

SYSDRILL  
Closest Approach + Clearance Factor Report  
Wellbore: Dittmer KE 20-022HC (PWB)  
Wellpath: Dittmer KE 20-022HC (PWP#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 20-022HC (PWB)
Created	4-May-2016
Last Revised	4-May-2016

#### Well

Name	Dittmer KE 20-022HC
Government ID	
Last Revised	4-May-2016

#### Slot

Name	Slot S03 - Dittmer KE 20-022HC
Grid Northing	1247954.949
Grid Easting	3195203.752
Latitude	N40 0 42.9012
Longitude	W104 48 11.1492
North	-99.090
East	30.530

#### 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	571.560	7809.100	7809.100	519.540	7824.600	10.720	7890.220
SRC - Phelps 11-32NHZ	SRC - Phelps 11-32NHZ (AWB)	AA - SRC - Phelps 11-32NHZ	Dittmer	833.840	7599.740	7599.740	781.730	7616.200	15.400	7791.790
SRC - Phelps A-32CHZ	SRC - Phelps A-32CHZ (AWB)	AA - SRC - Phelps A-32CHZ	Dittmer	1203.080	7632.210	7632.210	1152.450	7660.560	22.760	7824.600
SRC - Phelps A-32NHZ	SRC - Phelps A-32NHZ (AWB)	AA - SRC - Phelps A-32NHZ	Dittmer	1508.870	7259.540	7259.540	1460.460	7283.260	29.080	7758.980
SRC - Phelps 12-32CHZ	SRC - Phelps 12-32CHZ (AWB)	AA - SRC - Phelps 12-32CHZ	Dittmer	1891.410	7385.240	7385.240	1841.410	7416.200	35.190	7824.600
SRC - Phelps 12-32NHZ	SRC - Phelps 12-32NHZ (AWB)	AA - SRC - Phelps 12-32NHZ	Dittmer	2158.870	7058.200	7058.200	2112.320	7102.810	40.690	7758.980

#### Reference Wellbore Survey Tool Program

Survey Name	Planned
MD[ft]	17964.790
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	-672.660	2981.620	102.700	3056.560	3055.590	
	81.820	81.820	0.000	0.000 SRC - Phelps 11-32CHZ	115.500	78.700	-672.530	2981.720	102.700	3056.620	3055.500	2717.010
	116.200	116.200	0.000	0.000 SRC - Phelps 11-32CHZ	143.660	106.860	-672.400	2981.810	102.700	3056.700	3055.540	2635.190

216.200	216.200	0.000	0.000 SRC - Phelps 11-32CHZ	237.440	200.630	-671.650	2982.350	102.700	3057.080	3055.790	2370.070
316.200	316.200	0.000	0.000 SRC - Phelps 11-32CHZ	306.000	269.190	-670.960	2983.030	102.700	3057.920	3056.510	2166.930
416.200	416.200	0.000	0.000 SRC - Phelps 11-32CHZ	367.060	330.230	-670.570	2984.240	102.700	3059.860	3058.320	1985.410
516.200	516.200	0.000	0.000 SRC - Phelps 11-32CHZ	428.000	391.120	-669.680	2986.470	102.600	3063.190	3061.520	1831.980
616.200	616.200	0.000	0.000 SRC - Phelps 11-32CHZ	481.970	444.990	-668.290	2989.520	102.600	3068.090	3066.290	1705.600
716.200	716.200	0.000	0.000 SRC - Phelps 11-32CHZ	522.000	484.900	-667.160	2992.420	102.600	3074.600	3072.680	1606.500
816.200	816.200	0.000	0.000 SRC - Phelps 11-32CHZ	704.250	666.180	-656.920	3007.460	102.300	3082.020	3079.850	1419.900
916.200	916.200	0.000	0.000 SRC - Phelps 11-32CHZ	771.000	732.450	-650.520	3012.270	102.200	3087.190	3084.860	1327.750
1016.200	1016.200	0.000	0.000 SRC - Phelps 11-32CHZ	823.030	784.080	-646.050	3016.830	102.100	3093.950	3091.480	1255.610
1116.200	1116.200	0.000	0.000 SRC - Phelps 11-32CHZ	865.000	825.710	-642.780	3021.080	102.000	3102.330	3099.740	1197.360
1216.200	1216.200	0.000	0.000 SRC - Phelps 11-32CHZ	927.500	887.620	-638.330	3028.420	101.900	3112.350	3109.610	1135.290
1316.200	1316.200	0.000	0.000 SRC - Phelps 11-32CHZ	990.000	949.330	-633.120	3036.780	101.800	3123.690	3120.800	1078.630
1416.200	1416.200	0.000	0.000 SRC - Phelps 11-32CHZ	1130.960	1087.800	-615.410	3056.110	101.400	3134.710	3131.530	987.150
1516.200	1516.200	0.000	0.000 SRC - Phelps 11-32CHZ	1330.800	1284.310	-586.880	3078.350	100.800	3142.360	3138.800	882.470
1616.200	1616.200	0.000	0.000 SRC - Phelps 11-32CHZ	1424.000	1376.180	-574.270	3087.780	100.500	3149.880	3146.100	832.860
1716.200	1716.200	0.000	0.000 SRC - Phelps 11-32CHZ	1843.330	1784.220	-485.230	3117.410	98.800	3155.680	3151.010	675.180
1816.200	1816.200	0.000	0.000 SRC - Phelps 11-32CHZ	1965.190	1900.840	-449.950	3119.570	98.200	3152.990	3147.940	624.370
1916.200	1916.200	0.000	0.000 SRC - Phelps 11-32CHZ	2071.690	2002.610	-418.610	3121.120	97.600	3150.250	3145.230	627.990
2016.200	2016.200	0.000	0.000 SRC - Phelps 11-32CHZ	2167.230	2094.130	-391.230	3122.240	97.100	3147.620	3142.290	590.490
2116.200	2116.200	0.000	0.000 SRC - Phelps 11-32CHZ	2248.960	2172.780	-369.000	3123.190	96.700	3145.420	3139.810	561.000
2216.200	2216.200	0.000	0.000 SRC - Phelps 11-32CHZ	2308.670	2230.230	-352.820	3124.380	96.400	3144.270	3138.430	539.170
2230.230	2230.230	0.000	0.000 SRC - Phelps 11-32CHZ	2308.670	2230.230	-352.820	3124.380	96.400	3144.230	3138.390	538.090
2263.580	2263.580	0.000	0.000 SRC - Phelps 11-32CHZ	2342.990	2263.220	-343.370	3125.420	96.300	3144.220	3138.270	528.430
2316.200	2316.200	0.000	0.000 SRC - Phelps 11-32CHZ	2381.850	2300.570	-332.740	3126.710	96.100	3144.400	3138.320	516.670
2416.200	2416.200	0.000	0.000 SRC - Phelps 11-32CHZ	2493.460	2408.200	-303.440	3130.210	95.500	3144.890	3138.460	489.150
2516.200	2516.200	0.000	0.000 SRC - Phelps 11-32CHZ	2638.000	2547.420	-264.670	3132.700	94.800	3144.020	3137.160	458.590
2616.200	2616.200	0.000	0.000 SRC - Phelps 11-32CHZ	2720.000	2625.870	-240.830	3134.070	94.400	3143.330	3136.190	440.270
2665.370	2665.370	0.000	0.000 SRC - Phelps 11-32CHZ	2761.330	2665.370	-228.690	3134.930	94.200	3143.260	3135.980	431.510
2716.200	2716.200	0.000	0.000 SRC - Phelps 11-32CHZ	2802.670	2705.030	-217.100	3135.860	94.000	3143.390	3135.960	423.220
2816.200	2816.200	0.000	0.000 SRC - Phelps 11-32CHZ	2901.310	2800.030	-190.650	3138.200	93.500	3144.030	3136.280	405.660
2916.200	2916.200	0.000	0.000 SRC - Phelps 11-32CHZ	3074.280	2965.730	-141.100	3140.380	92.600	3143.940	3135.680	380.590
3016.200	3016.200	0.000	0.000 SRC - Phelps 11-32CHZ	3149.590	3037.760	-119.100	3140.290	92.200	3142.620	3134.080	368.090
3067.420	3067.420	0.000	0.000 SRC - Phelps 11-32CHZ	3180.670	3067.420	-109.840	3140.440	92.000	3142.360	3133.700	362.850
3116.200	3116.200	0.000	0.000 SRC - Phelps 11-32CHZ	3223.000	3107.750	-96.970	3140.940	91.800	3142.450	3133.640	356.820
3116.590	3116.590	0.000	0.000 SRC - Phelps 11-32CHZ	3223.000	3107.750	-96.970	3140.940	91.800	3142.450	3133.640	356.810
3216.200	3216.200	0.000	0.000 SRC - Phelps 11-32CHZ	3304.830	3185.760	-72.300	3142.230	91.300	3143.210	3134.110	345.270
3316.200	3316.200	0.000	0.000 SRC - Phelps 11-32CHZ	3403.740	3280.350	-43.470	3143.760	90.800	3144.260	3134.830	333.220
3416.200	3416.200	0.000	0.000 SRC - Phelps 11-32CHZ	3492.710	3365.720	-18.440	3144.930	90.300	3145.390	3135.660	323.020
3516.200	3516.200	0.000	0.000 SRC - Phelps 11-32CHZ	3548.300	3419.050	-2.790	3146.270	90.000	3147.770	3137.810	316.170
3591.000	3591.000	0.000	0.000 SRC - Phelps 11-32CHZ	3579.770	3449.180	6.220	3147.450	89.900	3150.650	3140.560	312.240
3616.200	3616.200	0.100	-0.130 SRC - Phelps 11-32CHZ	3603.000	3471.400	12.900	3148.430	141.400	3151.920	3141.750	310.010
3716.200	3716.110	2.550	-3.220 SRC - Phelps 11-32CHZ	3781.170	3641.800	64.630	3153.820	140.400	3158.520	3147.810	294.980
3816.200	3815.680	8.230	-10.400 SRC - Phelps 11-32CHZ	3882.770	3738.560	95.570	3155.330	139.700	3167.870	3156.820	286.560
3916.200	3914.630	17.150	-21.650 SRC - Phelps 11-32CHZ	3966.370	3818.200	120.990	3156.770	139.200	3181.580	3170.220	280.050
4016.200	4012.700	29.260	-36.950 SRC - Phelps 11-32CHZ	4048.590	3896.690	145.380	3158.550	138.500	3199.720	3188.060	274.320
4116.200	4109.610	44.550	-56.260 SRC - Phelps 11-32CHZ	4143.080	3987.160	172.570	3160.870	137.900	3222.010	3210.000	268.490
4216.200	4205.090	62.960	-79.510 SRC - Phelps 11-32CHZ	4245.440	4085.770	199.890	3163.470	137.200	3248.060	3235.700	262.840
4316.200	4298.900	84.450	-106.650 SRC - Phelps 11-32CHZ	4346.250	4183.380	224.960	3165.920	136.500	3277.630	3264.920	257.860
4416.200	4390.760	108.960	-137.600 SRC - Phelps 11-32CHZ	40806.470	7577.670	646.050	-81.160	156.900	3232.350	3216.400	202.660
4516.200	4480.440	136.420	-172.280 SRC - Phelps 11-32CHZ	10842.620	7578.370	645.740	-117.300	160.200	3140.000	3123.910	195.120
4590.840	4545.790	158.790	-200.540 SRC - Phelps 11-32CHZ	10958.270	7578.960	644.860	-232.940	163.700	3072.040	3055.740	188.450
4616.200	4567.750	166.660	-210.480 SRC - Phelps 11-32CHZ	10985.350	7578.570	644.930	-260.020	164.200	3048.970	3032.600	186.230
4716.200	4654.360	197.690	-249.670 SRC - Phelps 11-32CHZ	11025.670	7577.850	645.190	-300.330	164.900	2957.970	2941.480	179.370
4816.200	4740.970	228.730	-288.870 SRC - Phelps 11-32CHZ	11051.990	7577.460	645.220	-326.640	165.500	2867.150	2850.540	172.540
4916.200	4827.580	259.760	-328.060 SRC - Phelps 11-32CHZ	11083.550	7577.110	645.030	-358.200	166.100	2776.560	2759.810	165.790
5016.200	4914.180	290.800	-367.250 SRC - Phelps 11-32CHZ	11121.600	7576.740	644.660	-396.250	167.000	2686.130	2669.240	159.110
5116.200	5000.790	321.830	-406.450 SRC - Phelps 11-32CHZ	11156.290	7576.460	644.230	-430.940	167.800	2595.880	2578.870	152.570
5216.200	5087.400	352.860	-445.640 SRC - Phelps 11-32CHZ	11193.000	7576.170	643.740	-467.640	168.700	2505.810	2488.660	146.150
5316.200	5174.000	383.900	-484.830 SRC - Phelps 11-32CHZ	11224.410	7576.030	643.290	-499.050	169.500	2416.030	2398.760	139.860
5416.200	5260.610	414.930	-524.030 SRC - Phelps 11-32CHZ	11251.700	7576.050	642.770	-526.340	170.300	2326.630	2309.230	133.720
5516.200	5347.220	445.970	-563.220 SRC - Phelps 11-32CHZ	11287.230	7576.140	641.980	-561.860	171.300	2237.530	2219.990	127.620
5616.200	5433.820	477.000	-602.410 SRC - Phelps 11-32CHZ	11320.000	7576.220	641.230	-594.620	172.300	2148.700	2131.030	121.620
5716.200	5520.430	508.040	-641.610 SRC - Phelps 11-32CHZ	11351.500	7576.430	640.450	-626.110	173.300	2060.320	2042.510	115.710
5816.200	5607.040	539.070	-680.800 SRC - Phelps 11-32CHZ	11377.010	7576.840	639.780	-651.600	174.200	1972.600	1954.650	109.920
5916.200	5693.640	570.100	-720.000 SRC - Phelps 11-32CHZ	11405.460	7577.440	638.980	-680.030	175.200	1885.480	1867.380	104.190
6016.200	5780.250	601.140	-759.190 SRC - Phelps 11-32CHZ	11441.140	7578.300	637.810	-715.690	176.500	1798.950	1780.680	98.460
6116.200	5866.860	632.170	-798.380 SRC - Phelps 11-32CHZ	11475.420	7579.250	636.620	-749.930	177.800	1713.090	1694.620	92.770
6216.200	5953.460	663.210	-837.580 SRC - Phelps 11-32CHZ	11508.940	7580.340	635.550	-783.410	179.200	1628.010	1609.320	87.120
6316.200	6040.070	694.240	-876.770 SRC - Phelps 11-32CHZ	11557.180	7581.850	634.280	-831.620	-178.700	1543.600	1524.620	81.310
6416.200	6126.680	725.270	-915.960 SRC - Phelps 11-32CHZ	11610.180	7583.190	633.310	-884.590	-176.200	1459.750	1440.390	75.370
6516.200	6213.280	756.310	-955.160 SRC - Phelps 11-32CHZ	11657.370	7584.100	633.050	-931.770	-173.900	1376.550	1356.720	69.420
6616.200	6299.890	787.340	-994.350 SRC - Phelps 11-32CHZ	11708.560	7584.790	633.460	-982.950	-171.200	1294.130	1273.700	63.340

6716.200	6386.500	818.380	-1033.540 SRC - Phelps 11-32CHZ	11749.250	7585.250	634.250	-1023.630	-168.900	1212.850	1191.710	57.390
6816.200	6473.110	849.410	-1072.740 SRC - Phelps 11-32CHZ	11811.000	7585.520	635.850	-1085.360	-165.200	1132.800	1110.610	51.050
6916.200	6559.710	880.440	-1111.930 SRC - Phelps 11-32CHZ	11859.580	7584.950	637.190	-1133.910	-162.000	1053.930	1030.480	44.950
7016.200	6646.320	911.480	-1151.120 SRC - Phelps 11-32CHZ	11897.610	7584.390	638.230	-1171.930	-159.300	977.280	952.340	39.180
7116.200	6732.930	942.510	-1190.320 SRC - Phelps 11-32CHZ	11936.290	7583.810	639.200	-1210.590	-156.500	903.560	876.720	33.670
7216.200	6819.530	973.550	-1229.510 SRC - Phelps 11-32CHZ	11970.670	7583.380	640.050	-1244.960	-153.800	833.620	804.490	28.620
7316.200	6906.140	1004.580	-1268.710 SRC - Phelps 11-32CHZ	12009.770	7583.010	641.000	-1284.050	-150.600	768.490	736.460	24.000
7416.200	6992.750	1035.620	-1307.900 SRC - Phelps 11-32CHZ	12048.880	7582.630	641.950	-1323.140	-147.300	709.340	673.850	19.980
7516.200	7079.350	1066.650	-1347.090 SRC - Phelps 11-32CHZ	12087.240	7582.270	642.880	-1361.490	-144.000	657.810	618.330	16.660
7616.200	7165.960	1097.680	-1386.290 SRC - Phelps 11-32CHZ	12126.290	7581.890	643.760	-1400.530	-140.500	615.830	571.990	14.050
7716.200	7252.570	1128.720	-1425.480 SRC - Phelps 11-32CHZ	12163.350	7581.540	644.520	-1437.580	-137.100	585.500	537.320	12.150
7765.730	7295.460	1144.090	-1444.890 SRC - Phelps 11-32CHZ	12182.660	7581.370	644.890	-1456.880	-135.300	575.400	525.160	11.450
7809.100	7332.350	1159.560	-1461.590 SRC - Phelps 11-32CHZ	12196.230	7581.220	645.100	-1470.450	-141.000	571.560	519.760	11.030
7816.200	7338.260	1162.460	-1464.270 SRC - Phelps 11-32CHZ	12198.860	7581.180	645.130	-1473.070	-141.900	571.600	519.540	10.980
7824.600	7345.180	1166.040	-1467.410 SRC - Phelps 11-32CHZ	12201.940	7581.140	645.160	-1476.150	-142.800	571.900	519.540	10.920
7916.200	7416.040	1214.060	-1499.550 SRC - Phelps 11-32CHZ	12233.620	7580.710	645.500	-1507.840	-149.700	591.990	536.960	10.760
8016.200	7481.220	1283.560	-1529.190 SRC - Phelps 11-32CHZ	12260.910	7580.290	645.700	-1535.130	-153.800	645.530	588.940	11.410
8116.200	7530.470	1367.380	-1551.690 SRC - Phelps 11-32CHZ	12283.210	7579.940	645.850	-1557.420	-155.300	723.240	665.910	12.620
8216.200	7561.250	1461.230	-1565.890 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-156.500	815.530	758.090	14.200
8316.200	7572.000	1560.300	-1571.060 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-179.800	914.430	857.060	15.940
8318.380	7572.000	1562.480	-1571.070 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	916.610	859.240	15.980
8416.200	7572.000	1660.300	-1571.380 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	1014.430	957.020	17.670
8516.200	7572.000	1760.300	-1571.700 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	1114.430	1056.990	19.400
8616.200	7572.000	1860.300	-1572.020 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	1214.430	1156.950	21.130
8716.200	7572.000	1960.300	-1572.350 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	1314.420	1256.910	22.850
8816.200	7572.000	2060.300	-1572.670 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	1414.420	1356.870	24.580
8916.200	7572.000	2160.300	-1572.990 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	1514.420	1456.840	26.300
9016.200	7572.000	2260.300	-1573.310 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	1614.420	1556.800	28.020
9116.200	7572.000	2360.300	-1573.630 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	1714.420	1656.760	29.740
9216.200	7572.000	2460.290	-1573.950 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	1814.420	1756.730	31.450
9316.200	7572.000	2560.290	-1574.280 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	1914.420	1856.690	33.160
9416.200	7572.000	2660.290	-1574.600 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	2014.420	1956.650	34.870
9516.200	7572.000	2760.290	-1574.920 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	2114.410	2056.620	36.580
9616.200	7572.000	2860.290	-1575.240 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	2214.410	2156.580	38.290
9716.200	7572.000	2960.290	-1575.560 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	2314.410	2256.540	39.990
9816.200	7572.000	3060.290	-1575.880 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	2414.410	2356.500	41.690
9916.200	7572.000	3160.290	-1576.200 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	2514.410	2456.470	43.390
10016.200	7572.000	3260.290	-1576.530 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	2614.410	2556.430	45.090
10116.200	7572.000	3360.290	-1576.850 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	2714.410	2656.390	46.780
10216.200	7572.000	3460.290	-1577.170 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	2814.410	2756.350	48.480
10316.200	7572.000	3560.290	-1577.490 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	2914.410	2856.320	50.170
10416.200	7572.000	3660.290	-1577.810 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	3014.410	2956.280	51.850
10516.200	7572.000	3760.290	-1578.130 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	3114.410	3056.240	53.540
10616.200	7572.000	3860.290	-1578.460 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	3214.410	3156.200	55.220
10716.200	7572.000	3960.290	-1578.780 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	3314.410	3256.160	56.900
10816.200	7572.000	4060.290	-1579.100 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	3414.410	3356.120	58.580
10916.200	7572.000	4160.290	-1579.420 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	3514.410	3456.080	60.260
11016.200	7572.000	4260.290	-1579.740 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	3614.410	3556.040	61.930
11116.200	7572.000	4360.280	-1580.060 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	3714.410	3656.000	63.600
11216.200	7572.000	4460.280	-1580.390 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	3814.410	3755.970	65.270
11316.200	7572.000	4560.280	-1580.710 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	3914.410	3855.930	66.930
11416.200	7572.000	4660.280	-1581.030 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	4014.410	3955.890	68.600
11516.200	7572.000	4760.280	-1581.350 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	4114.410	4055.840	70.260
11616.200	7572.000	4860.280	-1581.670 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	4214.410	4155.800	71.920
11716.200	7572.000	4960.280	-1581.990 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	4314.410	4255.760	73.570
11816.200	7572.000	5060.280	-1582.320 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	4414.410	4355.720	75.220
11916.200	7572.000	5160.280	-1582.640 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	4514.410	4455.680	76.870
12016.200	7572.000	5260.280	-1582.960 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	4614.410	4555.640	78.520
12116.200	7572.000	5360.280	-1583.280 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	4714.410	4655.600	80.170
12216.200	7572.000	5460.280	-1583.600 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	4814.410	4755.560	81.810
12316.200	7572.000	5560.280	-1583.920 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	4914.410	4855.520	83.450
12416.200	7572.000	5660.280	-1584.250 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	5014.410	4955.470	85.090
12516.200	7572.000	5760.280	-1584.570 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	5114.410	5055.430	86.720
12616.200	7572.000	5860.280	-1584.890 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	5214.410	5155.390	88.360
12716.200	7572.000	5960.280	-1585.210 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	5314.410	5255.350	89.990
12816.200	7572.000	6060.280	-1585.530 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	5414.410	5355.310	91.610
12916.200	7572.000	6160.280	-1585.850 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	5514.410	5455.260	93.240
13016.200	7572.000	6260.280	-1586.180 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	5614.410	5555.220	94.860
13116.200	7572.000	6360.270	-1586.500 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	5714.410	5655.180	96.480
13216.200	7572.000	6460.270	-1586.820 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	5814.410	5755.130	98.100
13316.200	7572.000	6560.270	-1587.140 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	5914.400	5855.090	99.710
13416.200	7572.000	6660.270	-1587.460 SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	-166.200	6014.400	5955.050	101.320

