



PDC Energy

Schlumberger

Rev 2

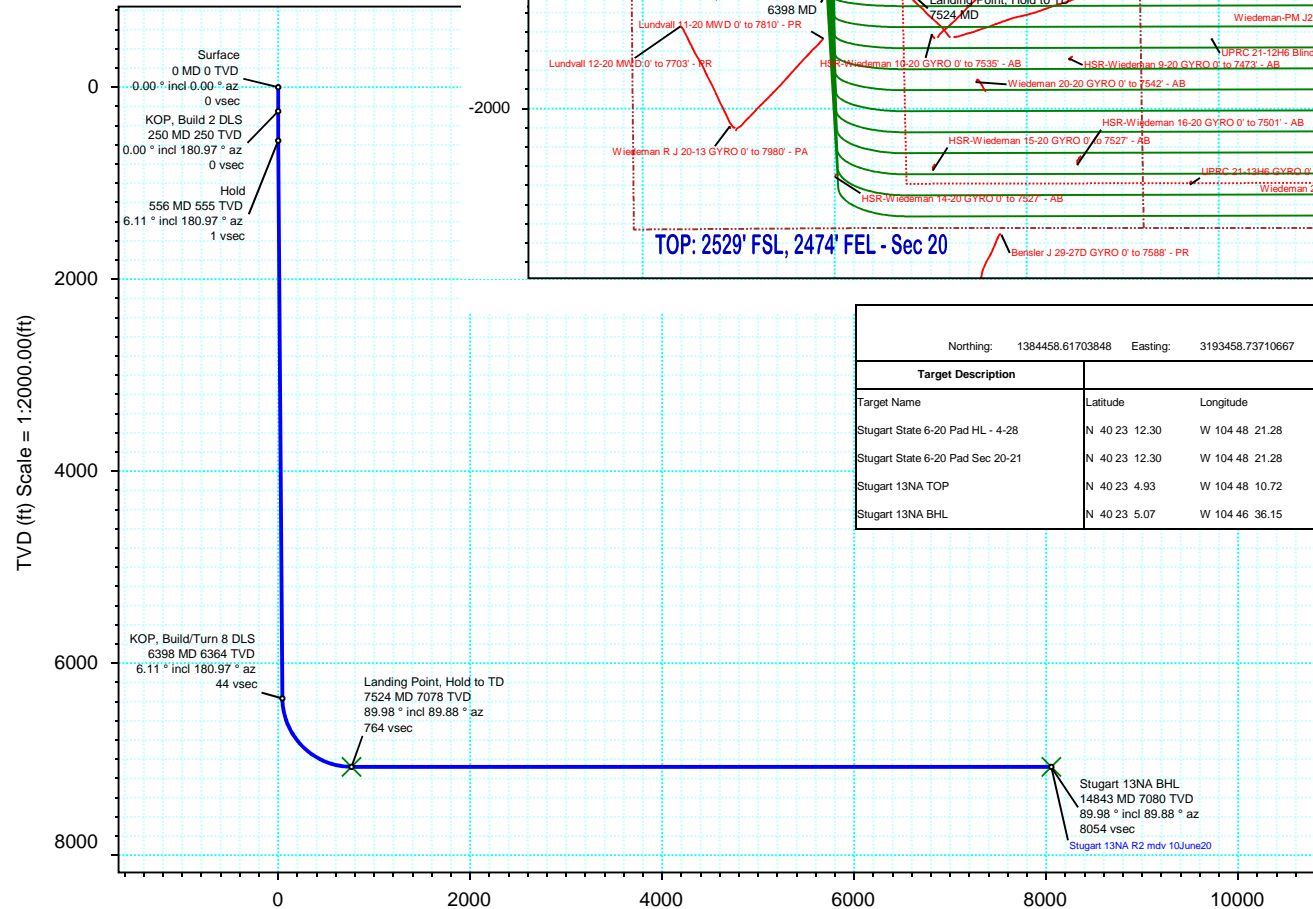
Borehole:	Well:	Field:	Structure:
Original Hole	Stugart 13NA	CO, Weld County (NAD 83 NZ) - SRC	PDC Energy 20-05N-66W (Stugart State 6-20 Pad)

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 11.98
MagDec:	8.129°	FS:	52099.691nT	Gravity FS:	999.013mgn (9.80665 Based)	Northing: 1384458.62ftUS
		Lon: W 104 48 19.84		Easting: 3193458.74ftUS		Grid Conv: 0.4487°
				Scale Fact: 0.99995965		Slot: Stugart 13NA
						TVD Ref: KB 4ft(4948ft above MSL)
						Plan: Stugart 13NA R2 mdv 10June20

Proposal



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



Vertical Section (ft) Azim = 94.97° Scale = 1:2000.00(ft) Origin = 0N/-S, 0E/-W

Target Description		Surface Location						Local Coord	
		Latitude	Longitude	Northing	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	4948.00	-114.13	32.79	-111.71
Stugart State 6-20 Pad Sec 20-21		N 40 23 12.30	W 104 48 21.28	1384490.53	3193346.78	4948.00	-114.13	32.79	-111.71
Stugart 13NA TOP		N 40 23 4.93	W 104 48 10.72	1383750.94	3194169.56	7078.00	764.48	-713.26	705.29
Stugart 13NA BHL		N 40 23 5.07	W 104 46 36.15	1383823.09	3201487.51	7080.00	8054.23	-698.41	8023.89

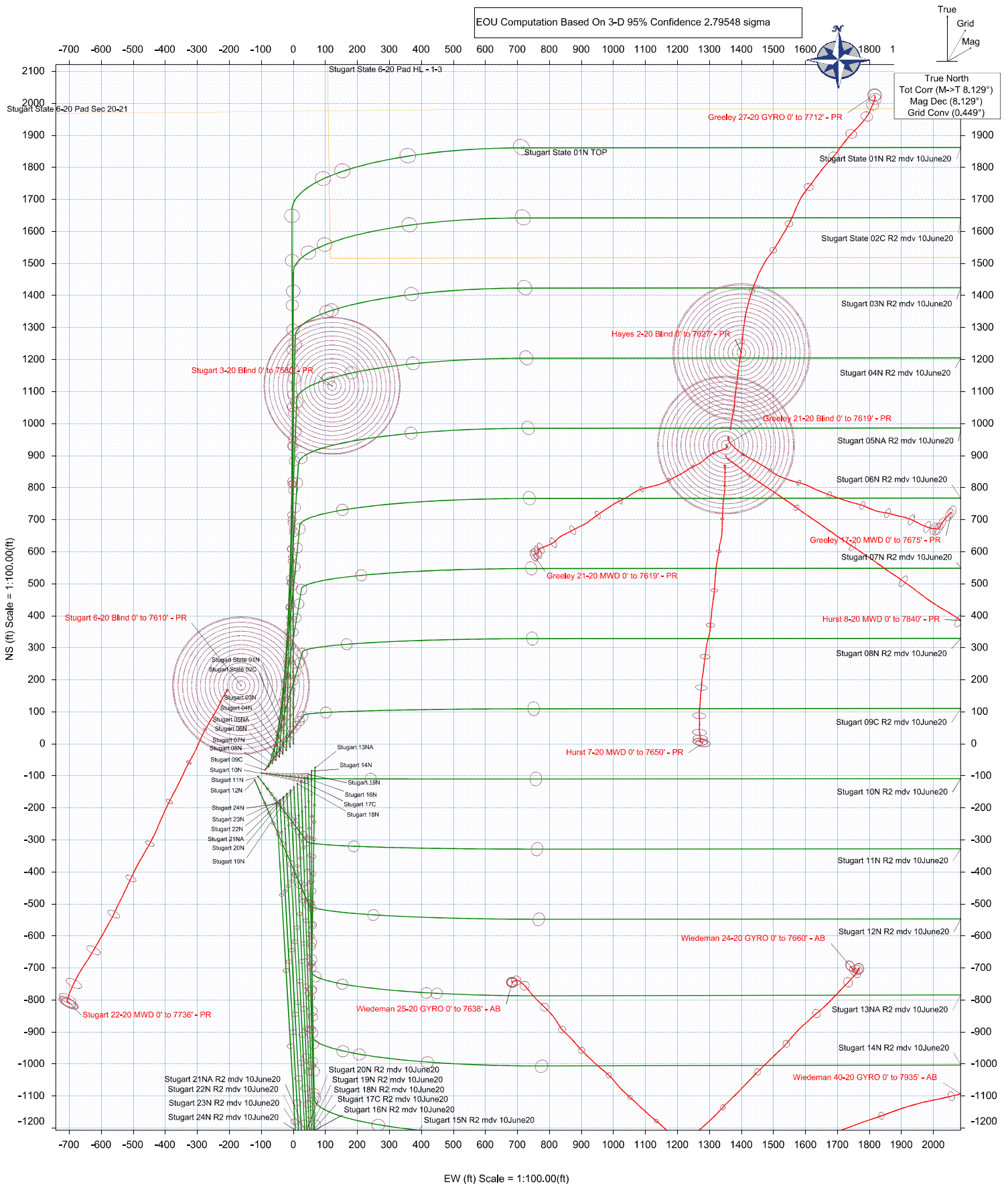
Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
KOP, Build 2 DLS	250.00	0.00	180.97	250.00	0.00	0.00	0.00	0.00
Hold	555.63	6.11	180.97	555.05	1.14	-16.28	-0.28	2.00
KOP, Build/Turn 8 DLS	6398.22	6.11	180.97	6364.43	44.53	-638.33	-10.86	0.00
Landing Point, Hold to TD	7524.48	89.98	89.88	7078.00	764.48	-713.26	705.29	8.00
Stugart 13NA BHL	14843.09	89.98	89.88	7080.00	8054.23	-698.41	8023.89	0.00



Borehole:	Well:	Field:	Structure:
Original Hole	Stugart State 01N	CO, Weld County (NAD 83 NZ) - SRC	PDC Energy 20-05N-66W (Stugart State 6-20 Pad)

Gravity & Magnetic Parameters		Surface Location		Miscellaneous	
Model: HDGM 2020	Dip: 66.728°	Date: 17-Jun-2020	NAD83 Colorado State Plane, Northern Zone, US Feet	Stugart State	TVD Ref: KB 4ft(4948ft above MSL)
MagDec: 8.129°	FS: 52099.711nT	Gravity FS: 999.013mgm (9.80665 Based)	Lat: N 40 23 12.71	Slot: 01N	Plan: Stugart State 01N R2 mdv 10June20
			Lon: W 104 48 20.71		
			Northings: 1384531.67HUS		
			Easting: 3193390.47HUS		
			Scale Fact: 0.99995966		

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



Stugart 13NA R2 mdv 10June20 Proposal Geodetic Report

(Def Plan)

Report Date: June 18, 2020 - 10:39 PM
Client: PDC Energy
Field: CO, Weld County (NAD 83 NZ) - SRC
Structure / Slot: PDC Energy 20-05N-66W (Stugart State 6-20 Pad) / Stugart 13NA
Well: Stugart 13NA
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Stugart 13NA R2 mdv 10June20
Survey Date: September 25, 2019
Tort / AHD / DDI / ERD Ratio: 96.213 ° / 8685.919 ft / 6.244 / 1.227
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 23' 11.9760", W 104° 48' 19.83600"
Location Grid N/E Y/X: N 1384458.617 ftUS, E 3193458.737 ftUS
CRS Grid Convergence Angle: 0.4487 °
Grid Scale Factor: 0.99995965
Version / Patch: 2.10.811.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 94.975 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 4ft
TVD Reference Elevation: 4948.000 ft above MSL
Seabed / Ground Elevation: 4944.000 ft above MSL
Magnetic Declination: 8.129 °
Total Gravity Field Strength: 999.0132mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52099.691 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: 8.1289 °
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	1384458.62	3193458.74	40.386661	-104.805510
	100.00	0.00	180.97	100.00	0.00	0.00	0.00	0.00	1384458.62	3193458.74	40.386661	-104.805510
	200.00	0.00	180.97	200.00	0.00	0.00	0.00	0.00	1384458.62	3193458.74	40.386661	-104.805510
KOP, Build 2 DLS	250.00	0.00	180.97	250.00	0.00	0.00	0.00	0.00	1384458.62	3193458.74	40.386661	-104.805510
	300.00	1.00	180.97	300.00	0.03	-0.44	-0.01	2.00	1384458.18	3193458.73	40.386660	-104.805510
	400.00	3.00	180.97	399.93	0.27	-3.93	-0.07	2.00	1384454.69	3193458.70	40.386650	-104.805510
	500.00	5.00	180.97	499.68	0.76	-10.90	-0.19	2.00	1384447.72	3193458.64	40.386631	-104.805511
Hold	555.63	6.11	180.97	555.05	1.14	-16.28	-0.28	2.00	1384442.33	3193458.59	40.386616	-104.805511
	600.00	6.11	180.97	599.17	1.47	-21.01	-0.36	0.00	1384437.61	3193458.54	40.386603	-104.805511
	700.00	6.11	180.97	698.60	2.21	-31.66	-0.54	0.00	1384426.96	3193458.45	40.386574	-104.805512
	800.00	6.11	180.97	798.03	2.95	-42.30	-0.72	0.00	1384416.31	3193458.35	40.386545	-104.805513
	900.00	6.11	180.97	897.46	3.69	-52.95	-0.90	0.00	1384405.66	3193458.25	40.386516	-104.805513
	1000.00	6.11	180.97	996.89	4.44	-63.60	-1.08	0.00	1384395.02	3193458.15	40.386486	-104.805514
	1100.00	6.11	180.97	1096.33	5.18	-74.24	-1.26	0.00	1384384.37	3193458.06	40.386457	-104.805515
	1200.00	6.11	180.97	1195.76	5.92	-84.89	-1.44	0.00	1384373.72	3193457.96	40.386428	-104.805515
	1300.00	6.11	180.97	1295.19	6.66	-95.54	-1.63	0.00	1384363.08	3193457.86	40.386399	-104.805516
	1400.00	6.11	180.97	1394.62	7.41	-106.18	-1.81	0.00	1384352.43	3193457.76	40.386370	-104.805516
	1500.00	6.11	180.97	1494.05	8.15	-116.83	-1.99	0.00	1384341.78	3193457.66	40.386340	-104.805517
	1600.00	6.11	180.97	1593.48	8.89	-127.48	-2.17	0.00	1384331.13	3193457.57	40.386311	-104.805518
	1700.00	6.11	180.97	1692.91	9.64	-138.12	-2.35	0.00	1384320.49	3193457.47	40.386282	-104.805518
	1800.00	6.11	180.97	1792.35	10.38	-148.77	-2.53	0.00	1384309.84	3193457.37	40.386253	-104.805519
	1900.00	6.11	180.97	1891.78	11.12	-159.42	-2.71	0.00	1384299.19	3193457.27	40.386223	-104.805520
	2000.00	6.11	180.97	1991.21	11.86	-170.06	-2.89	0.00	1384288.54	3193457.18	40.386194	-104.805520
	2100.00	6.11	180.97	2090.64	12.61	-180.71	-3.08	0.00	1384277.90	3193457.08	40.386165	-104.805521
	2200.00	6.11	180.97	2190.07	13.35	-191.36	-3.26	0.00	1384267.25	3193456.98	40.386136	-104.805522
	2300.00	6.11	180.97	2289.50	14.09	-202.00	-3.44	0.00	1384256.60	3193456.88	40.386107	-104.805522
	2400.00	6.11	180.97	2388.93	14.83	-212.65	-3.62	0.00	1384245.96	3193456.78	40.386077	-104.805523
	2500.00	6.11	180.97	2488.37	15.58	-223.30	-3.80	0.00	1384235.31	3193456.69	40.386048	-104.805524
	2600.00	6.11	180.97	2587.80	16.32	-233.94	-3.98	0.00	1384224.66	3193456.59	40.386019	-104.805524
	2700.00	6.11	180.97	2687.23	17.06	-244.59	-4.16	0.00	1384214.01	3193456.49	40.385990	-104.805525
	2800.00	6.11	180.97	2786.66	17.81	-255.24	-4.34	0.00	1384203.37	3193456.39	40.385960	-104.805526
	2900.00	6.11	180.97	2886.09	18.55	-265.88	-4.52	0.00	1384192.72	3193456.29	40.385931	-104.805526
	3000.00	6.11	180.97	2985.52	19.29	-276.53	-4.71	0.00	1384182.07	3193456.20	40.385902	-104.805527
	3100.00	6.11	180.97	3084.95	20.03	-287.18	-4.89	0.00	1384171.42	3193456.10	40.385873	-104.805528
	3200.00	6.11	180.97	3184.39	20.78	-297.82	-5.07	0.00	1384160.78	3193456.00	40.385844	-104.805528
	3300.00	6.11	180.97	3283.82	21.52	-308.47	-5.25	0.00	1384150.13	3193455.90	40.385814	-104.805529
	3400.00	6.11	180.97	3383.25	22.26	-319.12	-5.43	0.00	1384139.48	3193455.81	40.385785	-104.805529
	3500.00	6.11	180.97	3482.68	23.00	-329.76	-5.61	0.00	1384128.84	3193455.71	40.385756	-104.805530
	3600.00	6.11	180.97	3582.11	23.75	-340.41	-5.79	0.00	1384118.19	3193455.61	40.385727	-104.805531
	3700.00	6.11	180.97	3681.54	24.49	-351.06	-5.97	0.00	1384107.54	3193455.51	40.385697	-104.805531
	3800.00	6.11	180.97	3780.98	25.23	-361.70	-6.16	0.00	1384096.89	3193455.41	40.385668	-104.805532
	3900.00	6.11	180.97	3880.41	25.97	-372.35	-6.34	0.00	1384086.25	3193455.32	40.385639	-104.805533
	4000.00	6.11	180.97	3979.84	26.72	-383.00	-6.52	0.00	1384075.60	3193455.22	40.385610	-104.805533
	4100.00	6.11	180.97	4079.27	27.46	-393.64	-6.70	0.00	1384064.95	3193455.12	40.385580	-104.805534
	4200.00	6.11	180.97	4178.70	28.20	-404.29	-6.88	0.00	1384054.30	3193455.02	40.385551	-104.805535
	4300.00	6.11	180.97	4278.13	28.95	-414.94	-7.06	0.00	1384043.66	3193454.93	40.385522	-104.805535
	4400.00	6.11	180.97	4377.56	29.69	-425.58	-7.24	0.00	1384033.01	3193454.83	40.385493	-104.805536
	4500.00	6.11	180.97	4477.00	30.43	-436.23	-7.42	0.00	1384022.36	3193454.73	40.385464	-104.805537
	4600.00	6.11	180.97	4576.43	31.17	-446.88	-7.60	0.00	1384011.72	3193454.63	40.385434	-104.805537
	4700.00	6.11	180.97	4675.86	31.92	-457.52	-7.79	0.00	1384001.07	3193454.53	40.385405	-104.805538
	4800.00	6.11	180.97	4775.29	32.66	-468.17	-7.97	0.00	1383990.42	3193454.44	40.385376	-104.805539
	4900.00	6.11	180.97	4874.72	33.40	-478.82	-8.15	0.00	1383979.77	3193454.34	40.385347	-104.805539
	5000.00	6.11	180.97	4974.15	34.14	-489.46	-8.33	0.00	1383969.13	3193454.24	40.385317	-104.805540
	5100.00	6.11	180.97	5073.58	34.89	-500.11	-8.51	0.00	1383958.48	3193454.14	40.385288	-104.805541
	5200.00	6.11	180.97	5173.02	35.63	-510.75	-8.69	0.00	1383947.83	3193454.05	40.385259	-104.805541
	5300.00	6.11	180.97	5272.45	36.37	-521.40	-8.87	0.00	1383937.18	3193453.95	40.385230	-104.805542
	5400.00	6.11	180.97	5371.88	37.12	-532.05	-9.05	0.00	1383926.54	3193453.85	40.385201	-104.805543
	5500.00	6.11	180.97	5471.31	37.86	-542.69	-9.24	0.00	1383915.89	3193453.75	40.385171	-104.805543
	5600.00	6.11	180.97	5570.74	38.60	-553.34	-9.42	0.00	1383905.24	3193453.65	40.385142	-104.805544
	5700.00	6.11	180.97	5670.17	39.34	-563.99	-9.60	0.00	1383894.59	3193453.55	40.385113	-104.805544
	5800.00	6.11	180.97	5769.60	40.09	-574.63	-9.78	0.00	1383883.95	3193453.45	40.385084	-104.805545
	5900.00	6.11	180.97	5869.04	40.83	-585.28	-9.96	0.00	1383873.30	3193453.36	40.385054	-104.805546
	6000.00	6.11	180.97	5968.47	41.57	-595.93	-10.14	0.00	1383862.65	3193453.26	40.385025	-104.805546
	6100.00	6.11	180.97	6067.90	42.31	-606.57	-10.32	0.00	1383852.01	3193453.17	40.384996	-104.805547
	6200.00	6.11	180.97	6167.33	43.06	-617.22	-10.50	0.00	1383841.36	3193453.07	40.384967	-104.805548
	6300.00	6.11	180.97	6266.76	43.80	-627.87	-10.69	0.00	1383830.71	3193452.97	40.384938	-104.805548
KOP, Build/Turn 8 DLS	6398.22	6.11	180.97	6364.43	44.53	-638.33	-10.86	0.00	1383820.25	3193452.87	40.384909	-104.805549
	6400.00	6.11	179.64	6366.19	44.54	-638.51	-10.86	8.00	1383820.06	3193452.87	40.384908	-104.805549
	6500.00	10.08	126.94	6465.30	52.47	-649.11	-3.83	8.00	1383809.52	3193459.99	40.384879	-104.805524
	6600.00	17.12	110.22	6562.47	74.13	-659.47	17.01	8.00	1383799.33	3193480.91	40.384851	-104.805449
	6700.00	24.75	103.31	6655.81	109.10	-669.40	51.25	8.00	1383789.67	3193515.22	40.384824	-104.805326
	6800.00	32.64	99.54	6743.51	156.70	-678.69	98.22	8.00	1383780.75	3193562.26	40.384798	-104.805157
	6900.00	40.41	97.11	6823.86	216.00	-687.17	157.00	8.00	1383772.72	3193621.11	40.384775	-104.804964
	7000.00	48.32	95.35	6895.30	285.84	-696.68	226.46	8.00	1383765.76	3193690.62	40.384754	-104.804697
	7100.00	56.24	93.99	6956.43	364.88	-701.06	305.24	8.00	1383760.00	3193769.44	40.384737	-104.804414

