.075735	-104.653436
	10900.00	90.00	1.85	7160.00	2176.00	3390.18	3190.16	1369.93	0.00	1271666.92	3236903.14	40.076009	-104.653425
	11000.00	90.00	1.85	7160.00	2176.00	3488.96	3290.11	1373.16	0.00	1271766.89	3236905.42	40.076283	-104.653413
	11100.00	90.00	1.85	7160.00	2176.00	3587.75	3390.05	1376.38	0.00	1271866.86	3236907.70	40.076558	-104.653402
	11200.00	90.00	1.85	7160.00	2176.00	3686.53	3490.00	1379.61	0.00	1271966.83	3236909.98	40.076832	-104.653390
	11300.00	90.00	1.85	7160.00	2176.00	3785.32	3589.95	1382.84	0.00	1272066.80	3236912.26	40.077107	-104.653379
	11400.00	90.00	1.85	7160.00	2176.00	3884.11	3689.90	1386.07	0.00	1272166.77	3236914.54	40.077381	-104.653367
	11500.00	90.00	1.85	7160.00	2176.00	3982.89	3789.85	1389.30	0.00	1272266.74	3236916.81	40.077655	-104.653355
	11600.00	90.00	1.85	7160.00	2176.00	4081.68	3889.79	1392.53	0.00	1272366.71	3236919.09	40.077930	-104.653344
	11700.00	90.00	1.85	7160.00	2176.00	4180.46	3989.74	1395.75	0.00	1272466.68	3236921.37	40.078204	-104.653332
	11800.00	90.00	1.85	7160.00	2176.00	4279.25	4089.69	1398.98	0.00	1272566.65	3236923.65	40.078478	-104.653321
	11900.00	90.00	1.85	7160.00	2176.00	4378.04	4189.64	1402.21	0.00	1272666.62	3236925.93	40.078753	-104.653309
	12000.00	90.00	1.85	7160.00	2176.00	4476.82	4289.58	1405.44	0.00	1272766.59	3236928.21	40.079027	-104.653298
	12100.00	90.00	1.85	7160.00	2176.00	4575.61	4389.53	1408.67	0.00	1272866.56	3236930.49	40.079301	-104.653286
	12200.00	90.00	1.85	7160.00	2176.00	4674.39	4489.48	1411.90	0.00	1272966.53	3236932.77	40.079576	-104.653275
	12300.00	90.00	1.85	7160.00	2176.00	4773.18	4589.43	1415.12	0.00	1273066.50	3236935.05	40.079850	-104.653263
	12400.00	90.00	1.85	7160.00	2176.00	4871.97	4689.38	1418.35	0.00	1273166.47	3236937.33	40.080124	-104.653251
	12500.00	90.00	1.85	7160.00	2176.00	4970.75	4789.32	1421.58	0.00	1273266.44	3236939.61	40.080399	-104.653240
	12600.00	90.00	1.85	7160.00	2176.00	5069.54	4889.27	1424.81	0.00	1273366.41	3236941.89	40.080673	-104.653228
	12700.00	90.00	1.85	7160.00	2176.00	5168.32	4989.22	1428.04	0.00	1273466.38	3236944.17	40.080948	-104.653217
	12800.00	90.00	1.85	7160.00	2176.00	5267.11	5089.17	1431.27	0.00	1273566.35	3236946.45	40.081222	-104.653205
	12900.00	90.00	1.85	7160.00	2176.00	5365.90	5189.12	1434.49	0.00	1273666.32	3236948.73	40.081496	-104.653194
	13000.00	90.00	1.85	7160.00	2176.00	5464.68	5289.06	1437.72	0.00	1273766.29	3236951.01	40.081771	-104.653182
	13100.00	90.00	1.85	7160.00	2176.00	5563.47	5389.01	1440.95	0.00	1273866.26	3236953.29	40.082045	-104.653171
	13200.00	90.00	1.85	7160.00	2176.00	5662.26	5488.96	1444.18	0.00	1273966.23	3236955.56	40.082319	-104.653159
	13300.00	90.00	1.85	7160.00	2176.00	5761.04	5588.91	1447.41	0.00	1274066.20	3236957.84	40.082594	-104.653147
	13400.00	90.00	1.85	7160.00	2176.00	5859.83	5688.85	1450.64	0.00	1274166.17	3236960.12	40.082868	-104.653136
	13500.00	90.00	1.85	7160.00	2176.00	5958.61	5788.80	1453.86	0.00	1274266.14	3236962.40	40.083142	-104.653124
	13522.06	90.00	1.85	7160.00	2176.00	5980.41	5810.85	1454.58	0.00	1274287.19	3236962.91	40.083203	-104.653122
	13600.00	90.00	0.29	7160.00	2176.00	6057.23	5888.78	1456.03	2.00	1274365.12	3236963.62	40.083417	-104.653117
	13700.00	90.00	358.29	7160.00	2176.00	6155.21	5988.76	1454.80	2.00	1274465.09	3236961.44	40.083691	-104.653121
	13800.00	90.00	356.29	7160.00	2176.00	6252.45	6088.65	1450.07	2.00	1274564.92	3236955.76	40.083966	-104.653138
	13900.00	90.00	354.29	7160.00	2176.00	6348.81	6188.30	1441.86	2.00	1274664.49	3236946.61	40.084239	-104.653167
	13973.75	90.00	352.82	7160.00	2176.00	6419.24	6261.58	1433.58	2.00	1274737.68	3236937.63	40.084440	-104.653197
	14000.00	90.00	352.82	7160.00	2176.00	6444.22	6287.63	1430.30	0.00	1274763.70	3236934.10	40.084512	-104.653208
	14100.00	90.00	352.82	7160.00	2176.00	6539.34	6386.84	1417.79	0.00	1274862.78	3236920.66	40.084784	-104.653253
	14200.00	90.00	352.82	7160.00	2176.00	6634.46	6486.06	1405.29	0.00	1274961.87	3236907.21	40.085056	-104.653298
	14300.00	90.00	352.82	7160.00	2176.00	6729.58	6585.27	1392.78	0.00	1275060.96	3236893.77	40.085329	-104.653342
	14400.00	90.00	352.82	7160.00	2176.00	6824.70	6684.49	1380.28	0.00	1275160.05	3236880.32	40.085601	-104.653387
	14500.00	90.00	352.82	7160.00	2176.00	6919.82	6783.70	1367.77	0.00	1275259.13	3236866.88	40.085874	-104.653432
	14600.00	90.00	352.82	7160.00	2176.00	7014.95	6882.92	1355.27	0.00	1275358.22	3236853.43	40.086146	-104.653476
	14700.00	90.00	352.82	7160.00	2176.00	7110.07	6982.13	1342.76	0.00	1275457.31	3236839.98	40.086418	-104.653521
Warner 2D-10H-E165 BHL	14739.93	90.00	352.82	7160.00	2176.00	7148.05	7021.75	1337.77	0.00	1275496.88	3236834.62	40.086527	-104.653539