13516.200	7572.000	6760.270	-1587.780	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	6114.400	6055.000	102.930
13616.200	7572.000	6860.270	-1588.110	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	6214.400	6154.960	104.540
13716.200	7572.000	6960.270	-1588.430	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	6314.400	6254.920	106.140
13816.200	7572.000	7060.270	-1588.750	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	6414.400	6354.870	107.740
13916.200	7572.000	7160.270	-1589.070	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	6514.400	6454.830	109.340
14016.200	7572.000	7260.270	-1589.390	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	6614.400	6554.780	110.940
14116.200	7572.000	7360.270	-1589.710	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	6714.400	6654.740	112.530
14216.200	7572.000	7460.270	-1590.040	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	6814.400	6754.690	114.120
14316.200	7572.000	7560.270	-1590.360	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	6914.400	6854.650	115.710
14416.200	7572.000	7660.270	-1590.680	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	7014.400	6954.600	117.290
14516.200	7572.000	7760.270	-1591.000	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	7114.400	7054.560	118.880
14616.200	7572.000	7860.270	-1591.320	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	7214.400	7154.510	120.460
14716.200	7572.000	7960.270	-1591.640	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	7314.400	7254.470	122.030
14816.200	7572.000	8060.270	-1591.970	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	7414.400	7354.420	123.610
14916.200	7572.000	8160.270	-1592.290	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	7514.400	7454.370	125.180
15016.200	7572.000	8260.260	-1592.610	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	7614.400	7554.330	126.750
15116.200	7572.000	8360.260	-1592.930	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	7714.400	7654.280	128.310
15216.200	7572.000	8460.260	-1593.250	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	7814.400	7754.240	129.880
15316.200	7572.000	8560.260	-1593.570	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	7914.400	7854.190	131.440
15416.200	7572.000	8660.260	-1593.900	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	8014.400	7954.140	132.990
15516.200	7572.000	8760.260	-1594.220	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	8114.400	8054.100	134.550
15616.200	7572.000	8860.260	-1594.540	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	8214.400	8154.050	136.100
15716.200	7572.000	8960.260	-1594.860	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	8314.400	8254.000	137.650
15816.200	7572.000	9060.260	-1595.180	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	8414.400	8353.950	139.200
15916.200	7572.000	9160.260	-1595.500	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	8514.400	8453.910	140.740
16016.200	7572.000	9260.260	-1595.830	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	8614.400	8553.860	142.280
16116.200	7572.000	9360.260	-1596.150	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	8714.400	8653.810	143.820
16216.200	7572.000	9460.260	-1596.470	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	8814.400	8753.760	145.360
16316.200	7572.000	9560.260	-1596.790	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	8914.400	8853.720	146.890
16416.200	7572.000	9660.260	-1597.110	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	9014.400	8953.670	148.420
16516.200	7572.000	9760.260	-1597.430	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	9114.400	9053.620	149.950
16616.200	7572.000	9860.260	-1597.760	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	9214.400	9153.570	151.470
16716.200	7572.000	9960.260	-1598.080	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	9314.400	9253.520	153.000
16816.200	7572.000	10060.260	-1598.400	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	9414.400	9353.470	154.520
16916.200	7572.000	10160.250	-1598.720	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	9514.400	9453.430	156.030
17016.200	7572.000	10260.250	-1599.040	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	9614.400	9553.380	157.550
17116.200	7572.000	10360.250	-1599.360	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	9714.400	9653.330	159.060
17216.200	7572.000	10460.250	-1599.690	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	9814.400	9753.280	160.560
17316.200	7572.000	10560.250	-1600.010	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	9914.400	9853.230	162.070
17416.200	7572.000	10660.250	-1600.330	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	10014.400	9953.180	163.570
17516.200	7572.000	10760.250	-1600.650	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	10114.400	10053.130	165.070
17616.200	7572.000	10860.250	-1600.970	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	10214.400	10153.080	166.570
17716.200	7572.000	10960.250	-1601.290	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	10314.400	10253.030	168.060
17816.200	7572.000	11060.250	-1601.620	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	10414.400	10352.980	169.560
17916.200	7572.000	11160.250	-1601.940	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	10514.400	10452.930	171.050
17964.790	7572.000	11208.830	-1602.090	SRC - Phelps 11-32CHZ	12292.000	7579.800	645.910	-1566.210	166.200	10562.990	10501.490	171.750

## Offset Wellbore Survey Tool Programs

Well	SRC - Phelps 11-32CHZ
Wellbore	SRC - Phelps 11-32CHZ (AWB)
Survey Name	As Drilled Survey - Entered 20160505
MD[ft]	12255.200
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	16.200	0.000	0.000 SRC - Phelps 11-32NHZ	54.440	17.640	-667.920	3003.470	102.500	3076.840	3075.870	3148.610
116.200	116.200	116.200	0.000	0.000 SRC - Phelps 11-32NHZ	154.440	117.640	-667.840	3003.440	102.500	3076.800	3075.640	2655.320
216.200	216.200	216.200	0.000	0.000 SRC - Phelps 11-32NHZ	259.550	222.750	-667.730	3003.400	102.500	3076.740	3075.450	2381.450
316.200	316.200	316.200	0.000	0.000 SRC - Phelps 11-32NHZ	369.660	332.860	-666.870	3003.160	102.500	3076.360	3074.890	2102.020
416.200	416.200	416.200	0.000	0.000 SRC - Phelps 11-32NHZ	466.050	429.210	-664.190	3003.290	102.500	3075.890	3074.270	1898.240
516.200	516.200	516.200	0.000	0.000 SRC - Phelps 11-32NHZ	561.340	524.350	-659.120	3004.080	102.400	3075.550	3073.760	1721.260
616.200	616.200	616.200	0.000	0.000 SRC - Phelps 11-32NHZ	658.590	621.270	-651.250	3005.580	102.200	3075.330	3073.360	1566.550
716.200	716.200	716.200	0.000	0.000 SRC - Phelps 11-32NHZ	753.460	715.510	-640.650	3007.770	102.000	3075.250	3073.100	1431.890
721.580	721.580	721.580	0.000	0.000 SRC - Phelps 11-32NHZ	758.790	720.800	-639.990	3007.910	102.000	3075.250	3073.090	1424.220
754.390	754.390	754.390	0.000	0.000 SRC - Phelps 11-32NHZ	785.730	747.490	-636.450	3008.720	101.900	3075.310	3073.080	1384.900
816.200	816.200	816.200	0.000	0.000 SRC - Phelps 11-32NHZ	841.400	802.580	-628.640	3010.560	101.800	3075.530	3073.190	1317.580
916.200	916.200	916.200	0.000	0.000 SRC - Phelps 11-32NHZ	929.600	889.580	-614.610	3014.060	101.500	3076.200	3073.650	1206.730
1016.200	1016.200	1016.200	0.000	0.000 SRC - Phelps 11-32NHZ	1032.690	990.780	-595.550	3018.800	101.200	3077.090	3074.280	1098.100

1116.200	1116.200	0.000	0.000 SRC - Phelps 11-32NHZ	1128.820	1084.670	-575.490	3023.490	100.800	3077.930	3074.880	1008.390
1216.200	1216.200	0.000	0.000 SRC - Phelps 11-32NHZ	1214.330	1167.970	-556.720	3028.150	100.400	3079.270	3075.970	932.890
1316.200	1316.200	0.000	0.000 SRC - Phelps 11-32NHZ	1326.880	1277.670	-532.290	3034.120	100.000	3080.700	3077.090	853.810
1416.200	1416.200	0.000	0.000 SRC - Phelps 11-32NHZ	1429.910	1378.360	-510.970	3038.980	99.500	3081.870	3077.980	792.020
1516.200	1516.200	0.000	0.000 SRC - Phelps 11-32NHZ	1527.500	1473.760	-490.970	3043.530	99.200	3083.170	3079.010	740.470
1616.200	1616.200	0.000	0.000 SRC - Phelps 11-32NHZ	1630.000	1573.770	-469.050	3048.390	98.800	3084.560	3080.110	693.030
1716.200	1716.200	0.000	0.000 SRC - Phelps 11-32NHZ	1737.610	1678.460	-444.640	3053.370	98.300	3085.800	3081.050	648.600
1816.200	1816.200	0.000	0.000 SRC - Phelps 11-32NHZ	1830.650	1768.730	-422.560	3057.760	97.900	3087.190	3082.140	612.190
1916.200	1916.200	0.000	0.000 SRC - Phelps 11-32NHZ	1939.590	1874.320	-396.250	3062.860	97.400	3088.670	3083.680	619.180
2016.200	2016.200	0.000	0.000 SRC - Phelps 11-32NHZ	2076.740	2007.500	-363.900	3068.060	96.800	3089.580	3084.210	575.500
2116.200	2116.200	0.000	0.000 SRC - Phelps 11-32NHZ	2247.020	2173.850	-327.710	3070.760	96.100	3088.740	3082.950	533.470
2216.200	2216.200	0.000	0.000 SRC - Phelps 11-32NHZ	2394.460	2318.510	-299.260	3069.580	95.600	3085.830	3079.690	502.410
2316.200	2316.200	0.000	0.000 SRC - Phelps 11-32NHZ	2483.530	2405.970	-282.410	3068.340	95.300	3082.620	3076.240	482.930
2416.200	2416.200	0.000	0.000 SRC - Phelps 11-32NHZ	2553.670	2474.870	-269.360	3067.900	95.000	3080.260	3073.670	467.330
2516.200	2516.200	0.000	0.000 SRC - Phelps 11-32NHZ	2596.660	2517.140	-261.490	3068.160	94.900	3079.280	3072.530	456.300
2558.850	2558.850	0.000	0.000 SRC - Phelps 11-32NHZ	2636.670	2556.460	-254.160	3068.770	94.700	3079.280	3072.420	449.070
2616.200	2616.200	0.000	0.000 SRC - Phelps 11-32NHZ	2663.990	2583.310	-249.080	3069.470	94.600	3079.740	3072.790	442.970
2716.200	2716.200	0.000	0.000 SRC - Phelps 11-32NHZ	2733.070	2651.110	-236.100	3071.790	94.400	3081.540	3074.380	430.580
2816.200	2816.200	0.000	0.000 SRC - Phelps 11-32NHZ	2903.860	2819.060	-205.300	3074.780	93.800	3081.630	3074.090	408.770
2843.840	2843.840	0.000	0.000 SRC - Phelps 11-32NHZ	2929.000	2843.840	-201.050	3075.040	93.700	3081.610	3074.000	405.290
2916.200	2916.200	0.000	0.000 SRC - Phelps 11-32NHZ	2980.080	2894.240	-192.760	3075.750	93.600	3081.860	3074.110	397.850
3016.200	3016.200	0.000	0.000 SRC - Phelps 11-32NHZ	3054.330	2967.450	-180.490	3077.250	93.400	3082.920	3074.970	387.730
3116.200	3116.200	0.000	0.000 SRC - Phelps 11-32NHZ	3130.500	3042.380	-167.040	3079.570	93.100	3084.980	3076.810	377.870
3216.200	3216.200	0.000	0.000 SRC - Phelps 11-32NHZ	3199.120	3109.690	-153.930	3082.270	92.900	3087.950	3079.580	368.970
3316.200	3316.200	0.000	0.000 SRC - Phelps 11-32NHZ	3287.750	3196.470	-136.390	3086.330	92.500	3091.660	3083.040	358.890
3416.200	3416.200	0.000	0.000 SRC - Phelps 11-32NHZ	3383.120	3290.050	-118.570	3090.780	92.200	3095.620	3086.750	349.060
3516.200	3516.200	0.000	0.000 SRC - Phelps 11-32NHZ	3483.340	3388.560	-100.740	3095.560	91.900	3099.830	3090.700	339.750
3591.000	3591.000	0.000	0.000 SRC - Phelps 11-32NHZ	3573.420	3477.200	-85.200	3099.520	91.600	3102.780	3093.440	332.270
3616.200	3616.200	0.100	-0.130 SRC - Phelps 11-32NHZ	3598.240	3501.620	-80.930	3100.540	143.100	3103.840	3094.440	330.200
3716.200	3716.110	2.550	-3.220 SRC - Phelps 11-32NHZ	3682.140	3584.230	-66.650	3104.050	142.800	3110.840	3101.210	323.340
3816.200	3815.680	8.230	-10.400 SRC - Phelps 11-32NHZ	3771.630	3672.350	-51.690	3108.270	142.300	3122.530	3112.680	317.040
3916.200	3914.630	17.150	-21.650 SRC - Phelps 11-32NHZ	3862.160	3761.620	-37.260	3112.730	141.900	3138.590	3128.510	311.430
4016.200	4012.700	29.260	-36.950 SRC - Phelps 11-32NHZ	3952.530	3850.790	-23.420	3117.420	141.500	3158.960	3148.660	306.490
4116.200	4109.610	44.550	-56.260 SRC - Phelps 11-32NHZ	4040.000	3937.110	-10.050	3122.190	141.000	3183.590	3173.050	302.040
4216.200	4205.090	62.960	-79.510 SRC - Phelps 11-32NHZ	4140.990	4036.650	6.020	3127.820	140.500	3212.250	3201.450	297.260
4316.200	4298.900	84.450	-106.650 SRC - Phelps 11-32NHZ	4249.570	4136.780	316.110	-75.050	169.200	3146.580	3131.610	210.180
4416.200	4390.760	108.960	-137.600 SRC - Phelps 11-32NHZ	4358.850	4236.950	316.300	-86.330	170.800	3053.670	3038.600	202.650
4516.200	4480.440	136.420	-172.280 SRC - Phelps 11-32NHZ	4468.190	4334.020	319.200	-286.570	176.500	2961.440	2945.940	191.080
4590.840	4545.790	158.790	-200.540 SRC - Phelps 11-32NHZ	4577.390	4432.700	318.700	-319.750	177.700	2893.800	2878.170	185.160
4616.200	4567.750	166.660	-210.480 SRC - Phelps 11-32NHZ	4686.840	4532.030	318.240	-336.170	178.200	2871.040	2855.340	182.920
4716.200	4654.360	197.690	-249.670 SRC - Phelps 11-32NHZ	4796.290	4631.020	317.130	-360.280	178.800	2781.430	2765.620	175.960
4816.200	4740.970	228.730	-288.870 SRC - Phelps 11-32NHZ	4905.740	4730.150	315.580	-385.840	179.600	2692.330	2676.380	168.790
4916.200	4827.580	259.760	-328.060 SRC - Phelps 11-32NHZ	5015.190	4829.960	315.260	-391.210	179.800	2603.750	2587.680	162.090
5016.200	4914.180	290.800	-367.250 SRC - Phelps 11-32NHZ	5124.640	4929.710	314.290	-407.180	-179.700	2515.950	2499.750	155.250
5116.200	5000.790	321.830	-406.450 SRC - Phelps 11-32NHZ	5234.090	5029.710	314.290	-407.180	-179.700	2428.930	2412.610	148.810
5216.200	5087.400	352.860	-445.640 SRC - Phelps 11-32NHZ	5343.540	5129.770	313.390	-423.150	-179.200	2342.810	2326.330	142.120
5316.200	5174.000	383.900	-484.830 SRC - Phelps 11-32NHZ	5452.990	5229.030	312.630	-436.380	-178.800	2257.670	2241.020	135.570
5416.200	5260.610	414.930	-524.030 SRC - Phelps 11-32NHZ	5562.440	5328.280	311.770	-450.090	-178.300	2173.530	2156.690	129.070
5516.200	5347.220	445.970	-563.220 SRC - Phelps 11-32NHZ	5671.890	5427.530	308.590	-500.230	-176.600	2090.230	2073.080	121.870
5616.200	5433.820	477.000	-602.410 SRC - Phelps 11-32NHZ	5781.340	5526.780	305.820	-573.080	-174.000	2007.020	1989.440	114.180
5716.200	5520.430	508.040	-641.610 SRC - Phelps 11-32NHZ	5890.790	5626.030	305.410	-624.180	-172.200	1924.320	1906.330	106.960
5816.200	5607.040	539.070	-680.800 SRC - Phelps 11-32NHZ	6000.240	5725.280	305.660	-690.210	-169.600	1841.930	1823.400	99.410
5916.200	5693.640	570.100	-720.000 SRC - Phelps 11-32NHZ	6109.690	5824.530	307.360	-767.850	-166.400	1759.450	1740.240	91.620
6016.200	5780.250	601.140	-759.190 SRC - Phelps 11-32NHZ	6219.140	5923.780	308.140	-799.730	-165.100	1678.060	1658.270	84.800
6116.200	5866.860	632.170	-798.380 SRC - Phelps 11-32NHZ	6328.590	6023.030	309.770	-855.990	-162.500	1597.540	1576.940	77.540
6216.200	5953.460	663.210	-837.580 SRC - Phelps 11-32NHZ	6438.040	6122.280	310.160	-874.360	-161.600	1518.630	1497.290	71.170
6316.200	6040.070	694.240	-876.770 SRC - Phelps 11-32NHZ	6547.490	6221.530	310.270	-892.770	-160.800	1441.890	1419.700	64.970
6416.200	6126.680	725.270	-915.960 SRC - Phelps 11-32NHZ	6656.940	6320.780	310.240	-910.640	-159.900	1367.690	1344.510	59.000
6516.200	6213.280	756.310	-955.160 SRC - Phelps 11-32NHZ	6766.390	6420.030	310.180	-939.460	-158.400	1296.120	1271.690	53.070
6616.200	6299.890	787.340	-994.350 SRC - Phelps 11-32NHZ	6875.840	6519.280	309.930	-997.030	-155.400	1227.200	1201.010	46.860
6716.200	6386.500	818.380	-1033.540 SRC - Phelps 11-32NHZ	6985.290	6618.530	309.600	-1033.210	-153.400	1161.120	1133.130	41.480
6816.200	6473.110	849.410	-1072.740 SRC - Phelps 11-32NHZ	7094.740	6717.780	309.420	-1055.530	-152.100	1099.240	1069.390	36.830
6916.200	6559.710	880.440	-1111.930 SRC - Phelps 11-32NHZ	7204.190	6817.030	309.170	-1106.570	-149.200	1041.800	1009.420	32.170
7016.200	6646.320	911.480	-1151.120 SRC - Phelps 11-32NHZ	7313.640	6916.280	308.990	-1133.800	-147.600	989.420	954.620	28.430
7116.200	6732.930	942.510	-1190.320 SRC - Phelps 11-32NHZ	7423.090	7015.530	308.380	-1163.660	-145.800	943.760	906.320	25.200
7216.200	6819.530	973.550	-1229.510 SRC - Phelps 11-32NHZ	7532.540	7114.780	307.540	-1202.640	-143.500	905.320	864.910	22.400
7316.200	6906.140	1004.580	-1268.710 SRC - Phelps 11-32NHZ	7641.990	7214.030	306.620	-1261.920	-139.800	874.340	830.420	19.910
7416.200	6992.750	1035.620	-1307.900 SRC - Phelps 11-32NHZ	7751.440	7313.280	306.960	-1319.520	-136.200	851.110	803.760	17.970
7516.200	7079.350	1066.650	-1347.090 SRC - Phelps 11-32NHZ	7860.890	7412.530	307.270	-1351.950	-134.200	837.440	787.490	16.770
7599.740	7151.700	1092.570	-1379.830 SRC - Phelps 11-32NHZ	7970.340	7511.780	307.340	-1381.700	-132.300	833.840	781.950	16.070
7616.200	7165.960	1097.680	-1386.290 SRC - Phelps 11-32NHZ	8079.790	7611.030	307.340	-1388.050	-131.900	833.980	781.730	15.960
7716.200	7252.570	1128.720	-1425.480 SRC - Phelps 11-32NHZ	8189.240	7710.280	307.670	-1436.000	-128.800	840.410	786.010	15.450

