

Borehole:	Well:	Field:	Structure:
Original Hole	Harvey 7-63-23-5760BE	CO, Weld County (NAD 83 NZ)	24-07N-63W (Harvey 7-63-23 Pad)

Gravity & Magnetic Parameters			Surface Location			Miscellaneous		
Model: HDGM 2016	Dip: 67.016°	Date: 08-Nov-2016	Lat: N 40 33 12.43	Northing: 1446384.62ftUS	Grid Conv: 0.7155°	Slot: Harvey 7-63-23-5760BE	TVD Ref: KB 20.2ft(4806.5ft above MSL)	
MagDec: 8.087°	FS: 52415.059nT	Gravity FS: 999.07mgn (9.80665 Based)	Lon: W 104 23 33.68	Easting: 3307691.23ftUS	Scale Fact: 0.99997077	Plan: Harvey 7-63-23-5760BE R0 mdv 08Nov16		

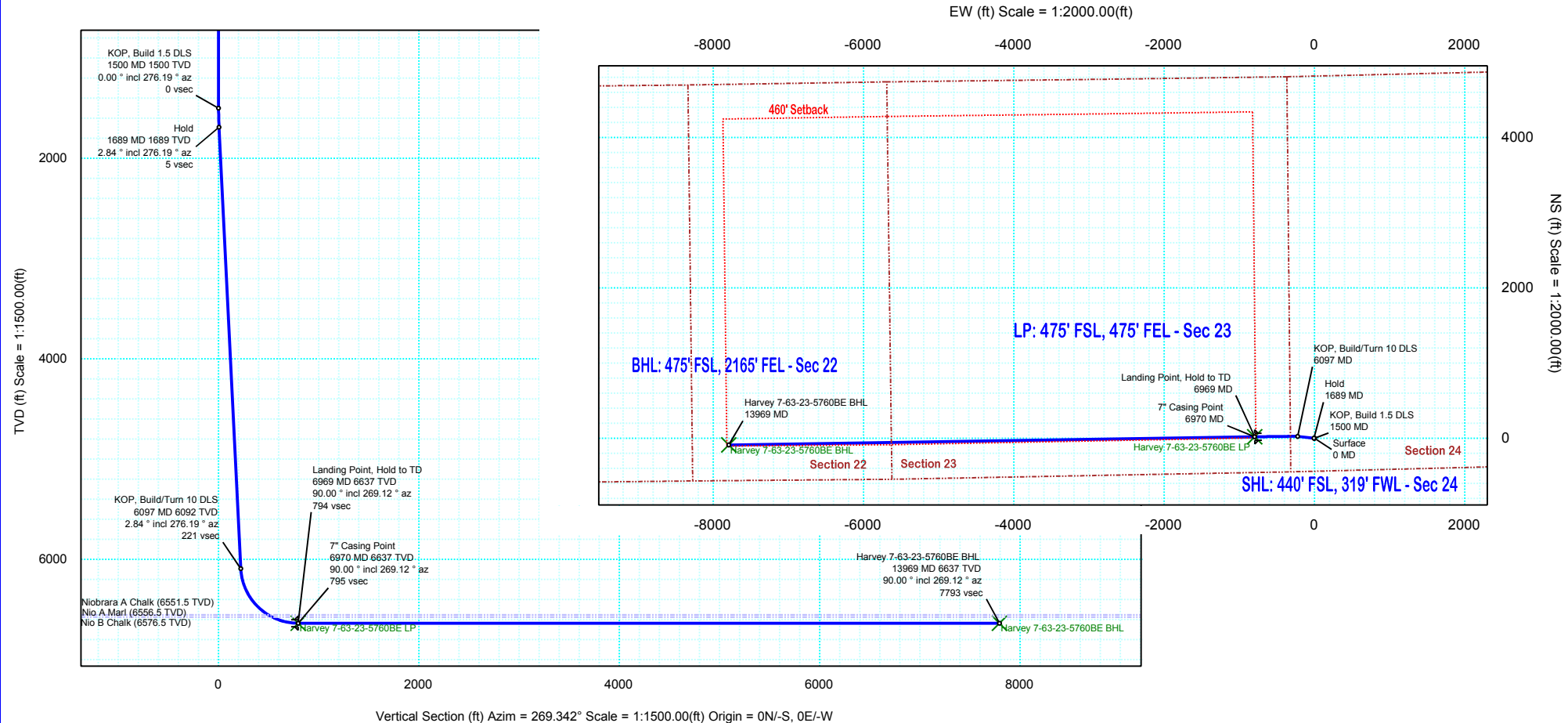
Northing: 1446384.62411773		Easting: 3307691.22638285		Surface Location		Longitude: W 104 23 33.68		VSec Azimuth: 269.34180	
Target Description		Grid Coord		Total Coord					
Target Name	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)	DLS
Harvey 7-63-23 Pad Sec 23	N 40 33 12.43	W 104 23 32.39	1446385.87	3307791.26	4806.50	-100.04	1.25	100.03	
Harvey 7-63-23 Pad Sec 22	N 40 33 12.43	W 104 23 32.39	1446385.87	3307791.26	4806.50	-100.04	1.25	100.03	
Harvey 7-63-23 Pad Sec 24	N 40 33 12.43	W 104 23 32.39	1446385.87	3307791.26	4806.50	-100.04	1.25	100.03	
Harvey 7-63-23 Pad Sec 22 - 460' SB	N 40 33 12.43	W 104 23 32.39	1446385.87	3307791.26	4806.50	-100.04	1.25	100.03	
Harvey 7-63-23 Pad Sec 22 - Mid	N 40 33 12.43	W 104 23 32.39	1446385.87	3307791.26	4806.50	-100.04	1.25	100.03	
Harvey 7-63-23-5760BE BHL	N 40 33 12.49	W 104 25 14.64	1446295.10	3299898.87	6636.50	7793.11	-89.52	-7792.60	
Harvey 7-63-23-5760BE LP	N 40 33 12.71	W 104 23 43.97	1446403.14	3306897.31	6636.50	7793.68	18.52	-7793.94	
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	0.00	
KOP, Build 1.5 DLS	1500.00	0.00	276.19	1500.00	0.00	0.00	0.00	0.00	
Hold	1689.25	2.84	276.19	1689.17	4.65	0.51	-4.66	1.50	
KOP, Build/Turn 10 DLS	6097.20	2.84	276.19	6091.71	221.40	24.03	-221.69	0.00	
Niobrara A Chalk	6652.94	58.39	269.33	6551.50	493.38	22.63	-493.67	10.00	
Nio A Marl	6662.61	59.36	269.32	6556.50	501.66	22.54	-501.95	10.00	
Nio B Chalk	6704.47	63.54	269.29	6576.50	538.42	22.09	-538.71	10.00	
Landing Point, Hold to TD	6969.03	90.00	269.12	6636.50	793.68	18.52	-793.94	10.00	
7" Casing Point	6970.00	90.00	269.12	6636.50	794.65	18.50	-794.91	0.00	
Harvey 7-63-23-5760BE BHL	13968.51	90.00	269.12	6636.50	7793.11	-89.52	-7792.60	0.00	

Proposal
Rev 0



Grid
True
Mag

Grid North
Tot Corr (M→G 7.372°)
Mag Dec (8.087°)
Grid Conv (0.715°)



Harvey 7-63-23-5760BE R0 mdv 08Nov16 Proposal Geodetic Report

(Def Plan)

Report Date: November 08, 2016 - 12:59 PM
Client: Crescent Point Energy
Field: CO, Weld County (NAD 83 NZ)
Structure / Slot: Crescent Point 24-07N-63W (Harvey 7-63-23 Pad) / Harvey 7-63-23-5760BE
Well: Harvey 7-63-23-5760BE
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Harvey 7-63-23-5760BE R0 mdv 08Nov16
Survey Date: November 08, 2016
Tort / AHD / DDI / ERD Ratio: 90.022 ° / 7794.773 ft / 6.169 / 1.175
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 33' 12.42720", W 104° 23' 33.68400"
Location Grid N/E Y/X: N 1446384.624 ftUS, E 3307691.226 ftUS
CRS Grid Convergence Angle: 0.7155 °
Grid Scale Factor: 0.99997077
Version / Patch: 2.10.254.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 269.342 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 20.2ft
TVD Reference Elevation: 4806.500 ft above MSL
Seabed / Ground Elevation: 4786.300 ft above MSL
Magnetic Declination: 8.087 °
Total Gravity Field Strength: 999.0696mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52415.059 nT
Magnetic Dip Angle: 67.016 °
Declination Date: November 08, 2016
Magnetic Declination Model: HDGM 2016
North Reference: Grid North
Grid Convergence Used: 0.7155 °
Total Corr Mag North->Grid North: 7.3718 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	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	0.00	1446384.62	3307691.23	40.553452	-104.392690
	100.00	0.00	276.19	100.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	200.00	0.00	276.19	200.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	300.00	0.00	276.19	300.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	400.00	0.00	276.19	400.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	500.00	0.00	276.19	500.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	600.00	0.00	276.19	600.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	700.00	0.00	276.19	700.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	800.00	0.00	276.19	800.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	900.00	0.00	276.19	900.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	1000.00	0.00	276.19	1000.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	1100.00	0.00	276.19	1100.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	1200.00	0.00	276.19	1200.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	1300.00	0.00	276.19	1300.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	1400.00	0.00	276.19	1400.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
KOP, Build 1.5 DLS	1500.00	0.00	276.19	1500.00	0.00	0.00	0.00	0.00	1446384.62	3307691.23	40.553452	-104.392690
	1600.00	1.50	276.19	1599.99	1.30	0.14	-1.30	1.50	1446384.77	3307689.93	40.553452	-104.392695
Hold	1689.25	2.84	276.19	1689.17	4.65	0.51	-4.66	1.50	1446385.13	3307686.57	40.553454	-104.392707
	1700.00	2.84	276.19	1699.91	5.18	0.56	-5.19	0.00	1446385.19	3307686.04	40.553454	-104.392709
	1800.00	2.84	276.19	1799.79	10.10	1.10	-10.11	0.00	1446385.72	3307681.11	40.553455	-104.392726
	1900.00	2.84	276.19	1899.66	15.02	1.63	-15.04	0.00	1446386.25	3307676.19	40.553457	-104.392744
	2000.00	2.84	276.19	1999.54	19.93	2.16	-19.96	0.00	1446386.79	3307671.27	40.553459	-104.392762
	2100.00	2.84	276.19	2099.42	24.85	2.70	-24.88	0.00	1446387.32	3307666.34	40.553460	-104.392779
	2200.00	2.84	276.19	2199.30	29.77	3.23	-29.81	0.00	1446387.85	3307661.42	40.553462	-104.392797
	2300.00	2.84	276.19	2299.17	34.69	3.76	-34.73	0.00	1446388.39	3307656.50	40.553464	-104.392815
	2400.00	2.84	276.19	2399.05	39.60	4.30	-39.66	0.00	1446388.92	3307651.57	40.553465	-104.392832
	2500.00	2.84	276.19	2498.93	44.52	4.83	-44.58	0.00	1446389.46	3307646.65	40.553467	-104.392850
	2600.00	2.84	276.19	2598.80	49.44	5.36	-49.50	0.00	1446389.99	3307641.73	40.553468	-104.392868
	2700.00	2.84	276.19	2698.68	54.35	5.90	-54.43	0.00	1446390.52	3307636.80	40.553470	-104.392886
	2800.00	2.84	276.19	2798.56	59.27	6.43	-59.35	0.00	1446391.06	3307631.88	40.553472	-104.392903
	2900.00	2.84	276.19	2898.44	64.19	6.97	-64.27	0.00	1446391.59	3307626.95	40.553473	-104.392921
