

# Wellpath Geographic Report

Report Date:	30-Jan-04	Grid Convergence Angle:	1.05 deg
Client:	ChevronTexaco	Grid Scale Factor:	0.999664
Field:	Captain	Survey / DLS Computation Method:	Minimum Curvature
Structure / Slot:	Captain WPP / Slot #11	Vertical Section Azimuth:	143.63 deg
Well Name:	13/22a-C20z	Vertical Section Origin:	8.64S, 3.06W
Wellbore Name:	13/22a-C20z (AWB)	TVD Reference Datum:	RKB
Wellpath Name:	13/22a-C20z Definitive Survey	TVD Reference Elevation:	Rig ( Captain WPP 155.0ft above Mean Sea Level )
Grid Coordinate System:	European Datum 1950 / UTM Zone 30 N	Sea Bed / Ground Level Elevation:	-345.50 ft to Mean Sea Level
Slot Location Lat/Long:	N58 18 26.8455, W1 46 6.7593	North Reference:	Grid
Slot Location Grid N/E Y/X:	6463748.6070 m, 572166.4980 m	Local Coordinates Referenced To:	Installation

							Grid Coordinates		Geographic Coordinates		DLS (deg/100ft)	VS (ft)	Comment
MD (ft)	Inc (deg)	Azi (deg)	TVD (ft)	TVD(SS) (ft)	N/-S (ft)	E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude			
0.00	0.00	0.00	0.00	-155.00	-8.64	-3.06	6463748.610	572166.500	N58 18 26.8455	W1 46 6.7593	0.00	0.00	
500.50	0.00	0.00	500.50	345.50	-8.64	-3.06	6463748.610	572166.500	N58 18 26.8455	W1 46 6.7593	0.00	0.00	
510.00	0.34	134.29	510.00	355.00	-8.66	-3.04	6463748.600	572166.500	N58 18 26.8453	W1 46 6.7589	3.58	0.03	
525.00	0.45	121.34	525.00	370.00	-8.72	-2.96	6463748.580	572166.530	N58 18 26.8446	W1 46 6.7574	0.94	0.13	
540.00	0.56	125.88	540.00	385.00	-8.80	-2.85	6463748.560	572166.560	N58 18 26.8439	W1 46 6.7554	0.78	0.25	
555.00	0.66	121.89	555.00	400.00	-8.88	-2.71	6463748.530	572166.600	N58 18 26.8430	W1 46 6.7529	0.72	0.40	
570.00	0.86	126.25	570.00	415.00	-9.00	-2.55	6463748.500	572166.650	N58 18 26.8419	W1 46 6.7499	1.39	0.59	
585.00	1.08	117.64	585.00	429.99	-9.13	-2.33	6463748.460	572166.720	N58 18 26.8405	W1 46 6.7459	1.76	0.82	
600.00	1.18	122.13	599.99	444.99	-9.28	-2.08	6463748.410	572166.800	N58 18 26.8390	W1 46 6.7412	0.89	1.09	
615.00	0.93	122.84	614.99	459.99	-9.43	-1.85	6463748.370	572166.870	N58 18 26.8375	W1 46 6.7368	1.67	1.35	
630.00	1.13	122.73	629.99	474.99	-9.57	-1.62	6463748.320	572166.940	N58 18 26.8360	W1 46 6.7326	1.33	1.60	
645.00	1.33	115.70	644.98	489.98	-9.73	-1.34	6463748.280	572167.020	N58 18 26.8345	W1 46 6.7274	1.67	1.89	
660.00	1.47	118.14	659.98	504.98	-9.89	-1.01	6463748.230	572167.120	N58 18 26.8328	W1 46 6.7214	1.01	2.22	
675.00	1.55	118.04	674.97	519.97	-10.08	-0.66	6463748.170	572167.230	N58 18 26.8309	W1 46 6.7149	0.53	2.58	
700.00	1.69	127.63	699.96	544.96	-10.46	-0.07	6463748.050	572167.410	N58 18 26.8270	W1 46 6.7040	1.22	3.24	
725.00	2.39	131.95	724.95	569.95	-11.04	0.61	6463747.880	572167.620	N58 18 26.8212	W1 46 6.6915	2.86	4.10	
750.00	3.09	136.26	749.92	594.92	-11.87	1.46	6463747.620	572167.880	N58 18 26.8128	W1 46 6.6758	2.92	5.28	
775.00	3.73	138.10	774.88	619.87	-12.96	2.47	6463747.290	572168.180	N58 18 26.8019	W1 46 6.6573	2.60	6.76	
800.00	4.37	139.95	799.81	644.81	-14.30	3.63	6463746.880	572168.540	N58 18 26.7885	W1 46 6.6361	2.61	8.52	
825.00	5.14	139.92	824.73	669.73	-15.88	4.96	6463746.400	572168.940	N58 18 26.7727	W1 46 6.6117	3.08	10.59	
850.00	5.90	139.90	849.61	694.61	-17.72	6.51	6463745.840	572169.410	N58 18 26.7543	W1 46 6.5833	3.04	12.99	
875.00	6.58	139.34	874.46	719.46	-19.79	8.27	6463745.210	572169.950	N58 18 26.7336	W1 46 6.5511	2.73	15.70	
900.00	7.26	138.79	899.28	744.28	-22.07	10.24	6463744.520	572170.550	N58 18 26.7108	W1 46 6.5149	2.73	18.70	
925.00	7.97	138.50	924.06	769.06	-24.56	12.43	6463743.760	572171.220	N58 18 26.6859	W1 46 6.4748	2.84	22.00	
950.00	8.67	138.20	948.79	793.80	-27.26	14.84	6463742.930	572171.950	N58 18 26.6589	W1 46 6.4308	2.81	25.60	
975.00	9.19	137.36	973.49	818.49	-30.13	17.45	6463742.060	572172.750	N58 18 26.6301	W1 46 6.3829	2.14	29.46	
1000.00	9.71	136.52	998.15	843.15	-33.13	20.25	6463741.150	572173.600	N58 18 26.6001	W1 46 6.3315	2.15	33.54	
1025.00	10.18	135.85	1022.78	867.78	-36.24	23.24	6463740.200	572174.510	N58 18 26.5689	W1 46 6.2766	1.94	37.82	