7742.580	7275.410	1136.900	-1435.820 SRC - Phelps 11-32NHZ	11919.000	7431.560	307.750	-1443.700	-128.400	843.760	789.020	15.410
7765.730	7295.460	1144.090	-1444.890 SRC - Phelps 11-32NHZ	11923.290	7431.580	307.770	-1447.990	-128.100	847.330	792.380	15.420
7816.200	7338.260	1162.460	-1464.270 SRC - Phelps 11-32NHZ	11946.860	7431.840	307.950	-1471.560	-134.900	859.650	803.980	15.440
7916.200	7416.040	1214.060	-1499.550 SRC - Phelps 11-32NHZ	11993.320	7432.790	308.710	-1518.010	-142.600	905.700	848.930	15.950
8016.200	7481.220	1283.560	-1529.190 SRC - Phelps 11-32NHZ	12027.760	7433.680	309.470	-1552.420	-145.500	975.520	918.220	17.030
8116.200	7530.470	1367.380	-1551.690 SRC - Phelps 11-32NHZ	12053.430	7434.350	310.050	-1578.070	-143.800	1062.010	1004.430	18.440
8216.200	7561.230	1461.230	-1565.890 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-132.100	1158.210	1100.820	20.180
8316.200	7572.000	1560.300	-1571.060 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-6.100	1257.810	1200.440	21.930
8318.380	7572.000	1562.480	-1571.070 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	1259.980	1202.610	21.960
8416.200	7572.000	1660.300	-1571.380 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	1357.250	1299.810	23.630
8516.200	7572.000	1760.300	-1571.700 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	1456.770	1399.260	25.330
8616.200	7572.000	1860.300	-1572.020 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	1556.350	1498.780	27.040
8716.200	7572.000	1960.300	-1572.350 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	1655.970	1598.350	28.740
8816.200	7572.000	2060.300	-1572.670 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	1755.650	1697.970	30.440
8916.200	7572.000	2160.300	-1572.990 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	1855.350	1797.630	32.140
9016.200	7572.000	2260.300	-1573.310 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	1955.090	1897.320	33.840
9116.200	7572.000	2360.300	-1573.630 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	2054.850	1997.030	35.540
9216.200	7572.000	2460.290	-1573.950 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	2154.640	2096.770	37.240
9316.200	7572.000	2560.290	-1574.280 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	2254.440	2196.530	38.930
9416.200	7572.000	2660.290	-1574.600 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	2354.260	2296.310	40.630
9516.200	7572.000	2760.290	-1574.920 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	2454.090	2396.100	42.320
9616.200	7572.000	2860.290	-1575.240 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	2553.940	2495.910	44.010
9716.200	7572.000	2960.290	-1575.560 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	2653.800	2595.730	45.700
9816.200	7572.000	3060.290	-1575.880 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	2753.670	2695.560	47.380
9916.200	7572.000	3160.290	-1576.200 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	2853.550	2795.390	49.070
10016.200	7572.000	3260.290	-1576.530 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	2953.440	2895.240	50.750
10116.200	7572.000	3360.290	-1576.850 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	3053.330	2995.100	52.430
10216.200	7572.000	3460.290	-1577.170 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	3153.230	3094.960	54.110
10316.200	7572.000	3560.290	-1577.490 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	3253.140	3194.820	55.790
10416.200	7572.000	3660.290	-1577.810 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	3353.050	3294.700	57.460
10516.200	7572.000	3760.290	-1578.130 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	3452.970	3394.570	59.130
10616.200	7572.000	3860.290	-1578.460 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	3552.890	3494.460	60.800
10716.200	7572.000	3960.290	-1578.780 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	3652.820	3594.340	62.470
10816.200	7572.000	4060.290	-1579.100 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	3752.750	3694.230	64.130
10916.200	7572.000	4160.290	-1579.420 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	3852.680	3794.130	65.800
11016.200	7572.000	4260.290	-1579.740 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	3952.620	3894.020	67.460
11116.200	7572.000	4360.280	-1580.060 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	4052.560	3993.920	69.110
11216.200	7572.000	4460.280	-1580.390 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	4152.500	4093.830	70.770
11316.200	7572.000	4560.280	-1580.710 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	4252.450	4193.730	72.420
11416.200	7572.000	4660.280	-1581.030 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	4352.400	4293.640	74.070
11516.200	7572.000	4760.280	-1581.350 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	4452.350	4393.550	75.720
11616.200	7572.000	4860.280	-1581.670 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	4552.300	4493.460	77.370
11716.200	7572.000	4960.280	-1581.990 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	4652.260	4593.370	79.010
11816.200	7572.000	5060.280	-1582.320 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	4752.210	4693.290	80.650
11916.200	7572.000	5160.280	-1582.640 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	4852.170	4793.210	82.290
12016.200	7572.000	5260.280	-1582.960 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	4952.130	4893.130	83.930
12116.200	7572.000	5360.280	-1583.280 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	5052.090	4993.050	85.560
12216.200	7572.000	5460.280	-1583.600 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	5152.060	5092.970	87.190
12316.200	7572.000	5560.280	-1583.920 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	5252.020	5192.890	88.820
12416.200	7572.000	5660.280	-1584.250 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	5351.990	5292.810	90.450
12516.200	7572.000	5760.280	-1584.570 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	5451.950	5392.740	92.070
12616.200	7572.000	5860.280	-1584.890 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	5551.920	5492.670	93.690
12716.200	7572.000	5960.280	-1585.210 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	5651.890	5592.590	95.310
12816.200	7572.000	6060.280	-1585.530 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	5751.860	5692.520	96.930
12916.200	7572.000	6160.280	-1585.850 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	5851.830	5792.450	98.540
13016.200	7572.000	6260.280	-1586.180 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	5951.810	5892.380	100.150
13116.200	7572.000	6360.270	-1586.500 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	6051.780	5992.310	101.760
13216.200	7572.000	6460.270	-1586.820 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	6151.760	6092.240	103.370
13316.200	7572.000	6560.270	-1587.140 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	6251.730	6192.170	104.970
13416.200	7572.000	6660.270	-1587.460 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	6351.710	6292.100	106.570
13516.200	7572.000	6760.270	-1587.780 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	6451.680	6392.040	108.170
13616.200	7572.000	6860.270	-1588.110 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	6551.660	6491.970	109.760
13716.200	7572.000	6960.270	-1588.430 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	6651.640	6591.910	111.360
13816.200	7572.000	7060.270	-1588.750 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	6751.620	6691.840	112.950
13916.200	7572.000	7160.270	-1589.070 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	6851.600	6791.770	114.530
14016.200	7572.000	7260.270	-1589.390 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	6951.580	6891.710	116.120
14116.200	7572.000	7360.270	-1589.710 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	7051.560	6991.650	117.700
14216.200	7572.000	7460.270	-1590.040 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	7151.540	7091.580	119.280
14316.200	7572.000	7560.270	-1590.360 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	7251.520	7191.520	120.860
14416.200	7572.000	7660.270	-1590.680 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	7351.500	7291.460	122.430
14516.200	7572.000	7760.270	-1591.000 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	7451.480	7391.390	124.000
14616.200	7572.000	7860.270	-1591.320 SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	7551.470	7491.330	125.570

14716.200	7572.000	7960.270	-1591.640	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	7651.450	7591.270	127.140
14816.200	7572.000	8060.270	-1591.970	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	7751.440	7691.210	128.700
14916.200	7572.000	8160.270	-1592.290	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	7851.420	7791.140	130.260
15016.200	7572.000	8260.260	-1592.610	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	7951.400	7891.080	131.820
15116.200	7572.000	8360.260	-1592.930	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	8051.390	7991.020	133.370
15216.200	7572.000	8460.260	-1593.250	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	8151.370	8090.960	134.930
15316.200	7572.000	8560.260	-1593.570	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	8251.360	8190.900	136.480
15416.200	7572.000	8660.260	-1593.900	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	8351.350	8290.840	138.020
15516.200	7572.000	8760.260	-1594.220	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	8451.330	8390.780	139.570
15616.200	7572.000	8860.260	-1594.540	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	8551.320	8490.720	141.110
15716.200	7572.000	8960.260	-1594.860	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	8651.310	8590.660	142.650
15816.200	7572.000	9060.260	-1595.180	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	8751.290	8690.600	144.190
15916.200	7572.000	9160.260	-1595.500	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	8851.280	8790.540	145.720
16016.200	7572.000	9260.260	-1595.830	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	8951.270	8890.480	147.250
16116.200	7572.000	9360.260	-1596.150	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	9051.260	8990.420	148.780
16216.200	7572.000	9460.260	-1596.470	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	9151.250	9090.360	150.300
16316.200	7572.000	9560.260	-1596.790	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	9251.240	9190.300	151.830
16416.200	7572.000	9660.260	-1597.110	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	9351.220	9290.240	153.350
16516.200	7572.000	9760.260	-1597.430	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	9451.210	9390.180	154.860
16616.200	7572.000	9860.260	-1597.760	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	9551.200	9490.130	156.380
16716.200	7572.000	9960.260	-1598.080	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	9651.190	9590.070	157.890
16816.200	7572.000	10060.260	-1598.400	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	9751.180	9690.010	159.400
16916.200	7572.000	10160.250	-1598.720	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	9851.170	9789.950	160.910
17016.200	7572.000	10260.250	-1599.040	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	9951.160	9889.890	162.410
17116.200	7572.000	10360.250	-1599.360	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	10051.150	9989.830	163.910
17216.200	7572.000	10460.250	-1599.690	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	10151.140	10089.770	165.410
17316.200	7572.000	10560.250	-1600.010	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	10251.140	10189.720	166.910
17416.200	7572.000	10660.250	-1600.330	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	10351.130	10289.660	168.400
17516.200	7572.000	10760.250	-1600.650	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	10451.120	10389.600	169.890
17616.200	7572.000	10860.250	-1600.970	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	10551.110	10489.540	171.380
17716.200	7572.000	10960.250	-1601.290	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	10651.100	10589.480	172.860
17816.200	7572.000	11060.250	-1601.620	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	10751.090	10689.430	174.340
17916.200	7572.000	11160.250	-1601.940	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	10851.080	10789.370	175.820
17964.790	7572.000	11208.830	-1602.090	SRC - Phelps 11-32NHZ	12054.000	7434.370	310.060	-1578.650	-4.800	10899.670	10837.920	176.520

## Offset Wellbore Survey Tool Programs

Well	SRC - Phelps 11-32NHZ
Wellbore	SRC - Phelps 11-32NHZ (AWB)
Survey Name	As Drilled Survey - Entered 20160505
MD[ft]	12017.200
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 12-32CHZ	53.000	16.200	-677.400	2959.490	102.900	3036.030	3035.070	
116.200	116.200	0.000	0.000	SRC - Phelps 12-32CHZ	148.890	112.090	-677.380	2959.630	102.900	3036.160	3034.980	2561.270
131.030	131.030	0.000	0.000	SRC - Phelps 12-32CHZ	160.000	123.200	-677.380	2959.650	102.900	3036.180	3034.970	2509.980
216.200	216.200	0.000	0.000	SRC - Phelps 12-32CHZ	240.660	203.860	-677.320	2960.000	102.900	3036.530	3035.200	2296.370
316.200	316.200	0.000	0.000	SRC - Phelps 12-32CHZ	332.440	295.640	-677.240	2960.580	102.900	3037.120	3035.680	2099.810
416.200	416.200	0.000	0.000	SRC - Phelps 12-32CHZ	432.730	395.920	-677.200	2961.280	102.900	3037.790	3036.200	1906.150
516.200	516.200	0.000	0.000	SRC - Phelps 12-32CHZ	511.540	474.730	-677.580	2961.800	102.900	3038.600	3036.870	1747.780
616.200	616.200	0.000	0.000	SRC - Phelps 12-32CHZ	593.000	556.150	-679.900	2962.650	102.900	3040.260	3038.380	1615.830
716.200	716.200	0.000	0.000	SRC - Phelps 12-32CHZ	637.920	601.030	-681.690	2963.540	103.000	3043.110	3041.110	1520.500
816.200	816.200	0.000	0.000	SRC - Phelps 12-32CHZ	705.860	668.870	-684.120	2965.930	103.000	3047.370	3045.240	1426.770
916.200	916.200	0.000	0.000	SRC - Phelps 12-32CHZ	759.330	722.260	-685.820	2968.620	103.000	3052.970	3050.710	1350.180
1016.200	1016.200	0.000	0.000	SRC - Phelps 12-32CHZ	817.490	780.260	-687.380	2972.460	103.000	3060.010	3057.620	1281.190
1116.200	1116.200	0.000	0.000	SRC - Phelps 12-32CHZ	903.300	865.790	-689.530	2979.030	103.000	3068.030	3065.490	1208.000
1216.200	1216.200	0.000	0.000	SRC - Phelps 12-32CHZ	999.320	961.490	-691.900	2986.570	103.000	3076.230	3073.530	1140.020
1316.200	1316.200	0.000	0.000	SRC - Phelps 12-32CHZ	1090.550	1052.390	-693.630	2994.090	103.000	3084.690	3081.830	1081.420
1416.200	1416.200	0.000	0.000	SRC - Phelps 12-32CHZ	1191.460	1152.910	-695.000	3002.760	103.000	3093.360	3090.350	1025.790
1516.200	1516.200	0.000	0.000	SRC - Phelps 12-32CHZ	1318.310	1279.350	-695.820	3012.930	103.000	3101.290	3098.090	969.100
1616.200	1616.200	0.000	0.000	SRC - Phelps 12-32CHZ	1412.090	1372.850	-696.360	3020.200	103.000	3108.970	3105.620	925.850
1716.200	1716.200	0.000	0.000	SRC - Phelps 12-32CHZ	1504.570	1465.030	-698.080	3027.430	103.000	3117.010	3113.500	886.940
1816.200	1816.200	0.000	0.000	SRC - Phelps 12-32CHZ	1612.330	1572.460	-700.020	3035.660	103.000	3124.850	3121.160	848.340
1916.200	1916.200	0.000	0.000	SRC - Phelps 12-32CHZ	1703.960	1663.800	-701.450	3042.820	103.000	3132.810	3129.350	905.820
2016.200	2016.200	0.000	0.000	SRC - Phelps 12-32CHZ	1796.490	1756.010	-702.630	3050.360	103.000	3141.040	3137.420	868.670
2116.200	2116.200	0.000	0.000	SRC - Phelps 12-32CHZ	1898.910	1858.080	-703.990	3058.750	103.000	3149.310	3145.530	832.900
2216.200	2216.200	0.000	0.000	SRC - Phelps 12-32CHZ	1999.560	1958.390	-706.310	3066.660	103.000	3157.490	3153.550	800.420
2316.200	2316.200	0.000	0.000	SRC - Phelps 12-32CHZ	2107.860	2066.330	-708.680	3075.120	103.000	3165.600	3161.480	769.330

2416.200	2416.200	0.000	0.000 SRC - Phelps 12-32CHZ	2282.910	2240.990	-713.550	3085.800	103.000	3172.060	3167.720	730.870
2516.200	2516.200	0.000	0.000 SRC - Phelps 12-32CHZ	2379.260	2337.180	-716.090	3090.730	103.000	3177.650	3173.150	706.180
2616.200	2616.200	0.000	0.000 SRC - Phelps 12-32CHZ	2452.180	2409.940	-718.110	3095.020	103.100	3183.930	3179.290	686.290
2716.200	2716.200	0.000	0.000 SRC - Phelps 12-32CHZ	2575.980	2533.500	-720.810	3102.140	103.100	3190.020	3185.200	661.600
2816.200	2816.200	0.000	0.000 SRC - Phelps 12-32CHZ	2654.780	2612.160	-722.330	3106.560	103.100	3195.950	3190.990	643.440
2916.200	2916.200	0.000	0.000 SRC - Phelps 12-32CHZ	2744.570	2701.750	-724.590	3112.080	103.100	3202.500	3197.380	625.340
3016.200	3016.200	0.000	0.000 SRC - Phelps 12-32CHZ	2833.390	2790.370	-726.990	3117.670	103.100	3209.270	3203.990	608.440
3116.200	3116.200	0.000	0.000 SRC - Phelps 12-32CHZ	2901.670	2858.450	-728.960	3122.450	103.100	3216.760	3211.340	594.440
3216.200	3216.200	0.000	0.000 SRC - Phelps 12-32CHZ	2972.390	2928.900	-731.250	3128.200	103.200	3225.350	3219.800	581.120
3316.200	3316.200	0.000	0.000 SRC - Phelps 12-32CHZ	3076.440	3032.500	-735.520	3136.820	103.200	3234.360	3228.650	565.680
3416.200	3416.200	0.000	0.000 SRC - Phelps 12-32CHZ	3229.760	3185.320	-741.290	3147.680	103.300	3242.020	3236.100	546.950
3516.200	3516.200	0.000	0.000 SRC - Phelps 12-32CHZ	3307.420	3262.750	-743.590	3153.150	103.300	3249.540	3243.470	535.190
3591.000	3591.000	0.000	0.000 SRC - Phelps 12-32CHZ	3365.910	3321.040	-745.320	3157.640	103.300	3255.620	3249.440	526.750
3616.200	3616.200	0.100	-0.130 SRC - Phelps 12-32CHZ	3391.000	3346.050	-746.070	3159.600	154.900	3257.860	3251.640	523.610
3716.200	3716.110	2.550	-3.220 SRC - Phelps 12-32CHZ	3485.670	3440.380	-748.800	3167.070	154.800	3269.750	3263.370	512.460
3816.200	3815.680	8.230	-10.400 SRC - Phelps 12-32CHZ	3592.310	3546.640	-750.110	3175.930	154.600	3286.360	3279.810	501.800
3916.200	3914.630	17.150	-21.650 SRC - Phelps 12-32CHZ	3721.590	3675.520	-751.360	3186.120	154.500	3307.200	3300.460	490.850
4016.200	4012.700	29.260	-36.950 SRC - Phelps 12-32CHZ	3869.920	3823.520	-753.050	3195.570	154.400	3331.220	3324.270	479.730
4116.200	4109.610	44.550	-56.260 SRC - Phelps 12-32CHZ	4004.780	3958.210	-753.550	3202.460	154.200	3358.440	3351.300	470.290
4216.200	4205.090	62.960	-79.510 SRC - Phelps 12-32CHZ	4162.910	4116.240	-753.530	3207.970	154.200	3388.520	3381.160	460.300
4316.200	4298.900	84.450	-106.650 SRC - Phelps 12-32CHZ	10587.790	7599.260	-759.290	-81.370	-159.500	3406.600	3390.190	207.660
4416.200	4390.760	108.960	-137.600 SRC - Phelps 12-32CHZ	10627.630	7599.490	-759.360	-121.210	-160.000	3324.180	3307.390	197.990
4516.200	4480.440	136.420	-172.280 SRC - Phelps 12-32CHZ	10665.800	7599.570	-759.680	-159.380	-160.400	3245.330	3228.120	188.560
4590.840	4545.790	158.790	-200.540 SRC - Phelps 12-32CHZ	10695.350	7599.610	-759.930	-188.920	-160.600	3189.040	3171.480	181.570
4616.200	4567.750	166.660	-210.480 SRC - Phelps 12-32CHZ	10704.370	7599.630	-759.990	-197.950	-160.400	3170.340	3152.650	179.160
4716.200	4654.360	197.690	-249.670 SRC - Phelps 12-32CHZ	10746.470	7599.800	-759.960	-240.050	-159.500	3097.220	3079.030	170.230
4816.200	4740.970	228.730	-288.870 SRC - Phelps 12-32CHZ	10786.150	7599.970	-759.830	-279.720	-158.600	3025.100	3006.360	161.410
4916.200	4827.580	259.760	-328.060 SRC - Phelps 12-32CHZ	10827.550	7600.090	-759.820	-321.120	-157.700	2954.050	2934.710	152.750
5016.200	4914.180	290.800	-367.250 SRC - Phelps 12-32CHZ	10873.070	7600.010	-760.300	-366.640	-156.700	2884.180	2864.180	144.200
5116.200	5000.790	321.830	-406.450 SRC - Phelps 12-32CHZ	10925.070	7599.520	-761.030	-418.640	-155.400	2815.340	2794.590	135.730
5216.200	5087.400	352.860	-445.640 SRC - Phelps 12-32CHZ	10956.000	7599.220	-761.390	-449.560	-154.700	2747.880	2726.430	128.090
5316.200	5174.000	383.900	-484.830 SRC - Phelps 12-32CHZ	10976.150	7599.270	-761.550	-469.710	-154.200	2682.200	2660.030	120.990
5416.200	5260.610	414.930	-524.030 SRC - Phelps 12-32CHZ	11010.920	7599.460	-761.700	-504.480	-153.400	2618.220	2595.220	113.850
5516.200	5347.220	445.970	-563.220 SRC - Phelps 12-32CHZ	11061.660	7599.780	-761.810	-555.210	-152.100	2555.940	2531.980	106.680
5616.200	5433.820	477.000	-602.410 SRC - Phelps 12-32CHZ	11101.150	7599.920	-761.820	-594.710	-151.200	2495.330	2470.400	100.080
5716.200	5520.430	508.040	-641.610 SRC - Phelps 12-32CHZ	11144.980	7599.990	-761.850	-638.530	-150.100	2436.640	2410.640	93.730
5816.200	5607.040	539.070	-680.800 SRC - Phelps 12-32CHZ	11181.570	7600.020	-761.890	-675.120	-149.100	2380.030	2352.940	87.870
5916.200	5693.640	570.100	-720.000 SRC - Phelps 12-32CHZ	11213.330	7600.020	-762.050	-706.890	-148.300	2325.740	2297.530	82.440
6016.200	5780.250	601.140	-759.190 SRC - Phelps 12-32CHZ	11255.520	7600.020	-762.430	-749.070	-147.200	2273.980	2244.520	77.180
6116.200	5866.860	632.170	-798.380 SRC - Phelps 12-32CHZ	11313.480	7600.010	-762.460	-807.030	-145.700	2224.620	2193.730	72.030
6216.200	5953.460	663.210	-837.580 SRC - Phelps 12-32CHZ	11352.750	7599.980	-762.260	-846.310	-144.700	2177.850	2145.610	67.540
6316.200	6040.070	694.240	-876.770 SRC - Phelps 12-32CHZ	11394.520	7599.840	-762.110	-888.070	-143.600	2134.010	2100.320	63.350
6416.200	6126.680	725.270	-915.960 SRC - Phelps 12-32CHZ	11444.140	7599.340	-762.040	-937.690	-142.200	2093.150	2057.920	59.400
6516.200	6213.280	756.310	-955.160 SRC - Phelps 12-32CHZ	11482.450	7598.900	-761.910	-976.000	-141.200	2055.570	2018.820	55.940
6616.200	6299.890	787.340	-994.350 SRC - Phelps 12-32CHZ	11526.820	7598.480	-761.570	-1020.370	-140.000	2021.420	1983.070	52.720
6716.200	6386.500	818.380	-1033.540 SRC - Phelps 12-32CHZ	11567.030	7598.150	-761.160	-1060.570	-138.900	1990.930	1951.000	49.860
6816.200	6473.110	849.410	-1072.740 SRC - Phelps 12-32CHZ	11600.740	7598.040	-760.710	-1094.280	-137.900	1964.290	1922.820	47.370
6916.200	6559.710	880.440	-1111.930 SRC - Phelps 12-32CHZ	11644.580	7598.150	-760.000	-1138.110	-136.700	1941.670	1898.580	45.060
7016.200	6646.320	911.480	-1151.120 SRC - Phelps 12-32CHZ	11700.300	7598.130	-758.770	-1193.820	-135.200	1922.890	1878.070	42.900
7116.200	6732.930	942.510	-1190.320 SRC - Phelps 12-32CHZ	11737.510	7598.230	-757.800	-1231.010	-134.200	1908.260	1861.920	41.180
7216.200	6819.530	973.550	-1229.510 SRC - Phelps 12-32CHZ	11768.380	7598.520	-757.020	-1261.870	-133.300	1898.090	1850.340	39.750
7316.200	6906.140	1004.580	-1268.710 SRC - Phelps 12-32CHZ	11790.840	7598.840	-756.560	-1284.330	-132.700	1892.530	1843.520	38.620
7385.240	6965.930	1026.010	-1295.760 SRC - Phelps 12-32CHZ	11814.000	7599.250	-756.190	-1307.480	-132.100	1891.410	1841.500	37.890
7416.200	6992.750	1035.620	-1307.900 SRC - Phelps 12-32CHZ	11818.930	7599.350	-756.140	-1312.400	-131.900	1891.660	1841.410	37.650
7516.200	7079.350	1066.650	-1347.090 SRC - Phelps 12-32CHZ	11849.900	7599.940	-755.890	-1343.360	-131.100	1895.430	1844.000	36.850
7616.200	7165.960	1097.680	-1386.290 SRC - Phelps 12-32CHZ	11886.910	7600.530	-755.810	-1380.380	-130.000	1903.770	1851.160	36.190
7716.200	7252.570	1128.720	-1425.480 SRC - Phelps 12-32CHZ	11927.230	7601.060	-755.820	-1420.690	-128.900	1916.490	1862.760	35.670
7765.730	7295.460	1144.090	-1444.890 SRC - Phelps 12-32CHZ	11954.970	7601.350	-755.780	-1448.430	-128.200	1924.330	1869.980	35.410
7816.200	7338.260	1162.460	-1464.270 SRC - Phelps 12-32CHZ	11974.720	7601.490	-755.720	-1468.180	-135.900	1936.160	1881.310	35.300
7824.600	7345.180	1166.040	-1467.410 SRC - Phelps 12-32CHZ	11990.760	7601.560	-755.620	-1484.220	-136.600	1938.750	1883.660	35.190
7916.200	7416.040	1214.060	-1499.550 SRC - Phelps 12-32CHZ	12030.240	7601.590	-755.240	-1523.700	-145.200	1978.170	1922.220	35.360
8016.200	7481.220	1283.560	-1529.190 SRC - Phelps 12-32CHZ	12060.610	7601.530	-754.870	-1554.060	-150.600	2042.130	1985.510	36.070
8116.200	7530.470	1367.380	-1551.690 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-153.600	2123.320	2066.300	37.230
8216.200	7561.250	1461.230	-1565.890 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-155.600	2216.260	2159.130	38.790
8316.200	7572.000	1560.300	-1571.060 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-162.600	2315.150	2257.960	40.480
8318.380	7572.000	1562.480	-1571.070 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	2317.330	2260.140	40.520
8416.200	7572.000	1660.300	-1571.380 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	2415.140	2357.920	42.210
8516.200	7572.000	1760.300	-1571.700 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	2515.130	2457.880	43.930
8616.200	7572.000	1860.300	-1572.020 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	2615.130	2557.830	45.650
8716.200	7572.000	1960.300	-1572.350 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	2715.120	2657.790	47.360
8816.200	7572.000	2060.300	-1572.670 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	2815.110	2757.750	49.080
8916.200	7572.000	2160.300	-1572.990 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	2915.110	2857.710	50.790