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	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 2D-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 2D-10H-E165 Plan #0
	1	1800.000	14739.934	1/100.000	8.500	5.500		NAL_MWD_PLUS_0.5_DEG	Original Hole / Warner 2D-10H-E165 Plan #0

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

Analysis Date-24hr Time: August 02, 2021 - 15:00
Client: Crestone Peak Resources
Field: CO, Weld County (NAD 83 NZ) - 2019
Structure: Crestone Peak 10-1N-65W (Warner Pad)
Slot: Warner 2D-10H-E165
Well: Warner 2D-10H-E165
Borehole: Original Hole
Scan MD Range: 0.00ft - 14739.93ft

Analysis Method: 3D Least Distance
Reference Trajectory: Warner 2D-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: ICSWSA0 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 Major

6006.47	32.81	6004.66	5973.66	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
6006.43	32.81	6004.60	5973.62	567475.11	MAS = 10.00 (m)	13.00	13.00					WRP
6006.41	32.81	6004.56	5973.60	158964.37	MAS = 10.00 (m)	30.00	30.00					MinPts
6006.50	32.81	6004.50	5973.70	31648.61	MAS = 10.00 (m)	90.00	90.00					MINPT-O-EOU
6006.66	32.81	6004.49	5973.85	16677.91	MAS = 10.00 (m)	130.00	130.00					MINPT-O-EOU
578.85	178.66	457.66	400.19	4.98	OSF1.50	13190.00	7160.00	OSF<5.00				Enter Alert
242.56	254.30	71.48	-11.74	1.43	OSF1.50	13570.00	7160.00		OSF<1.50			Enter Minor
196.73	301.21	-5.21	-104.48	0.97	OSF1.50	13640.00	7160.00			OSF<1.00		Enter Major
160.08	375.40	-90.72	-215.32	0.64	OSF1.50	13760.00	7160.00					MinPt-CtCt
160.50	376.66	-91.14	-216.16	0.64	OSF1.50	13770.00	7160.00					MinPts
211.21	322.53	-4.34	-111.32	0.98	OSF1.50	13900.00	7160.00				OSF>1.00	Exit Major
268.32	279.68	81.33	-11.36	1.44	OSF1.50	13980.00	7160.00		OSF>1.50			Exit Minor
660.31	201.10	525.71	459.21	4.95	OSF1.50	14410.00	7160.00	OSF>5.00				Exit Alert
982.41	190.55	854.85	791.86	7.79	OSF1.50	14739.93	7160.00					TD

Warner 2C-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
10.13	8.25	8.12	1.88	8.94	MAS = 2.52 (m)	270.00	269.99					MINPT-O-EOU
10.19	8.25	8.13	1.93	8.59	MAS = 2.52 (m)	300.00	299.98					MinPt-O-SF
30.45	12.69	21.66	17.76	3.78	OSF1.50	1250.00	1235.04					MinPt-O-SF
48.72	20.00	35.06	28.72	3.77	OSF1.50	1790.00	1762.32					MinPt-O-SF
193.12	66.37	148.55	126.75	4.41	OSF1.50	6040.00	5912.21					MinPt-O-SF
218.35	66.48	173.70	151.86	4.98	OSF1.50	6380.00	6244.20	OSF>5.00				Exit Alert
466.34	141.00	372.02	325.35	4.99	OSF1.50	9740.00	7160.00	OSF<5.00				Enter Alert
423.74	420.24	143.25	3.50	1.51	OSF1.50	14739.93	7160.00					MinPts