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Landing Point, Hold to TD	7300.00	72.13	91.86	7043.24	544.21	-709.99	484.47	8.00	1383752.47	3193948.73	40.384712	-104.803771
	7400.00	80.08	90.95	7067.24	641.02	-712.36	581.44	8.00	1383750.86	3194045.71	40.384706	-104.803423
	7500.00	88.04	90.09	7077.58	740.10	-713.26	680.82	8.00	1383750.74	3194145.09	40.384703	-104.803066
	7524.48	89.98	89.88	7078.00	764.48	-713.26	705.29	8.00	1383750.94	3194169.56	40.384703	-104.802978
	7600.00	89.98	89.88	7078.02	839.70	-713.10	780.81	0.00	1383751.68	3194245.07	40.384704	-104.802707
	7700.00	89.98	89.88	7078.05	939.31	-712.90	880.81	0.00	1383752.67	3194345.07	40.384704	-104.802348
	7800.00	89.98	89.88	7078.08	1038.92	-712.70	980.81	0.00	1383753.65	3194445.06	40.384705	-104.801989
	7900.00	89.98	89.88	7078.10	1138.52	-712.49	1080.81	0.00	1383754.64	3194545.05	40.384705	-104.801630
	8000.00	89.98	89.88	7078.13	1238.13	-712.29	1180.81	0.00	1383755.63	3194645.04	40.384706	-104.801271
	8100.00	89.98	89.88	7078.16	1337.73	-712.09	1280.81	0.00	1383756.61	3194745.03	40.384706	-104.800912
	8200.00	89.98	89.88	7078.18	1437.34	-711.89	1380.81	0.00	1383757.60	3194845.02	40.384707	-104.800553
	8300.00	89.98	89.88	7078.21	1536.94	-711.68	1480.81	0.00	1383758.58	3194945.01	40.384707	-104.800195
	8400.00	89.98	89.88	7078.24	1636.55	-711.48	1580.81	0.00	1383759.57	3195045.00	40.384708	-104.799836
	8500.00	89.98	89.88	7078.27	1736.15	-711.28	1680.81	0.00	1383760.56	3195144.99	40.384708	-104.799477
	8600.00	89.98	89.88	7078.29	1835.76	-711.07	1780.81	0.00	1383761.54	3195244.98	40.384709	-104.799118
	8700.00	89.98	89.88	7078.32	1935.37	-710.87	1880.81	0.00	1383762.53	3195344.97	40.384710	-104.798759
	8800.00	89.98	89.88	7078.35	2034.97	-710.67	1980.81	0.00	1383763.51	3195444.96	40.384710	-104.798400
	8900.00	89.98	89.88	7078.38	2134.58	-710.47	2080.81	0.00	1383764.50	3195544.96	40.384711	-104.798041
	9000.00	89.98	89.88	7078.40	2234.18	-710.26	2180.81	0.00	1383765.48	3195644.95	40.384711	-104.797682
	9100.00	89.98	89.88	7078.43	2333.79	-710.06	2280.81	0.00	1383766.47	3195744.94	40.384712	-104.797323
	9200.00	89.98	89.88	7078.46	2433.39	-709.86	2380.81	0.00	1383767.46	3195844.93	40.384712	-104.796964
	9300.00	89.98	89.88	7078.49	2533.00	-709.65	2480.81	0.00	1383768.44	3195944.92	40.384713	-104.796605
	9400.00	89.98	89.88	7078.51	2632.60	-709.45	2580.81	0.00	1383769.43	3196044.91	40.384713	-104.796246
	9500.00	89.98	89.88	7078.54	2732.21	-709.25	2680.81	0.00	1383770.41	3196144.90	40.384714	-104.795887
	9600.00	89.98	89.88	7078.57	2831.82	-709.05	2780.81	0.00	1383771.40	3196244.89	40.384714	-104.795528
	9700.00	89.98	89.88	7078.59	2931.42	-708.84	2880.81	0.00	1383772.39	3196344.88	40.384715	-104.795169
	9800.00	89.98	89.88	7078.62	3031.03	-708.64	2980.81	0.00	1383773.37	3196444.87	40.384715	-104.794810
	9900.00	89.98	89.88	7078.65	3130.63	-708.44	3080.81	0.00	1383774.36	3196544.87	40.384716	-104.794451
	10000.00	89.98	89.88	7078.68	3230.24	-708.24	3180.81	0.00	1383775.34	3196644.86	40.384716	-104.794092
	10100.00	89.98	89.88	7078.70	3329.84	-708.03	3280.80	0.00	1383776.33	3196744.85	40.384717	-104.793733
	10200.00	89.98	89.88	7078.73	3429.45	-707.83	3380.80	0.00	1383777.32	3196844.84	40.384717	-104.793374
	10300.00	89.98	89.88	7078.76	3529.05	-707.63	3480.80	0.00	1383778.30	3196944.83	40.384718	-104.793015
	10400.00	89.98	89.88	7078.79	3628.66	-707.42	3580.80	0.00	1383779.29	3197044.82	40.384718	-104.792656
	10500.00	89.98	89.88	7078.81	3728.27	-707.22	3680.80	0.00	1383780.27	3197144.81	40.384719	-104.792297
	10600.00	89.98	89.88	7078.84	3827.87	-707.02	3780.80	0.00	1383781.26	3197244.80	40.384720	-104.791939
	10700.00	89.98	89.88	7078.87	3927.48	-706.82	3880.80	0.00	1383782.25	3197344.79	40.384720	-104.791580
	10800.00	89.98	89.88	7078.90	4027.08	-706.61	3980.80	0.00	1383783.23	3197444.78	40.384721	-104.791221
	10900.00	89.98	89.88	7078.92	4126.69	-706.41	4080.80	0.00	1383784.22	3197544.77	40.384721	-104.790862
	11000.00	89.98	89.88	7078.95	4226.29	-706.21	4180.80	0.00	1383785.20	3197644.77	40.384722	-104.790503
	11100.00	89.98	89.88	7078.98	4325.90	-706.00	4280.80	0.00	1383786.19	3197744.76	40.384722	-104.790144
	11200.00	89.98	89.88	7079.00	4425.50	-705.80	4380.80	0.00	1383787.18	3197844.75	40.384723	-104.789785
	11300.00	89.98	89.88	7079.03	4525.11	-705.60	4480.80	0.00	1383788.16	3197944.74	40.384723	-104.789426
	11400.00	89.98	89.88	7079.06	4624.72	-705.40	4580.80	0.00	1383789.15	3198044.73	40.384724	-104.789067
	11500.00	89.98	89.88	7079.09	4724.32	-705.19	4680.80	0.00	1383790.13	3198144.72	40.384724	-104.788708
	11600.00	89.98	89.88	7079.11	4823.93	-704.99	4780.80	0.00	1383791.12	3198244.71	40.384725	-104.788349
	11700.00	89.98	89.88	7079.14	4923.53	-704.79	4880.80	0.00	1383792.11	3198344.70	40.384725	-104.787990
	11800.00	89.98	89.88	7079.17	5023.14	-704.58	4980.80	0.00	1383793.09	3198444.69	40.384726	-104.787631
	11900.00	89.98	89.88	7079.20	5122.74	-704.38	5080.80	0.00	1383794.08	3198544.68	40.384726	-104.787272
	12000.00	89.98	89.88	7079.22	5222.35	-704.18	5180.80	0.00	1383795.06	3198644.67	40.384727	-104.786913
	12100.00	89.98	89.88	7079.25	5321.95	-703.98	5280.80	0.00	1383796.05	3198744.67	40.384727	-104.786554
	12200.00	89.98	89.88	7079.28	5421.56	-703.77	5380.80	0.00	1383797.03	3198844.66	40.384728	-104.786195
	12300.00	89.98	89.88	7079.31	5521.16	-703.57	5480.80	0.00	1383798.02	3198944.65	40.384728	-104.785836
	12400.00	89.98	89.88	7079.33	5620.77	-703.37	5580.80	0.00	1383799.01	3199044.64	40.384729	-104.785477
	12500.00	89.98	89.88	7079.36	5720.38	-703.16	5680.80	0.00	1383799.99	3199144.63	40.384729	-104.785118
	12600.00	89.98	89.88	7079.39	5819.98	-702.96	5780.80	0.00	1383800.98	3199244.62	40.384730	-104.784759
	12700.00	89.98	89.88	7079.41	5919.59	-702.76	5880.80	0.00	1383801.96	3199344.61	40.384730	-104.784400
	12800.00	89.98	89.88	7079.44	6019.19	-702.56	5980.80	0.00	1383802.95	3199444.60	40.384731	-104.784042
	12900.00	89.98	89.88	7079.47	6118.80	-702.35	6080.80	0.00	1383803.94	3199544.59	40.384731	-104.783683
	13000.00	89.98	89.88	7079.50	6218.40	-702.15	6180.80	0.00	1383804.92	3199644.58	40.384732	-104.783324
	13100.00	89.98	89.88	7079.52	6318.01	-701.95	6280.80	0.00	1383805.91	3199744.57	40.384732	-104.782965
	13200.00	89.98	89.88	7079.55	6417.61	-701.75	6380.80	0.00	1383806.89	3199844.57	40.384733	-104.782606
	13300.00	89.98	89.88	7079.58	6517.22	-701.54	6480.80	0.00	1383807.88	3199944.56	40.384733	-104.782247
	13400.00	89.98	89.88	7079.61	6616.83	-701.34	6580.80	0.00	1383808.87	3200044.55	40.384733	-104.781888
	13500.00	89.98	89.88	7079.63	6716.43	-701.14	6680.80	0.00	1383809.85	3200144.54	40.384734	-104.781529
	13600.00	89.98	89.88	7079.66	6816.04	-700.93	6780.80	0.00	1383810.84	3200244.53	40.384734	-104.781170
	13700.00	89.98	89.88	7079.69	6915.64	-700.73	6880.80	0.00	1383811.82	3200344.52	40.384735	-104.780811
	13800.00	89.98	89.88	7079.71	7015.25	-700.53	6980.80	0.00	1383812.81	3200444.51	40.384735	-104.780452
	13900.00	89.98	89.88	7079.74	7114.85	-700.33	7080.80	0.00	1383813.80	3200544.50	40.384736	-104.780093
	14000.00	89.98	89.88	7079.77	7214.46	-700.12	7180.80	0.00	1383814.78	3200644.49	40.384736	-104.779734
	14100.00	89.98	89.88	7079.80	7314.06	-699.92	7280.80	0.00	1383815.77	3200744.48	40.384737	-104.779375
	14200.00	89.98	89.88	7079.82	7413.67	-699.72	7380.80	0.00	1383816.75	3200844.47	40.384737	-104.779016
	14300.00	89.98	89.88	7079.85	7513.28	-699.51	7480.80	0.00	1383817.74	3200944.47	40.384738	-104.778657
	14400.00	89.98	89.88	7079.88	7612.88	-699.31	7580.80	0.00	1383818.73	3201044.46	40.384738	-104.778298
	14500.00	89.98	89.88	7079.91	7712.49	-699.11	7680.80	0.00	1383819.71	3201144.45	40.384739	-104.777939
	14600.00	89.98	89.88	7079.93	7812.09	-698.91	7780.80	0.00	1383820.70	3201244.44	40.384739	-104.777580
	14700.00	89.98	89.88	7079.96	7911.70	-698.70	7880.80</					