9016.200	7572.000	2260.300	-1573.310 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	3015.100	2957.670	52.500
9116.200	7572.000	2360.300	-1573.630 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	3115.100	3057.630	54.210
9216.200	7572.000	2460.290	-1573.950 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	3215.090	3157.590	55.910
9316.200	7572.000	2560.290	-1574.280 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	3315.090	3257.550	57.610
9416.200	7572.000	2660.290	-1574.600 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	3415.080	3357.510	59.310
9516.200	7572.000	2760.290	-1574.920 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	3515.080	3457.470	61.010
9616.200	7572.000	2860.290	-1575.240 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	3615.080	3557.430	62.710
9716.200	7572.000	2960.290	-1575.560 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	3715.070	3657.390	64.400
9816.200	7572.000	3060.290	-1575.880 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	3815.070	3757.350	66.090
9916.200	7572.000	3160.290	-1576.200 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	3915.070	3857.310	67.780
10016.200	7572.000	3260.290	-1576.530 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	4015.060	3957.270	69.470
10116.200	7572.000	3360.290	-1576.850 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	4115.060	4057.230	71.150
10216.200	7572.000	3460.290	-1577.170 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	4215.060	4157.190	72.840
10316.200	7572.000	3560.290	-1577.490 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	4315.060	4257.150	74.510
10416.200	7572.000	3660.290	-1577.810 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	4415.050	4357.110	76.190
10516.200	7572.000	3760.290	-1578.130 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	4515.050	4457.070	77.870
10616.200	7572.000	3860.290	-1578.460 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	4615.050	4557.030	79.540
10716.200	7572.000	3960.290	-1578.780 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	4715.050	4656.990	81.210
10816.200	7572.000	4060.290	-1579.100 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	4815.050	4756.940	82.870
10916.200	7572.000	4160.290	-1579.420 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	4915.040	4856.900	84.540
11016.200	7572.000	4260.290	-1579.740 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	5015.040	4956.860	86.200
11116.200	7572.000	4360.280	-1580.060 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	5115.040	5056.820	87.860
11216.200	7572.000	4460.280	-1580.390 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	5215.040	5156.780	89.520
11316.200	7572.000	4560.280	-1580.710 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	5315.040	5256.740	91.170
11416.200	7572.000	4660.280	-1581.030 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	5415.030	5356.700	92.820
11516.200	7572.000	4760.280	-1581.350 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	5515.030	5456.660	94.470
11616.200	7572.000	4860.280	-1581.670 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	5615.030	5556.610	96.120
11716.200	7572.000	4960.280	-1581.990 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	5715.030	5656.570	97.760
11816.200	7572.000	5060.280	-1582.320 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	5815.030	5756.530	99.410
11916.200	7572.000	5160.280	-1582.640 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	5915.030	5856.490	101.050
12016.200	7572.000	5260.280	-1582.960 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	6015.030	5956.450	102.680
12116.200	7572.000	5360.280	-1583.280 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	6115.020	6056.400	104.320
12216.200	7572.000	5460.280	-1583.600 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	6215.020	6156.360	105.950
12316.200	7572.000	5560.280	-1583.920 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	6315.020	6256.320	107.580
12416.200	7572.000	5660.280	-1584.250 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	6415.020	6356.280	109.200
12516.200	7572.000	5760.280	-1584.570 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	6515.020	6456.230	110.830
12616.200	7572.000	5860.280	-1584.890 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	6615.020	6556.190	112.450
12716.200	7572.000	5960.280	-1585.210 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	6715.020	6656.150	114.060
12816.200	7572.000	6060.280	-1585.530 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	6815.020	6756.100	115.680
12916.200	7572.000	6160.280	-1585.850 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	6915.020	6856.060	117.290
13016.200	7572.000	6260.280	-1586.180 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	7015.010	6956.020	118.900
13116.200	7572.000	6360.270	-1586.500 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	7115.010	7055.970	120.510
13216.200	7572.000	6460.270	-1586.820 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	7215.010	7155.930	122.110
13316.200	7572.000	6560.270	-1587.140 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	7315.010	7255.880	123.720
13416.200	7572.000	6660.270	-1587.460 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	7415.010	7355.840	125.320
13516.200	7572.000	6760.270	-1587.780 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	7515.010	7455.800	126.910
13616.200	7572.000	6860.270	-1588.110 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	7615.010	7555.750	128.510
13716.200	7572.000	6960.270	-1588.430 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	7715.010	7655.710	130.100
13816.200	7572.000	7060.270	-1588.750 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	7815.010	7755.660	131.690
13916.200	7572.000	7160.270	-1589.070 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	7915.010	7855.620	133.270
14016.200	7572.000	7260.270	-1589.390 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	8015.010	7955.570	134.860
14116.200	7572.000	7360.270	-1589.710 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	8115.010	8055.530	136.440
14216.200	7572.000	7460.270	-1590.040 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	8215.000	8155.480	138.010
14316.200	7572.000	7560.270	-1590.360 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	8315.000	8255.440	139.590
14416.200	7572.000	7660.270	-1590.680 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	8415.000	8355.390	141.160
14516.200	7572.000	7760.270	-1591.000 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	8515.000	8455.340	142.730
14616.200	7572.000	7860.270	-1591.320 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	8615.000	8555.300	144.300
14716.200	7572.000	7960.270	-1591.640 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	8715.000	8655.250	145.860
14816.200	7572.000	8060.270	-1591.970 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	8815.000	8755.210	147.420
14916.200	7572.000	8160.270	-1592.290 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	8915.000	8855.160	148.980
15016.200	7572.000	8260.260	-1592.610 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	9015.000	8955.110	150.540
15116.200	7572.000	8360.260	-1592.930 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	9115.000	9055.070	152.090
15216.200	7572.000	8460.260	-1593.250 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	9215.000	9155.020	153.640
15316.200	7572.000	8560.260	-1593.570 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	9315.000	9254.970	155.190
15416.200	7572.000	8660.260	-1593.900 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	9415.000	9354.930	156.730
15516.200	7572.000	8760.260	-1594.220 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	9515.000	9454.880	158.270
15616.200	7572.000	8860.260	-1594.540 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	9615.000	9554.830	159.810
15716.200	7572.000	8960.260	-1594.860 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	9715.000	9654.780	161.350
15816.200	7572.000	9060.260	-1595.180 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	9815.000	9754.740	162.880
15916.200	7572.000	9160.260	-1595.500 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	9915.000	9854.690	164.410
16016.200	7572.000	9260.260	-1595.830 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	10014.990	9954.640	165.940
16116.200	7572.000	9360.260	-1596.150 SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	10114.990	10054.590	167.460

16216.200	7572.000	9460.260	-1596.470	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	10214.990	10154.550	168.990
16316.200	7572.000	9560.260	-1596.790	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	10314.990	10254.500	170.510
16416.200	7572.000	9660.260	-1597.110	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	10414.990	10354.450	172.020
16516.200	7572.000	9760.260	-1597.430	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	10514.990	10454.400	173.540
16616.200	7572.000	9860.260	-1597.760	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	10614.990	10554.350	175.050
16716.200	7572.000	9960.260	-1598.080	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	10714.990	10654.300	176.560
16816.200	7572.000	10060.260	-1598.400	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	10814.990	10754.250	178.060
16916.200	7572.000	10160.250	-1598.720	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	10914.990	10854.210	179.570
17016.200	7572.000	10260.250	-1599.040	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	11014.990	10954.160	181.070
17116.200	7572.000	10360.250	-1599.360	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	11114.990	11054.110	182.560
17216.200	7572.000	10460.250	-1599.690	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	11214.990	11154.060	184.060
17316.200	7572.000	10560.250	-1600.010	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	11314.990	11254.010	185.550
17416.200	7572.000	10660.250	-1600.330	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	11414.990	11353.960	187.040
17516.200	7572.000	10760.250	-1600.650	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	11514.990	11453.910	188.520
17616.200	7572.000	10860.250	-1600.970	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	11614.990	11553.860	190.010
17716.200	7572.000	10960.250	-1601.290	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	11714.990	11653.810	191.490
17816.200	7572.000	11060.250	-1601.620	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	11814.990	11753.760	192.970
17916.200	7572.000	11160.250	-1601.940	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	11914.990	11853.710	194.440
17964.790	7572.000	11208.830	-1602.090	SRC - Phelps 12-32CHZ	12078.000	7601.500	-754.660	-1571.450	-165.100	11963.570	11902.260	195.130

## Offset Wellbore Survey Tool Programs

Well	SRC - Phelps 12-32CHZ
Wellbore	SRC - Phelps 12-32CHZ (AWB)
Survey Name	As Drilled Survey - Entered 20160505
MD[ft]	12041.200
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	16.200	0.000	0.000 SRC - Phelps 12-32NHZ	54.820	18.020	-682.140	2937.640	103.100	3015.800	3014.830	3107.480
57.200	57.200	57.200	0.000	0.000 SRC - Phelps 12-32NHZ	94.000	57.200	-682.200	2937.610	103.100	3015.780	3014.730	2877.330
116.200	116.200	116.200	0.000	0.000 SRC - Phelps 12-32NHZ	150.710	113.910	-682.360	2937.610	103.100	3015.820	3014.680	2650.700
180.240	180.240	180.240	0.000	0.000 SRC - Phelps 12-32NHZ	214.750	177.950	-682.540	2937.620	103.100	3015.870	3014.640	2445.400
216.200	216.200	216.200	0.000	0.000 SRC - Phelps 12-32NHZ	243.640	206.840	-682.590	2937.680	103.100	3015.960	3014.670	2340.500
316.200	316.200	316.200	0.000	0.000 SRC - Phelps 12-32NHZ	343.640	306.840	-682.760	2937.970	103.100	3016.270	3014.810	2066.210
416.200	416.200	416.200	0.000	0.000 SRC - Phelps 12-32NHZ	443.640	406.840	-682.920	2938.250	103.100	3016.580	3014.970	1877.940
516.200	516.200	516.200	0.000	0.000 SRC - Phelps 12-32NHZ	539.840	503.040	-682.870	2938.650	103.100	3016.980	3015.220	1713.010
616.200	616.200	616.200	0.000	0.000 SRC - Phelps 12-32NHZ	629.720	592.920	-682.840	2939.180	103.100	3017.550	3015.630	1577.380
716.200	716.200	716.200	0.000	0.000 SRC - Phelps 12-32NHZ	714.810	677.990	-683.460	2940.000	103.100	3018.640	3016.570	1465.150
816.200	816.200	816.200	0.000	0.000 SRC - Phelps 12-32NHZ	790.560	753.720	-685.150	2941.010	103.100	3020.410	3018.210	1370.390
916.200	916.200	916.200	0.000	0.000 SRC - Phelps 12-32NHZ	867.510	830.600	-688.120	2942.290	103.200	3022.890	3020.550	1288.110
1016.200	1016.200	1016.200	0.000	0.000 SRC - Phelps 12-32NHZ	942.520	905.480	-692.180	2943.810	103.200	3026.120	3023.630	1215.150
1116.200	1116.200	1116.200	0.000	0.000 SRC - Phelps 12-32NHZ	1032.500	995.230	-698.290	2945.940	103.300	3029.980	3027.330	1143.450
1216.200	1216.200	1216.200	0.000	0.000 SRC - Phelps 12-32NHZ	1113.890	1076.360	-704.550	2948.010	103.400	3034.250	3031.450	1083.130
1316.200	1316.200	1316.200	0.000	0.000 SRC - Phelps 12-32NHZ	1203.490	1165.620	-711.810	2950.710	103.600	3039.080	3036.110	1024.540
1416.200	1416.200	1416.200	0.000	0.000 SRC - Phelps 12-32NHZ	1315.170	1276.960	-719.560	2954.360	103.700	3043.910	3040.760	966.850
1516.200	1516.200	1516.200	0.000	0.000 SRC - Phelps 12-32NHZ	1433.750	1395.320	-725.860	2957.800	103.800	3047.960	3044.620	914.460
1616.200	1616.200	1616.200	0.000	0.000 SRC - Phelps 12-32NHZ	1488.540	1450.020	-727.930	2960.080	103.800	3052.800	3049.340	882.310
1716.200	1716.200	1716.200	0.000	0.000 SRC - Phelps 12-32NHZ	1557.700	1519.000	-731.740	2963.450	103.900	3058.820	3055.220	849.060
1816.200	1816.200	1816.200	0.000	0.000 SRC - Phelps 12-32NHZ	1627.160	1588.150	-737.210	2967.050	104.000	3065.750	3062.010	817.910
1916.200	1916.200	1916.200	0.000	0.000 SRC - Phelps 12-32NHZ	1719.320	1679.740	-746.100	2972.030	104.100	3073.360	3069.820	868.200
2016.200	2016.200	2016.200	0.000	0.000 SRC - Phelps 12-32NHZ	1818.800	1778.590	-755.750	2977.470	104.200	3081.060	3077.340	828.200
2116.200	2116.200	2116.200	0.000	0.000 SRC - Phelps 12-32NHZ	1920.120	1879.310	-765.280	2983.080	104.400	3088.780	3084.880	791.640
2216.200	2216.200	2216.200	0.000	0.000 SRC - Phelps 12-32NHZ	2023.740	1982.380	-774.170	2988.910	104.500	3096.380	3092.300	758.150
2316.200	2316.200	2316.200	0.000	0.000 SRC - Phelps 12-32NHZ	2128.290	2086.480	-781.720	2994.980	104.600	3103.830	3099.560	728.080
2416.200	2416.200	2416.200	0.000	0.000 SRC - Phelps 12-32NHZ	2265.580	2223.320	-789.890	3002.490	104.700	3110.640	3109.170	696.200
2516.200	2516.200	2516.200	0.000	0.000 SRC - Phelps 12-32NHZ	2335.850	2293.380	-794.090	3006.020	104.800	3117.120	3112.500	675.770
2616.200	2616.200	2616.200	0.000	0.000 SRC - Phelps 12-32NHZ	2407.000	2364.220	-799.140	3010.330	104.900	3124.770	3120.010	656.850
2716.200	2716.200	2716.200	0.000	0.000 SRC - Phelps 12-32NHZ	2506.640	2463.380	-806.410	3016.880	105.000	3133.020	3128.080	635.330
2816.200	2816.200	2816.200	0.000	0.000 SRC - Phelps 12-32NHZ	2637.860	2594.080	-814.680	3024.890	105.100	3140.540	3135.410	612.010
2916.200	2916.200	2916.200	0.000	0.000 SRC - Phelps 12-32NHZ	2721.640	2677.580	-819.670	3029.670	105.100	3147.650	3142.360	595.250
3016.200	3016.200	3016.200	0.000	0.000 SRC - Phelps 12-32NHZ	2808.530	2764.100	-825.650	3034.980	105.200	3155.370	3149.920	579.220
3116.200	3116.200	3116.200	0.000	0.000 SRC - Phelps 12-32NHZ	2899.210	2854.330	-832.490	3040.770	105.300	3163.530	3157.920	563.590
3216.200	3216.200	3216.200	0.000	0.000 SRC - Phelps 12-32NHZ	2991.210	2945.840	-840.000	3046.760	105.400	3171.980	3166.200	548.520
3316.200	3316.200	3316.200	0.000	0.000 SRC - Phelps 12-32NHZ	3087.190	3041.260	-848.190	3053.030	105.500	3180.570	3174.610	533.960
3416.200	3416.200	3416.200	0.000	0.000 SRC - Phelps 12-32NHZ	3182.760	3136.270	-856.220	3059.500	105.600	3189.350	3183.220	520.300
3516.200	3516.200	3516.200	0.000	0.000 SRC - Phelps 12-32NHZ	3293.960	3246.830	-865.570	3066.810	105.800	3197.980	3191.660	506.120
3591.000	3591.000	3591.000	0.000	0.000 SRC - Phelps 12-32NHZ	3368.350	3320.810	-871.710	3071.570	105.800	3204.280	3197.830	496.690
3616.200	3616.200	3616.200	0.100	-0.130 SRC - Phelps 12-32NHZ	3393.390	3345.720	-873.780	3073.170	157.500	3206.560	3200.060	493.660

