



PDC Energy

Schlumberger

Rev 2

Borehole:	Well:	Field:	Structure:
Original Hole	Stugart 21NA	CO, Weld County (NAD 83 NZ) - SRC	PDC Energy 20-05N-66W (Stugart State 6-20 Pad)

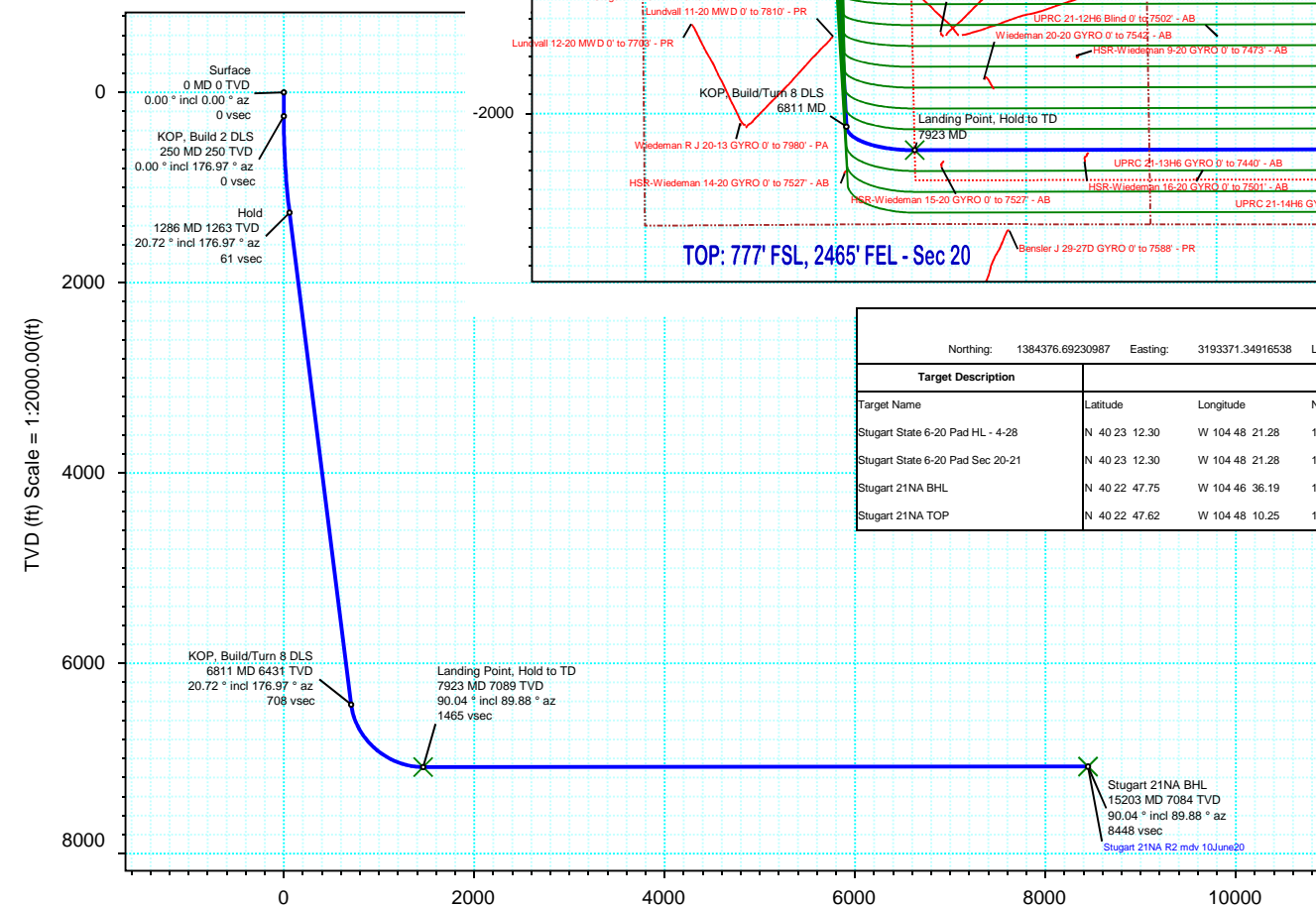
Gravity & Magnetic Parameters		Surface Location NAD83 Colorado State Plane, Northern Zone, US Feet			Miscellaneous	
Model:	HDGM 2020	Dip:	66.728°	Date:	17-Jun-2020	Lat: N 40 23 11.18
MagDec:	8.13°	FS:	52099.533nT	Gravity FS:	999.013mgN (9.80665 Based)	Northings: 1384376.69ftUS
		Lon: W 104 48 20.97		Easting: 3193371.35ftUS		Grid Conv: 0.4485°
				Scale Fact: 0.99995964		Slot: Stugart 21NA
						TVD Ref: KB 4ft(4949ft above MSL)
						Plan: Stugart 21NA R2 mdv 10June20

Proposal

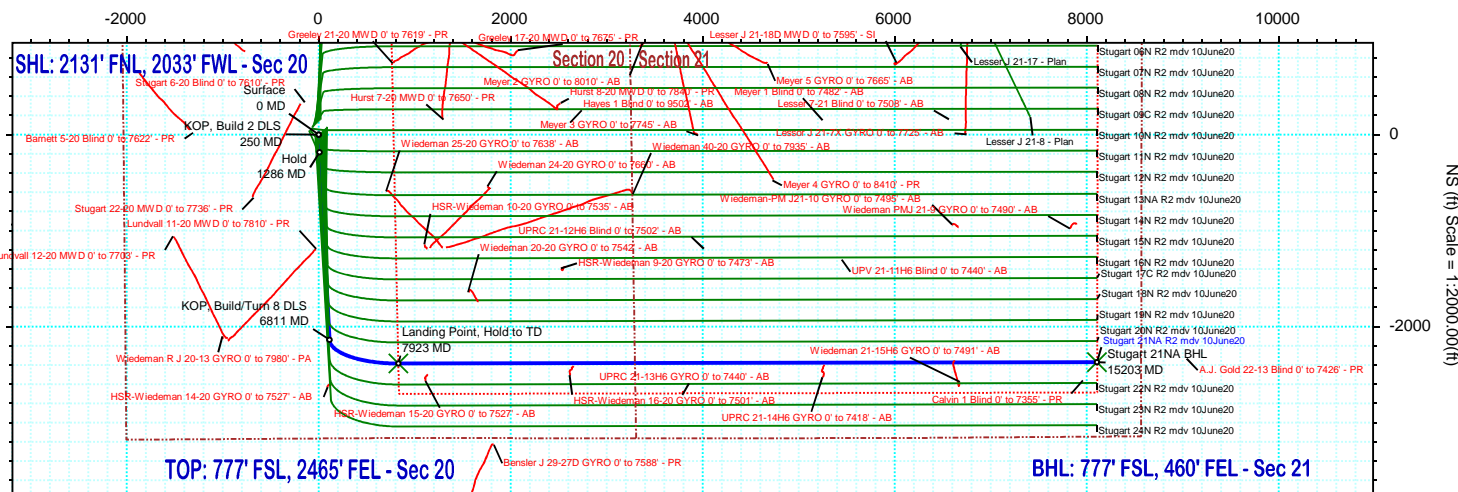
EW (ft) Scale = 1:2000.00(ft)



True North
Tot Corr (M->T 8.130°)
Mag Dec (8.130°)
Grid Conv (0.449°)

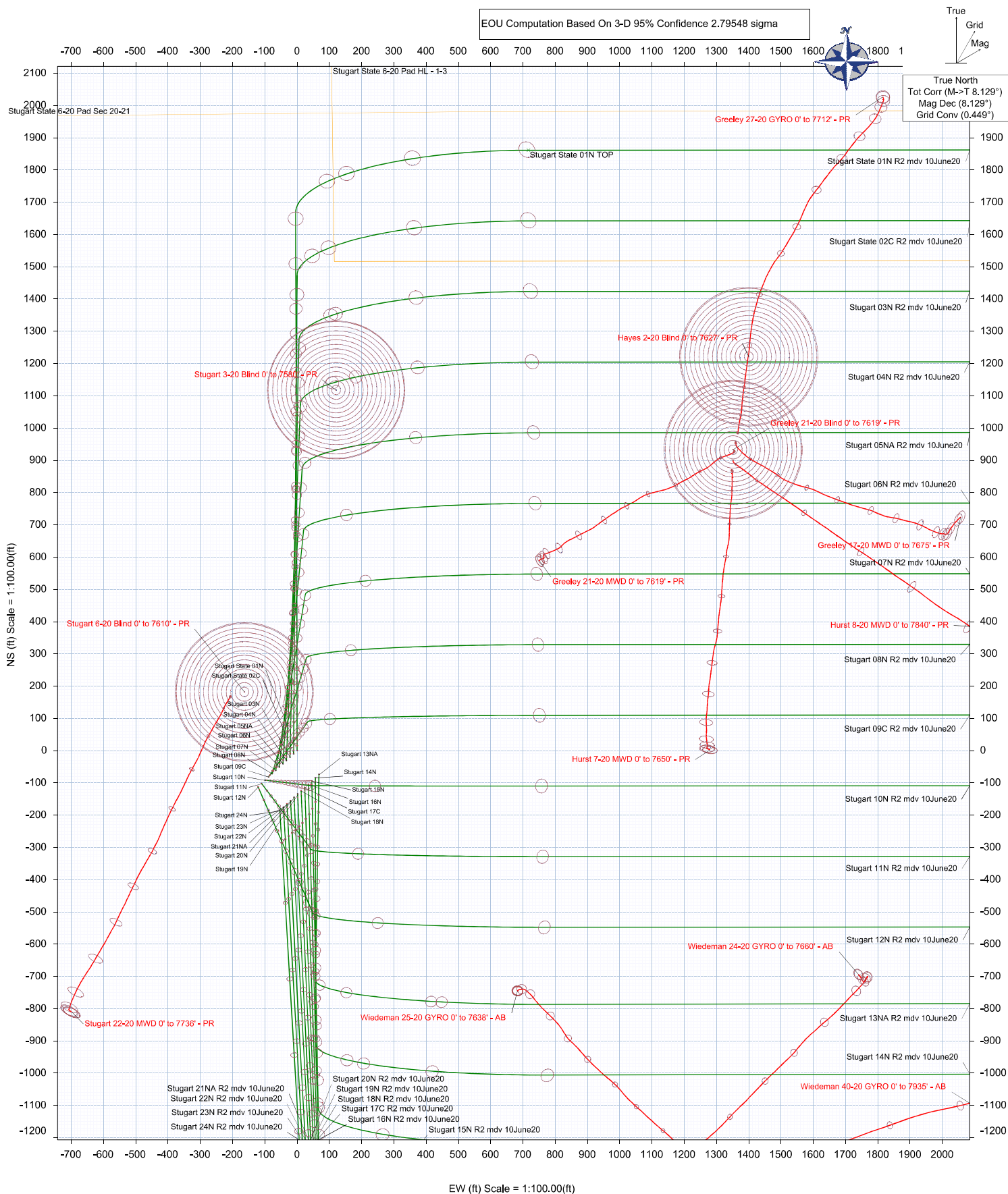


Vertical Section (ft) Azim = 106.29° Scale = 1:2000.00(ft) Origin = 0N/-S, 0E/-W



Target Description		Surface Location						Local Coord	
		Latitude	Longitude	Northings	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)
Stugart State 6-20 Pad HL - 4-28		N 40 23 12.30	W 104 48 21.28	1384490.53	3193346.78	4949.00	-54.71	114.03	-23.68
Stugart State 6-20 Pad Sec 20-21		N 40 23 12.30	W 104 48 21.28	1384490.53	3193346.78	4949.00	-54.71	114.03	-23.68
Stugart 21NA BHL		N 40 22 47.75	W 104 46 36.19	1382071.06	3201498.40	7084.00	8448.13	-2369.28	8109.10
Stugart 21NA TOP		N 40 22 47.62	W 104 48 10.25	1381999.25	3194219.98	7089.00	1465.34	-2384.11	830.03

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	
KOP, Build 2 DLS	250.00	0.00	176.97	250.00	0.00	0.00	0.00	0.00
Hold	1285.93	20.72	176.97	1263.50	61.28	-185.01	9.78	2.00
KOP, Build/Turn 8 DLS	6810.83	20.72	176.97	6431.10	707.73	-2136.87	112.98	0.00
Landing Point, Hold to TD	7923.43	90.04	89.88	7089.00	1465.34	-2384.11	830.03	8.00
Stugart 21NA BHL	15202.51	90.04	89.88	7084.00	8448.13	-2369.28	8109.10	0.00

EOU Computation Based On 3-D 95% Confidence 2.79548 sigma



PDC Energy

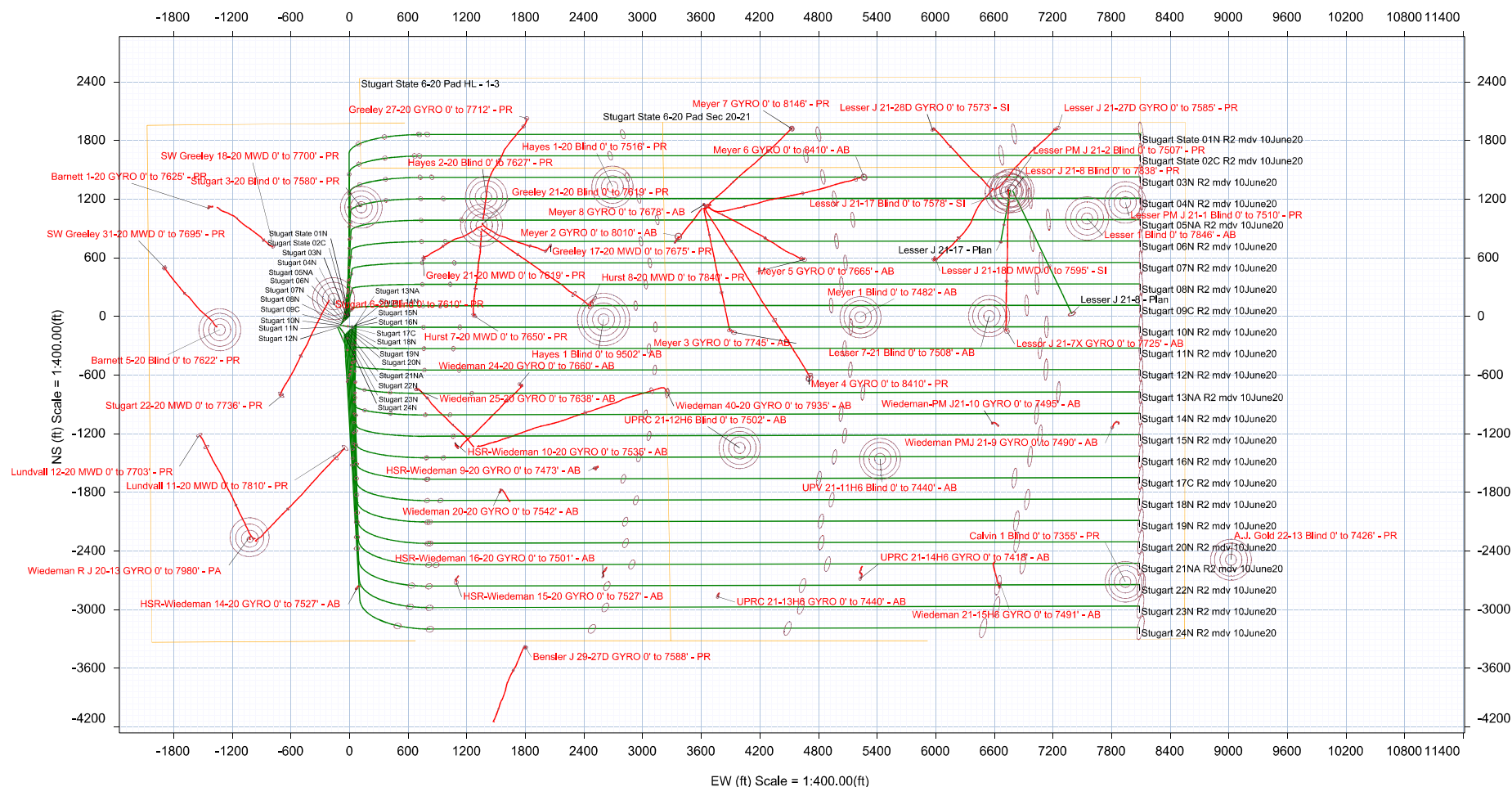


True North
Tot Corr (M→T 8.129°)
Mag Dec (8.129°)
Grid Conv (0.449°)

Borehole:	Original Hole	Well:	Stugart State 01N	Field:	CO, Weld County (NAD 83 NZ) - SRC	Structure:	PDC Energy 20-05N-66W (Stugart State 6-20 Pad)
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Gravity & Magnetic Parameters	Surface Location	NAD83 Colorado State Plane, Northern Zone, US Feet	Miscellaneous
Model: HDGM 2020 Dip: 66.728° Date: 17-Jun-2020	Lat: N 40 23 12.71	Northing: 1384531.67HUS	Slot: Stugart State 01N TVD Ref: KB 4ft(4948ft above MSL)
MagDec: 8.129° FS: 52099.711nT Gravity FS: 999.013mg (8.80665 Based)	Lon: W 104 48 20.71	Easting: 3193390.47HUS Scale Fact: 0.9999596	Plan: Stugart State 01N R2 mdv 10June20

EOU Computation Based On 3-D 95% Confidence 2.79548 sigma



Stugart 21NA R2 mdv 10June20 Proposal Geodetic Report

(Def Plan)

Report Date: June 19, 2020 - 11:17 AM
Client: PDC Energy
Field: CO, Weld County (NAD 83 NZ) - SRC
Structure / Slot: PDC Energy 20-05N-66W (Stugart State 6-20 Pad) / Stugart 21NA
Well: Stugart 21NA
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Stugart 21NA R2 mdv 10June20
Survey Date: September 25, 2019
Tort / AHD / DDI / ERD Ratio: 109.726 ° / 10220.274 ft / 6.381 / 1.442
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 23' 11.17680", W 104° 48' 20.97360"
Location Grid N/E Y/X: N 1384376.692 ftUS, E 3193371.349 ftUS
CRS Grid Convergence Angle: 0.4485 °
Grid Scale Factor: 0.99995964
Version / Patch: 2.10.811.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 106.287 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 4ft
TVD Reference Elevation: 4949.000 ft above MSL
Seabed / Ground Elevation: 4945.000 ft above MSL
Magnetic Declination: 8.130 °
Total Gravity Field Strength: 999.0131mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52099.533 nT
Magnetic Dip Angle: 66.728 °
Declination Date: June 17, 2020
Magnetic Declination Model: HDGM 2020
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 8.1296 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	1384376.69	3193371.35	40.386438	-104.805826
	100.00	0.00	176.97	100.00	0.00	0.00	0.00	0.00	1384376.69	3193371.35	40.386438	-104.805826
	200.00	0.00	176.97	200.00	0.00	0.00	0.00	0.00	1384376.69	3193371.35	40.386438	-104.805826
KOP, Build 2 DLS	250.00	0.00	176.97	250.00	0.00	0.00	0.00	0.00	1384376.69	3193371.35	40.386438	-104.805826
	300.00	1.00	176.97	300.00	0.14	-0.44	0.02	2.00	1384376.26	3193371.38	40.386437	-104.805826
	400.00	3.00	176.97	399.93	1.30	-3.92	0.21	2.00	1384372.77	3193371.59	40.386427	-104.805825
	500.00	5.00	176.97	499.68	3.61	-10.89	0.58	2.00	1384365.81	3193372.01	40.386408	-104.805824
	600.00	7.00	176.97	599.13	7.06	-21.32	1.13	2.00	1384355.38	3193372.64	40.386379	-104.805822
	700.00	9.00	176.97	698.15	11.67	-35.22	1.86	2.00	1384341.49	3193373.49	40.386341	-104.805819
	800.00	11.00	176.97	796.63	17.41	-52.56	2.78	2.00	1384324.16	3193374.54	40.386294	-104.805816
	900.00	13.00	176.97	894.44	24.28	-73.32	3.88	2.00	1384303.41	3193375.80	40.386237	-104.805812
	1000.00	15.00	176.97	991.46	32.29	-97.48	5.15	2.00	1384279.26	3193377.27	40.386170	-104.805807
	1100.00	17.00	176.97	1087.58	41.40	-125.00	6.61	2.00	1384251.75	3193378.94	40.386095	-104.805802
	1200.00	19.00	176.97	1182.68	51.62	-155.86	8.24	2.00	1384220.91	3193380.81	40.386010	-104.805796
Hold	1285.93	20.72	176.97	1263.50	61.28	-185.01	9.78	2.00	1384191.77	3193382.58	40.385930	-104.805791
	1300.00	20.72	176.97	1276.66	62.92	-189.98	10.04	0.00	1384186.80	3193382.88	40.385917	-104.805790
	1400.00	20.72	176.97	1370.19	74.62	-225.31	11.91	0.00	1384151.49	3193385.02	40.385820	-104.805783
	1500.00	20.72	176.97	1463.73	86.32	-260.64	13.78	0.00	1384116.18	3193387.17	40.385723	-104.805777
	1600.00	20.72	176.97	1557.26	98.02	-295.97	15.65	0.00	1384080.87	3193389.31	40.385626	-104.805770
	1700.00	20.72	176.97	1650.79	109.73	-331.29	17.52	0.00	1384045.56	3193391.46	40.385529	-104.805763
	1800.00	20.72	176.97	1744.33	121.43	-366.62	19.38	0.00	1384010.25	3193393.60	40.385432	-104.805756
	1900.00	20.72	176.97	1837.86	133.13	-401.95	21.25	0.00	1383974.94	3193395.75	40.385335	-104.805750
	2000.00	20.72	176.97	1931.39	144.83	-437.28	23.12	0.00	1383939.63	3193397.89	40.385238	-104.805743
	2100.00	20.72	176.97	2024.92	156.53	-472.61	24.99	0.00	1383904.31	3193400.04	40.385141	-104.805736
	2200.00	20.72	176.97	2118.46	168.23	-507.94	26.86	0.00	1383869.00	3193402.18	40.385044	-104.805730
	2300.00	20.72	176.97	2211.99	179.93	-543.26	28.72	0.00	1383833.69	3193404.32	40.384947	-104.805723
	2400.00	20.72	176.97	2305.52	191.63	-578.59	30.59	0.00	1383798.38	3193406.47	40.384850	-104.805716
	2500.00	20.72	176.97	2399.06	203.33	-613.92	32.46	0.00	1383763.07	3193408.61	40.384753	-104.805709
	2600.00	20.72	176.97	2492.59	215.03	-649.25	34.33	0.00	1383727.76	3193410.76	40.384656	-104.805703
	2700.00	20.72	176.97	2586.12	226.73	-684.58	36.20	0.00	1383692.45	3193412.90	40.384559	-104.805696
	2800.00	20.72	176.97	2679.65	238.43	-719.91	38.06	0.00	1383657.14	3193415.05	40.384462	-104.805689
	2900.00	20.72	176.97	2773.19	250.13	-755.24	39.93	0.00	1383621.82	3193417.19	40.384365	-104.805683
	3000.00	20.72	176.97	2866.72	261.84	-790.56	41.80	0.00	1383586.51	3193419.33	40.384268	-104.805676
	3100.00	20.72	176.97	2960.25	273.54	-825.89	43.67	0.00	1383551.20	3193421.48	40.384171	-104.805669
	3200.00	20.72	176.97	3053.79	285.24	-861.22	45.54	0.00	1383515.89	3193423.62	40.384074	-104.805663
	3300.00	20.72	176.97	3147.32	296.94	-896.55	47.40	0.00	1383480.58	3193425.77	40.383977	-104.805656
	3400.00	20.72	176.97	3240.85	308.64	-931.88	49.27	0.00	1383445.27	3193427.91	40.383880	-104.805649
	3500.00	20.72	176.97	3334.39	320.34	-967.21	51.14	0.00	1383409.96	3193430.06	40.383783	-104.805642
	3600.00	20.72	176.97	3427.92	332.04	-1002.53	53.01	0.00	1383374.65	3193432.20	40.383686	-104.805636
	3700.00	20.72	176.97	3521.45	343.74	-1037.86	54.87	0.00	1383339.33	3193434.34	40.383589	-104.805629
	3800.00	20.72	176.97	3614.98	355.44	-1073.19	56.74	0.00	1383304.02	3193436.49	40.383492	-104.805622
	3900.00	20.72	176.97	3708.52	367.14	-1108.52	58.61	0.00	1383268.71	3193438.63	40.383395	-104.805616
	4000.00	20.72	176.97	3802.05	378.84	-1143.85	60.48	0.00	1383233.40	3193440.78	40.383298	-104.805609
	4100.00	20.72	176.97	3895.58	390.54	-1179.18	62.35	0.00	1383198.09	3193442.92	40.383201	-104.805602
	4200.00	20.72	176.97	3989.12	402.25	-1214.51	64.21	0.00	1383162.78	3193445.07	40.383104	-104.805595
	4300.00	20.72	176.97	4082.65	413.95	-1249.83	66.08	0.00	1383127.47	3193447.21	40.383007	-104.805588
	4400.00	20.72	176.97	4176.18	425.65	-1285.16	67.95	0.00	1383092.16	3193449.35	40.382910	-104.805582
	4500.00	20.72	176.97	4269.72	437.35	-1320.49	69.82	0.00	1383056.84	3193451.50	40.382813	-104.805575
	4600.00	20.72	176.97	4363.25	449.05	-1355.82	71.69	0.00	1383021.53	3193453.64	40.382716	-104.805569
	4700.00	20.72	176.97	4456.78	460.75	-1391.15	73.55	0.00	1382986.22	3193455.79	40.382619	-104.805562
	4800.00	20.72	176.97	4550.31	472.45	-1426.48	75.42	0.00	1382950.91	3193457.93	40.382522	-104.805555
	4900.00	20.72	176.97	4643.85	484.15	-1461.80	77.29	0.00	1382915.60	3193460.08	40.382425	-104.805549
	5000.00	20.72	176.97	4737.38	495.85	-1497.13	79.16	0.00	1382880.29	3193462.22	40.382329	-104.805542
	5100.00	20.72	176.97	4830.91	507.55	-1532.46	81.03	0.00	1382844.98	3193464.36	40.382232	-104.805535
	5200.00	20.72	176.97	4924.45	519.25	-1567.79	82.89	0.00	1382809.67	3193466.51	40.382135	-104.805528
	5300.00	20.72	176.97	5017.98	530.95	-1603.12	84.76	0.00	1382774.35	3193468.65	40.382038	-104.805522
	5400.00	20.72	176.97	5111.51	542.66	-1638.45	86.63	0.00	1382739.04	3193470.80	40.381941	-104.805515
	5500.00	20.72	176.97	5205.04	554.36	-1673.78	88.50	0.00	1382703.73	3193472.94	40.381844	-104.805508
	5600.00	20.72	176.97	5298.58	566.06	-1709.10	90.37	0.00	1382668.42	3193475.09	40.381747	-104.805502
	5700.00	20.72	176.97	5392.11	577.76	-1744.43	92.23	0.00	1382633.11	3193477.23	40.381650	-104.805495
	5800.00	20.72	176.97	5485.64	589.46	-1779.76	94.10	0.00	1382597.80	3193479.38	40.381553	-104.805488
	5900.00	20.72	176.97	5579.18	601.16	-1815.09	95.97	0.00	1382562.49	3193481.52	40.381456	-104.805482
	6000.00	20.72	176.97	5672.71	612.86	-1850.42	97.84	0.00	1382527.18	3193483.66	40.381359	-104.805475
	6100.00	20.72	176.97	5766.24	624.56	-1885.75	99.70	0.00	1382491.86	3193485.81	40.381262	-104.805468
	6200.00	20.72	176.97	5859.78	636.26	-1921.07	101.57	0.00	1382456.55	3193487.95	40.381165	-104.805461
	6300.00	20.72	176.97	5953.31	647.96	-1956.40	103.44	0.00	1382421.24	3193490.10	40.381068	-104.805455
	6400.00	20.72	176.97	6046.84	659.66	-1991.73	105.31	0.00	1382385.93	3193492.24	40.380971	-104.805448
	6500.00	20.72	176.97	6140.37	671.36	-2027.06	107.18	0.00	1382350.62	3193494.39	40.380874	-104.805441
	6600.00	20.72	176.97	6233.91	683.07	-2062.39	109.04	0.00	1382315.31	3193496.53	40.380777	-104.805435
	6700.00	20.72	176.97	6327.44	694.77	-2097.72	110.91	0.00	1382280.00	3193498.67	40.380680	-104.805428
	6800.00	20.72	176.97	6420.97	706.47	-2133.05	112.78	0.00	1382244.69	3193500.82	40.380583	-104.805421
KOP, Build/Turn 8 DLS	6810.83	20.72	176.97	6431.10	707.73	-2136.87	112.98	0.00	1382240.86	3193501.05	40.380572	-104.805420

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	7300.00	44.37	112.61	6851.17	914.44	-2295.25	282.06	8.00	1382083.82	3193671.35	40.380138	-104.804814
	7400.00	51.40	107.45	6918.22	988.38	-2320.45	351.72	8.00	1382059.16	3193741.21	40.380069	-104.804564
	7500.00	58.61	103.22	6975.55	1070.20	-2341.97	430.68	8.00	1382038.26	3193820.33	40.380009	-104.804280
	7600.00	65.94	99.61	7022.05	1158.31	-2359.38	517.38	8.00	1382021.53	3193907.17	40.379962	-104.803969
	7700.00	73.35	96.38	7056.81	1251.00	-2372.35	610.16	8.00	1382009.29	3194000.04	40.379926	-104.803636
	7800.00	80.81	93.40	7079.16	1346.46	-2380.62	707.20	8.00	1382001.79	3194097.13	40.379903	-104.803288
	7900.00	88.29	90.55	7088.66	1442.83	-2384.03	806.60	8.00	1381999.15	3194196.56	40.379894	-104.802931
Landing Point, Hold to TD	7923.43	90.04	89.88	7089.00	1465.34	-2384.11	830.03	8.00	1381999.25	3194219.98	40.379894	-104.802847
	8000.00	90.04	89.88	7088.95	1538.80	-2383.96	906.60	0.00	1382000.00	3194296.54	40.379894	-104.802572
	8100.00	90.04	89.88	7088.88	1634.73	-2383.75	1006.60	0.00	1382000.99	3194396.54	40.379895	-104.802213
	8200.00	90.04	89.88	7088.81	1730.66	-2383.55	1106.60	0.00	1382001.98	3194496.53	40.379895	-104.801854
	8300.00	90.04	89.88	7088.74	1826.59	-2383.35	1206.60	0.00	1382002.96	3194596.52	40.379896	-104.801495
	8400.00	90.04	89.88	7088.67	1922.52	-2383.14	1306.60	0.00	1382003.95	3194696.51	40.379896	-104.801136
	8500.00	90.04	89.88	7088.60	2018.45	-2382.94	1406.60	0.00	1382004.94	3194796.50	40.379897	-104.800777
	8600.00	90.04	89.88	7088.54	2114.38	-2382.74	1506.60	0.00	1382005.92	3194896.49	40.379897	-104.800418
	8700.00	90.04	89.88	7088.47	2210.30	-2382.53	1606.60	0.00	1382006.91	3194996.48	40.379898	-104.800059
	8800.00	90.04	89.88	7088.40	2306.23	-2382.33	1706.60	0.00	1382007.90	3195096.47	40.379899	-104.799700
	8900.00	90.04	89.88	7088.33	2402.16	-2382.12	1806.60	0.00	1382008.88	3195196.46	40.379899	-104.799342
	9000.00	90.04	89.88	7088.26	2498.09	-2381.92	1906.60	0.00	1382009.87	3195296.45	40.379900	-104.798983
	9100.00	90.04	89.88	7088.19	2594.02	-2381.72	2006.60	0.00	1382010.86	3195396.44	40.379900	-104.798624
	9200.00	90.04	89.88	7088.12	2689.95	-2381.51	2106.60	0.00	1382011.84	3195496.43	40.379901	-104.798265
	9300.00	90.04	89.88	7088.05	2785.88	-2381.31	2206.60	0.00	1382012.83	3195596.43	40.379901	-104.797906
	9400.00	90.04	89.88	7087.99	2881.81	-2381.11	2306.60	0.00	1382013.82	3195696.42	40.379902	-104.797547
	9500.00	90.04	89.88	7087.92	2977.74	-2380.90	2406.60	0.00	1382014.80	3195796.41	40.379902	-104.797188
	9600.00	90.04	89.88	7087.85	3073.67	-2380.70	2506.60	0.00	1382015.79	3195896.40	40.379903	-104.796829
	9700.00	90.04	89.88	7087.78	3169.60	-2380.49	2606.60	0.00	1382016.78	3195996.39	40.379903	-104.796470
	9800.00	90.04	89.88	7087.71	3265.53	-2380.29	2706.60	0.00	1382017.76	3196096.38	40.379904	-104.796111
	9900.00	90.04	89.88	7087.64	3361.46	-2380.09	2806.60	0.00	1382018.75	3196196.37	40.379904	-104.795752
	10000.00	90.04	89.88	7087.57	3457.39	-2379.88	2906.60	0.00	1382019.74	3196296.36	40.379905	-104.795393
	10100.00	90.04	89.88	7087.50	3553.32	-2379.68	3006.60	0.00	1382020.72	3196396.35	40.379905	-104.795034
	10200.00	90.04	89.88	7087.44	3649.25	-2379.48	3106.60	0.00	1382021.71	3196496.34	40.379906	-104.794675
	10300.00	90.04	89.88	7087.37	3745.18	-2379.27	3206.60	0.00	1382022.70	3196596.33	40.379907	-104.794317
	10400.00	90.04	89.88	7087.30	3841.11	-2379.07	3306.60	0.00	1382023.68	3196696.33	40.379907	-104.793958
	10500.00	90.04	89.88	7087.23	3937.04	-2378.86	3406.60	0.00	1382024.67	3196796.32	40.379908	-104.793599
	10600.00	90.04	89.88	7087.16	4032.97	-2378.66	3506.60	0.00	1382025.66	3196896.31	40.379908	-104.793240
	10700.00	90.04	89.88	7087.09	4128.89	-2378.46	3606.60	0.00	1382026.64	3196996.30	40.379909	-104.792881
	10800.00	90.04	89.88	7087.02	4224.82	-2378.25	3706.60	0.00	1382027.63	3197096.29	40.379909	-104.792522
	10900.00	90.04	89.88	7086.96	4320.75	-2378.05	3806.60	0.00	1382028.61	3197196.28	40.379910	-104.792163
	11000.00	90.04	89.88	7086.89	4416.68	-2377.84	3906.60	0.00	1382029.60	3197296.27	40.379910	-104.791804
	11100.00	90.04	89.88	7086.82	4512.61	-2377.64	4006.60	0.00	1382030.59	3197396.26	40.379911	-104.791445
	11200.00	90.04	89.88	7086.75	4608.54	-2377.44	4106.60	0.00	1382031.57	3197496.25	40.379911	-104.791086
	11300.00	90.04	89.88	7086.68	4704.47	-2377.23	4206.60	0.00	1382032.56	3197596.24	40.379912	-104.790727
	11400.00	90.04	89.88	7086.61	4800.40	-2377.03	4306.60	0.00	1382033.55	3197696.23	40.379912	-104.790368
	11500.00	90.04	89.88	7086.54	4896.33	-2376.83	4406.60	0.00	1382034.53	3197796.23	40.379913	-104.790009
	11600.00	90.04	89.88	7086.47	4992.26	-2376.62	4506.60	0.00	1382035.52	3197896.22	40.379913	-104.789650
	11700.00	90.04	89.88	7086.41	5088.19	-2376.42	4606.60	0.00	1382036.51	3197996.21	40.379914	-104.789291
	11800.00	90.04	89.88	7086.34	5184.12	-2376.21	4706.60	0.00	1382037.49	3198096.20	40.379914	-104.788933
	11900.00	90.04	89.88	7086.27	5280.05	-2376.01	4806.60	0.00	1382038.48	3198196.19	40.379915	-104.788574
	12000.00	90.04	89.88	7086.20	5375.98	-2375.81	4906.60	0.00	1382039.47	3198296.18	40.379915	-104.788215
	12100.00	90.04	89.88	7086.13	5471.91	-2375.60	5006.60	0.00	1382040.45	3198396.17	40.379916	-104.787856
	12200.00	90.04	89.88	7086.06	5567.84	-2375.40	5106.60	0.00	1382041.44	3198496.16	40.379916	-104.787497
	12300.00	90.04	89.88	7085.99	5663.77	-2375.20	5206.60	0.00	1382042.43	3198596.15	40.379917	-104.787138
	12400.00	90.04	89.88	7085.93	5759.70	-2374.99	5306.60	0.00	1382043.41	3198696.14	40.379917	-104.786779
	12500.00	90.04	89.88	7085.86	5855.63	-2374.79	5406.60	0.00	1382044.40	3198796.13	40.379918	-104.786420
	12600.00	90.04	89.88	7085.79	5951.55	-2374.58	5506.60	0.00	1382045.39	3198896.12	40.379918	-104.786061
	12700.00	90.04	89.88	7085.72	6047.48	-2374.38	5606.60	0.00	1382046.37	3198996.12	40.379919	-104.785702
	12800.00	90.04	89.88	7085.65	6143.41	-2374.18	5706.60	0.00	1382047.36	3199096.11	40.379919	-104.785343
	12900.00	90.04	89.88	7085.58	6239.34	-2373.97	5806.60	0.00	1382048.35	3199196.10	40.379920	-104.784984
	13000.00	90.04	89.88	7085.51	6335.27	-2373.77	5906.60	0.00	1382049.33	3199296.09	40.379920	-104.784625
	13100.00	90.04	89.88	7085.44	6431.20	-2373.57	6006.60	0.00	1382050.32	3199396.08	40.379921	-104.784266
	13200.00	90.04	89.88	7085.38	6527.13	-2373.36	6106.60	0.00	1382051.31	3199496.07	40.379921	-104.783908
	13300.00	90.04	89.88	7085.31	6623.06	-2373.16	6206.60	0.00	1382052.29	3199596.06	40.379922	-104.783549
	13400.00	90.04	89.88	7085.24	6718.99	-2372.95	6306.60	0.00	1382053.28	3199696.05	40.379922	-104.783190
	13500.00	90.04	89.88	7085.17	6814.92	-2372.75	6406.60	0.00	1382054.27	3199796.04	40.379923	-104.782831
	13600.00	90.04	89.88	7085.10	6910.85	-2372.55	6506.60	0.00	1382055.25	3199896.03	40.379923	-104.782472
	13700.00	90.04	89.88	7085.03	7006.78	-2372.34	6606.60	0.00	1382056.24	3199996.02	40.379924	-104.782113
	13800.00	90.04	89.88	7084.96	7102.71	-2372.14	6706.60	0.00	1382057.23	3200096.02	40.379924	-104.781754
	13900.00	90.04	89.88	7084.89	7198.64	-2371.93	6806.60	0.00	1382058.21	3200196.01	40.379925	-104.781395
	14000.00	90.04	89.88	7084.83	7294.57	-2371.73	6906.60	0.00	1382059.20	3200296.00	40.379925	-104.781036
	14100.00	90.04	89.88	7084.76	7390.50	-2371.53	7006.60	0.00	1382060.18	3200396.00	40.379926	-104.780677
	14200.00	90.04	89.88	7084.69	7486.43	-2371.32	7106.60	0.00	1382061.17	3200496.00	40.379926	-104.780318
	14300.00	90.04	89.88	7084.62	7582.36	-2371.12	7206.60	0.00	1382062.16	3200596.00	40.379927	-104.779959
	14400.00	90.04	89.88	7084.55	7678.29	-2370.92	7306.60	0.00	1382063.14	3200696.00	40.379927	-104.779600
	14500.00	90.04	89.88	7084.48	7774.21	-2370.71	7406.60	0.00	1382064.13	3200796.00	40.379928	-104.779241
	14600.00	90.04	89.88	7084.41	7870.14	-2370.51	7506.60	0.00	1382065.12	3200896.00	40.379928	-104.778882
	14700.00	90.04	89.88	7084.35	7966.07	-2370.30	7606.60	0.00	1382066.10	3200996.00	40.379929	-104.778524
	14800.00	90.04	89.88	7084.28	8062.00	-2370.10	7706.60	0.00	1382067.09	3201096.00	40.379929	-104.778165
	14900.00	90.04	89.88	7084.21	8157.93	-2369.90						

Stugart 21NA R2 mdv 10June20 Anti-Collision Summary Report

Analysis Date-24hr Time: June 19, 2020 - 11:21

Client: PDC Energy

Field: CO, Weld County (NAD 83 NZ) - SRC

Structure: PDC Energy 20-05N-66W (Stugart State 6-20 Pad)

Slot: Stugart 21NA

Well: Stugart 21NA

Borehole: Original Hole

Scan MD Range: 0.00ft ~ 15202.51ft

Analysis Method: 3D Least Distance

Reference Trajectory: Stugart 21NA R2 mdv 10June20 (Def Plan)

Depth Interval: Every 10.00 Measured Depth (ft)

Rule Set: D&M AntiCollision Standard S002 v5.1/5.2

Min Pts: All local minima indicated.

Version / Patch: 2.10.811.0

Database \ Project: localhost\drilling-project1

Trajectory Error Model: ISCSWA0 3-D 95.000% Confidence 2.7955 sigma

Offset Trajectories Summary

Offset Selection Criteria

Wellhead distance scan:

Selection filters: Not performed!

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

Calvin 1 Blind 0' to 7355' - PR

(Def Survey)

8364.04	32.81	8362.22	8331.23	N/A		MAS = 10.00 (m)	0.00	0.00					Fail Major
8363.96	32.81	8362.07	8331.16	10390.65		MAS = 10.00 (m)	4.00	4.00					Surface
1377.59	421.92	1093.49	955.67	4.97		OSF1.50	13690.00	7085.04	OSF<5.00				MinPt-O-SF
428.66	429.14	139.43	-0.48	1.50		OSF1.50	14670.00	7084.37		OSF<1.50			Enter Alert
203.79	438.96	-1.86	-145.17	0.99		OSF1.50	14830.00	7084.26					Enter Minor
189.57	467.46	-123.44	-277.83	0.60		OSF1.50	15050.00	7084.10					Enter Major
189.59	467.50	-123.35	-277.91	0.60		OSF1.50	15060.00	7084.10					MinPts
240.47	452.02	-61.41	-211.55	0.80		OSF1.50	15202.51	7084.00					MinPt-O-ADP
													TD

Stugart 20N R2 mdv 10June20

(Def Plan)

14.90	12.11	13.92	2.79	N/A		MAS = 3.69 (m)	0.00	0.00	CtCt<=15m<15.00				Fail Minor
14.90	12.11	13.92	2.79	N/A		MAS = 3.69 (m)	4.00	4.00					Enter Alert
14.90	12.11	12.67	2.79	11.18		MAS = 3.69 (m)	290.00	290.00					WRP
14.90	12.11	12.67	2.79	11.18		MAS = 3.69 (m)	300.00	300.00					MinPt-O-SF
14.13	12.11	7.11	2.01	2.18		MAS = 3.69 (m)	1180.00	1163.75					MINPT-O-EQU
14.31	12.11	6.89	2.20	2.07		MAS = 3.69 (m)	1220.00	1201.57					MinPts
14.71	12.11	7.01	2.59	2.04		MAS = 3.69 (m)	1250.00	1229.82					MINPT-O-EQU
80.10	24.73	63.28	55.36	5.00		OSF1.50	3060.00	2922.84	OSF>5.00				MinPt-O-SF
141.49	43.14	112.41	98.35	5.00		OSF1.50	4660.00	4419.37	OSF<5.00				Exit Alert
224.32	71.24	176.50	153.08	4.77		OSF1.50	6810.83	6431.10					Enter Alert
248.51	248.75	82.35	-0.23	1.50		OSF1.50	13250.00	7085.34		OSF<1.50			MinPt-O-SF
245.54	316.51	34.21	-70.97	1.18		OSF1.50	15202.51	7084.00					Enter Minor
													MinPts

UPRC 21-14H6 GYRO 0' to

7418' - AB (Def Survey)

5792.06	32.81	5790.25	5759.25	N/A		MAS = 10.00 (m)	0.00	0.00					Fail Minor
5791.97	32.81	5790.06	5759.16	59575.81		MAS = 10.00 (m)	4.00	4.00					Surface
5790.33	32.81	5787.55	5757.52	6961.29		MAS = 10.00 (m)	300.00	300.00					MinPt-O-SF
5584.15	32.81	5571.84	5551.35	524.57		MAS = 10.00 (m)	2120.00	2043.63					MinPt-O-SF
253.77	84.65	194.93	169.12	4.78		OSF1.50	12140.00	7086.10	OSF<5.00				Enter Alert
143.28	147.27	43.55	-3.99	1.46		OSF1.50	12330.00	7085.97		OSF<1.50			Enter Minor
141.81	150.64	40.08	-8.83	1.41		OSF1.50	12350.00	7085.96					MinPt-CtCt
142.13	151.35	40.05	-9.22	1.41		OSF1.50	12360.00	7085.95					MinPts
147.21	149.67	46.64	-2.46	1.47		OSF1.50	12390.00	7085.93		OSF>1.50			Exit Minor
313.36	96.61	248.42	216.76	4.92		OSF1.50	12630.00	7085.77	OSF>5.00				Exit Alert
2854.98	58.60	2815.38	2796.39	75.10		OSF1.50	15202.51	7084.00					TD

Stugart 22N R2 mdv 10June20

(Def Plan)

15.11	12.28	14.12	2.83	N/A		MAS = 3.74 (m)	0.00	0.00	CtCt<=15m<15.00				Warning Alert
15.11	12.28	14.12	2.83	N/A		MAS = 3.74 (m)	4.00	4.00					Enter Alert
15.11	12.28	12.88	2.83	11.34		MAS = 3.74 (m)	290.00	290.00					WRP
15.11	12.28	12.88	2.83	11.34		MAS = 3.74 (m)	300.00	300.00					MinPt-O-SF
14.52	12.28	6.26	2.24	1.86		MAS = 3.74 (m)	1290.00	1267.31					MINPT-O-EQU
14.78	12.70	5.96	2.08	1.77		OSF1.50	1340.00	1314.07					MinPts
15.92	14.00	6.26	1.92	1.72		OSF1.50	1430.00	1398.25					MINPT-O-EQU
16.88	14.96	6.58	1.92	1.71		OSF1.50	1500.00	1463.73					MinPt-O-ADP
18.50	16.46	7.19	2.03	1.70		OSF1.50	1610.00	1566.61					MinPt-O-SF
116.45	74.06	66.75	42.39	2.37		OSF1.50	6810.83	6431.10					MinPt-O-SF
221.04	67.03	176.02	154.01	5.00		OSF1.50	7450.00	6948.17	OSF>5.00				Exit Alert
288.88	87.64	230.13	201.24	4.98		OSF1.50	10120.00	7087.49	OSF<5.00				Enter Alert
279.10	263.59	103.05	15.51	1.59		OSF1.50	15202.51	7084.00					MinPts

Stugart 23N R2 mdv 10June20

(Def Plan)

30.01	24.20	29.03	5.81	N/A		MAS = 7.38 (m)	0.00	0.00	CtCt<=15m<15.00				Warning Alert
30.01	24.20	29.03	5.81	N/A		MAS = 7.38 (m)	4.00	4.00					Enter Alert
30.01	24.20	27.78	5.81	23.31		MAS = 7.38 (m)	290.00	290.00					WRP
30.01	24.20	27.78	5.81	23.31		MAS = 7.38 (m)	300.00	300.00					MinPt-O-SF
28.67	24.20	20.33	4.47	3.77		MAS = 7.38 (m)	1300.00	1276.66					MINPT-O-EQU
28.97	24.20	20.06	4.77	3.54		MAS = 7.38 (m)	1350.00	1323.43					MinPts
30.68	24.20	21.02	6.48	3.42		MAS = 7.38 (m)	1430.00	1398.25					MINPT-O-EQU
62.43	24.20	49.13	38.23	4.99		MAS = 7.38 (m)	2130.00	2052.98	OSF>5.00				MinPt-O-SF
310.38	75.78	259.53	234.60	6.20		OSF1.50	6810.83	6431.10					Exit Alert
455.65	137.63	363.57	318.03	4.99		OSF1.50	10930.00	7086.93	OSF<5.00				MinPt-O-SF
453.91	288.98	260.93	164.93	2.36		OSF1.50	15200.00	7084.00					Enter Alert
453.91	289.16	260.81	164.75	2.38		OSF1.50	15202.51	7084.00					MinPts

Stugart 19N R2 mdv 10June20

(Def Plan)

30.01	24.20	29.02	5.81	N/A		MAS = 7.38 (m)	0.00	0.00	CtCt<=15m<15.00				Warning Alert
30.01	24.20	29.02	5.81	N/A		MAS = 7.38 (m)	4.00	4.00					Enter Alert
30.01	24.20	27.78	5.81	23.31		MAS = 7.38 (m)	290.00	290.00					WRP
30.00	24.20	27.78	5.80	23.33		MAS = 7.38 (m)	300.00	300.00					MinPt-O-SF
28.79	24.20	22.69	4.59	5.43		MAS = 7.38 (m)	1090.00	1078.02					MINPT-O-EQU
29.02	24.20	22.52	4.82	5.08		MAS = 7.38 (m)	1130.00	1116.23					MinPts
31.68	24.20	24.19	7.48	4.79		MAS = 7.38 (m)	1240.00	1220.41					MINPT-O-EQU
49.16	24.20	39.29	24.96	5.42		MAS = 7.38 (m)	1540.00	1501.14	CtCt<=15m>15.00				MinPt-O-SF
426.73	69.54	380.04	357.19	9.32		OSF1.50	6810.83	6431.10					Exit Alert