MD (ft)	Inc (deg)	Azi (deg)	TVD (ft)	TVD(SS) (ft)	N/S (ft)	E/W (ft)	Grid Coordinates		Geographic Coordinates		DLS (deg/100ft)	VS (ft)	Comment
							Northing (m)	Easting (m)	Latitude	Longitude			
1050.00	10.65	135.18	1047.37	892.37	-39.47	26.41	6463739.210	572175.480	N58 18 26.5365	W1 46 6.2185	1.94	42.29	
1075.00	11.25	134.22	1071.91	916.91	-42.81	29.78	6463738.200	572176.500	N58 18 26.5030	W1 46 6.1564	2.51	46.99	
1100.00	11.86	133.27	1096.40	941.40	-46.27	33.40	6463737.140	572177.610	N58 18 26.4683	W1 46 6.0899	2.56	51.92	
1125.00	12.35	133.14	1120.85	965.85	-49.86	37.22	6463736.050	572178.770	N58 18 26.4322	W1 46 6.0196	1.96	57.07	
1150.00	12.85	133.02	1145.24	990.25	-53.58	41.20	6463734.910	572179.990	N58 18 26.3948	W1 46 5.9464	2.00	62.44	
1175.00	13.71	132.65	1169.58	1014.58	-57.49	45.42	6463733.720	572181.270	N58 18 26.3556	W1 46 5.8689	3.46	68.08	
1200.00	14.58	132.27	1193.82	1038.82	-61.61	49.92	6463732.470	572182.640	N58 18 26.3142	W1 46 5.7860	3.50	74.07	
1225.00	15.69	131.98	1217.95	1062.95	-65.99	54.77	6463731.130	572184.120	N58 18 26.2702	W1 46 5.6969	4.45	80.47	
1250.00	16.81	131.69	1241.95	1086.95	-70.65	59.98	6463729.710	572185.710	N58 18 26.2233	W1 46 5.6009	4.49	87.31	
1275.00	17.60	131.39	1265.83	1110.83	-75.56	65.51	6463728.220	572187.390	N58 18 26.1740	W1 46 5.4990	3.18	94.54	
1300.00	18.43	131.44	1289.61	1134.61	-80.67	71.31	6463726.660	572189.160	N58 18 26.1226	W1 46 5.3923	3.32	102.10	
1325.00	19.38	131.86	1313.26	1158.26	-86.06	77.36	6463725.020	572191.000	N58 18 26.0685	W1 46 5.2809	3.84	110.02	
1350.00	20.39	131.19	1336.77	1181.77	-91.69	83.73	6463723.300	572192.940	N58 18 26.0118	W1 46 5.1637	4.14	118.34	
1375.00	21.28	131.00	1360.13	1205.13	-97.54	90.43	6463721.520	572194.980	N58 18 25.9531	W1 46 5.0403	3.57	127.02	
1400.00	21.78	131.09	1383.39	1228.39	-103.56	97.35	6463719.690	572197.090	N58 18 25.8925	W1 46 4.9128	2.00	135.97	
1425.00	21.24	130.97	1406.65	1251.65	-109.58	104.27	6463717.850	572199.200	N58 18 25.8320	W1 46 4.7855	2.17	144.92	
1450.00	19.60	129.74	1430.08	1275.07	-115.23	110.91	6463716.130	572201.220	N58 18 25.7751	W1 46 4.6631	6.78	153.41	
1475.00	18.08	128.91	1453.73	1298.73	-120.35	117.15	6463714.570	572203.130	N58 18 25.7236	W1 46 4.5480	6.17	161.23	
1500.00	18.24	128.61	1477.49	1322.49	-125.22	123.23	6463713.080	572204.980	N58 18 25.6744	W1 46 4.4360	0.74	168.76	
1525.00	19.26	128.44	1501.16	1346.16	-130.23	129.52	6463711.560	572206.890	N58 18 25.6240	W1 46 4.3201	4.09	176.52	
1550.00	20.58	128.08	1524.67	1369.67	-135.50	136.21	6463709.950	572208.930	N58 18 25.5709	W1 46 4.1967	5.30	184.73	
1575.00	22.19	128.33	1547.94	1392.94	-141.14	143.37	6463708.230	572211.110	N58 18 25.5140	W1 46 4.0646	6.45	193.52	
1600.00	23.53	128.11	1570.98	1415.98	-147.15	151.00	6463706.400	572213.440	N58 18 25.4535	W1 46 3.9239	5.37	202.88	
1625.00	24.64	128.05	1593.80	1438.80	-153.44	159.03	6463704.490	572215.890	N58 18 25.3901	W1 46 3.7758	4.44	212.71	
1650.00	25.37	128.39	1616.46	1461.46	-159.98	167.33	6463702.490	572218.420	N58 18 25.3242	W1 46 3.6227	2.98	222.89	
1675.00	26.68	128.56	1638.92	1483.92	-166.80	175.92	6463700.420	572221.030	N58 18 25.2554	W1 46 3.4643	5.25	233.48	
1700.00	28.05	129.20	1661.13	1506.13	-174.02	184.86	6463698.220	572223.760	N58 18 25.1827	W1 46 3.2994	5.60	244.59	
1725.00	29.00	129.26	1683.09	1528.09	-181.57	194.11	6463695.920	572226.570	N58 18 25.1067	W1 46 3.1290	3.80	256.16	
1750.00	29.57	129.55	1704.90	1549.90	-189.33	203.56	6463693.550	572229.450	N58 18 25.0285	W1 46 2.9548	2.35	268.01	
1775.00	29.92	129.44	1726.60	1571.60	-197.22	213.13	6463691.150	572232.370	N58 18 24.9491	W1 46 2.7784	1.42	280.04	
1800.00	31.33	129.48	1748.12	1593.11	-205.31	222.96	6463688.680	572235.370	N58 18 24.8676	W1 46 2.5972	5.64	292.39	
1825.00	33.36	129.30	1769.23	1614.23	-213.80	233.30	6463686.100	572238.520	N58 18 24.7822	W1 46 2.4067	8.13	305.35	
1850.00	34.82	129.74	1789.94	1634.94	-222.72	244.11	6463683.380	572241.810	N58 18 24.6924	W1 46 2.2075	5.92	318.94	
1875.00	36.17	129.96	1810.29	1655.29	-232.02	255.25	6463680.540	572245.200	N58 18 24.5988	W1 46 2.0021	5.42	333.04	
1900.00	37.89	130.24	1830.25	1675.25	-241.72	266.77	6463677.590	572248.710	N58 18 24.5012	W1 46 1.7900	6.91	347.67	
1925.00	39.94	130.37	1849.70	1694.70	-251.88	278.74	6463674.490	572252.360	N58 18 24.3990	W1 46 1.5694	8.21	362.95	
1950.00	41.00	130.60	1868.72	1713.72	-262.41	291.08	6463671.280	572256.120	N58 18 24.2930	W1 46 1.3420	4.28	378.75	
1975.00	41.89	130.94	1887.46	1732.46	-273.22	303.61	6463667.990	572259.940	N58 18 24.1843	W1 46 1.1113	3.67	394.89	
2000.00	43.55	131.24	1905.82	1750.82	-284.36	316.40	6463664.590	572263.840	N58 18 24.0722	W1 46 0.8759	6.69	411.44	
2025.00	44.90	131.67	1923.74	1768.74	-295.91	329.46	6463661.080	572267.820	N58 18 23.9561	W1 46 0.6353	5.53	428.49	
2050.00	45.14	131.94	1941.41	1786.41	-307.70	342.64	6463657.490	572271.830	N58 18 23.8376	W1 46 0.3927	1.23	445.79	
2075.00	46.16	132.24	1958.89	1803.89	-319.68	355.91	6463653.830	572275.880	N58 18 23.7172	W1 46 0.1486	4.17	463.31	
2100.00	47.87	132.58	1975.93	1820.93	-332.01	369.41	6463650.080	572279.990	N58 18 23.5933	W1 45 59.9001	6.91	481.25	
2125.00	49.17	133.04	1992.49	1837.49	-344.74	383.15	6463646.200	572284.180	N58 18 23.4655	W1 45 59.6474	5.38	499.64	

MD (ft)	Inc (deg)	Azi (deg)	TVD (ft)	TVD(SS) (ft)	N/S (ft)	E/W (ft)	Grid Coordinates		Geographic Coordinates		DLS (deg/100ft)	VS (ft)	Comment
							Northing (m)	Easting (m)	Latitude	Longitude			
2150.00	49.49	133.27	2008.78	1853.78	-357.71	396.99	6463642.250	572288.390	N58 18 23.3352	W1 45 59.3930	1.46	518.29	
2175.00	51.05	133.30	2024.76	1869.76	-370.89	410.98	6463638.230	572292.650	N58 18 23.2029	W1 45 59.1356	6.24	537.20	
2200.00	53.04	133.47	2040.14	1885.14	-384.43	425.31	6463634.100	572297.020	N58 18 23.0669	W1 45 58.8722	7.98	556.60	
2225.00	53.57	133.49	2055.07	1900.07	-398.23	439.85	6463629.900	572301.450	N58 18 22.9284	W1 45 58.6048	2.12	576.33	
2250.00	54.10	133.52	2069.83	1914.83	-412.12	454.49	6463625.670	572305.910	N58 18 22.7889	W1 45 58.3356	2.12	596.20	
2275.00	56.06	133.72	2084.14	1929.14	-426.26	469.33	6463621.360	572310.430	N58 18 22.6470	W1 45 58.0628	7.87	616.38	
2300.00	57.99	133.69	2097.74	1942.74	-440.75	484.49	6463616.940	572315.050	N58 18 22.5015	W1 45 57.7841	7.72	637.04	
2325.00	58.53	133.84	2110.90	1955.90	-455.46	499.84	6463612.460	572319.730	N58 18 22.3539	W1 45 57.5018	2.22	657.99	
2350.00	59.16	133.67	2123.83	1968.83	-470.26	515.30	6463607.950	572324.440	N58 18 22.2054	W1 45 57.2177	2.59	679.07	
2375.00	61.22	133.62	2136.26	1981.26	-485.23	530.99	6463603.390	572329.220	N58 18 22.0551	W1 45 56.9292	8.24	700.43	
2400.00	63.03	133.56	2147.95	1992.94	-500.46	547.00	6463598.750	572334.100	N58 18 21.9021	W1 45 56.6349	7.24	722.19	
2425.00	63.46	133.68	2159.20	2004.20	-515.86	563.16	6463594.060	572339.020	N58 18 21.7475	W1 45 56.3378	1.77	744.17	
2450.00	64.50	133.78	2170.17	2015.17	-531.39	579.39	6463589.330	572343.970	N58 18 21.5917	W1 45 56.0393	4.18	766.30	
2475.00	66.71	133.95	2180.49	2025.49	-547.17	595.81	6463584.520	572348.970	N58 18 21.4333	W1 45 55.7376	8.86	788.74	
2500.00	68.11	133.97	2190.09	2035.09	-563.19	612.42	6463579.640	572354.030	N58 18 21.2725	W1 45 55.4322	5.60	811.49	
2525.00	68.00	134.05	2199.44	2044.44	-579.30	629.10	6463574.730	572359.120	N58 18 21.1108	W1 45 55.1257	0.53	834.35	
2550.00	69.27	134.39	2208.55	2053.54	-595.54	645.78	6463569.780	572364.200	N58 18 20.9479	W1 45 54.8190	5.24	857.32	
2575.00	71.59	134.46	2216.92	2061.92	-612.03	662.61	6463564.760	572369.320	N58 18 20.7824	W1 45 54.5099	9.28	880.57	
2600.00	72.84	134.71	2224.55	2069.55	-628.74	679.56	6463559.670	572374.490	N58 18 20.6148	W1 45 54.1984	5.09	904.08	
2625.00	73.02	134.72	2231.89	2076.89	-645.55	696.54	6463554.540	572379.660	N58 18 20.4461	W1 45 53.8864	0.72	927.69	
2650.00	74.43	135.05	2238.90	2083.90	-662.49	713.54	6463549.380	572384.850	N58 18 20.2762	W1 45 53.5741	5.78	951.41	
2675.00	75.20	135.29	2245.45	2090.45	-679.60	730.55	6463544.170	572390.030	N58 18 20.1046	W1 45 53.2617	3.22	975.27	
2700.00	75.38	135.19	2251.80	2096.80	-696.77	747.58	6463538.940	572395.220	N58 18 19.9324	W1 45 52.9490	0.82	999.19	
2725.00	75.69	135.26	2258.04	2103.04	-713.95	764.63	6463533.700	572400.410	N58 18 19.7601	W1 45 52.6358	1.27	1023.14	
2750.00	75.79	135.22	2264.20	2109.20	-731.16	781.69	6463528.460	572405.610	N58 18 19.5876	W1 45 52.3225	0.43	1047.11	
2775.00	76.08	135.20	2270.27	2115.27	-748.37	798.78	6463523.210	572410.820	N58 18 19.4150	W1 45 52.0087	1.16	1071.10	
2800.00	76.29	135.17	2276.24	2121.24	-765.59	815.89	6463517.970	572416.030	N58 18 19.2423	W1 45 51.6945	0.85	1095.11	
2825.00	76.47	134.99	2282.13	2127.13	-782.79	833.04	6463512.730	572421.260	N58 18 19.0697	W1 45 51.3794	1.00	1119.14	
2850.00	76.62	135.19	2287.95	2132.95	-800.01	850.21	6463507.480	572426.490	N58 18 18.8970	W1 45 51.0641	0.98	1143.18	
2875.00	76.59	135.87	2293.74	2138.74	-817.37	867.25	6463502.190	572431.680	N58 18 18.7230	W1 45 50.7512	2.65	1167.26	
2900.00	76.34	136.59	2299.59	2144.59	-834.92	884.06	6463496.840	572436.800	N58 18 18.5471	W1 45 50.4427	2.97	1191.36	
2925.00	76.53	136.96	2305.45	2150.45	-852.63	900.70	6463491.450	572441.870	N58 18 18.3696	W1 45 50.1373	1.63	1215.49	
2950.00	76.87	136.91	2311.20	2156.21	-870.40	917.32	6463486.030	572446.930	N58 18 18.1916	W1 45 49.8326	1.37	1239.66	
2975.00	76.90	136.97	2316.88	2161.88	-888.19	933.94	6463480.610	572452.000	N58 18 18.0133	W1 45 49.5276	0.26	1263.84	
3000.00	76.93	137.02	2322.54	2167.54	-906.00	950.55	6463475.180	572457.060	N58 18 17.8350	W1 45 49.2230	0.23	1288.03	
3025.00	77.04	136.92	2328.17	2173.17	-923.80	967.17	6463469.760	572462.120	N58 18 17.6566	W1 45 48.9181	0.59	1312.22	
3050.00	77.17	137.00	2333.75	2178.75	-941.62	983.80	6463464.330	572467.190	N58 18 17.4781	W1 45 48.6130	0.61	1336.42	
3075.00	77.34	137.02	2339.26	2184.26	-959.45	1000.43	6463458.900	572472.260	N58 18 17.2995	W1 45 48.3080	0.68	1360.64	
3100.00	77.65	136.85	2344.68	2189.68	-977.28	1017.10	6463453.460	572477.340	N58 18 17.1208	W1 45 48.0023	1.41	1384.88	
3125.00	77.79	136.94	2349.99	2194.99	-995.12	1033.79	6463448.030	572482.420	N58 18 16.9421	W1 45 47.6961	0.66	1409.14	
3150.00	77.67	136.94	2355.30	2200.31	-1012.97	1050.47	6463442.590	572487.500	N58 18 16.7633	W1 45 47.3901	0.48	1433.41	
3175.00	76.90	136.83	2360.81	2205.81	-1030.77	1067.14	6463437.170	572492.580	N58 18 16.5850	W1 45 47.0844	3.11	1457.62	
3200.00	76.70	136.53	2366.52	2211.52	-1048.48	1083.83	6463431.770	572497.670	N58 18 16.4075	W1 45 46.7780	1.42	1481.78	
3225.00	76.88	136.47	2372.23	2217.23	-1066.13	1100.59	6463426.390	572502.780	N58 18 16.2306	W1 45 46.4706	0.76	1505.93	

MD (ft)	Inc (deg)	Azi (deg)	TVD (ft)	TVD(SS) (ft)	N-S (ft)	E-W (ft)	Grid Coordinates		Geographic Coordinates		DLS (deg/100ft)	VS (ft)	Comment
							Northing (m)	Easting (m)	Latitude	Longitude			
3250.00	77.05	136.55	2377.87	2222.87	-1083.80	1117.35	6463421.010	572507.880	N58 18 16.0535	W1 45 46.1630	0.75	1530.10	
3275.00	77.14	136.55	2383.45	2228.45	-1101.49	1134.11	6463415.620	572512.990	N58 18 15.8763	W1 45 45.8555	0.36	1554.28	
3300.00	77.24	136.70	2388.99	2233.99	-1119.21	1150.85	6463410.220	572518.090	N58 18 15.6987	W1 45 45.5484	0.71	1578.48	
3325.00	77.86	136.38	2394.38	2239.38	-1136.93	1167.64	6463404.820	572523.210	N58 18 15.5211	W1 45 45.2403	2.78	1602.70	
3350.00	77.81	136.46	2399.65	2244.65	-1154.63	1184.49	6463399.430	572528.340	N58 18 15.3437	W1 45 44.9311	0.37	1626.95	
3375.00	77.95	136.50	2404.90	2249.90	-1172.36	1201.32	6463394.030	572533.470	N58 18 15.1661	W1 45 44.6223	0.58	1651.20	
3400.00	78.05	136.29	2410.10	2255.10	-1190.07	1218.19	6463388.630	572538.610	N58 18 14.9887	W1 45 44.3128	0.91	1675.46	
3425.00	78.20	136.24	2415.24	2260.24	-1207.74	1235.10	6463383.240	572543.760	N58 18 14.8115	W1 45 44.0024	0.63	1699.72	
3450.00	78.93	136.17	2420.20	2265.20	-1225.43	1252.06	6463377.850	572548.930	N58 18 14.6342	W1 45 43.6912	2.93	1724.02	
3475.00	78.63	136.29	2425.07	2270.06	-1243.14	1269.02	6463372.460	572554.100	N58 18 14.4567	W1 45 43.3799	1.29	1748.34	
3500.00	77.83	136.45	2430.16	2275.16	-1260.85	1285.91	6463367.060	572559.240	N58 18 14.2792	W1 45 43.0700	3.26	1772.62	
3525.00	77.55	136.56	2435.49	2280.49	-1278.57	1302.72	6463361.660	572564.370	N58 18 14.1016	W1 45 42.7615	1.20	1796.85	
3550.00	77.54	136.56	2440.89	2285.89	-1296.30	1319.51	6463356.260	572569.480	N58 18 13.9240	W1 45 42.4536	0.04	1821.08	
3575.00	77.86	136.53	2446.21	2291.21	-1314.03	1336.31	6463350.860	572574.600	N58 18 13.7463	W1 45 42.1453	1.29	1845.32	
3600.00	77.83	136.61	2451.48	2296.48	-1331.78	1353.11	6463345.450	572579.720	N58 18 13.5685	W1 45 41.8371	0.34	1869.57	
3625.00	78.03	136.60	2456.70	2301.70	-1349.54	1369.90	6463340.040	572584.840	N58 18 13.3905	W1 45 41.5289	0.80	1893.84	
3650.00	78.12	136.62	2461.87	2306.87	-1367.32	1386.71	6463334.620	572589.960	N58 18 13.2123	W1 45 41.2206	0.37	1918.11	
3675.00	78.59	136.41	2466.92	2311.92	-1385.08	1403.56	6463329.210	572595.090	N58 18 13.0343	W1 45 40.9115	2.05	1942.41	
3700.00	78.43	136.69	2471.90	2316.90	-1402.87	1420.40	6463323.790	572600.220	N58 18 12.8561	W1 45 40.6024	1.27	1966.72	
3725.00	77.48	137.09	2477.11	2322.11	-1420.71	1437.11	6463318.350	572605.310	N58 18 12.6772	W1 45 40.2959	4.11	1991.00	
3750.00	77.31	137.39	2482.57	2327.57	-1438.63	1453.68	6463312.890	572610.360	N58 18 12.4978	W1 45 39.9921	1.35	2015.25	
3775.00	77.60	137.35	2488.00	2333.00	-1456.58	1470.20	6463307.420	572615.400	N58 18 12.3180	W1 45 39.6891	1.17	2039.50	
3800.00	77.72	137.31	2493.34	2338.34	-1474.54	1486.76	6463301.950	572620.440	N58 18 12.1381	W1 45 39.3855	0.50	2063.78	
3825.00	78.40	137.23	2498.51	2343.51	-1492.51	1503.35	6463296.480	572625.500	N58 18 11.9582	W1 45 39.0812	2.74	2088.09	
3850.00	78.36	137.19	2503.55	2348.55	-1510.48	1519.99	6463291.000	572630.570	N58 18 11.7781	W1 45 38.7761	0.22	2112.42	
3875.00	78.60	137.30	2508.54	2353.54	-1528.46	1536.62	6463285.520	572635.630	N58 18 11.5980	W1 45 38.4712	1.05	2136.77	
3900.00	78.84	137.28	2513.43	2358.43	-1546.48	1553.25	6463280.030	572640.700	N58 18 11.4175	W1 45 38.1662	0.96	2161.13	
3925.00	78.31	137.36	2518.38	2363.38	-1564.49	1569.86	6463274.540	572645.760	N58 18 11.2371	W1 45 37.8616	2.14	2185.49	
3950.00	78.19	137.49	2523.47	2368.47	-1582.52	1586.42	6463269.050	572650.810	N58 18 11.0565	W1 45 37.5580	0.70	2209.82	
3975.00	78.35	137.61	2528.56	2373.56	-1600.58	1602.94	6463263.550	572655.840	N58 18 10.8757	W1 45 37.2551	0.79	2234.16	
4000.00	78.31	137.75	2533.61	2378.61	-1618.68	1619.42	6463258.030	572660.860	N58 18 10.6944	W1 45 36.9529	0.57	2258.51	
4025.00	77.71	137.98	2538.81	2383.81	-1636.82	1635.83	6463252.510	572665.860	N58 18 10.5128	W1 45 36.6522	2.56	2282.84	
4050.00	77.96	138.18	2544.08	2389.08	-1655.00	1652.16	6463246.970	572670.840	N58 18 10.3307	W1 45 36.3530	1.27	2307.17	
4075.00	78.48	138.19	2549.18	2394.18	-1673.24	1668.47	6463241.410	572675.810	N58 18 10.1481	W1 45 36.0540	2.08	2331.53	
4100.00	78.35	138.28	2554.20	2399.20	-1691.51	1684.79	6463235.840	572680.780	N58 18 9.9652	W1 45 35.7550	0.63	2355.91	
4125.00	77.63	138.50	2559.40	2404.40	-1709.79	1701.03	6463230.270	572685.730	N58 18 9.7822	W1 45 35.4575	3.01	2380.26	
4150.00	77.75	138.56	2564.73	2409.73	-1728.09	1717.20	6463224.690	572690.660	N58 18 9.5990	W1 45 35.1612	0.53	2404.59	
4175.00	78.01	138.64	2569.98	2414.98	-1746.43	1733.36	6463219.110	572695.580	N58 18 9.4155	W1 45 34.8651	1.09	2428.94	
4200.00	78.08	138.52	2575.16	2420.16	-1764.77	1749.55	6463213.520	572700.510	N58 18 9.2319	W1 45 34.5686	0.55	2453.30	
4225.00	77.60	138.64	2580.43	2425.43	-1783.09	1765.71	6463207.940	572705.440	N58 18 9.0485	W1 45 34.2725	1.98	2477.65	
4250.00	77.90	138.70	2585.73	2430.73	-1801.44	1781.85	6463202.350	572710.350	N58 18 8.8649	W1 45 33.9769	1.22	2501.98	
4275.00	77.94	138.56	2590.96	2435.96	-1819.78	1798.00	6463196.760	572715.280	N58 18 8.6812	W1 45 33.6809	0.57	2526.34	
4300.00	78.01	138.24	2596.17	2441.17	-1838.07	1814.24	6463191.180	572720.220	N58 18 8.4982	W1 45 33.3835	1.28	2550.69	
4325.00	78.45	137.90	2601.27	2446.27	-1856.28	1830.59	6463185.640	572725.210	N58 18 8.3159	W1 45 33.0838	2.21	2575.05	

MD (ft)	Inc (deg)	Azi (deg)	TVD (ft)	TVD(SS) (ft)	N-S (ft)	E-W (ft)	Grid Coordinates		Geographic Coordinates		DLS (deg/100ft)	VS (ft)	Comment
							Northing (m)	Easting (m)	Latitude	Longitude			
4350.00	78.46	137.94	2606.27	2451.27	-1874.46	1847.01	6463180.100	572730.210	N58 18 8.1339	W1 45 32.7829	0.16	2599.42	
4375.00	78.45	138.00	2611.28	2456.28	-1892.65	1863.41	6463174.550	572735.210	N58 18 7.9517	W1 45 32.4824	0.24	2623.79	
4400.00	78.09	138.16	2616.36	2461.36	-1910.86	1879.76	6463169.000	572740.190	N58 18 7.7693	W1 45 32.1827	1.57	2648.16	
4425.00	77.89	138.32	2621.56	2466.56	-1929.11	1896.05	6463163.450	572745.150	N58 18 7.5867	W1 45 31.8843	1.02	2672.50	
4450.00	78.37	138.30	2626.70	2471.70	-1947.37	1912.32	6463157.880	572750.110	N58 18 7.4038	W1 45 31.5861	1.92	2696.86	
4475.00	78.40	138.43	2631.74	2476.74	-1965.68	1928.59	6463152.300	572755.070	N58 18 7.2206	W1 45 31.2880	0.52	2721.24	
4500.00	77.94	138.43	2636.86	2481.86	-1983.98	1944.82	6463146.730	572760.010	N58 18 7.0373	W1 45 30.9906	1.84	2745.61	
4525.00	78.04	138.55	2642.06	2487.06	-2002.29	1961.03	6463141.150	572764.950	N58 18 6.8540	W1 45 30.6937	0.62	2769.97	
4550.00	78.19	138.57	2647.21	2492.21	-2020.63	1977.22	6463135.560	572769.880	N58 18 6.6705	W1 45 30.3971	0.61	2794.34	
4575.00	78.13	138.24	2652.34	2497.34	-2038.93	1993.46	6463129.980	572774.830	N58 18 6.4873	W1 45 30.0995	1.31	2818.70	
4600.00	77.41	138.12	2657.64	2502.64	-2057.14	2009.76	6463124.430	572779.800	N58 18 6.3050	W1 45 29.8009	2.92	2843.02	
4625.00	77.34	137.92	2663.10	2508.10	-2075.28	2026.07	6463118.910	572784.770	N58 18 6.1234	W1 45 29.5019	0.83	2867.30	
4650.00	77.55	137.95	2668.54	2513.54	-2093.39	2042.42	6463113.390	572789.750	N58 18 5.9420	W1 45 29.2023	0.85	2891.58	
4675.00	77.96	137.84	2673.84	2518.84	-2111.52	2058.80	6463107.870	572794.740	N58 18 5.7605	W1 45 28.9020	1.70	2915.89	
4700.00	78.13	137.84	2679.02	2524.02	-2129.65	2075.22	6463102.340	572799.740	N58 18 5.5790	W1 45 28.6012	0.68	2940.22	
4725.00	78.26	137.76	2684.13	2529.13	-2147.78	2091.66	6463096.820	572804.750	N58 18 5.3974	W1 45 28.2999	0.61	2964.57	
4750.00	77.97	137.86	2689.28	2534.28	-2165.90	2108.09	6463091.300	572809.760	N58 18 5.2159	W1 45 27.9987	1.22	2988.91	
4775.00	77.43	138.01	2694.61	2539.61	-2184.03	2124.45	6463085.770	572814.750	N58 18 5.0343	W1 45 27.6988	2.24	3013.21	
4800.00	77.57	137.91	2700.02	2545.02	-2202.16	2140.80	6463080.250	572819.730	N58 18 4.8528	W1 45 27.3993	0.68	3037.50	
4825.00	77.82	137.98	2705.35	2550.35	-2220.30	2157.16	6463074.720	572824.710	N58 18 4.6712	W1 45 27.0994	1.04	3061.81	
4850.00	77.99	137.87	2710.58	2555.58	-2238.44	2173.54	6463069.190	572829.700	N58 18 4.4895	W1 45 26.7992	0.80	3086.13	
4875.00	77.99	137.86	2715.79	2560.79	-2256.58	2189.94	6463063.670	572834.700	N58 18 4.3079	W1 45 26.4986	0.04	3110.46	
4900.00	78.00	137.98	2720.99	2565.99	-2274.72	2206.33	6463058.140	572839.690	N58 18 4.1262	W1 45 26.1982	0.47	3134.79	
4925.00	78.20	137.99	2726.14	2571.14	-2292.90	2222.70	6463052.600	572844.680	N58 18 3.9442	W1 45 25.8982	0.80	3159.13	
4950.00	78.21	137.91	2731.25	2576.25	-2311.07	2239.09	6463047.060	572849.680	N58 18 3.7623	W1 45 25.5978	0.32	3183.49	
4975.00	78.29	137.95	2736.34	2581.34	-2329.24	2255.49	6463041.530	572854.670	N58 18 3.5803	W1 45 25.2972	0.36	3207.84	
5000.00	78.40	138.02	2741.39	2586.39	-2347.43	2271.88	6463035.980	572859.670	N58 18 3.3982	W1 45 24.9969	0.52	3232.21	
5025.00	78.17	137.99	2746.47	2591.47	-2365.63	2288.26	6463030.440	572864.660	N58 18 3.2160	W1 45 24.6967	0.93	3256.57	
5050.00	78.02	137.91	2751.63	2596.63	-2383.79	2304.65	6463024.900	572869.650	N58 18 3.0341	W1 45 24.3965	0.68	3280.91	
5075.00	78.02	138.03	2756.82	2601.82	-2401.96	2321.02	6463019.370	572874.640	N58 18 2.8522	W1 45 24.0964	0.47	3305.25	
5100.00	78.12	137.98	2761.98	2606.98	-2420.14	2337.38	6463013.830	572879.630	N58 18 2.6702	W1 45 23.7965	0.45	3329.59	
5125.00	78.00	137.96	2767.16	2612.16	-2438.30	2353.76	6463008.300	572884.610	N58 18 2.4883	W1 45 23.4964	0.49	3353.93	
5150.00	78.22	137.81	2772.31	2617.31	-2456.45	2370.17	6463002.770	572889.610	N58 18 2.3066	W1 45 23.1957	1.06	3378.27	
5175.00	78.45	137.66	2777.36	2622.36	-2474.57	2386.63	6462997.240	572894.630	N58 18 2.1251	W1 45 22.8939	1.09	3402.62	
5200.00	78.66	137.69	2782.32	2627.32	-2492.68	2403.13	6462991.730	572899.660	N58 18 1.9437	W1 45 22.5915	0.85	3426.99	
5225.00	78.98	137.78	2787.17	2632.17	-2510.84	2419.63	6462986.190	572904.680	N58 18 1.7619	W1 45 22.2892	1.33	3451.39	
5250.00	79.34	137.83	2791.87	2636.87	-2529.03	2436.12	6462980.650	572909.710	N58 18 1.5797	W1 45 21.9869	1.45	3475.81	
5275.00	79.44	137.66	2796.47	2641.47	-2547.21	2452.64	6462975.110	572914.740	N58 18 1.3976	W1 45 21.6841	0.78	3500.26	
5300.00	79.34	138.06	2801.08	2646.08	-2565.43	2469.13	6462969.560	572919.770	N58 18 1.2151	W1 45 21.3819	1.62	3524.71	
5325.00	78.67	138.64	2805.84	2650.85	-2583.77	2485.44	6462963.970	572924.740	N58 18 1.0316	W1 45 21.0831	3.52	3549.14	
5350.00	78.91	139.02	2810.70	2655.71	-2602.23	2501.58	6462958.350	572929.660	N58 18 0.8468	W1 45 20.7875	1.77	3573.58	
5375.00	78.60	139.09	2815.58	2660.58	-2620.75	2517.65	6462952.700	572934.550	N58 18 0.6615	W1 45 20.4933	1.27	3598.02	
5400.00	78.27	139.61	2820.59	2665.59	-2639.34	2533.61	6462947.040	572939.410	N58 18 0.4755	W1 45 20.2012	2.43	3622.44	
5425.00	78.31	140.39	2825.67	2670.67	-2658.09	2549.34	6462941.330	572944.210	N58 18 0.2880	W1 45 19.9133	3.06	3646.87	



MD (ft)	Inc (deg)	Azi (deg)	TVD (ft)	TVD(SS) (ft)	N-S (ft)	E-W (ft)	Grid Coordinates		Geographic Coordinates		DLS (deg/100ft)	VS (ft)	Comment
							Northing (m)	Easting (m)	Latitude	Longitude			
5450.00	78.57	140.56	2830.68	2675.68	-2676.98	2564.93	6462935.570	572948.960	N58 18 0.0990	W1 45 19.6282	1.24	3671.33	
5478.00	78.16	140.24	2836.32	2681.32	-2698.11	2582.41	6462929.130	572954.280	N58 17 59.8877	W1 45 19.3084	1.84	3698.71	
5569.00	77.93	140.85	2855.17	2700.17	-2766.85	2638.98	6462908.190	572971.520	N58 17 59.2004	W1 45 18.2738	0.70	3787.61	
5661.00	78.79	141.92	2873.74	2718.74	-2837.26	2695.22	6462886.740	572988.660	N58 17 58.4967	W1 45 17.2461	1.47	3877.64	
5752.00	78.25	141.82	2891.85	2736.85	-2907.40	2750.28	6462865.360	573005.430	N58 17 57.7958	W1 45 16.2402	0.60	3966.78	
5845.00	76.68	143.17	2912.03	2757.03	-2979.42	2805.55	6462843.420	573022.270	N58 17 57.0764	W1 45 15.2311	2.20	4057.54	
5936.00	76.39	142.12	2933.22	2778.22	-3049.76	2859.24	6462821.980	573038.630	N58 17 56.3738	W1 45 14.2509	1.17	4146.02	
6028.00	76.38	141.30	2954.88	2799.88	-3119.94	2914.65	6462800.600	573055.520	N58 17 55.6725	W1 45 13.2387	0.87	4235.39	
6121.00	76.65	143.53	2976.57	2821.57	-3191.60	2969.80	6462778.770	573072.320	N58 17 54.9566	W1 45 12.2317	2.35	4325.80	
6211.00	80.73	144.41	2994.22	2839.22	-3262.96	3021.70	6462757.020	573088.130	N58 17 54.2443	W1 45 11.2855	4.63	4414.03	
6303.00	79.36	143.23	3010.12	2855.12	-3336.10	3075.19	6462734.740	573104.430	N58 17 53.5142	W1 45 10.3102	1.95	4504.64	
6393.00	77.92	142.55	3027.85	2872.85	-3406.47	3128.42	6462713.300	573120.650	N58 17 52.8114	W1 45 9.3387	1.76	4592.87	
6486.00	79.13	143.30	3046.35	2891.35	-3479.18	3183.37	6462691.140	573137.390	N58 17 52.0852	W1 45 8.3361	1.52	4684.00	
6577.00	79.30	144.27	3063.38	2908.38	-3551.30	3236.18	6462669.170	573153.490	N58 17 51.3652	W1 45 7.3730	1.06	4773.39	
6670.00	78.61	144.67	3081.19	2926.19	-3625.59	3289.22	6462646.530	573169.650	N58 17 50.6239	W1 45 6.4065	0.85	4864.66	
6759.00	78.81	145.28	3098.62	2943.62	-3697.06	3339.32	6462624.760	573184.910	N58 17 49.9108	W1 45 5.4942	0.71	4951.91	
6850.00	79.13	145.64	3116.03	2961.03	-3770.63	3389.96	6462602.340	573200.340	N58 17 49.1769	W1 45 4.5724	0.52	5041.18	
6942.00	79.84	146.29	3132.82	2977.82	-3845.59	3440.58	6462579.500	573215.770	N58 17 48.4293	W1 45 3.6513	1.04	5131.56	
7035.00	82.05	148.03	3147.45	2992.45	-3922.75	3490.38	6462555.990	573230.940	N58 17 47.6603	W1 45 2.7465	3.01	5223.22	
7126.00	84.99	148.70	3157.72	3002.72	-3999.72	3537.80	6462532.530	573245.390	N58 17 46.8935	W1 45 1.8862	3.31	5313.32	
7217.00	87.80	150.08	3163.45	3008.45	-4077.88	3584.03	6462508.720	573259.480	N58 17 46.1152	W1 45 1.0484	3.44	5403.67	
7310.00	90.03	150.19	3165.21	3010.21	-4158.51	3630.33	6462484.150	573273.580	N58 17 45.3126	W1 45 0.2103	2.40	5496.05	
7400.00	91.32	150.78	3164.15	3009.15	-4236.82	3674.67	6462460.290	573287.090	N58 17 44.5332	W1 44 59.4081	1.58	5585.40	
7497.00	90.71	148.24	3162.43	3007.43	-4320.39	3723.87	6462434.830	573302.090	N58 17 43.7011	W1 44 58.5167	2.69	5681.86	
7587.00	89.37	151.11	3162.36	3007.36	-4398.06	3769.31	6462411.160	573315.930	N58 17 42.9278	W1 44 57.6938	3.52	5771.35	
7670.00	89.80	151.88	3162.97	3007.97	-4471.00	3808.92	6462388.940	573328.000	N58 17 42.2022	W1 44 56.9782	1.06	5853.57	
7798.00	89.49	154.30	3163.76	3008.76	-4585.13	3866.84	6462354.160	573345.650	N58 17 41.0675	W1 44 55.9343	1.91	5979.82	
7851.00	89.49	152.40	3164.23	3009.23	-4632.49	3890.61	6462339.730	573352.890	N58 17 40.5966	W1 44 55.5061	3.58	6032.06	
7945.00	89.54	152.70	3165.03	3010.03	-4715.91	3933.95	6462314.310	573366.090	N58 17 39.7671	W1 44 54.7245	0.32	6124.92	
8038.00	91.46	151.70	3164.22	3009.21	-4798.17	3977.31	6462289.250	573379.310	N58 17 38.9490	W1 44 53.9419	2.33	6216.87	
8132.00	91.83	153.54	3161.52	3006.52	-4881.60	4020.52	6462263.830	573392.470	N58 17 38.1193	W1 44 53.1626	2.00	6309.67	
8224.00	89.80	153.35	3160.21	3005.21	-4963.88	4061.65	6462238.760	573405.000	N58 17 37.3014	W1 44 52.4220	2.22	6400.31	
8315.00	89.17	153.68	3161.03	3006.03	-5045.32	4102.23	6462213.940	573417.370	N58 17 36.4918	W1 44 51.6913	0.78	6489.96	
8405.00	89.89	153.50	3161.76	3006.76	-5125.93	4142.26	6462189.380	573429.570	N58 17 35.6905	W1 44 50.9706	0.82	6578.60	
8497.00	90.40	155.10	3161.53	3006.53	-5208.82	4182.15	6462164.120	573441.720	N58 17 34.8668	W1 44 50.2532	1.83	6669.01	
8587.00	88.66	154.40	3162.27	3007.27	-5290.22	4220.54	6462139.320	573453.420	N58 17 34.0580	W1 44 49.5634	2.08	6757.31	
8678.00	89.60	154.80	3163.65	3008.65	-5372.41	4259.57	6462114.280	573465.310	N58 17 33.2414	W1 44 48.8620	1.12	6846.64	
8769.00	90.37	154.90	3163.68	3008.67	-5454.78	4298.24	6462089.180	573477.090	N58 17 32.4230	W1 44 48.1673	0.85	6935.90	
8860.00	89.40	154.00	3163.86	3008.86	-5536.88	4337.49	6462064.170	573489.050	N58 17 31.6071	W1 44 47.4618	1.45	7025.28	
8952.00	89.46	153.65	3164.77	3009.77	-5619.44	4378.07	6462039.010	573501.420	N58 17 30.7865	W1 44 46.7315	0.39	7115.83	
9043.00	89.37	154.58	3165.70	3010.70	-5701.31	4417.80	6462014.060	573513.520	N58 17 29.9729	W1 44 46.0170	1.03	7205.30	
9135.00	90.14	154.48	3166.09	3011.10	-5784.37	4457.36	6461988.760	573525.580	N58 17 29.1476	W1 44 45.3059	0.84	7295.64	
9229.00	90.31	154.89	3165.73	3010.73	-5869.34	4497.55	6461962.870	573537.820	N58 17 28.3033	W1 44 44.5837	0.47	7387.90	
9320.00	90.60	155.30	3165.00	3010.00	-5951.87	4535.87	6461937.720	573549.500	N58 17 27.4834	W1 44 43.8958	0.55	7477.08	

MD	Inc	Azi	TVD	TVD(SS)	N/-S	E/-W	Grid Coordinates		Geographic Coordinates		DLS	VS	Comment
							Northing	Easting	Latitude	Longitude			
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(m)	(m)			(deg/100ft)	(ft)	
9410.00	91.09	154.90	3163.68	3008.68	-6033.50	4573.76	6461912.850	573561.040	N58 17 26.6725	W1 44 43.2155	0.70	7565.28	
9503.00	89.14	154.20	3163.49	3008.49	-6117.47	4613.72	6461887.260	573573.220	N58 17 25.8381	W1 44 42.4974	2.23	7656.59	
9593.00	89.60	153.80	3164.48	3009.48	-6198.36	4653.17	6461862.620	573585.240	N58 17 25.0342	W1 44 41.7877	0.68	7745.11	
9684.00	89.91	154.80	3164.87	3009.87	-6280.35	4692.64	6461837.630	573597.260	N58 17 24.2193	W1 44 41.0782	1.15	7834.54	
9775.00	89.51	152.20	3165.33	3010.33	-6361.78	4733.24	6461812.820	573609.640	N58 17 23.4099	W1 44 40.3472	2.89	7924.18	
9868.00	89.46	152.20	3166.17	3011.16	-6444.05	4776.61	6461787.760	573622.850	N58 17 22.5917	W1 44 39.5647	0.05	8016.14	
9956.00	90.63	151.80	3166.10	3011.10	-6521.74	4817.92	6461764.080	573635.440	N58 17 21.8188	W1 44 38.8191	1.41	8103.20	
10047.00	91.03	149.50	3164.78	3009.78	-6601.05	4862.52	6461739.920	573649.030	N58 17 21.0295	W1 44 38.0127	2.57	8193.51	
10140.00	89.91	146.70	3164.01	3009.01	-6679.99	4911.65	6461715.860	573664.000	N58 17 20.2430	W1 44 37.1212	3.24	8286.21	
10225.00	89.63	143.65	3164.36	3009.36	-6749.76	4960.19	6461694.600	573678.790	N58 17 19.5469	W1 44 36.2379	3.60	8371.17	
10300.00	90.00	143.00	3164.60	3009.60	-6809.91	5004.98	6461676.280	573692.440	N58 17 18.9462	W1 44 35.4211	1.00	8446.17	