3716.200	3716.110	2.550	-3.220 SRC - Phelps 12-32NHZ	3498.990	3450.730	-882.650	3079.770	157.500	3218.510	3211.830	481.870
3816.200	3815.680	8.230	-10.400 SRC - Phelps 12-32NHZ	3594.650	3545.830	-891.310	3085.520	157.500	3235.230	3228.370	471.980
3916.200	3914.630	17.150	-21.650 SRC - Phelps 12-32NHZ	3682.200	3632.820	-899.580	3090.940	157.400	3257.000	3249.980	463.810
4016.200	4012.700	29.260	-36.950 SRC - Phelps 12-32NHZ	3791.650	3741.610	-909.550	3097.680	157.400	3283.410	3276.200	455.160
4116.200	4109.610	44.550	-56.260 SRC - Phelps 12-32NHZ	3885.490	3834.910	-917.930	3103.240	157.300	3314.250	3306.860	448.410
4215.680	4204.600	62.850	-79.380 SRC - Phelps 12-32NHZ	3959.000	3907.970	-924.690	3107.630	157.100	3349.660	3342.110	443.590
4216.200	4205.090	62.960	-79.510 SRC - Phelps 12-32NHZ	3959.000	3907.970	-924.690	3107.630	157.100	3349.860	3342.310	443.590
4316.200	4298.900	84.450	-106.650 SRC - Phelps 12-32NHZ	10479.950	7444.630	-1081.660	-75.050	-154.300	3355.070	3337.410	189.980
4416.200	4390.760	108.960	-137.600 SRC - Phelps 12-32NHZ	10494.650	7444.600	-1082.220	-89.750	-155.500	3278.280	3260.200	181.340
4516.200	4480.440	136.420	-172.280 SRC - Phelps 12-32NHZ	10521.000	7444.550	-1083.390	-116.070	-156.200	3205.790	3187.210	172.550
4590.840	4545.790	158.790	-200.540 SRC - Phelps 12-32NHZ	10542.720	7444.530	-1084.530	-137.760	-156.600	3154.760	3135.760	166.050
4616.200	4567.750	166.660	-210.480 SRC - Phelps 12-32NHZ	10558.000	7444.520	-1085.310	-153.020	-156.300	3137.920	3118.730	163.590
4716.200	4654.360	197.690	-249.670 SRC - Phelps 12-32NHZ	10635.050	7444.660	-1087.100	-230.040	-154.600	3071.940	3052.010	154.110
4816.200	4740.970	228.730	-288.870 SRC - Phelps 12-32NHZ	10664.010	7444.980	-1087.000	-258.990	-154.000	3007.270	2986.690	146.130
4916.200	4827.580	259.760	-328.060 SRC - Phelps 12-32NHZ	10700.090	7445.540	-1086.740	-295.060	-153.300	2944.130	2922.840	138.280
5016.200	4914.180	290.800	-367.250 SRC - Phelps 12-32NHZ	10741.000	7446.220	-1086.340	-335.970	-152.400	2882.480	2860.420	130.630
5116.200	5000.790	321.830	-406.450 SRC - Phelps 12-32NHZ	10775.670	7446.850	-1086.090	-370.630	-151.700	2822.540	2799.670	123.430
5216.200	5087.400	352.860	-445.640 SRC - Phelps 12-32NHZ	10830.010	7447.620	-1085.880	-424.970	-150.500	2764.250	2740.450	116.140
5316.200	5174.000	383.900	-484.830 SRC - Phelps 12-32NHZ	10960.870	7447.360	-1084.300	-555.810	-147.500	2707.180	2682.060	107.790
5416.200	5260.610	414.930	-524.030 SRC - Phelps 12-32NHZ	11003.770	7446.380	-1083.730	-598.690	-146.500	2651.250	2625.120	101.440
5516.200	5347.220	445.970	-563.220 SRC - Phelps 12-32NHZ	11043.940	7445.320	-1083.240	-638.840	-145.600	2597.350	2570.150	95.480
5616.200	5433.820	477.000	-602.410 SRC - Phelps 12-32NHZ	11074.360	7444.610	-1082.790	-669.250	-144.900	2545.720	2517.450	90.040
5716.200	5520.430	508.040	-641.610 SRC - Phelps 12-32NHZ	11101.230	7444.070	-1082.430	-696.110	-144.300	2496.580	2467.210	85.000
5816.200	5607.040	539.070	-680.800 SRC - Phelps 12-32NHZ	11129.960	7443.580	-1082.100	-724.840	-143.600	2450.100	2419.580	80.260
5916.200	5693.640	570.100	-720.000 SRC - Phelps 12-32NHZ	11154.870	7443.220	-1081.850	-749.740	-143.000	2406.420	2374.730	75.920
6016.200	5780.250	601.140	-759.190 SRC - Phelps 12-32NHZ	11182.000	7442.910	-1081.690	-776.870	-142.300	2365.730	2332.810	71.860
6116.200	5866.860	632.170	-798.380 SRC - Phelps 12-32NHZ	11198.000	7442.840	-1081.720	-792.870	-142.000	2328.340	2294.240	68.290
6216.200	5953.460	663.210	-837.580 SRC - Phelps 12-32NHZ	11214.000	7442.830	-1081.970	-808.870	-141.600	2294.490	2259.200	65.020
6316.200	6040.070	694.240	-876.770 SRC - Phelps 12-32NHZ	11218.600	7442.880	-1082.100	-813.470	-141.500	2264.350	2227.940	62.200
6416.200	6126.680	725.270	-915.960 SRC - Phelps 12-32NHZ	11246.000	7443.140	-1082.870	-840.850	-140.800	2237.880	2200.190	59.370
6516.200	6213.280	756.310	-955.160 SRC - Phelps 12-32NHZ	11268.450	7443.610	-1083.680	-863.290	-140.300	2215.330	2176.390	56.900
6616.200	6299.890	787.340	-994.350 SRC - Phelps 12-32NHZ	11303.680	7444.420	-1084.960	-898.480	-139.400	2196.510	2156.230	54.530
6716.200	6386.500	818.380	-1033.540 SRC - Phelps 12-32NHZ	11341.700	7445.220	-1086.310	-936.470	-138.500	2181.320	2139.690	52.390
6816.200	6473.110	849.410	-1072.740 SRC - Phelps 12-32NHZ	11372.820	7445.820	-1087.570	-967.550	-137.700	2170.050	2127.140	50.570
6916.200	6559.710	880.440	-1111.930 SRC - Phelps 12-32NHZ	11417.480	7446.510	-1089.600	-1012.170	-136.600	2162.740	2118.450	48.830
7016.200	6646.320	911.480	-1151.120 SRC - Phelps 12-32NHZ	11460.740	7446.790	-1091.590	-1055.380	-135.600	2159.220	2113.600	47.330
7058.200	6682.700	924.510	-1167.590 SRC - Phelps 12-32NHZ	11481.570	7446.830	-1092.530	-1076.180	-135.100	2158.870	2112.680	46.730
7116.200	6732.930	942.510	-1190.320 SRC - Phelps 12-32NHZ	11517.790	7446.900	-1094.000	-1112.370	-134.200	2159.450	2112.400	45.900
7216.200	6819.530	973.550	-1229.510 SRC - Phelps 12-32NHZ	11634.770	7446.200	-1096.620	-1229.320	-131.300	2162.940	2113.890	44.100
7316.200	6906.140	1004.580	-1268.710 SRC - Phelps 12-32NHZ	11700.680	7445.540	-1096.540	-1295.220	-129.700	2169.420	2118.950	42.980
7416.200	6992.750	1035.620	-1307.900 SRC - Phelps 12-32NHZ	11740.570	7445.080	-1096.140	-1335.100	-128.700	2179.390	2127.810	42.260
7516.200	7079.350	1066.650	-1347.090 SRC - Phelps 12-32NHZ	11779.000	7444.910	-1095.690	-1373.530	-127.800	2193.180	2140.590	41.700
7616.200	7165.960	1097.680	-1386.290 SRC - Phelps 12-32NHZ	11795.000	7445.030	-1095.490	-1389.530	-127.400	2210.860	2157.550	41.470
7716.200	7252.570	1128.720	-1425.480 SRC - Phelps 12-32NHZ	11818.290	7445.320	-1095.480	-1412.820	-126.800	2232.570	2178.550	41.330
7758.980	7289.620	1141.990	-1442.250 SRC - Phelps 12-32NHZ	11905.000	7445.690	-1094.430	-1499.510	-124.800	2242.600	2187.480	40.690
7765.730	7295.460	1144.090	-1444.890 SRC - Phelps 12-32NHZ	11905.000	7445.690	-1094.430	-1499.510	-124.800	2244.220	2189.080	40.700
7816.200	7338.260	1162.460	-1464.270 SRC - Phelps 12-32NHZ	11905.000	7445.690	-1094.430	-1499.510	-133.000	2259.720	2204.390	40.840
7916.200	7416.040	1214.060	-1499.550 SRC - Phelps 12-32NHZ	11928.940	7445.690	-1094.180	-1523.440	-143.100	2308.560	2252.670	41.310
8016.200	7481.220	1283.560	-1529.190 SRC - Phelps 12-32NHZ	11930.310	7445.690	-1094.170	-1524.820	-149.100	2378.000	2321.890	42.380
8116.200	7530.470	1367.380	-1551.690 SRC - Phelps 12-32NHZ	11952.740	7445.730	-1094.220	-1547.250	-151.200	2463.050	2406.550	43.590
8216.200	7561.250	1461.230	-1565.890 SRC - Phelps 12-32NHZ	11966.820	7445.760	-1094.240	-1561.330	-149.200	2558.080	2501.330	45.070
8316.200	7572.000	1560.300	-1571.060 SRC - Phelps 12-32NHZ	11971.820	7445.760	-1094.250	-1566.330	-4.600	2657.550	2600.690	46.730
8318.380	7572.000	1562.480	-1571.070 SRC - Phelps 12-32NHZ	11971.830	7445.760	-1094.250	-1566.330	-1.700	2659.730	2602.860	46.770
8416.200	7572.000	1660.300	-1571.380 SRC - Phelps 12-32NHZ	11971.960	7445.760	-1094.250	-1566.470	-1.800	2757.450	2700.540	48.460
8516.200	7572.000	1760.300	-1571.700 SRC - Phelps 12-32NHZ	11972.090	7445.760	-1094.250	-1566.600	-1.900	2857.340	2800.400	50.180
8616.200	7572.000	1860.300	-1572.020 SRC - Phelps 12-32NHZ	11972.230	7445.770	-1094.250	-1566.740	-1.900	2957.250	2900.270	51.900
8716.200	7572.000	1960.300	-1572.350 SRC - Phelps 12-32NHZ	11972.360	7445.770	-1094.250	-1566.870	-2.000	3057.160	3000.140	53.620
8816.200	7572.000	2060.300	-1572.670 SRC - Phelps 12-32NHZ	11972.500	7445.770	-1094.250	-1567.010	-2.000	3157.080	3100.020	55.330
8916.200	7572.000	2160.300	-1572.990 SRC - Phelps 12-32NHZ	11972.640	7445.770	-1094.250	-1567.140	-2.100	3257.000	3199.910	57.050
9016.200	7572.000	2260.300	-1573.310 SRC - Phelps 12-32NHZ	11972.770	7445.770	-1094.250	-1567.280	-2.200	3356.930	3299.800	58.760
9116.200	7572.000	2360.300	-1573.630 SRC - Phelps 12-32NHZ	11972.910	7445.770	-1094.250	-1567.410	-2.200	3456.860	3399.690	60.470
9216.200	7572.000	2460.290	-1573.950 SRC - Phelps 12-32NHZ	11973.040	7445.770	-1094.250	-1567.550	-2.300	3556.790	3499.590	62.170
9316.200	7572.000	2560.290	-1574.280 SRC - Phelps 12-32NHZ	11973.180	7445.770	-1094.250	-1567.680	-2.300	3656.730	3599.490	63.880
9416.200	7572.000	2660.290	-1574.600 SRC - Phelps 12-32NHZ	11973.310	7445.770	-1094.250	-1567.820	-2.400	3756.670	3699.390	65.580
9516.200	7572.000	2760.290	-1574.920 SRC - Phelps 12-32NHZ	11973.450	7445.770	-1094.250	-1567.960	-2.500	3856.620	3799.300	67.280
9616.200	7572.000	2860.290	-1575.240 SRC - Phelps 12-32NHZ	11973.580	7445.770	-1094.250	-1568.090	-2.500	3956.570	3899.210	68.980
9716.200	7572.000	2960.290	-1575.560 SRC - Phelps 12-32NHZ	11973.720	7445.770	-1094.250	-1568.230	-2.600	4056.520	3999.120	70.670
9816.200	7572.000	3060.290	-1575.880 SRC - Phelps 12-32NHZ	11973.850	7445.770	-1094.250	-1568.360	-2.600	4156.470	4099.030	72.360
9916.200	7572.000	3160.290	-1576.200 SRC - Phelps 12-32NHZ	11973.990	7445.770	-1094.250	-1568.500	-2.700	4256.430	4198.950	74.050
10016.200	7572.000	3260.290	-1576.530 SRC - Phelps 12-32NHZ	11974.120	7445.770	-1094.260	-1568.630	-2.800	4356.380	4298.870	75.740
10116.200	7572.000	3360.290	-1576.850 SRC - Phelps 12-32NHZ	11974.260	7445.770	-1094.260	-1568.770	-2.800	4456.340	4398.780	77.430
10216.200	7572.000	3460.290	-1577.170 SRC - Phelps 12-32NHZ	11974.390	7445.770	-1094.260	-1568.900	-2.900	4556.300	4498.710	79.110

10316.200	7572.000	3560.290	-1577.490 SRC - Phelps 12-32NHZ	11974.530	7445.770	-1094.260	-1569.040	-3.000	4656.260	4598.630	80.790
10416.200	7572.000	3660.290	-1577.810 SRC - Phelps 12-32NHZ	11974.660	7445.770	-1094.260	-1569.170	-3.000	4756.230	4698.550	82.460
10516.200	7572.000	3760.290	-1578.130 SRC - Phelps 12-32NHZ	11974.800	7445.770	-1094.260	-1569.310	-3.100	4856.190	4798.480	84.140
10616.200	7572.000	3860.290	-1578.460 SRC - Phelps 12-32NHZ	11974.940	7445.770	-1094.260	-1569.440	-3.100	4956.160	4898.400	85.810
10716.200	7572.000	3960.290	-1578.780 SRC - Phelps 12-32NHZ	11975.070	7445.770	-1094.260	-1569.580	-3.200	5056.130	4998.330	87.480
10816.200	7572.000	4060.290	-1579.100 SRC - Phelps 12-32NHZ	11975.210	7445.770	-1094.260	-1569.710	-3.300	5156.100	5098.260	89.150
10916.200	7572.000	4160.290	-1579.420 SRC - Phelps 12-32NHZ	11975.340	7445.770	-1094.260	-1569.850	-3.300	5256.070	5198.190	90.810
11016.200	7572.000	4260.290	-1579.740 SRC - Phelps 12-32NHZ	11975.480	7445.770	-1094.260	-1569.980	-3.400	5356.040	5298.120	92.470
11116.200	7572.000	4360.280	-1580.060 SRC - Phelps 12-32NHZ	11975.610	7445.770	-1094.260	-1570.120	-3.500	5456.010	5398.050	94.130
11216.200	7572.000	4460.280	-1580.390 SRC - Phelps 12-32NHZ	11975.750	7445.770	-1094.260	-1570.260	-3.500	5555.990	5497.980	95.790
11316.200	7572.000	4560.280	-1580.710 SRC - Phelps 12-32NHZ	11975.880	7445.770	-1094.260	-1570.390	-3.600	5655.960	5597.920	97.440
11416.200	7572.000	4660.280	-1581.030 SRC - Phelps 12-32NHZ	11976.020	7445.770	-1094.260	-1570.530	-3.600	5755.940	5697.850	99.090
11516.200	7572.000	4760.280	-1581.350 SRC - Phelps 12-32NHZ	11976.150	7445.770	-1094.260	-1570.660	-3.700	5855.910	5797.780	100.740
11616.200	7572.000	4860.280	-1581.670 SRC - Phelps 12-32NHZ	11976.290	7445.770	-1094.260	-1570.800	-3.800	5955.890	5897.720	102.390
11716.200	7572.000	4960.280	-1581.990 SRC - Phelps 12-32NHZ	11976.420	7445.770	-1094.260	-1570.930	-3.800	6055.870	5997.650	104.030
11816.200	7572.000	5060.280	-1582.320 SRC - Phelps 12-32NHZ	11976.560	7445.770	-1094.260	-1571.070	-3.900	6155.850	6097.590	105.670
11916.200	7572.000	5160.280	-1582.640 SRC - Phelps 12-32NHZ	11976.690	7445.770	-1094.260	-1571.200	-3.900	6255.820	6197.530	107.310
12016.200	7572.000	5260.280	-1582.960 SRC - Phelps 12-32NHZ	11976.830	7445.770	-1094.260	-1571.340	-4.000	6355.800	6297.460	108.940
12116.200	7572.000	5360.280	-1583.280 SRC - Phelps 12-32NHZ	11976.960	7445.770	-1094.260	-1571.470	-4.100	6455.790	6397.400	110.570
12216.200	7572.000	5460.280	-1583.600 SRC - Phelps 12-32NHZ	11977.100	7445.770	-1094.260	-1571.610	-4.100	6555.770	6497.340	112.200
12316.200	7572.000	5560.280	-1583.920 SRC - Phelps 12-32NHZ	11977.240	7445.770	-1094.260	-1571.740	-4.200	6655.750	6597.280	113.830
12416.200	7572.000	5660.280	-1584.250 SRC - Phelps 12-32NHZ	11977.370	7445.770	-1094.260	-1571.880	-4.200	6755.730	6697.210	115.450
12516.200	7572.000	5760.280	-1584.570 SRC - Phelps 12-32NHZ	11977.510	7445.770	-1094.260	-1572.010	-4.300	6855.710	6797.150	117.070
12616.200	7572.000	5860.280	-1584.890 SRC - Phelps 12-32NHZ	11977.640	7445.770	-1094.260	-1572.150	-4.400	6955.700	6897.090	118.690
12716.200	7572.000	5960.280	-1585.210 SRC - Phelps 12-32NHZ	11977.780	7445.770	-1094.260	-1572.280	-4.400	7055.680	6997.030	120.300
12816.200	7572.000	6060.280	-1585.530 SRC - Phelps 12-32NHZ	11977.910	7445.770	-1094.260	-1572.420	-4.500	7155.660	7096.970	121.920
12916.200	7572.000	6160.280	-1585.850 SRC - Phelps 12-32NHZ	11978.050	7445.780	-1094.260	-1572.560	-4.500	7255.650	7196.910	123.530
13016.200	7572.000	6260.280	-1586.180 SRC - Phelps 12-32NHZ	11978.180	7445.780	-1094.260	-1572.690	-4.600	7355.630	7296.850	125.130
13116.200	7572.000	6360.270	-1586.500 SRC - Phelps 12-32NHZ	11978.320	7445.780	-1094.260	-1572.830	-4.700	7455.620	7396.790	126.740
13216.200	7572.000	6460.270	-1586.820 SRC - Phelps 12-32NHZ	11978.450	7445.780	-1094.260	-1572.960	-4.700	7555.600	7496.730	128.340
13316.200	7572.000	6560.270	-1587.140 SRC - Phelps 12-32NHZ	11978.590	7445.780	-1094.260	-1573.100	-4.800	7655.590	7596.670	129.940
13416.200	7572.000	6660.270	-1587.460 SRC - Phelps 12-32NHZ	11978.720	7445.780	-1094.260	-1573.230	-4.800	7755.580	7696.610	131.530
13516.200	7572.000	6760.270	-1587.780 SRC - Phelps 12-32NHZ	11978.860	7445.780	-1094.260	-1573.370	-4.900	7855.560	7796.560	133.130
13616.200	7572.000	6860.270	-1588.110 SRC - Phelps 12-32NHZ	11978.990	7445.780	-1094.260	-1573.500	-5.000	7955.550	7896.500	134.720
13716.200	7572.000	6960.270	-1588.430 SRC - Phelps 12-32NHZ	11979.130	7445.780	-1094.260	-1573.640	-5.000	8055.540	7996.440	136.300
13816.200	7572.000	7060.270	-1588.750 SRC - Phelps 12-32NHZ	11979.260	7445.780	-1094.260	-1573.770	-5.100	8155.530	8096.380	137.890
13916.200	7572.000	7160.270	-1589.070 SRC - Phelps 12-32NHZ	11979.400	7445.780	-1094.260	-1573.910	-5.200	8255.510	8196.320	139.470
14016.200	7572.000	7260.270	-1589.390 SRC - Phelps 12-32NHZ	11979.540	7445.780	-1094.270	-1574.040	-5.200	8355.500	8296.260	141.050
14116.200	7572.000	7360.270	-1589.710 SRC - Phelps 12-32NHZ	11979.670	7445.780	-1094.270	-1574.180	-5.300	8455.490	8396.210	142.620
14216.200	7572.000	7460.270	-1590.040 SRC - Phelps 12-32NHZ	11979.810	7445.780	-1094.270	-1574.310	-5.300	8555.480	8496.150	144.200
14316.200	7572.000	7560.270	-1590.360 SRC - Phelps 12-32NHZ	11979.940	7445.780	-1094.270	-1574.450	-5.400	8655.470	8596.090	145.770
14416.200	7572.000	7660.270	-1590.680 SRC - Phelps 12-32NHZ	11980.080	7445.780	-1094.270	-1574.590	-5.500	8755.460	8696.030	147.330
14516.200	7572.000	7760.270	-1591.000 SRC - Phelps 12-32NHZ	11980.210	7445.780	-1094.270	-1574.720	-5.500	8855.450	8795.970	148.900
14616.200	7572.000	7860.270	-1591.320 SRC - Phelps 12-32NHZ	11980.350	7445.780	-1094.270	-1574.860	-5.600	8955.440	8895.920	150.460
14716.200	7572.000	7960.270	-1591.640 SRC - Phelps 12-32NHZ	11980.480	7445.780	-1094.270	-1574.990	-5.600	9055.430	8995.860	152.020
14816.200	7572.000	8060.270	-1591.970 SRC - Phelps 12-32NHZ	11980.620	7445.780	-1094.270	-1575.130	-5.700	9155.420	9095.800	153.570
14916.200	7572.000	8160.270	-1592.290 SRC - Phelps 12-32NHZ	11980.750	7445.780	-1094.270	-1575.260	-5.800	9255.410	9195.750	155.130
15016.200	7572.000	8260.260	-1592.610 SRC - Phelps 12-32NHZ	11980.890	7445.780	-1094.270	-1575.400	-5.800	9355.400	9295.690	156.680
15116.200	7572.000	8360.260	-1592.930 SRC - Phelps 12-32NHZ	11981.020	7445.780	-1094.270	-1575.530	-5.900	9455.390	9395.630	158.220
15216.200	7572.000	8460.260	-1593.250 SRC - Phelps 12-32NHZ	11981.160	7445.780	-1094.270	-1575.670	-6.000	9555.380	9495.570	159.770
15316.200	7572.000	8560.260	-1593.570 SRC - Phelps 12-32NHZ	11981.290	7445.780	-1094.270	-1575.800	-6.000	9655.370	9595.520	161.310
15416.200	7572.000	8660.260	-1593.900 SRC - Phelps 12-32NHZ	11981.430	7445.780	-1094.270	-1575.940	-6.100	9755.360	9695.460	162.850
15516.200	7572.000	8760.260	-1594.220 SRC - Phelps 12-32NHZ	11981.570	7445.780	-1094.270	-1576.070	-6.100	9855.350	9795.400	164.380
15616.200	7572.000	8860.260	-1594.540 SRC - Phelps 12-32NHZ	11981.700	7445.780	-1094.270	-1576.210	-6.200	9955.350	9895.350	165.920
15716.200	7572.000	8960.260	-1594.860 SRC - Phelps 12-32NHZ	11981.840	7445.780	-1094.270	-1576.340	-6.300	10055.340	9995.290	167.450
15816.200	7572.000	9060.260	-1595.180 SRC - Phelps 12-32NHZ	11981.970	7445.780	-1094.270	-1576.480	-6.300	10155.330	10095.230	168.970
15916.200	7572.000	9160.260	-1595.500 SRC - Phelps 12-32NHZ	11982.110	7445.780	-1094.270	-1576.610	-6.400	10255.320	10195.170	170.500
16016.200	7572.000	9260.260	-1595.830 SRC - Phelps 12-32NHZ	11982.240	7445.780	-1094.270	-1576.750	-6.400	10355.320	10295.120	172.020
16116.200	7572.000	9360.260	-1596.150 SRC - Phelps 12-32NHZ	11982.380	7445.780	-1094.270	-1576.890	-6.500	10455.310	10395.060	173.540
16216.200	7572.000	9460.260	-1596.470 SRC - Phelps 12-32NHZ	11982.510	7445.780	-1094.270	-1577.020	-6.500	10555.300	10495.000	175.050
16316.200	7572.000	9560.260	-1596.790 SRC - Phelps 12-32NHZ	11982.650	7445.780	-1094.270	-1577.160	-6.600	10655.290	10594.950	176.560
16416.200	7572.000	9660.260	-1597.110 SRC - Phelps 12-32NHZ	11982.780	7445.780	-1094.270	-1577.290	-6.700	10755.290	10694.890	178.070
16516.200	7572.000	9760.260	-1597.430 SRC - Phelps 12-32NHZ	11982.920	7445.780	-1094.270	-1577.430	-6.700	10855.280	10794.830	179.580
16616.200	7572.000	9860.260	-1597.760 SRC - Phelps 12-32NHZ	11983.050	7445.780	-1094.270	-1577.560	-6.800	10955.270	10894.780	181.080
16716.200	7572.000	9960.260	-1598.080 SRC - Phelps 12-32NHZ	11983.190	7445.780	-1094.270	-1577.700	-6.900	11055.270	10994.720	182.590
16816.200	7572.000	10060.260	-1598.400 SRC - Phelps 12-32NHZ	11983.320	7445.780	-1094.270	-1577.830	-6.900	11155.260	11094.660	184.080
16916.200	7572.000	10160.250	-1598.720 SRC - Phelps 12-32NHZ	11983.460	7445.780	-1094.270	-1577.970	-7.000	11255.250	11194.600	185.580
17016.200	7572.000	10260.250	-1599.040 SRC - Phelps 12-32NHZ	11983.590	7445.780	-1094.270	-1578.100	-7.000	11355.250	11294.550	187.070
17116.200	7572.000	10360.250	-1599.360 SRC - Phelps 12-32NHZ	11983.730	7445.790	-1094.270	-1578.240	-7.100	11455.240	11394.490	188.560
17216.200	7572.000	10460.250	-1599.690 SRC - Phelps 12-32NHZ	11983.870	7445.790	-1094.270	-1578.370	-7.200	11555.240	11494.430	190.050
17316.200	7572.000	10560.250	-1600.010 SRC - Phelps 12-32NHZ	11984.000	7445.790	-1094.270	-1578.510	-7.200	11655.230	11594.380	191.530
17416.200	7572.000	10660.250	-1600.330 SRC - Phelps 12-32NHZ	11984.140	7445.790	-1094.270	-1578.640	-7.300	11755.220	11694.320	193.010