	3000.00	2.84	276.19	2998.31	69.11	7.50	-69.20	0.00	1446392.12	3307622.03	40.553475	-104.392939
	3100.00	2.84	276.19	3098.19	74.02	8.03	-74.12	0.00	1446392.66	3307617.11	40.553477	-104.392956
	3200.00	2.84	276.19	3198.07	78.94	8.57	-79.04	0.00	1446393.19	3307612.18	40.553478	-104.392974
	3300.00	2.84	276.19	3297.95	83.86	9.10	-83.97	0.00	1446393.72	3307607.26	40.553480	-104.392992
	3400.00	2.84	276.19	3397.82	88.78	9.63	-88.89	0.00	1446394.26	3307602.34	40.553481	-104.393009
	3500.00	2.84	276.19	3497.70	93.69	10.17	-93.82	0.00	1446394.79	3307597.41	40.553483	-104.393027
	3600.00	2.84	276.19	3597.58	98.61	10.70	-98.74	0.00	1446395.32	3307592.49	40.553485	-104.393045
	3700.00	2.84	276.19	3697.46	103.53	11.23	-103.66	0.00	1446395.86	3307587.57	40.553486	-104.393063
	3800.00	2.84	276.19	3797.33	108.44	11.77	-108.59	0.00	1446396.39	3307582.64	40.553488	-104.393080
	3900.00	2.84	276.19	3897.21	113.36	12.30	-113.51	0.00	1446396.93	3307577.72	40.553490	-104.393098
	4000.00	2.84	276.19	3997.09	118.28	12.84	-118.43	0.00	1446397.46	3307572.80	40.553491	-104.393116
	4100.00	2.84	276.19	4096.96	123.20	13.37	-123.36	0.00	1446397.99	3307567.87	40.553493	-104.393133
	4200.00	2.84	276.19	4196.84	128.11	13.90	-128.28	0.00	1446398.53	3307562.95	40.553495	-104.393151
	4300.00	2.84	276.19	4296.72	133.03	14.44	-133.21	0.00	1446399.06	3307558.03	40.553496	-104.393169
	4400.00	2.84	276.19	4396.60	137.95	14.97	-138.13	0.00	1446399.59	3307553.10	40.553498	-104.393186
	4500.00	2.84	276.19	4496.47	142.86	15.50	-143.05	0.00	1446400.13	3307548.18	40.553499	-104.393204
	4600.00	2.84	276.19	4596.35	147.78	16.04	-147.98	0.00	1446400.66	3307543.25	40.553501	-104.393222
	4700.00	2.84	276.19	4696.23	152.70	16.57	-152.90	0.00	1446401.19	3307538.33	40.553503	-104.393239
	4800.00	2.84	276.19	4796.11	157.62	17.10	-157.82	0.00	1446401.73	3307533.41	40.553504	-104.393257
	4900.00	2.84	276.19	4895.98	162.53	17.64	-162.75	0.00	1446402.26	3307528.48	40.553506	-104.393275
	5000.00	2.84	276.19	4995.86	167.45	18.17	-167.67	0.00	1446402.79	3307523.56	40.553508	-104.393293
	5100.00	2.84	276.19	5095.74	172.37	18.71	-172.59	0.00	1446403.33	3307518.64	40.553509	-104.393310
	5200.00	2.84	276.19	5195.61	177.29	19.24	-177.52	0.00	1446403.86	3307513.71	40.553511	-104.393328
	5300.00	2.84	276.19	5295.49	182.20	19.77	-182.44	0.00	1446404.40	3307508.79	40.553513	-104.393346
	5400.00	2.84	276.19	5395.37	187.12	20.31	-187.37	0.00	1446404.93	3307503.87	40.553514	-104.393363
	5500.00	2.84	276.19	5495.25	192.04	20.84	-192.29	0.00	1446405.46	3307498.94	40.553516	-104.393381
	5600.00	2.84	276.19	5595.12	196.95	21.37	-197.21	0.00	1446406.00	3307494.02	40.553517	-104.393399
	5700.00	2.84	276.19	5695.00	201.87	21.91	-202.14	0.00	1446406.53	3307489.10	40.553519	-104.393416
	5800.00	2.84	276.19	5794.88	206.79	22.44	-207.06	0.00	1446407.06	3307484.17	40.553521	-104.393434
	5900.00	2.84	276.19	5894.76	211.71	22.97	-211.98	0.00	1446407.60	3307479.25	40.553522	-104.393452
	6000.00	2.84	276.19	5994.63	216.62	23.51	-216.91	0.00	1446408.13	3307474.33	40.553524	-104.393469
KOP, Build/Turn 10 DLS	6097.20	2.84	276.19	6091.71	221.40	24.03	-221.69	0.00	1446408.65	3307469.54	40.553526	-104.393487
	6100.00	3.12	275.55	6094.51	221.55	24.04	-221.84	10.00	1446408.66	3307469.39	40.553526	-104.393487
	6200.00	13.10	270.62	6193.39	235.62	24.43	-235.91	10.00	1446409.05	3307455.32	40.553527	-104.393538
	6300.00	23.10	269.94	6288.32	266.64	24.53	-266.94	10.00	1446409.15	3307424.29	40.553528	-104.393649
	6400.00	33.10	269.65	6376.42	313.68	24.34	-313.98	10.00	1446408.96	3307377.25	40.553530	-104.393819
	6500.00	43.10	269.49	6455.01	375.30	23.87	-375.60	10.00	1446408.49	3307315.63	40.553530	-104.394040
	6600.00	53.10	269.38	6521.71	449.64	23.13	-449.93	10.00	1446407.75	3307241.31	40.553531	-104.394308
Niobrara A Chalk	6652.94	58.39	269.33	6551.50	493.38	22.63	-493.67	10.00	1446407.26	3307197.57	40.553531	-104.394465
Nio A Marl	6662.61	59.36	269.32	6556.50	501.66	22.54	-501.95	10.00	1446407.16	3307189.29	40.553531	-104.394495
	6700.00	63.10	269.29	6574.49	534.43	22.14	-534.72	10.00	1446406.76	3307156.53	40.553531	-104.394613
Nio B Chalk	6704.47	63.54	269.29	6576.50	538.42	22.09	-538.71	10.00	1446406.71	3307152.53	40.553531	-104.394627