...Stugart 21NA\Original Hole\Stugart 21NA R2 mdv 10June20

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		
	478.57	144.32	382.03	334.25	5.00	OSF1.50	10210.00	7087.43	OSF<5.00			Enter Alert	MinPts
	472.44	315.04	262.09	157.40	2.25	OSF1.50	15202.51	7084.00					
	Stugart 24N R2 mdv 10June20 (Def Plan)												
Warning Alert													
	45.12	32.81	44.13	12.31	N/A	MAS = 10.00 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert	
	45.12	32.81	44.13	12.31	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	45.11	32.81	42.88	12.30	35.44	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	45.11	32.81	42.88	12.30	35.44	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	43.09	32.81	34.76	10.28	5.74	MAS = 10.00 (m)	1300.00	1276.66				MinPts	
	43.32	32.81	34.43	10.51	5.35	MAS = 10.00 (m)	1350.00	1323.43				MINPT-O-EOU	
	47.11	32.81	36.84	14.30	4.97	MAS = 10.00 (m)	1490.00	1454.37				MinPt-O-SF	
	49.18	32.81	38.56	16.37	5.00	MAS = 10.00 (m)	1530.00	1491.79	CtCt<=15m>15.00			Exit Alert	
	457.32	77.02	405.65	380.30	9.00	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	683.97	206.07	546.27	477.91	5.00	OSF1.50	12920.00	7085.57	OSF<5.00			Enter Alert	
	683.97	287.78	491.79	396.19	3.57	OSF1.50	15200.00	7084.00				MinPt-CtCt	
	683.97	287.94	491.68	396.03	3.57	OSF1.50	15202.51	7084.00				MinPts	
Stugart 18N R2 mdv 10June20 (Def Plan)													
Warning Alert													
	44.91	32.81	43.93	12.10	N/A	MAS = 10.00 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert	
	44.91	32.81	43.93	12.10	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	44.91	32.81	42.68	12.10	35.27	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	44.90	32.81	42.68	12.10	35.32	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	43.36	32.81	38.03	10.55	9.76	MAS = 10.00 (m)	1010.00	1001.12				MinPts	
	43.57	32.81	37.87	10.76	9.02	MAS = 10.00 (m)	1050.00	1039.64				MINPT-O-EOU	
	48.97	32.81	41.77	16.17	7.72	MAS = 10.00 (m)	1220.00	1201.57	CtCt<=15m>15.00			Exit Alert	
	50.16	32.81	42.80	17.36	7.71	MAS = 10.00 (m)	1240.00	1220.41				MinPt-O-SF	
	600.66	68.09	554.94	532.58	13.41	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	669.71	201.76	534.88	467.95	5.00	OSF1.50	12140.00	7086.10	OSF<5.00			Enter Alert	
	668.28	310.65	460.85	357.63	3.23	OSF1.50	15202.51	7084.00				MinPts	
Stugart 17C R2 mdv 10June20 (Def Plan)													
Warning Alert													
	59.77	32.81	58.79	26.96	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	59.77	32.81	58.79	26.96	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	59.77	32.81	57.54	26.96	47.21	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	59.76	32.81	57.53	26.95	47.29	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	58.17	32.81	53.85	25.36	17.15	MAS = 10.00 (m)	900.00	894.44				MinPts	
	58.33	32.81	53.65	25.52	15.54	MAS = 10.00 (m)	940.00	933.35				MINPT-O-EOU	
	72.04	32.81	64.93	39.23	11.59	MAS = 10.00 (m)	1230.00	1211.00				MinPt-O-SF	
	828.80	66.38	784.22	762.43	18.99	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	929.19	279.53	742.51	649.66	5.00	OSF1.50	14270.00	7084.64	OSF<5.00			Enter Alert	
	926.63	312.70	719.84	615.94	4.46	OSF1.50	15202.51	7084.00				MinPts	
HSR-Wiedeman 16-20 GYRO 0° to 7501° - AB (Def Survey)													
Warning Alert													
	3587.66	32.81	3585.85	3554.85	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3587.64	32.81	3585.80	3554.83	141691.14	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3586.68	32.81	3583.68	3553.87	3012.92	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	186.82	62.51	143.40	124.30	4.76	OSF1.50	9570.00	7087.87	OSF<5.00			Enter Alert	
	122.91	87.97	62.93	34.94	2.12	OSF1.50	9710.00	7087.77				MinPt-CtCt	
	123.26	89.05	62.64	34.21	2.10	OSF1.50	9720.00	7087.77				MinPts	
	242.68	75.07	192.10	167.61	4.92	OSF1.50	9920.00	7087.63	OSF>5.00			Exit Alert	
	5492.31	58.01	5453.11	5434.30	146.02	OSF1.50	15202.51	7084.00				TD	
HSR-Wiedeman 15-20 GYRO 0° to 7527° - AB (Def Survey)													
Warning Alert													
	2743.97	32.81	2742.16	2711.16	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2743.90	32.81	2742.01	2711.09	37286.60	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2743.54	32.81	2741.63	2710.73	26816.51	MAS = 10.00 (m)	50.00	50.00				MinPts	
	2743.59	32.81	2741.60	2710.78	15236.95	MAS = 10.00 (m)	80.00	80.00				MINPT-O-EOU	
	2744.25	32.81	2741.16	2711.44	2137.65	MAS = 10.00 (m)	390.00	389.94				MinPt-O-SF	
	2740.84	32.81	2737.69	2708.04	2036.60	MAS = 10.00 (m)	460.00	459.81				MinPt-O-SF	
	184.86	59.34	143.89	125.52	4.92	OSF1.50	8130.00	7088.86	OSF<5.00			Enter Alert	
	168.02	62.53	125.04	105.49	4.20	OSF1.50	8210.00	7088.80				MinPts	
	168.49	62.83	125.34	105.65	4.18	OSF1.50	8220.00	7088.80				MinPt-O-SF	
	202.38	63.23	159.33	139.15	4.95	OSF1.50	8320.00	7088.73	OSF>5.00			Exit Alert	
	6997.32	57.31	6958.58	6940.01	188.38	OSF1.50	15202.51	7084.00				TD	
Wiedeman 21-15H6 GYRO 0° to 7491° - AB (Def Survey)													
Warning Alert													
	7032.73	32.81	7030.91	6999.92	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	7032.65	32.81	7030.74	6999.84	78926.21	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	7030.93	32.81	7028.18	6998.12	7476.32	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	6641.63	32.81	6619.61	6608.82	325.71	MAS = 10.00 (m)	4610.00	4372.60				MinPts	
	6641.72	32.81	6619.50	6608.91	322.31	MAS = 10.00 (m)	4650.00	4410.01				MINPT-O-EOU	
	347.13	111.82	269.90	235.31	4.90	OSF1.50	13500.00	7085.17	OSF<5.00			Enter Alert	
	221.43	181.96	98.79	39.46	1.83	OSF1.50	13770.00	7084.98				MinPts	
	221.77	182.41	98.93	39.36	1.83	OSF1.50	13780.00	7084.98				MinPts	
	407.95	124.59	324.35	283.36	4.96	OSF1.50	14110.00	7084.75	OSF>5.00			Exit Alert	
	1452.11	72.33	1403.35	1379.77	30.76	OSF1.50	15202.51	7084.00				TD	
UPRC 21-13H6 GYRO 0° to 7440° - AB (Def Survey)													
Warning Alert													
	4646.65	32.81	4644.84	4613.84	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	4646.56	32.81	4644.65	4613.75	46156.32	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	4645.42	32.81	4643.35	4612.61	18013.79	MAS = 10.00 (m)	110.00	110.00				MinPts	
	4645.62	32.81	4642.89	4612.81	4993.30	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	4645.49	32.81	4642.71	4612.68	4761.54	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	341.06	106.87	268.20	234.20	4.94	OSF1.50	10800.00	7087.02	OSF<5.00			Enter Alert	
	330.93	113.94	253.63	217.00	4.46	OSF1.50	10880.00	7086.97				MinPt-CtCt	
	331.01	114.48	253.37	216.51	4.44	OSF1.50	10890.00	7086.96				MINPT-O-EOU	
	331.38	114.97	253.47	216.42	4.42	OSF1.50	10900.00	7086.96				MinPt-O-ADP	
	333.04	115.66	254.75	217.37	4.41	OSF1.50	10920.00	7086.94				MinPt-O-SF	
	370.88	112.94	294.95	257.94	4.98	OSF1.50	11050.00	7086.85	OSF>5.00			Exit Alert	
	4332.60	62.32	4290.52	4270.28	107.00	OSF1.50	15202.51	7084.00				TD	
A.J. Gold 22-13 Blind 0° to 7426° - PR (Def Survey)													
Warning Alert													
	9339.95	32.81	9338.14	9307.14	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	9339.88	32.81	9337.99	9307.07	117865.17	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1376.30	422.25	1091.75	954.05	4.96	OSF1.50	14760.00	7084.30	OSF<5.00			Enter Alert	
	933.99	422.80	648.95	511.19	3.36	OSF1.50	15202.51	7084.00				MinPts	

...Stugart 21NA\Original Hole\Stugart 21NA R2 mdv 10June20

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		
UPV 21-11H6 Blind 0' to 7440' - AB (Def Survey)													
	5604.77	32.81	5602.96	5571.96	N/A	MAS = 10.00 (m)	0.00	0.00					Warning Alert
	5604.69	32.81	5602.79	5571.88	62884.70	MAS = 10.00 (m)	4.00	4.00				Surface	
	5374.07	290.42	5179.92	5083.65	27.90	OSF1.50	5250.00	4971.21				MinPt-O-SF	
	1424.05	430.89	1135.87	993.17	4.98	OSF1.50	11610.00	7086.47	OSF<5.00			MinPt-CICt	
	1073.26	441.97	778.07	631.26	3.65	OSF1.50	12550.00	7085.82				Enter Alert	
	1435.97	433.03	1146.75	1002.95	4.99	OSF1.50	13500.00	7085.17	OSF>5.00			MinPts	
	2865.14	422.10	2583.20	2443.04	10.21	OSF1.50	15202.51	7084.00				Exit Alert	
												TD	
UPRC 21-12H6 Blind 0' to 7502' - AB (Def Survey)													
	4186.20	32.81	4184.39	4153.39	N/A	MAS = 10.00 (m)	0.00	0.00					Warning Alert
	4186.12	32.81	4184.21	4153.31	44349.65	MAS = 10.00 (m)	4.00	4.00				Surface	
	3944.46	261.93	3769.31	3682.54	22.72	OSF1.50	4720.00	4475.49				MinPt-O-SF	
	3966.99	329.02	3747.11	3637.98	18.17	OSF1.50	5910.00	5588.53				MinPt-CICt	
	3995.72	363.45	3752.89	3632.27	16.56	OSF1.50	6520.00	6159.08				MINPT-O-EOU	
	1415.69	427.17	1130.38	988.52	4.98	OSF1.50	10340.00	7087.34	OSF<5.00			MinPt-O-ADP	
	1188.84	432.88	899.72	755.96	4.13	OSF1.50	11110.00	7086.81				Enter Alert	
	1188.89	432.91	899.75	755.99	4.13	OSF1.50	11120.00	7086.80				MinPts	
	1428.13	430.20	1140.79	997.93	4.99	OSF1.50	11900.00	7086.27	OSF>5.00			MinPt-O-SF	
	4262.98	420.79	3981.92	3842.19	15.25	OSF1.50	15202.51	7084.00				Exit Alert	
												TD	
Stugart 16N R2 mdv 10June20 (Def Plan)													
	74.89	32.81	73.90	42.08	N/A	MAS = 10.00 (m)	0.00	0.00					Pass
	74.88	32.81	73.89	42.07	N/A	MAS = 10.00 (m)	4.00	4.00				Surface	
	74.88	32.81	72.65	42.07	59.54	MAS = 10.00 (m)	250.00	250.00				WRP	
	74.88	32.81	72.65	42.07	59.38	MAS = 10.00 (m)	260.00	260.00				MinPts	
	74.88	32.81	72.65	42.07	59.35	MAS = 10.00 (m)	290.00	290.00				MINPT-O-EOU	
	74.88	32.81	72.65	42.07	59.35	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	73.35	32.81	69.63	40.54	26.50	MAS = 10.00 (m)	830.00	826.05				MINPT-O-EOU	
	73.46	32.81	69.50	40.66	24.33	MAS = 10.00 (m)	860.00	855.40				MinPts	
	97.09	32.81	89.93	64.28	15.59	MAS = 10.00 (m)	1250.00	1229.82				MINPT-O-EOU	
	997.60	65.11	953.86	932.49	23.31	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	1112.66	309.28	906.15	803.38	5.41	OSF1.50	15202.51	7084.00				MinPts	
Stugart 15N R2 mdv 10June20 (Def Plan)													
	89.79	32.81	88.80	56.98	N/A	MAS = 10.00 (m)	0.00	0.00					Pass
	89.78	32.81	88.80	56.97	N/A	MAS = 10.00 (m)	4.00	4.00				Surface	
	89.78	32.81	87.56	56.97	71.55	MAS = 10.00 (m)	250.00	250.00				WRP	
	89.78	32.81	87.55	56.97	71.31	MAS = 10.00 (m)	290.00	290.00				MinPts	
	89.77	32.81	87.55	56.97	71.32	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	88.30	32.81	85.25	55.50	42.10	MAS = 10.00 (m)	750.00	747.47				MINPT-O-EOU	
	88.43	32.81	85.14	55.62	37.92	MAS = 10.00 (m)	780.00	776.98				MinPts	
	125.85	32.81	118.67	93.04	20.16	MAS = 10.00 (m)	1270.00	1248.59				MINPT-O-EOU	
	130.75	32.81	123.33	97.94	20.17	MAS = 10.00 (m)	1300.00	1276.66				MinPt-O-SF	
	1160.21	62.59	1118.16	1097.62	28.23	OSF1.50	6700.00	6327.44				MinPt-O-SF	
	1321.12	306.79	1116.26	1014.32	6.48	OSF1.50	15202.51	7084.00				MinPts	
Stugart 09C R2 mdv 10June20 (Def Plan)													
	100.18	32.81	99.20	67.37	N/A	MAS = 10.00 (m)	0.00	0.00					Pass
	100.18	32.81	99.20	67.37	N/A	MAS = 10.00 (m)	4.00	4.00				Surface	
	100.18	32.81	97.95	67.37	79.73	MAS = 10.00 (m)	250.00	250.00				WRP	
	100.20	32.81	97.94	67.39	77.92	MAS = 10.00 (m)	260.00	260.00				MinPts	
	196.14	32.81	190.27	163.34	39.89	MAS = 10.00 (m)	990.00	981.80				MINPT-O-EOU	
	201.53	32.81	195.52	168.73	39.89	MAS = 10.00 (m)	1010.00	1001.12				MinPt-O-SF	
	2374.24	58.55	2334.88	2315.69	61.84	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	2545.76	61.90	2504.17	2483.86	62.66	OSF1.50	7280.00	6836.71				MinPt-O-SF	
	2667.51	70.30	2620.32	2597.21	57.71	OSF1.50	7870.00	7087.17				MinPt-O-ADP	
	2653.62	308.43	2447.67	2345.19	12.94	OSF1.50	15202.51	7084.00				MinPts	
Stugart 08N R2 mdv 10June20 (Def Plan)													
	100.94	32.81	99.96	68.14	N/A	MAS = 10.00 (m)	0.00	0.00					Pass
	100.94	32.81	99.96	68.14	N/A	MAS = 10.00 (m)	4.00	4.00				Surface	
	100.94	32.81	98.72	68.14	80.34	MAS = 10.00 (m)	250.00	250.00				WRP	
	100.97	32.81	98.71	68.16	78.42	MAS = 10.00 (m)	260.00	260.00				MinPts	
	212.15	32.81	206.37	179.34	44.01	MAS = 10.00 (m)	960.00	952.75				MINPT-O-EOU	
	2566.45	58.06	2527.41	2508.39	67.42	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	2862.40	306.37	2657.82	2556.03	14.05	OSF1.50	15202.51	7084.00				MinPts	
Stugart 10N R2 mdv 10June20 (Def Plan)													
	101.16	32.81	100.18	68.35	N/A	MAS = 10.00 (m)	0.00	0.00					Pass
	101.16	32.81	100.18	68.35	N/A	MAS = 10.00 (m)	4.00	4.00				Surface	
	101.07	32.81	98.77	68.26	75.73	MAS = 10.00 (m)	300.00	300.00				WRP	
	101.00	32.81	98.74	68.19	78.48	MAS = 10.00 (m)	320.00	319.99				MinPt-O-SF	
	100.99	32.81	98.74	68.18	79.58	MAS = 10.00 (m)	330.00	329.99				MINPT-O-EOU	
	206.32	32.81	200.10	173.51	39.19	MAS = 10.00 (m)	1130.00	1116.23				MinPts	
	2184.30	58.90	2144.70	2125.39	56.55	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	2215.57	59.71	2175.44	2155.86	56.56	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	2314.72	62.12	2272.99	2252.61	56.77	OSF1.50	7200.00	6775.71				MinPt-O-SF	
	2422.36	309.62	2215.62	2112.74	11.77	OSF1.50	15202.51	7084.00				MinPts	
Stugart 11N R2 mdv 10June20 (Def Plan)													
	104.53	32.81	103.54	71.72	N/A	MAS = 10.00 (m)	0.00	0.00					Pass
	104.53	32.81	103.54	71.72	N/A	MAS = 10.00 (m)	4.00	4.00				Surface	
	104.35	32.81	102.11	71.54	82.02	MAS = 10.00 (m)	300.00	300.00				WRP	
	103.04	32.81	101.29	70.23	134.00	MAS = 10.00 (m)	430.00	429.88				MinPt-O-SF	
	103.03	32.81	101.30	70.22	135.73	MAS = 10.00 (m)	440.00	439.86				MINPT-O-EOU	
	201.49	32.81	195.05	168.68	36.79	MAS = 10.00 (m)	1220.00	1201.57				MinPts	
	224.76	32.81	217.72	191.95	36.93	MAS = 10.00 (m)	1300.00	1276.66				MinPt-O-SF	
	1990.01	59.44	1950.06	1930.57	51.04	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	2207.07	308.58	2001.03	1896.49	10.76	OSF1.50	15202.51	7084.00				MinPts	
Stugart 14N R2 mdv 10June20 (Def Plan)													
	104.89	32.81	103.91	72.08	N/A	MAS = 10.00 (m)	0.00	0.00					Pass
	104.89	32.81	103.90	72.08	N/A	MAS = 10.00 (m)	4.00	4.00				Surface	
	104.89	32.81	102.66	72.08	83.72	MAS = 10.00 (m)	250.00	250.00				WRP	
	104.88	32.81	102.65	72.07	83.44	MAS = 10.00 (m)	290.00	290.00				MinPts	
	104.87	32.81	102.65	72.07	83.49	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	103.48	32.81	101.12	70.67	74.31	MAS = 10.00 (m)	660.00	658.60				MINPT-O-EOU	
												MinPts	