17516.200	7572.000	10760.250	-1600.650	SRC - Phelps 12-32NHZ	11984.270	7445.790	-1094.270	-1578.780	-7.300	11855.220	11794.260	194.490
17616.200	7572.000	10860.250	-1600.970	SRC - Phelps 12-32NHZ	11984.410	7445.790	-1094.270	-1578.910	-7.400	11955.210	11894.210	195.960
17716.200	7572.000	10960.250	-1601.290	SRC - Phelps 12-32NHZ	11984.540	7445.790	-1094.270	-1579.050	-7.500	12055.210	11994.150	197.440
17816.200	7572.000	11060.250	-1601.620	SRC - Phelps 12-32NHZ	11984.680	7445.790	-1094.270	-1579.190	-7.500	12155.200	12094.090	198.910
17916.200	7572.000	11160.250	-1601.940	SRC - Phelps 12-32NHZ	11984.810	7445.790	-1094.280	-1579.320	-7.600	12255.200	12194.030	200.370
17964.790	7572.000	11208.830	-1602.090	SRC - Phelps 12-32NHZ	11984.880	7445.790	-1094.280	-1579.390	-7.600	12303.780	12242.580	201.060

## 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	-691.980	2893.670	103.500	2975.260	2974.290	
32.600	32.600	0.000	0.000	SRC - Phelps A-32CHZ	59.160	22.360	-691.950	2893.700	103.500	2975.290	2974.280	2947.600
116.200	116.200	0.000	0.000	SRC - Phelps A-32CHZ	115.950	79.140	-691.140	2894.440	103.400	2976.040	2974.930	2683.280
216.200	216.200	0.000	0.000	SRC - Phelps A-32CHZ	232.380	195.540	-689.210	2896.130	103.400	2977.080	2975.800	2331.960
316.200	316.200	0.000	0.000	SRC - Phelps A-32CHZ	348.620	311.770	-688.200	2896.970	103.400	2977.590	2976.140	2056.440
416.200	416.200	0.000	0.000	SRC - Phelps A-32CHZ	453.550	416.700	-688.040	2897.080	103.400	2977.670	2976.050	1846.310
516.200	516.200	0.000	0.000	SRC - Phelps A-32CHZ	567.610	530.760	-687.780	2896.810	103.400	2977.370	2975.590	1668.060
616.200	616.200	0.000	0.000	SRC - Phelps A-32CHZ	691.250	654.390	-686.710	2895.910	103.300	2976.470	2974.500	1514.880
716.200	716.200	0.000	0.000	SRC - Phelps A-32CHZ	793.170	756.290	-685.390	2894.770	103.300	2975.070	2972.940	1397.840
816.200	816.200	0.000	0.000	SRC - Phelps A-32CHZ	884.680	847.800	-684.000	2893.950	103.300	2973.860	2971.570	1302.750
916.200	916.200	0.000	0.000	SRC - Phelps A-32CHZ	969.840	932.950	-683.020	2893.570	103.300	2973.130	2970.700	1223.120
1016.200	1016.200	0.000	0.000	SRC - Phelps A-32CHZ	1081.590	1044.680	-681.830	2893.010	103.300	2972.400	2969.800	1142.200
1116.200	1116.200	0.000	0.000	SRC - Phelps A-32CHZ	1195.580	1158.650	-679.890	2892.140	103.200	2971.280	2968.510	1070.450
1216.200	1216.200	0.000	0.000	SRC - Phelps A-32CHZ	1340.960	1303.970	-676.880	2889.110	103.200	2968.650	2965.670	997.660
1316.200	1316.200	0.000	0.000	SRC - Phelps A-32CHZ	1448.150	1411.100	-674.890	2886.260	103.200	2965.640	2962.500	943.830
1416.200	1416.200	0.000	0.000	SRC - Phelps A-32CHZ	1634.490	1597.120	-666.740	2879.210	103.000	2960.940	2957.560	876.440
1516.200	1516.200	0.000	0.000	SRC - Phelps A-32CHZ	1742.050	1704.380	-661.220	2873.440	103.000	2954.540	2950.990	832.020
1616.200	1616.200	0.000	0.000	SRC - Phelps A-32CHZ	1859.210	1821.150	-653.900	2867.250	102.800	2948.000	2944.270	789.410
1716.200	1716.200	0.000	0.000	SRC - Phelps A-32CHZ	1954.000	1915.500	-646.340	2862.290	102.700	2941.120	2937.220	753.710
1816.200	1816.200	0.000	0.000	SRC - Phelps A-32CHZ	2032.420	1993.530	-639.280	2858.820	102.600	2934.790	2930.730	723.480
1916.200	1916.200	0.000	0.000	SRC - Phelps A-32CHZ	2125.890	2086.470	-630.030	2855.230	102.400	2928.860	2925.020	760.980
2016.200	2016.200	0.000	0.000	SRC - Phelps A-32CHZ	2170.000	2130.320	-625.490	2853.860	102.400	2923.830	2919.860	735.630
2116.200	2116.200	0.000	0.000	SRC - Phelps A-32CHZ	2222.960	2183.030	-620.390	2853.310	102.300	2920.740	2916.630	710.800
2216.200	2216.200	0.000	0.000	SRC - Phelps A-32CHZ	2263.000	2222.910	-616.810	2853.580	102.200	2919.490	2915.260	690.330
2222.910	2222.910	0.000	0.000	SRC - Phelps A-32CHZ	2263.000	2222.910	-616.810	2853.580	102.200	2919.480	2915.250	689.430
2230.770	2230.770	0.000	0.000	SRC - Phelps A-32CHZ	2263.000	2222.910	-616.810	2853.580	102.200	2919.490	2915.250	688.390
2316.200	2316.200	0.000	0.000	SRC - Phelps A-32CHZ	2308.290	2268.010	-612.850	2854.660	102.100	2920.100	2915.750	670.200
2416.200	2416.200	0.000	0.000	SRC - Phelps A-32CHZ	2371.350	2330.750	-607.110	2857.280	102.000	2922.320	2917.810	649.150
2516.200	2516.200	0.000	0.000	SRC - Phelps A-32CHZ	2501.130	2459.670	-593.670	2863.620	101.700	2925.050	2920.330	619.020
2616.200	2616.200	0.000	0.000	SRC - Phelps A-32CHZ	2589.030	2546.810	-582.910	2867.670	101.500	2927.140	2922.230	595.900
2716.200	2716.200	0.000	0.000	SRC - Phelps A-32CHZ	2658.750	2615.770	-573.440	2871.720	101.300	2930.140	2925.060	576.870
2816.200	2816.200	0.000	0.000	SRC - Phelps A-32CHZ	2724.630	2680.780	-563.820	2876.250	101.100	2934.110	2928.870	559.190
2916.200	2916.200	0.000	0.000	SRC - Phelps A-32CHZ	2798.330	2753.380	-552.540	2882.120	100.800	2939.120	2933.690	541.530
3016.200	3016.200	0.000	0.000	SRC - Phelps A-32CHZ	2871.300	2825.290	-542.010	2888.610	100.600	2945.210	2939.610	525.280
3116.200	3116.200	0.000	0.000	SRC - Phelps A-32CHZ	3009.590	2961.630	-522.120	2900.460	100.200	2951.130	2945.250	501.700
3216.200	3216.200	0.000	0.000	SRC - Phelps A-32CHZ	3092.160	3043.010	-509.860	2907.120	100.000	2956.570	2950.490	486.100
3316.200	3316.200	0.000	0.000	SRC - Phelps A-32CHZ	3171.060	3120.750	-498.330	2914.030	99.700	2962.780	2956.510	472.120
3416.200	3416.200	0.000	0.000	SRC - Phelps A-32CHZ	3223.740	3172.630	-490.810	2919.200	99.500	2970.180	2963.750	461.960
3516.200	3516.200	0.000	0.000	SRC - Phelps A-32CHZ	3379.830	3326.230	-467.780	2934.750	99.100	2977.860	2971.120	441.540
3591.000	3591.000	0.000	0.000	SRC - Phelps A-32CHZ	3455.820	3400.920	-455.420	2941.340	98.800	2982.450	2975.520	430.670
3616.200	3616.200	0.100	-0.130	SRC - Phelps A-32CHZ	3480.570	3425.220	-451.310	2943.550	150.300	2984.200	2977.220	427.270
3716.200	3716.110	2.550	-3.220	SRC - Phelps A-32CHZ	3631.340	3573.890	-429.510	2955.530	149.800	2993.500	2986.210	410.820
3816.200	3815.680	8.230	-10.400	SRC - Phelps A-32CHZ	3701.920	3643.940	-422.290	2960.180	149.500	3006.520	2999.060	403.280
3916.200	3914.630	17.150	-21.650	SRC - Phelps A-32CHZ	3769.000	3710.520	-415.890	2965.290	149.200	3025.070	3017.450	397.150
4016.200	4012.700	29.260	-36.950	SRC - Phelps A-32CHZ	3874.700	3815.050	-403.120	2974.240	148.700	3048.490	3040.640	388.320
4116.200	4109.610	44.550	-56.260	SRC - Phelps A-32CHZ	3944.760	3883.910	-391.860	2980.540	148.200	3076.280	3068.230	382.110
4216.200	4205.090	62.960	-79.510	SRC - Phelps A-32CHZ	4020.750	3958.330	-378.580	2988.220	147.600	3109.150	3100.880	375.870
4316.200	4298.900	84.450	-106.650	SRC - Phelps A-32CHZ	4142.710	4077.950	-358.080	3000.300	147.000	3146.080	3137.500	366.540
4416.200	4390.760	108.960	-137.600	SRC - Phelps A-32CHZ	4202.880	4137.060	-348.490	3006.050	146.300	3186.870	3178.070	362.150
4516.200	4480.440	136.420	-172.280	SRC - Phelps A-32CHZ	10624.740	7594.470	-28.620	-77.280	-177.500	3119.850	3104.780	206.950
4590.840	4545.790	158.790	-200.540	SRC - Phelps A-32CHZ	10642.780	7595.050	-28.350	-95.310	-177.300	3056.810	3041.600	200.890
4616.200	4567.750	166.660	-210.480	SRC - Phelps A-32CHZ	10653.530	7595.430	-28.280	-106.060	-177.000	3035.740	3020.450	198.560
4716.200	4654.360	197.690	-249.670	SRC - Phelps A-32CHZ	10692.810	7596.820	-28.070	-145.310	-176.100	2952.950	2937.450	190.500

4816.200	4740.970	228.730	-288.870 SRC - Phelps A-32CHZ	10743.700	7598.620	-27.770	-196.160	-175.000	2870.630	2854.850	181.890
4916.200	4827.580	259.760	-328.060 SRC - Phelps A-32CHZ	10796.860	7600.320	-26.700	-249.290	-173.700	2788.620	2772.530	173.310
5016.200	4914.180	290.800	-367.250 SRC - Phelps A-32CHZ	10835.570	7601.600	-25.490	-287.960	-172.800	2707.130	2690.750	165.260
5116.200	5000.790	321.830	-406.450 SRC - Phelps A-32CHZ	10936.390	7604.140	-21.830	-388.680	-170.200	2625.990	2609.110	155.560
5216.200	5087.400	352.860	-445.640 SRC - Phelps A-32CHZ	10977.880	7604.650	-20.130	-430.120	-169.100	2544.780	2527.540	147.580
5316.200	5174.000	383.900	-484.830 SRC - Phelps A-32CHZ	11020.950	7605.140	-18.560	-473.160	-167.900	2464.250	2446.600	139.630
5416.200	5260.610	414.930	-524.030 SRC - Phelps A-32CHZ	11071.220	7605.520	-17.240	-523.410	-166.500	2384.400	2366.280	131.550
5516.200	5347.220	445.970	-563.220 SRC - Phelps A-32CHZ	11135.740	7605.230	-16.390	-587.920	-164.500	2305.000	2286.280	123.140
5616.200	5433.820	477.000	-602.410 SRC - Phelps A-32CHZ	11174.100	7604.810	-16.360	-626.280	-163.300	2226.470	2207.200	115.510
5716.200	5520.430	508.040	-641.610 SRC - Phelps A-32CHZ	11206.900	7604.470	-16.610	-659.080	-162.200	2149.130	2129.260	108.140
5816.200	5607.040	539.070	-680.800 SRC - Phelps A-32CHZ	11234.430	7604.260	-16.990	-686.610	-161.200	2073.200	2052.680	101.060
5916.200	5693.640	570.100	-720.000 SRC - Phelps A-32CHZ	11264.550	7604.150	-17.420	-716.720	-160.200	1998.810	1977.560	94.080
6016.200	5780.250	601.140	-759.190 SRC - Phelps A-32CHZ	11303.080	7604.050	-17.960	-755.250	-158.800	1926.020	1903.910	87.100
6116.200	5866.860	632.170	-798.380 SRC - Phelps A-32CHZ	11347.500	7603.850	-18.690	-799.670	-157.200	1854.930	1831.800	80.210
6216.200	5953.460	663.210	-837.580 SRC - Phelps A-32CHZ	11391.110	7603.370	-19.660	-843.260	-155.600	1785.650	1761.390	73.610
6316.200	6040.070	694.240	-876.770 SRC - Phelps A-32CHZ	11442.510	7602.680	-20.420	-894.650	-153.600	1718.370	1692.790	67.170
6416.200	6126.680	725.270	-915.960 SRC - Phelps A-32CHZ	11487.140	7601.970	-20.620	-939.280	-151.900	1653.300	1626.310	61.260
6516.200	6213.280	756.310	-955.160 SRC - Phelps A-32CHZ	11530.800	7601.130	-20.640	-982.930	-150.200	1590.760	1562.230	55.750
6616.200	6299.890	787.340	-994.350 SRC - Phelps A-32CHZ	11572.510	7600.230	-20.670	-1024.630	-148.500	1531.240	1501.020	50.690
6716.200	6386.500	818.380	-1033.540 SRC - Phelps A-32CHZ	11609.520	7599.330	-20.730	-1061.620	-147.000	1475.080	1443.090	46.120
6816.200	6473.110	849.410	-1072.740 SRC - Phelps A-32CHZ	11642.510	7598.540	-20.860	-1094.600	-145.600	1422.830	1388.990	42.040
6916.200	6559.710	880.440	-1111.930 SRC - Phelps A-32CHZ	11679.480	7597.670	-21.060	-1131.570	-144.000	1374.940	1339.060	38.320
7016.200	6646.320	911.480	-1151.120 SRC - Phelps A-32CHZ	11707.100	7597.150	-21.290	-1159.170	-142.800	1331.990	1294.120	35.170
7116.200	6732.930	942.510	-1190.320 SRC - Phelps A-32CHZ	11737.390	7596.750	-21.590	-1189.460	-141.500	1294.490	1254.520	32.390
7216.200	6819.530	973.550	-1229.510 SRC - Phelps A-32CHZ	11767.850	7596.510	-21.980	-1219.920	-140.200	1262.880	1220.800	30.020
7316.200	6906.140	1004.580	-1268.710 SRC - Phelps A-32CHZ	11796.560	7596.360	-22.510	-1248.620	-139.000	1237.630	1193.500	28.050
7416.200	6992.750	1035.620	-1307.900 SRC - Phelps A-32CHZ	11826.400	7596.240	-23.280	-1278.460	-137.700	1219.150	1173.030	26.430
7516.200	7079.350	1066.650	-1347.090 SRC - Phelps A-32CHZ	11864.350	7596.110	-24.410	-1316.390	-136.000	1207.640	1159.480	25.080
7616.200	7165.960	1097.680	-1386.290 SRC - Phelps A-32CHZ	11901.940	7595.980	-25.540	-1353.960	-134.300	1203.160	1153.140	24.060
7632.210	7179.820	1102.650	-1392.560 SRC - Phelps A-32CHZ	11914.650	7595.940	-25.880	-1366.660	-133.800	1203.080	1152.650	23.860
7660.560	7204.380	1111.450	-1403.670 SRC - Phelps A-32CHZ	11925.460	7595.900	-26.150	-1377.470	-133.300	1203.370	1152.450	23.630
7716.200	7252.570	1128.720	-1425.480 SRC - Phelps A-32CHZ	11952.350	7595.860	-26.720	-1404.360	-132.100	1205.540	1153.610	23.210
7765.730	7295.460	1144.090	-1444.890 SRC - Phelps A-32CHZ	11975.540	7595.930	-27.110	-1427.540	-131.100	1209.250	1156.490	22.920
7816.200	7338.260	1162.460	-1464.270 SRC - Phelps A-32CHZ	11995.160	7596.140	-27.350	-1447.160	-138.500	1217.560	1164.090	22.770
7824.600	7345.180	1166.040	-1467.410 SRC - Phelps A-32CHZ	11998.330	7596.180	-27.390	-1450.330	-139.600	1219.650	1166.070	22.760
7916.200	7416.040	1214.060	-1499.550 SRC - Phelps A-32CHZ	12029.390	7596.660	-27.760	-1481.380	-148.200	1255.030	1200.450	23.000
8016.200	7481.220	1283.560	-1529.190 SRC - Phelps A-32CHZ	12049.590	7597.020	-28.130	-1501.580	-154.100	1317.080	1261.900	23.870
8116.200	7530.470	1367.380	-1551.690 SRC - Phelps A-32CHZ	12066.590	7597.340	-28.470	-1518.570	-157.900	1397.840	1342.260	25.150
8216.200	7561.250	1461.230	-1565.890 SRC - Phelps A-32CHZ	12079.230	7597.580	-28.760	-1531.200	-161.800	1490.830	1434.980	26.690
8316.200	7572.000	1560.300	-1571.060 SRC - Phelps A-32CHZ	12082.350	7597.640	-28.830	-1534.320	-139.100	1589.760	1533.810	28.420
8318.380	7572.000	1562.480	-1571.070 SRC - Phelps A-32CHZ	12082.310	7597.640	-28.830	-1534.280	129.000	1591.940	1535.990	28.450
8416.200	7572.000	1660.300	-1571.380 SRC - Phelps A-32CHZ	12080.390	7597.600	-28.780	-1532.360	127.300	1689.730	1633.780	30.200
8516.200	7572.000	1760.300	-1571.700 SRC - Phelps A-32CHZ	12078.430	7597.570	-28.740	-1530.400	125.700	1789.700	1733.750	31.990
8616.200	7572.000	1860.300	-1572.020 SRC - Phelps A-32CHZ	12076.470	7597.530	-28.700	-1528.450	124.200	1889.670	1833.720	33.770
8716.200	7572.000	1960.300	-1572.350 SRC - Phelps A-32CHZ	12074.510	7597.490	-28.650	-1526.490	122.900	1989.640	1933.690	35.560
8816.200	7572.000	2060.300	-1572.670 SRC - Phelps A-32CHZ	12072.560	7597.450	-28.610	-1524.530	121.600	2089.610	2033.660	37.340
8916.200	7572.000	2160.300	-1572.990 SRC - Phelps A-32CHZ	12070.600	7597.410	-28.560	-1522.570	120.400	2189.590	2133.630	39.130
9016.200	7572.000	2260.300	-1573.310 SRC - Phelps A-32CHZ	12068.640	7597.380	-28.520	-1520.620	119.200	2289.560	2233.600	40.910
9116.200	7572.000	2360.300	-1573.630 SRC - Phelps A-32CHZ	12066.680	7597.340	-28.470	-1518.660	118.200	2389.530	2333.570	42.700
9216.200	7572.000	2460.290	-1573.950 SRC - Phelps A-32CHZ	12064.720	7597.300	-28.430	-1516.700	117.200	2489.510	2433.540	44.480
9316.200	7572.000	2560.290	-1574.280 SRC - Phelps A-32CHZ	12063.000	7597.270	-28.390	-1514.980	116.400	2589.480	2533.510	46.260
9416.200	7572.000	2660.290	-1574.600 SRC - Phelps A-32CHZ	12063.000	7597.270	-28.390	-1514.980	116.400	2689.460	2633.440	48.010
9516.200	7572.000	2760.290	-1574.920 SRC - Phelps A-32CHZ	12063.000	7597.270	-28.390	-1514.980	116.400	2789.440	2733.380	49.760
9616.200	7572.000	2860.290	-1575.240 SRC - Phelps A-32CHZ	12063.000	7597.270	-28.390	-1514.980	116.400	2889.420	2833.320	51.500
9716.200	7572.000	2960.290	-1575.560 SRC - Phelps A-32CHZ	12063.000	7597.270	-28.390	-1514.980	116.400	2989.400	2933.260	53.250
9816.200	7572.000	3060.290	-1575.880 SRC - Phelps A-32CHZ	12063.000	7597.270	-28.390	-1514.980	116.400	3089.380	3033.200	54.990
9916.200	7572.000	3160.290	-1576.200 SRC - Phelps A-32CHZ	12061.790	7597.250	-28.360	-1513.770	115.800	3189.370	3133.170	56.750
10016.200	7572.000	3260.290	-1576.530 SRC - Phelps A-32CHZ	12060.170	7597.220	-28.330	-1512.150	115.100	3289.350	3233.140	58.520
10116.200	7572.000	3360.290	-1576.850 SRC - Phelps A-32CHZ	12058.550	7597.190	-28.300	-1510.530	114.400	3389.330	3333.110	60.280
10216.200	7572.000	3460.290	-1577.170 SRC - Phelps A-32CHZ	12056.930	7597.160	-28.270	-1508.910	113.800	3489.320	3433.080	62.050
10316.200	7572.000	3560.290	-1577.490 SRC - Phelps A-32CHZ	12055.310	7597.130	-28.240	-1507.290	113.200	3589.300	3533.050	63.810
10416.200	7572.000	3660.290	-1577.810 SRC - Phelps A-32CHZ	12053.690	7597.100	-28.210	-1505.670	112.600	3689.290	3633.030	65.580
10516.200	7572.000	3760.290	-1578.130 SRC - Phelps A-32CHZ	12052.070	7597.070	-28.180	-1504.050	112.100	3789.270	3733.000	67.340
10616.200	7572.000	3860.290	-1578.460 SRC - Phelps A-32CHZ	12050.450	7597.040	-28.140	-1502.430	111.500	3889.260	3832.970	69.100
10716.200	7572.000	3960.290	-1578.780 SRC - Phelps A-32CHZ	12048.830	7597.010	-28.110	-1500.810	111.000	3989.240	3932.940	70.860
10816.200	7572.000	4060.290	-1579.100 SRC - Phelps A-32CHZ	12047.200	7596.980	-28.080	-1499.190	110.500	4089.230	4032.910	72.620
10916.200	7572.000	4160.290	-1579.420 SRC - Phelps A-32CHZ	12045.580	7596.950	-28.050	-1497.570	110.100	4189.210	4132.880	74.370
11016.200	7572.000	4260.290	-1579.740 SRC - Phelps A-32CHZ	12043.960	7596.920	-28.020	-1495.950	109.600	4289.190	4232.850	76.130
11116.200	7572.000	4360.280	-1580.060 SRC - Phelps A-32CHZ	12042.340	7596.890	-27.990	-1494.330	109.200	4389.180	4332.820	77.880
11216.200	7572.000	4460.280	-1580.390 SRC - Phelps A-32CHZ	12040.720	7596.860	-27.960	-1492.710	108.800	4489.170	4432.790	79.640
11316.200	7572.000	4560.280	-1580.710 SRC - Phelps A-32CHZ	12039.100	7596.830	-27.920	-1491.090	108.300	4589.150	4532.760	81.390
11416.200	7572.000	4660.280	-1581.030 SRC - Phelps A-32CHZ	12037.480	7596.800	-27.890	-1489.470	108.000	4689.140	4632.730	83.140