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	6800.00	73.10	269.22	6611.75	627.09	20.94	-627.37	10.00	1446405.56	3307063.87	40.553531	-104.394947
	6900.00	83.10	269.16	6632.35	724.82	19.55	-725.09	10.00	1446404.18	3306966.16	40.553530	-104.395298
Landing Point, Hold to TD	6969.03	90.00	269.12	6636.50	793.68	18.52	-793.94	10.00	1446403.14	3306897.31	40.553530	-104.395546
7" Casing Point	6970.00	90.00	269.12	6636.50	794.65	18.50	-794.91	0.00	1446403.13	3306896.34	40.553530	-104.395549
	7000.00	90.00	269.12	6636.50	824.65	18.04	-824.91	0.00	1446402.66	3306866.34	40.553530	-104.395657
	7100.00	90.00	269.12	6636.50	924.65	16.50	-924.90	0.00	1446401.12	3306766.36	40.553529	-104.396017
	7200.00	90.00	269.12	6636.50	1024.65	14.95	-1024.89	0.00	1446399.58	3306666.37	40.553528	-104.396377
	7300.00	90.00	269.12	6636.50	1124.65	13.41	-1124.88	0.00	1446398.03	3306566.39	40.553527	-104.396737
	7400.00	90.00	269.12	6636.50	1224.65	11.87	-1224.86	0.00	1446396.49	3306466.40	40.553526	-104.397097
	7500.00	90.00	269.12	6636.50	1324.65	10.32	-1324.85	0.00	1446394.95	3306366.42	40.553526	-104.397457
	7600.00	90.00	269.12	6636.50	1424.64	8.78	-1424.84	0.00	1446393.40	3306266.43	40.553525	-104.397817
	7700.00	90.00	269.12	6636.50	1524.64	7.23	-1524.83	0.00	1446391.86	3306166.45	40.553524	-104.398176
	7800.00	90.00	269.12	6636.50	1624.64	5.69	-1624.82	0.00	1446390.31	3306066.46	40.553523	-104.398536
	7900.00	90.00	269.12	6636.50	1724.64	4.15	-1724.80	0.00	1446388.77	3305966.48	40.553522	-104.398896
	8000.00	90.00	269.12	6636.50	1824.64	2.60	-1824.79	0.00	1446387.23	3305866.49	40.553522	-104.399256
	8100.00	90.00	269.12	6636.50	1924.64	1.06	-1924.78	0.00	1446385.68	3305766.51	40.553521	-104.399616
	8200.00	90.00	269.12	6636.50	2024.64	-0.48	-2024.77	0.00	1446384.14	3305666.52	40.553520	-104.399976
	8300.00	90.00	269.12	6636.50	2124.64	-2.03	-2124.76	0.00	1446382.60	3305566.54	40.553519	-104.400336
	8400.00	90.00	269.12	6636.50	2224.64	-3.57	-2224.74	0.00	1446381.05	3305466.55	40.553518	-104.400696
	8500.00	90.00	269.12	6636.50	2324.64	-5.11	-2324.73	0.00	1446379.51	3305366.57	40.553517	-104.401055
	8600.00	90.00	269.12	6636.50	2424.64	-6.66	-2424.72	0.00	1446377.97	3305266.58	40.553517	-104.401415
	8700.00	90.00	269.12	6636.50	2524.64	-8.20	-2524.71	0.00	1446376.42	3305166.60	40.553516	-104.401775
	8800.00	90.00	269.12	6636.50	2624.64	-9.74	-2624.70	0.00	1446374.88	3305066.61	40.553515	-104.402135
	8900.00	90.00	269.12	6636.50	2724.63	-11.29	-2724.68	0.00	1446373.34	3304966.63	40.553514	-104.402495
	9000.00	90.00	269.12	6636.50	2824.63	-12.83	-2824.67	0.00	1446371.79	3304866.64	40.553513	-104.402855
	9100.00	90.00	269.12	6636.50	2924.63	-14.38	-2924.66	0.00	1446370.25	3304766.66	40.553512	-104.403214
	9200.00	90.00	269.12	6636.50	3024.63	-15.92	-3024.65	0.00	1446368.71	3304666.67	40.553511	-104.403574
	9300.00	90.00	269.12	6636.50	3124.63	-17.46	-3124.64	0.00	1446367.16	3304566.69	40.553511	-104.403934
	9400.00	90.00	269.12	6636.50	3224.63	-19.01	-3224.62	0.00	1446365.62	3304466.70	40.553510	-104.404294
	9500.00	90.00	269.12	6636.50	3324.63	-20.55	-3324.61	0.00	1446364.08	3304366.72	40.553509	-104.404654
	9600.00	90.00	269.12	6636.50	3424.63	-22.09	-3424.60	0.00	1446362.53	3304266.73	40.553508	-104.405014
	9700.00	90.00	269.12	6636.50	3524.63	-23.64	-3524.59	0.00	1446360.99	3304166.75	40.553507	-104.405374
	9800.00	90.00	269.12	6636.50	3624.63	-25.18	-3624.58	0.00	1446359.44	3304066.76	40.553506	-104.405733
	9900.00	90.00	269.12	6636.50	3724.63	-26.72	-3724.57	0.00	1446357.90	3303966.78	40.553505	-104.406093
	10000.00	90.00	269.12	6636.50	3824.63	-28.27	-3824.55	0.00	1446356.36	3303866.79	40.553505	-104.406453
	10100.00	90.00	269.12	6636.50	3924.63	-29.81	-3924.54	0.00	1446354.81	3303766.81	40.553504	-104.406813
	10200.00	90.00	269.12	6636.50	4024.62	-31.35	-4024.53	0.00	1446353.27	3303666.82	40.553503	-104.407173
	10300.00	90.00	269.12	6636.50	4124.62	-32.90	-4124.52	0.00	1446351.73	3303566.84	40.553502	-104.407533
	10400.00	90.00	269.12	6636.50	4224.62	-34.44	-4224.51	0.00	1446350.18	3303466.85	40.553501	-104.407893
	10500.00	90.00	269.12	6636.50	4324.62	-35.98	-4324.49	0.00	1446348.64	3303366.87	40.553500	-104.408252
	10600.00	90.00	269.12	6636.50	4424.62	-37.53	-4424.48	0.00	1446347.10	3303266.88	40.553500	-104.408612
	10700.00	90.00	269.12	6636.50	4524.62	-39.07	-4524.47	0.00	1446345.55	3303166.90	40.553499	-104.408972
	10800.00	90.00	269.12	6636.50	4624.62	-40.62	-4624.46	0.00	1446344.01	3303066.91	40.553498	-104.409332
	10900.00	90.00	269.12	6636.50	4724.62	-42.16	-4724.45	0.00	1446342.47	3302966.93	40.553497	-104.409692
	11000.00	90.00	269.12	6636.50	4824.62	-43.70	-4824.43	0.00	1446340.92	3302866.94	40.553496	-104.410052
	11100.00	90.00	269.12	6636.50	4924.62	-45.25	-4924.42	0.00	1446339.38	3302766.96	40.553495	-104.410412
	11200.00	90.00	269.12	6636.50	5024.62	-46.79	-5024.41	0.00	1446337.84	3302666.97	40.553494	-104.410771
	11300.00	90.00	269.12	6636.50	5124.62	-48.33	-5124.40	0.00	1446336.29	3302566.99	40.553494	-104.411131
	11400.00	90.00	269.12	6636.50	5224.61	-49.88	-5224.39	0.00	1446334.75	3302467.00	40.553493	-104.411491
	11500.00	90.00	269.12	6636.50	5324.61	-51.42	-5324.37	0.00	1446333.21	3302367.02	40.553492	-104.411851
	11600.00	90.00	269.12	6636.50	5424.61	-52.96	-5424.36	0.00	1446331.66	3302267.03	40.553491	-104.412211
	11700.00	90.00	269.12	6636.50	5524.61	-54.51	-5524.35	0.00	1446330.12	3302167.05	40.553490	-104.412571
	11800.00	90.00	269.12	6636.50	5624.61	-56.05	-5624.34	0.00	1446328.57	3302067.06	40.553489	-104.412930
	11900.00	90.00	269.12	6636.50	5724.61	-57.59	-5724.33	0.00	1446327.03	3301967.08	40.553488	-104.413290
	12000.00	90.00	269.12	6636.50	5824.61	-59.14	-5824.32	0.00	1446325.49	3301867.09	40.553487	-104.413650
	12100.00	90.00	269.12	6636.50	5924.61	-60.68	-5924.30	0.00	1446323.94	3301767.11	40.553487	-104.414010
	12200.00	90.00	269.12	6636.50	6024.61	-62.23	-6024.29	0.00	1446322.40	3301667.12	40.553486	-104.414370
	12300.00	90.00	269.12	6636.50	6124.61	-63.77	-6124.28	0.00	1446320.86	3301567.14	40.553485	-104.414730
	12400.00	90.00	269.12	6636.50	6224.61	-65.31	-6224.27	0.00	1446319.31	3301467.15	40.553484	-104.415090
	12500.00	90.00	269.12	6636.50	6324.61	-66.86	-6324.26	0.00	1446317.77	3301367.17	40.553483	-104.415449
	12600.00	90.00	269.12	6636.50	6424.61	-68.40	-6424.24	0.00	1446316.23	3301267.18	40.553482	-104.415809
	12700.00	90.00	269.12	6636.50	6524.60	-69.94	-6524.23	0.00	1446314.68	3301167.20	40.553481	-104.416169
	12800.00	90.00	269.12	6636.50	6624.60	-71.49	-6624.22	0.00	1446313.14	3301067.21	40.553480	-104.416529
	12900.00	90.00	269.12	6636.50	6724.60	-73.03	-6724.21	0.00	1446311.60	3300967.23	40.553480	-104.416889
	13000.00	90.00	269.12	6636.50	6824.60	-74.57	-6824.20	0.00	1446310.05	3300867.24	40.553479	-104.417249
	13100.00	90.00	269.12	6636.50	6924.60	-76.12	-6924.18	0.00	1446308.51	3300767.26	40.553478	-104.417609
	13200.00	90.00	269.12	6636.50	7024.60	-77.66	-7024.17	0.00	1446306.97	3300667.27	40.553477	-104.417968
	13300.00	90.00	269.12	6636.50	7124.60	-79.20	-7124.16	0.00	1446305.42	3300567.29	40.553476	-104.418328
	13400.00	90.00	269.12	6636.50	7224.60	-80.75	-7224.15	0.00	1446303.88	3300467.30	40.553475	-104.418688
	13500.00	90.00	269.12	6636.50	7324.60	-82.29	-7324.14	0.00	1446302.34	3300367.32	40.553474	-104.419048
	13600.00	90.00	269.12	6636.50	7424.60	-83.83	-7424.12	0.00	1446300.79	3300267.33	40.553473	-104.419408
	13700.00	90.00	269.12	6636.50	7524.60	-85.38	-7524.11	0.00	1446299.25	3300167.35	40.553472	-104.419768
	13800.00	90.00	269.12	6636.50	7624.60	-86.92	-7624.10	0.00	1446297.71	3300067.36	40.553472	-104.420128
	13900.00	90.00	269.12	6636.50	7724.60	-88.47	-7724.09	0.00	1446296.16	3299967.38	40.553471	-104.420487
Harvey 7-63-23- 5760BE BHL	13968.51	90.00	269.12	6636.50	7793.11	-89.52	-7792.60	0.00	1446295.10	3299868.87	40.553470	-104.420734

Survey Type: Def Plan

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

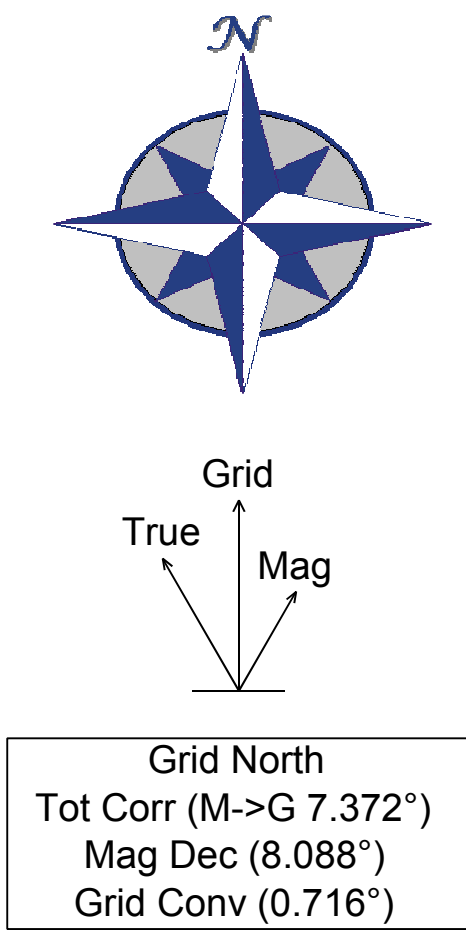
Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	20.200	1/100.000	13.500	9.625		NAL_MWD_PLUS_0.5_DEG- Depth Only	Original Hole / Harvey 7-63-23- 5760BE R0 mdv 08Nov16</



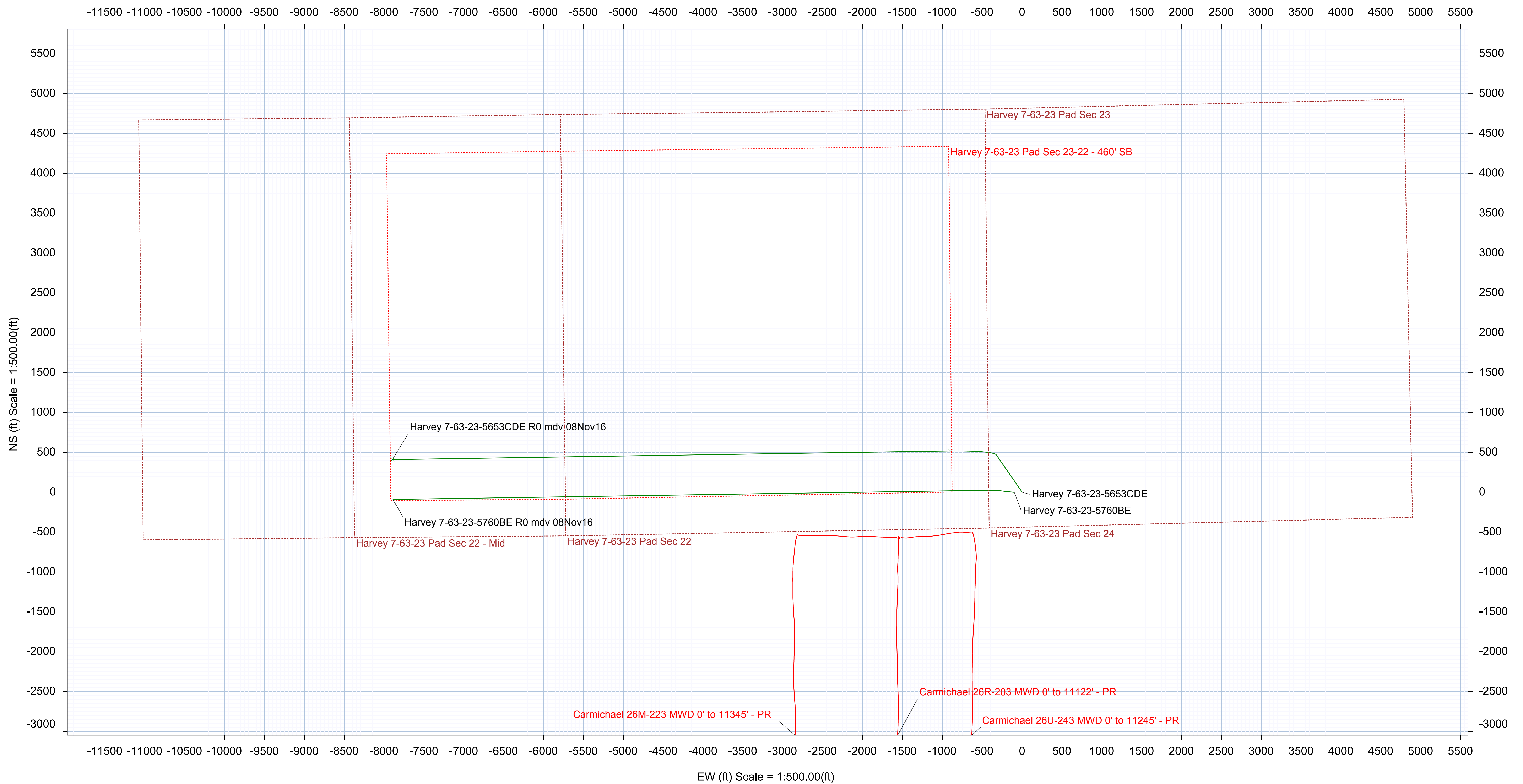
Crescent Point Energy



Borehole:					Well:					Field:					Structure:																
Original Hole					Harvey 7-63-23-5653CDE					CO, Weld County (NAD 83 NZ)					24-07N-63W (Harvey 7-63-23 Pad)																
Gravity & Magnetic Parameters										Surface Location					NAD83 Colorado State Plane, Northern Zone, US Feet					Miscellaneous											
Model:		HDGM 2016		Dip:		67.016°		Date:		08-Nov-2016		Lat:		N 40 33 12.43		Northing:		1446385.87ftUS		Grid Conv:		0.7157°		Slot:		Harvey 7-63-23-5653CDE		TVD Ref:		KB 20.2ft(4806.5ft above MSL)	
MagDec:		8.088°		FS:		52414.992nT		Gravity FS:		999.07mgn (9.80665 Based)		Lon:		W 104 23 32.39		Easting:		3307791.26ftUS		Scale Fact:		0.99997077		Plan:		Harvey 7-63-23-5653CDE R0 mdv 08Nov16					



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



Harvey 7-63-23-5760BE R0 mdv 08Nov16 Anti-Collision Summary Report

Analysis Date-24hr Time: November 08, 2016 - 12:59
Client: Crescent Point Energy
Field: CO, Weld County (NAD 83 NZ)
Structure: Crescent Point 24-07N-63W (Harvey 7-63-23 Pad)
Slot: Harvey 7-63-23-5760BE
Well: Harvey 7-63-23-5760BE
Borehole: Original Hole
Scan MD Range: 0.00ft ~ 13968.51ft

Analysis Method: 3D Least Distance
Reference Trajectory: Harvey 7-63-23-5760BE R0 mdv 08Nov16 (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: 2.10.254.0
Database \ Project: us1164app01.dir.slb.com/drilling-CO, Weld County 2.10

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

Offset Selection Criteria

Wellhead distance scan: Restricted within 54979.01 ft
 Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans
 - All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectories Summary

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
Harvey 7-63-23-5653CDE R0 mdv 08Nov16 (Def Plan)													
													Warning Alert
100.04	32.81	99.06	67.23	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
100.04	32.81	99.06	67.23	N/A	MAS = 10.00 (m)	20.20	20.20					WRP	
100.04	32.81	92.22	67.23	14.50	MAS = 10.00 (m)	1500.00	1500.00					MinPts	
100.06	32.81	92.20	67.25	14.41	MAS = 10.00 (m)	1520.00	1520.00					MINPT-O-EOU	
104.50	32.81	95.46	71.69	12.85	MAS = 10.00 (m)	2000.00	1999.54					MINPT-O-EOU	
129.77	32.81	117.44	96.96	11.39	MAS = 10.00 (m)	2740.00	2738.63					MinPt-O-SF	
535.45	161.73	427.30	373.72	4.99	OSF1.50	10000.00	6636.50	OSF<5.00				Enter Alert	
535.46	353.30	299.60	182.16	2.28	OSF1.50	13968.51	6636.50					MinPts	
Carmichael 26U-243 MWD 0' to 11245' - PR (Def Survey)													
													Pass
1525.88	32.81	1524.07	1493.08	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
1525.77	32.81	1523.94	1492.96	82770.22	MAS = 10.00 (m)	10.00	10.00					MinPt-O-EOU	
1525.72	32.81	1523.90	1492.91	206912.21	MAS = 10.00 (m)	20.00	20.00					MINPT-O-EOU	
1525.72	32.81	1523.90	1492.91	222677.70	MAS = 10.00 (m)	20.20	20.20					WRP	
1525.72	32.81	1523.88	1492.91	69958.81	MAS = 10.00 (m)	30.00	30.00					MinPts	
606.82	40.76	578.96	566.05	23.44	OSF1.50	5790.00	5784.89					MinPt-CtCt	
606.83	40.81	578.94	566.02	23.41	OSF1.50	5800.00	5794.88					MINPT-O-EOU	
606.88	40.86	578.95	566.02	23.38	OSF1.50	5810.00	5804.87					MinPt-O-ADP	
610.46	41.49	582.12	568.96	23.13	OSF1.50	5950.00	5944.69					MinPt-O-SF	
7320.15	53.31	7284.11	7266.84	211.91	OSF1.50	13968.51	6636.50					TD	
Carmichael 26M-223 MWD 0' to 11345' - PR (Def Survey)													
													Pass
1575.23	32.81	1573.42	1542.42	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
1575.12	32.81	1573.29	1542.31	88214.59	MAS = 10.00 (m)	10.00	10.00					MinPt-O-SF	
1575.07	32.81	1573.25	1542.27	220523.13	MAS = 10.00 (m)	20.00	20.00					MINPT-O-EOU	
1575.07	32.81	1573.25	1542.26	237325.71	MAS = 10.00 (m)	20.20	20.20					MinPts	
1575.11	32.81	1573.23	1542.30	22131.28	MAS = 10.00 (m)	50.00	50.00					MINPT-O-EOU	
2565.71	42.93	2536.55	2522.78	93.09	OSF1.50	6040.00	6034.58					MinPt-CtCt	
2565.75	43.05	2536.51	2522.70	92.82	OSF1.50	6060.00	6054.56					MINPT-O-EOU	
2565.80	43.11	2536.53	2522.69	92.69	OSF1.50	6070.00	6064.55					MinPt-O-ADP	
742.05	84.19	685.42	657.86	13.43	OSF1.50	8930.00	6636.50					MinPt-CtCt	
742.13	84.43	685.35	657.71	13.40	OSF1.50	8940.00	6636.50					MINPT-O-EOU	
742.35	84.66	685.41	657.70	13.36	OSF1.50	8950.00	6636.50					MinPt-O-ADP	
748.90	86.13	690.98	662.77	13.25	OSF1.50	9030.00	6636.50					MinPt-O-SF	
4380.00	66.90	4334.90	4313.10	100.43	OSF1.50	13250.00	6636.50					MinPt-O-SF	
5088.01	66.99	5042.84	5021.02	116.51	OSF1.50	13968.51	6636.50					TD	
Carmichael 26R-203 MWD 0' to 11122' - PR (Def Survey)													
													Pass
1554.43	32.81	1552.61	1521.62	N/A	MAS = 10.00 (m)	0.00	0.00					Surface	
1554.31	32.81	1552.48	1521.51	85898.03	MAS = 10.00 (m)	10.00	10.00					MinPt-O-SF	
1554.27	32.81	1552.45	1521.46	214731.75	MAS = 10.00 (m)	20.00	20.00					MINPT-O-EOU	
1554.27	32.81	1552.45	1521.46	231093.05	MAS = 10.00 (m)	20.20	20.20					WRP	
1550.79	32.81	1543.33	1517.98	274.53	MAS = 10.00 (m)	990.00	990.00					MINPT-O-EOU	
1549.80	32.81	1542.26	1516.99	261.11	MAS = 10.00 (m)	1100.00	1100.00					MinPt-O-SF	
1515.52	32.81	1506.99	1482.72	219.24	MAS = 10.00 (m)	2110.00	2109.41					MinPt-O-SF	
1355.15	33.15	1332.45	1322.00	64.79	OSF1.50	5970.00	5964.67					MinPts	
1355.20	33.21	1332.45	1321.99	64.66	OSF1.50	5980.00	5974.66					MinPt-O-ADP	
792.98	44.52	762.80	748.46	27.60	OSF1.50	7640.00	6636.50					MinPt-CtCt	
793.05	44.64	762.79	748.41	27.53	OSF1.50	7650.00	6636.50					MinPts	
813.24	46.67	781.62	766.57	26.96	OSF1.50	7820.00	6636.50					MinPt-O-SF	
6378.38	53.15	6342.44	6325.22	185.20	OSF1.50	13968.51	6636.50					TD	