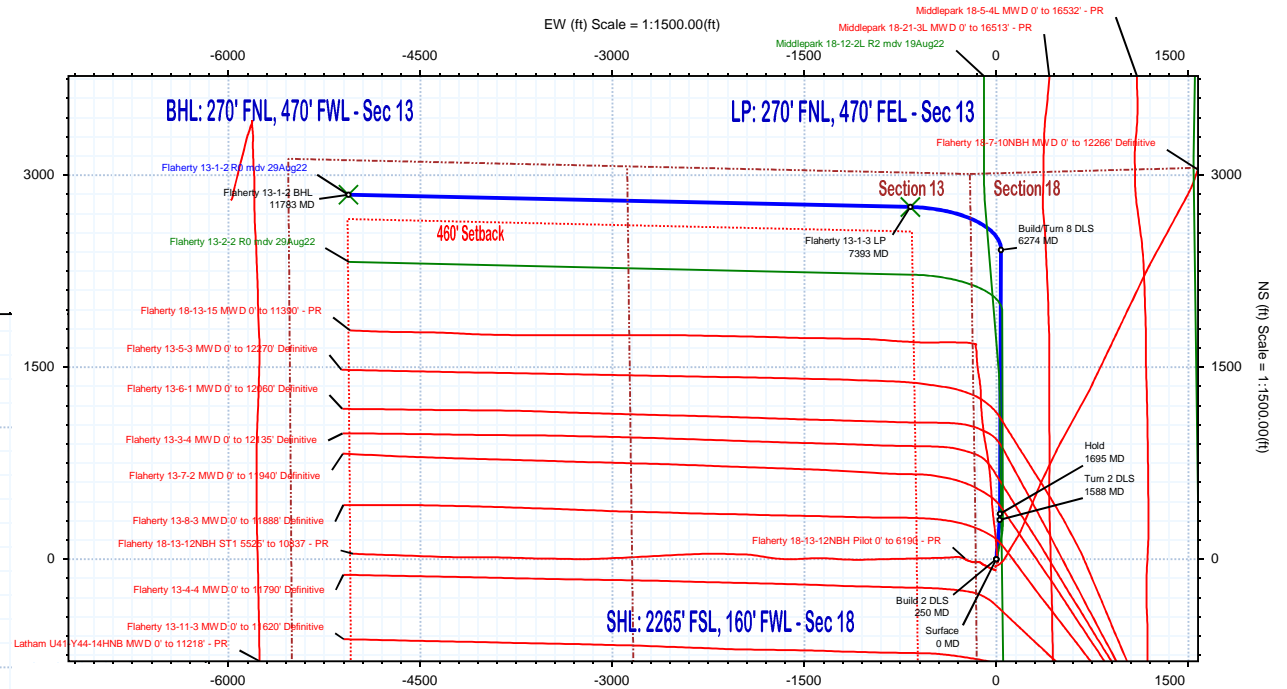
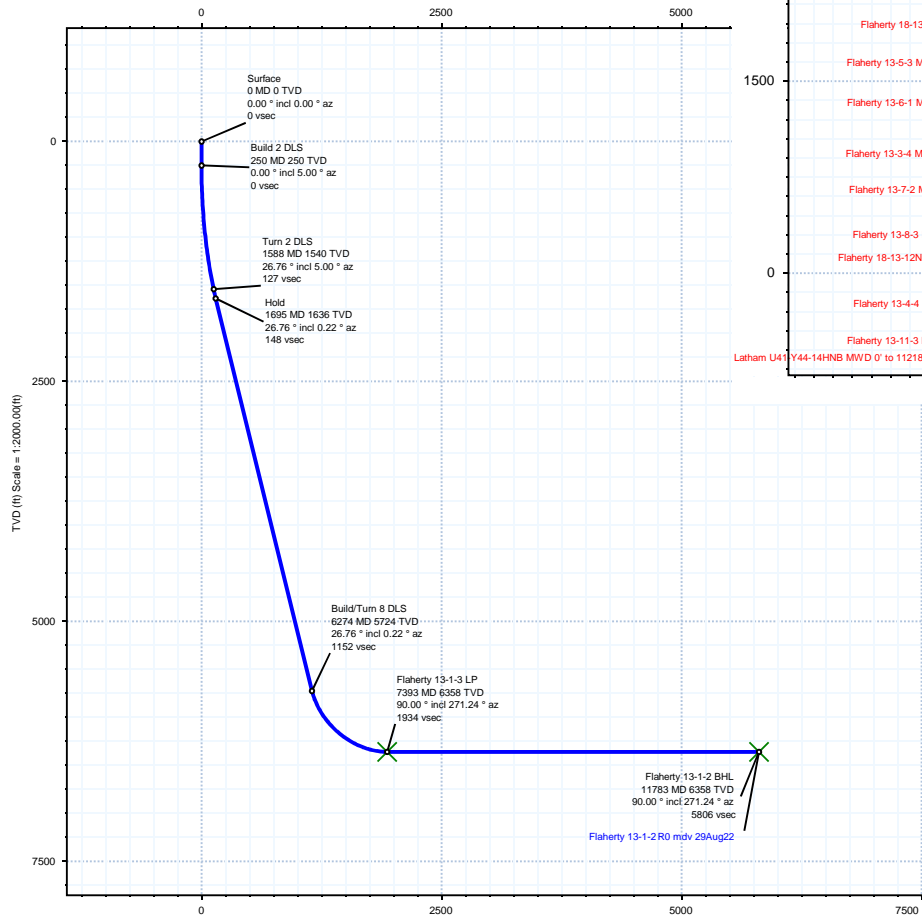
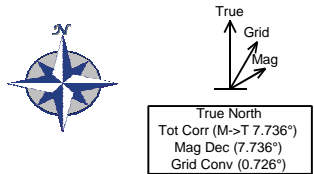


<b>Borehole:</b>	<b>Well:</b>	<b>Field:</b>	<b>Structure:</b>
Original Hole	Flaherty 13-1-2	CO, Weld County (NAD 83 NZ)	Confluence 18-04N-62W (Flaherty 18-I Pad)

<b>Gravity &amp; Magnetic Parameters</b>	<b>Surface Location</b>	<b>Miscellaneous</b>
Model: HDGM 2022 Dip: 66.706° Date: 29-Aug-2022	NAD83 Colorado State Plane, Northern Zone, US Feet	Slot: Flaherty 13-1-3 TVD Ref: KB 23ft(4569ft above MSL)
MagDec: 7.736° FS: 51817.569nT Gravity FS: 999.06mgn (9.80665 Based)	Lat: N 40 18 41.18 Northing: 1358284.99ftUS Grid Conv: 0.7262°	Plan: Flaherty 13-1-3 R0 mdiv 29Aug22
	Lon: W 104 22 33.74 Easting: 3313435.03ftUS Scale Fact: 0.99995741	



Surface Location		Northing:		Easting:		Latitude:		Longitude:		VSec Azimuth:	
1358284.9902062		3313435.0278911		N 40 18 41.18		W 104 22 33.74		299.35			
Target Name	Target Description	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)	Local Coord	
Flaherty 18-13-12NBH Sec 13		N 40 18 41.18	W 104 22 33.74	1358284.99	3313435.03	4569.00	0.00	0.00	0.00	0.00	
Flaherty Pad Sec 13 1/2 line		N 40 18 41.18	W 104 22 33.74	1358284.99	3313435.03	4569.00	0.00	0.00	0.00	0.00	
Flaherty 18-13-12NBH Sec 13 - 460 SB		N 40 18 41.18	W 104 22 33.74	1358284.99	3313435.03	4569.00	0.00	0.00	0.00	0.00	
Flaherty 18-7-10NBH Sec 18		N 40 18 41.18	W 104 22 33.74	1358284.99	3313435.03	4569.00	0.00	0.00	0.00	0.00	
Flaherty 13-1-2 BHL		N 40 19 9.30	W 104 23 39.08	1361066.24	3308338.38	6358.00	5806.39	2845.75	-5061.21	-672.04	
Flaherty 13-1-2 LP		N 40 19 8.36	W 104 22 42.42	1361026.65	3312728.21	6358.00	1933.85	2750.53	-672.04		

Critical Points							
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 2 DLS	250.00	0.00	5.00	250.00	0.00	0.00	0.00
Turn 2 DLS	1588.00	26.76	5.00	1539.88	126.49	305.65	26.74
Hold	1695.48	26.76	0.22	1635.87	148.25	353.96	28.94
Build/Turn 8 DLS	6273.52	26.76	0.22	5723.60	1151.44	2415.22	37.03
Flaherty 13-1-2 LP	7392.79	90.00	271.24	6358.00	1933.85	2750.53	-672.04
Flaherty 13-1-2 BHL	11782.99	90.00	271.24	6358.00	5806.39	2845.75	-5061.21

## Flaherty 13-1-2 R0 mdv 29Aug22 Proposal Geodetic Report

(Def Plan)

**Report Date:** August 30, 2022 - 08:58 AM  
**Client:** Confluence DJ  
**Field:** CO, Weld County (NAD 83 NZ)  
**Structure / Slot:** Confluence 18-04N-62W (Flaherty 18-I Pad) / Flaherty 13-1-2  
**Well:** Flaherty 13-1-3  
**Borehole:** Original Hole  
**UWI / API#:** Unknown / 05-123-48500  
**Survey Name:** Flaherty 13-1-2 R0 mdv 29Aug22  
**Survey Date:** August 29, 2022  
**Tort / AHD / DDI / ERD Ratio:** 118.451 ° / 7649.406 ft / 6.225 / 1.203  
**Coordinate Reference System:** NAD83 Colorado State Plane, Northern Zone, US Feet  
**Location Lat / Long:** N 40° 18' 41.18400", W 104° 22' 33.74400"  
**Location Grid N/E Y/X:** N 1358284.990 ftUS, E 3313435.028 ftUS  
**CRS Grid Convergence Angle:** 0.7262 °  
**Grid Scale Factor:** 0.99995741  
**Version / Patch:** 2.10.832.2