11516.200	7572.000	4760.280	-1581.350 SRC - Phelps A-32CHZ	12035.860	7596.770	-27.860	-1487.850	107.600	4789.120	4732.700	84.890
11616.200	7572.000	4860.280	-1581.670 SRC - Phelps A-32CHZ	12034.240	7596.740	-27.830	-1486.220	107.200	4889.110	4832.670	86.640
11716.200	7572.000	4960.280	-1581.990 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	4989.090	4932.630	88.360
11816.200	7572.000	5060.280	-1582.320 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	5089.080	5032.570	90.060
11916.200	7572.000	5160.280	-1582.640 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	5189.060	5132.510	91.760
12016.200	7572.000	5260.280	-1582.960 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	5289.050	5232.460	93.460
12116.200	7572.000	5360.280	-1583.280 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	5389.040	5332.400	95.150
12216.200	7572.000	5460.280	-1583.600 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	5489.030	5432.340	96.840
12316.200	7572.000	5560.280	-1583.920 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	5589.020	5532.290	98.520
12416.200	7572.000	5660.280	-1584.250 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	5689.000	5632.230	100.210
12516.200	7572.000	5760.280	-1584.570 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	5789.990	5732.180	101.890
12616.200	7572.000	5860.280	-1584.890 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	5889.980	5832.120	103.570
12716.200	7572.000	5960.280	-1585.210 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	5989.970	5932.070	105.240
12816.200	7572.000	6060.280	-1585.530 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	6089.960	6032.010	106.920
12916.200	7572.000	6160.280	-1585.850 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	6189.950	6131.960	108.590
13016.200	7572.000	6260.280	-1586.180 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	6289.940	6231.900	110.250
13116.200	7572.000	6360.270	-1586.500 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	6389.940	6331.850	111.920
13216.200	7572.000	6460.270	-1586.820 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	6489.930	6431.800	113.580
13316.200	7572.000	6560.270	-1587.140 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	6589.920	6531.740	115.240
13416.200	7572.000	6660.270	-1587.460 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	6689.910	6631.690	116.890
13516.200	7572.000	6760.270	-1587.780 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	6789.900	6731.630	118.540
13616.200	7572.000	6860.270	-1588.110 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	6889.900	6831.580	120.190
13716.200	7572.000	6960.270	-1588.430 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	6989.890	6931.530	121.840
13816.200	7572.000	7060.270	-1588.750 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	7089.880	7031.470	123.480
13916.200	7572.000	7160.270	-1589.070 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	7189.870	7131.420	125.120
14016.200	7572.000	7260.270	-1589.390 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	7289.870	7231.370	126.760
14116.200	7572.000	7360.270	-1589.710 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	7389.860	7331.310	128.400
14216.200	7572.000	7460.270	-1590.040 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	7489.850	7431.260	130.030
14316.200	7572.000	7560.270	-1590.360 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	7589.850	7531.210	131.660
14416.200	7572.000	7660.270	-1590.680 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	7689.840	7631.150	133.280
14516.200	7572.000	7760.270	-1591.000 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	7789.840	7731.100	134.910
14616.200	7572.000	7860.270	-1591.320 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	7889.830	7831.050	136.530
14716.200	7572.000	7960.270	-1591.640 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	7989.830	7930.990	138.140
14816.200	7572.000	8060.270	-1591.970 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	8089.820	8030.940	139.760
14916.200	7572.000	8160.270	-1592.290 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	8189.810	8130.890	141.370
15016.200	7572.000	8260.260	-1592.610 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	8289.810	8230.840	142.980
15116.200	7572.000	8360.260	-1592.930 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	8389.800	8330.780	144.580
15216.200	7572.000	8460.260	-1593.250 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	8489.800	8430.730	146.180
15316.200	7572.000	8560.260	-1593.570 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	8589.790	8530.680	147.780
15416.200	7572.000	8660.260	-1593.900 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	8689.790	8630.620	149.380
15516.200	7572.000	8760.260	-1594.220 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	8789.780	8730.570	150.970
15616.200	7572.000	8860.260	-1594.540 SRC - Phelps A-32CHZ	12033.500	7596.730	-27.820	-1485.490	107.100	8889.780	8830.520	152.560
15716.200	7572.000	8960.260	-1594.860 SRC - Phelps A-32CHZ	12032.650	7596.710	-27.800	-1484.640	106.900	8989.780	8930.480	154.180
15816.200	7572.000	9060.260	-1595.180 SRC - Phelps A-32CHZ	12031.750	7596.700	-27.790	-1483.740	106.700	9089.770	9030.440	155.800
15916.200	7572.000	9160.260	-1595.500 SRC - Phelps A-32CHZ	12030.850	7596.680	-27.780	-1482.840	106.500	9189.770	9130.400	157.420
16016.200	7572.000	9260.260	-1595.830 SRC - Phelps A-32CHZ	12029.950	7596.670	-27.770	-1481.940	106.400	9289.760	9230.360	159.040
16116.200	7572.000	9360.260	-1596.150 SRC - Phelps A-32CHZ	12029.050	7596.650	-27.760	-1481.040	106.200	9389.760	9330.320	160.660
16216.200	7572.000	9460.260	-1596.470 SRC - Phelps A-32CHZ	12028.150	7596.640	-27.750	-1480.140	106.000	9489.750	9430.280	162.270
16316.200	7572.000	9560.260	-1596.790 SRC - Phelps A-32CHZ	12027.250	7596.620	-27.740	-1479.240	105.800	9589.750	9530.240	163.880
16416.200	7572.000	9660.260	-1597.110 SRC - Phelps A-32CHZ	12026.350	7596.610	-27.730	-1478.340	105.700	9689.740	9630.200	165.490
16516.200	7572.000	9760.260	-1597.430 SRC - Phelps A-32CHZ	11853.940	7596.150	-24.100	-1305.990	95.300	9789.730	9732.780	174.950
16616.200	7572.000	9860.260	-1597.760 SRC - Phelps A-32CHZ	11851.290	7596.160	-24.020	-1303.330	95.300	9889.690	9832.730	176.690
16716.200	7572.000	9960.260	-1598.080 SRC - Phelps A-32CHZ	11848.630	7596.170	-23.940	-1300.670	95.200	9989.660	9932.680	178.430
16816.200	7572.000	10060.260	-1598.400 SRC - Phelps A-32CHZ	11845.970	7596.180	-23.860	-1298.020	95.200	10089.620	10032.630	180.170
16916.200	7572.000	10160.250	-1598.720 SRC - Phelps A-32CHZ	11843.320	7596.190	-23.780	-1295.360	95.100	10189.580	10132.580	181.910
17016.200	7572.000	10260.250	-1599.040 SRC - Phelps A-32CHZ	11840.660	7596.190	-23.700	-1292.710	95.100	10289.550	10232.520	183.650
17116.200	7572.000	10360.250	-1599.360 SRC - Phelps A-32CHZ	11838.000	7596.200	-23.630	-1290.050	95.000	10389.510	10332.470	185.380
17216.200	7572.000	10460.250	-1599.690 SRC - Phelps A-32CHZ	11835.350	7596.210	-23.550	-1287.400	95.000	10489.480	10432.420	187.110
17316.200	7572.000	10560.250	-1600.010 SRC - Phelps A-32CHZ	11832.690	7596.220	-23.470	-1284.740	94.900	10589.440	10532.370	188.840
17416.200	7572.000	10660.250	-1600.330 SRC - Phelps A-32CHZ	11830.030	7596.230	-23.390	-1282.090	94.900	10689.410	10632.320	190.570
17516.200	7572.000	10760.250	-1600.650 SRC - Phelps A-32CHZ	11827.380	7596.240	-23.310	-1279.430	94.800	10789.370	10732.270	192.300
17616.200	7572.000	10860.250	-1600.970 SRC - Phelps A-32CHZ	11824.720	7596.250	-23.230	-1276.770	94.800	10889.340	10832.220	194.030
17716.200	7572.000	10960.250	-1601.290 SRC - Phelps A-32CHZ	11822.060	7596.260	-23.150	-1274.120	94.800	10989.300	10932.170	195.750
17816.200	7572.000	11060.250	-1601.620 SRC - Phelps A-32CHZ	11819.410	7596.270	-23.070	-1271.460	94.700	11089.260	11032.110	197.470
17916.200	7572.000	11160.250	-1601.940 SRC - Phelps A-32CHZ	11816.750	7596.280	-22.990	-1268.810	94.700	11189.230	11132.060	199.190
17964.790	7572.000	11208.830	-1602.090 SRC - Phelps A-32CHZ	11815.460	7596.280	-22.950	-1267.520	94.700	11236.800	11180.610	200.000

## 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	16.200	0.000	0.000 SRC - Phelps A-32NHZ	53.000	16.200	-687.240	2914.680	103.300	2994.600	2993.640	
32.600	32.600	32.600	0.000	0.000 SRC - Phelps A-32NHZ	59.500	22.700	-687.250	2914.700	103.300	2994.640	2993.630	2969.500
116.200	116.200	116.200	0.000	0.000 SRC - Phelps A-32NHZ	129.000	92.200	-687.440	2915.080	103.300	2995.140	2994.020	2671.780
216.200	216.200	216.200	0.000	0.000 SRC - Phelps A-32NHZ	219.100	182.290	-687.690	2915.960	103.300	2996.150	2994.890	2377.770
316.200	316.200	316.200	0.000	0.000 SRC - Phelps A-32NHZ	319.090	282.280	-687.970	2917.060	103.300	2997.280	2995.860	2107.230
416.200	416.200	416.200	0.000	0.000 SRC - Phelps A-32NHZ	421.810	384.990	-688.210	2918.120	103.300	2998.340	2996.750	1890.090
516.200	516.200	516.200	0.000	0.000 SRC - Phelps A-32NHZ	518.010	481.180	-688.430	2919.170	103.300	2999.450	2997.710	1719.950
616.200	616.200	616.200	0.000	0.000 SRC - Phelps A-32NHZ	616.580	579.750	-688.840	2920.430	103.300	3000.790	2998.890	1577.320
716.200	716.200	716.200	0.000	0.000 SRC - Phelps A-32NHZ	770.900	734.060	-687.940	2920.620	103.300	3000.600	2998.500	1423.840
816.200	816.200	816.200	0.000	0.000 SRC - Phelps A-32NHZ	883.630	846.770	-685.730	2920.100	103.200	2999.690	2997.410	1316.400
916.200	916.200	916.200	0.000	0.000 SRC - Phelps A-32NHZ	984.870	947.960	-682.740	2919.650	103.200	2998.580	2996.140	1228.410
1016.200	1016.200	1016.200	0.000	0.000 SRC - Phelps A-32NHZ	1075.260	1038.300	-679.680	2919.540	103.100	2997.690	2995.100	1154.890
1116.200	1116.200	1116.200	0.000	0.000 SRC - Phelps A-32NHZ	1180.340	1143.310	-675.890	2919.580	103.000	2996.920	2994.150	1084.380
1216.200	1216.200	1216.200	0.000	0.000 SRC - Phelps A-32NHZ	1275.000	1237.890	-672.060	2919.610	103.000	2996.040	2993.110	1024.920
1299.340	1299.340	1299.340	0.000	0.000 SRC - Phelps A-32NHZ	1336.500	1299.340	-669.510	2919.850	102.900	2995.620	2992.580	984.080
1316.200	1316.200	1316.200	0.000	0.000 SRC - Phelps A-32NHZ	1351.430	1314.260	-668.960	2919.980	102.900	2995.630	2992.560	975.840
1361.340	1361.340	1361.340	0.000	0.000 SRC - Phelps A-32NHZ	1396.540	1359.340	-667.290	2920.400	102.900	2995.660	2992.520	952.810
1416.200	1416.200	1416.200	0.000	0.000 SRC - Phelps A-32NHZ	1424.260	1387.040	-666.430	2920.860	102.800	2996.060	2992.850	933.020
1516.200	1516.200	1516.200	0.000	0.000 SRC - Phelps A-32NHZ	1460.000	1422.750	-665.550	2921.800	102.800	2998.090	2994.770	902.680
1616.200	1616.200	1616.200	0.000	0.000 SRC - Phelps A-32NHZ	1522.000	1484.680	-664.440	2924.490	102.800	3001.900	2998.450	869.030
1716.200	1716.200	1716.200	0.000	0.000 SRC - Phelps A-32NHZ	1581.920	1544.440	-662.110	2928.300	102.700	3007.130	3003.550	838.660
1816.200	1816.200	1816.200	0.000	0.000 SRC - Phelps A-32NHZ	1671.520	1633.690	-657.690	2934.750	102.600	3013.080	3009.330	803.850
1916.200	1916.200	1916.200	0.000	0.000 SRC - Phelps A-32NHZ	1736.130	1698.010	-654.290	2939.860	102.600	3019.680	3016.170	860.810
2016.200	2016.200	2016.200	0.000	0.000 SRC - Phelps A-32NHZ	1810.000	1771.440	-649.810	2946.530	102.400	3027.250	3023.590	827.280
2116.200	2116.200	2116.200	0.000	0.000 SRC - Phelps A-32NHZ	1888.140	1848.960	-644.110	2954.580	102.300	3035.760	3031.940	795.590
2216.200	2216.200	2216.200	0.000	0.000 SRC - Phelps A-32NHZ	2052.500	2012.040	-630.860	2970.040	102.000	3043.160	3039.080	747.600
2316.200	2316.200	2316.200	0.000	0.000 SRC - Phelps A-32NHZ	2144.010	2102.810	-622.750	2978.330	101.800	3050.210	3045.970	717.940
2416.200	2416.200	2416.200	0.000	0.000 SRC - Phelps A-32NHZ	2285.290	2242.950	-609.330	2990.220	101.500	3056.580	3052.090	680.930
2516.200	2516.200	2516.200	0.000	0.000 SRC - Phelps A-32NHZ	2376.970	2333.900	-600.360	2997.450	101.300	3062.410	3057.740	655.340
2616.200	2616.200	2616.200	0.000	0.000 SRC - Phelps A-32NHZ	2564.670	2520.370	-582.690	3009.280	101.000	3066.670	3061.710	617.620
2716.200	2716.200	2716.200	0.000	0.000 SRC - Phelps A-32NHZ	2662.900	2618.280	-576.020	3013.640	100.800	3069.750	3064.610	596.340
2816.200	2816.200	2816.200	0.000	0.000 SRC - Phelps A-32NHZ	2727.000	2682.150	-571.770	3017.100	100.700	3073.720	3068.430	580.850
2916.200	2916.200	2916.200	0.000	0.000 SRC - Phelps A-32NHZ	2801.380	2756.220	-566.830	3021.670	100.600	3078.540	3073.090	564.970
3016.200	3016.200	3016.200	0.000	0.000 SRC - Phelps A-32NHZ	2926.790	2881.110	-558.480	3029.530	100.400	3083.540	3077.880	544.890
3116.200	3116.200	3116.200	0.000	0.000 SRC - Phelps A-32NHZ	3026.180	2980.140	-551.760	3034.580	100.300	3087.340	3081.500	528.620
3216.200	3216.200	3216.200	0.000	0.000 SRC - Phelps A-32NHZ	3104.110	3057.800	-547.210	3039.170	100.200	3092.100	3086.100	515.540
3316.200	3316.200	3316.200	0.000	0.000 SRC - Phelps A-32NHZ	3185.110	3138.460	-542.260	3044.660	100.100	3097.680	3091.520	502.690
3416.200	3416.200	3416.200	0.000	0.000 SRC - Phelps A-32NHZ	3266.130	3219.030	-536.220	3050.700	100.000	3103.740	3097.410	490.640
3516.200	3516.200	3516.200	0.000	0.000 SRC - Phelps A-32NHZ	3322.880	3275.460	-532.470	3055.350	99.900	3110.730	3104.260	481.260
3591.000	3591.000	3591.000	0.000	0.000 SRC - Phelps A-32NHZ	3465.200	3417.130	-525.130	3066.800	99.700	3116.290	3109.620	467.380
3616.200	3616.200	3616.200	0.100	-0.130 SRC - Phelps A-32NHZ	3497.800	3449.610	-523.470	3068.900	151.300	3117.820	3111.100	464.020
3716.200	3716.110	3716.110	2.550	-3.220 SRC - Phelps A-32NHZ	3572.670	3524.250	-520.130	3073.750	151.100	3126.930	3120.060	455.250
3816.200	3815.680	3815.680	8.230	-10.400 SRC - Phelps A-32NHZ	3646.230	3597.580	-517.740	3079.090	150.900	3141.520	3134.500	447.740
3916.200	3914.630	3914.630	17.150	-21.650 SRC - Phelps A-32NHZ	3726.120	3677.180	-515.240	3085.410	150.600	3161.280	3154.110	440.880
4016.200	4012.700	4012.700	29.260	-36.950 SRC - Phelps A-32NHZ	3805.500	3756.210	-512.470	3092.240	150.300	3186.080	3178.750	434.640
4116.200	4109.610	4109.610	44.550	-56.260 SRC - Phelps A-32NHZ	3972.180	3922.100	-504.820	3106.420	150.100	3215.510	3207.920	423.950
4216.200	4205.090	4205.090	62.960	-79.510 SRC - Phelps A-32NHZ	10523.000	7390.710	-431.850	-131.650	-161.800	3224.230	3208.820	209.200
4316.200	4298.900	4298.900	84.450	-106.650 SRC - Phelps A-32NHZ	10524.540	7390.690	-431.850	-133.180	-163.500	3134.720	3119.120	200.990
4416.200	4390.760	4390.760	108.960	-137.600 SRC - Phelps A-32NHZ	10554.660	7390.430	-431.880	-163.310	-164.100	3048.140	3032.260	191.870
4516.200	4480.440	4480.440	136.420	-172.280 SRC - Phelps A-32NHZ	10555.000	7390.430	-431.880	-163.650	-165.300	2964.980	2948.860	183.950
4590.840	4545.790	4545.790	158.790	-200.540 SRC - Phelps A-32NHZ	10571.190	7390.510	-432.040	-179.830	-165.600	2905.510	2889.140	177.520
4616.200	4567.750	4567.750	166.660	-210.480 SRC - Phelps A-32NHZ	10581.160	7390.560	-432.130	-189.810	-165.300	2885.700	2869.210	175.090
4716.200	4654.360	4654.360	197.690	-249.670 SRC - Phelps A-32NHZ	10593.950	7390.690	-432.290	-202.590	-165.000	2808.310	2791.510	167.210
4816.200	4740.970	4740.970	228.730	-288.870 SRC - Phelps A-32NHZ	10633.900	7391.250	-432.850	-242.540	-164.000	2732.000	2714.750	158.350
4916.200	4827.580	4827.580	259.760	-328.060 SRC - Phelps A-32NHZ	10668.830	7391.800	-433.270	-277.460	-163.100	2656.700	2638.970	149.810
5016.200	4914.180	4914.180	290.800	-367.250 SRC - Phelps A-32NHZ	10708.210	7392.530	-433.460	-316.830	-162.100	2582.500	2564.230	141.320
5116.200	5000.790	5000.790	321.830	-406.450 SRC - Phelps A-32NHZ	10749.610	7393.390	-433.390	-358.220	-161.000	2509.430	2490.560	132.970
5216.200	5087.400	5087.400	352.860	-445.640 SRC - Phelps A-32NHZ	10872.210	7394.220	-431.980	-480.800	-157.700	2436.940	2417.080	122.680
5316.200	5174.000	5174.000	383.900	-484.830 SRC - Phelps A-32NHZ	10914.030	7393.890	-431.060	-522.610	-156.500	2365.050	2344.450	114.810
5416.200	5260.610	5260.610	414.930	-524.030 SRC - Phelps A-32NHZ	10953.160	7393.550	-430.180	-561.720	-155.300	2294.570	2273.180	107.260
5516.200	5347.220	5347.220	445.970	-563.220 SRC - Phelps A-32NHZ	11011.180	7392.890	-428.830	-619.730	-153.600	2225.590	2203.230	99.560
5616.200	5433.820	5433.820	477.000	-602.410 SRC - Phelps A-32NHZ	11076.280	7391.350	-427.020	-684.780	-151.700	2157.770	2134.330	92.050
5716.200	5520.430	5520.430	508.040	-641.610 SRC - Phelps A-32NHZ	11119.090	7389.930	-425.990	-727.470	-150.300	2091.610	2067.090	85.330
5816.200	5607.040	5607.040	539.070	-680.800 SRC - Phelps A-32NHZ	11151.000	7388.740	-425.460	-759.440	-149.300	2027.550	2001.940	79.160
5916.200	5693.640	5693.640	570.100	-720.000 SRC - Phelps A-32NHZ	11185.740	7387.470	-425.040	-794.150	-148.200	1965.920	1939.100	73.290



6016.200	5780.250	601.140	-759.190 SRC - Phelps A-32NHZ	11214.000	7386.440	-424.690	-822.390	-147.300	1906.870	1878.790	67.910
6116.200	5866.860	632.170	-798.380 SRC - Phelps A-32NHZ	11249.370	7385.200	-424.480	-857.740	-146.100	1850.790	1821.310	62.790
6216.200	5953.460	663.210	-837.580 SRC - Phelps A-32NHZ	11278.000	7384.200	-424.310	-886.350	-145.100	1797.800	1766.890	58.160
6316.200	6040.070	694.240	-876.770 SRC - Phelps A-32NHZ	11309.500	7383.120	-424.340	-917.830	-144.100	1748.340	1715.890	53.880
6416.200	6126.680	725.270	-915.960 SRC - Phelps A-32NHZ	11341.000	7382.060	-424.540	-949.310	-143.000	1702.690	1668.630	49.990
6516.200	6213.280	756.310	-955.160 SRC - Phelps A-32NHZ	11367.980	7381.260	-424.850	-976.280	-142.100	1661.250	1625.560	46.550
6616.200	6299.890	787.340	-994.350 SRC - Phelps A-32NHZ	11404.000	7380.190	-425.260	-1012.280	-140.800	1624.120	1586.670	43.370
6716.200	6386.500	818.380	-1033.540 SRC - Phelps A-32NHZ	11434.630	7379.360	-425.690	-1042.900	-139.800	1591.720	1552.530	40.620
6816.200	6473.110	849.410	-1072.740 SRC - Phelps A-32NHZ	11468.000	7378.460	-426.160	-1076.250	-138.600	1564.210	1523.250	38.190
6916.200	6559.710	880.440	-1111.930 SRC - Phelps A-32NHZ	11499.500	7377.660	-426.750	-1107.740	-137.500	1542.020	1499.330	36.120
7016.200	6646.320	911.480	-1151.120 SRC - Phelps A-32NHZ	11519.280	7377.260	-427.320	-1127.510	-136.800	1525.520	1481.310	34.510
7116.200	6732.930	942.510	-1190.320 SRC - Phelps A-32NHZ	11552.880	7376.600	-428.320	-1161.080	-135.600	1514.710	1468.880	33.050
7216.200	6819.530	973.550	-1229.510 SRC - Phelps A-32NHZ	11599.900	7375.510	-429.570	-1208.070	-133.900	1509.410	1461.840	31.730
7259.540	6857.070	987.000	-1246.500 SRC - Phelps A-32NHZ	11615.590	7375.110	-429.970	-1223.750	-133.400	1508.870	1460.650	31.290
7283.260	6877.610	994.360	-1255.800 SRC - Phelps A-32NHZ	11624.170	7374.890	-430.180	-1232.330	-133.100	1509.030	1460.460	31.070
7316.200	6906.140	1004.580	-1268.710 SRC - Phelps A-32NHZ	11627.420	7374.810	-430.270	-1235.580	-133.000	1509.820	1460.920	30.880
7416.200	6992.750	1035.620	-1307.900 SRC - Phelps A-32NHZ	11666.020	7373.900	-431.450	-1274.150	-131.600	1516.140	1465.880	30.160
7516.200	7079.350	1066.650	-1347.090 SRC - Phelps A-32NHZ	11714.390	7372.680	-432.670	-1322.490	-129.900	1527.950	1476.310	29.590
7616.200	7165.960	1097.680	-1386.290 SRC - Phelps A-32NHZ	11757.770	7371.350	-433.470	-1365.840	-128.300	1545.000	1492.220	29.270
7716.200	7252.570	1128.720	-1425.480 SRC - Phelps A-32NHZ	11800.650	7369.910	-434.160	-1408.690	-126.800	1567.360	1513.600	29.150
7758.980	7289.620	1141.990	-1442.250 SRC - Phelps A-32NHZ	11828.200	7368.840	-434.440	-1436.220	-125.900	1578.440	1524.160	29.080
7765.730	7295.460	1144.090	-1444.890 SRC - Phelps A-32NHZ	11830.590	7368.750	-434.460	-1438.610	-125.800	1580.260	1525.930	29.090
7816.200	7338.260	1162.460	-1464.270 SRC - Phelps A-32NHZ	11854.690	7367.710	-434.580	-1462.680	-132.200	1597.310	1542.540	29.160
7916.200	7416.040	1214.060	-1499.550 SRC - Phelps A-32NHZ	11886.170	7366.230	-434.640	-1494.130	-142.700	1649.460	1594.160	29.830
8016.200	7481.220	1283.560	-1529.190 SRC - Phelps A-32NHZ	11912.580	7364.990	-434.690	-1520.510	-147.200	1722.190	1666.520	30.930
8116.200	7530.470	1367.380	-1551.690 SRC - Phelps A-32NHZ	11932.000	7364.020	-434.720	-1539.900	-147.800	1809.810	1753.880	32.360
8216.200	7561.250	1461.230	-1565.890 SRC - Phelps A-32NHZ	11944.450	7363.390	-434.740	-1552.330	-138.900	1906.320	1850.210	33.970
8316.200	7572.000	1560.300	-1571.060 SRC - Phelps A-32NHZ	11948.880	7363.170	-434.750	-1556.760	1.100	2006.000	1949.790	35.690
8318.380	7572.000	1562.480	-1571.070 SRC - Phelps A-32NHZ	11948.890	7363.170	-434.750	-1556.770	2.200	2008.170	1951.950	35.720
8416.200	7572.000	1660.300	-1571.380 SRC - Phelps A-32NHZ	11949.020	7363.160	-434.750	-1556.900	2.100	2105.480	2049.210	37.420
8516.200	7572.000	1760.300	-1571.700 SRC - Phelps A-32NHZ	11949.150	7363.150	-434.750	-1557.030	2.100	2205.010	2148.690	39.150
8616.200	7572.000	1860.300	-1572.020 SRC - Phelps A-32NHZ	11949.290	7363.150	-434.750	-1557.170	2.000	2304.580	2248.200	40.870
8716.200	7572.000	1960.300	-1572.350 SRC - Phelps A-32NHZ	11949.420	7363.140	-434.750	-1557.300	2.000	2404.190	2347.750	42.600
8816.200	7572.000	2060.300	-1572.670 SRC - Phelps A-32NHZ	11949.560	7363.130	-434.750	-1557.440	2.000	2503.820	2447.340	44.330
8916.200	7572.000	2160.300	-1572.990 SRC - Phelps A-32NHZ	11949.690	7363.130	-434.750	-1557.570	1.900	2603.490	2546.960	46.050
9016.200	7572.000	2260.300	-1573.310 SRC - Phelps A-32NHZ	11949.830	7363.120	-434.750	-1557.710	1.900	2703.180	2646.600	47.780
9116.200	7572.000	2360.300	-1573.630 SRC - Phelps A-32NHZ	11949.960	7363.110	-434.750	-1557.840	1.900	2802.890	2746.260	49.500
9216.200	7572.000	2460.290	-1573.950 SRC - Phelps A-32NHZ	11950.100	7363.100	-434.760	-1557.980	1.800	2902.620	2845.950	51.220
9316.200	7572.000	2560.290	-1574.280 SRC - Phelps A-32NHZ	11950.240	7363.100	-434.760	-1558.110	1.800	3002.370	2945.650	52.930
9416.200	7572.000	2660.290	-1574.600 SRC - Phelps A-32NHZ	11950.370	7363.090	-434.760	-1558.250	1.800	3102.130	3045.370	54.650
9516.200	7572.000	2760.290	-1574.920 SRC - Phelps A-32NHZ	11950.510	7363.080	-434.760	-1558.380	1.700	3201.910	3145.110	56.360
9616.200	7572.000	2860.290	-1575.240 SRC - Phelps A-32NHZ	11950.640	7363.080	-434.760	-1558.520	1.700	3301.710	3244.860	58.080
9716.200	7572.000	2960.290	-1575.560 SRC - Phelps A-32NHZ	11950.780	7363.070	-434.760	-1558.650	1.600	3401.510	3344.620	59.790
9816.200	7572.000	3060.290	-1575.880 SRC - Phelps A-32NHZ	11950.910	7363.060	-434.760	-1558.790	1.600	3501.330	3444.390	61.490
9916.200	7572.000	3160.290	-1576.200 SRC - Phelps A-32NHZ	11951.050	7363.060	-434.760	-1558.920	1.600	3601.160	3544.170	63.200
10016.200	7572.000	3260.290	-1576.530 SRC - Phelps A-32NHZ	11951.180	7363.050	-434.760	-1559.060	1.500	3700.990	3643.970	64.900
10116.200	7572.000	3360.290	-1576.850 SRC - Phelps A-32NHZ	11951.320	7363.040	-434.760	-1559.190	1.500	3800.840	3743.770	66.600
10216.200	7572.000	3460.290	-1577.170 SRC - Phelps A-32NHZ	11951.450	7363.040	-434.760	-1559.330	1.500	3900.690	3843.580	68.300
10316.200	7572.000	3560.290	-1577.490 SRC - Phelps A-32NHZ	11951.590	7363.030	-434.760	-1559.460	1.400	4000.550	3943.390	69.990
10416.200	7572.000	3660.290	-1577.810 SRC - Phelps A-32NHZ	11951.720	7363.020	-434.760	-1559.600	1.400	4100.420	4043.220	71.690
10516.200	7572.000	3760.290	-1578.130 SRC - Phelps A-32NHZ	11951.860	7363.020	-434.760	-1559.730	1.400	4200.290	4143.050	73.380
10616.200	7572.000	3860.290	-1578.460 SRC - Phelps A-32NHZ	11951.990	7363.010	-434.760	-1559.870	1.300	4300.170	4242.880	75.070
10716.200	7572.000	3960.290	-1578.780 SRC - Phelps A-32NHZ	11952.130	7363.000	-434.760	-1560.000	1.300	4400.050	4342.730	76.750
10816.200	7572.000	4060.290	-1579.100 SRC - Phelps A-32NHZ	11952.260	7363.000	-434.760	-1560.140	1.200	4499.940	4442.570	78.440
10916.200	7572.000	4160.290	-1579.420 SRC - Phelps A-32NHZ	11952.400	7362.990	-434.760	-1560.270	1.200	4599.840	4542.420	80.120
11016.200	7572.000	4260.290	-1579.740 SRC - Phelps A-32NHZ	11952.530	7362.980	-434.760	-1560.410	1.200	4699.740	4642.280	81.800
11116.200	7572.000	4360.280	-1580.060 SRC - Phelps A-32NHZ	11952.670	7362.970	-434.760	-1560.540	1.100	4799.640	4742.140	83.470
11216.200	7572.000	4460.280	-1580.390 SRC - Phelps A-32NHZ	11952.800	7362.970	-434.760	-1560.680	1.100	4899.550	4842.000	85.150
11316.200	7572.000	4560.280	-1580.710 SRC - Phelps A-32NHZ	11952.940	7362.960	-434.760	-1560.810	1.100	4999.460	4941.870	86.820
11416.200	7572.000	4660.280	-1581.030 SRC - Phelps A-32NHZ	11953.070	7362.950	-434.760	-1560.950	1.000	5099.370	5041.740	88.480
11516.200	7572.000	4760.280	-1581.350 SRC - Phelps A-32NHZ	11953.210	7362.950	-434.760	-1561.080	1.000	5199.290	5141.610	90.150
11616.200	7572.000	4860.280	-1581.670 SRC - Phelps A-32NHZ	11953.350	7362.940	-434.760	-1561.220	0.900	5299.210	5241.490	91.810
11716.200	7572.000	4960.280	-1581.990 SRC - Phelps A-32NHZ	11953.480	7362.930	-434.760	-1561.350	0.900	5399.130	5341.370	93.470
11816.200	7572.000	5060.280	-1582.320 SRC - Phelps A-32NHZ	11953.620	7362.930	-434.760	-1561.490	0.900	5499.060	5441.250	95.130
11916.200	7572.000	5160.280	-1582.640 SRC - Phelps A-32NHZ	11953.750	7362.920	-434.760	-1561.620	0.800	5598.990	5541.140	96.780
12016.200	7572.000	5260.280	-1582.960 SRC - Phelps A-32NHZ	11953.890	7362.910	-434.760	-1561.760	0.800	5698.920	5641.020	98.440
12116.200	7572.000	5360.280	-1583.280 SRC - Phelps A-32NHZ	11954.020	7362.910	-434.760	-1561.890	0.800	5798.850	5740.910	100.090
12216.200	7572.000	5460.280	-1583.600 SRC - Phelps A-32NHZ	11954.160	7362.900	-434.760	-1562.030	0.700	5898.790	5840.800	101.730
12316.200	7572.000	5560.280	-1583.920 SRC - Phelps A-32NHZ	11954.290	7362.890	-434.760	-1562.170	0.700	5998.730	5940.700	103.380
12416.200	7572.000	5660.280	-1584.250 SRC - Phelps A-32NHZ	11954.430	7362.890	-434.760	-1562.300	0.600	6098.670	6040.590	105.020
12516.200	7572.000	5760.280	-1584.570 SRC - Phelps A-32NHZ	11954.560	7362.880	-434.760	-1562.440	0.600	6198.610	6140.490	106.660
12616.200	7572.000	5860.280	-1584.890 SRC - Phelps A-32NHZ	11954.700	7362.870	-434.760	-1562.570	0.600	6298.550	6240.390	108.290

12716.200	7572.000	5960.280	-1585.210 SRC - Phelps A-32NHZ	11954.830	7362.870	-434.760	-1562.710	0.500	6398.500	6340.290	109.920
12816.200	7572.000	6060.280	-1585.530 SRC - Phelps A-32NHZ	11954.970	7362.860	-434.760	-1562.840	0.500	6498.450	6440.190	111.550
12916.200	7572.000	6160.280	-1585.850 SRC - Phelps A-32NHZ	11955.100	7362.850	-434.760	-1562.980	0.500	6598.400	6540.100	113.180
13016.200	7572.000	6260.280	-1586.180 SRC - Phelps A-32NHZ	11955.240	7362.840	-434.760	-1563.110	0.400	6698.350	6640.000	114.810
13116.200	7572.000	6360.270	-1586.500 SRC - Phelps A-32NHZ	11955.370	7362.840	-434.760	-1563.250	0.400	6798.300	6739.910	116.430
13216.200	7572.000	6460.270	-1586.820 SRC - Phelps A-32NHZ	11955.510	7362.830	-434.770	-1563.380	0.300	6898.250	6839.810	118.050
13316.200	7572.000	6560.270	-1587.140 SRC - Phelps A-32NHZ	11955.640	7362.820	-434.770	-1563.520	0.300	6998.210	6939.720	119.660
13416.200	7572.000	6660.270	-1587.460 SRC - Phelps A-32NHZ	11955.780	7362.820	-434.770	-1563.650	0.300	7098.160	7039.630	121.280
13516.200	7572.000	6760.270	-1587.780 SRC - Phelps A-32NHZ	11955.910	7362.810	-434.770	-1563.790	0.200	7198.120	7139.540	122.890
13616.200	7572.000	6860.270	-1588.110 SRC - Phelps A-32NHZ	11956.050	7362.800	-434.770	-1563.920	0.200	7298.080	7239.450	124.490
13716.200	7572.000	6960.270	-1588.430 SRC - Phelps A-32NHZ	11956.180	7362.800	-434.770	-1564.060	0.200	7398.040	7339.370	126.100
13816.200	7572.000	7060.270	-1588.750 SRC - Phelps A-32NHZ	11956.320	7362.790	-434.770	-1564.190	0.100	7498.000	7439.280	127.700
13916.200	7572.000	7160.270	-1589.070 SRC - Phelps A-32NHZ	11956.460	7362.780	-434.770	-1564.330	0.100	7597.960	7539.200	129.300
14016.200	7572.000	7260.270	-1589.390 SRC - Phelps A-32NHZ	11956.590	7362.780	-434.770	-1564.460	0.100	7697.920	7639.110	130.900
14116.200	7572.000	7360.270	-1589.710 SRC - Phelps A-32NHZ	11956.730	7362.770	-434.770	-1564.600	0.000	7797.880	7739.030	132.490
14216.200	7572.000	7460.270	-1590.040 SRC - Phelps A-32NHZ	11956.860	7362.760	-434.770	-1564.730	0.000	7897.850	7838.940	134.080
14316.200	7572.000	7560.270	-1590.360 SRC - Phelps A-32NHZ	11957.000	7362.760	-434.770	-1564.870	-0.100	7997.810	7938.860	135.670
14416.200	7572.000	7660.270	-1590.680 SRC - Phelps A-32NHZ	11957.130	7362.750	-434.770	-1565.000	-0.100	8097.780	8038.780	137.250
14516.200	7572.000	7760.270	-1591.000 SRC - Phelps A-32NHZ	11957.270	7362.740	-434.770	-1565.140	-0.100	8197.750	8138.700	138.830
14616.200	7572.000	7860.270	-1591.320 SRC - Phelps A-32NHZ	11957.400	7362.740	-434.770	-1565.270	-0.200	8297.720	8238.620	140.410
14716.200	7572.000	7960.270	-1591.640 SRC - Phelps A-32NHZ	11957.540	7362.730	-434.770	-1565.410	-0.200	8397.680	8338.540	141.990
14816.200	7572.000	8060.270	-1591.970 SRC - Phelps A-32NHZ	11957.670	7362.720	-434.770	-1565.540	-0.300	8497.650	8438.460	143.560
14916.200	7572.000	8160.270	-1592.290 SRC - Phelps A-32NHZ	11957.810	7362.710	-434.770	-1565.680	-0.300	8597.620	8538.380	145.130
15016.200	7572.000	8260.260	-1592.610 SRC - Phelps A-32NHZ	11957.940	7362.710	-434.770	-1565.810	-0.300	8697.590	8638.310	146.700
15116.200	7572.000	8360.260	-1592.930 SRC - Phelps A-32NHZ	11958.080	7362.700	-434.770	-1565.950	-0.400	8797.570	8738.230	148.260
15216.200	7572.000	8460.260	-1593.250 SRC - Phelps A-32NHZ	11958.210	7362.690	-434.770	-1566.080	-0.400	8897.540	8838.150	149.830
15316.200	7572.000	8560.260	-1593.570 SRC - Phelps A-32NHZ	11958.350	7362.690	-434.770	-1566.220	-0.400	8997.510	8938.080	151.380
15416.200	7572.000	8660.260	-1593.900 SRC - Phelps A-32NHZ	11958.480	7362.680	-434.770	-1566.350	-0.500	9097.480	9038.000	152.940
15516.200	7572.000	8760.260	-1594.220 SRC - Phelps A-32NHZ	11958.620	7362.670	-434.770	-1566.490	-0.500	9197.460	9137.920	154.490
15616.200	7572.000	8860.260	-1594.540 SRC - Phelps A-32NHZ	11958.750	7362.670	-434.770	-1566.620	-0.500	9297.430	9237.850	156.040
15716.200	7572.000	8960.260	-1594.860 SRC - Phelps A-32NHZ	11958.890	7362.660	-434.770	-1566.760	-0.600	9397.410	9337.770	157.590
15816.200	7572.000	9060.260	-1595.180 SRC - Phelps A-32NHZ	11959.020	7362.650	-434.770	-1566.890	-0.600	9497.380	9437.700	159.130
15916.200	7572.000	9160.260	-1595.500 SRC - Phelps A-32NHZ	11959.160	7362.650	-434.770	-1567.030	-0.700	9597.360	9537.630	160.680
16016.200	7572.000	9260.260	-1595.830 SRC - Phelps A-32NHZ	11959.290	7362.640	-434.770	-1567.160	-0.700	9697.330	9637.550	162.210
16116.200	7572.000	9360.260	-1596.150 SRC - Phelps A-32NHZ	11959.430	7362.630	-434.770	-1567.300	-0.700	9797.310	9737.480	163.750
16216.200	7572.000	9460.260	-1596.470 SRC - Phelps A-32NHZ	11959.570	7362.630	-434.770	-1567.430	-0.800	9897.290	9837.410	165.280
16316.200	7572.000	9560.260	-1596.790 SRC - Phelps A-32NHZ	11959.700	7362.620	-434.770	-1567.570	-0.800	9997.270	9937.330	166.810
16416.200	7572.000	9660.260	-1597.110 SRC - Phelps A-32NHZ	11959.840	7362.610	-434.770	-1567.700	-0.800	10097.240	10037.260	168.340
16516.200	7572.000	9760.260	-1597.430 SRC - Phelps A-32NHZ	11959.970	7362.610	-434.770	-1567.840	-0.900	10197.220	10137.190	169.860
16616.200	7572.000	9860.260	-1597.760 SRC - Phelps A-32NHZ	11960.110	7362.600	-434.770	-1567.970	-0.900	10297.200	10237.120	171.380
16716.200	7572.000	9960.260	-1598.080 SRC - Phelps A-32NHZ	11960.240	7362.590	-434.770	-1568.110	-0.900	10397.180	10337.050	172.900
16816.200	7572.000	10060.260	-1598.400 SRC - Phelps A-32NHZ	11960.380	7362.580	-434.770	-1568.240	-1.000	10497.160	10436.980	174.420
16916.200	7572.000	10160.250	-1598.720 SRC - Phelps A-32NHZ	11960.510	7362.580	-434.770	-1568.380	-1.000	10597.140	10536.910	175.930
17016.200	7572.000	10260.250	-1599.040 SRC - Phelps A-32NHZ	11960.650	7362.570	-434.770	-1568.510	-1.100	10697.120	10636.840	177.440
17116.200	7572.000	10360.250	-1599.360 SRC - Phelps A-32NHZ	11960.780	7362.560	-434.770	-1568.650	-1.100	10797.100	10736.770	178.940
17216.200	7572.000	10460.250	-1599.690 SRC - Phelps A-32NHZ	11960.920	7362.560	-434.780	-1568.780	-1.100	10897.090	10836.700	180.450
17316.200	7572.000	10560.250	-1600.010 SRC - Phelps A-32NHZ	11961.050	7362.550	-434.780	-1568.920	-1.200	10997.070	10936.630	181.950
17416.200	7572.000	10660.250	-1600.330 SRC - Phelps A-32NHZ	11961.190	7362.540	-434.780	-1569.050	-1.200	11097.050	11036.560	183.450
17516.200	7572.000	10760.250	-1600.650 SRC - Phelps A-32NHZ	11961.320	7362.540	-434.780	-1569.190	-1.200	11197.030	11136.490	184.940
17616.200	7572.000	10860.250	-1600.970 SRC - Phelps A-32NHZ	11961.460	7362.530	-434.780	-1569.320	-1.300	11297.010	11236.420	186.430
17716.200	7572.000	10960.250	-1601.290 SRC - Phelps A-32NHZ	11961.590	7362.520	-434.780	-1569.460	-1.300	11397.000	11336.350	187.920
17816.200	7572.000	11060.250	-1601.620 SRC - Phelps A-32NHZ	11961.730	7362.520	-434.780	-1569.590	-1.400	11496.980	11436.280	189.410
17916.200	7572.000	11160.250	-1601.940 SRC - Phelps A-32NHZ	11961.860	7362.510	-434.780	-1569.730	-1.400	11596.960	11536.210	190.890
17964.790	7572.000	11208.830	-1602.090 SRC - Phelps A-32NHZ	11961.930	7362.510	-434.780	-1569.790	-1.400	11645.540	11584.760	191.590

## 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 Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 4982.5ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 351.870 degrees  
Prepared by Great Western Operating Co, LLC  
Date Printed: