



Actual Wellpath Report

Positional Uncertainty

BRI-GT-01_AWB

Page 1 of 4

REFERENCE WELLPATH IDENTIFICATION

Operator	Aardwarmte Vierpolders	Slot	Slot#1
Area	THE NETHERLANDS	Well	BRI-GT-01
Field	Vierpolders	Wellbore	BRI-GT-01_AWB
Facility	Vierpolders		

REPORT SETUP INFORMATION

Projection System	Amersfoort / Rijksriehoeksmeting	Software System	WellArchitect® 4.0.0
North Reference	Grid	User	Patipara
Scale	0.999958	Report Generated	28/Jul/2015 at 10:39
Convergence at slot	0.97° West	Database/Source file	WA_Server/BRI-GT-01_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[m]	East[m]	Easting[m]	Northing[m]	Latitude	Longitude
Slot Location	0.00	0.00	70427.89	432178.99	51°52'21.656"N	4°09'33.818"E
Facility Reference Pt			70427.89	432178.99	51°52'21.656"N	4°09'33.818"E
Field Reference Pt			70428.00	432179.00	51°52'21.657"N	4°09'33.824"E

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on Slot#1 (RT) to Facility Vertical Datum	6.70m
Horizontal Reference Pt	Facility Center	Rig on Slot#1 (RT) to Mean Sea Level	4.80m
Vertical Reference Pt	Rig on Slot#1 (RT)	Rig on Slot#1 (RT) to Mud Line at Slot (Slot#1)	6.70m
MD Reference Pt	Rig on Slot#1 (RT)	Section Origin	N 0.00, E 0.00 m
Field Vertical Reference	Mean Sea Level	Section Azimuth	279.12°

POSITIONAL UNCERTAINTY CALCULATION SETTINGS

Ellipse Confidence Limit	2.00 Std Dev	Ellipse Start MD	6.70m	Surface Position Uncertainty	included
Declination	0.64° East of TN	Dip Angle	66.98°	Magnetic Field Strength	48894nT
Slot Surface Uncertainty @1SD		Horizontal	0.610m	Vertical	0.305m
Facility Surface Uncertainty @1SD		Horizontal	6.096m	Vertical	0.914m

Positional Uncertainty values in the WELLPATH DATA table are the projection of the ellipsoid of uncertainty onto the vertical and horizontal planes

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Positional Uncertainty

BRI-GT-01_AWB

Page 2 of 4

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Field	Vierpolders	Wellbore	BRI-GT-01_AWB
Facility	Vierpolders		

WELLPATH DATA (92 stations) - with Positional Uncertainty values

MD [m]	Inclination [°]	Azimuth [°]	TVD [m]	Vert Sect [m]	North [m]	East [m]	DLS [°/30m]	Vertical Semi-Axis [m]	Horiz Major Semi-Axis [m]	Horiz Minor Semi-Axis [m]	Horiz Minor Axis Azim [°]
0.00	0.000	336.800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
238.00	0.100	336.800	238.00	0.11	0.19	-0.08	0.01	2.07	12.27	12.27	247.607
262.00	0.520	301.550	262.00	0.22	0.27	-0.18	0.55	2.07	12.27	12.27	243.267
291.00	1.500	283.210	290.99	0.72	0.42	-0.66	1.05	2.08	12.27	12.27	357.810
318.00	2.880	279.510	317.97	1.75	0.62	-1.68	1.54	2.08	12.28	12.28	353.379
346.00	2.890	280.440	345.94	3.16	0.86	-3.07	0.05	2.09	12.28	12.28	357.450
374.00	3.680	279.470	373.89	4.77	1.14	-4.65	0.85	2.09	12.29	12.28	357.692
402.00	3.740	276.740	401.83	6.58	1.39	-6.44	0.20	2.10	12.29	12.29	358.508
430.00	3.910	277.270	429.77	8.44	1.62	-8.29	0.19	2.11	12.30	12.29	357.777
459.00	3.590	275.190	458.71	10.34	1.83	-10.18	0.36	2.12	12.30	12.30	357.480
487.00	3.540	273.160	486.66	12.07	1.95	-11.91	0.15	2.13	12.31	12.31	359.554
515.00	3.620	274.120	514.60	13.81	2.06	-13.66	0.11	2.13	12.31	12.31	266.440
543.00	3.520	273.990	542.55	15.55	2.19	-15.40	0.11	2.14	12.32	12.32	267.758
572.00	3.140	275.640	571.50	17.23	2.33	-17.08	0.41	2.15	12.33	12.33	268.190
600.00	3.470	274.180	599.45	18.84	2.46	-18.69	0.36	2.17	12.34	12.33	268.592
628.00	3.250	272.690	627.40	20.47	2.56	-20.32	0.25	2.18	12.35	12.34	268.540
656.00	4.480	274.940	655.34	22.35	2.69	-22.21	1.33	2.19	12.36	12.35	267.435
684.00	6.530	281.900	683.21	25.03	3.12	-24.85	2.31	2.20	12.37	12.36	261.491
712.00	8.470	284.870	710.97	28.68	3.97	-28.40	2.12	2.21	12.38	12.37	252.710
743.00	10.340	282.510	741.55	33.72	5.16	-33.33	1.85	2.23	12.40	12.39	253.121
771.00	13.450	275.160	768.95	39.48	6.00	-39.03	3.70	2.24	12.42	12.40	262.579
799.00	16.140	272.450	796.02	46.60	6.46	-46.16	2.98	2.26	12.44	12.42	278.791
826.00	18.130	274.110	821.82	54.51	6.92	-54.10	2.28	2.28	12.47	12.44	278.945
855.00	20.920	277.030	849.15	64.18	7.88	-63.74	3.06	2.29	12.50	12.45	274.891
883.00	23.090	278.400	875.11	74.67	9.29	-74.13	2.39	2.31	12.54	12.47	272.775
911.00	26.870	278.560	900.48	86.49	11.04	-85.83	4.05	2.34	12.59	12.49	273.108
940.00	29.230	278.130	926.07	100.13	13.01	-99.32	2.45	2.37	12.66	12.51	273.814
968.00	32.430	275.980	950.11	114.46	14.76	-113.56	3.63	2.39	12.73	12.52	274.717
996.00	35.170	277.440	973.38	130.02	16.59	-129.02	3.06	2.42	12.83	12.54	275.422
1024.00	36.000	278.370	996.15	146.31	18.83	-145.16	1.06	2.45	12.94	12.56	275.452
1052.00	38.950	279.760	1018.37	163.34	21.52	-161.98	3.29	2.48	13.06	12.57	275.791
1080.00	39.790	279.700	1040.02	181.10	24.53	-179.49	0.90	2.51	13.21	12.58	276.090
1109.00	41.980	280.270	1061.94	200.08	27.82	-198.18	2.30	2.54	13.39	12.60	276.527
1137.00	43.750	278.830	1082.46	219.13	30.97	-216.96	2.17	2.58	13.58	12.61	276.834
1165.00	46.180	277.720	1102.27	238.91	33.82	-236.54	2.74	2.61	13.81	12.62	277.058
1193.00	47.160	277.700	1121.49	259.27	36.55	-256.72	1.05	2.65	14.06	12.64	277.166
1221.00	48.740	277.220	1140.24	280.05	39.25	-277.34	1.74	2.68	14.35	12.65	277.197
1250.00	48.090	277.510	1159.49	301.73	42.03	-298.85	0.71	2.72	14.66	12.66	277.218
1278.00	46.300	278.230	1178.51	322.27	44.84	-319.20	2.00	2.76	14.98	12.67	277.262
1306.00	46.270	278.440	1197.86	342.51	47.77	-339.22	0.17	2.81	15.30	12.68	277.332
1334.00	44.760	279.690	1217.48	362.48	50.92	-358.95	1.88	2.85	15.63	12.70	277.428
1344.00	44.310	279.080	1224.61	369.50	52.06	-365.87	1.86	2.86	15.75	12.70	277.467
1388.00	44.610	280.310	1256.02	400.31	57.25	-396.25	0.62	2.91	16.22	12.71	277.637
1416.00	45.570	280.420	1275.78	420.14	60.82	-415.75	1.03	2.92	16.50	12.71	277.773
1445.00	47.400	280.900	1295.75	441.16	64.71	-436.42	1.93	2.95	16.81	12.72	277.922

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BRI-GT-01_AWB

Page 3 of 4

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Area	THE NETHERLANDS	Well	BRI-GT-01
Field	Vierpolders	Wellbore	BRI-GT-01_AWB
Facility	Vierpolders		

WELLPATH DATA (92 stations) - with Positional Uncertainty values

MD [m]	Inclination [°]	Azimuth [°]	TVD [m]	Vert Sect [m]	North [m]	East [m]	DLS [°/30m]	Vertical Semi-Axis [m]	Horiz Major Semi-Axis [m]	Horiz Minor Semi-Axis [m]	Horiz Minor Axis Azim [°]
1473.00	48.030	279.310	1314.59	461.87	68.34	-456.81	1.43	2.97	17.14	12.72	278.037
1501.00	48.520	279.510	1333.23	482.77	71.76	-477.43	0.55	2.99	17.49	12.73	278.122
1529.00	48.980	279.450	1351.69	503.82	75.23	-498.19	0.50	3.02	17.85	12.73	278.197
1558.00	49.100	279.550	1370.70	525.72	78.84	-519.79	0.15	3.05	18.25	12.73	278.270
1585.00	49.080	278.900	1388.38	546.12	82.11	-539.93	0.55	3.07	18.63	12.74	278.321
1614.00	49.050	277.950	1407.38	568.03	85.32	-561.60	0.74	3.10	19.06	12.74	278.339
1642.00	48.990	276.830	1425.74	589.15	88.04	-582.56	0.91	3.13	19.48	12.75	278.314
1670.00	49.000	277.150	1444.11	610.27	90.61	-603.54	0.26	3.16	19.91	12.75	278.273
1698.00	49.090	277.090	1462.47	631.40	93.23	-624.52	0.11	3.20	20.35	12.76	278.238
1727.00	49.050	277.500	1481.47	653.30	96.02	-646.25	0.32	3.23	20.82	12.76	278.209
1755.00	49.020	278.080	1499.82	674.44	98.88	-667.20	0.47	3.27	21.28	12.77	278.198
1783.00	48.590	278.590	1518.26	695.51	101.94	-688.05	0.62	3.31	21.75	12.78	278.205
1811.00	48.580	278.690	1536.79	716.50	105.09	-708.81	0.08	3.35	22.21	12.79	278.221
1839.00	48.490	279.090	1555.33	737.49	108.33	-729.54	0.34	3.39	22.69	12.79	278.242
1867.00	49.120	279.610	1573.77	758.56	111.76	-750.33	0.79	3.43	23.17	12.80	278.276
1896.00	49.050	278.450	1592.76	780.47	115.20	-771.97	0.91	3.48	23.68	12.81	278.300
1923.00	49.060	278.960	1610.46	800.86	118.28	-792.13	0.43	3.52	24.17	12.82	278.311
1952.00	49.070	278.980	1629.46	822.77	121.70	-813.77	0.02	3.57	24.69	12.83	278.330
1980.00	49.090	279.480	1647.80	843.93	125.09	-834.65	0.41	3.61	25.20	12.84	278.355
2008.00	49.130	279.440	1666.13	865.09	128.57	-855.53	0.05	3.66	25.72	12.85	278.384
2036.00	49.060	278.930	1684.46	886.26	131.95	-876.42	0.42	3.71	26.24	12.86	278.404
2064.00	49.120	279.490	1702.80	907.42	135.34	-897.31	0.46	3.76	26.76	12.87	278.424
2093.00	49.120	278.720	1721.78	929.34	138.81	-918.96	0.60	3.81	27.31	12.88	278.440
2121.00	49.370	278.710	1740.06	950.55	142.02	-939.92	0.27	3.86	27.85	12.89	278.446
2149.00	49.270	278.960	1758.31	971.79	145.28	-960.91	0.23	3.91	28.39	12.91	278.454
2176.00	49.280	278.950	1775.92	992.25	148.47	-981.12	0.01	3.97	28.91	12.92	278.464
2205.00	49.280	279.040	1794.84	1014.23	151.90	-1002.83	0.07	4.02	29.47	12.93	278.475
2234.00	49.270	279.550	1813.76	1036.21	155.45	-1024.52	0.40	4.08	30.04	12.94	278.492
2261.00	49.210	279.360	1831.39	1056.66	158.81	-1044.69	0.17	4.13	30.57	12.96	278.511
2290.00	49.170	279.660	1850.34	1078.61	162.44	-1066.34	0.24	4.19	31.15	12.97	278.531
2317.00	48.930	280.260	1868.04	1099.00	165.97	-1086.42	0.57	4.25	31.68	12.99	278.558
2346.00	48.790	280.470	1887.12	1120.83	169.89	-1107.91	0.22	4.31	32.25	13.00	278.594
2375.00	48.830	279.330	1906.22	1142.65	173.65	-1129.40	0.89	4.37	32.82	13.02	278.619
2403.00	48.890	278.970	1924.64	1163.74	177.00	-1150.22	0.30	4.43	33.38	13.04	278.628
2431.00	48.460	279.590	1943.13	1184.76	180.39	-1170.98	0.68	4.49	33.94	13.05	278.638
2459.00	48.930	279.190	1961.61	1205.80	183.82	-1191.73	0.60	4.55	34.49	13.07	278.651
2487.00	48.890	279.070	1980.01	1226.90	187.17	-1212.56	0.11	4.61	35.06	13.09	278.658
2515.00	48.880	279.010	1998.42	1248.00	190.48	-1233.40	0.05	4.68	35.62	13.10	278.663
2544.00	48.870	278.780	2017.50	1269.84	193.86	-1254.98	0.18	4.74	36.21	13.12	278.665
2572.00	48.890	279.980	2035.91	1290.93	197.30	-1275.79	0.97	4.80	36.78	13.14	278.676
2600.00	48.310	280.140	2054.43	1311.93	200.97	-1296.47	0.63	4.87	37.34	13.16	278.697
2629.00	48.350	280.250	2073.71	1333.59	204.80	-1317.79	0.09	4.94	37.92	13.18	278.721
2656.00	48.360	280.750	2091.65	1353.76	208.48	-1337.63	0.42	5.00	38.47	13.20	278.747
2685.00	48.900	280.490	2110.82	1375.52	212.49	-1359.02	0.59	5.07	39.05	13.22	278.776
2713.00	49.290	279.600	2129.15	1396.68	216.18	-1379.86	0.83	5.13	39.63	13.24	278.795

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BRI-GT-01_AWB

Page 4 of 4

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Operator	Aardwarmte Vierpolders	Slot	Slot#1
Area	THE NETHERLANDS	Well	BRI-GT-01
Field	Vierpolders	Wellbore	BRI-GT-01_AWB
Facility	Vierpolders		

WELLPATH DATA (92 stations) - with Positional Uncertainty values

MD [m]	Inclination [°]	Azimuth [°]	TVD [m]	Vert Sect [m]	North [m]	East [m]	DLS [°/30m]	Vertical Semi-Axis [m]	Horiz Major Semi-Axis [m]	Horiz Minor Semi-Axis [m]	Horiz Minor Axis Azim [°]
2741.00	49.450	279.400	2147.39	1417.93	219.69	-1400.81	0.24	5.20	40.22	13.26	278.805
2769.00	49.390	279.420	2165.60	1439.19	223.17	-1421.79	0.07	5.27	40.80	13.29	278.812

HOLE & CASING SECTIONS - Ref Wellbore: BRI-GT-01_AWB Ref Wellpath: BRI-GT-01_AWB

String/Diameter	Start MD [m]	End MD [m]	Interval [m]	Start TVD [m]	End TVD [m]	Start N/S [m]	Start E/W [m]	End N/S [m]	End E/W [m]
24in Conductor	0.00	224.00	224.00	0.00	224.00	0.00	0.00	0.17	-0.07
17.5in Open Hole	0.00	1364.00	1364.00	0.00	1238.91	0.00	0.00	54.34	-379.67
13.375in Casing	0.00	1360.00	1360.00	0.00	1236.05	0.00	0.00	53.87	-376.91
12.25in Open Hole	1364.00	2784.00	1420.00	1238.91	NA	54.34	-379.67	NA	NA

TARGETS

Name	MD [m]	TVD [m]	North [m]	East [m]	Grid East [m]	Grid North [m]	Latitude	Longitude	Shape
Target#1		2188.00	227.02	-1446.95	68981.00	432406.00	51°52'28.203"N	4°08'17.984"E	circle

WELLPATH COMPOSITION - Ref Wellbore: BRI-GT-01_AWB Ref Wellpath: BRI-GT-01_AWB

Start MD [m]	End MD [m]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1344.00	NaviTrak (SAG, MagCorr)	01. BHI NaviGamma MWD 17 1/2" <238m - 1344m>	BRI-GT-01_AWB
1344.00	2769.00	NaviTrak (SAG, MagCorr)	02. BHI NaviGamma MWD 12-1/4" <1388.m - 2769m>	BRI-GT-01_AWB