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 299.348 ° (True North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** KB 23ft  
**TVD Reference Elevation:** 4569.000 ft above MSL  
**Seabed / Ground Elevation:** 4546.000 ft above MSL  
**Magnetic Declination:** 7.736 °  
**Total Gravity Field Strength:** 999.0597 mgn (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 51817.569 nT  
**Magnetic Dip Angle:** 66.706 °  
**Declination Date:** August 29, 2022  
**Magnetic Declination Model:** HDGM 2022  
**North Reference:** True North  
**Grid Convergence Used:** 0.0000 °  
**Total Corr Mag North->True North:** 7.7362 °  
**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 (°)	
Build 2 DLS	Surface	0.00	0.00	0.00	0.00	-4569.00	0.00	0.00	0.00	N/A	1358284.99	3313435.03	40.311440	-104.376040
	100.00	0.00	5.00	100.00	0.00	-4469.00	0.00	0.00	0.00	1358284.99	3313435.03	40.311440	-104.376040	
	200.00	0.00	5.00	200.00	0.00	-4369.00	0.00	0.00	0.00	1358284.99	3313435.03	40.311440	-104.376040	
	250.00	0.00	5.00	250.00	0.00	-4319.00	0.00	0.00	0.00	1358284.99	3313435.03	40.311440	-104.376040	
	300.00	1.00	5.00	300.00	0.18	-4269.00	0.43	0.04	2.00	1358285.43	3313435.06	40.311441	-104.376040	
	400.00	3.00	5.00	399.93	1.62	-4169.07	3.91	0.34	2.00	1358288.91	3313435.32	40.311451	-104.376039	
	500.00	5.00	5.00	499.68	4.49	-4069.32	10.86	0.95	2.00	1358295.86	3313435.84	40.311470	-104.376037	
	600.00	7.00	5.00	599.13	8.80	-3969.87	21.27	1.86	2.00	1358306.28	3313436.62	40.311498	-104.376033	
	700.00	9.00	5.00	698.15	14.54	-3870.85	35.14	3.07	2.00	1358320.16	3313437.66	40.311536	-104.376029	
	800.00	11.00	5.00	796.63	21.70	-3772.37	52.43	4.59	2.00	1358337.48	3313438.95	40.311584	-104.376024	
	900.00	13.00	5.00	894.44	30.27	-3674.56	73.14	6.40	2.00	1358358.21	3313440.50	40.311641	-104.376017	
	1000.00	15.00	5.00	991.46	40.24	-3577.54	97.24	8.51	2.00	1358382.33	3313442.30	40.311707	-104.376009	
	1100.00	17.00	5.00	1087.58	51.61	-3481.42	124.70	10.91	2.00	1358409.81	3313444.36	40.311782	-104.376001	
	1200.00	19.00	5.00	1182.68	64.35	-3386.32	155.48	13.60	2.00	1358440.63	3313446.66	40.311867	-104.375991	
	1300.00	21.00	5.00	1276.65	78.45	-3292.35	189.55	16.58	2.00	1358474.73	3313449.21	40.311960	-104.375981	
Turn 2 DLS	1400.00	23.00	5.00	1369.36	93.89	-3199.64	228.87	19.85	2.00	1358512.08	3313452.00	40.312063	-104.375969	
	1500.00	25.00	5.00	1460.71	110.66	-3108.29	267.39	23.39	2.00	1358552.64	3313455.03	40.312174	-104.375956	
	1588.00	26.76	5.00	1539.88	126.49	-3029.12	305.65	26.74	2.00	1358590.94	3313457.89	40.312279	-104.375944	
	1600.00	26.75	4.47	1550.60	128.74	-3018.40	311.03	27.19	2.00	1358596.33	3313458.27	40.312294	-104.375943	
	1695.48	26.76	0.22	1635.87	148.25	-2933.13	353.96	28.94	2.00	1358639.27	3313459.48	40.312412	-104.375936	
	1700.00	26.76	0.22	1639.90	149.24	-2929.10	355.99	28.95	0.00	1358641.30	3313459.47	40.312417	-104.375936	
	1800.00	26.76	0.22	1729.19	171.15	-2839.81	401.02	29.13	0.00	1358686.33	3313459.07	40.312541	-104.375936	
	1900.00	26.76	0.22	1818.48	193.06	-2750.52	446.04	29.31	0.00	1358731.35	3313458.68	40.312664	-104.375935	
	2000.00	26.76	0.22	1907.77	214.98	-2661.23	491.07	29.48	0.00	1358776.37	3313458.28	40.312788	-104.375934	
	2100.00	26.76	0.22	1997.06	236.89	-2571.94	536.09	29.66	0.00	1358821.39	3313457.89	40.312912	-104.375934	
	2200.00	26.76	0.22	2086.35	258.80	-2482.65	581.12	29.84	0.00	1358866.41	3313457.49	40.313035	-104.375933	
	2300.00	26.76	0.22	2175.64	280.72	-2393.36	626.14	30.01	0.00	1358911.43	3313457.10	40.313159	-104.375932	
	2400.00	26.76	0.22	2264.93	302.63	-2304.07	671.17	30.19	0.00	1358956.46	3313456.71	40.313282	-104.375932	
	2500.00	26.76	0.22	2354.22	324.54	-2214.78	716.19	30.37	0.00	1359001.48	3313456.31	40.313406	-104.375931	
	Hold	2600.00	26.76	0.22	2443.51	346.46	-2125.49	761.22	30.54	0.00	1359046.50	3313455.92	40.313529	-104.375930
2700.00		26.76	0.22	2532.80	368.37	-2036.20	806.24	30.72	0.00	1359091.52	3313455.52	40.313653	-104.375930	
2800.00		26.76	0.22	2622.09	390.28	-1946.91	851.27	30.89	0.00	1359136.54	3313455.13	40.313777	-104.375929	
2900.00		26.76	0.22	2711.38	412.20	-1857.62	896.29	31.07	0.00	1359181.56	3313454.74	40.313900	-104.375929	
3000.00		26.76	0.22	2800.67	434.11	-1768.33	941.32	31.25	0.00	1359226.58	3313454.34	40.314024	-104.375928	
3100.00		26.76	0.22	2889.96	456.02	-1679.04	986.34	31.42	0.00	1359271.61	3313453.95	40.314147	-104.375927	
3200.00		26.76	0.22	2979.25	477.93	-1589.75	1031.37	31.60	0.00	1359316.63	3313453.55	40.314271	-104.375927	
3300.00		26.76	0.22	3068.54	499.85	-1500.46	1076.39	31.78	0.00	1359361.65	3313453.16	40.314395	-104.375926	
3400.00		26.76	0.22	3157.83	521.76	-1411.17	1121.42	31.95	0.00	1359406.67	3313452.76	40.314518	-104.375925	
3500.00		26.76	0.22	3247.12	543.67	-1321.88	1166.44	32.13	0.00	1359451.69	3313452.37	40.314642	-104.375925	
3600.00		26.76	0.22	3336.41	565.59	-1232.59	1211.47	32.31	0.00	1359496.71	3313451.98	40.314765	-104.375924	
3700.00		26.76	0.22	3425.70	587.50	-1143.30	1256.49	32.48	0.00	1359541.74	3313451.58	40.314889	-104.375924	
3800.00		26.76	0.22	3514.99	609.41	-1054.01	1301.52	32.66	0.00	1359586.76	3313451.19	40.315013	-104.375923	
3900.00		26.76	0.22	3604.28	631.33	-964.72	1346.54	32.84	0.00	1359631.78	3313450.79	40.315136	-104.375922	
Build/Turn 8 DLS		4000.00	26.76	0.22	3693.57	653.24	-875.43	1391.57	33.01	0.00	1359676.80	3313450.40	40.315260	-104.375922
	4100.00	26.76	0.22	3782.86	675.15	-786.14	1436.59	33.19	0.00	1359721.82	3313450.01	40.315383	-104.375921	
	4200.00	26.76	0.22	3872.15	697.07	-696.85	1481.61	33.37	0.00	1359766.84	3313449.61	40.315507	-104.375920	
	4300.00	26.76	0.22	3961.44	718.98	-607.56	1526.64	33.54	0.00	1359811.86	3313449.22	40.315631	-104.375920	
	4400.00	26.76	0.22	4050.73	740.89	-518.27	1571.66	33.72	0.00	1359856.89	3313448.82	40.315754	-104.375919	
	4500.00	26.76	0.22	4140.02	762.81	-428.98	1616.69	33.90	0.00	1359901.91	3313448.43	40.315878	-104.375918	
	4600.00	26.76	0.22	4229.31	784.72	-339.69	1661.71	34.07	0.00	1359946.93	3313448.03	40.316001	-104.375918	
	4700.00	26.76	0.22	4318.60	806.63	-250.40	1706.74	34.25	0.00	1359991.95	3313447.64	40.316125	-104.375917	
	4800.00	26.76	0.22	4407.89	828.55	-161.11	1751.76	34.42	0.00	1360036.97	3313447.25	40.316248	-104.375917	
	4900.00	26.76	0.22	4497.18	850.46	-71.82	1796.79	34.60	0.00	1360081.99	3313446.85	40.316372	-104.375916	
	5000.00	26.76	0.22	4586.47	872.37	17.47	1841.81	34.78	0.00	1360127.02	3313446.46	40.316496	-104.375915	
	5100.00	26.76	0.22	4675.76	894.29	106.76	1886.84	34.95	0.00	1360172.04	3313446.06	40.316619	-104.375915	
	5200.00	26.76	0.22	4765.05	916.20	196.05	1931.86	35.13	0.00	1360217.06	3313445.67	40.316743	-104.375914	
	5300.00	26.76	0.22	4854.34	938.11	285.34	1976.89	35.31	0.00	1360262.08	3313445.28	40.316866	-104.375913	
	5400.00	26.76	0.22	4943.63	960.02	374.63	2021.91	35.48	0.00	1360307.10	3313444.88	40.316990	-104.375913	
Fiherty 13-1-3 LP	5500.00	26.76	0.22	5032.92	981.94	463.92	2068.94	35.66	0.00	1360352.12	3313444.49	40.317114	-104.375912	
	5600.00	26.76	0.22	5122.21	1003.85	553.21	2111.96	35.84	0.00	1360397.14	3313444.09	40.317237	-104.375911	
	5700.00	26.76	0.22	5211.50	1025.76	642.50	2156.99	36.01	0.00	1360442.17	3313443.70	40.317361	-104.375911	
	5800.00	26.76	0.22	5300.79	1047.68	731.79	2202.01	36.19	0.00	1360487.19	3313443.30	40.317484	-104.375910	
	5900.00	26.76	0.22	5390.08	1069.59	821.08	2247.04	36.37	0.00	1360532.21	3313442.91	40.317608	-104.375910	
	6000.00	26.76	0.22	5479.37	1091.50	910.37	2292.06	36.54	0.00	1360577.23	3313442.52	40.317732	-104.375909	
	6100.00	26.76	0.22	5568.66	1113.42	999.66	2337.09	36.72	0.00	1360622.25	3313442.12	40.317855	-104.375908	
	6200.00	26.76	0.22	5657.96	1135.33	1088.96	2382.11	36.90	0.00	1360667.27	3313441.73	40.317979	-104.375908	
	6273.52	26.76	0.22	5723.60	1154.60	1151.44	2415.22	37.03	0.00	1360700.37	3313441.44	40.318070	-104.375907	
	6300.00	26.87	355.53	5747.24	1178.24	1157.67	2427.14	36.58	8.00	1360712.30	3313440.84	40.318102	-104.375909	
	6400.00	28.63	338.72	5835.87	1266.87	1188.82	2472.07	26.11	8.00	1360757.08	3313429.80	40.318226	-104.375946	
	6500.00	32.18	324.50	5922.22	1353.22	1231.51	2516.14	1.91	8.00	1360800.84	3313405.05	40.318347	-104.376033	
	6600.00	37.01	313.23	6004.60	1435.60	1284.91	2558.50	-35.54	8.00	1360842.72	3313367.07	40.318463	-104.376167	
	6700.00	42.68	304.39	6081.42	1512.42	1347.99	2598.32	-85.51	8.00	1360881.90	3313316.60	40.318572	-104.376347	
	6800.00	48.89	297.35	6151.17	1582.17	1419.52	2634.83	-14						

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	7900.00	90.00	271.24	6358.00	1789.00	2381.25	2761.53	-1179.13	0.00	1361031.23	3312221.04	40.319020	-104.380268
	8000.00	90.00	271.24	6358.00	1789.00	2469.46	2763.70	-1279.11	0.00	1361032.13	3312121.05	40.319026	-104.380627
	8100.00	90.00	271.24	6358.00	1789.00	2557.67	2765.87	-1379.08	0.00	1361033.03	3312021.06	40.319032	-104.380986
	8200.00	90.00	271.24	6358.00	1789.00	2645.87	2768.03	-1479.06	0.00	1361033.93	3311921.07	40.319038	-104.381344
	8300.00	90.00	271.24	6358.00	1789.00	2734.08	2770.20	-1579.04	0.00	1361034.83	3311821.08	40.319044	-104.381703
	8400.00	90.00	271.24	6358.00	1789.00	2822.29	2772.37	-1679.01	0.00	1361035.74	3311721.09	40.319050	-104.382061
	8500.00	90.00	271.24	6358.00	1789.00	2910.50	2774.54	-1778.99	0.00	1361036.64	3311621.10	40.319056	-104.382420
	8600.00	90.00	271.24	6358.00	1789.00	2998.71	2776.71	-1878.97	0.00	1361037.54	3311521.10	40.319062	-104.382778
	8700.00	90.00	271.24	6358.00	1789.00	3086.92	2778.88	-1978.94	0.00	1361038.44	3311421.11	40.319068	-104.383137
	8800.00	90.00	271.24	6358.00	1789.00	3175.13	2781.05	-2078.92	0.00	1361039.34	3311321.12	40.319074	-104.383495
	8900.00	90.00	271.24	6358.00	1789.00	3263.34	2783.22	-2178.90	0.00	1361040.25	3311221.13	40.319080	-104.383854
	9000.00	90.00	271.24	6358.00	1789.00	3351.55	2785.39	-2278.87	0.00	1361041.15	3311121.14	40.319085	-104.384212
	9100.00	90.00	271.24	6358.00	1789.00	3439.75	2787.56	-2378.85	0.00	1361042.05	3311021.15	40.319091	-104.384571
	9200.00	90.00	271.24	6358.00	1789.00	3527.96	2789.73	-2478.83	0.00	1361042.95	3310921.15	40.319097	-104.384929
	9300.00	90.00	271.24	6358.00	1789.00	3616.17	2791.89	-2578.80	0.00	1361043.85	3310821.16	40.319103	-104.385288
	9400.00	90.00	271.24	6358.00	1789.00	3704.38	2794.06	-2678.78	0.00	1361044.75	3310721.17	40.319109	-104.385646
	9500.00	90.00	271.24	6358.00	1789.00	3792.59	2796.23	-2778.75	0.00	1361045.66	3310621.18	40.319115	-104.386005
	9600.00	90.00	271.24	6358.00	1789.00	3880.80	2798.40	-2878.73	0.00	1361046.56	3310521.19	40.319121	-104.386363
	9700.00	90.00	271.24	6358.00	1789.00	3969.01	2800.57	-2978.71	0.00	1361047.46	3310421.20	40.319127	-104.386722
	9800.00	90.00	271.24	6358.00	1789.00	4057.22	2802.74	-3078.68	0.00	1361048.36	3310321.21	40.319133	-104.387080
	9900.00	90.00	271.24	6358.00	1789.00	4145.42	2804.91	-3178.66	0.00	1361049.26	3310221.21	40.319139	-104.387439
	10000.00	90.00	271.24	6358.00	1789.00	4233.63	2807.08	-3278.64	0.00	1361050.16	3310121.22	40.319145	-104.387797
	10100.00	90.00	271.24	6358.00	1789.00	4321.84	2809.25	-3378.61	0.00	1361051.07	3310021.23	40.319151	-104.388156
	10200.00	90.00	271.24	6358.00	1789.00	4410.05	2811.42	-3478.59	0.00	1361051.97	3309921.24	40.319156	-104.388515
	10300.00	90.00	271.24	6358.00	1789.00	4498.26	2813.59	-3578.57	0.00	1361052.87	3309821.25	40.319162	-104.388873
	10400.00	90.00	271.24	6358.00	1789.00	4586.47	2815.76	-3678.54	0.00	1361053.77	3309721.26	40.319168	-104.389232
	10500.00	90.00	271.24	6358.00	1789.00	4674.68	2817.92	-3778.52	0.00	1361054.67	3309621.27	40.319174	-104.389590
	10600.00	90.00	271.24	6358.00	1789.00	4762.89	2820.09	-3878.50	0.00	1361055.57	3309521.27	40.319180	-104.389949
	10700.00	90.00	271.24	6358.00	1789.00	4851.10	2822.26	-3978.47	0.00	1361056.48	3309421.28	40.319186	-104.390307
	10800.00	90.00	271.24	6358.00	1789.00	4939.30	2824.43	-4078.45	0.00	1361057.38	3309321.29	40.319192	-104.390666
	10900.00	90.00	271.24	6358.00	1789.00	5027.51	2826.60	-4178.43	0.00	1361058.28	3309221.30	40.319198	-104.391024
	11000.00	90.00	271.24	6358.00	1789.00	5115.72	2828.77	-4278.40	0.00	1361059.18	3309121.31	40.319204	-104.391383
	11100.00	90.00	271.24	6358.00	1789.00	5203.93	2830.94	-4378.38	0.00	1361060.08	3309021.32	40.319210	-104.391741
	11200.00	90.00	271.24	6358.00	1789.00	5292.14	2833.11	-4478.35	0.00	1361060.99	3308921.33	40.319216	-104.392100
	11300.00	90.00	271.24	6358.00	1789.00	5380.35	2835.28	-4578.33	0.00	1361061.89	3308821.33	40.319222	-104.392458
	11400.00	90.00	271.24	6358.00	1789.00	5468.56	2837.45	-4678.31	0.00	1361062.79	3308721.34	40.319227	-104.392817
	11500.00	90.00	271.24	6358.00	1789.00	5556.77	2839.62	-4778.28	0.00	1361063.69	3308621.35	40.319233	-104.393175
	11600.00	90.00	271.24	6358.00	1789.00	5644.97	2841.78	-4878.26	0.00	1361064.59	3308521.36	40.319239	-104.393534
	11700.00	90.00	271.24	6358.00	1789.00	5733.18	2843.95	-4978.24	0.00	1361065.49	3308421.37	40.319245	-104.393892
Flaherty 13-1-3 BHL	11782.99	90.00	271.24	6358.00	1789.00	5806.39	2845.75	-5061.21	0.00	1361066.24	3308338.38	40.319250	-104.394190

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 3 \*\*\* 3-D 97.071% Confidence 3.0000 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	23.000	1/100.000	13.500	9.625		A001Mb_MWD-Depth Only	Original Hole / Flaherty 13-1-3 R0 mdv 29Aug22
	1	23.000	1700.000	1/100.000	13.500	9.625		A001Mb_MWD	Original Hole / Flaherty 13-1-3 R0 mdv 29Aug22
	1	1700.000	11782.992	1/100.000	8.500	5.500		B001Mb_MWD+HRGM	Original Hole / Flaherty 13-1-3 R0 mdv 29Aug22

## Flaherty 13-1-2 R0 mdv 29Aug22 Anti-Collision Summary Report

**Analysis Date-24hr Time:** August 30, 2022 - 09:01  
**Client:** Confluence DJ  
**Field:** CO, Weld County (NAD 83 NZ)  
**Structure:** Confluence 18-04N-62W (Flaherty 18-I Pad)  
**Slot:** Flaherty 13-1-2  
**Well:** Flaherty 13-1-2  
**Borehole:** Original Hole  
**Scan MD Range:** 0.00ft ~ 11782.99ft

**Analysis Method:** 3D Least Distance  
**Reference Trajectory:** Flaherty 13-1-2 R0 mdv 29Aug22 (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:** 2.10.832.2  
**Database \ Project:** us1455vsm3175\drilling-CO, Weld County 2.10\_RESTORE

**Trajectory Error Model:** ISCWSA3 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

### 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 Trajectories Summary

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

### Middlepark 18-12-2L R2 mdv 19Aug22 (Def Plan)

2325.71	32.81	2324.73	2292.91	N/A	MAS = 10.00 (m)	0.00	0.00						Fail Major
2325.71	32.81	2324.67	2292.90	38596.33	MAS = 10.00 (m)	23.00	23.00						Surface
2325.71	32.81	2322.80	2292.90	1206.43	MAS = 10.00 (m)	250.00	250.00						WRP
2325.92	32.81	2322.61	2293.12	998.71	MAS = 10.00 (m)	290.00	290.00						MinPts
2697.39	32.81	2676.44	2664.58	135.07	MAS = 10.00 (m)	1910.00	1827.41						MINPT-O-EQU
436.28	132.68	347.49	303.59	4.56	OSF1.50	6400.00	5835.87	OSF<5.00					MinPt-O-SF
151.11	152.40	49.18	-1.29	1.49	OSF1.50	6750.00	6117.26		OSF<1.50				Enter Alert
130.42	197.31	-1.45	-66.89	0.99	OSF1.50	6810.00	6157.70			OSF<1.00			Enter Minor
129.16	215.03	-14.52	-85.87	0.90	OSF1.50	6830.00	6170.51						Enter Major
135.96	243.86	-26.95	-107.92	0.83	OSF1.50	6870.00	6195.05						MinPt-CtCt
143.63	253.22	-25.51	-109.58	0.85	OSF1.50	6890.00	6206.78						MinPts
172.20	264.17	-4.24	-91.97	0.98	OSF1.50	6940.00	6234.39				OSF>1.00		MinPt-O-ADP
261.03	265.05	84.00	-4.02	1.48	OSF1.50	7050.00	6286.14						Exit Major
895.34	269.74	715.19	625.61	4.99	OSF1.50	7700.00	6358.00	OSF>5.00		OSF>1.50			Exit Minor
4966.30	279.83	4779.42	4686.47	26.71	OSF1.50	11782.99	6358.00						Exit Alert
													TD

### Flaherty 13-2-2 R0 mdv 29Aug22 (Def Plan)

14.57	11.85	13.59	2.72	N/A	MAS = 3.61 (m)	0.00	0.00	CtCt<=15m<15.00					Fail Minor
14.57	11.85	13.59	2.72	N/A	MAS = 3.61 (m)	23.00	23.00						Enter Alert
14.57	11.85	11.70	2.72	7.19	MAS = 3.61 (m)	250.00	250.00						WRP
14.73	11.85	11.55	2.88	6.28	MAS = 3.61 (m)	280.00	280.00						MinPts
61.17	23.80	44.98	37.37	3.93	OSF1.50	1460.00	1424.34						MINPT-O-EQU
93.70	28.81	74.16	64.89	5.00	OSF1.50	1950.00	1863.12	OSF>5.00					MinPt-O-SF
418.95	96.00	354.63	322.96	6.60	OSF1.50	6360.00	5800.59						Exit Alert
532.60	160.95	424.97	371.65	4.98	OSF1.50	7990.00	6358.00	OSF<5.00					MinPt-O-SF
529.69	530.61	175.62	-0.92	1.50	OSF1.50	11600.00	6358.00		OSF<1.50				Enter Alert
529.56	547.66	164.12	-18.10	1.45	OSF1.50	11760.00	6358.00						Enter Minor
529.57	547.86	164.00	-18.29	1.45	OSF1.50	11770.00	6358.00						MinPt-CtCt
529.82	546.41	165.22	-16.59	1.45	OSF1.50	11782.99	6358.00						MinPts
													TD

### Flaherty 18-13-15 MWD 0' to 11390' - PR (Def Survey)

31.87	24.57	30.06	7.30	N/A	MAS = 7.49 (m)	0.00	0.00	CtCt<=15m<15.00					Warning Alert
30.26	24.57	28.44	5.69	17004.77	MAS = 7.49 (m)	23.00	23.00						Enter Alert
29.89	24.57	26.30	5.33	15.76	MAS = 7.49 (m)	250.00	250.00						WRP
30.02	24.57	26.12	5.45	13.54	MAS = 7.49 (m)	280.00	280.00						MinPts
42.59	24.57	36.27	18.02	9.06	MAS = 7.49 (m)	520.00	519.60						MINPT-O-EQU
48.77	24.57	41.84	24.20	9.19	MAS = 7.49 (m)	580.00	579.27	CtCt<=15m<15.00					MinPt-O-SF
353.42	84.50	296.55	268.92	6.37	OSF1.50	4630.00	4256.10						Exit Alert
353.98	86.36	295.88	267.63	6.24	OSF1.50	4690.00	4309.67						MinPt-CtCt
354.51	86.95	296.01	267.56	6.20	OSF1.50	4710.00	4327.53						MinPt-O-EQU
366.41	92.45	304.24	273.95	6.02	OSF1.50	4920.00	4515.04						MinPt-O-ADP
1051.04	116.69	972.72	934.36	13.68	OSF1.50	7250.00	6345.33						MinPt-O-SF
1038.59	151.58	937.01	887.01	10.37	OSF1.50	7800.00	6358.00						MINPT-O-EQU
1039.09	222.61	890.15	816.49	7.04	OSF1.50	8570.00	6358.00						MinPt-CtCt
1047.20	315.58	836.28	731.63	5.00	OSF1.50	9500.00	6358.00	OSF<5.00					Enter Alert
1068.08	436.11	776.81	631.97	3.68	OSF1.50	10590.00	6358.00						MinPt-O-SF
1060.58	489.45	733.75	571.13	3.26	OSF1.50	11080.00	6358.00						MinPt-CtCt
1058.76	563.30	682.68	495.45	2.82	OSF1.50	11730.00	6358.00						MinPts
1058.64	563.19	682.65	495.50	2.82	OSF1.50	11740.00	6358.00						MINPT-O-EQU
1058.61	562.92	682.80	495.69	2.82	OSF1.50	11750.00	6358.00						MinPt-O-SF
1059.20	561.87	684.08	497.32	2.83	OSF1.50	11782.99	6358.00						MinPt-CtCt
													TD

### Middlepark 18-21-3L MWD 0' to 16513' - PR (Def Survey)

2550.47	32.81	2549.49	2517.66	N/A	MAS = 10.00 (m)	0.00	0.00						Warning Alert
2550.47	32.81	2549.44	2517.66	58639.27	MAS = 10.00 (m)	23.00	23.00						Surface
2549.47	32.81	2546.34	2516.66	1189.55	MAS = 10.00 (m)	270.00	270.00						WRP
2549.65	32.81	2546.24	2516.84	1051.42	MAS = 10.00 (m)	300.00	300.00						MinPts
2872.33	32.81	2853.58	2839.52	161.60	MAS = 10.00 (m)	1800.00	1729.19						MINPT-O-EQU
2904.94	32.81	2885.95	2872.13	161.26	MAS = 10.00 (m)	1890.00	1809.55						MinPt-O-SF
635.97	194.71	505.83	441.26	4.92	OSF1.50	6400.00	5835.87	OSF<5.00					MinPt-O-SF
537.66	254.88	367.41	282.78	3.17	OSF1.50	6680.00	6066.57						Enter Alert
540.14	262.84	364.59	277.30	3.09	OSF1.50	6720.00	6095.98						MinPt-CtCt
543.12	266.48	365.13	276.64	3.06	OSF1.50	6740.00	6110.24						MinPt-O-ADP
552.45	273.01	370.11	279.44	3.04	OSF1.50	6780.00	6137.85						MINPT-O-EQU
973.38	292.95	777.75	680.43	5.00	OSF1.50	7330.00	6355.54	OSF>5.00					MinPt-O-SF
5424.88	295.69	5227.42	5129.19	27.61	OSF1.50	11782.99	6358.00						Exit Alert
													TD

### Flaherty 13-5-3 MWD 0' to 12270' Definitive (Def Survey)

2327.96	32.81	2326.98	2295.15	N/A	MAS = 10.00 (m)	0.00	0.00						Warning Alert
2327.96	32.81	2326.91	2295.15	37468.62	MAS = 10.00 (m)	23.00	23.00						Surface
1245.02	131.56	1156.98	1113.45	14.29	OSF1.50	6120.00	5586.52						WRP
													MinPt-CtCt

...Flaherty 13-1-3\Original Hole\Flaherty 13-1-3 R0 mdv 29Aug22

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
1245.49	133.06	1156.43	1112.43	14.13		OSF1.50	6160.00	5622.24				MINPT-O-EOU	
1246.07	133.79	1156.55	1112.28	14.06		OSF1.50	6180.00	5640.10				MinPt-O-ADP	
1301.00	149.70	1200.87	1151.30	13.11		OSF1.50	6640.00	6036.08				MinPt-O-SF	
1369.00	165.69	1258.21	1203.31	12.46		OSF1.50	7260.00	6347.04				MINPT-O-EOU	
1359.16	208.64	1219.74	1150.52	9.81		OSF1.50	7970.00	6358.00				MinPt-Ct-Ct	
1358.24	251.01	1190.58	1107.23	8.14		OSF1.50	8430.00	6358.00				MinPt-Ct-Ct	
1363.72	410.39	1089.80	953.34	4.99		OSF1.50	10010.00	6358.00	OSF<5.00			Enter Alert	
1367.45	526.48	1016.13	840.97	3.90		OSF1.50	11110.00	6358.00				MinPt-Ct-Ct	
1368.23	561.54	993.54	806.69	3.66		OSF1.50	11440.00	6358.00				MinPt-Ct-Ct	
1367.98	586.05	976.93	781.91	3.50		OSF1.50	11670.00	6358.00				MinPt-Ct-Ct	
1368.48	596.67	970.38	771.82	3.44		OSF1.50	11782.99	6358.00				MinPts	