Stugart 13NA R2 mdv 10June20 Anti-Collision Summary Report

Analysis Date-24hr Time: June 18, 2020 - 22:41
Client: PDC Energy
Field: CO, Weld County (NAD 83 NZ) - SRC
Structure: PDC Energy 20-05N-66W (Stugart State 6-20 Pad)
Slot: Stugart 13NA
Well: Stugart 13NA
Borehole: Original Hole
Scan MD Range: 0.00ft ~ 14843.09ft

Analysis Method: 3D Least Distance
Reference Trajectory: Stugart 13NA 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: ISCWSA0 3-D 95.000% Confidence 2.7955 sigma

Offset Trajectories Summary

Offset Selection Criteria

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

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

Results highlighted: Sep-Factor separation <= 1.50 ft

Wiedeman 40-20 GYRO 0' to 7935' - AB (Def Survey)

Fail Major

1764.37	32.81	1762.56	1731.56	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
1764.28	32.81	1762.36	1731.47	17123.89	MAS = 10.00 (m)	4.00	4.00					MinPt-O-SF
1760.87	32.81	1757.69	1728.06	1285.60	MAS = 10.00 (m)	300.00	300.00					MinPt-O-SF
1747.54	32.81	1743.34	1714.73	731.31	MAS = 10.00 (m)	890.00	887.52					MinPts
1747.77	32.81	1743.07	1714.96	605.63	MAS = 10.00 (m)	970.00	967.06					MINPT-O-EOU
2570.60	36.56	2545.69	2534.04	110.24	OSF1.50	4770.00	4745.46					MinPt-O-SF
3083.06	50.71	3048.72	3032.36	94.13	OSF1.50	6240.00	6207.10					MinPt-O-ADP
3116.04	52.38	3080.58	3063.66	92.00	OSF1.50	6400.00	6366.19					MinPt-O-SF
193.00	61.23	150.82	131.77	4.96	OSF1.50	9800.00	7078.62	OSF<5.00				Enter Alert
65.38	66.83	19.51	-1.45	1.47	OSF1.50	9930.00	7078.66		OSF<1.50			Enter Minor
46.89	72.77	-2.86	-25.87	0.94	OSF1.50	9950.00	7078.66			OSF<1.00		Enter Major
21.12	111.56	-53.78	-90.43	0.27	OSF1.50	9990.00	7078.67					MinPts
43.48	76.72	-8.20	-33.23	0.84	OSF1.50	10030.00	7078.68					Exit Major
61.74	68.77	15.36	-7.02	1.34	OSF1.50	10050.00	7078.69		OSF>1.50			Exit Minor
189.17	60.22	148.49	128.95	4.80	OSF1.50	10180.00	7078.73	OSF>5.00				Exit Alert
4849.35	60.33	4808.59	4789.02	123.82	OSF1.50	14843.09	7080.00					TD

Stugart 14N R2 mdv 10June20 (Def Plan)

Fail Minor

14.90	12.11	13.92	2.79	N/A	MAS = 3.69 (m)	0.00	0.00	ClCt<=15m<15.00				Enter Alert
14.90	12.11	13.92	2.79	N/A	MAS = 3.69 (m)	4.00	4.00					WRP
14.90	12.11	12.67	2.78	11.17	MAS = 3.69 (m)	300.00	300.00					MinPts
14.65	12.11	12.99	2.53	20.42	MAS = 3.69 (m)	560.00	559.40					MinPts
14.74	12.11	12.91	2.62	16.32	MAS = 3.69 (m)	590.00	589.23					MINPT-O-EOU
44.08	14.28	34.23	29.80	4.89	OSF1.50	1800.00	1792.35					MinPt-O-SF
49.17	14.85	38.94	34.32	5.21	OSF1.50	1990.00	1981.27	ClCt<=15m>15.00				Exit Alert
170.03	48.89	137.11	121.14	5.29	OSF1.50	6398.22	6364.43					MinPt-O-SF
289.80	87.76	230.97	202.04	4.99	OSF1.50	9550.00	7078.55	OSF<5.00				Enter Alert
273.05	273.11	90.65	-0.06	1.50	OSF1.50	14830.00	7080.00		OSF<1.50			Enter Minor
273.02	273.65	90.25	-0.63	1.60	OSF1.50	14843.09	7080.00					MinPts

Wiedeman 25-20 GYRO 0' to 7638' - AB (Def Survey)

Fail Minor

1744.52	32.81	1742.71	1711.72	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
1744.43	32.81	1742.52	1711.62	17621.70	MAS = 10.00 (m)	4.00	4.00					MinPt-O-SF
631.80	48.27	599.04	583.53	20.31	OSF1.50	6400.00	6366.19	OSF<5.00				MinPt-O-SF
159.56	49.91	125.56	109.65	4.95	OSF1.50	7280.00	7036.84					Enter Alert
46.18	46.61	14.58	-0.42	1.49	OSF1.50	7440.00	7073.03		OSF<1.50			Exit Minor
158.40	49.89	124.61	108.51	4.87	OSF1.50	7590.00	7078.02	OSF>5.00				Exit Alert
7404.59	51.23	7369.90	7353.36	223.78	OSF1.50	14843.09	7080.00					TD

Stugart 12N R2 mdv 10June20 (Def Plan)

Fail Minor

192.71	32.81	191.73	159.90	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
192.71	32.81	191.72	159.90	86300.03	MAS = 10.00 (m)	4.00	4.00					WRP
192.59	32.81	190.35	159.78	153.28	MAS = 10.00 (m)	290.00	290.00					MinPt-O-SF
131.80	32.81	118.45	99.00	10.57	MAS = 10.00 (m)	3070.00	3055.13					MinPts
132.29	32.81	117.99	99.48	9.87	MAS = 10.00 (m)	3290.00	3273.87					MINPT-O-EOU
217.98	47.46	186.01	170.52	7.00	OSF1.50	6398.22	6364.43					MinPt-O-SF
273.38	82.99	217.72	190.38	4.98	OSF1.50	8570.00	7078.29	OSF<5.00				Enter Alert
256.15	256.25	84.99	-0.10	1.50	OSF1.50	13620.00	7079.67		OSF<1.50			Enter Minor
252.19	300.29	51.67	-48.10	1.26	OSF1.50	14843.09	7080.00					MinPts

Stugart 15N R2 mdv 10June20 (Def Plan)

Warning Alert

30.01	24.20	29.02	5.81	N/A	MAS = 7.38 (m)	0.00	0.00	ClCt<=15m<15.00				Enter Alert
30.01	24.20	29.02	5.81	N/A	MAS = 7.38 (m)	4.00	4.00					WRP
30.00	24.20	27.77	5.80	23.39	MAS = 7.38 (m)	300.00	300.00					MinPts
29.47	24.20	27.76	5.27	39.27	MAS = 7.38 (m)	570.00	569.34					MinPts
29.52	24.20	27.70	5.32	33.92	MAS = 7.38 (m)	590.00	589.23					MINPT-O-EOU
49.04	24.20	44.05	24.84	11.98	MAS = 7.38 (m)	1060.00	1056.55	ClCt<=15m>15.00				Exit Alert
90.92	24.20	80.93	66.72	9.98	MAS = 7.38 (m)	1800.00	1792.35					MinPt-O-SF
365.72	49.80	332.20	315.93	11.21	OSF1.50	6398.22	6364.43					MinPt-O-SF
459.74	138.70	366.94	321.04	5.00	OSF1.50	10630.00	7078.85	OSF<5.00				Enter Alert
459.56	290.85	265.33	168.71	2.37	OSF1.50	14840.00	7080.00					MinPt-ClCt
459.56	290.99	265.24	168.57	2.37	OSF1.50	14843.09	7080.00					MinPts

Stugart 16N 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	ClCt<=15m<15.00				Enter Alert
44.91	32.81	43.93	12.10	N/A	MAS = 10.00 (m)	4.00	4.00					WRP
44.89	32.81	42.67	12.09	35.27	MAS = 10.00 (m)	300.00	300.00					MinPts
44.51	32.81	43.12	11.70	108.82	MAS = 10.00 (m)	490.00	489.72					MINPT-O-EOU
44.22	32.81	42.51	11.41	59.78	MAS = 10.00 (m)	570.00	569.34					MinPts
44.30	32.81	42.42	11.49	48.32	MAS = 10.00 (m)	600.00	599.17					MINPT-O-EOU
49.05	32.81	45.99	16.24	23.14	MAS = 10.00 (m)	770.00	768.20	ClCt<=15m>15.00				Exit Alert
131.61	32.81	121.47	98.80	14.28	MAS = 10.00 (m)	1800.00	1792.35					MinPt-O-SF
539.53	50.70	505.41	488.89	16.25	OSF1.50	6398.22	6364.43					MinPt-O-SF
667.74	207.06	549.38	480.68	5.00	OSF1.50	12540.00	7079.37	OSF<5.00				Enter Alert
666.81	291.05	492.45	395.76	3.55	OSF1.50	14840.00	7080.00					MinPt-ClCt

...Stugart 13NA\Original Hole\Stugart 13NA 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		
	686.82	291.18	492.37	396.64	3.58	OSF1.50	14843.09	7080.00				MinPts	
Stugart 17C R2 mdv 10June20 (Def Plan)													
	60.02	32.81	59.03	27.21	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	60.02	32.81	59.03	27.21	26572.59	MAS = 10.00 (m)	4.00	4.00					WRP
	60.02	32.81	57.85	27.21	49.84	MAS = 10.00 (m)	240.00	240.00					MinPts
	60.02	32.81	57.75	27.21	47.45	MAS = 10.00 (m)	250.00	250.00					MINPT-O-EOU
	60.01	32.81	57.78	27.21	47.41	MAS = 10.00 (m)	290.00	290.00					MinPt-O-SF
	60.01	32.81	57.78	27.20	47.45	MAS = 10.00 (m)	300.00	300.00					MINPT-O-EOU
	59.27	32.81	57.50	26.46	74.54	MAS = 10.00 (m)	580.00	579.28					MinPts
	59.39	32.81	57.45	26.59	60.56	MAS = 10.00 (m)	610.00	609.11					MINPT-O-EOU
	167.96	32.81	157.68	135.15	17.97	MAS = 10.00 (m)	1800.00	1792.35					MinPt-O-SF
	697.78	51.59	663.06	646.20	20.65	OSF1.50	6398.22	6364.43					MinPt-O-SF
	929.85	279.70	743.05	650.15	5.00	OSF1.50	14600.00	7079.93	OSF<5.00				Enter Alert
	929.63	288.49	736.97	641.14	4.85	OSF1.50	14840.00	7080.00					MinPt-CICt
	929.63	288.61	736.90	641.03	4.84	OSF1.50	14843.09	7080.00					MinPts
Wiedeman 24-20 GYRO 0' to 7660' - AB (Def Survey)													
	1658.38	32.81	1656.56	1625.57	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	1658.28	32.81	1656.36	1625.47	15514.94	MAS = 10.00 (m)	4.00	4.00					MinPt-O-SF
	1654.51	32.81	1651.18	1621.70	1093.19	MAS = 10.00 (m)	330.00	329.99					MinPt-O-SF
	1524.68	32.81	1511.11	1491.85	127.45	MAS = 10.00 (m)	2670.00	2657.40					MinPts
	1524.75	32.81	1511.01	1491.94	125.52	MAS = 10.00 (m)	2710.00	2697.17					MINPT-O-EOU
	1708.55	43.85	1678.78	1664.70	60.61	OSF1.50	6400.00	6366.19					MinPt-O-SF
	153.13	49.48	119.24	103.64	4.82	OSF1.50	8370.00	7078.23	OSF<5.00				Enter Alert
	71.29	61.47	29.77	9.82	1.76	OSF1.50	8510.00	7078.27					MinPts
	152.07	49.01	118.86	103.06	4.76	OSF1.50	8640.00	7078.30	OSF<5.00				Exit Alert
	6337.56	45.69	6306.56	6291.87	215.60	OSF1.50	14843.09	7080.00					TD
Stugart 09C R2 mdv 10June20 (Def Plan)													
	156.19	32.81	155.21	123.38	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	156.19	32.81	155.20	123.38	69861.83	MAS = 10.00 (m)	4.00	4.00					WRP
	151.35	32.81	147.93	118.59	60.59	MAS = 10.00 (m)	610.00	609.11					MinPts
	151.52	32.81	147.77	118.72	54.43	MAS = 10.00 (m)	660.00	658.83					MINPT-O-EOU
	221.03	32.81	210.07	188.22	22.08	MAS = 10.00 (m)	1810.00	1802.29					MinPt-O-SF
	792.94	47.28	761.09	745.66	25.66	OSF1.50	6398.22	6364.43					MinPt-O-SF
	932.35	280.71	744.88	651.64	4.99	OSF1.50	14300.00	7079.85	OSF<5.00				Enter Alert
	930.54	300.48	729.91	630.09	4.66	OSF1.50	14843.09	7080.00					MinPts
Meyer 4 GYRO 0' to 8410' - PR (Def Survey)													
	3766.87	32.81	3765.05	3734.06	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	3766.84	32.81	3765.01	3734.04	159310.20	MAS = 10.00 (m)	4.00	4.00					MinPt-O-SF
	3764.11	32.81	3760.83	3731.30	2553.33	MAS = 10.00 (m)	300.00	300.00					MinPt-O-SF
	3764.05	32.81	3760.77	3731.24	2557.09	MAS = 10.00 (m)	330.00	329.99					MinPts
	4636.15	66.76	4591.11	4569.39	106.69	OSF1.50	5660.00	5630.40					MinPts
	4657.25	71.49	4609.06	4585.76	99.93	OSF1.50	6070.00	6038.07					MinPt-O-ADP
	4658.85	72.79	4609.78	4586.05	98.13	OSF1.50	6398.22	6364.43					MinPt-O-SF
	330.67	103.28	260.07	227.39	4.98	OSF1.50	11170.00	7079.00	OSF<5.00				Enter Alert
	154.19	138.03	61.62	16.16	1.68	OSF1.50	11450.00	7079.07					MinPts
	153.68	137.36	61.58	16.33	1.68	OSF1.50	11460.00	7079.08					MinPts
	282.59	86.41	224.45	196.19	4.97	OSF1.50	11700.00	7079.14	OSF<5.00				Exit Alert
	3383.59	72.51	3334.72	3311.09	71.55	OSF1.50	14843.09	7080.00					TD
Stugart 11N R2 mdv 10June20 (Def Plan)													
	180.21	32.81	179.22	147.40	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	180.21	32.81	179.22	147.40	80672.37	MAS = 10.00 (m)	4.00	4.00					WRP
	180.02	32.81	177.77	147.21	142.15	MAS = 10.00 (m)	290.00	290.00					MinPt-O-SF
	155.15	32.81	146.92	122.34	21.28	MAS = 10.00 (m)	1520.00	1513.94					MinPts
	155.70	32.81	146.34	122.89	18.49	MAS = 10.00 (m)	1690.00	1682.97					MINPT-O-EOU
	157.93	32.81	147.54	125.13	16.69	MAS = 10.00 (m)	1900.00	1891.78					MinPt-O-SF
	412.95	47.08	381.24	365.87	13.41	OSF1.50	6398.22	6364.43					MinPt-O-SF
	492.34	148.56	392.97	343.78	4.99	OSF1.50	10530.00	7078.82	OSF<5.00				Enter Alert
	479.17	302.25	277.35	176.93	2.30	OSF1.50	14843.09	7080.00					MinPts
Stugart 10N R2 mdv 10June20 (Def Plan)													
	167.82	32.81	166.84	135.01	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	167.82	32.81	166.83	135.01	75096.38	MAS = 10.00 (m)	4.00	4.00					WRP
	167.30	32.81	164.99	134.49	125.61	MAS = 10.00 (m)	300.00	300.00					MinPt-O-SF
	155.80	32.81	151.09	122.99	41.61	MAS = 10.00 (m)	920.00	917.35					MinPts
	156.12	32.81	150.83	123.31	36.09	MAS = 10.00 (m)	1010.00	1006.84					MINPT-O-EOU
	187.77	32.81	177.09	154.96	19.28	MAS = 10.00 (m)	1900.00	1891.78					MinPt-O-SF
	604.35	47.06	572.65	557.29	19.64	OSF1.50	6398.22	6364.43					MinPt-O-SF
	682.41	205.75	544.92	476.66	4.99	OSF1.50	12080.00	7079.24	OSF<5.00				Enter Alert
	677.09	306.49	472.44	370.61	3.32	OSF1.50	14843.09	7080.00					MinPts
Wiedeman-PM J21-10 GYRO 0' to 7495' - AB (Def Survey)													
	6651.98	32.81	6650.17	6619.17	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	6651.91	32.81	6650.02	6619.10	84002.31	MAS = 10.00 (m)	4.00	4.00					MinPt-O-SF
	6650.90	32.81	6648.78	6618.09	22006.63	MAS = 10.00 (m)	120.00	120.00					MinPts
	6651.04	32.81	6648.30	6618.23	7117.75	MAS = 10.00 (m)	250.00	250.00					MINPT-O-EOU
	6651.13	32.81	6648.30	6618.32	6557.65	MAS = 10.00 (m)	300.00	300.00					MinPts
	6635.95	32.81	6626.85	6603.14	915.38	MAS = 10.00 (m)	1790.00	1782.40					MINPT-O-EOU
	6633.55	32.81	6624.12	6600.75	847.55	MAS = 10.00 (m)	2060.00	2050.87					MinPt-O-SF
	6629.02	32.81	6619.59	6596.21	847.65	MAS = 10.00 (m)	2260.00	2249.73					MinPt-O-SF
	6620.43	32.81	6610.61	6587.62	807.10	MAS = 10.00 (m)	2590.00	2577.85					MinPt-O-SF
	6594.23	32.81	6580.67	6561.42	551.77	MAS = 10.00 (m)	3830.00	3810.80					MinPts
	6594.30	32.81	6580.60	6561.49	544.89	MAS = 10.00 (m)	3870.00	3850.58					MINPT-O-EOU
	6595.45	32.81	6581.28	6562.64	525.01	MAS = 10.00 (m)	3990.00	3969.89					

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		
Wiedeman PMJ 21-9 GYRO 0' to 7490' - AB (Def Survey)													
	7874.89	32.81	7873.08	7842.08	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	7874.83	32.81	7872.95	7842.02	113808.79	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	7873.59	32.81	7870.75	7840.78	7688.72	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	7849.02	32.81	7838.82	7816.21		MAS = 10.00 (m)	2400.00	2388.93				MinPts	
	7849.02	32.81	7838.82	7816.22	913.14	MAS = 10.00 (m)	2410.00	2398.88				MINPT-O-EOU	
	7846.52	32.81	7835.44	7813.71	828.02	MAS = 10.00 (m)	3000.00	2985.52				MinPts	
	7807.98	32.81	7877.45	7775.17	412.92	MAS = 10.00 (m)	5160.00	5133.24				MinPts	
	7808.04	32.81	7767.34	7775.23	408.81	MAS = 10.00 (m)	5210.00	5182.96				MINPT-O-EOU	
	467.49	148.43	366.20	319.06	4.88	OSF1.50	14250.00	7079.84	OSF<5.00			Enter Alert	
	343.05	207.78	203.86	135.27	2.49	OSF1.50	14570.00	7079.93				MinPts	
	343.26	207.95	204.04	135.31	2.48	OSF1.50	14580.00	7079.93				MinPt-O-SF	
	439.93	174.93	322.78	265.00	3.79	OSF1.50	14843.09	7080.00				TD	
Stugart 6-20 Blind 0' to 7610' - PR (Def Survey)													
	345.20	32.81	343.38	312.39	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	345.07	32.81	343.14	312.26	2958.27	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	344.96	32.81	334.96	312.15	41.93	MAS = 10.00 (m)	250.00	250.00				MinPts	
	348.23	32.81	331.84	315.42	23.76	MAS = 10.00 (m)	410.00	409.92				MINPT-O-EOU	
	567.90	171.67	452.92	396.23	4.99	OSF1.50	2890.00	2876.15	OSF<5.00			Enter Alert	
	934.44	387.50	675.57	546.94	3.63	OSF1.50	6510.00	6475.13				MinPt-O-SF	
	1401.23	422.51	1119.02	978.71	4.99	OSF1.50	7600.00	7078.02	OSF>5.00			Exit Alert	
	8310.34	421.96	8028.50	7888.38	29.65	OSF1.50	14843.09	7080.00				TD	
UPRC 21-12H6 Blind 0' to 7502' - AB (Def Survey)													
	4126.15	32.81	4124.34	4093.34	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	4126.06	32.81	4124.16	4093.26	43587.06	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1382.79	420.57	1100.92	962.22	4.97	OSF1.50	9480.00	7078.53	OSF<5.00			Enter Alert	
	563.32	431.68	274.76	131.64	1.96	OSF1.50	10740.00	7078.88				MinPts	
	563.36	431.71	274.80	131.65	1.96	OSF1.50	10750.00	7078.88				MinPt-O-SF	
	1395.87	421.90	1114.07	973.97	4.98	OSF1.50	12020.00	7079.23	OSF>5.00			Exit Alert	
	4138.76	418.76	3859.05	3720.00	14.88	OSF1.50	14843.09	7080.00				TD	
UPV 21-11H6 Blind 0' to 7440' - AB (Def Survey)													
	5538.90	32.81	5537.09	5506.09	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	5538.82	32.81	5536.92	5506.01	61978.59	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1387.59	422.51	1104.03	965.08	4.97	OSF1.50	10970.00	7078.94	OSF<5.00			Enter Alert	
	678.99	440.94	384.17	237.98	2.31	OSF1.50	12180.00	7079.27				MinPts	
	678.97	440.98	384.24	237.99	2.31	OSF1.50	12190.00	7079.27				MinPt-O-SF	
	1413.53	425.79	1129.14	987.74	4.99	OSF1.50	13420.00	7079.61	OSF>5.00			Exit Alert	
	2748.10	420.18	2467.44	2327.92	9.84	OSF1.50	14843.09	7080.00				TD	
Hayes 1 Blind 0' to 9502' - AB (Def Survey)													
	2533.68	32.81	2531.86	2500.87	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	2533.58	32.81	2531.67	2500.77	24361.61	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2532.92	32.81	2525.52	2500.11	453.04	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1394.33	420.72	1112.99	973.60	4.99	OSF1.50	8180.00	7078.18	OSF<5.00			Enter Alert	
	753.40	425.45	469.23	327.95	2.66	OSF1.50	9350.00	7078.50				MinPts	
	753.43	425.48	469.24	327.95	2.66	OSF1.50	9360.00	7078.50				MinPts	
	1397.25	421.50	1115.72	975.76	4.99	OSF1.50	10530.00	7078.82	OSF>5.00			Exit Alert	
	5541.29	419.22	5261.27	5122.07	19.90	OSF1.50	14843.09	7080.00				TD	
Meyer 1 Blind 0' to 7482' - AB (Def Survey)													
	5162.55	32.81	5160.74	5129.74	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	5162.49	32.81	5160.61	5129.68	75239.49	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	5161.90	32.81	5155.28	5129.09	1074.29	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1403.28	425.84	1117.84	977.45	4.98	OSF1.50	10810.00	7078.90	OSF<5.00			Enter Alert	
	771.42	440.34	477.33	331.09	2.63	OSF1.50	11980.00	7079.22				MinPts	
	771.46	440.39	477.34	331.09	2.63	OSF1.50	11990.00	7079.22				MinPts	
	1416.30	426.18	1131.65	990.12	5.00	OSF1.50	13170.00	7079.54	OSF>5.00			Exit Alert	
	2963.05	420.20	2682.38	2542.85	10.61	OSF1.50	14843.09	7080.00				TD	
Lesser 7-21 Blind 0' to 7508' - AB (Def Survey)													
	6480.38	32.81	6478.57	6447.58	N/A	MAS = 10.00 (m)	0.00	0.00				Warning Alert	Surface
	6480.32	32.81	6478.44	6447.51	95339.96	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6479.69	32.81	6473.72	6446.79	1594.29	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1414.41	429.18	1126.40	985.23	4.99	OSF1.50	12120.00	7079.26	OSF<5.00			Enter Alert	
	779.99	451.20	478.66	328.79	2.60	OSF1.50	13300.00	7079.58				MinPts	
	780.06	451.25	478.69	328.80	2.60	OSF1.50	13310.00	7079.58				MinPt-O-SF	
	1422.92	429.41	1136.11	993.51	4.98	OSF1.50	14490.00	7079.90	OSF>5.00			Exit Alert	
	1729.11	425.75	1444.74	1303.36	6.11	OSF1.50	14843.09	7080.00				TD	
Stugart 18N R2 mdv 10June20 (Def Plan)													
	74.88	32.81	73.89	42.07	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	74.88	32.81	73.89	42.07	33261.39	MAS = 10.00 (m)	4.00	4.00				WRP	
	74.88	32.81	72.71	42.07	62.39	MAS = 10.00 (m)	240.00	240.00				MinPts	
	74.88	32.81	72.65	42.07	59.39	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	74.87	32.81	72.64	42.06	59.39	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	74.87	32.81	72.64	42.06	59.37	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	74.01	32.81	72.24	41.20	93.62	MAS = 10.00 (m)	580.00	579.28				MinPts	
	74.11	32.81	72.16	41.30	76.04	MAS = 10.00 (m)	610.00	609.11				MINPT-O-EOU	
	209.72	32.81	199.29	176.92	22.10	MAS = 10.00 (m)	1800.00	1792.35				MinPt-O-SF	
	909.33	52.90	873.73	856.43	26.25	OSF1.50	6398.22	6364.43				MinPt-O-SF	
	1102.19	298.54	902.84	803.65	5.55	OSF1.50	14840.00	7080.00				MinPt-CtCt	
	1102.20	298.64	902.77	803.55	5.55	OSF1.50	14843.09	7080.00				MinPts	
Stugart 19N R2 mdv 10June20 (Def Plan)													
	89.78	32.81	88.80	56.97	N/A	MAS = 10.00 (m)	0.00	0.00				Pass	Surface
	89.78	32.81											

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		
					6.70	OSF1.50	14840.00	7080.00				MinPt-CICt	
	1326.37	297.71	1127.56	1028.66	6.70	OSF1.50	14843.09	7080.00				MinPts	
	1326.38	297.81	1127.51	1028.56	6.70	OSF1.50	14843.09	7080.00					
Stugart State 01N R2 mdv													
10June20 (Def Plan)													
	99.99	32.81	99.01	67.18	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	99.99	32.81	99.01	67.18	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	99.99	32.81	98.08	67.15	106.46	MAS = 10.00 (m)	200.00	200.00				MinPts	
	100.04	32.81	98.00	67.23	93.91	MAS = 10.00 (m)	220.00	220.00				MINPT-O-EOU	
	202.12	32.81	197.03	169.31	49.02	MAS = 10.00 (m)	850.00	847.75				MinPt-O-SF	
	2237.26	50.61	2203.19	2186.65	67.59	OSF1.50	6398.22	6364.43				MinPt-O-SF	
	2641.40	303.67	2438.63	2337.73	13.09	OSF1.50	14843.09	7080.00				MinPts	
Stugart State 02C R2 mdv													
10June20 (Def Plan)													
	100.94	32.81	99.96	68.14	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	100.94	32.81	99.96	68.14	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	100.94	32.81	98.72	68.14	80.34	MAS = 10.00 (m)	250.00	250.00				MinPts	
	100.97	32.81	98.71	68.16	78.39	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	192.70	32.81	187.51	159.89	45.66	MAS = 10.00 (m)	870.00	867.63				MinPt-O-SF	
	2034.07	49.87	2000.50	1984.20	62.38	OSF1.50	6398.22	6364.43				MinPt-O-SF	
	2439.36	301.63	2237.95	2137.74	12.17	OSF1.50	14843.09	7080.00				MinPts	
Stugart 20N R2 mdv 10June20													
(Def Plan)													
	104.89	32.81	103.90	72.08	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	104.89	32.81	103.90	72.08	46769.10	MAS = 10.00 (m)	4.00	4.00				WRP	
	104.89	32.81	102.72	72.09	87.72	MAS = 10.00 (m)	240.00	240.00				MinPts	
	104.89	32.81	102.66	72.08	83.51	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	104.88	32.81	102.65	72.07	83.44	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	104.87	32.81	102.64	72.06	83.45	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	103.82	32.81	102.00	71.01	123.46	MAS = 10.00 (m)	590.00	589.23				MinPts	
	103.95	32.81	101.94	71.14	100.44	MAS = 10.00 (m)	620.00	619.05				MINPT-O-EOU	
	205.10	32.81	197.00	172.29	28.70	MAS = 10.00 (m)	1460.00	1454.28				MinPt-O-SF	
	273.97	32.81	263.35	241.16	28.31	MAS = 10.00 (m)	1800.00	1792.35				MinPt-O-SF	
	1253.39	55.13	1216.30	1198.25	34.69	OSF1.50	6398.22	6364.43				MinPt-O-SF	
	1537.35	300.24	1336.86	1237.11	7.70	OSF1.50	14840.00	7080.00				MinPt-CICt	
	1537.36	300.33	1336.81	1237.03	7.70	OSF1.50	14843.09	7080.00				MinPts	
Stugart 03N R2 mdv 10June20													
(Def Plan)													
	104.29	32.81	103.30	71.48	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Pass
	104.29	32.81	103.30	71.48	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	104.29	32.81	102.06	71.48	83.03	MAS = 10.00 (m)	250.00	250.00				MinPts	
	104.30	32.81	102.04	71.49	81.01	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	188.14	32.81	182.95	155.33	44.51	MAS = 10.00 (m)	870.00	867.63				MinPt-O-SF	
	303.18	32.81	295.47	270.37	44.93	MAS = 10.00 (m)	1270.00	1265.36				MinPt-O-SF	
	1887.90	49.36	1854.67	1838.54	58.50	OSF1.50	6398.22	6364.43				MinPt-O-SF	
	2209.10	302.43	2007.16	1906.68	10.99	OSF1.50	14843.09	7080.00				MinPts	
Stugart 04N 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	
	109.63	32.81	107.40	76.82	87.32	MAS = 10.00 (m)	250.00	2					

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 07N R2 mdv 10June20 (Def Plan)	134.90	32.81	132.67	102.09	107.63	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	134.89	32.81	132.66	102.08	107.54	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF	
	134.88	32.81	132.65	102.07	107.55	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU	
	133.67	32.81	131.85	100.86	160.25	MAS = 10.00 (m)	590.00	589.23				MinPts	
	133.77	32.81	131.77	100.96	130.49	MAS = 10.00 (m)	620.00	619.05				MINPT-O-EOU	
	233.56	32.81	225.60	200.75	33.34	MAS = 10.00 (m)	1440.00	1434.39				MinPt-O-SF	
	245.84	32.81	237.49	213.03	33.28	MAS = 10.00 (m)	1490.00	1484.11				MinPt-O-SF	
	263.24	32.81	254.37	230.43	33.26	MAS = 10.00 (m)	1560.00	1553.71				MinPt-O-SF	
	290.98	32.81	281.27	258.17	33.23	MAS = 10.00 (m)	1670.00	1663.08				MinPt-O-SF	
	313.97	32.81	303.57	281.16	33.23	MAS = 10.00 (m)	1760.00	1752.57				MinPt-O-SF	
	1559.36	57.16	1520.92	1502.20	41.61	OSF1.50	6400.00	6366.19				MinPt-O-SF	
	1976.99	299.70	1778.86	1679.28	9.93	OSF1.50	14830.00	7080.00				MinPt-CICt	
	1979.00	300.12	1778.59	1678.88	9.92	OSF1.50	14843.09	7080.00				MinPts	
Stugart 07N R2 mdv 10June20 (Def Plan) Pass													
134.29	32.81	133.31	101.48	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
134.29	32.81	133.30	101.48	60003.60	MAS = 10.00 (m)	4.00	4.00				WRP		
134.29	32.81	131.99	101.48	101.66	MAS = 10.00 (m)	270.00	270.00				MinPts		
134.34	32.81	131.87	101.53	90.12	MAS = 10.00 (m)	350.00	349.98				MINPT-O-EOU		
306.09	32.81	295.06	273.28	30.39	MAS = 10.00 (m)	1800.00	1792.35				MinPt-O-SF		
1177.28	47.58	1145.23	1129.70	37.86	OSF1.50	6398.22	6364.43				MinPt-O-SF		
1329.60	302.71	1127.47	1026.89	6.61	OSF1.50	14843.09	7080.00				MinPts		
Stugart 08N R2 mdv 10June20 (Def Plan) Pass													
144.88	32.81	143.89	112.07	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
144.88	32.81	143.89	112.07	64769.10	MAS = 10.00 (m)	4.00	4.00				WRP		
143.60	32.81	140.70	110.79	74.60	MAS = 10.00 (m)	480.00	479.75				MinPts		
143.65	32.81	140.66	110.84	71.59	MAS = 10.00 (m)	500.00	499.68				MINPT-O-EOU		
262.12	32.81	251.13	229.31	26.09	MAS = 10.00 (m)	1800.00	1792.35				MinPt-O-SF		
985.11	47.38	953.20	937.74	31.82	OSF1.50	6398.22	6364.43				MinPt-O-SF		
1117.74	302.47	915.76	815.27	5.56	OSF1.50	14843.09	7080.00				MinPts		
Stugart 23N R2 mdv 10June20 (Def Plan) Pass													
149.80	32.81	148.81	116.99	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
149.80	32.81	148.81	116.99	66984.70	MAS = 10.00 (m)	4.00	4.00				WRP		
149.80	32.81	147.63	116.99	125.64	MAS = 10.00 (m)	240.00	240.00				MinPts		
149.80	32.81	147.57	116.99	119.61	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU		
149.79	32.81	147.56	116.98	119.51	MAS = 10.00 (m)	290.00	290.00				MinPt-O-SF		
149.78	32.81	147.55	116.97	119.52	MAS = 10.00 (m)	300.00	300.00				MINPT-O-EOU		
148.49	32.81	146.68	115.68	178.70	MAS = 10.00 (m)	590.00	589.23				MinPts		
148.58	32.81	146.58	115.77	145.59	MAS = 10.00 (m)	620.00	619.05				MINPT-O-EOU		
243.96	32.81	236.07	211.15	35.19	MAS = 10.00 (m)	1430.00	1424.45				MinPt-O-SF		
281.53	32.81	272.62	248.72	36.37	MAS = 10.00 (m)	1570.00	1563.65				MinPt-O-SF		
1730.44	58.27	1691.27	1672.17	45.29	OSF1.50	6400.00	6366.19				MinPt-O-SF		
2193.56	301.33	1992.34	1892.23	10.95	OSF1.50	14830.00	7080.00				MinPt-CICt		
2193.57	301.73	1992.09	1891.84	10.94	OSF1.50	14843.09	7080.00				MinPts		
Stugart 24N R2 mdv 10June20 (Def Plan) Pass													
164.91	32.81	163.92	132.10	N/A	MAS = 10.00 (m)	0.00	0.00				Surface		
164.91	32.81	163.92	132.10	73784.67	MAS = 10.00 (m)	4.00	4.00				WRP		
164.91	32.81	162.74	132.10	138.39	MAS = 10.00 (m)	240.00	240.00				MinPts		
164.91	32.81	162.65	132.10	131.75	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU		

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
	3775.30	32.81	3751.97	3742.49	321.79	MAS = 10.00 (m)	2090.00	2080.70				MINPT-O-EQU	
	635.60	112.00	560.40	523.60	8.61	OSF1.50	10670.00	7078.86				MinPts	
	635.71	112.12	560.43	523.59	8.61	OSF1.50	10680.00	7078.86				MinPt-O-ADP	
	636.41	112.29	561.01	524.12	8.60	OSF1.50	10700.00	7078.87				MinPt-O-SF	
	4220.78	66.29	4176.05	4154.48	97.83	OSF1.50	14843.09	7080.00				TD	
Lessor J 21-7X GYRO 0' to 7725' - AB (Def Survey)													Pass
	6815.61	32.81	6813.79	6782.80	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6815.57	32.81	6813.71	6782.76	152682.17	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6815.24	32.81	6813.28	6782.43	46467.30	MAS = 10.00 (m)	70.00	70.00				MinPts	
	6815.37	32.81	6813.20	6782.56	19143.44	MAS = 10.00 (m)	130.00	130.00				MINPT-O-EQU	
	6817.49	32.81	6814.67	6784.68	6746.71	MAS = 10.00 (m)	310.00	310.00				MinPt-O-SF	
	6667.35	56.91	6628.87	6610.44	180.86	OSF1.50	5450.00	5421.59				MinPt-CICt	
	6667.44	57.17	6628.79	6610.27	179.98	OSF1.50	5510.00	5481.25				MINPT-O-EQU	
	6667.51	57.25	6628.80	6610.26	179.69	OSF1.50	5530.00	5501.14				MinPt-O-ADP	
	6672.62	59.78	6632.23	6612.84	172.03	OSF1.50	6180.00	6147.44				MINPT-O-EQU	
	6672.83	60.03	6632.27	6612.79	171.28	OSF1.50	6250.00	6217.05				MinPt-O-ADP	
	639.98	182.45	517.80	457.51	5.29	OSF1.50	13460.00	7079.62				MinPts	
	640.07	182.55	517.84	457.52	5.29	OSF1.50	13470.00	7079.62				MinPt-O-SF	
	1525.77	101.82	1457.35	1423.95	22.81	OSF1.50	14843.09	7080.00				TD	
HSR-Wiedeman 9-20 GYRO 0' to 7473' - AB (Def Survey)													Pass
	2879.56	32.81	2877.74	2846.75	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2879.45	32.81	2877.52	2846.64	25003.33	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	2876.61	32.81	2873.74	2843.80	2731.13	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	782.63	73.82	732.61	708.81	16.39	OSF1.50	9270.00	7078.48				MinPt-CICt	
	782.73	74.13	732.51	708.60	16.32	OSF1.50	9280.00	7078.48				MINPT-O-EQU	
	782.96	74.44	732.55	708.59	16.24	OSF1.50	9290.00	7078.48				MinPt-O-ADP	
	799.43	77.75	746.99	721.69	15.76	OSF1.50	9430.00	7078.52				MinPt-O-SF	
	5629.69	56.68	5591.37	5573.01	153.28	OSF1.50	14843.09	7080.00				TD	
Hurst 7-20 MWD 0' to 7650' - PR (Def Survey)													Pass
	1589.22	32.81	1587.40	1556.41	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1589.18	32.81	1587.33	1556.37	40828.71	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	1589.12	32.81	1586.11	1556.31	1324.41	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1589.13	32.81	1586.09	1556.32	1291.39	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EQU	
	1626.40	32.81	1620.45	1593.59	392.34	MAS = 10.00 (m)	970.00	967.06				MinPt-O-SF	
	1370.92	34.66	1347.21	1336.26	62.49	OSF1.50	5200.00	5173.02				MinPt-CICt	
	1370.85	35.16	1346.81	1335.69	61.54	OSF1.50	5270.00	5242.62				MinPt-CICt	
	1370.90	35.38	1346.74	1335.55	61.20	OSF1.50	5300.00	5272.45				MINPT-O-EQU	
	1370.96	35.41	1346.75	1335.55	61.09	OSF1.50	5310.00	5282.39				MinPt-O-ADP	
	1411.02	42.06	1382.40	1368.96	52.43	OSF1.50	6400.00	6366.19				MinPt-O-SF	
	792.28	50.14	758.27	742.11	24.45	OSF1.50	8030.00	7078.14				MinPts	
	801.97	51.39	767.18	750.59	24.12	OSF1.50	8150.00	7078.17				MinPt-O-SF	
	6393.82	48.23	6361.12	6345.58	205.63	OSF1.50	14370.00	7079.87				MinPt-O-SF	
	6863.46	48.33	6830.71	6815.14	220.30	OSF1.50	14843.09	7080.00				TD	
Lessor J 21-8 - Plan (Def Plan)													Pass
	6857.07	32.81	6855.26	6824.26	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6857.04	32.81	6855.19	6824.23	196369.89	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6856.84	32.81	6853.95	6824.03	6386.26	MAS = 10.00 (m)	250.00	250.00				MinPts	
	6856.90	32.81	6853.90	6824.09	5789.87	MAS = 10.00 (m)	290.00	290.00				MINPT-O-EQU	
	6896.52	32.81	6885.59	6863.71	739.37	MAS = 10.00 (m)	1900.00	1891.78					

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 5 GYRO 0' to 7665' - AB (Def Survey)													
	1379.28	160.70	1262.58			OSF1.50	12740.00	7079.43				MinPt-CtCt	
	1370.40	161.10	1262.46	1209.30	12.87	OSF1.50	12760.00	7079.43				MinPt-O-EOU	
	1370.58	161.26	1262.52	1209.30	12.86	OSF1.50	12770.00	7079.43				MinPt-O-ADP	
	1375.47	162.59	1266.55	1212.88	12.80	OSF1.50	12880.00	7079.46				MinPt-O-SF	
	2508.93	118.10	2429.66	2390.83	32.28	OSF1.50	14843.09	7080.00				TD	
Pass													
Meyer 5 GYRO 0' to 7665' - AB (Def Survey)	3784.27	32.81	3782.46	3751.46	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3784.25	32.81	3782.41	3751.44	157650.65	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3784.19	32.81	3782.32	3751.39	63619.04	MAS = 10.00 (m)	30.00	30.00				MinPts	
	3784.65	32.81	3781.80	3751.84	3636.87	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	3784.88	32.81	3781.97	3752.07	3448.43	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	4737.64	48.39	4704.84	4689.25	151.84	OSF1.50	6070.00	6038.07				MinPt-O-ADP	
	1373.24	130.57	1285.66	1242.67	15.95	OSF1.50	11410.00	7079.06				MinPt-CtCt	
	1373.31	130.76	1285.61	1242.56	15.93	OSF1.50	11420.00	7079.06				MINPT-O-EOU	
	1373.45	130.92	1285.64	1242.53	15.91	OSF1.50	11430.00	7079.07				MinPt-O-ADP	
	1380.82	132.53	1291.94	1248.29	15.80	OSF1.50	11550.00	7079.10				MinPt-O-SF	
	3701.23	89.52	3641.02	3611.71	63.12	OSF1.50	14843.09	7080.00				TD	
Pass													
Greeley 21-20 MWD 0' to 7619' - PR (Def Survey)													
	1631.65	32.81	1629.84	1598.84	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1631.64	32.81	1629.83	1598.84	N/A	MAS = 10.00 (m)	4.00	4.00				WRP	
	1631.64	32.81	1628.75	1598.84	1508.86	MAS = 10.00 (m)	250.00	250.00				MinPts	
	1631.65	32.81	1628.74	1598.85	1472.82	MAS = 10.00 (m)	260.00	260.00				MINPT-O-EOU	
	1666.30	32.81	1660.64	1633.49	432.69	MAS = 10.00 (m)	920.00	917.35				MinPt-O-SF	
	1404.07	32.81	1383.17	1371.25	73.24	MAS = 10.00 (m)	5030.00	5003.98				MinPts	
	1404.13	32.81	1383.19	1371.32	72.74	MAS = 10.00 (m)	5060.00	5033.81				MINPT-O-EOU	
	1488.78	38.74	1462.42	1450.04	60.00	OSF1.50	6400.00	6366.19				MinPt-O-SF	
	1378.89	42.63	1349.84	1336.17	50.36	OSF1.50	7500.00	7077.58				MinPt-CtCt	
	1378.80	42.73	1349.79	1336.08	50.24	OSF1.50	7510.00	7077.85				MINPT-O-EOU	
	1378.87	42.83	1349.79	1336.04	50.12	OSF1.50	7520.00	7077.98				MinPt-O-ADP	
	1442.08	46.99	1410.22	1395.09	47.61	OSF1.50	7930.00	7078.11				MinPt-O-SF	
	7460.24	51.10	7425.64	7409.14	226.04	OSF1.50	14843.09	7080.00				TD	
Pass													
Barnett 5-20 Blind 0' to 7622' - PR (Def Survey)													
	1397.03	32.81	1394.52	1364.22	1995.10	MAS = 10.00 (m)	0.00	0.00				Surface	
	1397.03	32.81	1394.44	1364.22	1791.31	MAS = 10.00 (m)	4.00	4.00				WRP	
	1394.43	72.50	1345.49	1321.93	29.55	OSF1.50	1200.00	1195.76				MinPt-CtCt	
	1500.13	382.08	1244.88	1118.05	5.91	OSF1.50	6398.22	6364.43				MINPT-O-EOU	
	1500.68	382.78	1244.97	1117.91	5.90	OSF1.50	6410.00	6376.14				MinPt-O-ADP	
	1518.59	390.41	1257.78	1128.17	5.85	OSF1.50	6540.00	6504.51				MinPt-O-SF	
	9441.07	424.54	9157.51	9016.53	33.48	OSF1.50	14843.09	7080.00				TD	
Pass													
SW Greeley 31-20 MWD 0' to 7695' - PR (Def Survey)													
	1425.72	32.81	1423.83	1392.91	17587.94	MAS = 10.00 (m)	0.00	0.00				Surface	
	1425.72	32.81	1423.82	1392.91	15834.55	MAS = 10.00 (m)	4.00	4.00				WRP	
	1422.13	32.81	1415.72	1389.32	309.01	MAS = 10.00 (m)	950.00	947.18				MinPts	
	1422.16	32.81	1415.69	1389.35	305.12	MAS = 10.00 (m)	970.00	967.06				MINPT-O-EOU	
	1468.34	32.81	1459.34	1435.53</									

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		
	2060.22	455.44	1756.06	1694.78	6.80	OSF1.50	13560.00	7079.65				MinPt-O-ADP	
	2061.31	455.84	1756.89	1605.48	6.80	OSF1.50	13610.00	7079.66				MinPt-O-SF	
	2437.63	453.75	2134.59	1983.88	8.06	OSF1.50	14843.09	7080.00				TD	
Lessor J 21-17 Blind 0' to 7578' - SI (Def Survey)													Pass
	6837.21	32.81	6835.40	6804.41	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6837.17	32.81	6835.32	6804.37	153652.00	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	6836.85	32.81	6829.76	6804.04	1294.98	MAS = 10.00 (m)	250.00	250.00				MinPts	
	6870.35	101.54	6802.05	6768.81	103.31	OSF1.50	1790.00	1782.40				MINPT-O-EOU	
	2067.81	455.07	1763.89	1612.74	6.83	OSF1.50	13520.00	7079.64				MinPt-CtCt	
	2067.82	455.16	1763.85	1612.66	6.83	OSF1.50	13530.00	7079.64				MINPT-O-EOU	
	2067.88	455.24	1763.85	1612.64	6.83	OSF1.50	13540.00	7079.64				MinPt-O-ADP	
	2068.92	455.64	1764.62	1613.28	6.83	OSF1.50	13590.00	7079.66				MinPt-O-SF	
	2453.67	453.54	2150.77	2000.13	8.14	OSF1.50	14843.09	7080.00				TD	
UPRC 21-13H6 GYRO 0' to 7440' - AB (Def Survey)													Pass
	4622.75	32.81	4620.94	4589.95	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	4622.66	32.81	4620.75	4589.86	46130.59	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	4621.54	32.81	4619.47	4588.73	17917.27	MAS = 10.00 (m)	110.00	110.00				MinPts	
	4621.73	32.81	4618.99	4588.93	4968.38	MAS = 10.00 (m)	250.00	250.00				MINPT-O-EOU	
	4621.62	32.81	4618.83	4588.81	4745.94	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	4504.41	32.81	4494.44	4471.60	541.85	MAS = 10.00 (m)	2480.00	2468.48				MinPt-O-SF	
	4500.36	32.81	4490.36	4467.55	539.21	MAS = 10.00 (m)	2540.00	2528.14				MinPt-O-SF	
	2063.01	106.24	2011.43	1976.77	30.02	OSF1.50	10520.00	7078.82				MinPt-CtCt	
	2083.27	107.04	2011.18	1976.24	29.78	OSF1.50	10550.00	7078.83				MINPT-O-EOU	
	2083.69	107.55	2011.26	1976.13	29.63	OSF1.50	10570.00	7078.83				MinPt-O-ADP	
	2165.83	118.47	2086.31	2047.36	27.78	OSF1.50	11110.00	7078.98				MinPt-O-SF	
	4801.64	108.22	4728.97	4693.43	67.53	OSF1.50	14843.09	7080.00				TD	
Hayes 1-20 Blind 0' to 7516' - PR (Def Survey)													Pass
	2973.86	32.81	2972.05	2941.05	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2973.85	32.81	2972.04	2941.05	588195.27	MAS = 10.00 (m)	4.00	4.00				WRP	
	2973.85	32.81	2964.02	2941.04	370.76	MAS = 10.00 (m)	250.00	250.00				MinPts	
	2978.35	32.81	2959.40	2945.54	173.72	MAS = 10.00 (m)	480.00	479.75				MINPT-O-EOU	
	3048.39	105.75	2977.28	2942.63	43.97	OSF1.50	1790.00	1782.40				MinPt-O-ADP	
	3134.82	194.63	3004.53	2940.18	24.35	OSF1.50	3290.00	3273.87				MinPt-O-ADP	
	2110.28	429.07	1823.70	1681.21	7.40	OSF1.50	9450.00	7078.53				MinPts	
	2110.54	429.17	1823.89	1681.37	7.40	OSF1.50	9480.00	7078.53				MinPt-O-SF	
	5794.35	427.71	5508.68	5366.65	20.39	OSF1.50	14843.09	7080.00				TD	
Meyer 6 GYRO 0' to 8410' - AB (Def Survey)													Pass
	3799.77	32.81	3797.96	3766.97	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3799.75	32.81	3797.91	3766.94	158945.36	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	3799.48	32.81	3797.12	3766.65	7104.04	MAS = 10.00 (m)	150.00	150.00				MinPts	
	3799.62	32.81	3796.98	3766.81	4586.94	MAS = 10.00 (m)	210.00	210.00				MINPT-O-EOU	
	3800.64	32.81	3797.76	3767.83	3545.27	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	5507.07	43.79	5477.35	5463.28	195.77	OSF1.50	6400.00	6366.19				MinPt-O-SF	
	2207.83	150.97	2106.64	2056.85	22.16	OSF1.50	12020.00	7079.23				MinPt-CtCt	
	2208.04	151.61	2106.43	2056.43	22.06	OSF1.50	12050.00	7079.24				MINPT-O-EOU	
	2208.20	151.82	2106.45	2056.39	22.03	OSF1.50	12060.00	7079.24				MinPt-O-ADP	
	2238.72	157.09	2133.46	2081.63	21.58	OSF1.50	12390.00	7079.33				MinPt-O-SF	
	3584.35	138.82	3491.27	3445.54	39.17	OSF1.50	14843.09	7080.00				TD	
Beneler J 29-27D GYRO 0' to 7585' - PR (Def Survey)													Pass
	4311.20	32.81	4309.38	4278.39	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	4311.14	32.81	4309.26	4278.33	68206.35	MAS = 10.00 (m)	4.00	4.00				MinPt-O-SF	
	4307.20	32.81	4304.15	4274.39	3479.62	MAS = 10.00 (m)	300.00	300.00				MinPt-O-SF	
	3194.58	46.11	3163.13	3148.47	108.91	OSF1.50	6400.00	6366.19				MinPt-O-SF	
	2604.25	64.13	2560.72	2540.17	63.30	OSF1.50	8550.00	7078.28				MinPt-CtCt	
	2604.54	64.95	2560.42	2539.59	62.44	OSF1.50	8590.00	7078.29				MINPT-O-EOU	
	2604.89	65.37	2560.50	2539.52	62.03	OSF1.50	8610.00	7078.30				MinPt-O-ADP	
	2922.33	88.32	2862.92	2834.01	50.52	OSF1.50	9880.00	7078.64				MinPt-O-SF	
	6806.62	102.61	6737.68	6704.01	101.06	OSF1.50							

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		
	2708.06	128.11	2622.12	2579.95	32.09	OSF1.50	11320.00	7079.04				MINPT-O-EOU	
	2708.39	128.55	2622.16	2579.85	31.98	OSF1.50	11340.00	7079.04				MinPt-O-ADP	
	2788.28	138.79	2695.22	2649.50	30.47	OSF1.50	11950.00	7079.21				MinPt-O-SF	
	4471.24	132.76	4382.20	4338.48	51.12	OSF1.50	14843.09	7080.00				TD	