Warner 2E-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
10.17	8.25	8.09	1.91	8.41	MAS = 2.52 (m)	290.00	289.99					MINPT-O-EOU
10.41	8.25	8.26	2.16	8.12	MAS = 2.52 (m)	370.00	369.90					MinPt-O-SF
18.26	8.25	12.62	10.01	3.71	MAS = 2.52 (m)	880.00	873.76					MinPt-O-SF
48.50	13.93	38.88	34.56	5.50	OSF1.50	1330.00	1313.16	CtCt<=15m>15.00				Exit Alert
457.11	70.63	409.70	386.48	9.82	OSF1.50	6518.57	6379.51					MinPt-O-SF
463.98	140.22	370.17	323.76	4.99	OSF1.50	9640.00	7160.00	OSF<5.00				Enter Alert
378.69	364.50	135.36	14.19	1.56	OSF1.50	13590.00	7160.00					MinPt-CtCt
380.54	370.07	133.50	10.47	1.54	OSF1.50	13690.00	7160.00					MINPT-O-EOU
383.29	373.44	134.00	9.85	1.54	OSF1.50	13750.00	7160.00					MinPt-O-ADP
383.87	374.01	134.21	9.87	1.54	OSF1.50	13760.00	7160.00					MinPt-O-SF
506.31	433.01	217.31	73.30	1.75	OSF1.50	14739.93	7160.00					MinPts

Warner 2B-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
20.16	16.31	18.26	3.84	20.95	MAS = 4.97 (m)	210.00	210.00					MINPT-O-EOU
20.64	16.31	18.62	4.32	19.03	MAS = 4.97 (m)	300.00	299.98					MinPt-O-SF
48.53	16.31	43.04	32.21	10.56	MAS = 4.97 (m)	880.00	873.76	CtCt<=15m>15.00				Exit Alert
127.14	21.42	112.53	105.72	9.26	OSF1.50	1800.00	1772.09					MinPt-O-SF
375.82	56.12	338.08	319.70	10.20	OSF1.50	4710.00	4613.54					MinPt-O-SF
923.60	278.10	737.87	645.50	4.99	OSF1.50	12180.00	7160.00	OSF<5.00				Enter Alert
803.70	428.30	517.84	375.40	2.82	OSF1.50	14739.93	7160.00					MinPts

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

Warning Alert

29.95	24.15	28.97	5.80	N/A	MAS = 7.36 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert
29.95	24.15	28.97	5.80	N/A	MAS = 7.36 (m)	13.00	13.00					WRP
29.95	24.15	28.06	5.80	32.12	MAS = 7.36 (m)	200.00	200.00					MinPts
31.45	24.15	29.47	7.30	30.46	MAS = 7.36 (m)	300.00	299.98					MinPt-O-SF
48.10	24.15	45.63	23.95	31.67	MAS = 7.36 (m)	540.00	539.20	CtCt<=15m>15.00				Exit Alert
284.32	24.15	270.40	260.16	21.91	MAS = 7.36 (m)	1800.00	1772.09					MinPt-O-SF
726.00	44.13	696.25	681.87	25.20	OSF1.50	4050.00	3969.08					MinPt-O-SF
1353.49	407.53	1081.47	945.95	4.99	OSF1.50	14340.00	7160.00	OSF<5.00				Enter Alert
1299.47	431.34	1011.58	868.13	4.53	OSF1.50	14739.93	7160.00					MinPts

Willow 22-17-2L - Plan (Def Plan)

Warning Alert

7299.79	289.76	7106.02	7010.04	38.02	OSF1.50	0.00	0.00					Surface
7287.02	289.87	7093.17	6997.15	37.94	OSF1.50	13.00	13.00					WRP
905.74	277.19	719.81	628.54	4.94	OSF1.50	6440.00	6302.78	OSF<5.00				Enter Alert
509.63	329.76	286.51	179.87	2.34	OSF1.50	7040.00	6864.36					MinPts
509.63	329.74	286.47	179.89	2.34	OSF1.50	7050.00	6872.32					MINPT-O-EOU

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		
	792.91	249.44	622.32	543.48	4.95	OSF1.50	7530.00	7134.85	OSF>5.00			Exit Alert	
	7953.24	76.42	7899.97	7876.83	171.66	OSF1.50	14739.93	7160.00				TD	
Willow 22-15-3L - Plan (Def Plan)													
	7416.28	304.63	7212.58	7111.64	36.73	OSF1.50	0.00	0.00	OSF<5.00			Surface	Warning Alert
	7403.62	304.79	7199.83	7098.84	36.65	OSF1.50	13.00	13.00				WRP	
	1145.91	348.85	912.38	797.05	4.96	OSF1.50	6300.00	6166.08				Enter Alert	
	559.13	376.54	304.91	182.59	2.25	OSF1.50	7030.00	6856.31				MinPt-O-SF	
	554.91	372.79	303.07	182.12	2.25	OSF1.50	7050.00	6872.32				MinPt-O-ADP	
	553.25	370.69	302.76	182.57	2.26	OSF1.50	7060.00	6880.20				MINPT-O-EOU	
	549.61	357.94	307.34	191.68	2.33	OSF1.50	7110.00	6918.35	OSF>5.00			MinPt-CtCt	
	723.29	229.21	565.90	494.08	4.94	OSF1.50	7470.00	7116.88				Exit Alert	
	7948.67	93.55	7883.93	7855.13	137.87	OSF1.50	14739.93	7160.00				TD	
Willow 22-5-4L - Plan (Def Plan)													
	7484.55	291.44	7289.66	7193.11	38.75	OSF1.50	0.00	0.00	OSF<5.00			Surface	Warning Alert
	7471.77	291.56	7276.80	7180.22	38.67	OSF1.50	13.00	13.00				WRP	
	938.27	285.30	747.04	652.97	4.97	OSF1.50	6597.06	6456.45				Enter Alert	
	630.20	313.22	418.39	316.98	3.06	OSF1.50	7110.00	6918.35				MinPt-O-SF	
	629.81	312.89	418.17	316.92	3.07	OSF1.50	7120.00	6925.71				MinPts	
	629.71	312.48	418.29	317.23	3.07	OSF1.50	7130.00	6932.98				MinPt-CtCt	
	806.88	254.96	632.69	551.91	4.92	OSF1.50	7510.00	7129.38	OSF>5.00			Exit Alert	
	7955.54	75.99	7902.43	7879.54	173.66	OSF1.50	14739.93	7160.00				TD	
Willow 22-14-2L - Plan (Def Plan)													
	7409.19	313.68	7199.46	7095.50	35.63	OSF1.50	0.00	0.00	OSF<5.00			Surface	Warning Alert
	7396.62	313.86	7186.77	7082.75	35.55	OSF1.50	13.00	13.00				WRP	
	1358.61	410.48	1084.13	948.13	4.99	OSF1.50	6120.00	5990.32				Enter Alert	
	650.02	538.52	288.01	111.48	1.82	OSF1.50	7060.00	6880.20				MinPts	
	648.96	537.43	287.63	111.53	1.82	OSF1.50	7070.00	6888.00				MINPT-O-EOU	
	647.37	531.36	289.91	116.01	1.83	OSF1.50	7110.00	6918.35				MinPt-CtCt	
	1022.12	320.53	804.07	701.58	4.92	OSF1.50	7730.00	7160.00	OSF>5.00			Exit Alert	
	7954.88	114.49	7876.19	7840.38	110.97	OSF1.50	14739.93	7160.00				TD	
Willow 22-18-3L - Plan (Def Plan)													
	7321.30	285.75	7130.20	7035.55	38.67	OSF1.50	0.00	0.00	OSF<5.00			Surface	Warning Alert
	7308.48	285.85	7117.31	7022.63	38.59	OSF1.50	13.00	13.00				WRP	
	1075.24	324.71	857.89	750.53	5.00	OSF1.50	6350.00	6214.90				Enter Alert	
	651.12	489.50	322.24	161.62	2.00	OSF1.50	7050.00	6872.32				MinPt-CtCt	
	651.34	490.28	321.89	161.06	2.00	OSF1.50	7060.00	6880.20				MINPT-O-EOU	
	651.80	490.89	321.91	160.91	2.00	OSF1.50	7070.00	6888.00				MinPts	
	1092.26	339.83	861.73	752.43	4.94	OSF1.50	7760.00	7160.00	OSF>5.00			Exit Alert	
	7964.37	86.03	7904.67	7878.34	151.09	OSF1.50	14739.93	7160.00				TD	
HDI KF 10-1H MWD 0' to 15725' - PR (Def Survey)													
	5021.40	32.81	5019.51	4988.60	61520.18	MAS = 10.00 (m)	0.00	0.00	MAS = 10.00 (m)			Surface	Warning Alert
	5021.38	32.81	5019.44	4988.57	41858.47	MAS = 10.00 (m)	13.00	13.00				WRP	
	1057.26	187.06	931.00	870.20	8.66	OSF1.50	8450.00	7160.00				MinPt-O-SF	
	1057.24	187.06	930.98	870.18	8.66	OSF1.50	8460.00	7160.00				MinPts	
	1075.51	201.38	939.67	874.13	8.17	OSF1.50	8840.00	7160.00				MINPT-O-EOU	
	1088.75	229.62	934.11	859.14	7.23	OSF1.50	9260.00	7160.00				MINPT-O-EOU	
