

SYSDRILL
Closest Approach + Clearance Factor Report
Wellbore: Dittmer KE 29-038HN (PWB)
Wellpath: Dittmer KE 29-038HN (PWF#1)

Ellipse separations are reported ONLY if BOTH wells have uncertainty data
Only Depth and Magnetic Reference Field error terms are correlated across tie points
Scan limit is calculated on CENTRE to CENTRE distance

Summary data uses Closest Approach clearance calculation for all minima
Hole size/Casings ARE included
Hole size/Casings are NOT subtracted from Centre-Centre distance
Confidence limit of 95.00% / 2.80 SD.

Wellbore	
Name	Dittmer KE 29-038HN (PWB)
Created	4-May-2016
Last Revised	4-May-2016

Well	
Name	Dittmer KE 29-038HN
Government ID	
Last Revised	4-May-2016

Slot	
Name	Slot N12 - Dittmer KE 29-038HN
Grid Northing	1248055.086
Grid Easting	3195337.419
Latitude	N40 0 43.8804
Longitude	W104 48 9.4212
North	0.000
East	164.990

Installation	
Name	Dittmer
Easting	3195172.443
Northing	1248053.789
Map Name	<unknown>
North Alignment	True

Field	
Name	Wattenburg
Easting	41136929.757
Northing	12284170.646
Map Name	<unknown>
North Alignment	Grid

Clearance Summary											
Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]	
SRC - Phelps 11-32CHZ	SRC - Phelps 11-32CHZ (AWB)	AA - SRC - Phelps 11-32CHZ	Dittmer		657.080	7890.220	7890.220	629.490	7890.220	23.080	7988.640
SRC - Phelps 11-32NHZ	SRC - Phelps 11-32NHZ (AWB)	AA - SRC - Phelps 11-32NHZ	Dittmer		875.960	7791.790	7791.790	846.690	7791.790	29.610	7857.410
SRC - Phelps A-32CHZ	SRC - Phelps A-32CHZ (AWB)	AA - SRC - Phelps A-32CHZ	Dittmer		1242.660	7808.190	7808.190	1214.030	7808.190	42.900	7890.220
SRC - Phelps A-32NHZ	SRC - Phelps A-32NHZ (AWB)	AA - SRC - Phelps A-32NHZ	Dittmer		1592.040	7742.580	7742.580	1562.990	7748.760	54.500	7816.200
SRC - Phelps 12-32CHZ	SRC - Phelps 12-32CHZ (AWB)	AA - SRC - Phelps 12-32CHZ	Dittmer		1957.880	7758.980	7758.980	1928.700	7758.980	66.800	7857.410
SRC - Phelps 12-32NHZ	SRC - Phelps 12-32NHZ (AWB)	AA - SRC - Phelps 12-32NHZ	Dittmer		2238.190	7611.340	7611.340	2209.320	7616.200	76.160	7808.190

Reference Wellbore Survey Tool Program

Survey Name	Planned
MD[ft]	12697.660
Survey Tool	WdW Rate Gyro
Error Model	Standard

Clearance Data

Reference MD[ft]	Reference TVD[ft]	Reference North[ft]	Reference East[ft]	Offset Well	Offset MD[ft]	Offset TVD[ft]	Offset North[ft]	Offset East[ft]	Angle From Highside [deg]	Closest Approach Distance [ft]	Ellipse Separation [ft]	Clearance Factor
16.200		16.200	0.000	0.000 SRC - Phelps 11-32CHZ	53.000	16.200	-771.760	2847.160	105.200	2949.910	2948.950	
98.220		98.220	0.000	0.000 SRC - Phelps 11-32CHZ	127.330	90.530	-771.600	2847.280	105.200	2949.990	2948.850	2584.430
116.200		116.200	0.000	0.000 SRC - Phelps 11-32CHZ	144.910	108.110	-771.490	2847.360	105.200	2950.040	2948.880	2541.390
216.200		216.200	0.000	0.000 SRC - Phelps 11-32CHZ	239.510	202.710	-770.730	2847.910	105.100	2950.380	2949.090	2285.590
316.200		316.200	0.000	0.000 SRC - Phelps 11-32CHZ	307.930	271.120	-770.050	2848.600	105.100	2951.200	2949.780	2088.720
416.200		416.200	0.000	0.000 SRC - Phelps 11-32CHZ	372.350	335.520	-769.610	2849.950	105.100	2953.140	2951.590	1910.390
516.200		516.200	0.000	0.000 SRC - Phelps 11-32CHZ	428.000	391.120	-768.790	2852.010	105.100	2956.460	2954.790	1767.870
616.200		616.200	0.000	0.000 SRC - Phelps 11-32CHZ	491.000	454.000	-767.150	2855.630	105.000	2961.330	2959.520	1638.850
716.200		716.200	0.000	0.000 SRC - Phelps 11-32CHZ	531.920	494.780	-765.950	2858.810	105.000	2967.910	2965.980	1542.780
816.200		816.200	0.000	0.000 SRC - Phelps 11-32CHZ	727.890	689.650	-753.710	2874.650	104.700	2974.510	2972.310	1351.630
916.200		916.200	0.000	0.000 SRC - Phelps 11-32CHZ	779.750	741.140	-748.850	2878.540	104.600	2979.500	2977.160	1273.750
1016.200		1016.200	0.000	0.000 SRC - Phelps 11-32CHZ	834.000	794.970	-744.250	2883.400	104.500	2986.110	2983.630	1203.860
1116.200		1116.200	0.000	0.000 SRC - Phelps 11-32CHZ	879.300	839.880	-740.870	2888.240	104.400	2994.520	2991.910	1146.390
1216.200		1216.200	0.000	0.000 SRC - Phelps 11-32CHZ	933.230	893.280	-736.980	2894.710	104.300	3004.450	3001.700	1090.770
1316.200		1316.200	0.000	0.000 SRC - Phelps 11-32CHZ	1009.950	968.990	-730.280	2905.160	104.100	3015.590	3012.660	1029.560
1416.200		1416.200	0.000	0.000 SRC - Phelps 11-32CHZ	1261.830	1216.350	-695.430	2937.000	103.300	3024.820	3021.420	891.220
1516.200		1516.200	0.000	0.000 SRC - Phelps 11-32CHZ	1357.500	1310.650	-682.400	2946.560	103.000	3031.520	3027.910	838.310
1616.200		1616.200	0.000	0.000 SRC - Phelps 11-32CHZ	1445.030	1396.870	-670.330	2955.550	102.800	3038.530	3034.700	792.700
1716.200		1716.200	0.000	0.000 SRC - Phelps 11-32CHZ	1894.420	1833.160	-569.720	2983.920	100.800	3040.070	3035.250	630.320
1816.200		1816.200	0.000	0.000 SRC - Phelps 11-32CHZ	2001.780	1935.790	-538.270	2985.680	100.200	3036.170	3031.000	587.760
1916.200		1916.200	0.000	0.000 SRC - Phelps 11-32CHZ	2102.340	2031.920	-508.760	2987.050	99.700	3032.270	3027.160	592.870
2016.200		2016.200	0.000	0.000 SRC - Phelps 11-32CHZ	2194.010	2119.870	-482.940	2988.070	99.200	3028.620	3023.200	558.870
2116.200		2116.200	0.000	0.000 SRC - Phelps 11-32CHZ	2267.330	2190.470	-463.160	2988.990	98.800	3025.580	3019.900	532.930
2216.200		2216.200	0.000	0.000 SRC - Phelps 11-32CHZ	2328.810	2249.590	-446.380	2990.530	98.500	3023.850	3017.940	512.100
2219.000		2219.000	0.000	0.000 SRC - Phelps 11-32CHZ	2331.500	2252.180	-445.640	2990.610	98.500	3023.810	3017.900	511.360
2316.200		2316.160	1.010	2.260 SRC - Phelps 11-32CHZ	2414.300	2331.810	-423.140	2993.320	32.300	3021.030	3014.840	488.020
2416.200		2415.850	4.170	9.280 SRC - Phelps 11-32CHZ	2569.230	2481.290	-382.600	2997.370	31.800	3013.730	3007.090	454.180
2516.200		2515.000	9.450	21.050 SRC - Phelps 11-32CHZ	2668.490	2576.630	-355.050	2998.710	31.600	3000.520	2993.550	430.720
2616.200		2613.340	16.860	37.540 SRC - Phelps 11-32CHZ	2751.170	2655.650	-330.780	3000.260	31.500	2983.350	2976.080	410.860
2716.200		2710.600	26.370	58.710 SRC - Phelps 11-32CHZ	2828.560	2729.970	-309.270	3002.030	31.600	2982.460	2954.910	392.330
2816.200		2806.520	37.940	84.480 SRC - Phelps 11-32CHZ	2944.660	2841.540	-277.640	3004.640	31.700	2937.370	2929.430	369.850
2916.200		2900.820	51.560	114.800 SRC - Phelps 11-32CHZ	3104.480	2994.630	-231.450	3005.860	31.900	2906.390	2897.930	343.550
3016.200		2993.250	67.180	149.590 SRC - Phelps 11-32CHZ	3178.590	3065.440	-209.560	3005.970	32.300	2870.670	2861.880	326.600
3116.200		3083.560	84.760	188.730 SRC - Phelps 11-32CHZ	3240.750	3124.660	-190.690	3006.760	32.900	2831.760	2822.650	311.050
3216.200		3171.500	104.260	232.140 SRC - Phelps 11-32CHZ	3328.150	3208.030	-164.510	3008.150	33.600	2789.230	2779.730	293.490
3218.970		3173.910	104.820	233.400 SRC - Phelps 11-32CHZ	3330.630	3210.400	-163.780	3008.190	33.600	2788.000	2778.480	292.980
3316.200		3258.110	124.740	277.750 SRC - Phelps 11-32CHZ	3424.680	3300.430	-136.620	3009.580	33.600	2744.630	2734.700	276.290
3416.200		3344.710	145.220	323.360 SRC - Phelps 11-32CHZ	3500.110	3372.830	-115.480	3010.600	33.600	2700.010	2689.690	261.610
3516.200		3431.310	165.710	368.970 SRC - Phelps 11-32CHZ	3557.060	3427.440	-99.410	3012.070	33.600	2656.370	2645.690	248.830
3616.200		3517.920	186.190	414.580 SRC - Phelps 11-32CHZ	3611.200	3479.240	-83.830	3014.340	33.500	2614.040	2603.010	236.990
3716.200		3604.520	206.670	460.190 SRC - Phelps 11-32CHZ	3760.540	3627.840	-58.810	3019.110	33.500	2570.770	2559.140	221.030
3816.200		3691.120	227.160	505.800 SRC - Phelps 11-32CHZ	3871.580	3727.920	-6.970	3020.710	33.400	2526.060	2513.940	200.440
3916.200		3777.730	247.640	551.410 SRC - Phelps 11-32CHZ	3948.670	3801.320	16.550	3021.980	33.400	2481.460	2468.910	197.700
4016.200		3864.330	268.130	597.020 SRC - Phelps 11-32CHZ	4029.080	3878.050	40.520	3023.660	33.300	2437.330	2424.340	187.600
4116.200		3950.930	288.610	642.630 SRC - Phelps 11-32CHZ	4110.000	3955.430	64.120	3025.580	33.300	2393.510	2380.080	178.180
4216.200		4037.540	309.090	688.240 SRC - Phelps 11-32CHZ	4194.670	4036.750	87.600	3027.730	33.300	2349.950	2336.070	169.360
4316.200		4124.140	329.580	733.850 SRC - Phelps 11-32CHZ	4282.980	4122.080	110.250	3029.950	33.300	2306.550	2292.230	161.070
4416.200		4210.740	350.060	779.460 SRC - Phelps 11-32CHZ	4364.000	4200.580	130.190	3031.890	33.400	2263.160	2248.410	153.440
4516.200		4297.350	370.550	825.070 SRC - Phelps 11-32CHZ	4427.500	4262.010	146.140	3034.040	33.400	2220.620	2205.460	146.450
4616.200		4383.950	391.030	870.680 SRC - Phelps 11-32CHZ	4482.140	4314.520	160.920	3036.990	33.400	2179.600	2164.040	140.090
4716.200		4470.550	411.510	916.290 SRC - Phelps 11-32CHZ	4636.290	4461.760	205.900	3044.600	33.300	2138.240	2122.090	132.420
4816.200		4557.160	432.000	961.900 SRC - Phelps 11-32CHZ	4756.260	4576.440	241.010	3047.430	33.200	2094.350	2077.680	125.660
4916.200		4643.760	452.480	1007.510 SRC - Phelps 11-32CHZ	4829.670	4646.880	261.600	3048.910	33.200	2050.310	2033.200	119.840
5016.200		4730.360	472.970	1053.120 SRC - Phelps 11-32CHZ	4904.260	4718.590	282.000	3051.100	33.200	2007.120	1989.560	114.320
5116.200		4816.970	493.450	1098.730 SRC - Phelps 11-32CHZ	4985.250	4796.010	305.610	3054.050	33.200	1964.440	1946.420	109.030
5216.200		4903.570	513.930	1144.340 SRC - Phelps 11-32CHZ	5090.260	4895.210	339.760	3058.040	33.000	1921.630	1903.090	103.700
5316.200		4990.170	534.420	1189.950 SRC - Phelps 11-32CHZ	5202.510	5000.120	379.560	3061.270	32.600	1877.750	1858.700	98.590
5416.200		5076.780	554.900	1235.560 SRC - Phelps 11-32CHZ	5308.650	5100.500	413.990	3062.940	32.400	1832.960	1813.420	93.820
5516.200		5163.380	573.390	1281.170 SRC - Phelps 11-32CHZ	5403.420	5191.580	440.120	3063.550	32.400	1787.720	1767.720	89.360
5616.200		5249.980	595.870	1326.780 SRC - Phelps 11-32CHZ	5485.960	5271.510	460.690	3064.010	32.400	1742.610	1722.160	85.200
5716.200		5336.590	616.350	1372.390 SRC - Phelps 11-32CHZ	5568.970	5352.310	479.680	3064.640	32.600	1697.830	1676.930	81.260

5816.200	5423.190	636.840	1418.000	SRC - Phelps 11-32CHZ	5654.520	5436.110	496.810	3065.360	32.800	1653.350	1632.010	77.470
5916.200	5509.790	657.320	1463.610	SRC - Phelps 11-32CHZ	5746.390	5526.580	512.820	3065.920	33.200	1608.900	1587.120	73.850
6016.200	5596.390	677.810	1509.220	SRC - Phelps 11-32CHZ	5828.310	5607.590	524.930	3066.290	33.600	1564.590	1542.360	70.390
6116.200	5683.000	698.290	1554.830	SRC - Phelps 11-32CHZ	5912.260	5690.970	534.620	3066.770	34.200	1520.790	1498.110	67.040
6216.200	5769.600	718.770	1600.440	SRC - Phelps 11-32CHZ	5999.660	5778.050	542.070	3067.140	34.900	1477.330	1454.180	63.830
6316.200	5856.200	739.260	1646.050	SRC - Phelps 11-32CHZ	6081.030	5859.290	546.670	3067.400	35.800	1434.330	1410.720	60.730
6416.200	5942.810	759.740	1691.660	SRC - Phelps 11-32CHZ	6161.800	5940.010	549.300	3067.790	36.700	1392.130	1368.020	57.730
6516.200	6029.410	780.230	1737.270	SRC - Phelps 11-32CHZ	6246.970	6025.170	550.540	3068.210	37.800	1350.610	1325.990	54.850
6616.200	6116.010	800.710	1782.880	SRC - Phelps 11-32CHZ	6332.250	6110.450	550.750	3068.550	39.100	1309.760	1284.600	52.070
6716.200	6202.620	821.190	1828.490	SRC - Phelps 11-32CHZ	6420.510	6198.700	550.410	3068.940	40.500	1269.660	1243.850	49.380
6816.200	6289.220	841.680	1874.100	SRC - Phelps 11-32CHZ	6511.070	6289.260	550.320	3068.940	41.900	1229.850	1203.560	46.790
6916.200	6375.820	862.160	1919.710	SRC - Phelps 11-32CHZ	6609.020	6387.200	551.090	3068.640	43.600	1190.350	1163.460	44.280
7016.200	6462.430	882.650	1965.320	SRC - Phelps 11-32CHZ	6692.330	6470.510	552.150	3068.120	45.100	1151.290	1123.780	41.850
7053.600	6494.820	890.310	1982.380	SRC - Phelps 11-32CHZ	6719.870	6498.050	552.120	3068.030	45.700	1137.110	1109.360	40.980
7116.200	6549.030	903.130	2010.930	SRC - Phelps 11-32CHZ	6856.290	7583.550	547.720	2004.140	153.600	1093.880	1077.090	65.150
7216.200	6635.630	923.610	2056.540	SRC - Phelps 11-32CHZ	6859.180	7582.970	545.950	2061.220	150.200	1019.850	1002.260	57.990
7316.200	6722.240	944.100	2102.150	SRC - Phelps 11-32CHZ	6840.060	7581.940	544.440	2110.300	146.900	948.090	929.530	51.070
7416.200	6808.840	964.580	2147.760	SRC - Phelps 11-32CHZ	6833.770	7580.630	543.080	2156.550	143.700	879.430	859.700	44.570
7516.200	6895.440	985.070	2193.370	SRC - Phelps 11-32CHZ	6838.440	7579.750	541.930	2191.860	141.100	815.260	794.160	38.640
7616.200	6982.050	1005.550	2238.980	SRC - Phelps 11-32CHZ	6861.040	7579.170	540.600	2229.230	138.300	756.860	734.200	33.410
7716.200	7068.650	1026.030	2284.590	SRC - Phelps 11-32CHZ	6830.960	7579.070	539.320	2269.280	135.200	705.450	681.090	28.960
7748.760	7096.850	1032.700	2299.440	SRC - Phelps 11-32CHZ	6835.100	7579.100	538.880	2285.140	133.900	690.390	665.450	27.690
7816.200	7154.090	1051.500	2329.590	SRC - Phelps 11-32CHZ	6870.600	7578.990	537.950	2319.650	142.400	666.620	640.430	25.450
7916.200	7232.700	1096.940	2370.980	SRC - Phelps 11-32CHZ	6818.850	7578.210	536.760	2371.360	150.600	658.170	630.110	23.460
8016.200	7300.260	1161.200	2406.530	SRC - Phelps 11-32CHZ	6818.920	7577.240	536.250	2408.260	155.900	683.580	654.040	23.140
8116.200	7353.300	1240.980	2434.440	SRC - Phelps 11-32CHZ	6816.730	7576.400	535.960	2433.440	159.900	739.490	709.020	24.270
8216.200	7389.100	1332.200	2453.250	SRC - Phelps 11-32CHZ	6840.710	7575.750	535.720	2449.440	164.100	818.060	787.110	26.430
8316.200	7405.840	1430.190	2462.020	SRC - Phelps 11-32CHZ	6814.050	7575.470	535.630	2456.100	173.600	910.520	879.350	29.220
8350.240	7407.000	1464.190	2462.610	SRC - Phelps 11-32CHZ	6833.990	7575.470	535.630	2456.160	-177.700	943.750	912.550	30.250
8416.200	7407.000	1530.150	2462.580	SRC - Phelps 11-32CHZ	6814.970	7575.510	535.640	2455.180	-177.300	1008.710	977.470	32.280
8516.200	7407.000	1630.150	2462.530	SRC - Phelps 11-32CHZ	6836.460	7575.570	535.660	2453.690	-176.800	1107.430	1076.120	35.380
8616.200	7407.000	1730.150	2462.490	SRC - Phelps 11-32CHZ	6837.950	7575.630	535.680	2452.210	-176.300	1206.360	1175.000	38.480
8716.200	7407.000	1830.150	2462.440	SRC - Phelps 11-32CHZ	6839.430	7575.700	535.710	2450.720	-175.800	1305.440	1274.050	41.580
8816.200	7407.000	1930.150	2462.390	SRC - Phelps 11-32CHZ	6840.920	7575.760	535.730	2449.240	-175.300	1404.660	1373.230	44.690
8916.200	7407.000	2030.150	2462.340	SRC - Phelps 11-32CHZ	6842.410	7575.820	535.750	2447.750	-174.800	1503.880	1472.520	47.800
9016.200	7407.000	2130.150	2462.290	SRC - Phelps 11-32CHZ	6843.890	7575.880	535.770	2446.260	-174.300	1603.380	1571.890	50.910
9116.200	7407.000	2230.150	2462.240	SRC - Phelps 11-32CHZ	6845.380	7575.940	535.790	2444.780	-173.800	1702.850	1671.330	54.030
9216.200	7407.000	2330.150	2462.190	SRC - Phelps 11-32CHZ	6846.870	7576.000	535.810	2443.290	-173.300	1802.380	1770.830	57.140
9316.200	7407.000	2430.150	2462.150	SRC - Phelps 11-32CHZ	6848.350	7576.060	535.830	2441.810	-172.800	1901.960	1870.390	60.250
9416.200	7407.000	2530.150	2462.100	SRC - Phelps 11-32CHZ	6849.840	7576.120	535.860	2440.320	-172.300	2001.570	1969.980	63.360
9516.200	7407.000	2630.150	2462.050	SRC - Phelps 11-32CHZ	6851.330	7576.180	535.880	2438.840	-171.800	2101.230	2069.610	66.460
9616.200	7407.000	2730.150	2462.000	SRC - Phelps 11-32CHZ	6852.820	7576.240	535.900	2437.350	-171.400	2200.910	2169.270	69.560
9716.200	7407.000	2830.150	2461.950	SRC - Phelps 11-32CHZ	6854.300	7576.300	535.920	2435.860	-170.900	2300.620	2268.960	72.660
9816.200	7407.000	2930.150	2461.900	SRC - Phelps 11-32CHZ	6855.790	7576.370	535.940	2434.380	-170.400	2400.350	2368.670	75.760
9916.200	7407.000	3030.150	2461.850	SRC - Phelps 11-32CHZ	6857.280	7576.430	535.960	2432.890	-169.900	2500.100	2468.400	78.850
10016.200	7407.000	3130.150	2461.810	SRC - Phelps 11-32CHZ	6858.760	7576.490	535.980	2431.410	-169.400	2599.880	2568.150	81.940
10116.200	7407.000	3230.150	2461.760	SRC - Phelps 11-32CHZ	6859.000	7576.560	535.990	2431.170	-169.300	2699.660	2667.910	85.020
10137.590	7407.000	3251.540	2461.750	SRC - Phelps 11-32CHZ	6859.000	7475.860	551.250	2789.490	101.900	2720.990	2687.110	80.320
10216.200	7407.000	3330.150	2461.710	SRC - Phelps 11-32CHZ	6859.000	7475.860	551.250	2789.490	101.900	2799.020	2765.130	82.600
10316.200	7407.000	3430.150	2461.660	SRC - Phelps 11-32CHZ	6859.000	7475.110	551.320	2790.310	101.800	2898.330	2864.420	85.480
10416.200	7407.000	3530.150	2461.610	SRC - Phelps 11-32CHZ	6859.000	7470.540	551.790	2795.320	100.800	2997.680	2963.710	88.260
10516.200	7407.000	3630.150	2461.560	SRC - Phelps 11-32CHZ	6859.000	7465.980	552.250	2800.330	99.900	3097.050	3063.030	91.030
10616.200	7407.000	3730.150	2461.510	SRC - Phelps 11-32CHZ	6859.000	7465.110	552.340	2801.280	99.800	3196.450	3162.410	93.890
10716.200	7407.000	3830.150	2461.470	SRC - Phelps 11-32CHZ	6859.000	7465.110	552.340	2801.280	99.800	3295.890	3261.840	96.770
10816.200	7407.000	3930.150	2461.420	SRC - Phelps 11-32CHZ	6859.000	7465.110	552.340	2801.280	99.800	3395.370	3361.290	99.650
10916.200	7407.000	4030.150	2461.370	SRC - Phelps 11-32CHZ	6859.000	7462.650	552.550	2803.830	99.300	3494.870	3460.760	102.450
11016.200	7407.000	4130.150	2461.320	SRC - Phelps 11-32CHZ	6859.000	7458.540	552.900	2808.080	98.500	3594.390	3560.220	105.210
11116.200	7407.000	4230.150	2461.270	SRC - Phelps 11-32CHZ	6859.000	7454.430	553.250	2812.330	97.700	3693.920	3659.700	107.950
11216.200	7407.000	4330.150	2461.220	SRC - Phelps 11-32CHZ	6859.000	7454.010	553.290	2812.770	97.700	3793.480	3759.240	110.790
11316.200	7407.000	4430.150	2461.170	SRC - Phelps 11-32CHZ	6859.000	7454.010	553.290	2812.770	97.700	3893.060	3858.800	113.640
11416.200	7407.000	4530.150	2461.130	SRC - Phelps 11-32CHZ	6859.000	7453.390	553.340	2813.360	97.500	3992.650	3958.370	116.470
11516.200	7407.000	4630.150	2461.080	SRC - Phelps 11-32CHZ	6859.000	7449.590	553.620	2817.090	96.900	4092.270	4057.940	119.210
11616.200	7407.000	4730.150	2461.030	SRC - Phelps 11-32CHZ	6859.000	7445.790	553.910	2820.800	96.200	4191.890	4157.510	121.930
11716.200	7407.000	4830.150	2460.980	SRC - Phelps 11-32CHZ	6859.000	7442.590	554.150	2823.930	95.600	4291.530	4257.110	124.670
11816.200	7407.000	4930.150	2460.930	SRC - Phelps 11-32CHZ	6859.000	7442.590	554.150	2823.930	95.600	4391.180	4356.740	127.490
11916.200	7407.000	5030.150	2460.880	SRC - Phelps 11-32CHZ	6859.000	7442.590	554.150	2823.930	95.600	4490.850	4456.380	130.310
12016.200	7407.000	5130.150	2460.830	SRC - Phelps 11-32CHZ	6859.000	7442.590	554.150	2823.930	95.600	4590.530	4556.040	133.130
12116.200	7407.000	5230.150	2460.790	SRC - Phelps 11-32CHZ	6859.000	7442.590	554.150	2823.930	95.600	4690.220	4655.720	135.940
12216.200	7407.000	5330.150	2460.740	SRC - Phelps 11-32CHZ	6859.000	7442.590	554.150	2823.930	95.600	4789.930	4755.400	138.750
12316.200	7407.000	5430.150	2460.690	SRC - Phelps 11-32CHZ	6859.000	7442.590	554.150	2823.930	95.600	4889.650	4855.100	141.550
12416.200	7407.000	5530.150	2460.640	SRC - Phelps 11-32CHZ	6859.000	7442.590	554.150	2823.930	95.600	4989.380	4954.810	144.350
12516.200	7407.000	5630.150	2460.590	SRC - Phelps 11-32CHZ	6859.00							