...Stugart 21NA\Original Hole\Stugart 21NA R2 mdv 10June20

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		
	103.60	32.81	101.92	70.79	64.46	MAS = 10.00 (m)	690.00	688.27				MINPT-O-EOU	
	165.77	32.81	158.34	132.96	25.59	MAS = 10.00 (m)	1320.00	1295.37				MinPt-O-SF	
	1387.17	62.56	1345.13	1324.61	33.77	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	1541.44	306.53	1336.76	1234.92	7.56	OSF1.50	15202.51	7084.00				MinPts	
Stugart 07N R2 mdv 10June20 (Def Plan)													
	104.18	32.81	103.20	71.37	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	104.18	32.81	103.20	71.37	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	104.18	32.81	101.95	71.37	82.94	MAS = 10.00 (m)	250.00	250.00				MinPts	
	104.21	32.81	101.95	71.40	80.94	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	228.42	32.81	222.73	195.61	48.34	MAS = 10.00 (m)	940.00	933.35				MinPt-O-SF	
	2757.12	57.63	2718.37	2699.49	72.98	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	3078.90	305.61	2874.82	2773.28	15.16	OSF1.50	15202.51	7084.00				MinPts	
Stugart 12N R2 mdv 10June20 (Def Plan)													
	109.63	32.81	108.64	76.82	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	109.63	32.81	108.64	76.82	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	109.54	32.81	107.30	76.73	86.77	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	106.40	32.81	104.60	73.59	128.06	MAS = 10.00 (m)	560.00	559.40				MinPts	
	106.49	32.81	104.53	73.68	108.84	MAS = 10.00 (m)	590.00	589.20				MINPT-O-EOU	
	178.30	32.81	171.68	145.49	31.50	MAS = 10.00 (m)	1240.00	1220.41				MinPt-O-SF	
	1790.62	60.26	1750.12	1730.36	45.29	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	1984.46	307.05	1779.43	1677.41	9.72	OSF1.50	15202.51	7084.00				MinPts	
Stugart 06N R2 mdv 10June20 (Def Plan)													
	109.51	32.81	108.53	76.70	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	109.51	32.81	108.53	76.70	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	109.51	32.81	107.28	76.70	87.23	MAS = 10.00 (m)	250.00	250.00				MinPts	
	237.53	32.81	232.01	204.72	52.19	MAS = 10.00 (m)	910.00	904.18				MinPt-O-SF	
	2934.49	57.28	2895.97	2877.21	78.16	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	3300.53	305.61	3096.46	2994.92	16.25	OSF1.50	15202.51	7084.00				MinPts	
Stugart 05NA R2 mdv 10June20 (Def Plan)													
	116.46	32.81	115.48	83.65	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	116.46	32.81	115.48	83.65	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	116.46	32.81	114.23	83.65	92.82	MAS = 10.00 (m)	250.00	250.00				MinPts	
	236.51	32.81	231.30	203.71	55.63	MAS = 10.00 (m)	860.00	855.40				MinPt-O-SF	
	3136.41	56.93	3098.12	3079.48	84.06	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	3413.65	60.47	3373.01	3353.18	86.05	OSF1.50	7420.00	6930.50				MinPt-O-SF	
	3515.02	305.03	3311.34	3210.00	17.34	OSF1.50	15202.51	7084.00				MinPts	
Stugart 13NA R2 mdv 10June20 (Def Plan)													
	119.79	32.81	118.81	86.99	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	119.79	32.81	118.81	86.98	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	119.79	32.81	117.56	86.98	95.73	MAS = 10.00 (m)	250.00	250.00				MinPts	
	119.78	32.81	117.55	86.97	95.40	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	119.77	32.81	117.54	86.96	95.51	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	118.62	32.81	116.82	85.81	143.82	MAS = 10.00 (m)	580.00	579.27				MinPts	
	118.72	32.81	116.73	85.91	116.93	MAS = 10.00 (m)	610.00	609.05				MINPT-O-EOU	
	222.07	32.81	213.93	189.27	30.87	MAS = 10.00 (m)	1430.00	1398.25				MinPt-O-SF	
	240.67	32.81	231.92	207.86	30.88	MAS = 10.00 (m)	1510.00	1473.08				MinPt-O-SF	
	1503.53	58.86	1463.96	1444.66	38.94	OSF1.50	6570.00	6205.85				MinPt-O-SF	
	1752.13	302.87	1549.89	1449.26	6.70	OSF1.50	15202.51	7084.00				MinPts	
Stugart 04N R2 mdv 10June20 (Def Plan)													
	124.89	32.81	123.91	92.08	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	124.89	32.81	123.91	92.08	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	124.89	32.81	122.66	92.08	99.84	MAS = 10.00 (m)	250.00	250.00				MinPts	
	124.92	32.81	122.66	92.11	97.42	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	229.37	32.81	224.46	196.56	58.23	MAS = 10.00 (m)	810.00	806.44				MinPt-O-SF	
	3291.34	56.68	3253.22	3234.66	88.61	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	3735.76	305.52	3531.75	3430.24	18.40	OSF1.50	15202.51	7084.00				MinPts	
Stugart 03N R2 mdv 10June20 (Def Plan)													
	134.44	32.81	133.46	101.64	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	134.44	32.81	133.46	101.63	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	134.44	32.81	132.22	101.63	107.54	MAS = 10.00 (m)	250.00	250.00				MinPts	
	134.47	32.81	132.22	101.66	104.94	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	250.30	32.81	245.21	217.49	60.71	MAS = 10.00 (m)	840.00	835.84				MinPt-O-SF	
	3447.15	56.44	3409.19	3390.71	93.21	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	3495.31	57.21	3456.84	3438.10	93.22	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	3950.94	61.16	3909.84	3889.78	98.46	OSF1.50	8110.00	7088.87				MinPt-O-SF	
	3957.43	305.76	3753.26	3651.67	19.47	OSF1.50	15202.51	7084.00				MinPts	
Stugart State 02C R2 mdv 10June20 (Def Plan)													
	144.94	32.81	143.96	112.14	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	144.94	32.81	143.96	112.13	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	144.94	32.81	142.72	112.13	116.00	MAS = 10.00 (m)	250.00	250.00				MinPts	
	144.97	32.81	142.72	112.16	113.20	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	276.19	32.81	270.85	243.38	63.21	MAS = 10.00 (m)	880.00	874.93				MinPt-O-SF	
	3635.91	56.99	3597.59	3578.93	97.36	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	4104.01	60.76	4063.18	4043.25	102.96	OSF1.50	8120.00	7088.86				MinPt-O-SF	
	4134.86	61.19	4093.75	4073.68	103.00	OSF1.50	8240.00	7088.78				MinPt-O-SF	
	4168.94	61.68	4127.49	4107.26	103.00	OSF1.50	8360.00	7088.70				MinPt-O-SF	
	4183.11	305.99	3978.79	3877.13	20.57	OSF1.50	15202.51	7084.00				MinPts	
Stugart State 01N R2 mdv 10June20 (Def Plan)													
	156.17	32.81	155.18	123.36	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	156.16	32.81	155.18	123.35	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	156.16	32.81	154.25	123.35	167.43	MAS = 10.00 (m)	200.00	200.00				MinPts	
	156.22	32.81	154.19	123.41	147.72	MAS = 10.00 (m)	220.00	220.00				MINPT-O-EOU	
	305.37	32.81	299.88	272.56	67.61	MAS = 10.00 (m)	900.00	894.44				MinPt-O-SF	
	3829.74	56.67	3791.63	3773.07	103.13	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	4312.70	60.23	4272.22	4252.47	109.16	OSF1.50	8130.00	7088.86				MinPt-O-SF	
	4345.03	60.67	4304.25	4284.36	109.17	OSF1.50	8260.00	7088.77				MinPt-O-SF	
	4392.44	306.22	4187.96	4086.21	21.58	OSF1.50	15202.51	7084.00				MinPts	

...Stugart 21NA\Original Hole\Stugart 21NA R2 mdv 10June20

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		
Stugart 6-20 Blind 0' to 7610' - PR (Def Survey)													
	366.52	32.81	364.70	333.71	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	366.39	32.81	364.45	333.58	2996.34	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	366.26	32.81	355.96	333.45	42.98	MAS = 10.00 (m)	250.00	250.00				MinPts	
	368.62	32.81	353.49	335.81	27.56	MAS = 10.00 (m)	370.00	369.96				MINPT-O-EOU	
	2511.84	390.36	2251.06	2121.47	9.69	OSF1.50	6880.00	6495.64				MinPt-O-SF	
	8684.97	426.17	8400.32	8258.80	30.68	OSF1.50	15202.51	7084.00				TD	
Stugart 22-20 MWD 0' to 7736' - PR (Def Survey)													
	372.72	32.81	370.91	339.91	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	372.72	32.81	370.91	339.91	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	372.72	32.81	369.81	339.91	338.58	MAS = 10.00 (m)	250.00	250.00				MinPts	
	372.73	32.81	369.80	339.93	330.37	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	454.58	32.81	448.21	421.77	99.44	MAS = 10.00 (m)	970.00	962.44				MinPt-O-SF	
	677.68	32.81	667.12	644.87	75.49	MAS = 10.00 (m)	1900.00	1837.86				MinPt-O-SF	
	1393.40	49.32	1359.99	1344.08	43.75	OSF1.50	5750.00	5438.88				MinPt-O-SF	
	8958.52	63.92	8915.38	8894.61	215.62	OSF1.50	15202.51	7084.00				TD	
HSR-Wiedeman 14-20 GYRO 0' to 7527' - AB (Def Survey)													
	2608.95	32.81	2607.14	2576.14	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2608.92	32.81	2607.07	2576.11	74062.46	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2608.13	32.81	2605.20	2575.32	2351.32	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	2025.53	32.81	2014.13	1992.73	211.61	MAS = 10.00 (m)	2440.00	2342.94				MinPt-O-SF	
	383.16	54.46	345.68	328.70	11.18	OSF1.50	7250.00	6814.41				MinPts	
	383.18	54.46	345.70	328.72	11.18	OSF1.50	7260.00	6821.92				MinPt-O-SF	
	8024.65	59.00	7984.79	7965.66	209.69	OSF1.50	15202.51	7084.00				TD	
Lundvall 11-20 MWD 0' to 7810' - PR (Def Survey)													
	2340.90	32.81	2339.09	2308.09	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2340.88	32.81	2339.05	2308.07	123326.66	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2246.90	32.81	2240.07	2214.09	449.72	MAS = 10.00 (m)	1020.00	1010.76				MinPt-O-SF	
	1289.94	32.81	1274.07	1257.13	93.46	MAS = 10.00 (m)	3400.00	3240.85				MinPt-O-SF	
	408.74	46.88	376.95	361.86	13.49	OSF1.50	5330.00	5046.04				MinPt-CiCt	
	408.80	47.07	376.88	361.73	13.44	OSF1.50	5340.00	5055.39				MINPT-O-EOU	
	408.96	47.24	376.94	361.73	13.39	OSF1.50	5350.00	5064.75				MinPt-O-ADP	
	415.29	48.60	382.36	366.69	13.20	OSF1.50	5440.00	5148.92				MinPt-O-SF	
	8221.11	64.23	8177.75	8156.88	196.87	OSF1.50	15202.51	7084.00				TD	
Wiedeman 20-20 GYRO 0' to 7542' - AB (Def Survey)													
	2411.31	32.81	2409.50	2378.50	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2411.22	32.81	2409.30	2378.41	23267.93	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1480.10	42.73	1451.08	1437.37	53.94	OSF1.50	5660.00	5354.70				MinPt-CiCt	
	1480.21	43.13	1450.92	1437.08	53.41	OSF1.50	5710.00	5401.46				MINPT-O-EOU	
	1480.41	43.38	1450.96	1437.04	53.10	OSF1.50	5740.00	5429.52				MinPt-O-ADP	
	733.20	63.48	690.35	669.72	17.74	OSF1.50	8660.00	7088.49				MinPts	
	734.00	63.60	691.07	670.40	17.72	OSF1.50	8690.00	7088.47				MinPt-O-SF	
	6587.97	54.62	6551.03	6533.36	186.36	OSF1.50	15202.51	7084.00				TD	
Bensler J 29-27D GYRO 0' to 7588' - PR (Def Survey)													
	4264.47	32.81	4262.66	4231.66	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	4264.41	32.81	4262.53	4231.60	65641.54	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	4260.49	32.81	4257.45	4227.68	3467.97	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	852.12	75.98	800.06	776.13	17.72	OSF1.50	8920.00	7088.32				MinPt-CiCt	
	852.18	76.23	799.96	775.95	17.66	OSF1.50	8930.00	7088.31				MINPT-O-EOU	
	852.35	76.47	799.98	775.88	17.60	OSF1.50	8940.00	7088.30				MinPt-O-ADP	
	875.27	80.31	820.51	794.96	17.06	OSF1.50	9120.00	7088.18				MinPt-O-SF	
	6339.84	76.43	6288.35	6263.41	127.06	OSF1.50	15202.51	7084.00				TD	
Wiedeman 25-20 GYRO 0' to 7638' - AB (Def Survey)													
	1751.02	32.81	1749.21	1718.21	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	1750.93	32.81	1749.02	1718.12	17298.07	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	858.17	32.81	836.26	825.36	42.22	MAS = 10.00 (m)	3520.00	3353.09				MinPts	
	858.20	32.81	836.20	825.40	42.00	MAS = 10.00 (m)	3540.00	3371.80				MINPT-O-EOU	
	957.96	39.05	931.39	918.91	38.31	OSF1.50	4370.00	4148.12				MinPt-O-SF	
	1837.65	62.51	1795.44	1775.13	45.22	OSF1.50	8180.00	7088.82				MinPt-O-SF	
	1846.23	62.79	1803.84	1783.44	45.22	OSF1.50	8220.00	7088.80				MinPt-O-SF	
	7613.60	69.30	7566.87	7544.30	168.66	OSF1.50	15202.51	7084.00				TD	
HSR-Wiedeman 9-20 GYRO 0' to 7473' - AB (Def Survey)													
	2916.60	32.81	2914.79	2883.79	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	2916.50	32.81	2914.57	2883.69	25304.40	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2913.55	32.81	2910.67	2880.74	2740.33	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	2471.52	38.51	2445.31	2433.01	100.39	OSF1.50	5240.00	4961.86				MinPt-CiCt	
	2471.64	38.84	2445.21	2432.80	99.51	OSF1.50	5280.00	4999.27				MINPT-O-EOU	
	2471.77	39.00	2445.24	2432.77	99.08	OSF1.50	5300.00	5017.98				MinPt-O-ADP	
	969.03	80.96	914.52	888.07	18.29	OSF1.50	9630.00	7087.83				MinPt-CiCt	
	969.04	81.01	914.50	888.03	18.28	OSF1.50	9640.00	7087.82				MinPts	
	969.70	81.13	915.08	888.58	18.26	OSF1.50	9670.00	7087.80				MinPt-O-SF	
	5651.69	55.03	5614.47	5596.66	158.62	OSF1.50	15202.51	7084.00				TD	
HSR-Wiedeman 10-20 GYRO 0' to 7535' - AB (Def Survey)													
	1631.72	32.81	1629.91	1598.91	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	1631.62	32.81	1629.69	1598.81	14287.14	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1630.05	32.81	1627.15	1597.24	1502.63	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	1059.98	32.81	1039.16	1027.17	55.08	MAS = 10.00 (m)	4370.00	4148.12				MinPts	
	1060.03	32.81	1039.13	1027.23	54.84	MAS = 10.00 (m)	4390.00	4166.83				MINPT-O-EOU	
	1373.53	49.10	1340.26	1324.42	43.32	OSF1.50	6760.00	6383.56				MinPt-O-SF	
	1222.79	55.67	1185.14	1167.12	33.88	OSF1.50	8200.00	7088.81				MinPt-CiCt	
	1222.80	55.76	1185.10	1167.05	33.83	OSF1.50	8210.00	7088.80				MinPts	
	1234.08	56.92	1195.60	1177.16	33.42	OSF1.50	8370.00	7088.69				MinPt-O-SF	
	7105.10	54.18	7068.45	7050.93	202.67	OSF1.50	15202.51	7084.00				TD	
Wiedeman R J 20-13 GYRO 0' to 7980' - PA (Def Survey)													
	2352.91	32.81	2351.10	2320.10	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass

...Stugart 21NA\Original Hole\Stugart 21NA R2 mdv 10June20

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		
Stugart 3-20 Blind 0' to 7580' - PR (Def Survey)	2352.89	32.81	2351.05	2320.08	101545.48	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2351.92	32.81	2349.06	2319.11	2240.06	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	1111.32	318.14	898.69	793.16	5.26	OSF1.50	6560.00	6196.49				MinPt-CtCt	
	1115.13	332.92	892.66	782.22	5.04	OSF1.50	6820.00	6439.68				MINPT-O-EOU	
	1115.63	333.48	892.78	782.18	5.04	OSF1.50	6830.00	6449.03				MinPt-O-ADP	
	1126.84	338.51	900.64	788.33	5.01	OSF1.50	6920.00	6532.68				MinPt-O-SF	
	9114.79	371.42	8866.64	8743.37	36.96	OSF1.50	15202.51	7084.00				TD	
Pass													
Lundvall 12-20 MWD 0' to 7703' - PR (Def Survey)	1280.68	32.81	1278.85	1247.88	48239.48	MAS = 10.00 (m)	0.00	0.00				Surface	
	1280.68	32.81	1278.74	1247.88	9724.92	MAS = 10.00 (m)	4.00	4.00				WRP	
	1280.68	32.81	1269.63	1247.88	138.40	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1283.16	32.81	1267.27	1250.36	91.00	MAS = 10.00 (m)	370.00	369.96				MINPT-O-EOU	
	3631.65	420.52	3350.77	3211.13	13.00	OSF1.50	7520.00	6985.75				MinPt-O-SF	
	8761.10	430.36	8473.66	8330.74	30.64	OSF1.50	15202.51	7084.00				TD	
Pass													
Barnett 5-20 Blind 0' to 7622' - PR (Def Survey)	2322.83	32.81	2321.02	2290.02	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2322.81	32.81	2320.98	2290.00	123449.17	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1307.16	36.77	1282.09	1270.39	55.78	OSF1.50	4580.00	4344.54				MinPt-CtCt	
	1307.16	36.83	1282.06	1270.33	55.67	OSF1.50	4590.00	4353.89				MINPT-O-EOU	
	1307.21	36.89	1282.06	1270.31	55.56	OSF1.50	4600.00	4363.25				MinPt-O-ADP	
	1386.54	42.74	1357.51	1343.80	50.50	OSF1.50	5300.00	5017.98				MinPt-O-SF	
	1454.87	44.44	1424.70	1410.42	50.89	OSF1.50	5570.00	5270.52				MinPt-O-SF	
	1559.96	46.87	1528.18	1513.09	51.64	OSF1.50	5890.00	5569.82				MinPt-O-SF	
	1753.18	51.50	1718.31	1701.67	52.65	OSF1.50	6400.00	6046.84				MinPt-O-SF	
	1911.26	55.39	1873.80	1855.87	53.25	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	1929.95	56.04	1892.05	1873.91	53.14	OSF1.50	6860.00	6477.03				MinPt-O-SF	
	1989.55	57.02	1951.01	1932.54	53.81	OSF1.50	6990.00	6596.57				MinPt-O-SF	
	9384.27	60.31	9343.53	9323.96	239.73	OSF1.50	14880.00	7084.22				MinPt-O-SF	
	9697.46	60.75	9656.42	9636.71	245.90	OSF1.50	15202.51	7084.00				TD	
Pass													
SW Greeley 31-20 MWD 0' to 7695' - PR (Def Survey)	1307.79	32.81	1305.30	1274.98	1923.41	MAS = 10.00 (m)	0.00	0.00				Surface	
	1307.79	32.81	1305.22	1274.98	1721.79	MAS = 10.00 (m)	4.00	4.00				WRP	
	1307.79	32.81	1296.60	1274.98	139.22	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1318.77	61.41	1277.22	1257.36	33.14	OSF1.50	1020.00	1010.76				MINPT-O-EOU	
	1326.37	70.69	1278.64	1255.60	28.85	OSF1.50	1180.00	1163.75				MinPt-O-ADP	
	2612.63	393.72	2349.62	2216.91	9.99	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	9715.05	427.54	9429.49	9287.51	34.21	OSF1.50	15202.51	7084.00				TD	
Pass													
Wiedeman 24-20 GYRO 0' to 7660' - AB (Def Survey)	1338.56	32.81	1336.67	1305.75	16971.61	MAS = 10.00 (m)	0.00	0.00				Surface	
	1338.56	32.81	1336.66	1305.75	15236.31	MAS = 10.00 (m)	4.00	4.00				WRP	
	1338.56	32.81	1335.04	1305.45	952.64	MAS = 10.00 (m)	310.00	310.00				MinPts	
	1338.52	32.81	1334.92	1305.71	747.58	MAS = 10.00 (m)	450.00	449.84				MINPT-O-EOU	
	1472.81	32.81	1460.60	1440.00	138.69	MAS = 10.00 (m)	1900.00	1837.86				MinPt-O-SF	
	1694.54	32.81	1681.74	1661.73	151.25	MAS = 10.00 (m)	2650.00	2539.36				MinPt-O-SF	
	1730.48	32.81	1717.45	1697.67	151.27	MAS = 10.00 (m)	2750.00	2632.89				MinPt-O-SF	
	1982.38	32.81	1967.39	1949.57	148.06	MAS = 10.00 (m)	3380.00	3222.15				MinPt-O-SF	
	2000.13	32.81	1985.03	1967.32	148.06	MAS = 10.00 (m)	3420.00	3259.56				MinPt-O-SF	
	2066.80	32.81	2584.76	2573.99	127.55	MAS = 10.00 (m)	4820.00	4569.02				MinPt-O-SF	
	3460.77	53.79	3424.38	3406.99	99.44	OSF1.50	6890.00	6504.93				MinPt-O-SF	
	10437.46	71.45	10389.28	10366.00	224.11	OSF1.50	15202.51	7084.00				TD	
Pass													
Wiedeman PMJ 21-9 GYRO 0' to 7490' - AB (Def Survey)	1657.90	32.81	1656.08	1625.09	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1657.80	32.81	1655.87	1624.96	15118.26	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1350.33	32.81	1335.31	1317.52	100.51	MAS = 10.00 (m)	2530.00	2427.12				MinPts	
	1350.39	32.81	1335.26	1317.58	99.75	MAS = 10.00 (m)	2550.00	2445.82				MINPT-O-EOU	
	1662.86	35.66	1638.55	1627.20	73.17	OSF1.50	4370.00	4148.12				MinPt-O-SF	
	2065.35	47.88	2032.90	2017.48	66.90	OSF1.50	5630.00	5326.64				MinPt-O-SF	
	2294.05	54.02	2257.50	2240.02	65.60	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	1823.07	71.25	1775.03	1751.81	39.23	OSF1.50	8870.00	7088.35				MinPt-CtCt	
	1823.16	71.51	1774.95	1751.65	39.08	OSF1.50	8890.00	7088.34				MinPts	
	1868.22	75.84	1817.12	1792.38	37.72	OSF1.50	9280.00	7088.07				MinPt-O-SF	
	6587.63	70.44	6540.13	6517.19	143.52	OSF1.50	15202.51	7084.00				TD	
Pass													
Wiedeman-PM J21-10 GYRO 0' to 7495' - AB (Def Survey)	7952.21	32.81	7950.39	7919.40	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	7952.14	32.81	7950.26	7919.34	115095.69	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	7950.87	32.81	7948.04	7918.07	7760.95	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	7813.49	36.43	7788.67	7777.06	336.47	OSF1.50	4970.00	4709.32				MinPt-CtCt	
	7813.64	36.96	7788.51	7776.75	332.04	OSF1.50	5030.00	4765.44				MINPT-O-EOU	
	7813.83	37.13	7788.54	7776.70	329.87	OSF1.50	5060.00	4793.50				MinPt-O-ADP	
	7825.90	45.14	7795.27	7780.76	269.56	OSF1.50	6050.00	5719.48				MINPT-O-EOU	
	7826.33	45.66	7795.36	7780.67	266.41	OSF1.50	6110.00	5775.60				MinPt-O-ADP	
	7821.83	50.88	7787.37	7770.95	238.03	OSF1.50	6640.00	6271.32				MinPt-CtCt	
	7822.06	51.57	7787.14	7770.48	234.76	OSF1.50	6720.00	6346.15				MINPT-O-EOU	
	7822.35	51.92	7787.20	7770.43	233.16	OSF1.50	6760.00	6383.56				MinPt-O-ADP	
	1406.94	211.16	1265.63	1195.78	10.06	OSF1.50	14930.00	7084.19				MinPt-CtCt	
	1406.96	211.28	1265.67	1195.67	10.05	OSF1.50	14940.00	7084.18				MINPT-O-EOU	
	1407.05	211.40	1265.58	1195.65	10.05	OSF1.50	14950.00	7084.17				MinPt-O-ADP	
	1408.59	211.84	1266.83	1196.75	10.04	OSF1.50	15000.00	7084.14				MinPt-O-SF	
	1432.74	211.10	1291.47	1221.63	10.25	OSF1.50	15202.51	7084.00				TD	
Pass													
Wiedeman-PM J21-10 GYRO 0' to 7495' - AB (Def Survey)	6726.72	32.81	6724.91	6693.91	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6726.65	32.81	6724.76	6693.84	85166.60	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6723.63	32.81	6723.52	6692.82	22253.91	MAS = 10.00 (m)	120.00	120.00				MinPts	
	6725.77	32.81	6723.03	6692.96	7211.04	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	6725.83	32.81	6723.00	6693.02	6651.51	MAS = 10.00 (m)	300.00	300.00				MinPts	
	6653.41	32.81	6640.40	6620.60	583.80	MAS = 10.00 (m)	2130.00	2052.98				MinPt-O-SF	
	6624.51	32.81	6610.65	6591.71	541.67	MAS = 10.00 (m)	2710.00	2595.48				MinPt-O-SF	
	6584.39	32.81	6565.72	6551.58	385.98	MAS = 10.00 (m)	4000.00	3802.05				MinPts	
	6584.50	32.81	6565.69	6551.69	380.65	MAS = 10.00 (m)	4050.00	3848.82				MINPT-O-EOU	
	6586.07	32.81	6566.00	6553.28	356.67	MAS = 10.00 (m)	4300.00	4082.65				MinPts	

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		
	6554.42	37.17	6529.11	6517.25	276.36	OSF1.50	5300.00	5017.98				MinPt-CiCt	
	6554.54	37.49	6529.01	6517.05	273.90	OSF1.50	5340.00	5055.39				MINPT-O-EOU	
	6554.67	37.65	6529.03	6517.01	272.69	OSF1.50	5360.00	5074.10				MinPt-O-ADP	
	1427.70	178.89	1307.91	1248.82	12.07	OSF1.50	13690.00	7085.04				MinPt-CiCt	
	1427.79	179.16	1307.81	1248.63	12.05	OSF1.50	13710.00	7085.03				MinPts	
	1430.29	179.86	1309.84	1250.42	12.02	OSF1.50	13780.00	7084.98				MinPt-O-SF	
	2076.97	142.75	1981.27	1934.22	22.06	OSF1.50	15202.51	7084.00				TD	
Wiedeman 40-20 GYRO 0' to 7935' - AB (Def Survey)													Pass
	1772.42	32.81	1770.61	1739.62	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1772.33	32.81	1770.41	1739.52	16859.09	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1768.86	32.81	1765.67	1736.05	1286.25	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	1672.37	32.81	1659.86	1639.56	156.12	MAS = 10.00 (m)	1790.00	1734.97				MINPT-O-EOU	
	1672.23	32.81	1659.72	1639.43	153.16	MAS = 10.00 (m)	1820.00	1763.03				MinPts	
	1672.30	32.81	1659.67	1639.49	151.61	MAS = 10.00 (m)	1840.00	1781.74				MINPT-O-EOU	
	2061.92	32.81	2041.51	2029.12	109.51	MAS = 10.00 (m)	3770.00	3586.92				MinPt-O-SF	
	2173.44	32.81	2152.03	2140.64	109.62	MAS = 10.00 (m)	4050.00	3848.82				MinPt-O-SF	
	2272.77	33.13	2250.15	2239.64	108.07	OSF1.50	4280.00	4063.94				MinPt-O-SF	
	2427.82	35.19	2403.82	2392.63	108.34	OSF1.50	4620.00	4381.95				MinPt-O-SF	
	2675.76	40.11	2648.49	2635.65	104.17	OSF1.50	5150.00	4877.68				MinPt-O-SF	
	3123.75	48.65	3090.78	3075.10	99.54	OSF1.50	6070.00	5738.18				MinPt-O-SF	
	3259.58	51.55	3224.68	3208.03	97.84	OSF1.50	6370.00	6018.78				MinPt-O-SF	
	1771.77	118.82	1692.03	1652.95	22.65	OSF1.50	10360.00	7087.33				MinPt-CiCt	
	1771.89	119.16	1691.91	1652.73	22.59	OSF1.50	10380.00	7087.31				MINPT-O-EOU	
	1772.03	119.33	1691.94	1652.70	22.56	OSF1.50	10390.00	7087.31				MinPt-O-ADP	
	1792.25	122.56	1710.01	1669.69	22.21	OSF1.50	10630.00	7087.14				MinPt-O-SF	
	5154.17	95.92	5089.69	5058.26	81.95	OSF1.50	15202.51	7084.00				TD	
Hurst 7-20 MWD 0' to 7650' - PR (Def Survey)													Pass
	1708.33	32.81	1706.52	1675.53	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1708.30	32.81	1706.44	1675.49	43953.12	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1708.23	32.81	1705.23	1675.42	1427.38	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1708.27	32.81	1705.20	1675.46	1357.03	MAS = 10.00 (m)	270.00	270.00				MINPT-O-EOU	
	1759.80	32.81	1753.58	1726.99	398.74	MAS = 10.00 (m)	970.00	962.44				MinPt-O-SF	
	1768.96	32.81	1762.78	1736.15	404.15	MAS = 10.00 (m)	1040.00	1030.03				MinPt-O-SF	
	2585.79	53.68	2549.47	2532.11	74.44	OSF1.50	6820.00	6439.68				MinPt-O-SF	
	2606.92	54.04	2570.36	2552.88	74.53	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	2544.21	62.69	2501.88	2481.52	62.43	OSF1.50	8390.00	7088.68				MinPt-CiCt	
	2544.28	62.92	2501.80	2481.36	62.21	OSF1.50	8410.00	7088.67				MINPT-O-EOU	
	2544.37	63.03	2501.82	2481.34	62.09	OSF1.50	8420.00	7088.66				MinPt-O-ADP	
	2698.26	72.21	2649.59	2626.05	57.29	OSF1.50	9290.00	7088.06				MinPt-O-SF	
	2708.40	72.48	2659.55	2635.92	57.29	OSF1.50	9320.00	7088.04				MinPt-O-SF	
	7270.60	81.26	7215.89	7189.34	136.88	OSF1.50	15202.51	7084.00				TD	
Hurst 8-20 MWD 0' to 7840' - PR (Def Survey)													Pass
	1729.94	32.81	1728.12	1697.13	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1729.90	32.81	1728.05	1697.09	46439.27	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1728.02	32.81	1725.05	1695.22	1490.61	MAS = 10.00 (m)	280.00	280.00				MinPts	
	1728.03	32.81	1725.04	1695.22	1473.20	MAS = 10.00 (m)	290.00	290.00				MINPT-O-EOU	
	1728.06	32.81	1725.06	1695.25	1455.99	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	1728.27	32.81	1725.27	1695.46	1455.51	MAS = 10.00 (m)	330.00	329.99				MinPt-O-SF	
	2058.71	32.81	2043.83	2025.90	154.96	MAS = 10.00 (m)	1900.00	1837.86				MinPt-O-SF	
	3386.84	67.10	3341.58	3319.74	77.53	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	3405.52	67.42	3360.04	3338.10	77.57	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	3415.82	67.58	3370.24	3348.25	77.63	OSF1.50	6980.00	6587.53				MinPt-O-SF	
	2684.31	87.87	2625.20	2596.44	46.65	OSF1.50	9580.00	7087.86				MinPt-CiCt	
	2684.43	88.22	2625.08	2596.21	46.46	OSF1.50	9610.00	7087.84				MINPT-O-EOU	
	2684.54	88.34	2625.11	2596.20	46.40	OSF1.50	9620.00	7087.83				MinPt-O-ADP	
	2765.49	94.68	2701.83	2670.81	44.54	OSF1.50	10250.00	7087.40				MinPt-O-SF	
	6166.67	97.54	6101.11	6069.13	96.40	OSF1.50	15140.00	7084.04				MinPt-O-SF	
	6222.91	97.73	6157.23	6125.19	97.08	OSF1.50	15202.51	7084.00				TD	
Greeley 21-20 Blind 0' to 7619' - PR (Def Survey)													Pass
	1750.57	32.81	1748.76	1717.76	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1750.53	32.81	1748.68	1717.73	44954.66	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1750.47	32.81	1740.91	1717.66	225.72	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1754.52	32.81	1737.01	1721.71	111.63	MAS = 10.00 (m)	450.00	449.84				MINPT-O-EOU	
	3470.88	426.45	3186.04	3044.42	12.25	OSF1.50	8470.00	7088.62				MinPt-CiCt	
	3470.89	426.47	3186.04	3044.42	12.25	OSF1.50	8480.00	7088.62				MinPts	
	3471.21	426.54	3186.32	3044.67	12.25	OSF1.50	8520.00	7088.59				MinPt-O-SF	
	7572.90	430.83	7285.14	7142.06	26.46	OSF1.50	15202.51	7084.00				TD	
Greeley 21-20 MWD 0' to 7619' - PR (Def Survey)													Pass
	1751.05	32.81	1749.24	1718.24	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1751.04	32.81	1749.23	1718.24	674713.07	MAS = 10.00 (m)	4.00	4.00				WRP	
	1751.04	32.81	1748.15	1718.24	1623.26	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1751.05	32.81	1748.14	1718.25	1584.53	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	1805.88	32.81	1799.94	1773.07	436.73	MAS = 10.00 (m)	990.00	981.80				MinPt-O-SF	
	1894.63	32.81	1882.98	1861.82	186.39	MAS = 10.00 (m)	1900.00	1837.86				MinPt-O-SF	
	2965.76	52.61	2930.15	2913.15	87.18	OSF1.50	6810.83	6431.10				MinPt-O-SF	
	2994.50	53.17	2958.51	2941.32	87.05	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	3014.85	53.52	2978.64	2961.33	87.06	OSF1.50	6970.00	6578.46				MinPt-O-SF	
	3070.20	54.36	3033.43	3015.84	87.25	OSF1.50	7210.00	6783.60				MinPt-O-SF	
	3432.37	69.81	3385.29	3362.55	75.45	OSF1.50	9280.00	7088.07				MinPt-O-SF	
	3448.95	70.14	3401.66	3378.81	75.45	OSF1.50	9320.00	7088.04				MinPt-O-SF	
	7967.04	84.71	7910.03	7882.32	143.76	OSF1.50	15202.51	7084.00				TD	
Greeley 17-20 MWD 0' to 7675' - PR (Def Survey)													Pass
	1771.80	32.81	1769.99	1738.99	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1771.80	32.81	1769.98	1738.99	690807.87	MAS = 10.00 (m)	4.00	4.00				WRP	
	1771.79	32.81	1768.90	1738.99	1642.14	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1771.80	32.81	1768.89	1739.00	1602.96	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	1812.99	32.81	1807.22	1780.18	458.15	MAS = 10.00 (m)	880.00	874.93					

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		
	3483.07	89.62	3422.79	3393.45	59.33	OSF1.50	10460.00	7087.26				MinPt-O-SF	TD
	6860.92	100.31	6793.51	6760.61	104.24	OSF1.50	15202.51	7084.00					
Greeley 27-20 GYRO 0' to 7712' - PR (Def Survey)													Pass
	1793.32	32.81	1791.51	1760.51	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	MinPt-O-SF
	1793.29	32.81	1791.44	1760.48	51996.81	MAS = 10.00 (m)	4.00	4.00				Surface	
	1792.89	32.81	1790.36	1760.08	2480.35	MAS = 10.00 (m)	190.00	190.00				MinPts	MinPt-O-SF
	1792.94	32.81	1790.16	1760.14	1847.90	MAS = 10.00 (m)	250.00	250.00				MinPts	
	2130.05	32.81	2118.76	2097.24	219.87	MAS = 10.00 (m)	1900.00	1837.86				MinPt-O-SF	MinPt-O-SF
	4089.68	41.50	4061.47	4048.17	153.69	OSF1.50	5790.00	5476.29				MinPt-O-SF	
	4100.76	41.61	4072.48	4059.15	153.69	OSF1.50	5810.00	5495.00				MinPt-O-SF	MinPt-CICt
	4551.05	74.52	4500.84	4476.53	93.59	OSF1.50	8940.00	7088.30				MinPt-CICt	
	4551.24	75.09	4500.64	4476.15	92.87	OSF1.50	8980.00	7088.27				MINPT-O-EQU	MinPt-O-ADP
	4551.60	75.51	4500.73	4476.09	92.35	OSF1.50	9010.00	7088.25				MinPt-O-ADP	
	5197.58	107.96	5125.07	5089.62	73.28	OSF1.50	11450.00	7086.58				MinPt-O-SF	TD
	7741.78	126.38	7656.99	7615.39	93.05	OSF1.50	15202.51	7084.00				MinPt-O-SF	
SW Greeley 18-20 MWD 0' to 7700' - PR (Def Survey)													Pass
	1848.21	32.81	1846.33	1815.40	26586.88	MAS = 10.00 (m)	0.00	0.00				Surface	MinPt-O-SF
	1848.21	32.81	1846.32	1815.40	23570.78	MAS = 10.00 (m)	4.00	4.00				WRP	
	1848.21	32.81	1845.19	1815.40	1521.19	MAS = 10.00 (m)	250.00	250.00				MinPts	MINPT-O-EQU
	1848.23	32.81	1845.17	1815.42	1483.15	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EQU	
	2120.88	32.81	2109.79	2088.07	223.29	MAS = 10.00 (m)	1900.00	1837.86				MinPt-O-SF	MinPt-O-SF
	3183.47	54.57	3146.56	3128.90	90.11	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	9448.99	79.78	9395.27	9369.22	181.28	OSF1.50	15202.51	7084.00				TD	
Barnett 1-20 GYRO 0' to 7625' - PR (Def Survey)													Pass
	1881.81	32.81	1879.91	1849.00	22564.01	MAS = 10.00 (m)	0.00	0.00				MinPts	MinPt-O-SF
	1881.81	32.81	1879.91	1849.01	19974.11	MAS = 10.00 (m)	4.00	4.00				WRP	
	1881.92	32.81	1879.87	1849.11	7865.40	MAS = 10.00 (m)	50.00	50.00				MINPT-O-EQU	MINPT-O-EQU
	1882.68	32.81	1879.60	1849.87	1489.40	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EQU	
	1882.76	32.81	1879.65	1849.95	1447.90	MAS = 10.00 (m)	270.00	270.00				MinPt-O-SF	MinPt-O-SF
	2195.06	32.81	2184.02	2162.25	232.43	MAS = 10.00 (m)	1900.00	1837.86				MinPt-O-SF	
	3762.93	50.74	3728.57	3712.19	114.83	OSF1.50	6900.00	6514.20				MinPt-O-SF	TD
	10199.94	79.07	10146.69	10120.87	197.48	OSF1.50	15202.51	7084.00				TD	
Meyer 4 GYRO 0' to 8410' - PR (Def Survey)													Pass
	3876.37	32.81	3874.56	3843.56	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	MinPt-O-SF
	3876.35	32.81	3874.51	3843.54	160523.54	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3873.50	32.81	3870.20	3840.69	2606.68	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	MinPts
	3873.37	32.81	3870.07	3840.56	2599.98	MAS = 10.00 (m)	340.00	339.99				MinPts	
	1905.75	141.79	1810.69	1763.96	20.37	OSF1.50	11830.00	7086.32				MinPt-CICt	MINPT-O-EQU
	1905.79	141.89	1810.66	1763.90	20.36	OSF1.50	11840.00	7086.31				MINPT-O-EQU	
	1905.87	141.98	1810.69	1763.90	20.35	OSF1.50	11850.00	7086.30				MinPt-O-ADP	MinPt-O-SF
	1911.76	142.92	1815.95	1768.85	20.28	OSF1.50	11980.00	7086.21				MinPt-O-SF	
	3874.89	112.84	3799.13	3762.05	52.23	OSF1.50	15202.51	7084.00				TD	
Hayes 2-20 Blind 0' to 7627' - PR (Def Survey)													Pass
	1977.50	32.81	1975.69	1944.69	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	MinPt-O-SF
	1977.49	32.81	1975.66	1944.68	178548.51	MAS = 10.00 (m)	4.00	4.00				WRP	
	1977.48	32.81	1967.40	1944.67	238.92	MAS = 10.00 (m)	250.00	250.00				MinPts	MINPT-O-EQU
	1980.80	32.81	1963.94	1947.99	131.55	MAS = 10.00 (m)	420.00	419.90				MINPT-O-EQU	
	3759.31	427.15	3474.01	3332.16	13.25	OSF1.50	8520.00	7088.59				MinPt-CICt	MinPts
	3759.33	427.17	3474.01	3332.16	13.24	OSF1.50	8530.00	7088.58				MinPts	
	3759.78	427.26	3474.41	3332.52	13.24	OSF1.50	8580.00	7088.55				MinPt-O-SF	TD
	7666.58	432.85	7377.48	7233.73	26.66	OSF1.50	15202.51	7084.00				TD	
Meyer 3 GYRO 0' to 7745' - AB (Def Survey)													Pass
	3863.09	32.81	3861.28	3830.28	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	MinPt-O-SF
	3863.07	32.81	3861.23	3830.26	164287.86	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3862.70	32.81	3860.26	3829.89	6371.94	MAS = 10.00 (m)	170.00	170.00				MinPts	MINPT-O-EQU
	3862.84	32.81	3860.16	3830.03	4433.71	MAS = 10.00 (m)	230.00	230.00				MINPT-O-EQU	
	3863.27	32.81	3860.45	3830.46	3847.56	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	MinPt-O-SF
	4379.26	65.77	4334.87	4313.48	102.33	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	2387.28	118.39	2307.83	2268.90	30.64	OSF1.50	11040.00	7086.86				MinPt-CICt	MINPT-O-EQU
	2387.41	118.74	2307.72	2268.67	30.55	OSF1.50	11060.00	7086.85				MINPT-O-EQU	
	2387.70	119.08	2307.76	2268.62	30.47	OSF1.50	11080.00	7086.83				MinPt-O-ADP	MinPt-O-SF
	2437.95	125.29	2353.89	2312.66	29.55	OSF1.50	11530.00	7086.52				MinPt-O-SF	
	4799.08	115.79	4721.35	4683.29	63.02	OSF1.50	15202.51	7084.00				TD	
Lessor J 21-7X GYRO 0' to 7725' - AB (Def Survey)													Pass
	6918.48	32.81	6916.67	6885.67	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	MinPt-O-SF
	6918.44	32.81	6916.58	6885.63	155013.22	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6918.11	32.81	6916.15	6885.30	47167.48	MAS = 10.00 (m)	70.00	70.00				MinPts	MINPT-O-EQU
	6918.24	32.81	6916.07	6885.43	19457.17	MAS = 10.00 (m)	130.00	130.00				MINPT-O-EQU	
	6920.42	32.81	6917.60	6887.61	6856.84	MAS = 10.00 (m)	320.00	319.99				MinPt-O-SF	MinPt-CICt
	6850.03	54.69	6813.04	6795.35	193.59	OSF1.50	4640.00	4400.66				MinPt-CICt	
	6850.21	55.20	6812.87	6795.01	191.69	OSF1.50	4710.00	4466.13				MINPT-O-EQU	MinPt-O-SF
	6850.39	55.42	6812.91	6794.97	190.90	OSF1.50	4740.00	4494.19				MinPt-O-ADP	
	6852.48	58.03	6813.25	6794.45	182.15	OSF1.50	5000.00	4737.38				MINPT-O-EQU	MinPt-O-ADP
	6852.64	58.23	6813.29	6794.41	181.50	OSF1.50	5030.00	4765.44				MinPt-O-ADP	
	2390.85	186.72	2265.84	2204.13	19.36	OSF1.50	13820.00	7084.95				MinPt-CICt	MINPT-O-EQU
	2390.99	187.26	2265.61	2203.72	19.30	OSF1.50	13850.00	7084.93				MINPT-O-EQU	
	2391.28	187.61	2265.68	2203.67	19.27	OSF1.50	13870.00	7084.92				MinPt-O-ADP	MinPt-O-SF
	2410.31	191.10	2282.38	2219.21	19.07	OSF1.50	14130.00	7084.74				MinPt-O-SF	
	2759.59	187.56	2634.02	2572.04	22.25	OSF1.50	15202.51	7084.00				TD	
Hayes 1 Blind 0' to 9502' - AB (Def Survey)													Pass
	2624.31	32.81	2622.50	2591.50	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	MinPt-O-SF
	2624.22	32.81	2622.30	2591.41	25693.43	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2623.52	32.81	2605.11	2590.71	157.96	MAS = 10.00 (m)	530.00	529.55				MinPts	MINPT-O-EQU
	2639.11	89.52	2578.83	2549.59	45.10	OSF1.50	1610.00	1566.61				MINPT-O-EQU	
	2646.78	99.84	2579.62	2546.95	40.47	OSF1.50	1790.00	1734.97				MinPt-O-ADP	MinPt-O-ADP
	2655.96	109.70	2582.29	2546.26	36.83	OSF1.50	1970.00	1903.33				MinPt-O-ADP	
	2505.56	427.50	2220.02	2078.06	8.82	OSF1.50	9720.00	7087.77				MinPts	MinPt-O-ADP
	2505.58	427.53	2220.03	2078.05	8.82	OSF1.50	9730.00	7087.76				MinPt-O-ADP	
	2505.89	427.62	2220.28	2078.27	8.82	OSF1.50	9760.00	7087.74				MinPt-O-SF	TD
	6028.75	426.55	5743.85	5602.21	21.28	OSF1.50	15202.51	7084.00				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		
Meyer 1 Blind 0' to 7482' - AB (Def Survey)													
	5252.24	32.81	5250.43	5219.44	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	5252.18	32.81	5250.30	5219.37	76891.37	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	5250.01	59.67	5209.62	5190.33	136.05	OSF1.50	1110.00	1097.14				MinPt-CiCt	
	5279.43	149.06	5179.52	5130.37	53.69	OSF1.50	2700.00	2586.12				MINPT-O-EOU	
	5317.29	194.45	5187.12	5122.83	41.35	OSF1.50	3510.00	3343.74				MinPt-O-ADP	
	2523.57	442.11	2228.30	2081.46	8.59	OSF1.50	12350.00	7085.96				MinPt-CiCt	
	2523.60	442.17	2228.29	2081.43	8.59	OSF1.50	12360.00	7085.95				MinPts	
	2524.90	442.56	2229.33	2082.34	8.58	OSF1.50	12430.00	7085.90				MinPt-O-SF	
	3810.04	438.33	3517.28	3371.71	13.08	OSF1.50	15202.51	7084.00				TD	
Lesser 7-21 Blind 0' to 7508' - AB (Def Survey)													
	6569.89	32.81	6568.07	6537.08	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	6569.83	32.81	6567.94	6537.02	96992.14	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6566.42	68.90	6519.89	6497.53	146.79	OSF1.50	1290.00	1267.31				MinPt-CiCt	
	6603.25	179.27	6483.20	6423.98	55.74	OSF1.50	3260.00	3109.91				MINPT-O-EOU	
	6650.99	236.60	6492.73	6414.40	42.44	OSF1.50	4280.00	4063.94				MinPt-O-ADP	
	2532.13	452.82	2229.72	2079.31	8.41	OSF1.50	13670.00	7085.05				MinPt-CiCt	
	2532.17	452.89	2229.71	2079.28	8.41	OSF1.50	13680.00	7085.05				MinPts	
	2533.88	453.43	2231.06	2080.45	8.41	OSF1.50	13760.00	7084.99				MinPt-O-SF	
	2961.99	452.59	2659.73	2509.40	9.85	OSF1.50	15202.51	7084.00				TD	
Lesser J 21-8 - Plan (Def Plan)													
	6959.75	32.81	6957.94	6926.94	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	6959.72	32.81	6957.87	6926.91	197538.37	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6959.51	32.81	6956.63	6926.70	6497.29	MAS = 10.00 (m)	250.00	250.00				MinPts	
	6959.58	32.81	6956.55	6926.77	5744.75	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	7035.46	32.81	7021.55	7002.66	571.66	MAS = 10.00 (m)	1900.00	1837.86				MinPt-O-SF	
	2553.96	201.52	2419.07	2352.43	19.15	OSF1.50	14510.00	7084.48				MinPt-CiCt	
	2554.11	202.04	2418.88	2352.07	19.10	OSF1.50	14540.00	7084.46				MINPT-O-EOU	
	2554.24	202.21	2418.90	2352.03	19.09	OSF1.50	14550.00	7084.45				MinPt-O-ADP	
	2571.27	205.56	2433.70	2365.71	18.90	OSF1.50	14810.00	7084.27				MinPt-O-SF	
	2645.64	207.11	2507.03	2438.52	19.30	OSF1.50	15202.51	7084.00				TD	
Hayes 1-20 Blind 0' to 7516' - PR (Def Survey)													
	3089.93	32.81	3088.12	3057.13	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	3089.93	32.81	3088.11	3057.12	487684.22	MAS = 10.00 (m)	4.00	4.00				WRP	
	3089.92	32.81	3080.12	3057.11	386.68	MAS = 10.00 (m)	250.00	250.00				MinPts	
	3095.04	32.81	3074.93	3062.23	169.06	MAS = 10.00 (m)	510.00	509.64				MINPT-O-EOU	
	3101.48	36.99	3076.22	3064.49	132.15	OSF1.50	640.00	638.80				MinPt-O-ADP	
	3862.44	431.06	3574.53	3431.38	13.49	OSF1.50	9810.00	7087.70				MinPt-CiCt	
	3862.45	431.10	3574.52	3431.35	13.48	OSF1.50	9820.00	7087.70				MINPT-O-EOU	
	3862.48	431.13	3574.52	3431.35	13.48	OSF1.50	9830.00	7087.69				MinPt-O-ADP	
	3864.23	431.48	3576.04	3432.75	13.48	OSF1.50	9930.00	7087.62				MinPt-O-SF	
	6631.03	437.64	6338.74	6193.39	22.81	OSF1.50	15202.51	7084.00				TD	
Lesser J 21-18D MWD 0' to 7595' - SI (Def Survey)													
	6762.27	32.81	6760.46	6729.47	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	6762.24	32.81	6760.39	6729.43	179825.58	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6762.01	32.81	6760.07	6729.29	54337.75	MAS = 10.00 (m)	60.00	60.00				MinPts	
	6762.18	32.81	6759.41	6729.37	7062.84	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	6762.35	32.81	6759.51	6729.54	6539.92	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	6375.40	40.82	6347.55	6334.58	245.78	OSF1.50	4880.00	4625.14				MinPt-CiCt	
	6375.46	41.02	6347.47	6334.44	244.57	OSF1.50	4910.00	4653.20				MINPT-O-EOU	
	6375.56	41.15	6347.49	6334.41	243.77	OSF1.50	4930.00	4671.91				MinPt-O-ADP	
	3122.40	164.45	3012.23	2957.95	28.75	OSF1.50	13110.00	7085.44				MinPt-CiCt	
	3122.71	165.25	3012.00	2957.45	28.61	OSF1.50	13150.00	7085.41				MINPT-O-EOU	
	3123.05	165.65	3012.08	2957.41	28.54	OSF1.50	13170.00	7085.40				MinPt-O-ADP	
	3184.09	174.06	3067.52	3010.04	27.68	OSF1.50	13730.00	7085.01				MinPt-O-SF	
	3760.37	175.23	3643.01	3585.13	32.47	OSF1.50	15202.51	7084.00				TD	
Meyer 5 GYRO 0' to 7665' - AB (Def Survey)													
	3893.78	32.81	3891.97	3860.98	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	3893.76	32.81	3891.92	3860.95	158961.50	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3893.70	32.81	3891.83	3860.90	66043.59	MAS = 10.00 (m)	30.00	30.00				MinPts	
	3894.15	32.81	3891.30	3861.34	3755.60	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	3894.36	32.81	3891.45	3861.55	3564.53	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	3124.09	136.37	3032.64	2987.72	34.75	OSF1.50	11770.00	7086.36				MinPt-CiCt	
	3124.31	137.11	3032.37	2987.20	34.57	OSF1.50	11810.00	7086.33				MINPT-O-EOU	
	3124.61	137.48	3032.43	2987.14	34.48	OSF1.50	11830.00	7086.32				MinPt-O-ADP	
	3205.38	146.87	3106.93	3058.51	33.08	OSF1.50	12490.00	7085.86				MinPt-O-SF	
	4639.17	144.92	4542.02	4494.25	48.54	OSF1.50	15202.51	7084.00				TD	
Lesser J 21-17 - Plan (Def Plan)													
	6937.76	32.81	6935.94	6904.95	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	6937.72	32.81	6935.88	6904.92	196291.57	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6937.51	32.81	6934.63	6904.71	6476.29	MAS = 10.00 (m)	250.00	250.00				MinPts	
	6937.58	32.81	6934.55	6904.77	5726.15	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	6968.59	32.81	6959.30	6935.78	931.69	MAS = 10.00 (m)	1280.00	1257.95				MinPt-O-SF	
	3288.63	180.80	3167.57	3107.84	27.52	OSF1.50	13790.00	7084.97				MinPt-CiCt	
	3288.92	181.58	3167.33	3107.33	27.40	OSF1.50	13830.00	7084.94				MINPT-O-EOU	
	3289.25	181.98	3167.40	3107.27	27.34	OSF1.50	13850.00	7084.93				MinPt-O-ADP	
	3345.48	190.19	3218.15	3155.29	26.60	OSF1.50	14400.00	7084.55				MinPt-O-SF	
	3580.78	193.71	3451.10	3387.07	27.95	OSF1.50	15202.51	7084.00				TD	
Meyer 2 GYRO 0' to 8010' - AB (Def Survey)													
	3847.21	32.81	3845.39	3814.40	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	3847.18	32.81	3845.35	3814.38	162939.38	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3846.28	32.81	3843.29	3813.48	3259.88	MAS = 10.00 (m)	280.00	280.00				MinPts	
	3846.30	32.81	3843.26	3813.49	3142.19	MAS = 10.00 (m)	300.00	300.00				MinPts	
	3847.52	32.81	3844.06	3814.71	2342.20	MAS = 10.00 (m)	460.00	459.81				MINPT-O-EOU	
	3890.60	32.81	3868.52	3857.79	189.97	MAS = 10.00 (m)	3430.00	3268.91				MinPts	
	3890.68	32.81	3866.42	3857.87	188.30	MAS = 10.00 (m)	3470.00	3306.33				MINPT-O-EOU	
	4477.10	54.25	4440.40	4422.85	127.51	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	3317.82	99.54	3250.93	3218.28	50.79	OSF1.50	10470.00	7087.25				MinPt-CiCt	
	3318.11	100.26	3250.73	3217.85	50.42	OSF1.50	10510.00	7087.22				MINPT-O-EOU	
	3318.44	100.62	3250.82	3217.81	50.24	OSF1.50	10530.00	7087.21				MinPt-O-ADP	
	3487.28	114.97	3410.09	3372.30	46.12	OSF1.50	11540.00	7086.52				MinPt-O-SF	
	5782.59	119.02	5702.71	5663.58	73.86	OSF1.50</							