Flaherty 13-6-1 MWD 0' to 12060' Definitive (Def Survey)													Warning Alert
2353.03	32.81	2352.04	2320.22	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
2353.02	32.81	2351.97	2320.21	35771.12		MAS = 10.00 (m)	23.00	23.00				WRP	
1365.71	115.57	1288.34	1250.15	17.87		OSF1.50	5690.00	5202.58				MinPt-Ct-Ct	
1366.01	116.60	1287.94	1249.40	17.71		OSF1.50	5730.00	5238.29				MINPT-O-EOU	
1366.43	117.12	1288.03	1249.31	17.64		OSF1.50	5750.00	5256.15				MinPt-O-ADP	
1452.65	135.24	1362.16	1317.41	16.22		OSF1.50	6330.00	5773.96				MinPt-O-SF	
1682.07	209.28	1542.22	1472.79	12.11		OSF1.50	8030.00	6358.00				MinPt-Ct-Ct	
1663.12	451.60	1361.72	1211.51	5.53		OSF1.50	10440.00	6358.00				MinPt-Ct-Ct	
1667.43	501.38	1332.86	1166.06	5.00		OSF1.50	10930.00	6358.00	OSF<5.00			Enter Alert	
1676.10	582.85	1280.54	1083.26	4.25		OSF1.50	11782.99	6358.00				MinPts	

Flaherty 13-3-4 MWD 0' to 12135' Definitive (Def Survey)													Warning Alert
2377.75	32.81	2376.77	2344.95	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
2377.75	32.81	2376.70	2344.94	35759.58		MAS = 10.00 (m)	23.00	23.00				WRP	
1670.86	109.49	1597.54	1561.37	23.08		OSF1.50	5540.00	5068.64				MinPt-Ct-Ct	
1667.05	123.44	1584.43	1543.61	20.41		OSF1.50	5930.00	5416.87				MinPt-Ct-Ct	
1667.45	124.50	1584.12	1542.95	20.24		OSF1.50	5970.00	5452.59				MINPT-O-EOU	
1667.91	125.02	1584.24	1542.89	20.16		OSF1.50	5990.00	5470.45				MinPt-O-ADP	
1715.91	134.28	1626.06	1581.63	19.30		OSF1.50	6400.00	5835.87				MinPt-O-SF	
1754.57	141.27	1660.07	1613.31	18.75		OSF1.50	6600.00	6004.60				MinPt-O-SF	
1869.85	163.44	1760.56	1706.41	17.26		OSF1.50	7400.00	6358.00				MinPt-Ct-Ct	
1849.92	374.52	1599.91	1475.40	7.42		OSF1.50	9650.00	6358.00				MinPt-Ct-Ct	
1849.87	391.02	1588.87	1458.86	7.11		OSF1.50	9810.00	6358.00				MinPt-Ct-Ct	
1849.97	405.53	1579.29	1444.44	6.86		OSF1.50	9950.00	6358.00				MinPt-Ct-Ct	
1863.39	560.43	1489.44	1302.96	4.99		OSF1.50	11440.00	6358.00	OSF<5.00			Enter Alert	
1868.08	585.22	1470.94	1272.86	4.71		OSF1.50	11782.99	6358.00				MinPts	

Flaherty 13-8-3 MWD 0' to 11888' Definitive (Def Survey)													Warning Alert
2428.31	32.81	2427.32	2395.50	N/A		MAS = 10.00 (m)	0.00	0.00				MinPts	
2428.33	32.81	2427.30	2395.52	52326.01		MAS = 10.00 (m)	23.00	23.00				WRP	
2428.42	32.81	2427.28	2395.61	15652.20		MAS = 10.00 (m)	50.00	50.00				MINPT-O-EOU	
2435.52	32.81	2430.10	2402.71	549.01		MAS = 10.00 (m)	470.00	469.78				MINPT-O-EOU	
2089.70	428.18	1803.92	1661.52	7.33		OSF1.50	4000.00	3693.57				MinPt-Ct-Ct	
2128.43	639.53	1701.75	1488.90	5.00		OSF1.50	5310.00	4863.27	OSF<5.00			Enter Alert	
2174.56	787.38	1649.28	1387.18	4.15		OSF1.50	5960.00	5443.66				MINPT-O-EOU	
2190.62	806.82	1652.30	1383.80	4.08		OSF1.50	6080.00	5550.81				MinPt-O-ADP	
2261.15	849.29	1694.30	1411.87	4.00		OSF1.50	6420.00	5853.38				MinPt-O-SF	
2430.06	1122.67	1680.47	1307.38	3.25		OSF1.50	8080.00	6358.00				MinPt-Ct-Ct	
2430.52	1201.13	1628.63	1229.39	3.04		OSF1.50	8330.00	6358.00				MinPt-Ct-Ct	
2429.29	1313.51	1552.48	1115.78	2.78		OSF1.50	8690.00	6358.00				MinPt-Ct-Ct	
2427.15	1541.22	1398.52	885.92	2.36		OSF1.50	9400.00	6358.00				MinPt-Ct-Ct	
2412.32	1984.50	1088.18	427.83	1.82		OSF1.50	10750.00	6358.00				MinPt-Ct-Ct	
2411.94	2047.27	1045.95	364.68	1.77		OSF1.50	10940.00	6358.00				MinPt-Ct-Ct	
2412.11	2097.37	1012.72	314.74	1.73		OSF1.50	11090.00	6358.00				MinPt-Ct-Ct	
2424.34	2307.67	884.72	116.67	1.58		OSF1.50	11782.99	6358.00				MinPts	

Flaherty 18-7-10NBH MWD 0' to 12266' Definitive (Def Survey)													Pass
62.73	32.81	61.75	29.93	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
61.93	32.81	60.95	29.12	N/A		MAS = 10.00 (m)	10.00	10.00				MinPts	
61.93	32.81	60.95	29.12	167843.27		MAS = 10.00 (m)	23.00	23.00				WRP	
62.22	32.81	59.73	29.41	40.67		MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
103.74	32.81	97.87	70.93	21.03		MAS = 10.00 (m)	730.00	727.76				MinPt-O-SF	
508.32	41.92	480.05	466.40	18.59		OSF1.50	2950.00	2756.03				MinPt-Ct-Ct	
508.76	43.54	479.41	465.22	17.90		OSF1.50	3000.00	2800.67				MINPT-O-EOU	
509.27	44.18	479.48	465.08	17.65		OSF1.50	3020.00	2818.53				MinPt-O-ADP	
666.94	77.34	615.03	589.61	13.10		OSF1.50	4010.00	3702.50				MinPt-O-SF	
695.76	80.95	641.43	614.81	13.05		OSF1.50	4120.00	3800.72				MinPt-O-SF	
768.92	90.15	708.48	678.77	12.92		OSF1.50	4390.00	4041.80				MinPt-O-SF	
870.01	100.97	802.35	769.04	13.05		OSF1.50	4770.00	4381.11				MinPt-O-SF	
1034.04	116.56	955.96	917.48	13.42		OSF1.50	5340.00	4890.06				MinPt-O-SF	
6403.87	135.23	6313.34	6268.64	71.62		OSF1.50	11782.99	6358.00				TD	

Flaherty 18-13-12NBH Pilot 0' to 6190 - PR (Def Survey)													Pass
89.26	32.81	87.44	56.45	671326.13		MAS = 10.00 (m)	0.00	0.00				MinPts	
89.27	32.81	87.45	56.46	20394.86		MAS = 10.00 (m)	23.00	23.00				WRP	
89.72	32.81	86.46	56.91	60.50		MAS = 10.00 (m)	260.00	260.00				MinPts	
89.81	32.81	86.42	57.00	55.58		MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
143.67	32.81	136.41	110.86	26.04		MAS = 10.00 (m)	810.00	806.44				MinPt-O-SF	
1312.69	35.17	1288.70	1277.51	58.58		OSF1.50	3740.00	3461.42				MinPt-O-SF	
1623.22	42.78	1594.15	1580.44	59.14		OSF1.50	4440.00	4086.45				MinPt-O-SF	
2164.09	58.18	2124.77	2105.91	57.35		OSF1.50	5670.00	5184.72				MinPt-O-SF	
2620.48	71.81	2572.07	2548.67	55.95		OSF1.50	6780.00	6137.85				MinPt-O-SF	
3532.84	133.47	3443.17	3399.37	40.31		OSF1.50	9140.00	6358.00				MinPt-O-SF	
5592.63	168.07	5479.91	5424.55	50.50		OSF1.50	11782.99	6358.00				TD	

Flaherty 18-13-12NBH ST1 5525' to 10837 - PR (Def Survey)													Pass
89.26	32.81	87.44	56.45	671326.13		MAS = 10.00 (m)	0.00	0.00				MinPts	
89.27	32.81	87.45	56.46	20394.86		MAS = 10.00 (m)	23.00	23.00				WRP	
89.72	32.81	86.46	56.91	60.50		MAS = 10.00 (m)	260.00	260.00				MinPts	
89.81	32.81	86.42	57.00	55.58		MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
143.67	32.81	136.41	110.86	26.04		MAS = 10.00 (m)	810.00	806.44				MinPt-O-SF	

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Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Cl (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	1312.69	35.17	1286.70	1277.51	58.58	OSF1.50	3740.00	3461.42				MinPt-O-SF	
	1623.22	42.78	1594.15	1580.44	59.14	OSF1.50	4440.00	4086.45				MinPt-O-SF	
	2164.09	58.18	2124.77	2105.91	57.35	OSF1.50	5670.00	5184.72				MinPt-O-SF	
	2438.40	67.26	2393.03	2371.14	55.68	OSF1.50	6310.00	5756.15				MinPt-O-SF	
	2741.91	156.36	2637.07	2585.55	26.59	OSF1.50	8030.00	6358.00				MinPt-CiCl	
	2714.59	242.19	2552.52	2472.40	16.93	OSF1.50	8850.00	6358.00				MinPt-CiCl	
	2730.17	279.43	2543.23	2450.73	14.75	OSF1.50	9300.00	6358.00				MINPT-O-EOU	
	2747.16	310.29	2539.65	2436.87	13.35	OSF1.50	9580.00	6358.00				MINPT-O-EOU	
	2764.37	393.03	2501.76	2371.34	10.59	OSF1.50	10220.00	6358.00				MinPt-CiCl	
	2758.85	436.51	2467.24	2322.34	9.51	OSF1.50	10610.00	6358.00				MinPt-CiCl	
	2739.87	557.56	2367.56	2182.31	7.39	OSF1.50	11690.00	6358.00				MinPt-CiCl	
	2740.59	559.80	2366.75	2180.79	7.36	OSF1.50	11750.00	6358.00				MINPT-O-EOU	
	2741.44	560.83	2366.90	2180.61	7.35	OSF1.50	11780.00	6358.00				MinPt-O-ADP	
	2741.55	560.93	2366.94	2180.61	7.35	OSF1.50	11782.99	6358.00				MinPt-O-SF	
Latham U41-Y44-14HNB MWD 0' to 11218' - PR (Def Survey)													
	6605.32	32.81	6604.22	6572.51	57176.63	MAS = 10.00 (m)	0.00	0.00				MinPts	Pass
	6605.33	32.81	6604.15	6572.52	34104.46	MAS = 10.00 (m)	23.00	23.00				WRP	
	5914.76	121.16	5833.66	5793.60	73.81	OSF1.50	5630.00	5149.00				MinPts	
	3897.27	138.93	3804.33	3758.34	42.37	OSF1.50	8620.00	6358.00				MinPt-O-SF	
	739.25	139.34	646.03	599.91	8.00	OSF1.50	11782.99	6358.00				MinPts	
Middlepark 18-5-4L MWD 0' to 16532' - PR (Def Survey)													
	2449.56	32.81	2448.57	2416.75	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2449.56	32.81	2448.57	2416.75	N/A	MAS = 10.00 (m)	10.00	10.00				MinPts	
	2449.56	32.81	2448.54	2416.75	60575.25	MAS = 10.00 (m)	23.00	23.00				WRP	
	2450.33	32.81	2447.17	2417.52	1125.65	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	2760.78	32.81	2741.84	2727.97	153.73	MAS = 10.00 (m)	1800.00	1729.19				MinPt-O-SF	
	2920.35	32.81	2900.64	2887.54	155.93	MAS = 10.00 (m)	2230.00	2113.14				MinPt-O-SF	
	1239.67	265.66	1062.24	974.02	7.02	OSF1.50	6570.00	5980.40				MinPt-CiCl	
	1240.43	268.31	1061.23	972.12	6.95	OSF1.50	6600.00	6004.60				MINPT-O-EOU	
	1241.09	269.17	1061.31	971.92	6.94	OSF1.50	6610.00	6012.56				MinPt-O-ADP	
	1264.43	278.60	1078.37	985.83	6.83	OSF1.50	6730.00	6103.15				MinPt-O-SF	
	6146.74	303.12	5944.34	5843.62	30.51	OSF1.50	11782.99	6358.00				TD	
Middlepark 18-11-1L - surface shift (Def Plan)													
	2353.23	32.81	2352.25	2320.43	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	Pass
	2353.24	32.81	2352.20	2320.43	42179.71	MAS = 10.00 (m)	23.00	23.00				WRP	
	2354.09	32.81	2351.19	2321.29	1223.25	MAS = 10.00 (m)	270.00	270.00				MINPT-O-EOU	
	2947.27	32.81	2927.67	2914.46	158.26	MAS = 10.00 (m)	2130.00	2023.85				MinPt-O-SF	
	1564.49	247.70	1399.03	1316.79	9.51	OSF1.50	6420.00	5853.38				MinPt-CiCl	
	1564.90	248.71	1398.76	1316.19	9.47	OSF1.50	6440.00	5870.78				MINPT-O-EOU	
	1565.39	249.21	1398.92	1316.18	9.45	OSF1.50	6450.00	5879.44				MinPt-O-ADP	
	1583.21	254.24	1413.39	1328.97	9.37	OSF1.50	6560.00	5972.23				MinPt-O-SF	
	6607.54	279.76	6420.70	6327.77	35.55	OSF1.50	11782.99	6358.00				TD	
Flaherty 13-7-2 MWD 0' to 11940' Definitive (Def Survey)													
	2400.54	32.81	2399.55	2367.73	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2400.53	32.81	2399.48	2367.72	37757.17	MAS = 10.00 (m)	23.00	23.00				WRP	
	2400.23	32.81	2397.86	2367.42	1771.88	MAS = 10.00 (m)	210.00	210.00				MinPts	
	2400.47	32.81	2397.48	2367.66	1194.28	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	1843.23	105.98	1772.25	1737.25	26.32	OSF1.50	5390.00	4934.71				MinPt-CiCl	
	1843.05	112.60	1767.65	1730.45	24.76	OSF1.50	5580.00	5104.36				MinPt-CiCl	
	1844.78	117.93	1765.83	1726.85	23.65	OSF1.50	5720.00	5229.36				MINPT-O-EOU	
	1847.73	124.87	1764.16	1722.86	22.36	OSF1.50	5830.00	5327.58				MINPT-O-EOU	
	1849.73	127.22	1764.59	1722.51	21.97	OSF1.50	5880.00	5372.23				MinPt-O-ADP	
	1933.68	144.95	1836.71	1788.72	20.14	OSF1.50	6440.00	5870.78				MinPt-O-SF	
	1956.94	146.77	1858.76	1810.16	20.12	OSF1.50	6540.00	5955.74				MinPt-O-SF	
	2038.20	152.67	1936.09	1885.53	20.15	OSF1.50	6920.00	6223.64				MinPt-O-SF	
	2051.69	349.19	1818.57	1702.51	8.83	OSF1.50	9410.00	6358.00				MinPt-CiCl	
	2025.02	599.90	1624.76	1425.12	5.07	OSF1.50	11760.00	6358.00				MinPt-O-SF	
	2024.93	599.86	1624.69	1425.07	5.07	OSF1.50	11770.00	6358.00				MinPt-O-ADP	
	2024.88	599.81	1624.63	1425.07	5.07	OSF1.50	11780.00	6358.00				MINPT-O-EOU	
	2024.83	599.79	1624.69	1425.09	5.07	OSF1.50	11782.99	6358.00				MinPt-CiCl	
Middlepark 18-9-2 - surface shift (Def Plan)													
	2376.17	32.81	2375.18	2343.36	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	Pass
	2376.18	32.81	2375.14	2343.37	45615.47	MAS = 10.00 (m)	23.00	23.00				WRP	
	2376.37	32.81	2375.04	2343.57	6736.58	MAS = 10.00 (m)	90.00	90.00				MINPT-O-EOU	
	2376.68	32.81	2375.00	2343.87	3419.54	MAS = 10.00 (m)	140.00	140.00				MINPT-O-EOU	
	3097.52	32.81	3077.36	3064.71	161.45	MAS = 10.00 (m)	2300.00	2175.64				MinPt-O-SF	
	1979.38	266.65	1801.28	1712.73	11.17	OSF1.50	6410.00	5844.64				MinPt-CiCl	
	1979.59	267.67	1800.82	1711.92	11.13	OSF1.50	6430.00	5862.09				MINPT-O-EOU	
	1979.97	268.18	1800.86	1711.79	11.11	OSF1.50	6440.00	5870.78				MinPt-O-ADP	
	2006.94	275.14	1823.19	1731.80	10.98	OSF1.50	6590.00	5996.59				MinPt-O-SF	
	7023.82	282.59	6835.09	6741.22	37.41	OSF1.50	11782.99	6358.00				TD	
State Seventy Holes J-18 MWD 0' to 6800' - PR (Def Survey)													
	2120.08	32.81	2118.25	2087.25	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	Pass
	2120.08	32.81	2118.22	2087.28	40014.01	MAS = 10.00 (m)	23.00	23.00				WRP	
	2120.34	32.81	2118.11	2087.53	5046.42	MAS = 10.00 (m)	90.00	90.00				MINPT-O-EOU	
	2120.50	32.81	2118.11	2087.69	3697.71	MAS = 10.00 (m)	110.00	110.00				MINPT-O-EOU	
	4440.29	95.50	4376.09	4344.79	70.91	OSF1.50	6620.00	6020.46				MinPt-O-SF	
	4792.64	101.70	4724.30	4690.93	71.79	OSF1.50	7290.00	6351.42				MinPt-O-SF	
	6965.97	183.77	6842.92	6782.19	57.35	OSF1.50	10730.00	6358.00				MinPt-O-SF	
	7814.68	202.81	7678.94	7611.87	58.25	OSF1.50	11782.99	6358.00				TD	
Flaherty 13-4-4 MWD 0' to 11790' Definitive (Def Survey)													
	2451.09	32.81	2450.11	2418.28	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2451.09	32.81	2450.04	2418.28	38836.80	MAS = 10.00 (m)	23.00	23.00				WRP	
	2450.87	32.81	2448.53	2418.06	1814.94	MAS = 10.00 (m)	210.00	210.00				MinPts	
	2451.04	32.81	2448.14	2418.23	1283.72	MAS = 10.00 (m)	270.00	270.00				MINPT-O-EOU	
	2306.71	34.48	2283.39	2272.23	103.26	OSF1.50	2080.00	1979.20				MinPt-CiCl	
	2307.21	36.47	2282.57	2270.74	97.49	OSF1.50	2250.00	2131.00				MINPT-O-EOU	

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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		
	2307.38	36.68	2282.60	2270.70	96.92	OSF1.50	2270.00	2148.85				MinPt-O-ADP	
	2664.12	116.82	2585.91	2547.30	34.49	OSF1.50	5900.00	5390.08				MinPts	
	2966.74	253.85	2797.18	2712.89	17.59	OSF1.50	8450.00	6358.00				MinPt-CtCt	
	2966.24	272.33	2784.35	2693.90	16.39	OSF1.50	8640.00	6358.00				MinPt-CtCt	
	2965.80	298.21	2766.67	2667.59	14.96	OSF1.50	8900.00	6358.00				MinPt-CtCt	
	2963.99	335.81	2739.79	2628.18	13.27	OSF1.50	9270.00	6358.00				MinPt-CtCt	
	2964.60	357.36	2726.03	2607.24	12.47	OSF1.50	9480.00	6358.00				MinPt-CtCt	
	2968.01	442.86	2672.44	2525.15	10.07	OSF1.50	10300.00	6358.00				MinPt-CtCt	
	2968.17	463.98	2658.52	2504.19	9.61	OSF1.50	10500.00	6358.00				MinPt-CtCt	
	2967.82	481.00	2646.83	2486.82	9.27	OSF1.50	10660.00	6358.00				MinPt-CtCt	
	2969.26	536.18	2611.48	2433.08	8.32	OSF1.50	11180.00	6358.00				MinPt-CtCt	
	2970.49	591.75	2575.66	2378.73	7.54	OSF1.50	11700.00	6358.00				MinPt-CtCt	
	2970.73	598.54	2571.38	2372.19	7.45	OSF1.50	11782.99	6358.00				MinPts	
Middlepark 18-8-3L R0 mdv 28Jun22 (Def Plan)													Pass
	2400.75	32.81	2399.76	2367.94	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	
	2400.77	32.81	2399.74	2367.96	53271.13	MAS = 10.00 (m)	23.00	23.00				WRP	
	2400.82	32.81	2399.73	2368.01	21877.97	MAS = 10.00 (m)	40.00	40.00				MINPT-O-EOU	
	2887.58	32.81	2869.56	2854.77	169.44	MAS = 10.00 (m)	1800.00	1729.19				MinPt-O-SF	
	3199.31	32.81	3178.69	3166.50	162.85	MAS = 10.00 (m)	2390.00	2256.00				MinPt-O-SF	
	2322.50	247.37	2157.26	2075.13	14.13	OSF1.50	6420.00	5853.38				MinPt-CtCt	
	2322.91	248.27	2157.07	2074.64	14.08	OSF1.50	6440.00	5870.78				MinPts	
	2357.51	255.78	2186.66	2101.73	13.87	OSF1.50	6620.00	6020.46				MinPt-O-SF	
	7344.37	283.79	7154.85	7060.59	38.95	OSF1.50	11782.99	6358.00				TD	
Flaherty 13-11-3 MWD 0' to 11620' Definitive (Def Survey)													Pass
	2478.86	32.81	2477.88	2446.06	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	
	2478.87	32.81	2477.83	2446.06	44460.83	MAS = 10.00 (m)	23.00	23.00				WRP	
	2479.67	32.81	2476.65	2446.86	1215.49	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EOU	
	2372.15	32.81	2354.14	2339.35	139.26	MAS = 10.00 (m)	1430.00	1396.92				MinPts	
	2372.26	32.81	2354.06	2339.45	137.77	MAS = 10.00 (m)	1450.00	1415.21				MINPT-O-EOU	
	3480.90	216.23	3336.42	3264.67	24.25	OSF1.50	8080.00	6358.00				MinPt-CtCt	
	3471.95	358.94	3232.33	3113.02	14.55	OSF1.50	9510.00	6358.00				MinPt-CtCt	
	3470.65	400.64	3203.23	3070.01	13.02	OSF1.50	9910.00	6358.00				MinPt-CtCt	
	3471.80	435.24	3181.31	3036.56	11.99	OSF1.50	10240.00	6358.00				MinPt-CtCt	
	3471.48	482.76	3149.31	2988.72	10.81	OSF1.50	10690.00	6358.00				MinPt-CtCt	
	3471.85	504.09	3135.46	2967.75	10.35	OSF1.50	10890.00	6358.00				MinPt-CtCt	
	3472.09	527.40	3120.16	2944.69	9.89	OSF1.50	11110.00	6358.00				MinPt-CtCt	
	3472.08	545.63	3108.00	2926.45	9.56	OSF1.50	11280.00	6358.00				MinPt-CtCt	
	3472.24	578.68	3086.12	2893.55	9.01	OSF1.50	11590.00	6358.00				MinPt-CtCt	
	3472.28	595.14	3075.17	2877.12	8.76	OSF1.50	11740.00	6358.00				MinPt-CtCt	
	3472.47	596.39	3074.54	2876.08	8.75	OSF1.50	11782.99	6358.00				MinPts	
Flaherty 13-12-1 MWD 0' to 11482' Definitive (Def Survey)													Pass
	2502.29	32.81	2501.31	2469.49	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2502.29	32.81	2501.25	2469.48	40138.79	MAS = 10.00 (m)	23.00	23.00				WRP	
	2502.14	32.81	2499.78	2469.33	1841.45	MAS = 10.00 (m)	210.00	210.00				MinPts	
	2502.42	32.81	2499.25	2469.61	1164.41	MAS = 10.00 (m)	290.00	290.00				MINPT-O-EOU	
	2409.96	32.81	2392.12	2377.15	142.99	MAS = 10.00 (m)	1400.00	1369.36				MinPts	
	2410.12	32.81	2392.03	2377.31	140.90	MAS = 10.00 (m)	1430.00	1396.92				MINPT-O-EOU	
	3436.15	108.62	3363.41	3327.53	47.87	OSF1.50	6110.00	5577.59				MinPt-O-SF	
	3577.59	116.89	3499.34	3460.70	46.29	OSF1.50	6470.00	5896.65				MinPt-O-ADP	
	3766.25	316.48	3554.93	3449.77	17.90	OSF1.50	9100.00	6358.00				MinPt-CtCt	
	3788.86	595.58	3391.48	3193.28	9.56	OSF1.50	11782.99	6358.00				MinPts	
Middlepark 18-7-1L R0 mdv 28Jun22 (Def Plan)													Pass
	2426.62	32.81	2425.64	2393.82	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	
	2426.63	32.81	2425.59	2393.82	43534.18	MAS = 10.00 (m)	23.00	23.00				WRP	
	2427.55	32.81	2424.90	2394.75	1456.20	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	3316.79	32.81	3295.07	3283.98	159.95	MAS = 10.00 (m)	2540.00	2389.94				MinPt-O-SF	
	2653.77	247.56	2488.40	2406.21	16.14	OSF1.50	6370.00	5809.44				MinPt-CtCt	
	2654.06	248.36	2488.16	2405.71	16.09	OSF1.50	6390.00	5827.08				MinPts	
	2693.74	255.74	2522.92	2438.00	15.85	OSF1.50	6590.00	5996.59				MinPt-O-SF	
	7712.60	281.64	7524.51	7430.96	41.22	OSF1.50	11782.99	6358.00				TD	
Flaherty 13-5-4 MWD 0' to 11595' Definitive (Def Survey)													Pass
	2529.31	32.81	2528.32	2496.50	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2529.30	32.81	2528.25	2496.49	38058.02	MAS = 10.00 (m)	23.00	23.00				WRP	
	2528.41	32.81	2525.41	2495.60	1251.95	MAS = 10.00 (m)	270.00	270.00				MinPts	
	2528.60	32.81	2525.19	2495.79	1044.79	MAS = 10.00 (m)	310.00	310.00				MINPT-O-EOU	
	2473.79	32.81	2456.99	2440.99	156.34	MAS = 10.00 (m)	1260.00	1239.21				MinPts	
	2473.87	32.81	2456.92	2441.07	154.88	MAS = 10.00 (m)	1280.00	1257.95				MINPT-O-EOU	
	3974.02	168.44	3861.40	3805.58	35.59	OSF1.50	7530.00	6358.00				MinPt-CtCt	
	3975.29	257.78	3803.11	3717.51	23.21	OSF1.50	8510.00	6358.00				MinPt-CtCt	
	3972.88	340.48	3745.56	3632.40	17.55	OSF1.50	9330.00	6358.00				MinPt-CtCt	
	3972.08	367.33	3726.87	3604.75	16.26	OSF1.50	9590.00	6358.00				MinPt-CtCt	
	3964.26	521.31	3616.39	3442.95	11.43	OSF1.50	11050.00	6358.00				MinPt-CtCt	
	3965.91	586.46	3574.61	3379.45	10.16	OSF1.50	11660.00	6358.00				MinPt-CtCt	
	3966.82	594.97	3569.35	3371.86	10.02	OSF1.50	11782.99	6358.00				MinPts	
Middlepark 18-6-2L R0 mdv 28Jun22 (Def Plan)													Pass
	2477.08	32.81	2476.10	2444.27	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2477.07	32.81	2476.02	2444.26	36411.95	MAS = 10.00 (m)	23.00	23.00				WRP	
	2476.46	32.81	2474.13	2443.67	1813.63	MAS = 10.00 (m)	210.00	210.00				MinPts	
	2476.63	32.81	2473.85	2443.83	1372.27	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	3434.77	33.00	3412.44	3401.77	160.86	OSF1.50	2620.00	2461.37				MinPt-O-SF	
	3400.05	249.36	3233.48	3150.69	20.53	OSF1.50	6370.00	5809.44				MinPt-CtCt	
	3400.16	249.76	3233.33	3150.41	20.50	OSF1.50	6380.00	5818.27				MINPT-O-EOU	
	3400.43	250.13	3233.35	3150.30	20.47	OSF1.50	6390.00	5827.08				MinPt-O-ADP	
	3463.43	259.46	3290.13	3203.97	20.09	OSF1.50	6650.00	6043.80				MinPt-O-SF	
	8451.69	285.22	8261.22	8166.47	44.60	OSF1.50	11782.99	6358.00				TD	
Middlepark 18-5-3L R0 mdv 28Jun22 (Def Plan)													Pass
	2500.02	32.81	2499.03	2467.21	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	
	2500.02	32.81	2498.98	2467.21	43995.89	MAS = 10.00 (m)	23.00	23.00				WRP	

...Flaherty 13-1-3\Original Hole\Flaherty 13-1-3 R0 mdv 29Aug22



Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Cl (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
2500.58	32.81	2496.22	2467.77	1818.69		MAS = 10.00 (m)	220.00	220.00				MINPT-O-EOU	
2987.19	32.81	2970.14	2954.38	185.91		MAS = 10.00 (m)	1800.00	1729.19				MinPt-O-SF	
3778.80	250.14	3611.72	3528.67	22.74		OSF1.50	6370.00	5809.44				MinPt-CiCt	
3779.02	250.91	3611.42	3528.11	22.67		OSF1.50	6390.00	5827.08				MINPT-O-EOU	
3779.37	251.29	3611.52	3528.08	22.64		OSF1.50	6400.00	5835.87				MinPt-O-ADP	
3852.70	261.31	3678.17	3591.39	22.19		OSF1.50	6680.00	6066.57				MinPt-O-SF	
8821.43	287.26	8629.59	8534.17	46.22		OSF1.50	11782.99	6358.00				TD	

Flaherty 13-13-2 MWD 0' to 11388' Definitive (Def Survey)													Pass
2552.09	32.81	2551.11	2519.28	N/A		MAS = 10.00 (m)	0.00	0.00				MinPts	
2552.10	32.81	2551.06	2519.29	45286.16		MAS = 10.00 (m)	23.00	23.00				WRP	
2552.89	32.81	2550.00	2520.08	1338.88		MAS = 10.00 (m)	270.00	270.00				MINPT-O-EOU	
2522.30	32.81	2505.91	2489.49	163.74		MAS = 10.00 (m)	1170.00	1154.27				MinPts	
2522.33	32.81	2505.89	2489.52	163.11		MAS = 10.00 (m)	1180.00	1163.75				MINPT-O-EOU	
3784.90	103.76	3715.40	3681.15	55.23		OSF1.50	5960.00	5443.66				MinPt-O-SF	
4159.45	125.09	4075.77	4034.43	50.29		OSF1.50	6980.00	6200.96				MinPts	
4208.03	142.91	4112.43	4065.12	44.46		OSF1.50	7070.00	6294.14				MinPts	
4196.75	357.12	3958.34	3839.62	17.67		OSF1.50	9490.00	6358.00				MinPt-CiCt	
4197.01	373.64	3947.59	3823.37	16.89		OSF1.50	9650.00	6358.00				MinPt-CiCt	
4197.44	398.80	3931.24	3798.63	15.82		OSF1.50	9890.00	6358.00				MinPt-CiCt	
4197.99	420.89	3917.07	3777.10	14.99		OSF1.50	10100.00	6358.00				MinPt-CiCt	
4198.62	491.88	3870.38	3706.75	12.83		OSF1.50	10770.00	6358.00				MinPt-CiCt	
4204.08	593.21	3808.28	3610.87	10.65		OSF1.50	11782.99	6358.00				MinPts	

Middlepark 18-4-1L R0 mdv 28Jun22 (Def Plan)													Pass
2527.54	32.81	2526.55	2494.73	N/A		MAS = 10.00 (m)	0.00	0.00				MinPts	
2527.54	32.81	2526.50	2494.73	43515.19		MAS = 10.00 (m)	23.00	23.00				WRP	
2527.92	32.81	2525.66	2495.11	1979.33		MAS = 10.00 (m)	210.00	210.00				MINPT-O-EOU	
3007.82	32.81	2990.45	2975.01	183.49		MAS = 10.00 (m)	1800.00	1729.19				MinPt-O-SF	
3715.91	36.11	3691.51	3679.80	158.62		OSF1.50	2990.00	2791.74				MinPt-O-SF	
3773.19	36.66	3748.43	3736.53	158.61		OSF1.50	3080.00	2872.10				MinPt-O-SF	
4129.27	252.55	3960.58	3876.72	24.62		OSF1.50	6350.00	5791.73				MinPt-CiCt	
4129.41	252.91	3960.47	3876.49	24.58		OSF1.50	6360.00	5800.59				MINPT-O-EOU	
4129.71	253.28	3960.53	3876.43	24.55		OSF1.50	6370.00	5809.44				MinPt-O-ADP	
4210.51	263.57	4034.47	3946.94	24.05		OSF1.50	6670.00	6059.05				MinPt-O-SF	
9193.14	289.45	8999.84	8903.69	47.80		OSF1.50	11782.99	6358.00				TD	

Flaherty 13-14-3 MWD 0' to 11490' Definitive (Def Survey)													Pass
2576.82	32.81	2575.83	2544.01	N/A		MAS = 10.00 (m)	0.00	0.00				MinPts	
2576.83	32.81	2575.79	2544.02	49446.51		MAS = 10.00 (m)	23.00	23.00				WRP	
2577.40	32.81	2575.57	2544.60	3041.07		MAS = 10.00 (m)	160.00	160.00				MINPT-O-EOU	
2559.05	32.81	2543.77	2526.25	178.92		MAS = 10.00 (m)	1100.00	1087.58				MinPts	
2559.10	32.81	2543.66	2526.29	176.98		MAS = 10.00 (m)	1120.00	1106.69				MINPT-O-EOU	
4293.89	128.42	4207.95	4165.48	50.53		OSF1.50	6490.00	5913.73				MinPts	
4476.80	157.75	4371.30	4319.05	42.83		OSF1.50	7260.00	6347.04				MinPts	
4478.98	166.30	4367.78	4312.68	40.63		OSF1.50	7480.00	6358.00				MinPt-CiCt	
4487.37	300.05	4287.01	4187.32	22.50		OSF1.50	8910.00	6358.00				MinPt-CiCt	
4488.15	344.97	4257.84	4143.18	19.57		OSF1.50	9350.00	6358.00				MinPt-CiCt	
4487.29	389.76	4227.12	4097.53	17.31		OSF1.50	9780.00	6358.00				MinPt-CiCt	
4486.64	420.07	4206.27	4066.57	16.06		OSF1.50	10070.00	6358.00				MinPt-CiCt	
4506.22	575.11	4122.49	3931.11	11.77		OSF1.50	11530.00	6358.00				MinPt-CiCt	
4506.33	592.15	4111.24	3914.18	11.43		OSF1.50	11690.00	6358.00				MinPt-CiCt	
4507.31	595.79	4109.76	3911.52	11.36		OSF1.50	11782.99	6358.00				MinPts	

Middlepark 18-3-2L R0 mdv 28Jun22 (Def Plan)													Pass
2575.06	32.81	2574.07	2542.25	N/A		MAS = 10.00 (m)	0.00	0.00				MinPts	
2575.06	32.81	2574.01	2542.25	43245.61		MAS = 10.00 (m)	23.00	23.00				WRP	
2575.39	32.81	2572.48	2542.58	1338.35		MAS = 10.00 (m)	270.00	270.00				MINPT-O-EOU	
3068.20	32.81	3050.93	3035.39	188.35		MAS = 10.00 (m)	1850.00	1773.83				MinPt-O-SF	
4505.84	253.97	4336.20	4251.87	26.71		OSF1.50	6350.00	5791.73				MinPt-CiCt	
4506.12	254.71	4335.99	4251.41	26.63		OSF1.50	6370.00	5809.44				MinPts	
4598.91	266.06	4421.21	4332.85	26.02		OSF1.50	6700.00	6081.42				MinPt-O-SF	
9199.74	295.26	9002.56	8904.47	46.59		OSF1.50	11420.00	6358.00				MinPt-O-SF	
9562.03	296.75	9363.87	9265.28	48.49		OSF1.50	11782.99	6358.00				TD	

Middlepark 18-4-4L R1 mdv 29Aug22 (Def Plan)													Pass
2627.37	32.81	2626.38	2594.56	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
2627.36	32.81	2626.30	2594.55	38608.83		MAS = 10.00 (m)	23.00	23.00				WRP	
2627.14	32.81	2625.31	2594.33	3127.81		MAS = 10.00 (m)	150.00	150.00				MinPts	
2627.44	32.81	2625.03	2594.63	1838.82		MAS = 10.00 (m)	220.00	220.00				MINPT-O-EOU	
3061.99	273.96	2879.03	2788.03	16.82		OSF1.50	6410.00	5844.64				MinPt-CiCt	
3062.13	274.41	2878.86	2787.72	16.79		OSF1.50	6420.00	5853.38				MINPT-O-EOU	
3062.44	274.87	2878.86	2787.57	16.77		OSF1.50	6430.00	5862.09				MinPt-O-ADP	
3118.39	284.92	2928.12	2833.47	16.47		OSF1.50	6670.00	6059.05				MinPt-O-SF	
8081.30	312.68	7872.51	7768.62	38.89		OSF1.50	11782.99	6358.00				TD	

Middlepark 18-2-3L R1 mdv 29Aug22 (Def Plan)													Pass
2653.10	32.81	2652.12	2620.29	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
2653.09	32.81	2652.03	2620.28	37450.13		MAS = 10.00 (m)	23.00	23.00				WRP	
2652.72	32.81	2650.79	2619.91	2823.23		MAS = 10.00 (m)	160.00	160.00				MinPts	
2653.04	32.81	2650.44	2620.23	1639.74		MAS = 10.00 (m)	240.00	240.00				MINPT-O-EOU	
3128.40	32.81	3111.47	3095.59	196.19		MAS = 10.00 (m)	1800.00	1729.19				MinPt-O-SF	
4882.77	277.24	4697.62	4605.53	26.51		OSF1.50	6360.00	5800.59				MinPt-CiCt	
4882.92	277.63	4697.50	4605.28	26.47		OSF1.50	6370.00	5809.44				MINPT-O-EOU	
4883.22	278.02	4697.54	4605.19	26.43		OSF1.50	6380.00	5818.27				MinPt-O-ADP	
4988.55	290.64	4794.46	4697.91	25.83		OSF1.50	6730.00	6103.15				MinPt-O-SF	
8730.45	321.78	8515.60	8408.67	40.82		OSF1.50	10580.00	6358.00				MinPt-O-SF	
9880.88	170.41	9766.95	9710.47	87.47		OSF1.50	11782.99	6358.00				MinPt-O-SF	

UPRR PAN AM 1 55 Blind 0' to 7155' - DA (Def Survey)													Pass
5208.50	32.81	5205.40	5175.69	4034.48		MAS = 10.00 (m)	0.00	0.00				Surface	
5208.50	32.81	5204.93	5175.69	2955.49		MAS = 10.00 (m)	23.00	23.00				WRP	
5208.50	32.81	5196.01	5175.69	487.56		MAS = 10.00 (m)	250.00	250.00				MinPts	
5214.72	36.58	5189.73	5178.14	224.90		OSF1.50	560.00	559.40				MINPT-O-EOU	
5222.25	45.61	5191.24	5176.64	178.79		OSF1.50	710.00	708.03				MinPt-O-ADP	
4341.04	541.51	3979.50	3799.54	12.06		OSF1.50	11620.00	6358.00				MinPt-CiCt	

...Flaherty 13-1-3\Original Hole\Flaherty 13-1-3 R0 mdv 29Aug22



Offset Trajectory	Separation			Allow	Sep.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Cl-Cl (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.		MD (ft)	TVD (ft)	Alert	Minor	Major		
	4342.81	546.69	3977.81	3796.12	11.95	OSF1.50	11740.00	6358.00					
	4344.25	548.52	3978.04	3795.74	11.91	OSF1.50	11782.99	6358.00					MINPT-O-EOU MinPts