3616.200	3517.920	186.190	414.580	SRC - Phelps 11-32NHZ	3572.930	3476.720	-184.380	2965.050	36.000	2577.580	2567.380	252.650
3716.200	3604.520	206.670	460.190	SRC - Phelps 11-32NHZ	3661.500	3563.910	-169.250	2968.660	36.300	2536.810	2526.220	239.570
3816.200	3691.120	227.160	505.800	SRC - Phelps 11-32NHZ	3733.060	3634.360	-157.170	2971.940	36.500	2496.560	2485.600	227.880
3916.200	3777.730	247.640	551.410	SRC - Phelps 11-32NHZ	3819.610	3719.650	-143.070	2976.160	36.800	2456.720	2445.360	216.430
4016.200	3864.330	268.130	597.020	SRC - Phelps 11-32NHZ	3904.830	3803.720	-129.780	2980.440	37.100	2417.170	2405.420	205.740
4116.200	3950.930	288.610	642.630	SRC - Phelps 11-32NHZ	3985.420	3883.250	-117.520	2984.730	37.400	2378.010	2365.870	195.800
4216.200	4037.540	309.090	688.240	SRC - Phelps 11-32NHZ	4075.890	3972.480	-103.440	2989.760	37.700	2339.100	2326.540	186.160
4316.200	4124.140	329.580	733.850	SRC - Phelps 11-32NHZ	4179.890	4075.010	-86.990	2995.410	38.100	2300.140	2287.130	176.820
4416.200	4210.740	350.060	779.460	SRC - Phelps 11-32NHZ	4274.650	4168.590	-72.770	2999.980	38.600	2260.820	2247.380	168.180
4516.200	4297.350	370.550	825.070	SRC - Phelps 11-32NHZ	4367.670	4260.530	-59.300	3004.290	39.000	2221.520	2207.640	160.070
4616.200	4383.950	391.030	870.680	SRC - Phelps 11-32NHZ	4464.720	4356.390	-44.760	3008.640	39.400	2182.100	2167.770	152.310
4716.200	4470.550	411.510	916.290	SRC - Phelps 11-32NHZ	4548.950	4439.360	-30.880	3012.630	39.800	2142.740	2127.960	145.000
4816.200	4557.160	432.000	961.900	SRC - Phelps 11-32NHZ	4636.400	4525.190	-14.820	3017.480	40.100	2103.820	2088.580	138.060
4916.200	4643.760	452.480	1007.510	SRC - Phelps 11-32NHZ	4752.590	4639.450	5.540	3022.750	40.700	2064.210	2048.470	131.130
5016.200	4730.360	472.970	1053.120	SRC - Phelps 11-32NHZ	4839.750	4725.260	20.410	3026.310	41.100	2024.430	2008.210	124.870
5116.200	4816.970	493.450	1098.730	SRC - Phelps 11-32NHZ	4933.800	4817.830	36.590	3030.230	41.500	1984.800	1968.100	118.870
5216.200	4903.570	513.930	1144.340	SRC - Phelps 11-32NHZ	5027.180	4909.750	52.640	3033.920	42.000	1945.090	1927.900	113.160
5316.200	4990.170	534.420	1189.950	SRC - Phelps 11-32NHZ	5122.280	5003.200	69.850	3037.700	42.500	1905.300	1887.610	107.710
5416.200	5076.780	554.900	1235.560	SRC - Phelps 11-32NHZ	5214.220	5093.510	86.710	3041.270	43.000	1865.500	1847.300	102.530
5516.200	5163.380	575.390	1281.170	SRC - Phelps 11-32NHZ	5298.000	5175.890	101.600	3044.500	43.500	1825.910	1807.210	97.650
5616.200	5250.980	595.870	1326.780	SRC - Phelps 11-32NHZ	5378.040	5254.730	114.970	3047.820	44.000	1786.970	1767.760	93.040
5716.200	5338.590	616.350	1372.390	SRC - Phelps 11-32NHZ	5466.220	5341.730	128.890	3051.530	44.500	1748.470	1728.740	88.650
5816.200	5426.190	636.840	1418.000	SRC - Phelps 11-32NHZ	5551.020	5425.470	141.700	3055.210	45.100	1710.450	1690.200	84.470
5916.200	5509.790	657.320	1463.610	SRC - Phelps 11-32NHZ	5638.020	5511.420	154.650	3059.070	45.800	1672.770	1651.990	80.500
6016.200	5596.390	677.810	1509.220	SRC - Phelps 11-32NHZ	5731.320	5603.770	167.390	3062.880	46.600	1635.370	1614.040	76.690
6116.200	5683.000	698.290	1554.830	SRC - Phelps 11-32NHZ	5820.870	5692.640	177.870	3065.890	47.400	1598.200	1576.330	73.080
6216.200	5769.600	718.770	1600.440	SRC - Phelps 11-32NHZ	5908.790	5780.140	186.150	3068.240	48.400	1561.490	1539.060	69.640
6316.200	5856.200	739.260	1646.050	SRC - Phelps 11-32NHZ	5996.770	5867.830	192.940	3070.080	49.500	1525.280	1502.290	66.350
6416.200	5942.810	759.740	1691.660	SRC - Phelps 11-32NHZ	6083.190	5954.080	198.280	3071.470	50.600	1489.710	1466.150	63.240
6516.200	6029.410	780.230	1737.270	SRC - Phelps 11-32NHZ	6168.600	6039.390	202.340	3073.530	51.800	1454.980	1430.840	60.270
6616.200	6116.010	800.710	1782.880	SRC - Phelps 11-32NHZ	6251.540	6122.260	205.310	3073.430	53.100	1421.280	1396.550	57.460
6692.710	6182.270	816.380	1817.780	SRC - Phelps 11-32NHZ	6321.220	6191.920	207.310	3073.970	54.200	1396.090	1370.990	55.400
6716.200	6202.620	821.190	1828.490	SRC - Phelps 11-32NHZ	6319.760	6202.520	213.970	3073.970	54.200	1396.090	1370.990	55.400
6816.200	6289.220	841.680	1874.100	SRC - Phelps 11-32NHZ	6432.660	6289.220	215.990	3073.970	54.200	1396.090	1370.990	55.400
6916.200	6375.820	862.160	1919.710	SRC - Phelps 11-32NHZ	6579.730	6411.820	217.320	3073.970	54.200	1396.090	1370.990	55.400
7016.200	6462.430	882.650	1965.320	SRC - Phelps 11-32NHZ	6837.250	6740.090	218.500	3073.970	54.200	1396.090	1370.990	55.400
7116.200	6549.030	903.130	2010.930	SRC - Phelps 11-32NHZ	7293.010	7440.350	220.070	3073.970	54.200	1396.090	1370.990	55.400
7216.200	6635.630	923.610	2056.540	SRC - Phelps 11-32NHZ	8256.000	7440.160	221.740	3073.970	54.200	1396.090	1370.990	55.400
7316.200	6722.240	944.100	2102.150	SRC - Phelps 11-32NHZ	8223.220	7440.370	223.200	3073.970	54.200	1396.090	1370.990	55.400
7416.200	6808.840	964.580	2147.760	SRC - Phelps 11-32NHZ	8186.720	7441.000	224.430	3073.970	54.200	1396.090	1370.990	55.400
7516.200	6895.440	985.070	2193.370	SRC - Phelps 11-32NHZ	8149.540	7441.810	225.200	3073.970	54.200	1396.090	1370.990	55.400
7616.200	6982.050	1005.550	2238.980	SRC - Phelps 11-32NHZ	8107.760	7442.980	225.650	3073.970	54.200	1396.090	1370.990	55.400
7716.200	7068.650	1026.030	2284.590	SRC - Phelps 11-32NHZ	8074.590	7443.920	225.620	3073.970	54.200	1396.090	1370.990	55.400
7748.760	7096.850	1032.700	2299.440	SRC - Phelps 11-32NHZ	8065.690	7444.170	225.500	3073.970	54.200	1396.090	1370.990	55.400
7816.200	7154.090	1051.500	2329.590	SRC - Phelps 11-32NHZ	8040.260	7444.600	224.810	3073.970	54.200	1396.090	1370.990	55.400
7857.410	7187.580	1067.780	2347.220	SRC - Phelps 11-32NHZ	8026.220	7444.780	224.310	3073.970	54.200	1396.090	1370.990	55.400
7916.200	7232.700	1096.940	2370.980	SRC - Phelps 11-32NHZ	8002.550	7445.090	223.450	3073.970	54.200	1396.090	1370.990	55.400
8016.200	7300.260	1161.200	2406.530	SRC - Phelps 11-32NHZ	7969.250	7445.340	222.220	3073.970	54.200	1396.090	1370.990	55.400
8116.200	7353.300	1240.980	2434.440	SRC - Phelps 11-32NHZ	7944.940	7445.170	221.240	3073.970	54.200	1396.090	1370.990	55.400
8216.200	7389.100	1332.200	2453.250	SRC - Phelps 11-32NHZ	7930.670	7444.850	220.650	3073.970	54.200	1396.090	1370.990	55.400
8316.200	7405.840	1430.190	2462.020	SRC - Phelps 11-32NHZ	7926.410	7444.740	220.480	3073.970	54.200	1396.090	1370.990	55.400
8350.240	7407.000	1464.190	2462.610	SRC - Phelps 11-32NHZ	7927.260	7444.770	220.510	3073.970	54.200	1396.090	1370.990	55.400
8416.200	7407.000	1530.150	2462.580	SRC - Phelps 11-32NHZ	7930.030	7444.840	220.630	3073.970	54.200	1396.090	1370.990	55.400
8516.200	7407.000	1630.150	2462.530	SRC - Phelps 11-32NHZ	7934.230	7444.950	220.800	3073.970	54.200	1396.090	1370.990	55.400
8616.200	7407.000	1730.150	2462.490	SRC - Phelps 11-32NHZ	7938.430	7445.050	220.980	3073.970	54.200	1396.090	1370.990	55.400
8716.200	7407.000	1830.150	2462.440	SRC - Phelps 11-32NHZ	7942.000	7445.150	221.120	3073.970	54.200	1396.090	1370.990	55.400
8816.200	7407.000	1930.150	2462.390	SRC - Phelps 11-32NHZ	7944.960	7445.170	221.240	3073.970	54.200	1396.090	1370.990	55.400
8916.200	7407.000	2030.150	2462.340	SRC - Phelps 11-32NHZ	7949.010	7445.200	221.410	3073.970	54.200	1396.090	1370.990	55.400
9016.200	7407.000	2130.150	2462.290	SRC - Phelps 11-32NHZ	7953.060	7445.220	221.570	3073.970	54.200	1396.090	1370.990	55.400
9116.200	7407.000	2230.150	2462.240	SRC - Phelps 11-32NHZ	7957.110	7445.250	221.730	3073.970	54.200	1396.090	1370.990	55.400
9216.200	7407.000	2330.150	2462.190	SRC - Phelps 11-32NHZ	7961.160	7445.280	221.890	3073.970	54.200	1396.090	1370.990	55.400
9316.200	7407.000	2430.150	2462.150	SRC - Phelps 11-32NHZ	7965.210	7445.310	222.050	3073.970	54.200	1396.090	1370.990	55.400
9416.200	7407.000	2530.150	2462.100	SRC - Phelps 11-32NHZ	7969.260	7445.340	222.220	3073.970	54.200	1396.090	1370.990	55.400
9516.200	7407.000	2630.150	2462.050	SRC - Phelps 11-32NHZ	7973.000	7445.360	222.370	3073.970	54.200	1396.090	1370.990	55.400
9616.200	7407.000	2730.150	2462.000	SRC - Phelps 11-32NHZ	7976.740	7445.380	222.520	3073.970	54.200	1396.090	1370.990	55.400
9716.200	7407.000	2830.150	2461.950	SRC - Phelps 11-32NHZ	7979.300	7445.350	222.450	3073.970	54.200	1396.090	1370.990	55.400
9816.200	7407.000	2930.150	2461.900	SRC - Phelps 11-32NHZ	7979.100	7445.340	222.590	3073.970	54.200	1396.090	1370.990	55.400
9916.200	7407.000	3030.150	2461.850	SRC - Phelps 11-32NHZ	7982.900	7445.320	222.740	3073.970	54.200	1396.090	1370.990	55.400
10016.200	7407.000	3130.150	2461.810	SRC - Phelps 11-32NHZ	7986.700	7445.310	222.880	3073.970	54.200	1396.090	1370.990	55.400
10116.200	7407.000	3230.150	2461.760	SRC - Phelps 11-32NHZ	7989.000	7445.300	222.970	3073.970	54.200	1396.090	1370.990	55.400
10216.200	7407.000	3330.150	2461.710	SRC - Phelps 11-32NHZ	7991.000	7445.300	222.970	3073.970	54.200	1396.090	1370.990	55.400
10316.200	7407.000	3430.150	2461.660	SRC - Phelps 11-32NHZ	7992.190	7445.250	223.080	3073.970	54.200	1396.090	1370.990	