	1092.59	237.48	932.70	855.11	7.01	OSF1.50	9380.00	7160.00	OSF<5.00			MINPT-O-EOU	
	1096.09	241.63	933.43	854.46	6.91	OSF1.50	9480.00	7160.00				MinPt-O-ADP	
	1037.25	314.54	826.17	722.71	4.99	OSF1.50	10200.00	7160.00				Enter Alert	
	1006.63	314.37	795.50	692.25	4.85	OSF1.50	10470.00	7160.00				MinPt-O-SF	
	1006.00	314.08	795.05	691.92	4.85	OSF1.50	10500.00	7160.00				MinPt-O-ADP	
	1005.91	313.97	795.03	691.94	4.86	OSF1.50	10510.00	7160.00				MINPT-O-EOU	
	1005.88	313.85	795.08	692.03	4.86	OSF1.50	10520.00	7160.00	OSF>5.00			MinPt-CtCt	
	1020.96	309.82	812.76	711.15	5.00	OSF1.50	10750.00	7160.00				Exit Alert	
	1073.58	335.36	848.40	738.22	4.85	OSF1.50	11030.00	7160.00				Enter Alert	
	938.37	468.86	624.26	469.51	3.02	OSF1.50	12800.00	7160.00				MinPt-O-SF	
	937.30	468.10	623.68	469.20	3.02	OSF1.50	12820.00	7160.00				MinPt-O-ADP	
	936.92	467.64	623.60	469.28	3.02	OSF1.50	12830.00	7160.00				MINPT-O-EOU	
	936.44	465.99	624.18	470.45	3.03	OSF1.50	12860.00	7160.00	OSF>5.00			MinPt-CtCt	
	1157.22	353.19	920.04	804.03	4.97	OSF1.50	13540.00	7160.00				Exit Alert	
	2164.07	222.31	2014.67	1941.76	14.82	OSF1.50	14739.93	7160.00				TD	
Willow 22-20-2L - Plan (Def Plan)													
	7236.05	280.43	7048.50	6955.63	38.95	OSF1.50	0.00	0.00	OSF<5.00			Surface	Warning Alert
	7223.18	280.51	7035.57	6942.67	38.87	OSF1.50	13.00	13.00				WRP	
	1396.10	423.18	1113.42	972.92	4.96	OSF1.50	6110.00	5980.56				Enter Alert	
	965.91	640.62	537.42	325.29	2.27	OSF1.50	6970.00	6806.47				MinPt-CtCt	
	967.03	644.50	535.87	322.54	2.26	OSF1.50	7010.00	6839.99				MINPT-O-EOU	
	967.71	645.22	536.05	322.50	2.26	OSF1.50	7020.00	6848.19				MinPt-O-ADP	
	968.56	645.84	536.45	322.71	2.25	OSF1.50	7030.00	6856.31	OSF>5.00			MinPt-O-SF	
	1530.77	466.41	1216.49	1064.36	5.00	OSF1.50	8000.00	7160.00				Exit Alert	
	8005.06	129.64	7916.37	7875.42	97.66	OSF1.50	14739.93	7160.00				TD	
Willow 22-4-4L - Plan (Def Plan)													
	7647.00	331.32	7425.52	7315.68	34.80	OSF1.50	0.00	0.00	OSF<5.00			Surface	Warning Alert
	7634.59	331.54	7412.96	7303.05	34.72	OSF1.50	13.00	13.00				WRP	
	1660.71	500.35	1326.54	1160.35	4.99	OSF1.50	6170.00	6039.14				Enter Alert	
	1029.22	635.38	603.35	393.84	2.44	OSF1.50	7160.00	6954.24				MinPt-O-SF	
	1028.67	634.94	603.06	393.73	2.44	OSF1.50	7170.00	6961.13				MinPt-O-ADP	
	1028.30	634.42	603.01	393.89	2.44	OSF1.50	7180.00	6967.93				MINPT-O-EOU	
	1028.12	633.80	603.21	394.32	2.44	OSF1.50	7190.00	6974.62	OSF>5.00			MinPt-CtCt	
	1474.64	450.89	1170.16	1023.75	5.00	OSF1.50	8010.00	7160.00				Exit Alert	
	7986.78	165.16	7874.27	7821.61	75.77	OSF1.50	14739.93	7160.00				TD	
Willow 22-21-3L - Plan (Def Plan)													
	7284.53	278.90	7098.00	7005.63	39.43	OSF1.50	0.00	0.00	OSF<5.00			Surface	Warning Alert
	7271.64	278.97	7085.05	6992.67	39.34	OSF1.50	13.00	13.00				WRP	
	1555.41	468.92	1242.26	1086.49	4.99	OSF1.50	6110.00	5980.56				Enter Alert	
	1173.92	659.82	732.95	514.10	2.67	OSF1.50	6980.00	6814.96				MinPt-CtCt	
	1175.04	663.32	731.66	511.73	2.66	OSF1.50	7020.00	6848.19				MINPT-O-EOU	
	1175.66	664.02	731.79	511.64	2.66	OSF1.50	7030.00	6856.31				MinPt-O-ADP	
	1177.29	665.21	732.58	512.08	2.66	OSF1.50	7050.00	6872.32	OSF>5.00			MinPt-O-SF	
	1699.96	517.19	1352.14	1182.77	4.99	OSF1.50	8040.00	7160.00				Exit Alert	
	8033.74	155.47	7927.83	7878.26	80.97	OSF1.50	14739.93	7160.00				TD	

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		
Sparboe 7C-3HZ GYRO+MWD 0' to 14488' - PR (Def Survey)													
												Warning Alert	
9410.90	155.13	9306.88	9255.77	92.05		OSF1.50	0.00	0.00				Surface	
9400.87	155.21	9296.79	9245.66	91.91		OSF1.50	13.00	13.00				WRP	
7615.23	139.09	7521.36	7476.14	84.17		OSF1.50	2680.00	2631.36		OSF<5.00		MinPt-O-SF	
1347.31	409.89	1071.67	937.42	4.99		OSF1.50	12670.00	7160.00				Enter Alert	
1277.65	440.90	982.29	836.75	4.37		OSF1.50	13110.00	7160.00				MinPt-O-SF	
1260.47	436.50	968.09	823.97	4.36		OSF1.50	13380.00	7160.00				MinPt-O-SF	
1251.62	433.44	961.27	818.18	4.36		OSF1.50	13540.00	7160.00				MinPt-O-SF	
1249.23	431.72	960.01	817.51	4.37		OSF1.50	13600.00	7160.00				MinPt-O-ADP	
1247.87	430.62	959.39	817.25	4.37		OSF1.50	13660.00	7160.00				MinPt-O-ADP	
1247.79	430.53	959.37	817.26	4.38		OSF1.50	13670.00	7160.00				MINPT-O-EOU	
1247.76	430.45	959.40	817.31	4.38		OSF1.50	13680.00	7160.00				MinPt-CtCt	
1369.61	421.28	1087.53	948.33	4.91		OSF1.50	14739.93	7160.00				TD	
HDI KF 10-3H MWD 0' to 15725' - PR (Def Survey)													
												Warning Alert	
5034.36	32.81	5032.48	5001.56	88337.22		MAS = 10.00 (m)	0.00	0.00				MinPts	
5034.37	32.81	5032.48	5001.56	60289.53		MAS = 10.00 (m)	13.00	13.00				WRP	
5034.63	32.81	5032.04	5001.82	6418.08		MAS = 10.00 (m)	180.00	180.00				MinPt-O-SF	
1493.21	147.26	1393.59	1345.96	15.63		OSF1.50	7740.00	7160.00				MinPts	
1424.19	213.93	1280.09	1210.26	10.17		OSF1.50	8930.00	7160.00				MinPt-CtCt	
1424.32	214.41	1279.90	1209.92	10.14		OSF1.50	8960.00	7160.00				MINPT-O-EOU	
1425.11	229.96	1270.33	1195.15	9.45		OSF1.50	9200.00	7160.00				MinPt-CtCt	
1425.65	232.25	1269.34	1193.41	9.36		OSF1.50	9270.00	7160.00				MINPT-O-EOU	
1425.82	232.43	1269.37	1193.39	9.35		OSF1.50	9280.00	7160.00				MinPt-O-ADP	
1369.00	316.02	1156.83	1052.98	6.57		OSF1.50	10570.00	7160.00				MinPt-CtCt	
1369.55	317.56	1156.34	1051.99	6.54		OSF1.50	10630.00	7160.00				MINPT-O-EOU	
1369.96	318.06	1156.42	1051.91	6.53		OSF1.50	10650.00	7160.00				MinPt-O-ADP	
1341.60	405.62	1069.77	935.98	5.00		OSF1.50	11800.00	7160.00		OSF<5.00		Enter Alert	
1323.87	421.32	1041.48	902.55	4.75		OSF1.50	12190.00	7160.00				MinPt-CtCt	
1306.02	466.48	993.56	839.54	4.23		OSF1.50	12810.00	7160.00				MinPt-O-SF	
1305.20	465.97	993.05	839.23	4.23		OSF1.50	12840.00	7160.00				MinPts	
1305.04	465.51	993.19	839.53	4.23		OSF1.50	12860.00	7160.00				MinPt-CtCt	
1400.89	424.63	1116.10	976.25	4.99		OSF1.50	13370.00	7160.00		OSF<5.00		Exit Alert	
2370.95	283.11	2180.90	2087.83	12.72		OSF1.50	14739.93	7160.00				TD	
Ottosen 1 GYRO 0' to 7992' - TA (Def Survey)													
												Pass	
3848.42	32.81	3846.60	3815.61	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
3848.40	32.81	3846.59	3815.59	N/A		MAS = 10.00 (m)	10.00	10.00				MinPts	
3848.40	32.81	3846.59	3815.59	N/A		MAS = 10.00 (m)	13.00	13.00				WRP	
3848.36	32.81	3846.20	3815.55	11103.07		MAS = 10.00 (m)	120.00	120.00				MinPts	
3848.51	32.81	3846.01	3815.71	5596.94		MAS = 10.00 (m)	200.00	200.00				MINPT-O-EOU	
749.79	174.23	633.10	575.56	6.50		OSF1.50	11490.00	7160.00				MinPt-O-SF	
749.09	173.96	632.58	575.13	6.51		OSF1.50	11510.00	7160.00				MinPt-O-ADP	
748.94	173.78	632.55	575.16	6.51		OSF1.50	11520.00	7160.00				MINPT-O-EOU	
748.92	173.58	632.67	575.34	6.52		OSF1.50	11530.00	7160.00				MinPt-CtCt	
3255.42	46.79	3223.69	3208.63	108.01		OSF1.50	14739.93	7160.00				TD	
Cofler 35N-34HZ MWD 0' to 11687' - PR (Def Survey)													
												Pass	
10725.31	79.19	10671.91	10646.11	207.87		OSF1.50	0.00	0.00				Surface	
10716.67	79.29	10663.21	10637.39	207.45		OSF1.50	13.00	13.00				WRP	
10381.66	77.56	10329.35	10304.10	205.59		OSF1.50	540.00	539.20				MinPt-O-SF	
8679.80	67.86	8632.87	8611.95	207.33		OSF1.50	6220.00	6087.97				MinPt-CtCt	
8679.88	68.06	8632.80	8611.81	206.67		OSF1.50	6260.00	6127.02				MINPT-O-EOU	
8679.92	68.12	8632.81	8611.81	206.51		OSF1.50	6270.00	6136.79				MinPt-O-ADP	
1009.66	183.16	883.57	826.50	8.74		OSF1.50	14739.93	7160.00				MinPts	
Cofler 14N-34HZ MWD 0' to 11568' - PR (Def Survey)													
												Pass	
10788.09	74.15	10738.06	10713.95	223.68		OSF1.50	0.00	0.00				Surface	
10779.59	74.23	10729.50	10705.36	223.24		OSF1.50	13.00	13.00				WRP	
10651.78	73.40	10602.24	10578.38	223.14		OSF1.50	210.00	210.00				MinPt-O-SF	
8709.08	64.34	8664.33	8644.74	222.09		OSF1.50	6300.00	6166.08				MinPt-CtCt	
8709.20	64.72	8664.20	8644.48	220.69		OSF1.50	6350.00	6214.90				MINPT-O-EOU	
8709.34	64.88	8664.23	8644.46	220.12		OSF1.50	6370.00	6234.43				MinPt-O-ADP	
1028.52	121.53	943.15	906.99	14.04		OSF1.50	14739.93	7160.00				MinPts	
Cofler 14C-34HZ MWD 0' to 11779' - PR (Def Survey)													
												Pass	
10966.07	80.26	10911.96	10885.81	209.65		OSF1.50	0.00	0.00				Surface	
10957.46	80.35	10903.29	10877.11	209.24		OSF1.50	13.00	13.00				WRP	
10645.51	78.69	10592.45	10566.83	207.68		OSF1.50	500.00	499.45				MinPt-O-SF	
1169.16	209.71	1025.36	959.45	8.78		OSF1.50	14739.93	7160.00				MinPts	
Randlie Red XX 3-4D GYRO 0' to 8040' - PA (Def Survey)													
												Pass	
7061.31	32.81	7059.50	7028.50	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
7061.28	32.81	7059.46	7028.47	844665.80		MAS = 10.00 (m)	13.00	13.00				WRP	
7061.18	32.81	7058.72	7028.37	10896.87		MAS = 10.00 (m)	190.00	190.00				MinPts	
7061.20	32.81	7058.67	7028.39	9957.69		MAS = 10.00 (m)	210.00	210.00				MINPT-O-EOU	
7062.43	32.81	7059.79	7029.63	8505.61		MAS = 10.00 (m)	320.00	319.96				MinPt-O-SF	
1179.81	306.97	974.63	872.84	5.79		OSF1.50	14739.93	7160.00				MinPts	
Cofler 13C-34HZ MWD 0' to 11790' - PR (Def Survey)													
												Pass	
10816.77	72.27	10767.98	10744.50	230.23		OSF1.50	0.00	0.00				Surface	
10808.02	72.37	10759.17	10735.65	229.73		OSF1.50	13.00	13.00				WRP	
10663.28	71.48	10615.02	10591.80	229.59		OSF1.50	230.00	230.00				MinPt-O-SF	
8719.36	61.02	8677.00	8658.33	233.37		OSF1.50	6320.00	6185.61				MinPt-CtCt	
8719.44	61.31	8676.89	8658.13	232.21		OSF1.50	6360.00	6224.67				MINPT-O-EOU	
8719.63	61.53	8676.93	8658.09	231.34		OSF1.50	6390.00	6253.96				MinPt-O-ADP	
1182.42	264.11	1002.95	918.32	6.93		OSF1.50	14739.93	7160.00				MinPts	
Cofler 36N-34HZ MWD 0' to 11687' - PR (Def Survey)													
												Pass	
10906.09	91.22	10844.68	10814.88	182.95		OSF1.50	0.00	0.00				Surface	
10897.68	91.31	10836.20	10806.37	182.62		OSF1.50	13.00	13.00				WRP	
10120.15	86.98	10061.53	10033.16	178.33		OSF1.50	1380.00	1361.98				MinPt-O-SF	
10090.33	86.79	10031.83	10003.55	178.32		OSF1.50	1440.00	1420.57				MinPt-O-SF	
10060.79	86.59	10002.40	9974.20	178.32		OSF1.50	1500.00	1479.15				MinPt-O-SF	
10012.15	86.27	9953.95	9925.89	178.32		OSF1.50	1600.00	1576.80				MinPt-O-SF	
8769.36	82.09	8712.77	8687.26	171.77		OSF1.50	6430.00	6293.02				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		
Rocky 38N-33HZ MWD 0' to 13397' - PR (Def Survey)	2036.45	115.84	1958.69	1920.61	26.72	OSF1.50	6790.00	6643.70				MinPt-CtCt	
	2036.48	115.92	1958.68	1920.56	26.70	OSF1.50	6800.00	6653.15				MINPT-O-EQU	
	2036.55	116.00	1958.68	1920.55	26.68	OSF1.50	6810.00	6662.56				MinPt-O-ADP	
	2148.65	167.93	2036.17	1980.72	19.36	OSF1.50	8240.00	7160.00				MinPt-O-ADP	
	2190.05	229.54	2036.49	1960.51	14.40	OSF1.50	9250.00	7160.00				MINPT-O-EQU	
	2198.87	241.59	2037.27	1957.27	13.73	OSF1.50	9460.00	7160.00				MinPts	
	5744.45	110.12	5670.50	5634.33	79.38	OSF1.50	14739.93	7160.00				TD	
Pass													
Olin 41-4 MWD 0' to 8158' - PR (Def Survey)	10753.10	76.73	10701.35	10676.37	215.27	OSF1.50	0.00	0.00				Surface	
	10744.45	76.75	10692.67	10667.69	215.02	OSF1.50	13.00	13.00				MinPt-O-SF	
	8872.29	66.45	8826.19	8805.84	217.88	OSF1.50	5970.00	5843.86				MinPt-CtCt	
	8872.55	67.29	8825.89	8805.26	215.00	OSF1.50	6040.00	5912.21				MINPT-O-EQU	
	8872.95	67.77	8825.96	8805.18	213.37	OSF1.50	6080.00	5951.26				MinPt-O-ADP	
	2158.11	369.69	1909.67	1788.42	8.87	OSF1.50	14739.93	7160.00				MinPts	
Pass													
Chapin 44-4 GYRO 0' to 8028' - PA (Def Survey)	6774.54	32.81	6772.73	6741.73	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6774.44	32.81	6772.60	6741.63	229695.04	MAS = 10.00 (m)	13.00	13.00				MinPt-O-SF	
	6774.39	32.81	6772.38	6741.49	64860.25	MAS = 10.00 (m)	60.00	60.00				MinPts	
	6774.41	32.81	6771.91	6741.60	9865.40	MAS = 10.00 (m)	200.00	200.00				MINPT-O-EQU	
	7008.42	32.81	6996.91	6975.61	706.98	MAS = 10.00 (m)	1860.00	1830.67				MinPt-O-SF	
	7636.57	50.15	7602.61	7586.42	235.92	OSF1.50	5660.00	5541.16				MinPts	
	7758.17	61.68	7716.52	7696.49	193.68	OSF1.50	6370.00	6234.43				MinPt-O-ADP	
	2269.32	301.28	2067.93	1968.04	11.35	OSF1.50	14739.93	7160.00				MinPts	
Pass													
Olin 42-4A MWD 0' to 8270' - PA (Def Survey)	3006.85	32.81	3005.04	2974.04	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3006.77	32.81	3004.94	2973.96	165855.69	MAS = 10.00 (m)	13.00	13.00				MinPt-O-SF	
	3005.39	32.81	3002.63	2972.49	3508.68	MAS = 10.00 (m)	220.00	220.00				MinPts	
	3005.31	32.81	3002.62	2972.51	3419.07	MAS = 10.00 (m)	230.00	230.00				MINPT-O-EQU	
	4163.30	48.02	4130.75	4115.28	134.48	OSF1.50	6600.00	6459.34				MinPt-O-SF	
	2331.68	132.97	2242.50	2198.71	26.61	OSF1.50	10540.00	7160.00				MinPt-CtCt	
	2331.91	133.60	2242.31	2198.31	26.48	OSF1.50	10570.00	7160.00				MINPT-O-EQU	
	2332.07	133.80	2242.33	2198.27	26.44	OSF1.50	10580.00	7160.00				MinPt-O-ADP	
	2373.29	140.06	2279.38	2233.23	25.69	OSF1.50	10980.00	7160.00				MinPt-O-SF	
	4722.08	111.65	4647.11	4610.43	64.35	OSF1.50	14739.93	7160.00				TD	
Pass													
Olin 42-4A MWD 0' to 8270' - PA (Def Survey)	6768.15	32.81	6766.34	6735.34	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6768.04	32.81	6766.19	6735.23	193989.96	MAS = 10.00 (m)	13.00	13.00				MinPt-O-SF	
	6767.84	32.81	6765.34	6735.03	9802.37	MAS = 10.00 (m)	200.00	200.00				MinPts	
	6767.85	32.81	6765.33	6735.04	9513.91	MAS = 10.00 (m)	210.00	210.00				MINPT-O-EQU	
	7045.98	32.81	7033.43	7013.17	643.76	MAS = 10.00 (m)	2160.00	2123.61				MinPt-O-SF	
	6618.33	59.77	6577.76	6558.56	172.30	OSF1.50	5890.00	5765.74				MinPt-CtCt	
	6618.42	60.06	6577.65	6558.35	171.45	OSF1.50	5930.00	5804.80				MINPT-O-EQU	
	6618.54	60.21	6577.67	6558.33	171.03	OSF1.50	5950.00	5824.33				MinPt-O-ADP	
	2406.12	249.69	2239.12	2156.43	14.54	OSF1.50	13200.00	7160.00				MinPt-CtCt	
	2406.48	250.68	2238.82	2155.80	14.48	OSF1.50	13240.00	7160.00				MINPT-O-EQU	
	2406.90	251.15	2238.93	2155.75	14.46	OSF1.50	13260.00	7160.00				MinPt-O-ADP	
	2424.89	255.51	2254.02	2169.38	14.32	OSF1.50	13500.00	7160.00				MinPt-O-SF	
	2720.58	242.82	2558.17	2477.77	16.91	OSF1.50	14739.93	7160.00				TD	