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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		
Lesser 1 Blind 0' to 7846' - AB (Def Survey)													
	7658.22	32.81	7656.41	7625.41	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	7658.18	32.81	7656.32	7625.37	172211.48	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	7657.81	32.81	7651.06	7625.01	1548.25	MAS = 10.00 (m)	250.00	250.00				MinPts	
	7674.43	64.56	7630.77	7609.85	183.35	OSF1.50	1190.00	1173.22				MINPT-O-EOU	
	7702.26	98.90	7635.72	7603.35	118.97	OSF1.50	1790.00	1734.97				MinPt-O-ADP	
	7715.62	112.62	7640.00	7603.00	104.22	OSF1.50	2040.00	1968.80				MinPt-O-ADP	
	3528.59	464.57	3218.34	3064.02	11.43	OSF1.50	14670.00	7084.37				MinPt-CiCt	
	3528.64	464.75	3218.27	3063.89	11.42	OSF1.50	14690.00	7084.35				MINPT-O-EOU	
	3528.71	464.83	3218.29	3063.88	11.42	OSF1.50	14700.00	7084.35				MinPt-O-ADP	
	3534.81	466.31	3223.40	3068.49	11.40	OSF1.50	14880.00	7084.22				MinPt-O-SF	
	3568.49	468.41	3255.69	3100.09	11.46	OSF1.50	15202.51	7084.00				TD	
Meyer 8 GYRO 0' to 7678' - AB (Def Survey)													
	3940.62	32.81	3938.81	3907.81	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	3940.60	32.81	3938.76	3907.79	162809.46	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3938.65	32.81	3935.46	3905.84	2847.06	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	3936.61	32.81	3935.42	3905.80	2862.44	MAS = 10.00 (m)	330.00	329.99				MinPts	
	4950.78	52.98	4914.93	4897.80	144.51	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	4960.32	53.06	4924.41	4907.26	144.55	OSF1.50	6980.00	6587.53				MinPt-O-SF	
	4961.59	53.07	4925.68	4908.52	144.55	OSF1.50	7000.00	6605.57				MinPt-O-SF	
	3682.45	106.05	3611.22	3576.40	52.86	OSF1.50	10740.00	7087.07				MinPt-CiCt	
	3682.74	107.01	3610.86	3575.73	52.38	OSF1.50	10790.00	7087.03				MINPT-O-EOU	
	3683.04	107.39	3610.91	3575.65	52.20	OSF1.50	10810.00	7087.02				MinPt-O-ADP	
	3897.25	125.49	3813.06	3771.76	47.17	OSF1.50	15202.00	7086.19				MinPt-O-SF	
	5782.62	132.92	5693.47	5649.70	66.04	OSF1.50	15202.51	7084.00				TD	
Lesser PM J 21-1 Blind 0' to 7510' - PR (Def Survey)													
	8070.24	32.81	8068.42	8037.43	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	8070.20	32.81	8068.35	8037.39	205578.29	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	8069.90	32.81	8062.93	8037.09	1565.20	MAS = 10.00 (m)	250.00	250.00				MinPts	
	8085.96	61.44	8044.40	8024.52	203.36	OSF1.50	1130.00	1116.23				MINPT-O-EOU	
	8118.52	99.22	8051.77	8019.30	124.99	OSF1.50	1790.00	1734.97				MinPt-O-ADP	
	8122.41	102.95	8053.24	8019.45	120.19	OSF1.50	1860.00	1800.45				MinPt-O-ADP	
	3692.22	469.27	3378.83	3222.94	11.84	OSF1.50	15060.00	7084.10				MinPt-CiCt	
	3692.26	469.46	3378.78	3222.80	11.83	OSF1.50	15080.00	7084.08				MINPT-O-EOU	
	3692.41	469.65	3378.78	3222.77	11.83	OSF1.50	15100.00	7084.07				MinPt-O-ADP	
	3694.90	470.56	3380.66	3224.34	11.81	OSF1.50	15202.51	7084.00				MinPt-O-SF	
Lesser PM J 21-2 Blind 0' to 7507' - PR (Def Survey)													
	6886.53	32.81	6884.72	6853.72	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	6886.49	32.81	6884.64	6853.69	163849.40	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6886.20	32.81	6878.98	6853.39	1272.58	MAS = 10.00 (m)	250.00	250.00				MinPts	
	6899.10	50.18	6865.04	6848.91	213.89	OSF1.50	930.00	923.63				MINPT-O-EOU	
	6912.09	65.87	6867.57	6846.22	161.81	OSF1.50	1200.00	1182.68				MinPt-O-ADP	
	3796.33	456.40	3491.55	3339.95	12.52	OSF1.50	13840.00	7084.94				MinPt-CiCt	
	3796.41	456.56	3491.50	3339.85	12.51	OSF1.50	13860.00	7084.92				MINPT-O-EOU	
	3796.48	456.65	3491.52	3339.84	12.51	OSF1.50	13870.00	7084.92				MinPt-O-ADP	
	3803.41	458.19	3497.41	3345.22	12.49	OSF1.50	14070.00	7084.78				MinPt-O-SF	
	4033.98	463.15	3724.67	3570.82	13.10	OSF1.50	15202.51	7084.00				TD	
Lessor J 21-8 Blind 0' to 7838' - PR (Def Survey)													
	6955.84	32.81	6954.03	6923.03	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	6955.80	32.81	6953.94	6922.99	156692.09	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6955.47	32.81	6948.41	6922.66	1326.54	MAS = 10.00 (m)	250.00	250.00				MinPts	
	6968.38	49.93	6934.45	6918.45	217.18	OSF1.50	930.00	923.63				MINPT-O-EOU	
	6981.38	65.62	6937.03	6915.77	164.08	OSF1.50	1200.00	1182.68				MinPt-O-ADP	
	3812.26	456.87	3507.15	3355.40	12.56	OSF1.50	13910.00	7084.89				MinPt-CiCt	
	3812.34	457.03	3507.12	3355.31	12.55	OSF1.50	13930.00	7084.87				MINPT-O-EOU	
	3812.42	457.12	3507.14	3355.30	12.55	OSF1.50	13940.00	7084.87				MinPt-O-ADP	
	3819.44	458.67	3513.13	3360.77	12.53	OSF1.50	14140.00	7084.73				MinPt-O-SF	
	4026.73	463.55	3717.16	3563.18	13.07	OSF1.50	15202.51	7084.00				TD	
Lessor J 21-17 Blind 0' to 7578' - SI (Def Survey)													
	6939.99	32.81	6938.18	6907.18	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	6939.95	32.81	6938.09	6907.14	155976.68	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6939.62	32.81	6932.56	6906.81	1323.33	MAS = 10.00 (m)	250.00	250.00				MinPts	
	6952.27	49.34	6918.77	6902.92	219.34	OSF1.50	920.00	913.91				MINPT-O-EOU	
	6965.21	65.05	6921.24	6900.16	165.18	OSF1.50	1190.00	1173.22				MinPt-O-ADP	
	3819.34	456.67	3514.96	3363.28	12.59	OSF1.50	13890.00	7084.90				MinPt-CiCt	
	3820.01	456.83	3514.92	3363.17	12.58	OSF1.50	13910.00	7084.89				MINPT-O-EOU	
	3820.08	456.92	3514.93	3363.16	12.58	OSF1.50	13920.00	7084.88				MinPt-O-ADP	
	3826.98	458.47	3520.80	3368.51	12.56	OSF1.50	14120.00	7084.74				MinPt-O-SF	
	4039.77	463.42	3730.29	3576.35	13.12	OSF1.50	15202.51	7084.00				TD	
Meyer 6 GYRO 0' to 8410' - AB (Def Survey)													
	3909.29	32.81	3907.47	3876.48	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	3909.26	32.81	3907.42	3876.45	160229.90	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3908.96	32.81	3906.61	3876.15	7306.83	MAS = 10.00 (m)	150.00	150.00				MinPts	
	3909.10	32.81	3906.46	3876.29	4720.36	MAS = 10.00 (m)	210.00	210.00				MINPT-O-EOU	
	3910.06	32.81	3907.18	3877.25	3651.48	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	4170.70	32.81	4158.17	4137.89	381.66	MAS = 10.00 (m)	1900.00	1837.86				MinPt-O-SF	
	4213.41	32.81	4200.79	4180.60	382.33	MAS = 10.00 (m)	2040.00	1968.80				MinPt-O-SF	
	6291.92	54.54	6255.02	6237.38	178.25	OSF1.50	6900.00	6514.20				MinPt-O-SF	
	3959.89	155.36	3855.79	3804.54	38.62	OSF1.50	12390.00	7085.93				MinPt-CiCt	
	3960.27	156.35	3855.50	3803.92	38.37	OSF1.50	12440.00	7085.90				MINPT-O-EOU	
	3960.60	156.74	3855.57	3803.85	38.28	OSF1.50	12460.00	7085.88				MinPt-O-ADP	
	4097.94	171.62	3982.99	3926.32	36.14	OSF1.50	13440.00	7085.21				MinPt-O-SF	
	4859.76	178.11	4740.49	4681.65	41.29	OSF1.50	15202.51	7084.00				TD	
Meyer 7 GYRO 0' to 8146' - PR (Def Survey)													
	3925.64	32.81	3923.83	3892.84	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	3925.62	32.81	3923.78	3892.81	163757.51	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3923.40	32.81	3920.27	3890.59	2979.77	MAS = 10.00 (m)	290.00	290.00				MinPts	
	3923.40	32.81	3920.25	3890.59	2943.85	MAS = 10.00 (m)	300.00	300.00				MinPts	
	4189.61	32.81	4177.49	4156.80	398.23	MAS = 10.00 (m)	1900.00	1837.86				MinPt-O-SF	
	6044.90	57.31	6006.16	5987.59	162.73	OSF1.50	6450.00	6093.61				MinPts	
	6142.25	59.63	6101.96	6082.62	158.74	OSF1.50	6900.00	6514.20				MinPt-O-SF	

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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		
	4459.90	132.41	4371.10	4327.49	51.13	OSF1.50	11650.00	7086.44				MinPt-CtCt	
	4460.29	133.64	4370.67	4326.66	50.65	OSF1.50	11710.00	7086.40				MinPt-O-EOU	
	4460.79	134.25	4370.76	4326.59	50.43	OSF1.50	11740.00	7086.38				MinPt-O-ADP	
	4714.78	156.83	4609.70	4557.96	46.56	OSF1.50	13180.00	7085.39				MinPt-O-SF	
	5701.34	167.02	5589.46	5534.32	51.69	OSF1.50	15202.51	7084.00				TD	
Lesser J 21-28D GYRO 0' to 7573' - SI (Def Survey)													Pass
	6739.70	32.81	6737.88	6706.89	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6739.66	32.81	6737.80	6706.85	155038.36	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6739.04	32.81	6736.15	6706.23	6227.09	MAS = 10.00 (m)	260.00	260.00				MinPt-O-SF	
	6739.03	32.81	6736.14	6706.22	6235.47	MAS = 10.00 (m)	270.00	270.00				MinPts	
	6734.72	32.81	6720.03	6701.91	514.81	MAS = 10.00 (m)	2000.00	1931.39				MinPts	
	6734.72	32.81	6720.02	6701.91	514.33	MAS = 10.00 (m)	2010.00	1940.74				MINPT-O-EOU	
	6736.26	32.81	6720.08	6703.45	462.13	MAS = 10.00 (m)	2310.00	2221.34				MinPts	
	6736.30	32.81	6720.04	6703.49	459.65	MAS = 10.00 (m)	2340.00	2249.40				MINPT-O-EOU	
	6737.67	32.81	6720.69	6704.86	438.06	MAS = 10.00 (m)	2490.00	2389.70				MINPT-O-EOU	
	4437.19	164.52	4326.96	4272.66	40.84	OSF1.50	13090.00	7085.45				MinPt-CtCt	
	4437.58	165.78	4326.52	4271.80	40.53	OSF1.50	13150.00	7085.41				MINPT-O-EOU	
	4438.08	166.40	4326.62	4271.69	40.38	OSF1.50	13180.00	7085.39				MinPt-O-ADP	
	4612.49	184.83	4488.73	4427.65	37.75	OSF1.50	14350.00	7084.59				MinPt-O-SF	
	4914.21	191.17	4786.23	4723.04	38.87	OSF1.50	15202.51	7084.00				TD	
Lesser J 21-27D GYRO 0' to 7585' - PR (Def Survey)													Pass
	6785.03	32.81	6783.21	6752.22	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6784.99	32.81	6783.13	6752.18	158111.49	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6784.69	32.81	6782.73	6751.89	46231.66	MAS = 10.00 (m)	70.00	70.00				MinPts	
	6784.72	32.81	6781.89	6751.91	6487.39	MAS = 10.00 (m)	270.00	270.00				MinPts	
	8233.92	56.74	8195.59	8177.19	223.98	OSF1.50	6530.00	6168.43				MinPts	
	4444.47	196.46	4312.89	4247.94	34.20	OSF1.50	14360.00	7084.58				MinPt-CtCt	
	4444.83	197.74	4312.47	4247.09	33.98	OSF1.50	14420.00	7084.54				MINPT-O-EOU	
	4445.35	198.37	4312.57	4246.98	33.88	OSF1.50	14450.00	7084.52				MinPt-O-ADP	
	4523.82	211.28	4382.43	4312.54	32.35	OSF1.50	15202.51	7084.00				MinPt-O-SF	