2016.200	2016.200	0.000	0.000	SRC - Phelps 12-32CHZ	1806.510	1766.000	-801.840	2916.730	105.400	3035.270	3031.650	837.610
2116.200	2116.200	0.000	0.000	SRC - Phelps 12-32CHZ	1907.380	1866.520	-803.270	2924.960	105.400	3043.510	3039.720	803.490
2216.200	2216.200	0.000	0.000	SRC - Phelps 12-32CHZ	2007.640	1966.450	-805.610	2932.840	105.400	3051.700	3047.750	772.330
2219.000	2219.000	0.000	0.000	SRC - Phelps 12-32CHZ	2010.430	1969.230	-805.670	2933.050	105.400	3051.930	3047.980	771.460
2316.200	2316.160	1.010	2.260	SRC - Phelps 12-32CHZ	2133.690	2092.090	-808.400	2942.520	39.500	3057.860	3053.720	739.300
2416.200	2415.850	4.170	9.280	SRC - Phelps 12-32CHZ	2287.070	2245.140	-812.770	2951.550	39.600	3058.340	3054.000	704.080
2516.200	2515.000	9.450	21.050	SRC - Phelps 12-32CHZ	2383.290	2341.200	-815.300	2956.480	39.900	3054.040	3049.540	677.650
2616.200	2613.340	16.860	37.540	SRC - Phelps 12-32CHZ	2456.790	2414.540	-817.330	2960.840	40.200	3046.490	3041.830	654.230
2716.200	2710.600	26.370	58.710	SRC - Phelps 12-32CHZ	2578.690	2536.210	-819.960	2967.830	40.800	3034.750	3029.890	624.860
2816.200	2806.520	37.940	84.480	SRC - Phelps 12-32CHZ	2655.100	2612.480	-821.440	2972.120	41.400	3019.050	3014.010	599.720
2916.200	2900.820	51.560	114.800	SRC - Phelps 12-32CHZ	2740.770	2697.980	-823.590	2977.380	42.200	3000.230	2994.990	572.740
3016.200	2993.250	67.180	149.590	SRC - Phelps 12-32CHZ	2834.470	2781.470	-825.840	2982.630	43.100	2978.000	2972.530	544.920
3116.200	3083.560	84.760	188.730	SRC - Phelps 12-32CHZ	2895.720	2852.510	-827.890	2987.560	44.000	2952.920	2947.210	516.990
3216.200	3171.500	104.260	232.140	SRC - Phelps 12-32CHZ	2951.240	2907.830	-829.610	2991.980	45.000	2925.460	2919.480	489.400
3218.970	3173.910	104.820	233.400	SRC - Phelps 12-32CHZ	2953.720	2910.300	-829.690	2992.180	45.000	2924.670	2918.680	488.570
3258.110	3258.110	124.740	277.750	SRC - Phelps 12-32CHZ	3032.890	2989.140	-832.710	2998.770	45.600	2897.070	2890.770	460.140
3416.200	3344.710	145.220	323.360	SRC - Phelps 12-32CHZ	3178.230	3133.930	-838.750	3009.830	46.800	2868.760	2862.070	428.930
3516.200	3431.310	165.710	368.970	SRC - Phelps 12-32CHZ	3260.500	3215.980	-841.340	3015.250	47.400	2839.600	2832.550	403.130
3616.200	3517.920	186.190	414.580	SRC - Phelps 12-32CHZ	3327.440	3282.710	-843.270	3020.170	47.900	2811.450	2804.050	379.860
3716.200	3604.520	206.670	460.190	SRC - Phelps 12-32CHZ	3416.690	3371.640	-845.940	3027.150	48.600	2784.150	2776.360	357.250
3816.200	3691.120	227.160	505.800	SRC - Phelps 12-32CHZ	3509.160	3463.790	-848.380	3034.530	49.400	2757.340	2749.140	336.220
3916.200	3777.730	247.640	551.410	SRC - Phelps 12-32CHZ	3610.330	3564.600	-849.310	3042.960	50.200	2730.670	2722.040	316.510
4016.200	3864.330	268.130	597.020	SRC - Phelps 12-32CHZ	3720.060	3673.980	-850.440	3051.550	51.000	2704.100	2695.030	298.030
4116.200	3950.930	288.610	642.630	SRC - Phelps 12-32CHZ	3851.240	3804.880	-852.000	3060.050	52.100	2676.990	2667.440	280.370
4216.200	4037.540	309.090	688.240	SRC - Phelps 12-32CHZ	3973.080	3926.540	-852.630	3066.540	53.200	2649.190	2639.170	264.290
4316.200	4124.140	329.580	733.850	SRC - Phelps 12-32CHZ	4098.940	4052.300	-852.610	3071.600	54.300	2620.650	2610.140	249.300
4416.200	4210.740	350.060	779.460	SRC - Phelps 12-32CHZ	4193.440	4146.760	-852.730	3074.310	55.200	2591.750	2580.760	235.920
4516.200	4297.350	370.550	825.070	SRC - Phelps 12-32CHZ	4313.260	4266.560	-854.010	3076.190	56.300	2562.810	2551.330	223.090
4616.200	4383.950	391.030	870.680	SRC - Phelps 12-32CHZ	4476.790	4430.070	-855.080	3075.110	58.000	2532.670	2520.640	210.580
4716.200	4470.550	411.510	916.290	SRC - Phelps 12-32CHZ	4559.460	4512.720	-853.910	3074.090	58.800	2501.830	2489.310	199.820
4816.200	4557.160	432.000	961.900	SRC - Phelps 12-32CHZ	4641.850	4595.100	-852.730	3073.260	59.600	2471.800	2458.780	189.810
4916.200	4643.760	452.480	1007.510	SRC - Phelps 12-32CHZ	4721.000	4674.240	-852.200	3072.300	60.500	2442.640	2429.110	180.500
5016.200	4730.360	472.970	1053.120	SRC - Phelps 12-32CHZ	4805.820	4759.050	-852.160	3071.120	61.400	2414.360	2400.300	171.780
5116.200	4816.970	493.450	1098.730	SRC - Phelps 12-32CHZ	4886.680	4839.990	-852.220	3070.030	62.300	2386.920	2372.340	163.670
5216.200	4903.570	513.930	1144.340	SRC - Phelps 12-32CHZ	4972.650	4925.580	-852.370	3068.930	63.300	2360.370	2345.240	156.070
5316.200	4990.170	534.420	1189.950	SRC - Phelps 12-32CHZ	5049.040	5002.250	-852.770	3068.010	64.200	2334.850	2319.190	149.030
5416.200	5076.780	554.800	1235.560	SRC - Phelps 12-32CHZ	5130.510	5083.710	-853.520	3066.990	65.100	2310.380	2294.160	142.440
5516.200	5163.380	575.390	1281.170	SRC - Phelps 12-32CHZ	5211.070	5164.250	-854.660	3065.940	66.100	2287.010	2270.230	136.300
5616.200	5249.980	595.870	1326.780	SRC - Phelps 12-32CHZ	5288.530	5241.690	-856.200	3064.940	67.100	2264.900	2247.560	130.590
5716.200	5336.590	616.350	1372.390	SRC - Phelps 12-32CHZ	5356.000	5309.130	-857.980	3064.180	67.900	2244.230	2226.320	125.330
5816.200	5423.190	636.840	1418.000	SRC - Phelps 12-32CHZ	5426.400	5379.500	-860.100	3063.690	68.800	2225.090	2206.620	120.430
5916.200	5509.790	657.320	1463.610	SRC - Phelps 12-32CHZ	5508.600	5461.660	-862.560	3063.700	69.900	2205.410	2188.350	115.820
6016.200	5596.390	677.810	1509.220	SRC - Phelps 12-32CHZ	5602.410	5555.450	-864.240	3064.690	71.000	2190.680	2171.020	111.470
6116.200	5683.000	698.290	1554.830	SRC - Phelps 12-32CHZ	5712.340	5665.360	-864.220	3066.690	72.400	2174.270	2154.010	107.310
6216.200	5769.600	718.770	1600.440	SRC - Phelps 12-32CHZ	5820.310	5773.310	-862.940	3068.520	73.700	2158.030	2137.160	103.410
6316.200	5856.200	739.260	1646.050	SRC - Phelps 12-32CHZ	5909.240	5862.220	-861.680	3069.610	74.800	2142.320	2120.860	99.800
6416.200	5942.810	759.740	1691.660	SRC - Phelps 12-32CHZ	5994.370	5947.330	-860.750	3070.550	75.900	2127.760	2105.700	96.450
6516.200	6029.410	780.230	1737.270	SRC - Phelps 12-32CHZ	6094.780	6047.740	-859.520	3071.290	77.200	2113.930	2091.260	93.270
6616.200	6116.010	800.710	1782.880	SRC - Phelps 12-32CHZ	6181.500	6134.450	-858.140	3071.160	78.400	2100.730	2077.470	90.310
6716.200	6202.620	821.190	1828.490	SRC - Phelps 12-32CHZ	6263.980	6216.910	-857.000	3072.260	79.500	2088.900	2065.050	87.580
6816.200	6289.220	841.680	1874.100	SRC - Phelps 12-32CHZ	6358.700	6311.620	-855.640	3072.700	80.700	2077.980	2053.540	85.000
6916.200	6375.820	862.160	1919.710	SRC - Phelps 12-32CHZ	6438.670	6391.580	-854.500	3072.820	81.800	2068.050	2043.020	82.630
7016.200	6462.430	882.650	1965.320	SRC - Phelps 12-32CHZ	6519.790	6472.700	-853.690	3073.020	82.900	2059.600	2034.000	80.440
7116.200	6549.030	903.130	2010.930	SRC - Phelps 12-32CHZ	6601.630	6554.540	-853.410	3072.860	84.000	2052.600	2026.420	78.420
7216.200	6635.630	923.610	2056.540	SRC - Phelps 12-32CHZ	6681.500	6590.840	-866.340	2159.550	121.600	2031.490	2005.070	76.910
7316.200	6722.240	944.100	2102.150	SRC - Phelps 12-32CHZ	6769.900	6758.920	-865.430	2194.090	120.700	2008.480	1981.500	74.450
7416.200	6808.840	964.580	2147.760	SRC - Phelps 12-32CHZ	6847.470	6787.360	-864.790	2223.470	119.900	1989.580	1962.050	72.270
7516.200	6895.440	985.070	2193.370	SRC - Phelps 12-32CHZ	6917.610	6785.830	-864.290	2253.290	119.100	1974.930	1946.880	70.410
7616.200	6982.050	1005.550	2238.980	SRC - Phelps 12-32CHZ	6990.300	6784.400	-864.000	2280.560	118.400	1964.540	1936.090	68.830
7716.200	7068.650	1026.030	2284.590	SRC - Phelps 12-32CHZ	7067.000	6783.110	-863.900	2303.820	117.800	1958.800	1929.800	67.560
7748.760	7096.850	1032.700	2299.440	SRC - Phelps 12-32CHZ	7086.550	7582.580	-863.980	2312.250	117.600	1957.940	1928.800	67.190
7758.980	7105.680	1034.910	2304.100	SRC - Phelps 12-32CHZ	7054.480	7582.330	-864.020	2316.310	119.600	1957.880	1928.700	67.100
7816.200	7154.090	1051.500	2329.590	SRC - Phelps 12-32CHZ	7938.510	7567.020	-864.220	2431.160	126.800	1962.350	1933.010	66.890
7857.410	7187.580	1067.780	2347.220	SRC - Phelps 12-32CHZ	7927.650	7564.890	-864.110	2441.800	132.500	1970.660	1941.160	66.800
7916.200	7232.700	1096.940	2370.980	SRC - Phelps 12-32CHZ	7913.990	7561.950	-864.030	2455.140	138.900	1990.210	1960.490	66.960
8016.200	7300.260	1161.200	2406.530	SRC - Phelps 12-32CHZ	7899.220	7558.460	-864.030	2469.490	146.400	2042.590	2012.570	68.030
8116.200	7353.300	1240.980	2434.440	SRC - Phelps 12-32CHZ	7811.180	7531.110	-863.250	2553.100	147.600	2115.070	2084.790	69.870
8216.200	7389.100	1332.200	2453.250	SRC - Phelps 12-32CHZ	7805.050	7528.840	-863.120	2558.790	149.200	2202.300	2171.870	72.380
8316.200	7405.840	1430.190	2462.020	SRC - Phelps 12-32CHZ	7796.550	7525.620	-862.940	2566.660	146.000	2298.630	2268.110	75.310
8350.240	7407.000	1464.190	2462.610	SRC - Phelps 12-32CHZ	7795.700	7525.290	-862.920	2567.440	138.800	2332.480	2301.940	76.370
8416.200	7407.000	1530.150	2462.580	SRC - Phelps 12-32CHZ	7794.280	7524.750	-862.890	2568.750	138.300	2398.290	2367.720	78.460
8516.200	7407.000	1630.150	2462.530	SRC - Phelps 12-32CHZ	7792.130	7523.920	-862.840	2570.730	137.500	2498.080	2467.470	81.610

116.200	116.200	0.000	0.000	SRC - Phelps 12-32NHZ	150.450	113.650	-781.460	2803.150	105.600	2910.040	2908.910	2558.160
180.240	180.240	0.000	0.000	SRC - Phelps 12-32NHZ	214.490	177.690	-781.640	2803.160	105.600	2910.100	2908.870	2359.900
216.200	216.200	0.000	0.000	SRC - Phelps 12-32NHZ	243.860	207.060	-781.700	2803.230	105.600	2910.190	2908.900	2257.990
316.200	316.200	0.000	0.000	SRC - Phelps 12-32NHZ	343.860	307.060	-781.860	2803.510	105.600	2910.510	2909.050	1993.550
416.200	416.200	0.000	0.000	SRC - Phelps 12-32NHZ	443.860	407.060	-782.020	2803.790	105.600	2910.820	2909.210	1811.970
516.200	516.200	0.000	0.000	SRC - Phelps 12-32NHZ	543.860	503.820	-781.970	2804.200	105.600	2911.210	2909.450	1652.390
616.200	616.200	0.000	0.000	SRC - Phelps 12-32NHZ	630.620	593.820	-781.940	2804.730	105.600	2911.770	2909.860	1521.490
716.200	716.200	0.000	0.000	SRC - Phelps 12-32NHZ	715.200	678.390	-782.570	2805.540	105.600	2912.890	2910.830	1413.630
816.200	816.200	0.000	0.000	SRC - Phelps 12-32NHZ	789.700	752.870	-784.230	2806.540	105.600	2914.740	2912.530	1322.900
916.200	916.200	0.000	0.000	SRC - Phelps 12-32NHZ	865.380	828.470	-787.120	2807.790	105.700	2917.450	2915.010	1244.220
1016.200	1016.200	0.000	0.000	SRC - Phelps 12-32NHZ	939.300	902.270	-781.080	2809.280	105.700	2920.760	2918.270	1174.230
1116.200	1116.200	0.000	0.000	SRC - Phelps 12-32NHZ	1029.570	992.310	-797.190	2811.410	105.800	2924.870	2922.230	1105.160
1216.200	1216.200	0.000	0.000	SRC - Phelps 12-32NHZ	1109.530	1072.010	-803.290	2813.430	105.900	2929.410	2926.620	1047.640
1316.200	1316.200	0.000	0.000	SRC - Phelps 12-32NHZ	1199.710	1161.850	-810.610	2816.130	106.100	2934.530	2931.570	991.060
1416.200	1416.200	0.000	0.000	SRC - Phelps 12-32NHZ	1313.310	1275.110	-818.550	2819.840	106.200	2939.630	2936.490	934.960
1516.200	1516.200	0.000	0.000	SRC - Phelps 12-32NHZ	1433.410	1394.980	-824.940	2823.330	106.300	2943.880	2940.550	884.130
1616.200	1616.200	0.000	0.000	SRC - Phelps 12-32NHZ	1490.920	1452.410	-827.130	2825.740	106.300	2948.850	2945.400	852.590
1716.200	1716.200	0.000	0.000	SRC - Phelps 12-32NHZ	1557.950	1519.240	-830.860	2829.010	106.400	2955.060	2951.470	821.110
1816.200	1816.200	0.000	0.000	SRC - Phelps 12-32NHZ	1625.170	1586.160	-836.130	2832.480	106.500	2962.260	2958.520	791.680
1916.200	1916.200	0.000	0.000	SRC - Phelps 12-32NHZ	1716.900	1677.330	-844.970	2837.440	106.600	2970.200	2966.670	841.050
2016.200	2016.200	0.000	0.000	SRC - Phelps 12-32NHZ	1816.830	1776.640	-854.670	2842.900	106.700	2978.250	2974.540	802.570
2116.200	2116.200	0.000	0.000	SRC - Phelps 12-32NHZ	1918.620	1878.020	-864.270	2848.550	106.900	2986.290	2982.400	767.340
2216.200	2216.200	0.000	0.000	SRC - Phelps 12-32NHZ	2023.120	1981.770	-873.720	2854.410	107.000	2994.410	2990.410	735.050
2319.000	2219.000	0.000	0.000	SRC - Phelps 12-32NHZ	2025.910	1984.550	-873.450	2854.570	107.000	2994.410	2990.330	734.190
2316.200	2316.160	1.010	2.260	SRC - Phelps 12-32NHZ	2129.830	2088.020	-880.920	2860.610	41.200	3000.010	2995.750	705.370
2416.200	2415.850	4.170	9.280	SRC - Phelps 12-32NHZ	2266.470	2224.210	-889.050	2868.070	41.400	3001.210	2996.750	673.430
2516.200	2515.000	9.450	21.050	SRC - Phelps 12-32NHZ	2336.180	2293.710	-893.210	2871.580	41.700	2998.220	2993.610	651.320
2616.200	2613.340	16.860	37.540	SRC - Phelps 12-32NHZ	2406.970	2364.190	-898.240	2875.870	42.000	2992.590	2987.830	629.250
2716.200	2710.600	26.370	58.710	SRC - Phelps 12-32NHZ	2504.910	2461.650	-905.390	2882.310	42.600	2983.770	2978.820	603.250
2816.200	2806.520	37.940	84.480	SRC - Phelps 12-32NHZ	2632.780	2589.020	-913.490	2890.140	43.400	2975.560	2965.380	573.920
2916.200	2900.820	51.560	114.800	SRC - Phelps 12-32NHZ	2719.500	2675.450	-918.620	2895.080	44.200	2963.300	2947.920	548.110
3016.200	2993.250	67.180	149.590	SRC - Phelps 12-32NHZ	2791.410	2747.060	-923.500	2899.440	45.100	2933.220	2927.610	522.670
3116.200	3083.560	84.760	188.730	SRC - Phelps 12-32NHZ	2873.410	2828.660	-929.600	2904.650	46.200	2910.340	2904.460	495.070
3216.200	3171.500	104.260	232.140	SRC - Phelps 12-32NHZ	2956.250	2911.070	-936.190	2910.030	47.500	2884.690	2878.510	466.630
3316.200	3173.910	124.740	233.400	SRC - Phelps 12-32NHZ	2958.680	2911.190	-936.790	2911.190	47.500	2883.940	2877.750	465.840
3416.200	3258.110	124.740	277.750	SRC - Phelps 12-32NHZ	3037.360	2991.710	-943.020	2915.300	48.200	2857.930	2851.410	438.740
3516.200	3344.710	145.220	323.360	SRC - Phelps 12-32NHZ	3121.060	3074.930	-950.150	2920.860	48.900	2831.890	2825.020	412.220
3616.200	3431.310	165.710	368.970	SRC - Phelps 12-32NHZ	3209.630	3162.990	-957.570	2926.850	49.700	2806.510	2799.270	387.210
3716.200	3517.920	186.190	414.580	SRC - Phelps 12-32NHZ	3307.260	3260.060	-965.770	2933.200	50.600	2781.540	2773.890	363.560
3816.200	3604.520	206.670	460.190	SRC - Phelps 12-32NHZ	3394.620	3346.940	-972.990	2938.790	51.400	2757.070	2749.010	342.180
3916.200	3691.120	227.160	505.800	SRC - Phelps 12-32NHZ	3484.540	3436.370	-980.490	2944.440	52.300	2733.180	2724.700	322.270
4016.200	3777.730	247.640	551.410	SRC - Phelps 12-32NHZ	3567.530	3518.880	-987.920	2949.440	53.100	2710.010	2701.100	304.150
4116.200	3864.330	268.130	597.020	SRC - Phelps 12-32NHZ	3646.190	3597.040	-995.290	2954.240	53.900	2687.780	2678.440	287.560
4216.200	3950.930	288.610	642.630	SRC - Phelps 12-32NHZ	3711.460	3691.710	-1004.170	2960.150	54.800	2666.350	2656.530	271.740
4316.200	4037.540	309.090	688.240	SRC - Phelps 12-32NHZ	3833.490	3783.210	-1012.390	2965.700	55.700	2645.340	2635.060	257.250
4416.200	4124.140	329.580	733.850	SRC - Phelps 12-32NHZ	3913.230	3862.480	-1019.510	2970.430	56.500	2625.030	2614.280	244.210
4516.200	4210.740	350.060	779.460	SRC - Phelps 12-32NHZ	3984.330	3933.130	-1026.270	2974.790	57.300	2605.530	2594.710	232.350
4616.200	4297.350	370.550	825.070	SRC - Phelps 12-32NHZ	4075.830	4024.010	-1034.990	2980.910	58.200	2586.320	2576.320	220.980
4716.200	4383.950	391.030	870.680	SRC - Phelps 12-32NHZ	4168.880	4116.490	-1042.930	2987.370	59.200	2567.630	2558.420	210.410
4816.200	4470.550	411.510	916.290	SRC - Phelps 12-32NHZ	4265.480	4212.510	-1051.530	2993.560	60.200	2553.850	2541.120	200.560
4916.200	4557.160	432.000	961.900	SRC - Phelps 12-32NHZ	4364.540	4311.010	-1060.390	2999.300	61.300	2537.480	2524.220	191.330
5016.200	4643.760	452.480	1007.510	SRC - Phelps 12-32NHZ	4466.910	4412.860	-1068.960	3004.890	62.400	2521.430	2507.630	182.710
5116.200	4730.360	472.970	1053.120	SRC - Phelps 12-32NHZ	4554.850	4500.390	-1076.040	3009.590	63.400	2506.010	2491.680	174.920
5216.200	4816.970	493.450	1098.730	SRC - Phelps 12-32NHZ	4639.050	4584.190	-1082.700	3014.320	64.300	2491.560	2476.710	167.740
5316.200	4903.570	513.930	1144.340	SRC - Phelps 12-32NHZ	4738.800	4683.470	-1091.010	3019.250	65.400	2477.820	2462.410	160.810
5416.200	4990.170	534.420	1189.950	SRC - Phelps 12-32NHZ	4841.700	4785.910	-1099.750	3023.390	66.600	2464.490	2448.520	154.300
5516.200	5076.780	554.900	1235.560	SRC - Phelps 12-32NHZ	4929.250	4873.120	-1106.560	3027.000	67.600	2451.780	2435.260	148.400
5616.200	5163.380	575.390	1281.170	SRC - Phelps 12-32NHZ	5008.080	4951.620	-1113.090	3030.110	68.500	2440.210	2423.140	143.000
5716.200	5249.980	595.870	1326.780	SRC - Phelps 12-32NHZ	5111.030	5054.140	-1121.680	3033.790	69.700	2429.440	2411.880	137.710
5816.200	5336.590	616.350	1372.390	SRC - Phelps 12-32NHZ	5200.630	5143.410	-1128.810	3038.730	70.900	2418.280	2401.080	132.880
5916.200	5423.190	636.840	1418.000	SRC - Phelps 12-32NHZ	5270.250	5212.750	-1134.720	3038.900	71.600	2410.400	2391.650	128.580
6016.200	5509.790	657.320	1463.610	SRC - Phelps 12-32NHZ	5345.100	5287.260	-1141.340	3041.470	72.500	2402.990	2383.690	124.540
6116.200	5596.390	677.810	1509.220	SRC - Phelps 12-32NHZ	5420.740	5362.530	-1148.140	3044.550	73.500	2397.080	2377.240	120.790
6216.200	5683.000	698.290	1554.830	SRC - Phelps 12-32NHZ	5497.460	5438.850	-1154.960	3048.370	74.400	2392.650	2372.260	117.200
6316.200	5769.600	718.770	1600.440	SRC - Phelps 12-32NHZ	5604.590	5545.450	-1163.920	3054.160	75.600	2389.150	2368.170	113.840
6416.200	5856.200	739.260	1646.050	SRC - Phelps 12-32NHZ	5741.360	5681.720	-1173.640	3060.540	77.300	2385.460	2363.840	110.370
6516.200	5942.810	759.740	1691.660	SRC - Phelps 12-32NHZ	5855.550	5795.650	-1180.080	3064.720	78.600	2381.150	2358.940	107.220
6616.200	6029.410	780.230	1737.270	SRC - Phelps 12-32NHZ	5976.700	5916.600	-1185.770	3068.390	80.000	2376.920	2354.110	104.220
6716.200	6116.010	800.710	1782.880	SRC - Phelps 12-32NHZ	6090.700	6030.500	-1189.610	3071.460	81.400	2372.570	2349.180	101.420
6816.200	6202.620	821.190	1828.490	SRC - Phelps 12-32NHZ	6188.990	6128.730	-1191.910	3074.030	82.500	2368.420	2344.460	98.850
6916.200	6287.510	836.540	1862.670	SRC - Phelps 12-32NHZ	6469.790	7443.810	-1211.310	1797.450	126.600	2362.550	2336.670	91.280
7016.200	6373.820	841.680	1874.100	SRC - Phelps 12-32NHZ	6290.000	7445.380	-1208.710	1977.140	122.600	2356.140	2330.580	92.170
7116.200	6462.430	862.160	1917.710	SRC - Phelps 12-32NHZ	8255.120	74						

12316.200	7407.000	5430.150	2460.690	SRC - Phelps 12-32NHZ	7881.000	7444.500	-1181.310	2385.040	-115.400	6612.000	6580.720	211.340
12416.200	7407.000	5530.150	2460.640	SRC - Phelps 12-32NHZ	7881.000	7444.500	-1181.310	2385.040	-115.400	6712.000	6680.680	214.340
12516.200	7407.000	5630.150	2460.590	SRC - Phelps 12-32NHZ	7881.000	7444.500	-1181.310	2385.040	-115.400	6811.990	6760.640	217.330
12616.200	7407.000	5730.150	2460.540	SRC - Phelps 12-32NHZ	7881.000	7444.500	-1181.310	2385.040	-115.400	6911.980	6860.610	220.310
12697.660	7407.000	5811.610	2460.500	SRC - Phelps 12-32NHZ	7881.000	7444.500	-1181.310	2385.040	-115.400	6993.430	6962.030	222.730

Offset Wellbore Survey Tool Programs

Well	SRC - Phelps 12-32NHZ
Wellbore	SRC - Phelps 12-32NHZ (AWB)
Survey Name	As Drilled Survey - Entered 20160505
MD[ft]	11948.200
Survey Tool	WdW Rate Gyro
Error Model	Standard

Clearance Data

Reference MD[ft]	Reference TVD[ft]	Reference North[ft]	Reference East[ft]	Offset Well	Offset MD[ft]	Offset TVD[ft]	Offset North[ft]	Offset East[ft]	Angle From Highside [deg]	Closest Approach Distance [ft]	Ellipse Separation [ft]	Clearance Factor
16.200	16.200		0.000	0.000 SRC - Phelps A-32CHZ	53.000	16.200	-791.080	2759.210	106.000	2870.370	2869.410	
32.600	32.600		0.000	0.000 SRC - Phelps A-32CHZ	60.310	23.510	-791.040	2759.240	106.000	2870.410	2869.400	2840.310
116.200	116.200		0.000	0.000 SRC - Phelps A-32CHZ	120.160	83.350	-790.160	2760.050	106.000	2871.120	2870.010	2578.310
216.200	216.200		0.000	0.000 SRC - Phelps A-32CHZ	234.930	198.090	-788.280	2761.700	105.900	2872.050	2870.770	2245.030
316.200	316.200		0.000	0.000 SRC - Phelps A-32CHZ	349.190	312.330	-787.300	2762.510	105.900	2872.510	2871.060	1982.920
416.200	416.200		0.000	0.000 SRC - Phelps A-32CHZ	453.540	416.690	-787.140	2762.620	105.900	2872.570	2870.960	1781.010
516.200	516.200		0.000	0.000 SRC - Phelps A-32CHZ	567.630	530.770	-786.880	2762.350	105.900	2872.270	2870.490	1609.090
616.200	616.200		0.000	0.000 SRC - Phelps A-32CHZ	690.910	654.050	-785.820	2761.460	105.900	2871.340	2869.380	1461.540
716.200	716.200		0.000	0.000 SRC - Phelps A-32CHZ	793.350	756.470	-784.490	2760.310	105.900	2869.900	2867.770	1348.350
816.200	816.200		0.000	0.000 SRC - Phelps A-32CHZ	885.140	848.250	-783.090	2759.490	105.800	2868.630	2866.350	1256.480
916.200	916.200		0.000	0.000 SRC - Phelps A-32CHZ	970.330	933.430	-782.110	2759.110	105.800	2867.870	2865.440	1179.660
1016.200	1016.200		0.000	0.000 SRC - Phelps A-32CHZ	1081.820	1044.910	-780.930	2758.550	105.800	2867.100	2864.490	1101.700
1116.200	1116.200		0.000	0.000 SRC - Phelps A-32CHZ	1196.310	1159.380	-778.980	2757.670	105.800	2865.910	2863.130	1032.330
1216.200	1216.200		0.000	0.000 SRC - Phelps A-32CHZ	1339.520	1302.530	-776.010	2754.690	105.700	2863.210	2860.240	962.720
1316.200	1316.200		0.000	0.000 SRC - Phelps A-32CHZ	1446.590	1409.540	-774.020	2751.850	105.700	2860.160	2857.020	910.790
1416.200	1416.200		0.000	0.000 SRC - Phelps A-32CHZ	1632.340	1594.980	-765.940	2744.870	105.600	2855.330	2851.960	845.900
1516.200	1516.200		0.000	0.000 SRC - Phelps A-32CHZ	1740.330	1702.670	-760.420	2739.080	105.500	2848.780	2845.230	802.930
1616.200	1616.200		0.000	0.000 SRC - Phelps A-32CHZ	1859.390	1821.320	-752.980	2732.780	105.400	2842.030	2838.300	761.500
1716.200	1716.200		0.000	0.000 SRC - Phelps A-32CHZ	1954.000	1915.500	-745.440	2727.830	105.300	2834.870	2830.970	727.090
1816.200	1816.200		0.000	0.000 SRC - Phelps A-32CHZ	2036.440	1997.520	-738.000	2724.200	105.200	2828.210	2824.160	697.210
1916.200	1916.200		0.000	0.000 SRC - Phelps A-32CHZ	2131.100	2091.650	-728.600	2720.580	105.000	2821.910	2818.060	733.220
2016.200	2016.200		0.000	0.000 SRC - Phelps A-32CHZ	2170.540	2130.860	-724.530	2719.400	104.900	2816.590	2812.620	709.510
2116.200	2116.200		0.000	0.000 SRC - Phelps A-32CHZ	2231.800	2191.830	-718.660	2718.820	104.800	2813.220	2809.110	684.160
2216.200	2216.200		0.000	0.000 SRC - Phelps A-32CHZ	2263.000	2222.910	-715.910	2719.120	104.800	2811.790	2807.570	665.830
2219.000	2219.000		0.000	0.000 SRC - Phelps A-32CHZ	2263.000	2222.910	-715.910	2719.120	104.800	2811.790	2807.560	665.480
2229.650	2229.650		0.010	0.030 SRC - Phelps A-32CHZ	2263.000	2222.910	-715.910	2719.120	104.800	2811.770	2807.530	665.110
2316.200	2316.160		1.010	2.260 SRC - Phelps A-32CHZ	2322.200	2281.850	-710.700	2720.700	38.900	2810.280	2805.920	643.790
2416.200	2415.850		4.170	9.280 SRC - Phelps A-32CHZ	2387.000	2346.310	-704.750	2723.600	38.900	2806.230	2801.720	621.990
2516.200	2515.000		9.450	21.050 SRC - Phelps A-32CHZ	2522.450	2480.830	-690.280	2730.080	38.900	2798.150	2793.400	589.400
2616.200	2613.340		37.540	37.540 SRC - Phelps A-32CHZ	2597.520	2555.230	-680.900	2733.670	39.100	2790.630	2786.630	565.300
2716.200	2710.600		26.370	58.710 SRC - Phelps A-32CHZ	2675.000	2631.830	-670.260	2738.280	39.500	2769.770	2764.640	540.500
2816.200	2806.520		37.940	84.480 SRC - Phelps A-32CHZ	2752.770	2708.510	-658.610	2743.940	39.900	2750.910	2745.570	515.350
2916.200	2900.820		51.560	114.800 SRC - Phelps A-32CHZ	2818.040	2772.800	-648.740	2749.370	40.400	2729.060	2723.500	491.020
3016.200	2993.250		67.180	149.590 SRC - Phelps A-32CHZ	2898.630	2852.230	-637.280	2756.650	41.000	2704.240	2698.420	464.670
3116.200	3083.560		84.760	188.730 SRC - Phelps A-32CHZ	3030.480	2982.220	-618.110	2767.660	42.000	2674.910	2668.730	432.620
3216.200	3171.500		104.260	232.140 SRC - Phelps A-32CHZ	3109.020	3059.630	-606.480	2774.090	43.000	2641.810	2635.310	406.290
3218.970	3173.910		104.820	233.400 SRC - Phelps A-32CHZ	3111.580	3062.150	-606.100	2774.310	43.000	2640.850	2634.340	405.520
3316.200	3258.110		124.740	277.750 SRC - Phelps A-32CHZ	3176.330	3125.950	-596.660	2780.050	43.300	2607.570	2600.730	381.660
3416.200	3344.710		145.220	323.360 SRC - Phelps A-32CHZ	3236.060	3184.770	-588.180	2786.050	43.500	2574.550	2567.380	359.200
3516.200	3431.310		165.710	368.970 SRC - Phelps A-32CHZ	3382.800	3329.150	-566.410	2800.560	44.200	2541.470	2533.820	332.310
3616.200	3517.920		186.190	414.580 SRC - Phelps A-32CHZ	3480.450	3425.100	-550.430	2809.080	44.600	2506.960	2498.880	310.380
3716.200	3604.520		206.670	460.190 SRC - Phelps A-32CHZ	3586.380	3529.370	-534.030	2818.010	45.100	2472.570	2464.050	290.260
3816.200	3691.120		227.160	505.800 SRC - Phelps A-32CHZ	3676.510	3616.720	-523.900	2822.960	45.600	2437.870	2428.930	272.710
3916.200	3777.730		247.640	551.410 SRC - Phelps A-32CHZ	3726.990	3668.830	-518.940	2827.520	45.900	2404.200	2394.880	258.070
4016.200	3864.330		268.130	597.020 SRC - Phelps A-32CHZ	3824.530	3765.530	-509.020	2835.490	46.500	2371.600	2361.830	242.820
4116.200	3950.930		288.610	642.630 SRC - Phelps A-32CHZ	3938.330	3877.610	-492.060	2845.450	47.100	2338.220	2327.960	227.890
4216.200	4037.540		309.090	688.240 SRC - Phelps A-32CHZ	4012.450	3950.210	-479.160	2852.890	47.500	2305.370	2294.650	215.100
4316.200	4124.140		329.580	733.850 SRC - Phelps A-32CHZ	4115.270	4050.960	-461.510	2863.310	47.900	2272.840	2261.610	202.470
4416.200	4210.740		350.060	779.460 SRC - Phelps A-32CHZ	4192.330	4126.720	-449.360	2870.500	48.400	2240.220	2228.510	191.360
4516.200	4297.350		370.550	825.070 SRC - Phelps A-32CHZ	4273.500	4206.200	-435.400	2879.260	48.800	2208.520	2196.320	181.050
4616.200	4383.950		391.030	870.680 SRC - Phelps A-32CHZ	4411.710	4341.290	-410.000	2893.580	49.400	2176.140	2163.350	170.160
4716.200	4470.550		411.510	916.290 SRC - Phelps A-32CHZ	4488.670	4416.370	-395.060	2901.410	49.800	2143.410	2130.110	161.120
4816.200	4557.160		432.000	961.900 SRC - Phelps A-32CHZ	4588.120	4512.990	-374.510	2912.980	50.200	2111.660	2097.810	152.400
4916.200	4643.760		452.480	1007.510 SRC - Phelps A-32CHZ	4701.310	4623.340	-351.890	2923.950	50.800	2078.500	2064.070	144.000
5016.200	4730.360		472.970	1053.120 SRC - Phelps A-32CHZ	4777.200	4697.470	-337.360	2931.340	51.200	2045.830	2030.860	136.710
5116.200	4816.970		493.450	1098.730 SRC - Phelps A-32CHZ	4876.450	4794.570	-319.200	2940.890	51.800	2013.570	1998.040	129.660
5216.200	4903.570		513.930	1144.340 SRC - Phelps A-32CHZ	4954.330	4870.880	-305.330	2948.000	52.300	1981.270	1965.200	123.240
5316.200	4990.170		534.420	1189.950 SRC - Phelps A-32CHZ	5031.420	4946.200	-291.140	2956.180	52.700	1950.140	1933.510	117.280
5416.200	5076.780		554.900	1235.560 SRC - Phelps A-32CHZ	5120.550	5033.300	-275.060	2966.100	53.300	1919.760	1902.560	111.600
5516.200	5163.380		575.390	1281.170 SRC - Phelps A-32CHZ	5208.020	5119.120	-260.750	2975.210	53.900	1889.670	1871.890	106.280
5616.200	5249.980		595.870	1326.780 SRC - Phelps A-32CHZ	5269.310	5179.270	-251.330	2982.190	54.300	1860.950	1842.610	101.520
5716.200	5336.590		616.350	1372.390 SRC - Phelps A-32CHZ	5385.940	5293.910	-234.400	2995.390	55.200	1832.960	1814.000	96.720
5816.200	5423.190		636.840	1418.000 SRC - Phelps A-32CHZ	5480.510	5387.170	-221.620	3004.460	56.000	1804.190	1784.640	92.280
5916.200	5509.790		657.320	1463.610 SRC - Phelps A-32CHZ	5569.670	5475.190	-210.240	3012.980	56.800	1776.060	1755.910	88.140
6016.200	5596.390		677.810	1509.220 SRC - Phelps A-32CHZ	5726.190	5630.230	-191.740	3023.600	58.400	1746.590	1725.790	83.970
6116.200	5683.000		698.290	1554.830 SRC - Phelps A-32CHZ	5837.470	5740.530	-177.770	3028.220	59.600	1715.130	1693.710	80.090
6216.200	5769.600		718.770									

10416.200	7407.000	3530.150	2461.610	SRC - Phelps A-32CHZ	7957.780	7564.300	-116.280	2451.560	-175.700	3649.840	3618.870	117.850
10516.200	7407.000	3630.150	2461.560	SRC - Phelps A-32CHZ	7959.000	7564.550	-116.270	2450.370	-175.300	3749.750	3718.750	120.980
10616.200	7407.000	3730.150	2461.510	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	3849.660	3818.640	124.110
10716.200	7407.000	3830.150	2461.470	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	3949.580	3918.530	127.220
10816.200	7407.000	3930.150	2461.420	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	4049.500	4018.430	130.320
10916.200	7407.000	4030.150	2461.370	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	4149.420	4118.320	133.420
11016.200	7407.000	4130.150	2461.320	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	4249.350	4218.220	136.510
11116.200	7407.000	4230.150	2461.270	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	4349.280	4318.130	139.600
11216.200	7407.000	4330.150	2461.220	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	4449.220	4418.040	142.680
11316.200	7407.000	4430.150	2461.170	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	4549.160	4517.950	145.750
11416.200	7407.000	4530.150	2461.130	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	4649.100	4617.860	148.820
11516.200	7407.000	4630.150	2461.080	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	4749.040	4717.770	151.880
11616.200	7407.000	4730.150	2461.030	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	4848.990	4817.690	154.940
11716.200	7407.000	4830.150	2460.980	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	4948.940	4917.610	157.980
11816.200	7407.000	4930.150	2460.930	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	5048.880	5017.530	161.030
11916.200	7407.000	5030.150	2460.880	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	5148.840	5117.450	164.060
12016.200	7407.000	5130.150	2460.830	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	5248.790	5217.380	167.090
12116.200	7407.000	5230.150	2460.790	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	5348.750	5317.300	170.110
12216.200	7407.000	5330.150	2460.740	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	5448.700	5417.230	173.130
12316.200	7407.000	5430.150	2460.690	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	5548.660	5517.160	176.140
12416.200	7407.000	5530.150	2460.640	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	5648.620	5617.090	179.140
12516.200	7407.000	5630.150	2460.590	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	5748.580	5717.020	182.140
12616.200	7407.000	5730.150	2460.540	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	5848.540	5816.950	185.130
12697.660	7407.000	5811.610	2460.500	SRC - Phelps A-32CHZ	7960.000	7564.760	-116.250	2449.390	-174.900	5929.970	5898.350	187.560

Offset Wellbore Survey Tool Programs

Well	SRC - Phelps A-32CHZ
Wellbore	SRC - Phelps A-32CHZ (AWB)
Survey Name	As Drilled Survey - Entered 20160505
MD[ft]	12081.200
Survey Tool	WdW Rate Gyro
Error Model	Standard

Clearance Data

Reference MD[ft]	Reference TVD[ft]	Reference North[ft]	Reference East[ft]	Offset Well	Offset MD[ft]	Offset TVD[ft]	Offset North[ft]	Offset East[ft]	Angle From Highside [deg]	Closest Approach Distance [ft]	Ellipse Separation [ft]	Clearance Factor
16.200	16.200		0.000	0.000 SRC - Phelps A-32NHZ	53.000	16.200	-786.340	2780.220	105.800	2889.280	2888.320	
32.600	32.600		0.000	0.000 SRC - Phelps A-32NHZ	59.710	22.910	-786.350	2780.240	105.800	2889.320	2888.310	2864.490
116.200	116.200		0.000	0.000 SRC - Phelps A-32NHZ	129.670	92.870	-786.540	2780.630	105.800	2889.820	2888.700	2576.570
216.200	216.200		0.000	0.000 SRC - Phelps A-32NHZ	220.290	183.490	-786.800	2781.520	105.800	2890.840	2889.580	2291.900
316.200	316.200		0.000	0.000 SRC - Phelps A-32NHZ	320.290	283.480	-787.080	2782.610	105.800	2891.970	2890.550	2032.060
416.200	416.200		0.000	0.000 SRC - Phelps A-32NHZ	422.960	386.140	-787.320	2783.670	105.800	2893.020	2891.440	1822.720
516.200	516.200		0.000	0.000 SRC - Phelps A-32NHZ	519.320	482.490	-787.530	2784.720	105.800	2894.140	2892.390	1658.550
616.200	616.200		0.000	0.000 SRC - Phelps A-32NHZ	617.800	580.970	-787.940	2785.990	105.800	2895.480	2893.580	1521.140
716.200	716.200		0.000	0.000 SRC - Phelps A-32NHZ	779.170	742.330	-786.920	2786.130	105.800	2895.250	2893.130	1369.520
816.200	816.200		0.000	0.000 SRC - Phelps A-32NHZ	885.290	848.430	-784.790	2785.630	105.700	2894.250	2891.970	1269.340
916.200	916.200		0.000	0.000 SRC - Phelps A-32NHZ	987.780	950.850	-781.740	2785.180	105.700	2893.020	2890.570	1183.920
1016.200	1016.200		0.000	0.000 SRC - Phelps A-32NHZ	1078.720	1041.760	-778.660	2785.080	105.600	2892.000	2889.400	1112.980
1116.200	1116.200		0.000	0.000 SRC - Phelps A-32NHZ	1184.090	1147.060	-774.850	2785.120	105.600	2891.060	2888.290	1044.810
1216.200	1216.200		0.000	0.000 SRC - Phelps A-32NHZ	1275.000	1237.890	-771.160	2785.150	105.500	2890.020	2887.100	988.630
1316.200	1316.200		0.000	0.000 SRC - Phelps A-32NHZ	1356.320	1319.140	-767.880	2785.570	105.400	2889.470	2886.400	939.990
1361.340	1361.340		0.000	0.000 SRC - Phelps A-32NHZ	1398.000	1360.790	-766.340	2785.950	105.400	2889.430	2886.280	918.660
1416.200	1416.200		0.000	0.000 SRC - Phelps A-32NHZ	1429.000	1391.770	-765.380	2786.480	105.400	2889.790	2886.570	898.770
1516.200	1516.200		0.000	0.000 SRC - Phelps A-32NHZ	1460.000	1422.750	-764.650	2787.340	105.300	2891.830	2888.510	870.650
1616.200	1616.200		0.000	0.000 SRC - Phelps A-32NHZ	1522.000	1484.680	-763.550	2790.030	105.300	2895.610	2892.160	838.200
1716.200	1716.200		0.000	0.000 SRC - Phelps A-32NHZ	1590.580	1553.060	-760.790	2794.460	105.200	2900.760	2897.170	807.110
1816.200	1816.200		0.000	0.000 SRC - Phelps A-32NHZ	1686.160	1648.280	-756.080	2801.360	105.100	2906.450	2902.690	772.300
1916.200	1916.200		0.000	0.000 SRC - Phelps A-32NHZ	1753.470	1715.250	-752.390	2806.990	105.000	2912.930	2909.410	826.290
2016.200	2016.200		0.000	0.000 SRC - Phelps A-32NHZ	1824.370	1785.750	-747.910	2813.510	104.900	2920.330	2916.660	794.430
2116.200	2116.200		0.000	0.000 SRC - Phelps A-32NHZ	1915.880	1876.450	-741.000	2823.040	104.700	2928.000	2924.650	760.900
2216.200	2216.200		0.000	0.000 SRC - Phelps A-32NHZ	2072.310	2031.710	-728.310	2837.280	104.400	2935.070	2930.970	716.310
2219.000	2219.000		0.000	0.000 SRC - Phelps A-32NHZ	2075.090	2034.470	-728.080	2837.520	104.400	2935.250	2931.140	715.410
2316.200	2316.160	1.010	2.260	SRC - Phelps A-32NHZ	2165.800	2124.420	-719.790	2845.850	38.300	2939.790	2935.510	686.790
2416.200	2415.850	4.170	9.280	SRC - Phelps A-32NHZ	2306.010	2263.510	-706.430	2857.360	38.100	2939.340	2934.810	649.910
2516.200	2515.000	9.450	21.050	SRC - Phelps A-32NHZ	2407.920	2364.600	-696.410	2865.400	38.200	2934.480	2929.750	621.130
2616.200	2613.340	16.860	37.540	SRC - Phelps A-32NHZ	2585.570	2541.200	-680.270	2875.740	38.400	2923.450	2918.430	583.000
2716.200	2710.600	26.370	58.710	SRC - Phelps A-32NHZ	2664.000	2619.380	-675.050	2879.230	38.800	2907.860	2902.660	559.650
2816.200	2806.520	37.940	84.480	SRC - Phelps A-32NHZ	2727.570	2682.720	-670.830	2882.670	39.300	2889.210	2883.840	537.710
2916.200	2900.820	51.560	114.800	SRC - Phelps A-32NHZ	2812.240	2767.040	-665.210	2887.920	40.000	2887.380	2881.780	512.620
3016.200	2993.250	67.180	149.590	SRC - Phelps A-32NHZ	2951.290	2905.510	-655.910	2896.380	41.000	2841.730	2835.840	482.260
3116.200	3083.560	84.760	188.730	SRC - Phelps A-32NHZ	3023.330	2977.300	-651.030	2899.970	41.900	2871.310	2865.160	457.320
3216.200	3171.550	104.820	232.140	SRC - Phelps A-32NHZ	3093.560	3047.280	-646.900	2904.060	43.000	2778.270	2771.840	432.070
3218.970	3173.910	104.820	233.400	SRC - Phelps A-32NHZ	3096.060	3049.780	-646.760	2904.210	43.000	2777.320	2770.880	431.320
3316.200	3258.110	124.740	277.750	SRC - Phelps A-32NHZ	3171.000	3124.420	-642.300	2909.220	43.500	2744.240	2737.490	406.510
3416.200	3344.710	145.220	323.360	SRC - Phelps A-32NHZ	3248.850	3201.850	-636.620	2914.900	44.000	2710.680	2703.590	382.380
3516.200	3431.310	165.710	368.970	SRC - Phelps A-32NHZ	3318.470	3271.070	-631.820	2920.510	44.400	2678.080	2670.640	360.130
3616.200	3517.920	186.190	414.580	SRC - Phelps A-32NHZ	3390.550	3342.780	-628.040	2926.760	44.800	2646.640	2638.850	339.360
3716.200	3604.520	206.670	460.190	SRC - Phelps A-32NHZ	3530.330	3482.040	-620.980	2936.470	45.800	2613.810	2605.570	317.310
3816.200	3691.120	227.160	505.800	SRC - Phelps A-32NHZ	3595.990	3547.500	-618.440	2940.930	46.200	2581.770	2573.160	299.700
3916.200	3777.730	247.640	551.410	SRC - Phelps A-32NHZ	3671.360	3622.620	-616.080	2946.530	46.800	2550.820	2541.810	283.040
4016.200	3864.330	268.130	597.020	SRC - Phelps A-32NHZ	3742.000	3693.000	-613.840	2952.250	47.300	2520.780	2511.370	267.730
4116.200	3950.930	288.610	642.630	SRC - Phelps A-32NHZ	3824.410	3775.020	-610.780	2959.510	47.900	2491.550	2481.700	253.070
4216.200	4037.540	309.090	688.240	SRC - Phelps A-32NHZ	3978.850	3928.760	-603.580	2972.420	49.000	2462.170	2451.810	237.770
4316.200	4124.140	329.580	733.850	SRC - Phelps A-32NHZ	4071.900	4021.420	-598.180	2978.780	49.700	2431.250	2420.430	224.690
4416.200	4210.740	350.060	779.460	SRC - Phelps A-32NHZ	4172.410	4121.380	-591.050	2986.460	50.500	2400.950	2389.650	212.440
4516.200	4297.350	370.550	825.070	SRC - Phelps A-32NHZ	4271.490	4220.020	-584.330	2992.990	51.200	2370.160	2358.360	200.990
4616.200	4383.950	391.030	870.680	SRC - Phelps A-32NHZ	4374.670	4282.910	-580.290	2997.430	51.700	2340.250	2327.990	190.910
4716.200	4470.550	411.510	916.290	SRC - Phelps A-32NHZ	4483.120	4351.880	-575.940	3003.210	52.300	2311.680	2299.590	181.480
4816.200	4557.160	432.000	961.900	SRC - Phelps A-32NHZ	4506.030	4453.210	-568.370	3012.300	53.100	2283.790	2270.530	172.180
4916.200	4643.760	452.480	1007.510	SRC - Phelps A-32NHZ	4588.670	4535.280	-562.160	3019.640	53.700	2256.090	2242.310	163.740
5016.200	4730.360	472.970	1053.120	SRC - Phelps A-32NHZ	4664.470	4610.630	-557.440	3026.460	54.400	2229.380	2215.090	155.940
5116.200	4816.970	493.450	1098.730	SRC - Phelps A-32NHZ	4731.020	4676.690	-553.130	3033.190	54.900	2203.900	2189.090	148.800
5216.200	4903.570	513.930	1144.340	SRC - Phelps A-32NHZ	4810.430	4757.390	-547.530	3042.390	55.600	2179.600	2164.250	141.970
5316.200	4990.170	534.420	1189.950	SRC - Phelps A-32NHZ	4924.550	4844.660	-541.320	3052.930	56.300	2156.170	2140.260	135.510
5416.200	5076.780	554.900	1235.560	SRC - Phelps A-32NHZ	5129.480	5071.480	-520.600	3075.300	58.200	2131.050	2114.430	128.240
5516.200	5163.380	575.390	1281.170	SRC - Phelps A-32NHZ	5257.730	5199.430	-512.840	3078.400	59.600	2101.330	2084.130	122.160
5616.200	5249.980	595.870	1326.780	SRC - Phelps A-32NHZ	5340.650	5282.320	-511.180	3077.730	60.600	2071.820	2054.070	116.880
5716.200	5336.590	616.350	1372.390	SRC - Phelps A-32NHZ	5420.240	5361.890	-511.640	3076.120	61.600	2043.450	2025.130	111.550
5816.200	5423.190	636.840	1418.000	SRC - Phelps A-32NHZ	5505.510	5447.130	-512.690	3074.150	62.800	2016.150	1997.260	106.740
5916.200	5509.790	657.320	1463.610	SRC - Phelps A-32NHZ	5592.330	5532.330	-513.690	3072.050	63.600	1979.670	1959.300	101.730
6016.200	5596.390	677.810	1509.220	SRC - Phelps A-32NHZ	5679.290	5570.890	-514.730	3072.700	64.000	1966.540	1946.510	98.190
6116.200	5683.000	698.290	1554.830	SRC - Phelps A-32NHZ	5770.620	5652.200	-516.400	3072.960	65.600	1944.510	1923.890	94.310
6216.200	5769.600	718.770	1600.440	SRC - Phelps A-32NHZ	5879.460	5741.020	-518.210	3073.270	66.900	1923.580	1902.370	90.660
6316.200	5856.200	739.260	1646.050	SRC - Phelps A-32NHZ	5885.760	5827.300	-519.930	3073.500	68.100	1903.680	1881.860	87.250
6416.200	5942.810	759.740	1691.660	SRC - Phelps A-32NHZ	6022.840	5964.370	-521.010	3072.840	70.200	1883.730	1861.280	83.900
6516.200	6029.410	780.230	1737.270	SRC - Phelps A-32NHZ	6103.620	6045.130	-520.610	3071.750	71.400	1863.670	1840.610	80.820
6616.200	6116.010	800.710	1782.880	SRC - Phelps A-32NHZ	6184.770	6126.280	-520.710	3070.810	72.600	1845.270	1821.600	77.970
6716.200	6202.620	821.190	1828.490	SRC - Phelps A-32NHZ	6271.140	6212.640	-521.210	3069.590	73.900	1828.240	1803.970	75.320
6816.200	6289.220	841.680	1874.100	SRC - Phelps A-32NHZ	6399.040	7442.440	-524.430	1856.700	130.900	1787.860	1764.120	75.290
6916.200	6375.820	862.160	1919.710	SRC - Phelps A-32NHZ	6365.000	7444.140	-523.710	1890.690	129.900	1750.080	1725.660</	

8516.200	7407.000	1630.150	2462.530 SRC - Phelps A-32NHZ	7693.500	7422.280	-517.050	2559.030	99.100	2149.420	2118.960	70.560
8616.200	7407.000	1730.150	2462.490 SRC - Phelps A-32NHZ	7693.500	7422.280	-517.050	2559.030	99.100	2249.330	2218.830	73.760
8716.200	7407.000	1830.150	2462.440 SRC - Phelps A-32NHZ	7693.500	7422.280	-517.050	2559.030	99.100	2349.240	2318.710	76.950
8816.200	7407.000	1930.150	2462.390 SRC - Phelps A-32NHZ	7692.980	7422.110	-517.030	2559.520	99.000	2449.160	2418.590	80.130
8916.200	7407.000	2030.150	2462.340 SRC - Phelps A-32NHZ	7689.470	7420.990	-516.910	2562.850	98.000	2549.080	2518.470	83.290
9016.200	7407.000	2130.150	2462.290 SRC - Phelps A-32NHZ	7685.950	7419.860	-516.780	2566.180	97.200	2649.000	2618.350	86.440
9116.200	7407.000	2230.150	2462.240 SRC - Phelps A-32NHZ	7682.430	7418.740	-516.660	2569.500	96.300	2748.930	2718.240	89.580
9216.200	7407.000	2330.150	2462.190 SRC - Phelps A-32NHZ	7678.920	7417.620	-516.530	2572.830	95.500	2848.850	2818.120	92.710
9316.200	7407.000	2430.150	2462.150 SRC - Phelps A-32NHZ	7678.000	7417.320	-516.500	2573.700	95.400	2948.780	2918.020	95.850
9416.200	7407.000	2530.150	2462.100 SRC - Phelps A-32NHZ	7678.000	7417.320	-516.500	2573.700	95.400	3048.710	3017.920	99.000
9516.200	7407.000	2630.150	2462.050 SRC - Phelps A-32NHZ	7678.000	7417.320	-516.500	2573.700	95.400	3148.650	3117.820	102.140
9616.200	7407.000	2730.150	2462.000 SRC - Phelps A-32NHZ	7678.000	7417.320	-516.500	2573.700	95.400	3248.590	3217.730	105.280
9716.200	7407.000	2830.150	2461.950 SRC - Phelps A-32NHZ	7678.000	7417.320	-516.500	2573.700	95.400	3348.530	3317.640	108.410
9816.200	7407.000	2930.150	2461.900 SRC - Phelps A-32NHZ	7678.000	7417.320	-516.500	2573.700	95.400	3448.480	3417.560	111.540
9916.200	7407.000	3030.150	2461.850 SRC - Phelps A-32NHZ	7676.810	7416.910	-516.460	2574.820	95.100	3548.430	3517.480	114.640
10016.200	7407.000	3130.150	2461.810 SRC - Phelps A-32NHZ	7673.970	7415.930	-516.380	2577.490	94.500	3648.380	3617.390	117.720
10116.200	7407.000	3230.150	2461.760 SRC - Phelps A-32NHZ	7671.120	7414.940	-516.300	2580.150	93.900	3748.330	3717.300	120.800
10216.200	7407.000	3330.150	2461.710 SRC - Phelps A-32NHZ	7668.280	7413.950	-516.220	2582.820	93.300	3848.280	3817.210	123.860
10316.200	7407.000	3430.150	2461.660 SRC - Phelps A-32NHZ	7665.430	7412.970	-516.130	2585.480	92.800	3948.230	3917.120	126.910
10416.200	7407.000	3530.150	2461.610 SRC - Phelps A-32NHZ	7662.590	7411.980	-516.050	2588.150	92.300	4048.190	4017.040	129.960
10516.200	7407.000	3630.150	2461.560 SRC - Phelps A-32NHZ	7662.000	7411.770	-516.040	2588.700	92.200	4148.140	4116.960	133.030
10616.200	7407.000	3730.150	2461.510 SRC - Phelps A-32NHZ	7662.000	7411.770	-516.040	2588.700	92.200	4248.090	4216.880	136.110
10716.200	7407.000	3830.150	2461.470 SRC - Phelps A-32NHZ	7662.000	7411.770	-516.040	2588.700	92.200	4348.050	4316.810	139.180
10816.200	7407.000	3930.150	2461.420 SRC - Phelps A-32NHZ	7662.000	7411.770	-516.040	2588.700	92.200	4448.010	4416.740	142.240
10916.200	7407.000	4030.150	2461.370 SRC - Phelps A-32NHZ	7662.000	7411.770	-516.040	2588.700	92.200	4547.970	4516.670	145.300
11016.200	7407.000	4130.150	2461.320 SRC - Phelps A-32NHZ	7662.000	7411.770	-516.040	2588.700	92.200	4647.940	4616.600	148.350
11116.200	7407.000	4230.150	2461.270 SRC - Phelps A-32NHZ	7662.000	7411.770	-516.040	2588.700	92.200	4747.900	4716.540	151.390
11216.200	7407.000	4330.150	2461.220 SRC - Phelps A-32NHZ	7662.000	7411.770	-516.040	2588.700	92.200	4847.870	4816.470	154.430
11316.200	7407.000	4430.150	2461.170 SRC - Phelps A-32NHZ	7662.000	7411.770	-516.040	2588.700	92.200	4947.830	4916.410	157.470
11416.200	7407.000	4530.150	2461.130 SRC - Phelps A-32NHZ	7659.870	7410.980	-515.990	2590.680	91.800	5047.800	5016.340	160.460
11516.200	7407.000	4630.150	2461.080 SRC - Phelps A-32NHZ	7657.560	7410.120	-515.930	2592.810	91.400	5147.770	5116.270	163.440
11616.200	7407.000	4730.150	2461.030 SRC - Phelps A-32NHZ	7655.260	7409.260	-515.880	2594.950	91.000	5247.740	5216.200	166.410
11716.200	7407.000	4830.150	2460.980 SRC - Phelps A-32NHZ	7652.950	7408.400	-515.820	2597.090	90.600	5347.710	5316.130	169.370
11816.200	7407.000	4930.150	2460.930 SRC - Phelps A-32NHZ	7650.640	7407.540	-515.770	2599.230	90.200	5447.680	5416.060	172.330
11916.200	7407.000	5030.150	2460.880 SRC - Phelps A-32NHZ	7648.340	7406.680	-515.710	2601.370	89.900	5547.640	5515.990	175.270
12016.200	7407.000	5130.150	2460.830 SRC - Phelps A-32NHZ	7646.030	7405.820	-515.660	2603.510	89.500	5647.610	5615.920	178.210
12116.200	7407.000	5230.150	2460.790 SRC - Phelps A-32NHZ	7646.000	7405.810	-515.660	2603.540	89.500	5747.580	5715.860	181.190
12216.200	7407.000	5330.150	2460.740 SRC - Phelps A-32NHZ	7646.000	7405.810	-515.660	2603.540	89.500	5847.550	5815.800	184.170
12316.200	7407.000	5430.150	2460.690 SRC - Phelps A-32NHZ	7646.000	7405.810	-515.660	2603.540	89.500	5947.530	5915.740	187.130
12416.200	7407.000	5530.150	2460.640 SRC - Phelps A-32NHZ	7646.000	7405.810	-515.660	2603.540	89.500	6047.500	6015.690	190.090
12516.200	7407.000	5630.150	2460.590 SRC - Phelps A-32NHZ	7646.000	7405.810	-515.660	2603.540	89.500	6147.470	6115.630	193.050
12616.200	7407.000	5730.150	2460.540 SRC - Phelps A-32NHZ	7646.000	7405.810	-515.660	2603.540	89.500	6247.450	6215.570	196.000
12697.660	7407.000	5811.610	2460.500 SRC - Phelps A-32NHZ	7646.000	7405.810	-515.660	2603.540	89.500	6328.880	6296.980	198.390

Offset Wellbore Survey Tool Programs

Well	SRC - Phelps A-32NHZ
Wellbore	SRC - Phelps A-32NHZ (AWB)
Survey Name	As Drilled Survey - Entered 20160505
MD(ft)	11935.200
Survey Tool	WdW Rate Gyro
Error Model	Standard

All data is in Feet unless otherwise stated
Coordinates are from Slat Mfg are from Rlg and TVDs are from Rlg (Planned Datum #1 4992.591 above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 22.950 degrees
Prepared by Great Western Operating Co, LLC
Date Printed: