Q-Borehole Survey Report

Schlumberger

Survey:	Zero Offset VSP
Company:	International Ocean Discovery Program
Well:	Expedition 400, Site U1607A
Field:	Site MB-07B
Country:	Greenland
Run:	
Date:	25-Sep-2023

Recorded by: K. Garrett

Witnessed by: Z. Mateo

Introduction

<General introduction: timeline overview, key comments>

Survey Results:

<Highlight of each survey acquired during this job...>

Recommendations and Conclusions:

Well Information

Company	International Ocean Discovery Program
Well	Expedition 400, Site U1607A
Field	NW Greenland Glaciated Margin
Country	Greenland
State	Artic Ocean
Logging Date	25-Sep-2023
Run Number	
Service Order	
Well Head (Latitude)	74.492490 degrees
Well Head (Logitude)	-60.583166 degrees
Well Head (X Coordinate)	-60.58 m
Well Head (Y Coordinate)	74.49 m
Total Depth - Driller	m
Total Depth - Logger	m
Maximum Hole Deviation	0 deg
Azimuth of Maximum Deviation	0 deg
Program Version	
Bit Size	in
Recorde by	K. Garrett
Witnessed by	Z. Mateo

Well Deviation Survey

Well Deviation Survey Type	
Bottom of The Well Deviation Survey (MD)	

Elevation Information

Permanent Datum	MSL
Elevation Permanent Datum	0 m
Above Permanent Datum	11.4 m
Drilling Measured From	
Derrik Floor	11.4 m
Ground Level	-738.6 m
Kelly Bush	0 m
Log Measured From	DF
Elevation Log Zero	11.4 m

Depth Corrected Information

Water Velocity	1500 m/s
Seismic Reference Datum	0 m

Remarks

Well Sketch

Tool Sketch

Well Information

Well Type	
Rig / Platform Type	
Well Reference Azimuth (Magnetic, True or Grid North)	

Elevation Information

Water Depth	0 m
Water Temperature	
Water Salinity	
Weathered Zone Depth	
Elevation Depth	

Sea Condition

Sea Conditioin	
Wave Height	
High Tide Level	0 m
High Tide Time	
Low Tide Level	0 m
Low Tide Time	

Velocity Information

Weathered Velocity	0 m/s
Elevation Velocity	0 m/s

Downhole Equipment Information

Seismic Tool Type	
Compined Tool	
Number of Shuttles	
Gimbaled (Y/N)	
Downhole Geophone Type	
Sensitivity	
Natural Frequency	
DC Resistance	
Tool String Numbers	
LEH-QT	
DTC-H	
SGT-N	
AH-199	
VSPC	
VSCC	
VSII #1	
VSIS Receiver #1	
VSII #2	
VSIA	

Operation Time Breakdown

SOE

Operation Time Breakdown

DATE	Time Start	Time Taken Hr : min	OPERATION
			HRS - TOTAL OPERATING TIME

VSP

General Information

Survey Type	Zero Offset VSP
Surface Recording Length	1000 msec
Surface Sampling Rate	1 msec
Downhole Recording Length	3000 msec
Downhole Sampling Rate	1 msec
Top of Survey	48.127 m
Bottom of Survey	1681.1 m
Number of Shots	278
Number of Downhole Traces	278
Number of Downhole Traces used for Processing	278

Stack Summary Listing

Stack number	Well depth[m]	TVD from SRD[m]	TT[ms]	TT(TVD Corrected)[ms]	TWT(TVD Corrected)[ms]	Interval Velocity[m/s]	Average Velocity[m/s]	RMS Velocity[m/s]
34	811.07	799.67	535.59	539.36	1078.73	1968.48	1482.62	1482.62
33	841.03	829.63	550.78	554.58	1109.17	1866.27	1495.95	1498.06
32	871.08	859.68	566.84	570.69	1141.37	1886.44	1506.40	1509.68
31	901.08	889.68	582.71	586.59	1173.18	1937.62	1516.70	1521.12
30	927.76	916.36	596.45	600.36	1200.71	2105.84	1526.36	1531.94
29	961.05	949.65	612.23	616.17	1232.34	2046.38	1541.23	1549.33
28	991.09	979.69	626.88	630.85	1261.69	2091.42	1552.98	1562.69
36	1024.06	1012.66	642.62	646.61	1293.22	2254.10	1566.11	1577.69
25	1050.97	1039.57	654.53	658.55	1317.10	2329.04	1578.58	1592.51
35	1084.08	1072.68	668.72	672.77	1345.53	1973.57	1594.44	1611.56
22	1111.06	1099.66	682.37	686.43	1372.87	2321.33	1601.99	1619.56
21	1141.07	1129.67	695.28	699.36	1398.72	2319.82	1615.28	1635.27
20	1171.03	1159.63	708.18	712.28	1424.56	2217.73	1628.06	1650.21
19	1200.93	1189.53	721.64	725.76	1451.52	2422.92	1639.01	1662.52
18	1231.08	1219.68	734.06	738.20	1476.41	2204.56	1652.23	1678.19
17	1261.10	1249.70	747.67	751.82	1503.64	2080.84	1662.23	1689.19
16	1291.13	1279.73	762.08	766.25	1532.51	2191.20	1670.12	1697.40
15	1321.01	1309.61	775.71	779.89	1559.78	2154.34	1679.23	1707.26
14	1351.09	1339.69	789.66	793.85	1587.71	2113.40	1687.58	1716.13
13	1381.05	1369.65	803.82	808.03	1616.06	2244.06	1695.05	1723.89
12	1411.00	1399.60	817.15	821.37	1642.75	2252.43	1703.97	1733.59
10	1441.13	1429.73	830.52	834.75	1669.50	2243.07	1712.76	1743.12
9	1471.07	1459.67	843.85	848.10	1696.20	2101.20	1721.11	1752.10
8	1500.94	1489.54	858.06	862.31	1724.63	2168.64	1727.38	1758.41
7	1531.01	1519.61	871.91	876.18	1752.36	2195.99	1734.36	1765.65
6	1561.03	1549.63	885.58	889.85	1779.70	2106.43	1741.45	1773.05
5	1590.99	1579.59	899.79	904.07	1808.15	2381.63	1747.19	1778.78
4	1620.93	1609.53	912.35	916.64	1833.29	1888.60	1755.89	1788.42
3	1650.97	1639.57	928.25	932.55	1865.10	2399.79	1758.16	1790.17
2	1681.15	1669.75	940.82	945.13	1890.25		1766.69	1799.64

Shot Summary Listing

Measured Depth [m]	Tool Number	Stack Number	Raw Relative Bearing [deg]	Caliper [in]	Anchor Force [N]	Shot Number
48.127	1	1	-29.4	3.2	-780.7	14
1681.1	1	2	159.2	9.2	5645.2	16
1681.1	1	2	159.2	9.2	5444.9	17
1681.1	1	2	159.2	9.3	5330.9	18
1681.1	1	2	159.2	9.3	5295.9	19
1651	1	3	9.5	11.9	8430.3	20
1651	1	3	9.5	11.9	8416.8	21
1651	1	3	9.5	11.9	8406.0	22
1651	1	3	9.5	11.9	8402.4	23
1651	1	3	9.5	11.9	8395.2	24
1651	1	3	9.5	11.9	8391.7	25
1651	1	3	9.6	11.9	8391.7	26
1620.9	1	4	-0.6	13.5	8217.5	27
1620.9	1	4	-0.6	13.5	8213.9	28
1620.9	1	4	-0.6	13.5	8203.1	29
1620.9	1	4	-0.6	13.5	8415.0	30
1620.9	1	4	-0.6	13.5	8415.0	31
1591	1	5	-4.9	11.5	7259.5	32
1591	1	5	-4.9	11.5	7255.9	33
1591	1	5	-4.9	11.5	7228.1	34
1591	1	5	-4.9	11.5	7234.3	35
1561	1	6	11.0	11.5	6552.9	36
1561	1	6	11.0	11.5	4802.1	37
1561	1	6	11.0	11.5	4638.7	38
1561	1	6	10.9	11.5	3727.4	39
1561	1	6	10.9	11.5	3467.0	40
1561	1	6	10.9	11.6	3402.4	41
1561	1	6	10.9	11.5	3431.1	42
1561	1	6	10.9	11.5	3384.4	43
1561	1	6	10.9	11.6	3395.2	44
1561	1	6	9.6	11.6	2992.0	45
1531	1	7	-1.2	11.6	8119.6	46
1531	1	7	-1.2	11.6	7841.3	47
1531	1	7	-1.2	11.6	7659.9	48
1531	1	7	-1.2	11.6	7645.6	49
1531	1	7	-1.2	11.6	7634.8	50

Measured Depth [m]	Tool Number	Stack Number	Raw Relative Bearing [deg]	Caliper [in]	Anchor Force [N]	Shot Number
1531	1	7	-1.2	11.6	7627.6	51
1531	1	7	-1.2	11.6	7620.4	52
1531	1	7	-1.2	11.6	7609.6	53
1500.9	1	8	2.1	11.4	10037.4	54
1500.9	1	8	2.1	11.4	10016.7	55
1500.9	1	8	16.4	11.4	9684.5	56
1500.9	1	8	-8.0	11.5	4384.6	57
1500.9	1	8	0.5	11.5	3678.0	58
1500.9	1	8	12.8	11.5	3956.3	59
1500.9	1	8	11.9	11.4	7773.9	60
1500.9	1	8	12.2	11.4	10920.0	61
1500.9	1	8	12.0	11.4	6549.3	62
1500.9	1	8	8.4	11.4	10941.5	63
1500.9	1	8	8.3	11.5	6148.9	64
1500.9	1	8	8.3	11.4	7338.5	65
1500.9	1	8	8.3	11.4	8773.2	66
1500.9	1	8	9.7	11.4	5641.6	67
1471.1	1	9	-3.3	11.8	8359.3	69
1471.1	1	9	-3.0	11.8	6512.5	70
1471.1	1	9	-3.0	11.8	6227.9	71
1471.1	1	9	-3.1	11.8	5981.0	72
1471.1	1	9	-3.1	11.8	5970.2	73
1471.1	1	9	-3.1	11.8	5963.0	74
1471.1	1	9	-3.1	11.8	5952.2	75
1441.1	1	10	-0.7	11.2	10149.6	76
1441.1	1	10	3.8	11.2	9203.3	77
1441.1	1	10	-15.5	11.2	9171.0	78
1441.1	1	10	-8.1	11.2	7215.5	79
1441.1	1	10	-3.8	11.2	8853.1	80
1441.1	1	10	-11.2	11.2	8417.7	81
1441.1	1	10	-17.3	11.2	7879.0	82
1441.1	1	10	-10.2	11.2	7832.3	83
1441.1	1	10	-9.7	11.2	7721.9	84
1441.1	1	10	-3.6	11.2	8675.4	85
1441.1	1	10	-1.8	11.2	9271.5	86
1441.1	1	10	-7.6	11.2	8039.7	87
1440	1	11	-3.5	11.2	8250.7	88

Measured Depth [m]	Tool Number	Stack Number	Raw Relative Bearing [deg]	Caliper [in]	Anchor Force [N]	Shot Number
1440	1	11	-3.5	11.2	7736.2	89
1440	1	11	-3.5	11.2	7650.9	90
1440	1	11	-3.5	11.2	7643.8	91
1440	1	11	-3.5	11.2	7633.0	92
1411	1	12	-8.1	11.2	8166.3	93
1411	1	12	-7.1	11.2	7373.5	94
1411	1	12	-7.0	11.2	7362.7	95
1411	1	12	-7.1	11.2	7380.7	96
1381.1	1	13	-4.4	13.3	7313.4	97
1381.1	1	13	-4.3	13.3	6002.5	98
1381.1	1	13	-4.3	13.3	5684.7	99
1381.1	1	13	-4.3	13.3	5655.9	100
1381.1	1	13	-4.3	13.3	5645.2	101
1351.1	1	14	-15.4	11.5	6871.6	102
1351.1	1	14	-9.4	11.4	13577.6	103
1351.1	1	14	-10.7	11.5	6690.2	104
1351.1	1	14	-10.6	11.5	7482.1	105
1351.1	1	14	-10.7	11.5	7471.4	106
1351.1	1	14	-10.6	11.5	7460.6	107
1351.1	1	14	-10.7	11.5	7453.4	108
1351.1	1	14	-10.7	11.5	7447.1	109
1351.1	1	14	-10.7	11.5	7439.9	110
1351.1	1	14	-10.6	11.5	7436.4	111
1351.1	1	14	-10.6	11.5	7425.6	112
1321	1	15	-2.1	11.1	7577.3	113
1321	1	15	-2.1	11.1	8005.6	114
1321	1	15	-5.1	11.1	7684.2	115
1321	1	15	-4.5	11.1	7213.7	116
1321	1	15	-5.1	11.1	6841.1	117
1321	1	15	-5.1	11.1	6688.5	118
1321	1	15	-5.2	11.1	8238.1	119
1321	1	15	-6.5	11.1	7155.3	120
1321	1	15	-6.6	11.1	6927.3	121
1321	1	15	-6.6	11.1	6295.2	122
1321	1	15	-7.4	11.1	6745.0	123
1321	1	15	4.3	11.1	6080.6	124
1291.1	1	16	-20.9	11.4	7984.9	126

Measured Depth [m]	Tool Number	Stack Number	Raw Relative Bearing [deg]	Caliper [in]	Anchor Force [N]	Shot Number
1291.1	1	16	-20.6	11.4	7187.7	127
1291.1	1	16	-20.6	11.4	7220.9	128
1291.1	1	16	-21.9	11.4	7402.2	129
1291.1	1	16	-18.9	11.4	7141.0	130
1291.1	1	16	-18.9	11.4	6830.3	131
1291.1	1	16	-18.9	11.4	6812.4	132
1291.1	1	16	-18.9	11.4	6806.1	133
1291.1	1	16	-18.9	11.4	6802.5	134
1291.1	1	16	-18.9	11.4	6798.9	135
1291.1	1	16	-18.9	11.4	6795.3	136
1261.1	1	17	-7.0	11.1	5099.3	137
1261.1	1	17	-7.0	11.1	5168.4	138
1261.1	1	17	-7.0	11.1	5179.2	139
1261.1	1	17	-7.0	11.1	5182.8	140
1231.1	1	18	-14.1	11.1	8534.4	141
1231.1	1	18	-9.7	11.2	7224.5	142
1231.1	1	18	-8.8	11.2	6734.2	143
1231.1	1	18	-8.1	11.2	6549.3	144
1231.1	1	18	-8.1	11.2	6384.1	145
1231.1	1	18	-8.0	11.1	7291.8	146
1231.1	1	18	-8.4	11.2	6062.7	147
1231.1	1	18	-5.0	11.2	6349.1	148
1231.1	1	18	-5.6	11.2	5645.2	149
1231.1	1	18	-4.4	11.2	5713.4	150
1231.1	1	18	-5.5	11.2	5305.8	151
1200.9	1	19	-1.3	11.8	7554.9	153
1200.9	1	19	-1.3	11.8	7393.3	154
1200.9	1	19	-1.4	11.8	6972.2	155
1200.9	1	19	-1.3	11.8	6464.9	156
1200.9	1	19	-2.9	11.8	5532.0	157
1200.9	1	19	-5.8	11.8	5385.7	158
1200.9	1	19	-5.5	11.8	5150.5	159
1200.9	1	19	-4.8	11.8	6492.7	160
1200.9	1	19	-4.4	11.8	10351.6	161
1200.9	1	19	-7.1	11.8	4275.1	162
1200.9	1	19	-5.8	11.8	3874.6	163
1171	1	20	-15.0	11.1	8430.3	165

Measured Depth [m]	Tool Number	Stack Number	Raw Relative Bearing [deg]	Caliper [in]	Anchor Force [N]	Shot Number
1171	1	20	-15.3	11.1	6899.4	166
1171	1	20	-15.9	11.1	7549.5	167
1171	1	20	-16.8	11.1	7441.7	168
1171	1	20	-17.1	11.1	6748.6	169
1171	1	20	-17.4	11.1	7434.6	170
1171	1	20	-20.0	11.1	6180.3	171
1171	1	20	-19.8	11.1	5963.0	172
1171	1	20	-19.2	11.1	5673.9	173
1171	1	20	-19.1	11.1	5942.3	174
1171	1	20	-18.5	11.1	5309.4	175
1141.1	1	21	-13.5	11.5	7678.8	177
1141.1	1	21	-13.5	11.5	6868.0	178
1141.1	1	21	-13.5	11.5	6864.4	179
1141.1	1	21	-13.5	11.5	6832.1	180
1141.1	1	21	-13.5	11.5	6824.9	181
1141.1	1	21	-13.5	11.5	6810.6	182
1111.1	1	22	-11.8	11.6	7325.9	183
1111.1	1	22	-11.7	11.6	7460.6	184
1111.1	1	22	-11.8	11.6	7593.5	185
1111.1	1	22	-11.8	11.6	7246.9	186
1111.1	1	22	-11.8	11.6	7196.6	187
1111.1	1	22	-11.8	11.6	7011.7	188
1111.1	1	22	-11.8	11.6	7157.1	189
1081.1	1	23	-11.5	11.4	8936.6	190
1081.1	1	23	-11.8	11.4	8768.7	191
1081.1	1	23	-9.3	11.4	8657.4	192
1081.1	1	23	-10.6	11.4	8458.1	193
1081.1	1	23	-18.1	11.4	9593.9	194
1081.1	1	23	-18.2	11.4	8597.3	195
1081.1	1	23	-15.5	11.4	7018.9	196
1081.1	1	23	-17.3	11.4	7686.0	197
1081.1	1	23	-17.3	11.4	6929.1	198
1081.1	1	23	-20.4	11.4	7084.4	200
1080	1	24	-17.5	11.3	9156.6	201
1080	1	24	-2.1	11.4	8770.5	202
1080	1	24	2.5	11.3	8556.0	203
1080	1	24	9.7	11.4	8277.6	204

Measured Depth [m]	Tool Number	Stack Number	Raw Relative Bearing [deg]	Caliper [in]	Anchor Force [N]	Shot Number
1080	1	24	11.6	11.3	8288.4	205
1080	1	24	5.1	11.4	7649.1	206
1080	1	24	11.8	11.4	7431.0	207
1080	1	24	10.9	11.4	7228.1	208
1080	1	24	12.5	11.4	7102.4	209
1080	1	24	10.4	11.4	6966.8	210
1051	1	25	-11.5	11.4	7436.4	212
1051	1	25	-10.5	11.4	7053.9	213
1051	1	25	-10.4	11.4	6824.9	214
1051	1	25	-12.8	11.4	6532.2	215
1021.1	1	26	-8.3	11.4	7643.8	217
1021.1	1	26	-3.9	11.4	7511.8	218
1021.1	1	26	-6.2	11.4	7357.3	219
1021.1	1	26	-6.4	11.4	7233.4	220
1021.1	1	26	-6.7	11.4	7122.1	221
1020.1	1	27	-6.8	11.4	7454.3	223
1020.1	1	27	-4.5	11.4	7122.1	224
1020.1	1	27	-4.9	11.4	6810.6	225
1020.1	1	27	-4.9	11.4	6479.3	226
1020.1	1	27	-2.2	11.5	5936.1	227
1020.1	1	27	-2.3	11.4	5903.7	228
1020.1	1	27	-3.3	11.5	5696.3	229
1020.1	1	27	-9.9	11.4	5631.7	230
1020.1	1	27	-10.1	11.4	5392.9	231
1020.1	1	27	-7.3	11.5	5179.2	232
991.09	1	28	-6.9	11.4	7377.1	234
991.09	1	28	-13.2	11.4	7566.5	235
991.09	1	28	-12.7	11.4	7309.8	236
991.09	1	28	-13.1	11.4	7073.6	237
991.09	1	28	-13.3	11.4	7030.5	238
991.09	1	28	-12.6	11.4	6981.1	239
991.09	1	28	-12.5	11.4	6916.5	240
991.09	1	28	-12.1	11.4	6910.2	241
991.09	1	28	-12.8	11.4	6881.5	242
991.09	1	28	-13.1	11.4	6719.9	243
961.05	1	29	-6.5	12.5	8336.0	245
961.05	1	29	-6.6	12.5	7761.4	246

Measured Depth [m]	Tool Number	Stack Number	Raw Relative Bearing [deg]	Caliper [in]	Anchor Force [N]	Shot Number
961.05	1	29	-6.6	12.5	7785.6	247
927.76	1	30	-23.8	11.7	9040.8	248
927.76	1	30	-28.3	11.7	6632.8	249
927.76	1	30	-17.9	11.6	13002.1	250
927.76	1	30	-22.6	11.6	13995.1	251
927.76	1	30	-9.4	11.7	4325.3	252
927.76	1	30	-34.3	11.7	9454.7	253
927.76	1	30	-40.9	11.7	5804.1	254
901.08	1	31	-18.4	12.6	8922.3	255
901.08	1	31	-16.4	12.5	11637.3	256
901.08	1	31	-16.3	12.5	12801.8	257
901.08	1	31	-23.6	12.6	9222.2	258
901.08	1	31	-23.8	12.6	9626.2	259
901.08	1	31	-23.8	12.6	6614.8	260
901.08	1	31	-23.7	12.6	5943.2	261
901.08	1	31	-24.0	12.6	4674.6	262
901.08	1	31	-22.0	12.6	7582.7	263
901.08	1	31	-19.1	12.7	8368.3	264
871.08	1	32	-14.6	12.2	8472.5	266
871.08	1	32	-14.9	12.2	9172.8	267
871.08	1	32	-14.3	12.2	7226.3	268
871.08	1	32	-17.5	12.2	6400.2	269
871.08	1	32	-18.9	12.2	6075.2	270
871.08	1	32	-19.0	12.2	6114.7	271
871.08	1	32	-13.3	12.2	2474.9	272
871.08	1	32	-13.3	12.2	2489.3	273
871.08	1	32	-13.3	12.2	2513.5	274
871.08	1	32	-13.3	12.2	2456.9	275
841.03	1	33	-18.3	12.4	7050.3	276
841.03	1	33	-14.4	12.4	7293.6	277
841.03	1	33	-12.9	12.4	13516.5	278
841.03	1	33	-29.8	12.7	14876.8	280
841.03	1	33	-29.8	12.7	14863.3	281
841.03	1	33	-29.8	12.7	14827.4	282
841.03	1	33	-29.8	12.7	14802.2	283
841.03	1	33	-29.8	12.7	14734.9	284
811.07	1	34	-19.4	11.5	7580.9	285

Measured Depth [m]	Tool Number	Stack Number	Raw Relative Bearing [deg]	Caliper [in]	Anchor Force [N]	Shot Number
811.07	1	34	-18.3	11.5	7102.4	286
811.07	1	34	-19.2	11.5	6723.5	287
811.07	1	34	-19.7	11.5	6926.4	288
811.07	1	34	-19.6	11.5	6023.2	289
811.07	1	34	-19.7	11.5	5687.4	290
811.07	1	34	-18.5	11.6	7064.6	292
811.07	1	34	-18.5	11.6	6793.5	293
811.07	1	34	-18.5	11.6	7167.9	294
811.07	1	34	-17.6	11.6	6896.8	295
1084.1	1	35	-4.3	10.9	7129.3	297
1084.1	1	35	-4.8	11.0	7046.7	298
1084.1	1	35	-4.8	10.9	7233.4	299
1084.1	1	35	-4.3	11.0	6786.3	300
1024.1	1	36	-2.2	11.7	7911.3	302
1024.1	1	36	-2.2	11.7	7568.3	303
1024.1	1	36	-2.2	11.7	7229.9	304
1024.1	1	36	-2.2	11.7	6271.0	305
1024.1	1	36	-3.9	11.7	4785.0	306
1024.1	1	36	-4.3	11.7	5275.3	307
1024.1	1	36	-7.1	11.8	4553.4	308

Source Information Page (for Air Gun)

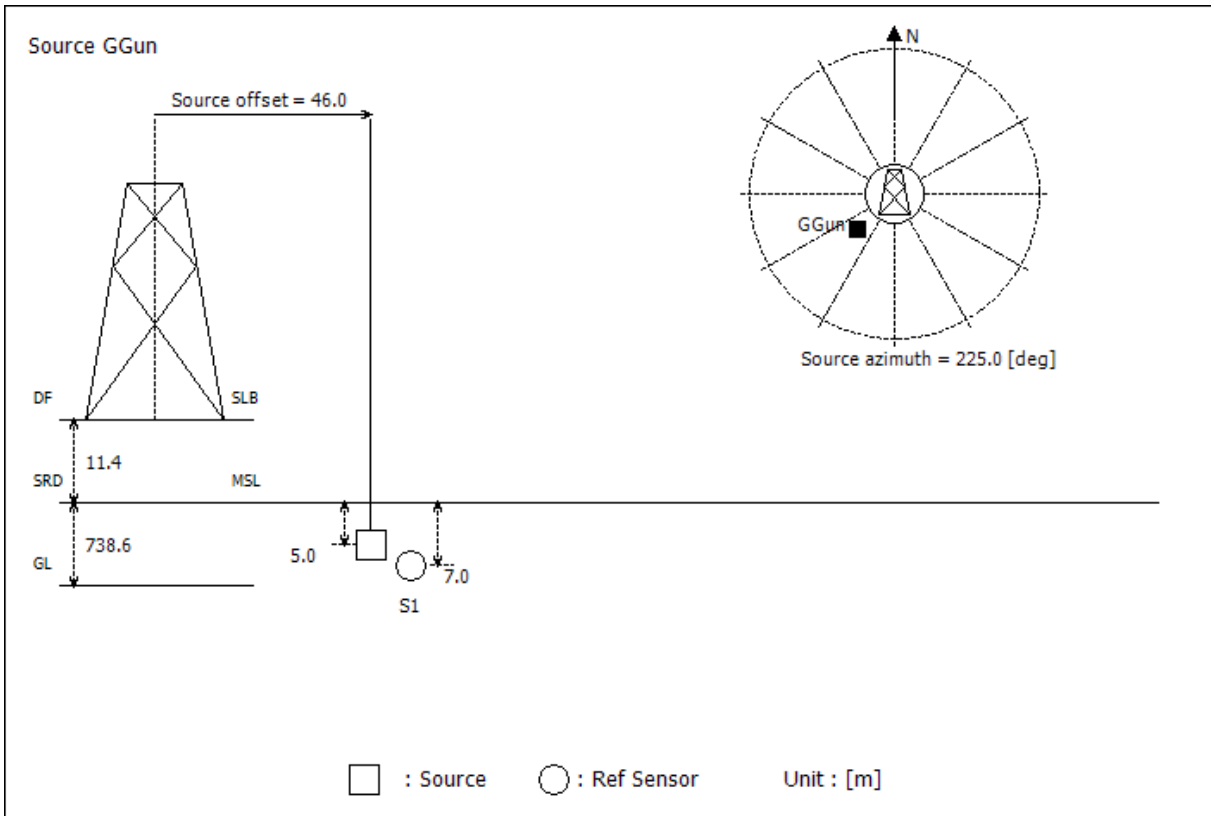
Source Location	
Source Group	
Source Offset	
Source Azimuth	
Source Depth from Surface	
Source Depth from Logging Zero	

Gun Controller Type	
Gun Controller Serial Number	
Gun Type	
Gun Serial Number(s)	
Gun Chamber Volumes	
Gun Pit/Borehole Information	
Compressor Type	
Air Regulator Pressure	

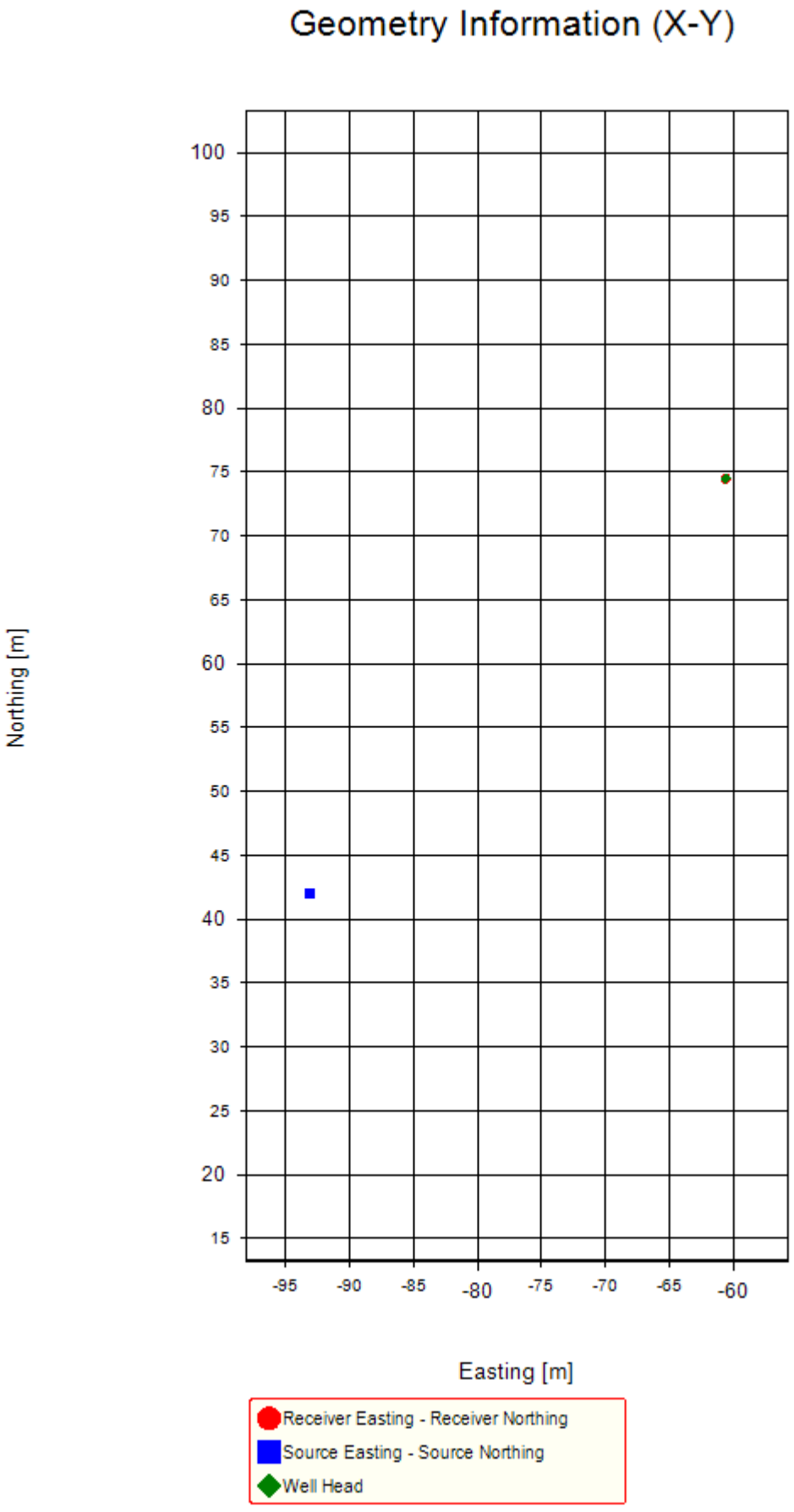
Source Configuration (Air Gun)

Number of Surface reference Sensors	
Surface Recording Length	1000 msec
Surface Sampling Rate	1 msec
Sensor Type (S1)	
Sensor Type (S2)	
Sensor Type (S3)	
Sensor Depth from Surface (S1)	
Sensor Depth from Surface (S2)	
Sensor Depth from Surface (S3)	
Sensor Depth from Logging Zero (S1)	
Sensor Depth from Logging Zero (S2)	
Sensor Depth from Logging Zero (S3)	
Sensor Offset from Source (S1)	
Sensor Offset from Source (S2)	
Sensor Offset from Source (S3)	

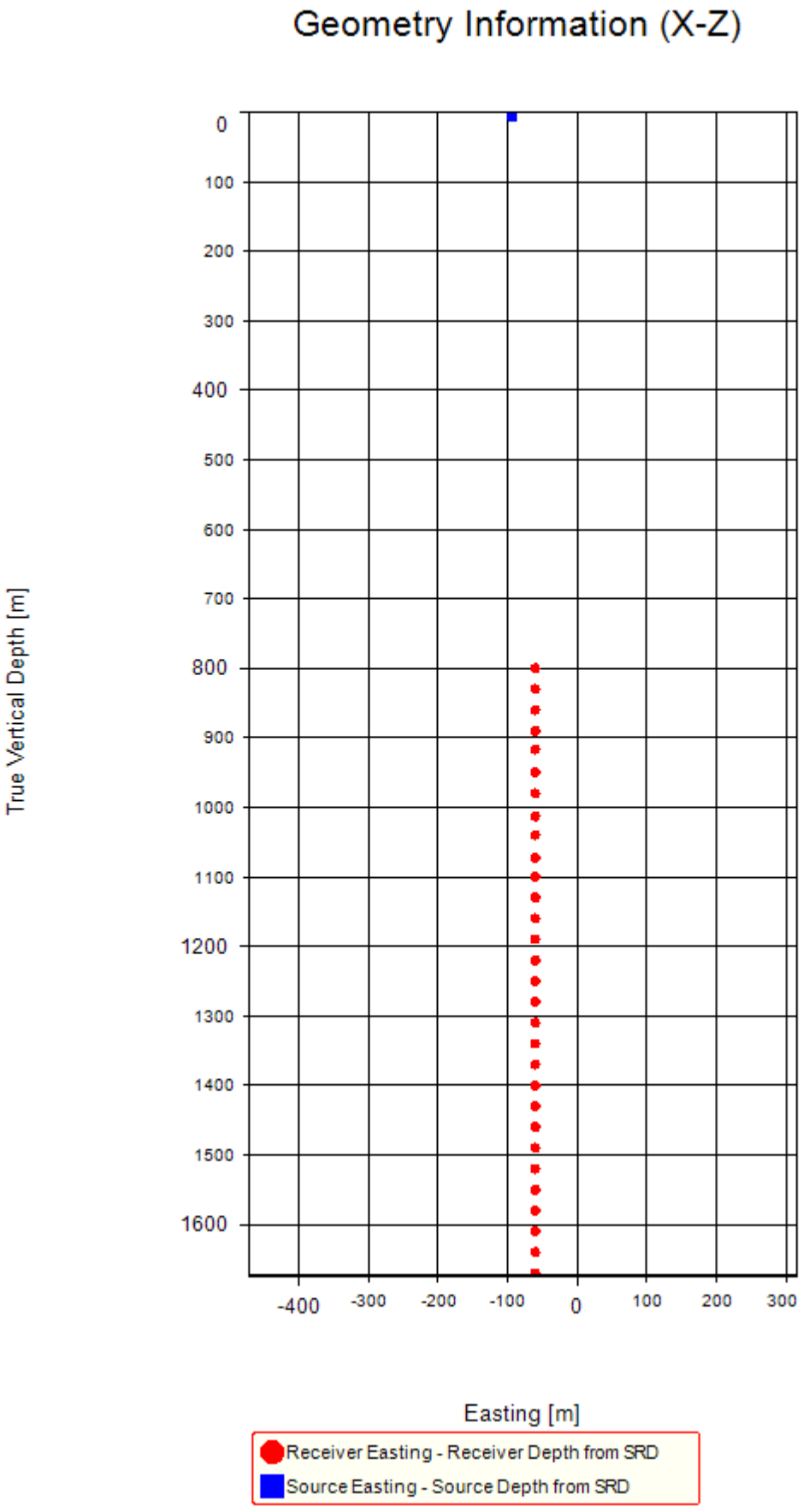
Source Geometry Sketch



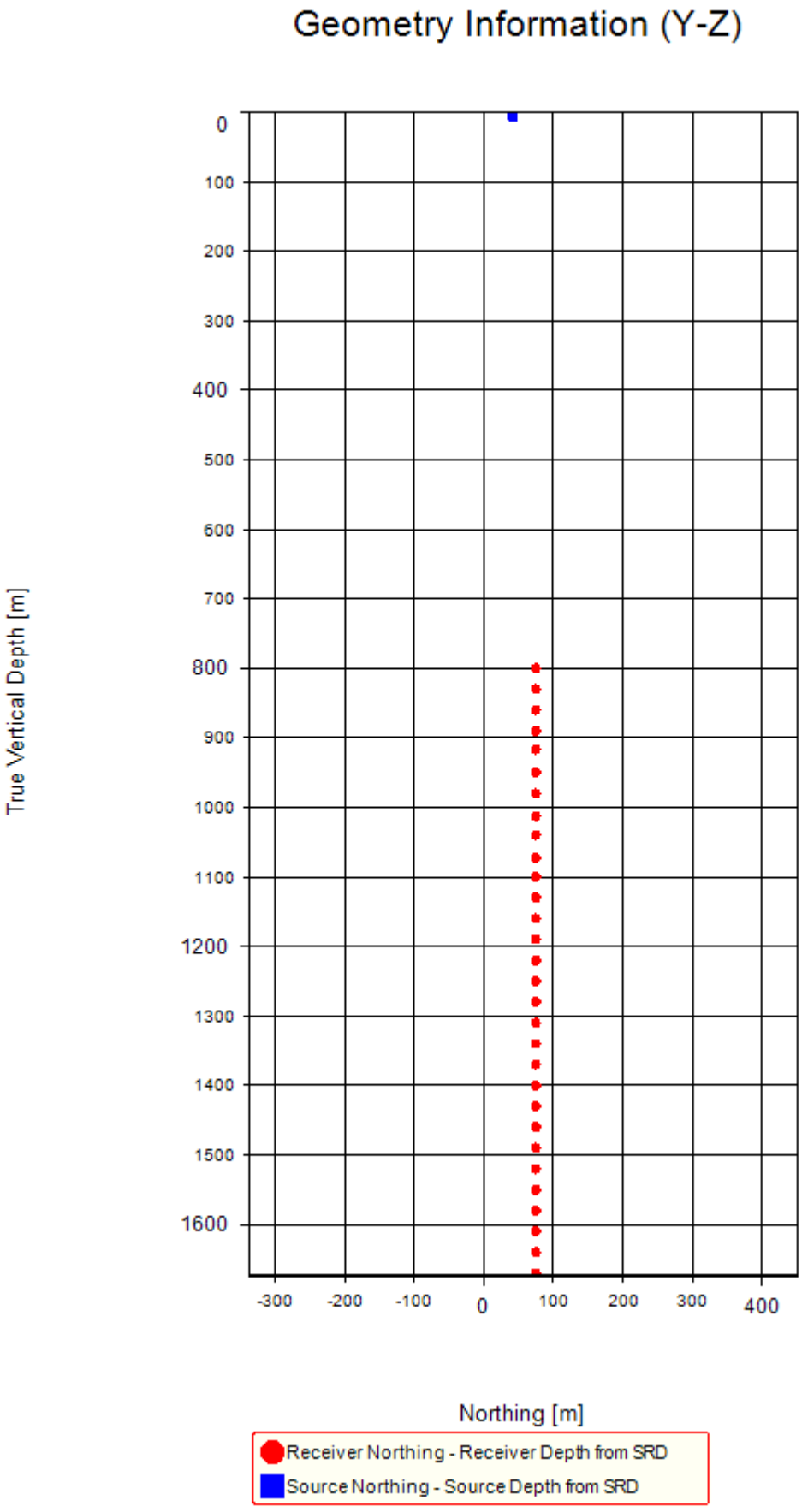
Geometry Information (X-Y)



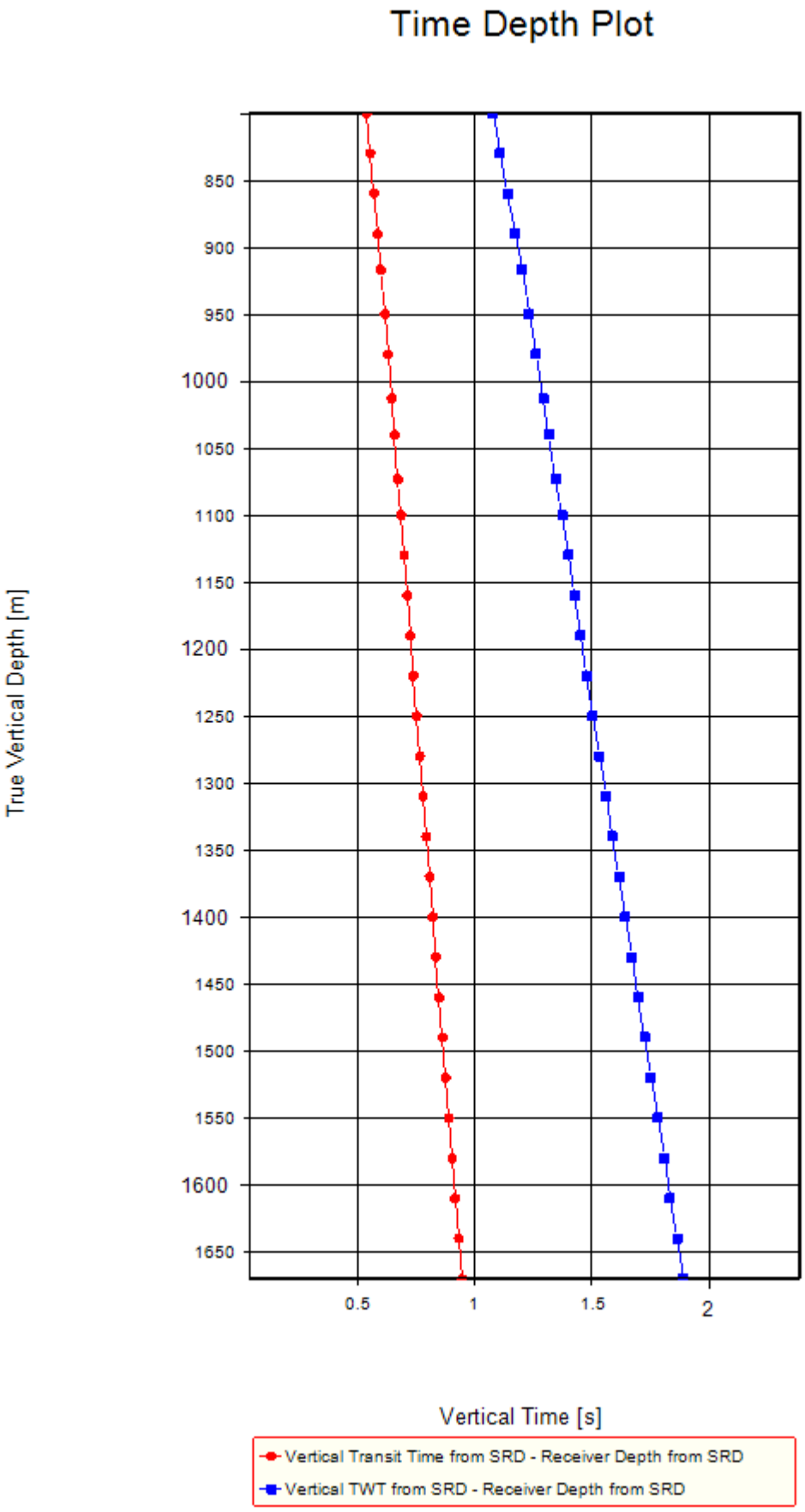
Geometry Information (X-Z)



Geometry Information (Y-Z)

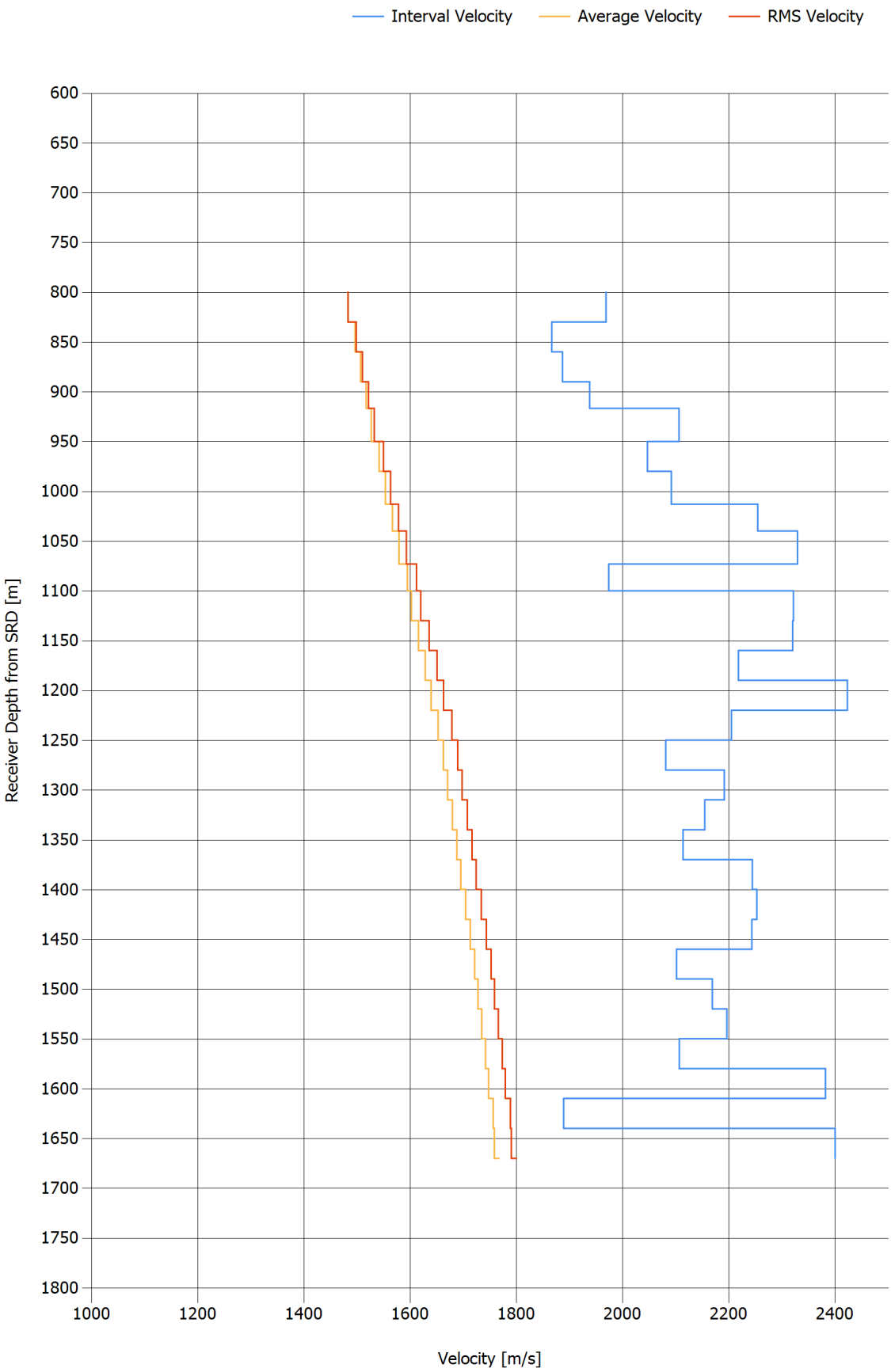


Time Depth Plot

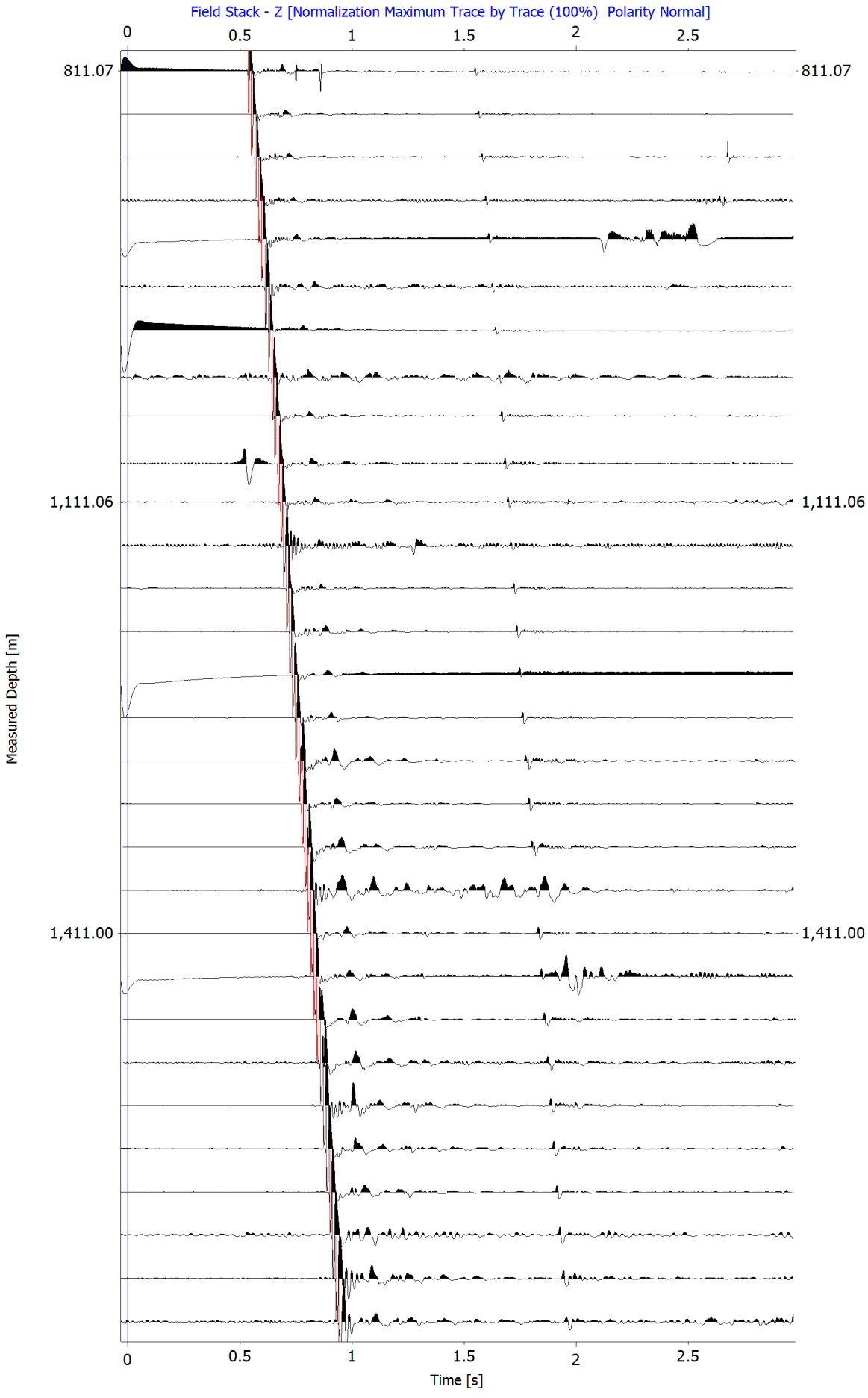


Velocity Plot

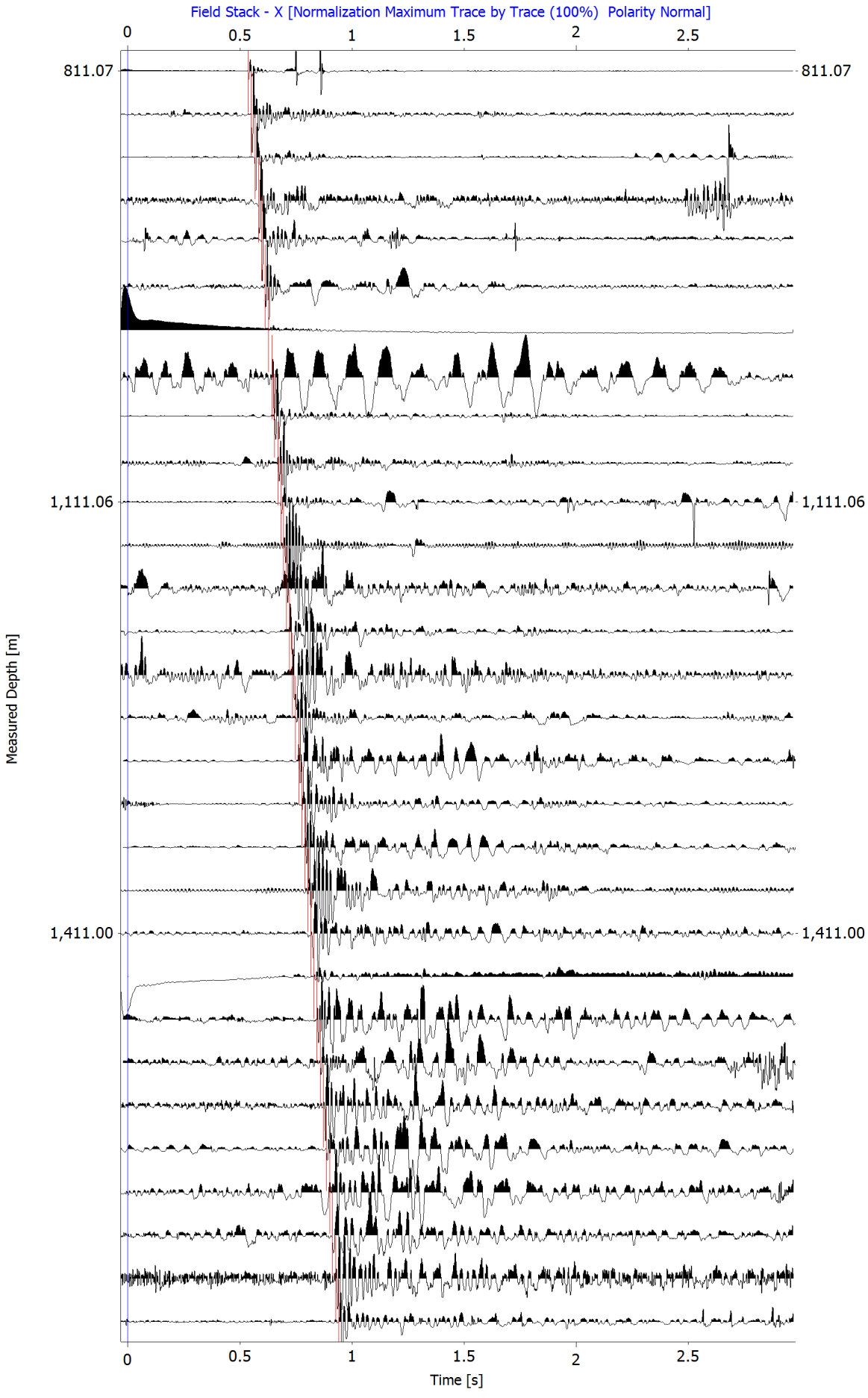
SRD below Measured Depth Zero = 11.40 m



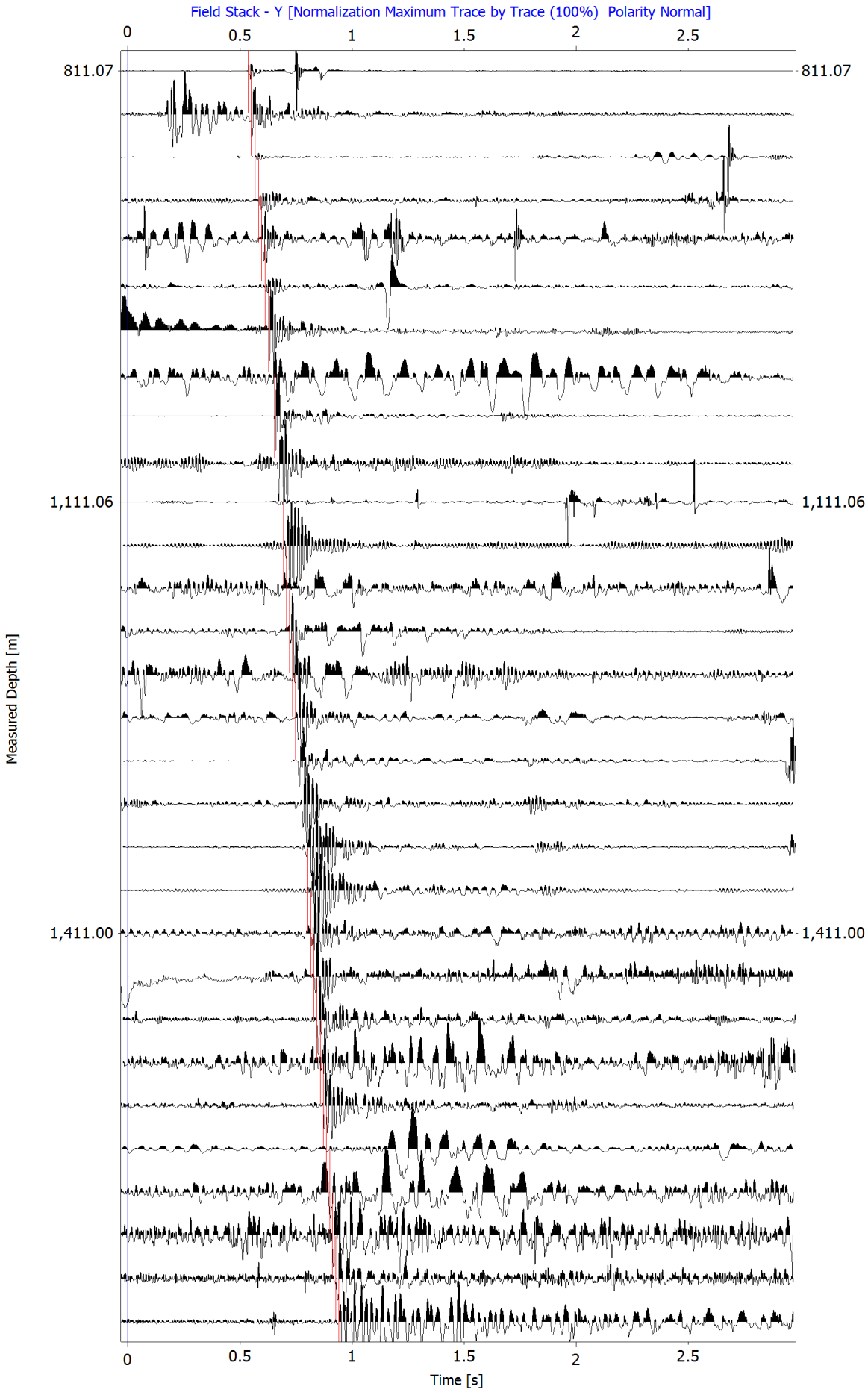
Field Stack (Z)



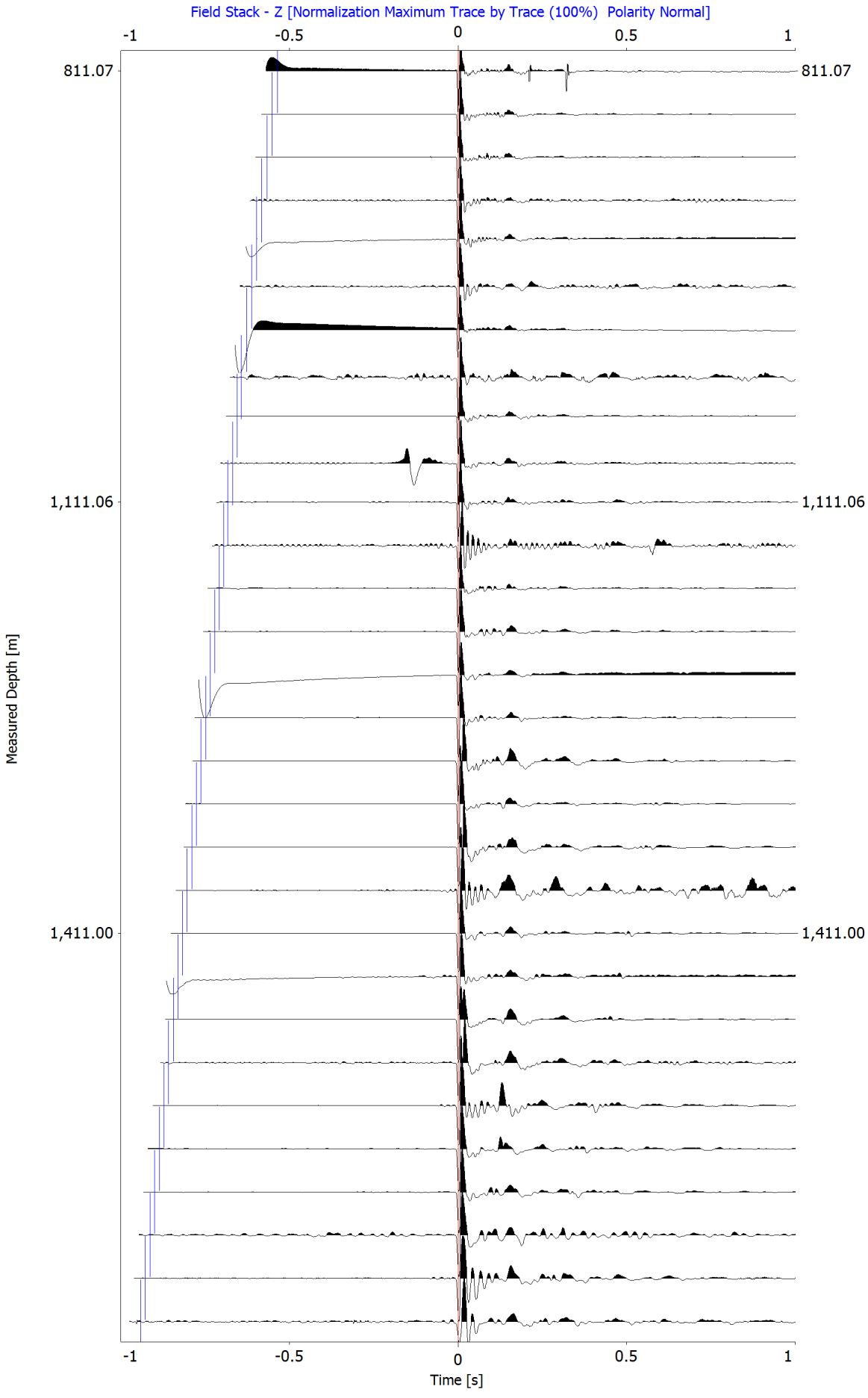
Field Stack (X)



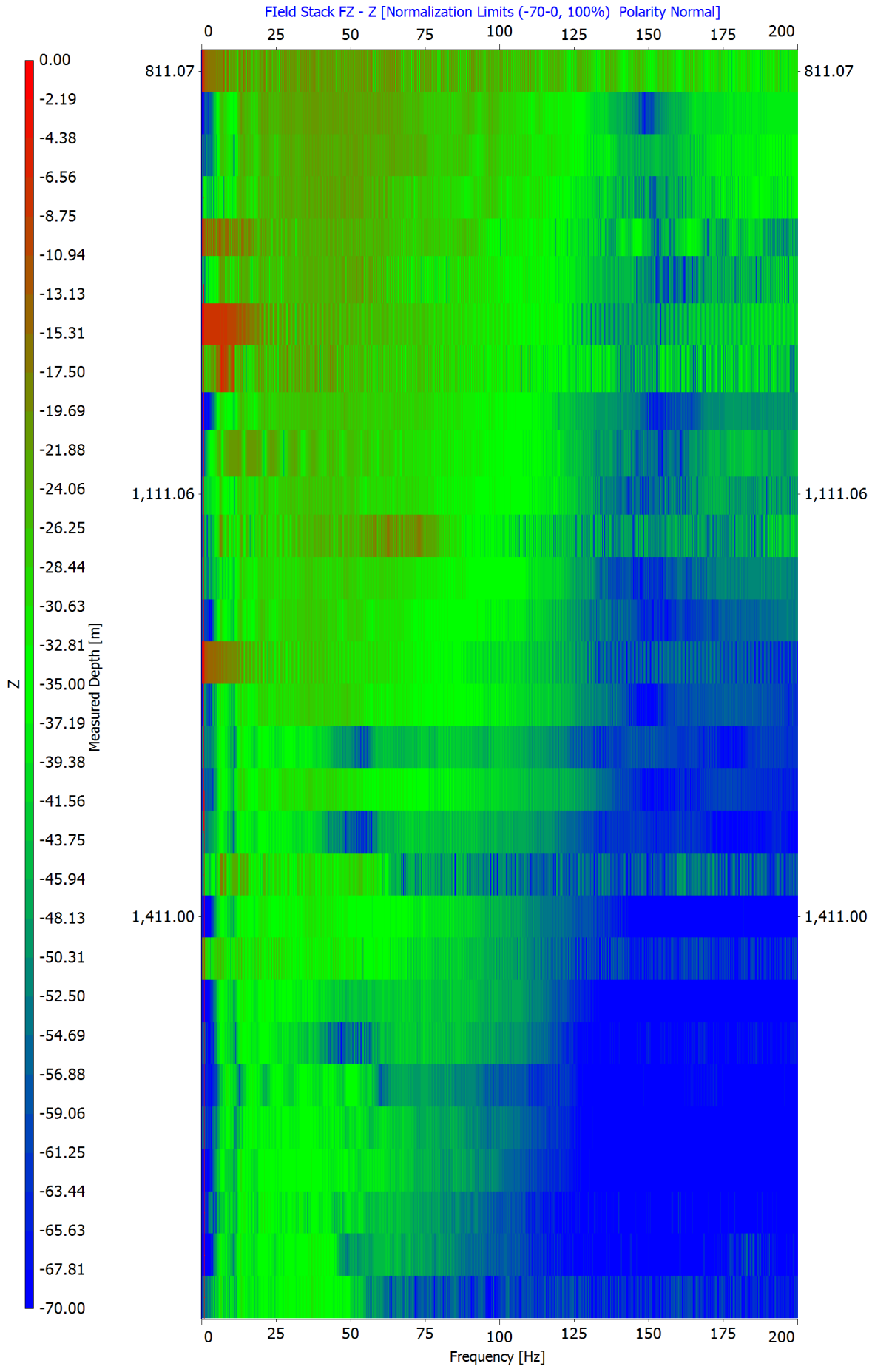
Field Stack (Y)



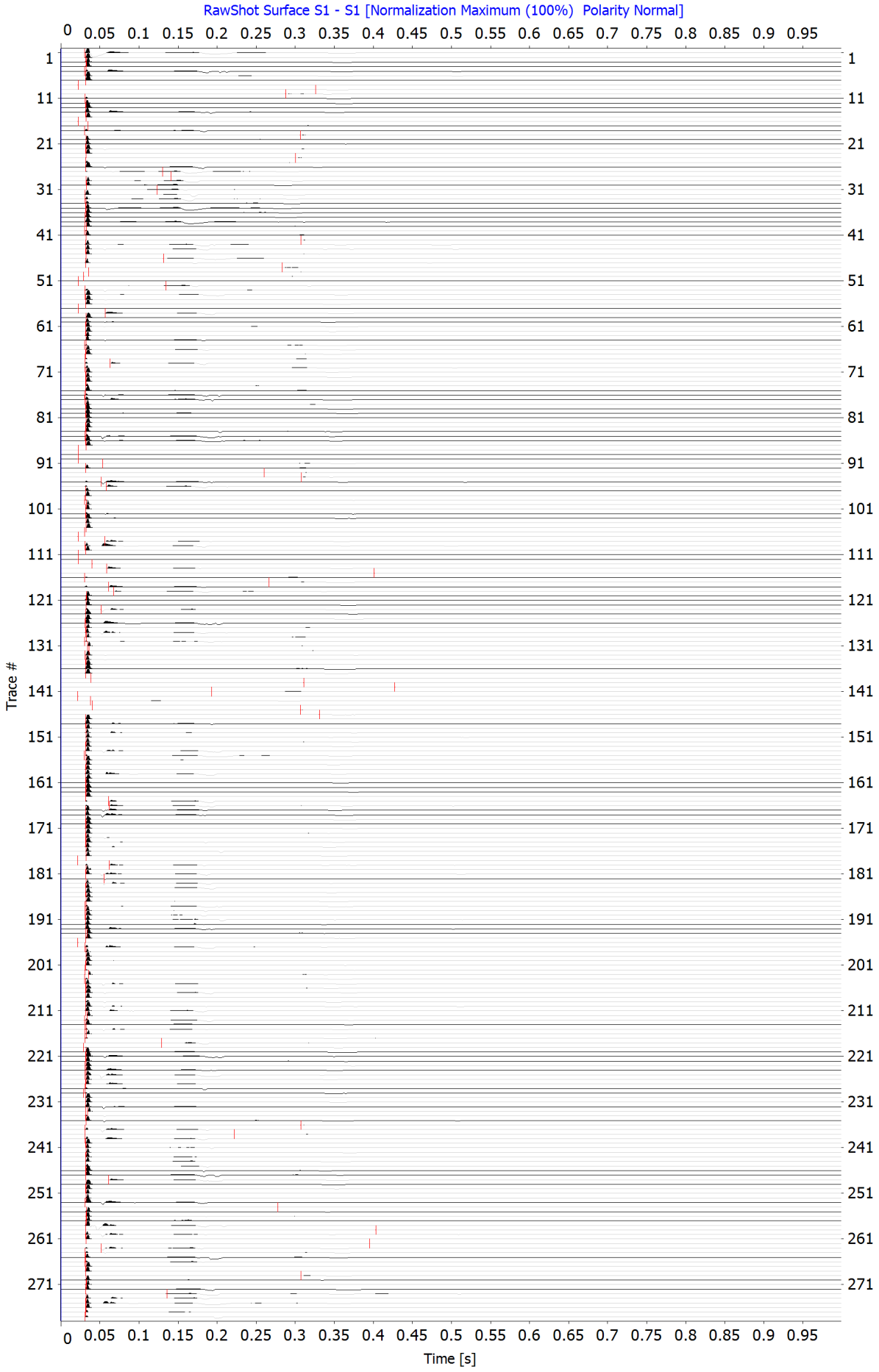
Field Stack (Z) (Magnified)



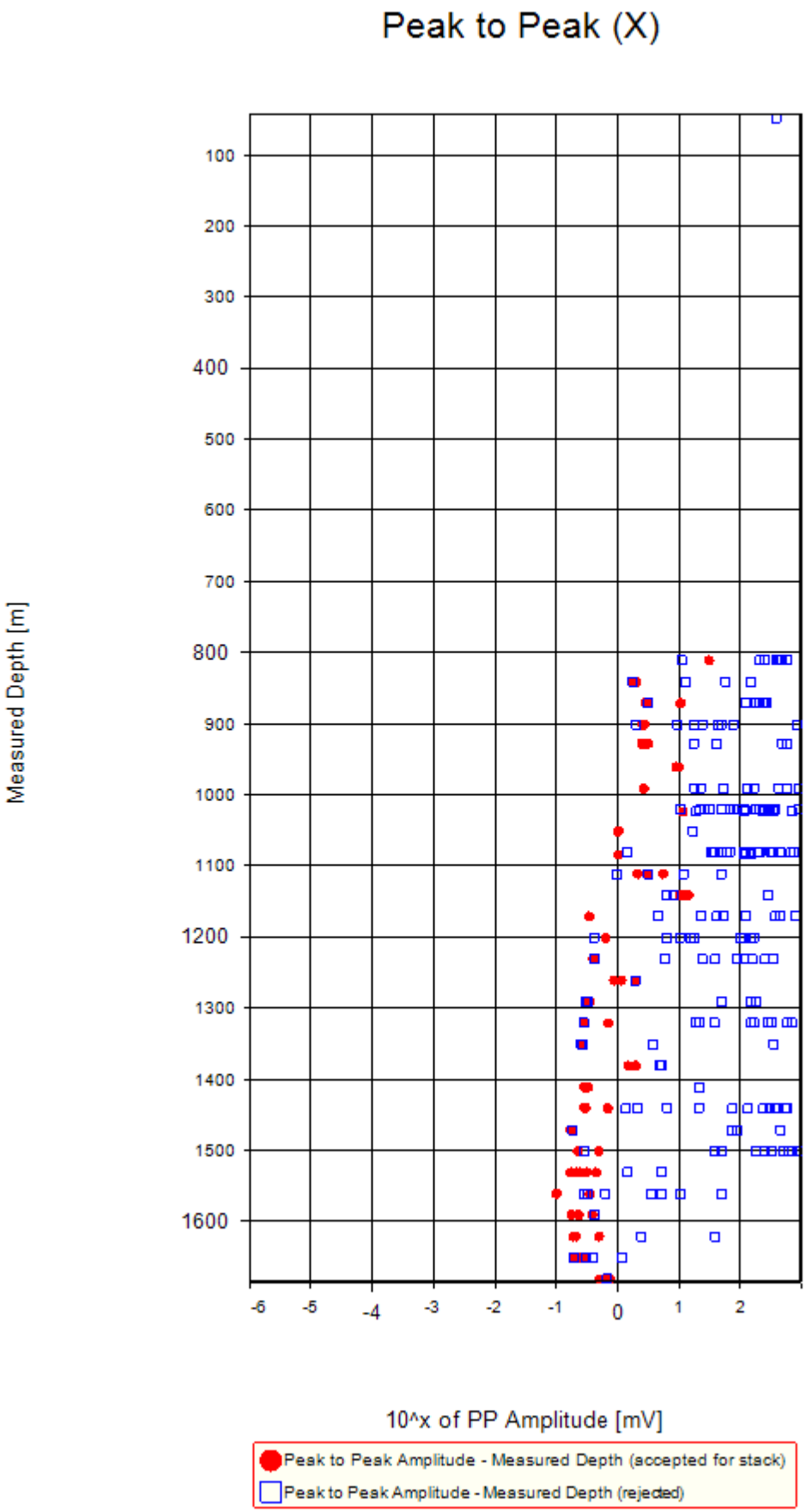
Field Stack (Z) FZ Spectrum



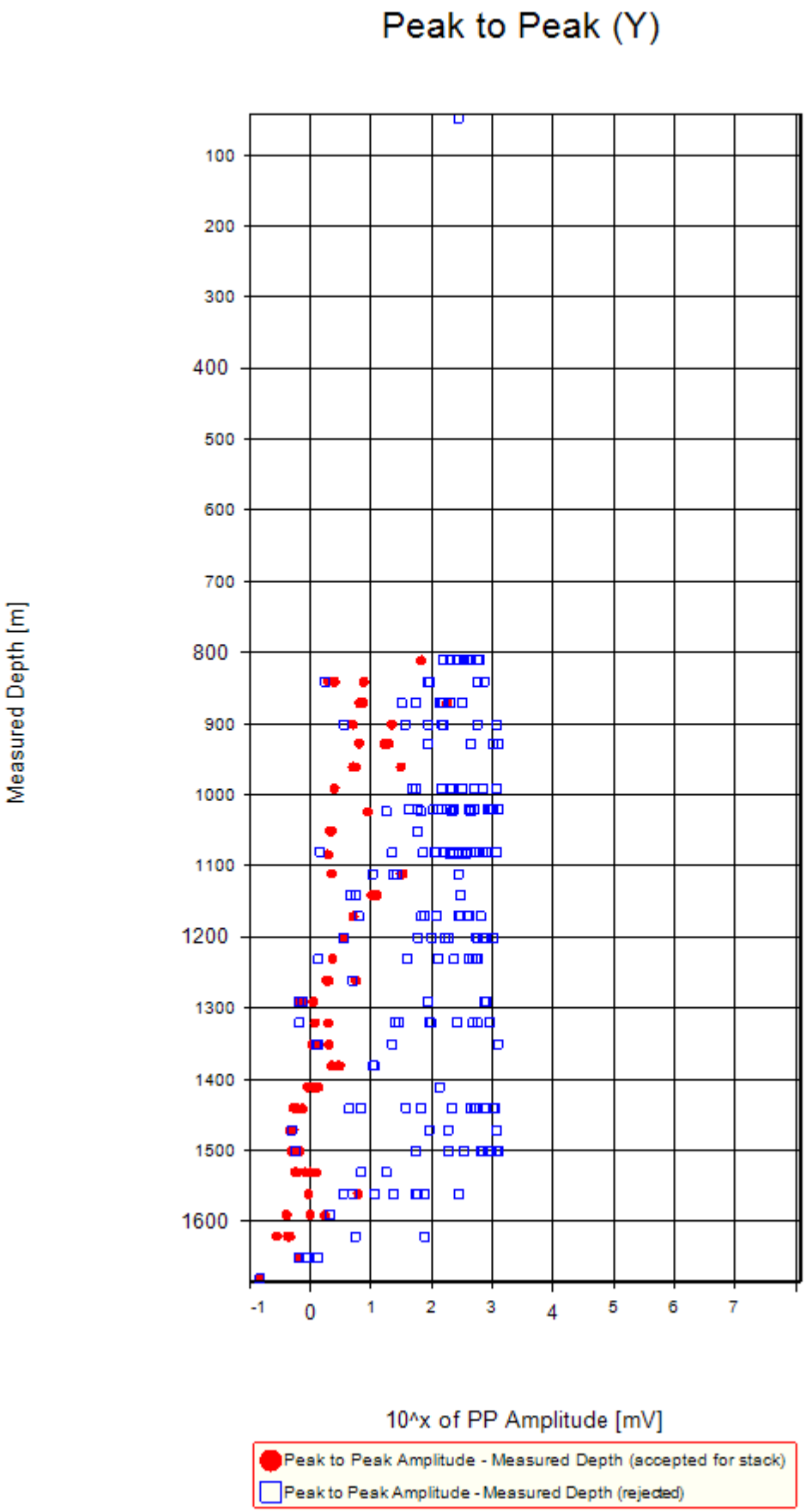
Source Sensor Signature



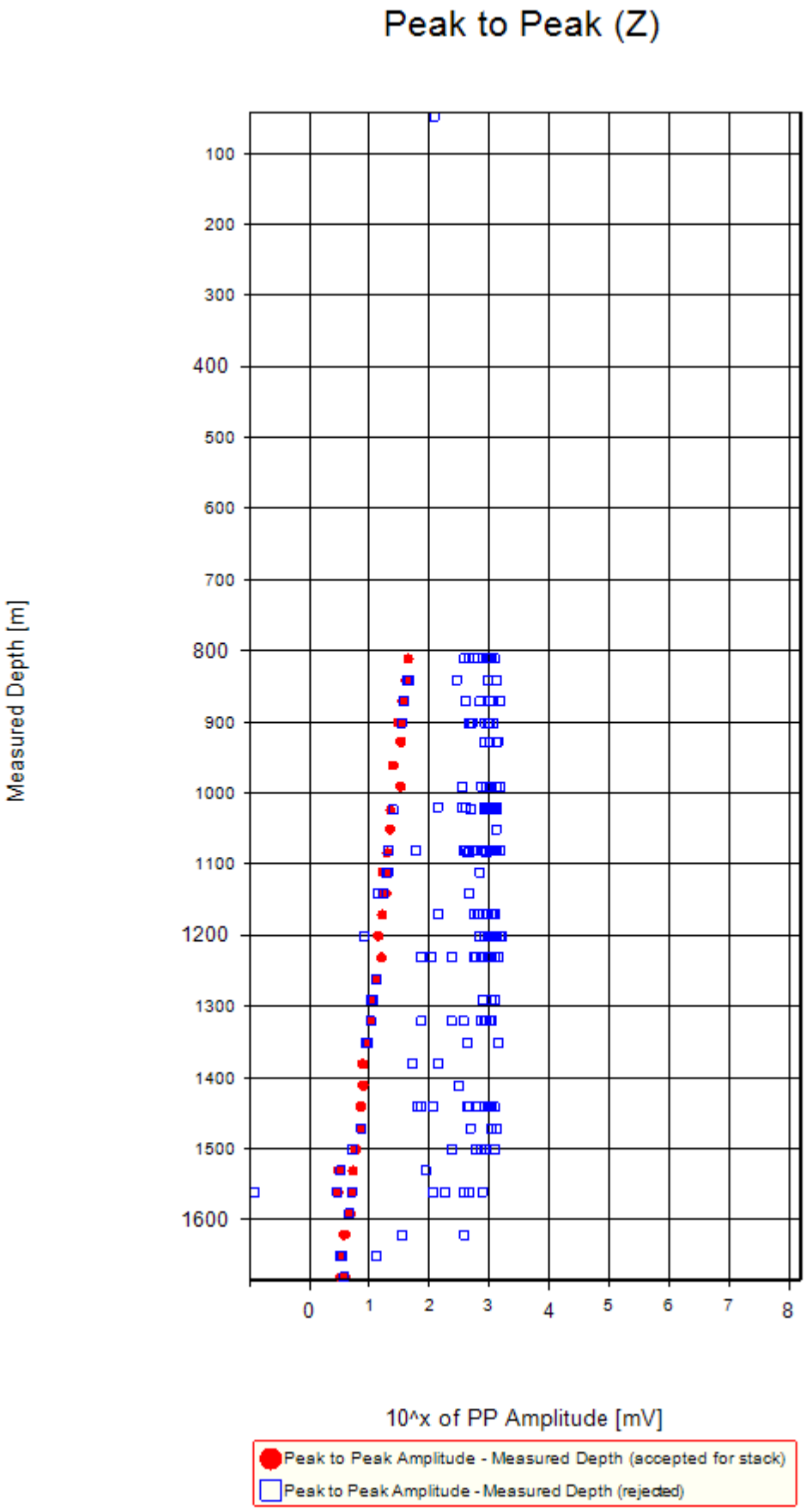
Peak To Peak Plot (X)



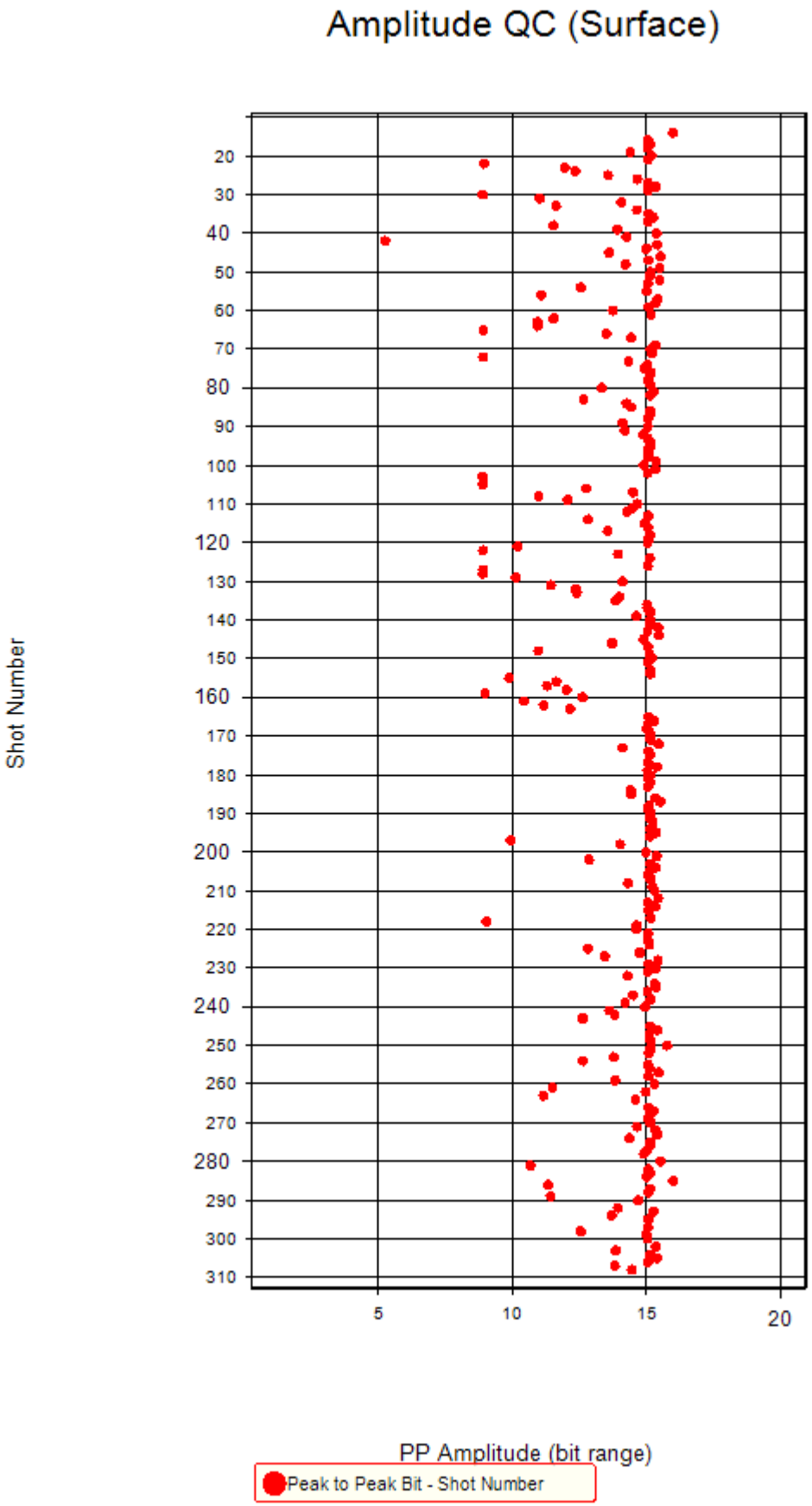
Peak To Peak Plot (Y)



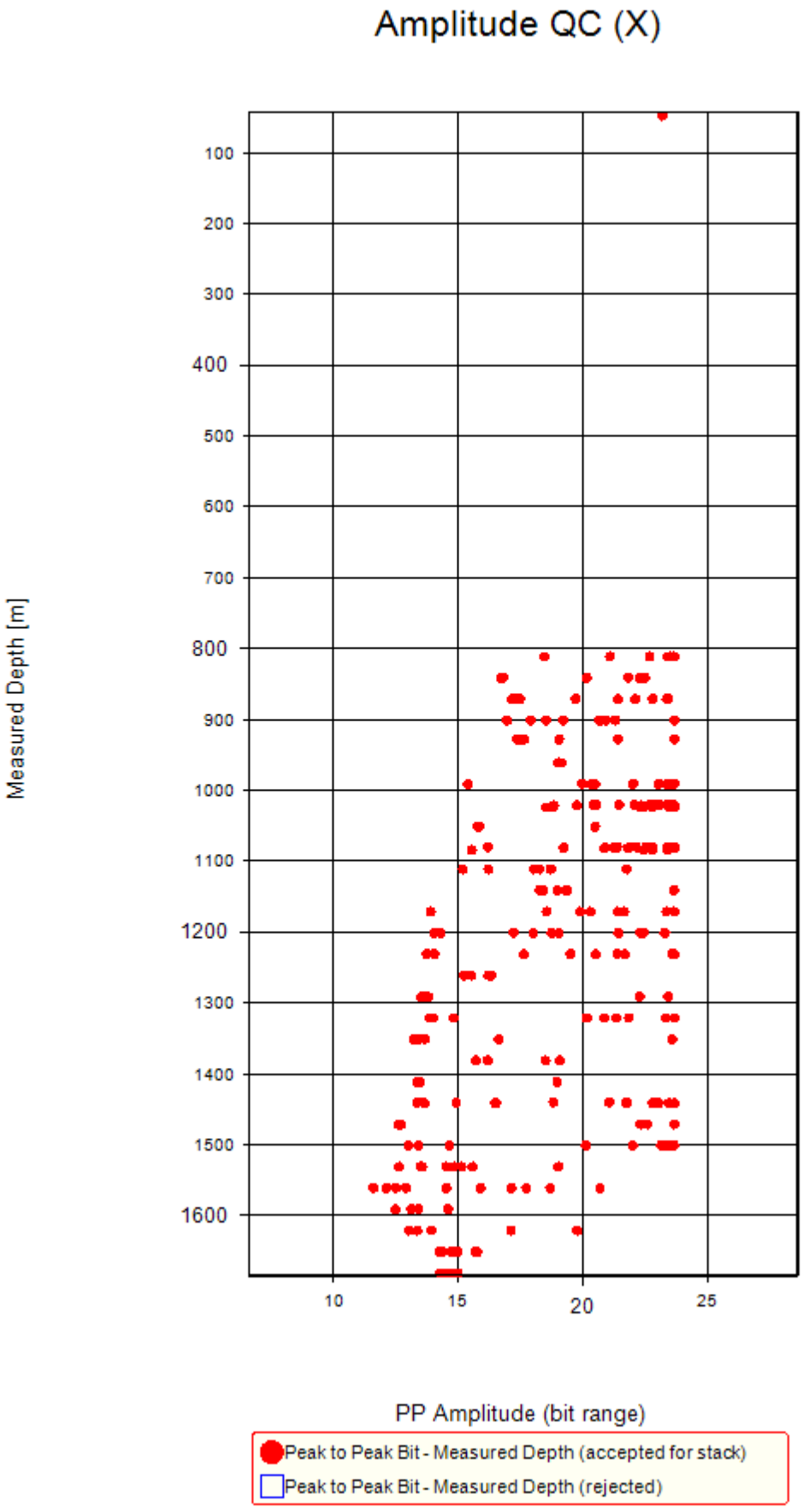
Peak To Peak Plot (Z)



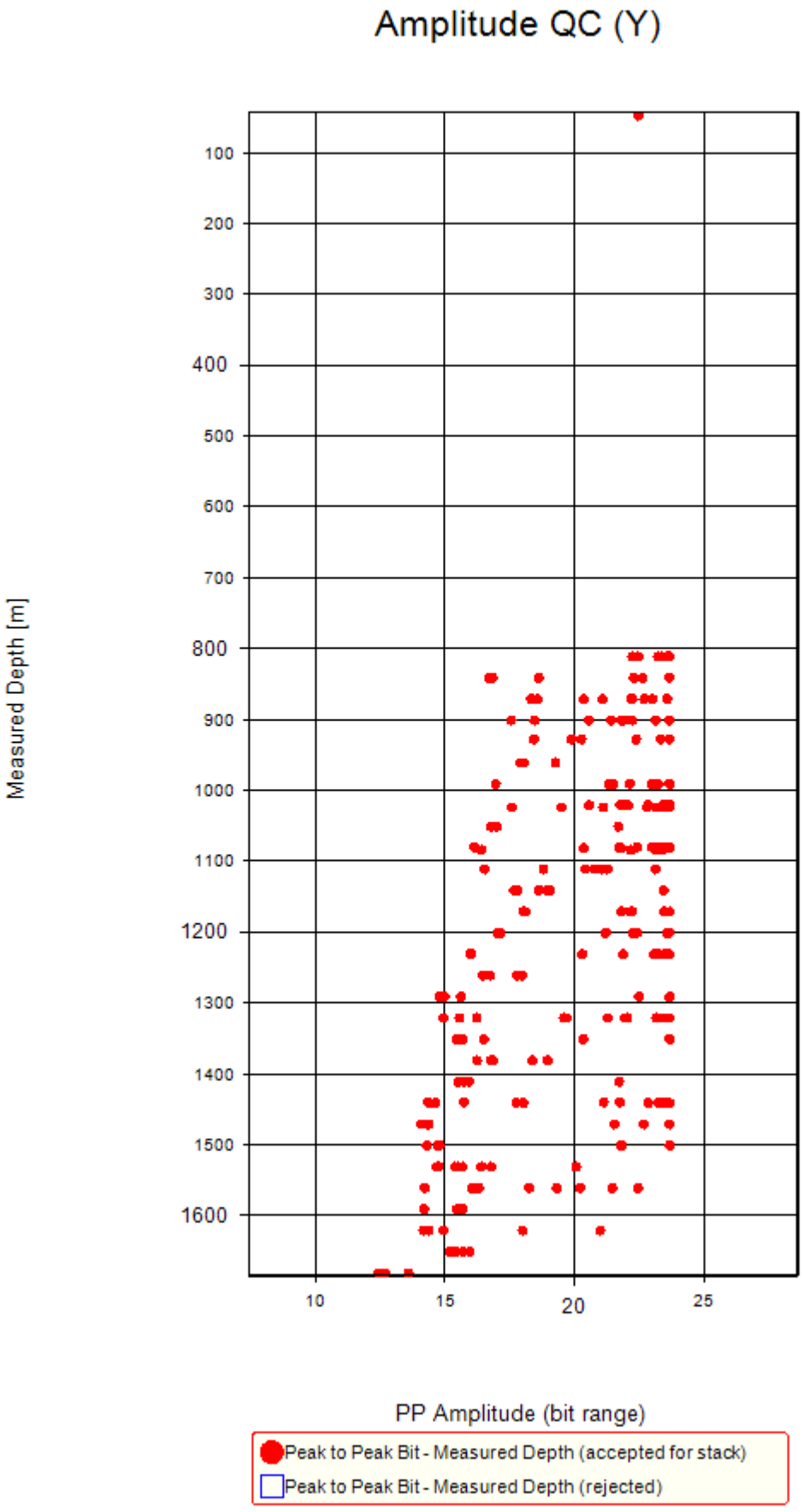
Amplitude QC Plot (Surface)



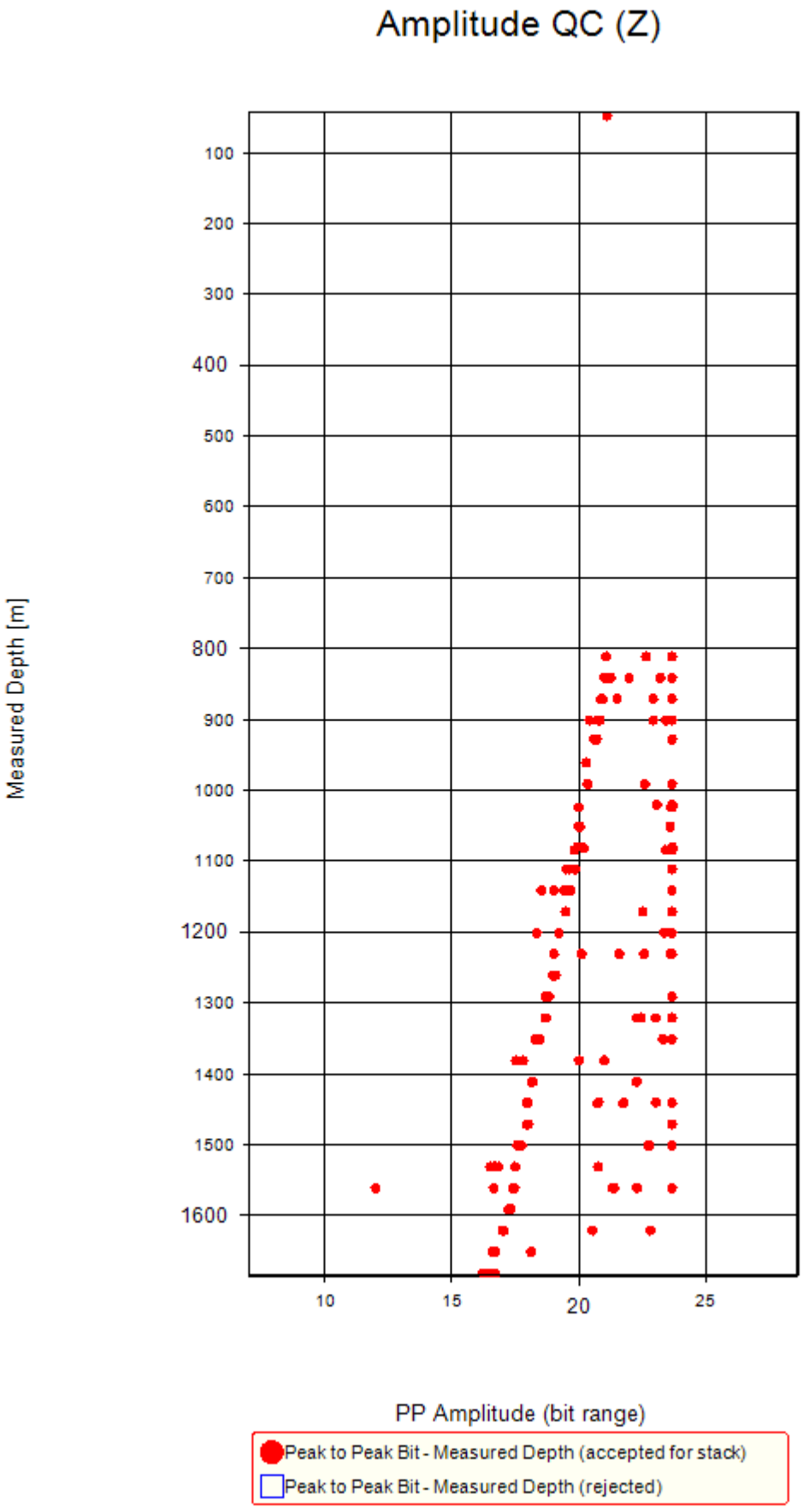
Amplitude QC Plot (X)



Amplitude QC Plot (Y)



Amplitude QC Plot (Z)



Observer's Note

Well depth[m]	Time(UTC)	Shot Type	Shot#	Stack#	Source	Remarks
NaN	12:34:06	ETHD	1			
NaN	12:34:16	GA01	2			
NaN	12:34:26	GA02	3			
NaN	12:34:36	GA04	4			
NaN	12:34:46	GA08	5			
NaN	12:34:57	GA16	6			
NaN	12:35:12	XTLK	7			
NaN	12:35:26	XTLK	8			
NaN	12:35:40	XTLK	9			
NaN	12:35:50	EIMP	10			
NaN	12:36:02	ENHI	11			
NaN	12:36:14	ENLO	12			
NaN	12:36:24	DRNG	13			
48.1	12:43:13	SHOT	14	1		Surface Test shot
1681.1	13:49:03	SHAK	15			
1681.1	13:50:06	SHOT	16	2		Discard
1681.1	13:50:52	SHOT	17	2		
1681.1	13:51:39	SHOT	18	2		
1681.1	13:52:09	SHOT	19	2		
1651.0	13:58:29	SHOT	20	3		
1651.0	13:59:02	SHOT	21	3		
1651.0	13:59:24	SHOT	22	3		
1651.0	14:00:00	SHOT	23	3		
1651.0	14:00:30	SHOT	24	3		
1651.0	14:01:24	SHOT	25	3		
1651.0	14:02:07	SHOT	26	3		
1620.9	14:07:09	SHOT	27	4		
1620.9	14:07:27	SHOT	28	4		
1620.9	14:07:45	SHOT	29	4		
1620.9	14:08:03	SHOT	30	4		
1620.9	14:08:30	SHOT	31	4		

Well depth[m]	Time(UTC)	Shot Type	Shot#	Stack#	Source	Remarks
1591.0	14:12:56	SHOT	32	5		
1591.0	14:13:28	SHOT	33	5		
1591.0	14:13:53	SHOT	34	5		
1591.0	14:14:19	SHOT	35	5		
1561.0	14:18:07	SHOT	36	6		
1561.0	14:18:26	SHOT	37	6		
1561.0	14:18:52	SHOT	38	6		
1561.0	14:19:21	SHOT	39	6		
1561.0	14:19:48	SHOT	40	6		
1561.0	14:20:14	SHOT	41	6		
1561.0	14:20:40	SHOT	42	6		
1561.0	14:21:08	SHOT	43	6		
1561.0	14:21:44	SHOT	44	6		
1561.0	14:22:17	SHOT	45	6		
1531.0	14:26:38	SHOT	46	7		
1531.0	14:27:06	SHOT	47	7		
1531.0	14:27:46	SHOT	48	7		
1531.0	14:28:15	SHOT	49	7		
1531.0	14:28:39	SHOT	50	7		
1531.0	14:29:14	SHOT	51	7		
1531.0	14:29:48	SHOT	52	7		
1531.0	14:30:22	SHOT	53	7		
1500.9	14:34:48	SHOT	54	8		
1500.9	14:35:15	SHOT	55	8		good
1500.9	14:35:38	SHOT	56	8		
1500.9	14:36:10	SHOT	57	8		
1500.9	14:36:48	SHOT	58	8		
1500.9	14:37:14	SHOT	59	8		
1500.9	14:37:32	SHOT	60	8		
1500.9	14:37:50	SHOT	61	8		
1500.9	14:38:08	SHOT	62	8		

Well depth[m]	Time(UTC)	Shot Type	Shot#	Stack#	Source	Remarks
1500.9	14:38:26	SHOT	63	8		
1500.9	14:38:44	SHOT	64	8		
1500.9	14:39:02	SHOT	65	8		
1500.9	14:39:20	SHOT	66	8		
1500.9	14:39:38	SHOT	67	8		
1471.1	14:44:55	SHOT	69	9		
1471.1	14:45:35	SHOT	70	9		
1471.1	14:46:15	SHOT	71	9		
1471.1	14:46:55	SHOT	72	9		
1471.1	14:47:35	SHOT	73	9		
1471.1	14:48:15	SHOT	74	9		
1471.1	14:49:05	SHOT	75	9		
1441.1	14:58:16	SHOT	76	10		
1441.1	14:58:56	SHOT	77	10		
1441.1	14:59:36	SHOT	78	10		
1441.1	15:00:16	SHOT	79	10		Good shot
1441.1	15:00:56	SHOT	80	10		
1441.1	15:01:36	SHOT	81	10		
1441.1	15:02:16	SHOT	82	10		
1441.1	15:02:56	SHOT	83	10		
1441.1	15:03:36	SHOT	84	10		
1441.1	15:04:16	SHOT	85	10		
1441.1	15:04:56	SHOT	86	10		
1441.1	15:05:36	SHOT	87	10		
1440.0	15:07:52	SHOT	88	11		
1440.0	15:08:32	SHOT	89	11		
1440.0	15:09:12	SHOT	90	11		
1440.0	15:09:52	SHOT	91	11		
1440.0	15:10:32	SHOT	92	11		
1411.0	15:14:29	SHOT	93	12		
1411.0	15:15:09	SHOT	94	12		

Well depth[m]	Time(UTC)	Shot Type	Shot#	Stack#	Source	Remarks
1411.0	15:15:49	SHOT	95	12		
1411.0	15:16:29	SHOT	96	12		
1381.1	15:20:28	SHOT	97	13		
1381.1	15:21:08	SHOT	98	13		
1381.1	15:21:48	SHOT	99	13		
1381.1	15:22:28	SHOT	100	13		
1381.1	15:23:08	SHOT	101	13		
1351.1	15:27:24	SHOT	102	14		
1351.1	15:28:04	SHOT	103	14		
1351.1	15:28:44	SHOT	104	14		
1351.1	15:29:24	SHOT	105	14		
1351.1	15:30:04	SHOT	106	14		
1351.1	15:30:44	SHOT	107	14		
1351.1	15:31:24	SHOT	108	14		
1351.1	15:32:04	SHOT	109	14		
1351.1	15:32:44	SHOT	110	14		
1351.1	15:33:24	SHOT	111	14		
1351.1	15:34:09	SHOT	112	14		
1321.0	15:39:43	SHOT	113	15		
1321.0	15:40:23	SHOT	114	15		
1321.0	15:41:03	SHOT	115	15		
1321.0	15:41:43	SHOT	116	15		
1321.0	15:42:23	SHOT	117	15		
1321.0	15:43:03	SHOT	118	15		
1321.0	15:43:43	SHOT	119	15		
1321.0	15:44:23	SHOT	120	15		
1321.0	15:45:03	SHOT	121	15		
1321.0	15:45:43	SHOT	122	15		
1321.0	15:46:23	SHOT	123	15		
1321.0	15:47:03	SHOT	124	15		
1291.1	15:51:26	SHOT	126	16		

Well depth[m]	Time(UTC)	Shot Type	Shot#	Stack#	Source	Remarks
1291.1	15:52:06	SHOT	127	16		ok shot
1291.1	15:52:46	SHOT	128	16		ok shot
1291.1	15:53:26	SHOT	129	16		
1291.1	15:54:06	SHOT	130	16		
1291.1	15:54:46	SHOT	131	16		
1291.1	15:55:26	SHOT	132	16		Great shot
1291.1	15:56:07	SHOT	133	16		
1291.1	15:56:47	SHOT	134	16		
1291.1	15:57:27	SHOT	135	16		
1291.1	15:58:07	SHOT	136	16		Great shot
1261.1	16:03:15	SHOT	137	17		
1261.1	16:03:56	SHOT	138	17		
1261.1	16:04:36	SHOT	139	17		
1261.1	16:05:16	SHOT	140	17		
1231.1	16:09:08	SHOT	141	18		
1231.1	16:09:48	SHOT	142	18		
1231.1	16:10:28	SHOT	143	18		
1231.1	16:11:08	SHOT	144	18		maybe ok - reject for now
1231.1	16:11:48	SHOT	145	18		
1231.1	16:12:28	SHOT	146	18		
1231.1	16:13:08	SHOT	147	18		
1231.1	16:13:48	SHOT	148	18		
1231.1	16:14:28	SHOT	149	18		
1231.1	16:15:08	SHOT	150	18		
1231.1	16:15:48	SHOT	151	18		
1200.9	16:20:12	SHOT	153	19		Only good one at this station
1200.9	16:20:52	SHOT	154	19		
1200.9	16:21:32	SHOT	155	19		
1200.9	16:22:12	SHOT	156	19		
1200.9	16:22:52	SHOT	157	19		
1200.9	16:23:32	SHOT	158	19		

Well depth[m]	Time(UTC)	Shot Type	Shot#	Stack#	Source	Remarks
1200.9	16:24:12	SHOT	159	19		
1200.9	16:24:52	SHOT	160	19		
1200.9	16:25:32	SHOT	161	19		
1200.9	16:26:12	SHOT	162	19		
1200.9	16:26:52	SHOT	163	19		
1171.0	16:31:03	SHOT	165	20		
1171.0	16:31:43	SHOT	166	20		
1171.0	16:32:23	SHOT	167	20		
1171.0	16:33:03	SHOT	168	20		
1171.0	16:33:43	SHOT	169	20		
1171.0	16:34:23	SHOT	170	20		
1171.0	16:35:03	SHOT	171	20		
1171.0	16:35:43	SHOT	172	20		
1171.0	16:36:23	SHOT	173	20		
1171.0	16:37:03	SHOT	174	20		
1171.0	16:37:43	SHOT	175	20		
1141.1	16:42:07	SHOT	177	21		
1141.1	16:42:47	SHOT	178	21		
1141.1	16:43:27	SHOT	179	21		
1141.1	16:44:08	SHOT	180	21		
1141.1	16:44:47	SHOT	181	21		
1141.1	16:45:28	SHOT	182	21		
1111.1	16:50:02	SHOT	183	22		
1111.1	16:50:42	SHOT	184	22		
1111.1	16:51:22	SHOT	185	22		
1111.1	16:52:02	SHOT	186	22		good shot
1111.1	16:52:42	SHOT	187	22		good shot
1111.1	16:53:22	SHOT	188	22		
1111.1	16:54:02	SHOT	189	22		good shot
1081.1	16:58:11	SHOT	190	23		
1081.1	16:58:51	SHOT	191	23		

Well depth[m]	Time(UTC)	Shot Type	Shot#	Stack#	Source	Remarks
1081.1	16:59:31	SHOT	192	23		
1081.1	17:00:11	SHOT	193	23		
1081.1	17:00:51	SHOT	194	23		
1081.1	17:01:31	SHOT	195	23		
1081.1	17:02:11	SHOT	196	23		come back to it
1081.1	17:02:51	SHOT	197	23		
1081.1	17:03:31	SHOT	198	23		
1081.1	17:04:30	SHOT	200	23		
1080.0	17:07:05	SHOT	201	24		
1080.0	17:07:45	SHOT	202	24		
1080.0	17:08:25	SHOT	203	24		
1080.0	17:09:05	SHOT	204	24		
1080.0	17:09:45	SHOT	205	24		
1080.0	17:10:25	SHOT	206	24		
1080.0	17:11:05	SHOT	207	24		
1080.0	17:11:45	SHOT	208	24		
1080.0	17:12:25	SHOT	209	24		
1080.0	17:13:05	SHOT	210	24		
1051.0	17:17:02	SHOT	212	25		
1051.0	17:17:42	SHOT	213	25		
1051.0	17:18:22	SHOT	214	25		
1051.0	17:19:02	SHOT	215	25		
1021.1	17:23:10	SHAK	216			Shaker Test
1021.1	17:23:27	SHOT	217	26		
1021.1	17:24:07	SHOT	218	26		
1021.1	17:24:47	SHOT	219	26		
1021.1	17:25:27	SHOT	220	26		
1021.1	17:26:08	SHOT	221	26		
1020.1	17:28:26	SHOT	223	27		
1020.1	17:29:06	SHOT	224	27		
1020.1	17:29:46	SHOT	225	27		

Well depth[m]	Time(UTC)	Shot Type	Shot#	Stack#	Source	Remarks
1020.1	17:30:26	SHOT	226	27		
1020.1	17:31:06	SHOT	227	27		
1020.1	17:31:46	SHOT	228	27		not very good
1020.1	17:32:26	SHOT	229	27		
1020.1	17:33:06	SHOT	230	27		
1020.1	17:33:46	SHOT	231	27		
1020.1	17:34:26	SHOT	232	27		
991.1	17:38:39	SHOT	234	28		
991.1	17:39:19	SHOT	235	28		
991.1	17:39:59	SHOT	236	28		
991.1	17:40:39	SHOT	237	28		
991.1	17:41:19	SHOT	238	28		
991.1	17:41:59	SHOT	239	28		
991.1	17:42:39	SHOT	240	28		
991.1	17:43:19	SHOT	241	28		
991.1	17:43:59	SHOT	242	28		
991.1	17:44:39	SHOT	243	28		
961.1	17:48:46	SHOT	245	29		
961.1	17:49:26	SHOT	246	29		
961.1	17:50:06	SHOT	247	29		
927.8	17:54:21	SHOT	248	30		
927.8	17:55:01	SHOT	249	30		
927.8	17:55:41	SHOT	250	30		
927.8	17:56:21	SHOT	251	30		
927.8	17:57:01	SHOT	252	30		
927.8	17:57:41	SHOT	253	30		
927.8	17:58:22	SHOT	254	30		
901.1	18:02:23	SHOT	255	31		
901.1	18:03:03	SHOT	256	31		
901.1	18:03:43	SHOT	257	31		Good shot
901.1	18:04:23	SHOT	258	31		

Well depth[m]	Time(UTC)	Shot Type	Shot#	Stack#	Source	Remarks
901.1	18:05:03	SHOT	259	31		
901.1	18:05:43	SHOT	260	31		Good shot
901.1	18:06:23	SHOT	261	31		
901.1	18:07:03	SHOT	262	31		
901.1	18:07:43	SHOT	263	31		
901.1	18:08:23	SHOT	264	31		
871.1	18:12:35	SHOT	266	32		
871.1	18:13:15	SHOT	267	32		
871.1	18:13:55	SHOT	268	32		
871.1	18:14:35	SHOT	269	32		
871.1	18:15:15	SHOT	270	32		
871.1	18:15:55	SHOT	271	32		
871.1	18:16:35	SHOT	272	32		
871.1	18:17:15	SHOT	273	32		
871.1	18:17:55	SHOT	274	32		
871.1	18:18:35	SHOT	275	32		
841.0	18:22:35	SHOT	276	33		
841.0	18:23:15	SHOT	277	33		
841.0	18:23:55	SHOT	278	33		
841.0	18:26:41	SHOT	280	33		good shot
841.0	18:27:21	SHOT	281	33		needs adjusting
841.0	18:28:01	SHOT	282	33		good shot
841.0	18:28:41	SHOT	283	33		
841.0	18:29:21	SHOT	284	33		good shot
811.1	18:33:41	SHOT	285	34		barely acceptable
811.1	18:34:21	SHOT	286	34		maybe ok
811.1	18:35:01	SHOT	287	34		
811.1	18:35:41	SHOT	288	34		
811.1	18:36:21	SHOT	289	34		
811.1	18:37:01	SHOT	290	34		
811.1	18:38:41	SHOT	292	34		

Well depth[m]	Time(UTC)	Shot Type	Shot#	Stack#	Source	Remarks
811.1	18:39:21	SHOT	293	34		
811.1	18:40:01	SHOT	294	34		
811.1	18:40:41	SHOT	295	34		
1084.1	18:57:28	SHOT	297	35		bad
1084.1	18:58:08	SHOT	298	35		
1084.1	18:58:48	SHOT	299	35		repick - good after repick
1084.1	18:59:28	SHOT	300	35		
1024.1	19:04:05	SHOT	302	36		
1024.1	19:04:44	SHOT	303	36		
1024.1	19:05:25	SHOT	304	36		
1024.1	19:06:05	SHOT	305	36		
1024.1	19:06:45	SHOT	306	36		
1024.1	19:07:25	SHOT	307	36		
1024.1	19:08:05	SHOT	308	36		

Test Evaluation Report

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Total Harmonic Distortion	1	X	-102.30	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Y	-103.83	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Z	-103.62	dB	-	-90.0000	PASS

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.15	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.00	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.15	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.00	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.15	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.00	dB	-0.5000	0.5000	PASS

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.14	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.00	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.15	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.00	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.15	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.00	dB	-0.5000	0.5000	PASS

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.14	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.00	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.15	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.00	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.14	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.00	dB	-0.5000	0.5000	PASS

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

AMPLIFIER GAIN x16 TEST **9/25/2023 10:34:46 AM (UTC-02:00)** **Shot No: 5** **Station Depth: None**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.14	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.01	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.15	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.00	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.14	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.01	dB	-0.5000	0.5000	PASS

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

AMPLIFIER GAIN x32 TEST **9/25/2023 10:34:57 AM (UTC-02:00)** **Shot No: 6** **Station Depth: None**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.14	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.00	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.16	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.00	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.14	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.01	dB	-0.5000	0.5000	PASS

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk X-Y	1	-	-100.67	dB	-	-90.00000	PASS
Cross Talk X-Z	1	-	-98.86	dB	-	-90.00000	PASS

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk Y-Z	1	-	-98.42	dB	-	-90.00000	PASS
Cross Talk Y-X	1	-	-100.07	dB	-	-90.00000	PASS

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk Z-X	1	-	-97.14	dB	-	-90.00000	PASS
Cross Talk X-Y	1	-	-96.85	dB	-	-90.00000	PASS

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Amplitude (0.3Hz)	1	X	-1.68	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	X	-3.67	dB	-5.0000	-	PASS
Impulse Amplitude	1	X	574.02	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	X	0.00	degree	-	-	-
Amplitude (0.3Hz)	1	Y	-1.76	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Y	-3.67	dB	-5.0000	-	PASS
Impulse Amplitude	1	Y	574.54	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Y	0.78	degree	-	-	-
Amplitude (0.3Hz)	1	Z	-1.73	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Z	-3.67	dB	-5.0000	-	PASS
Impulse Amplitude	1	Z	574.14	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Z	0.43	degree	-	-	-

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.00	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.12	micro V	-	0.5000	PASS
Noise Peak	1	X	0.48	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.50	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.12	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.40	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.00	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.12	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.49	micro V	-	2.0000	PASS

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.39	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.12	micro V	-	0.5000	PASS
Noise Peak	1	X	0.40	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.53	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.12	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.39	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.39	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.12	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.44	micro V	-	2.0000	PASS

Test Name	Date	Shot No	Station Depth
Test Name	**Date**	**Shot No**	**Station Depth**

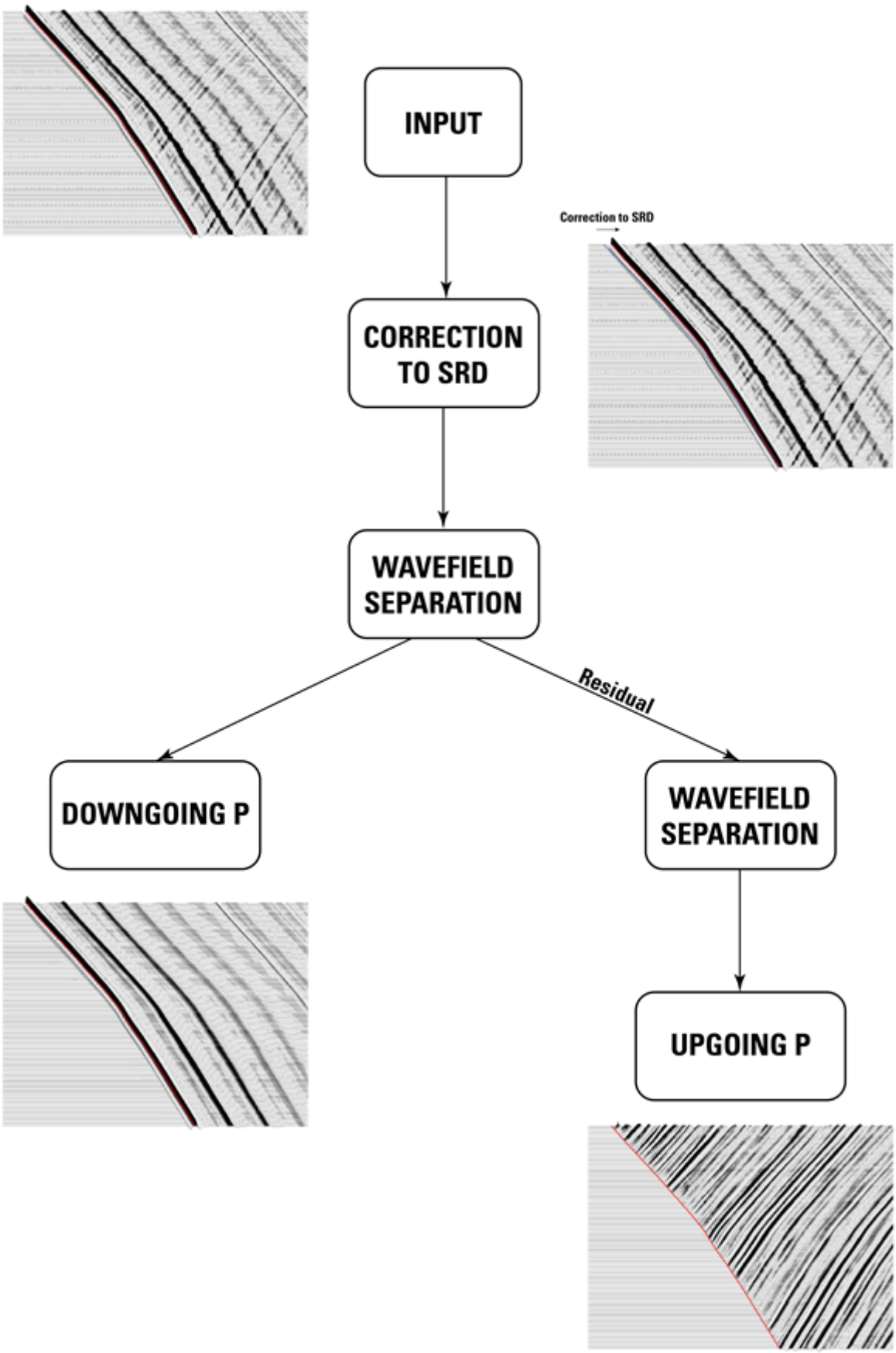
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
System Dynamic Range	1	X	107.23	dB	103.0000	-	PASS
System Dynamic Range	1	Y	107.51	dB	103.0000	-	PASS
System Dynamic Range	1	Z	106.89	dB	103.0000	-	PASS

Correlation

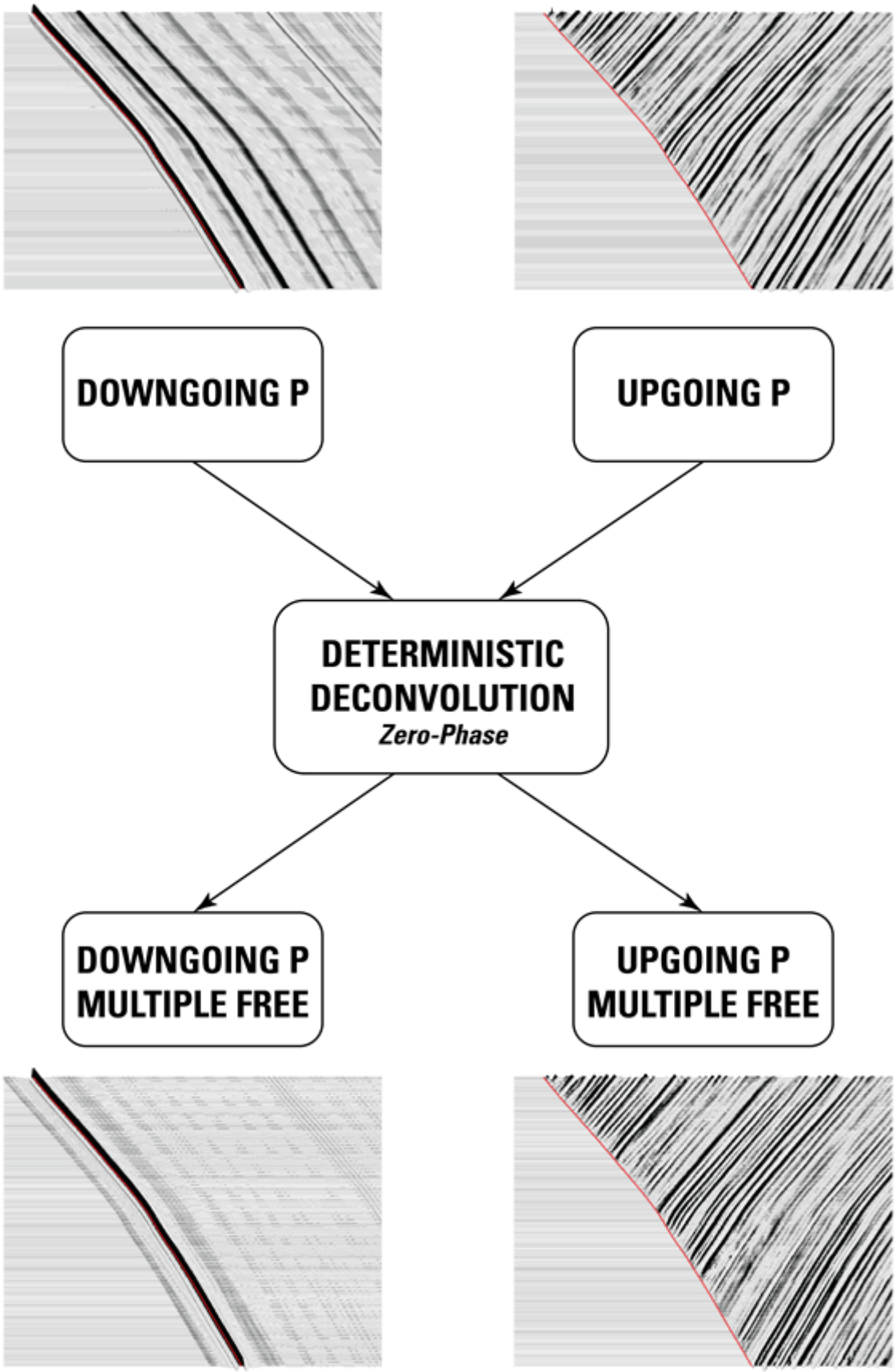
GR Depth Correlation Log

ZVSP Processing

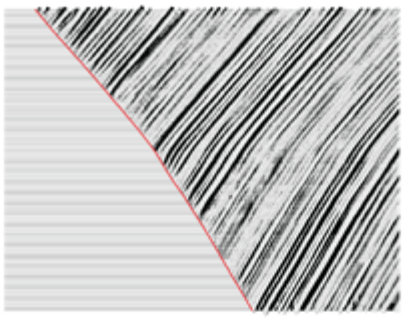
Processing - Wavefield Separation



Processing - Deconvolution

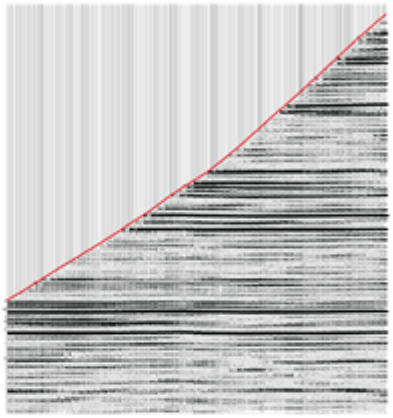


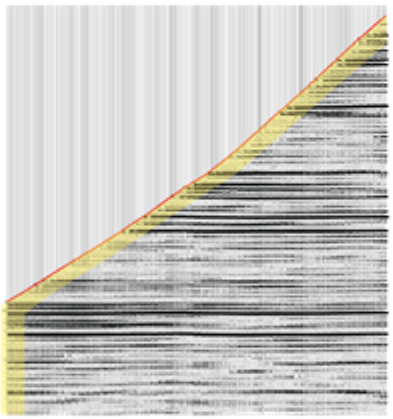
Processing - Corridor Stack



UPGOING P
MULTIPLE FREE
ZERO PHASE

ONE-WAY TIME
TO
TWO-WAY TIME
CONVERSION





CORRIDOR STACK
WINDOW

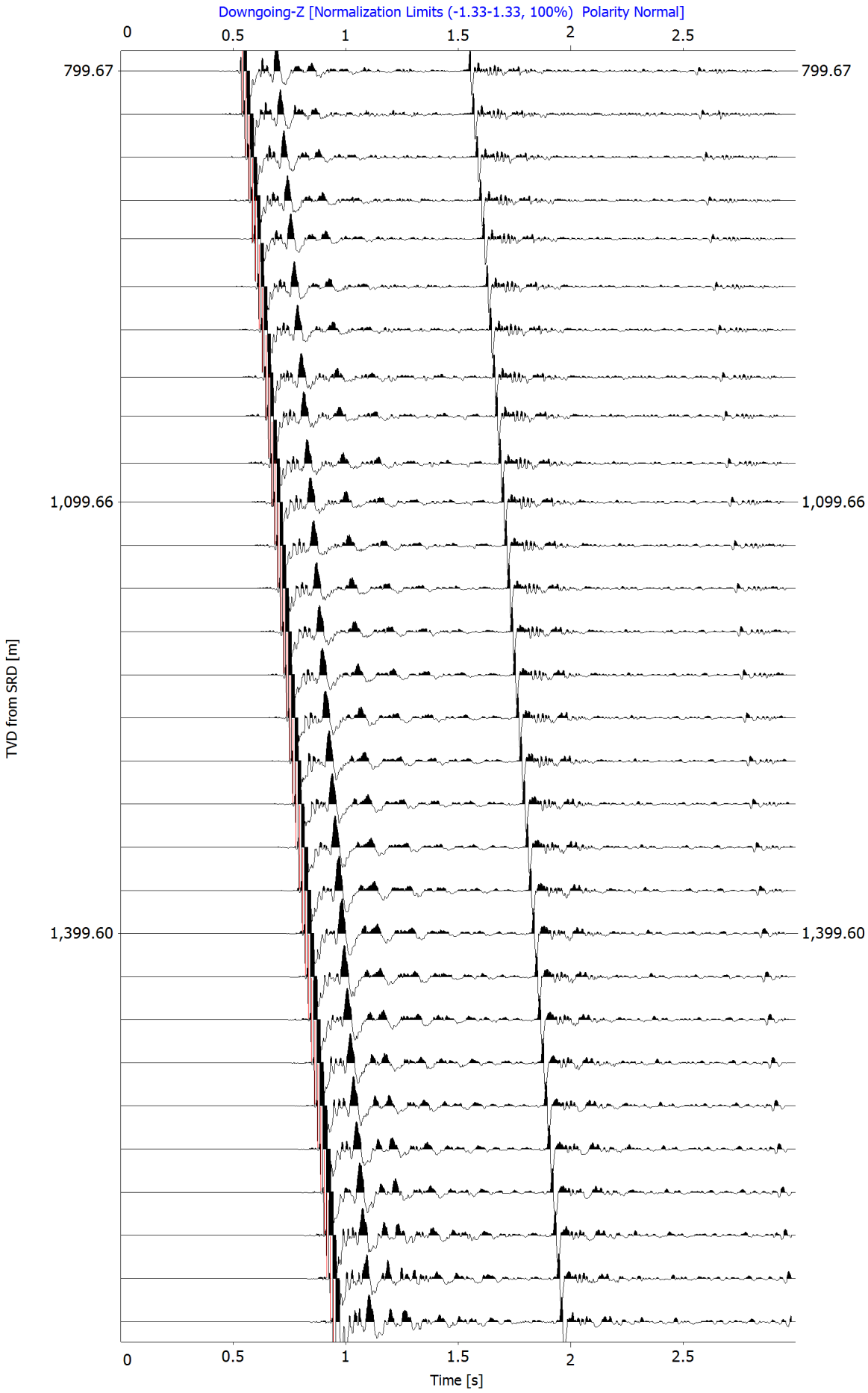
CORRIDOR
STACK

Processing Parameters

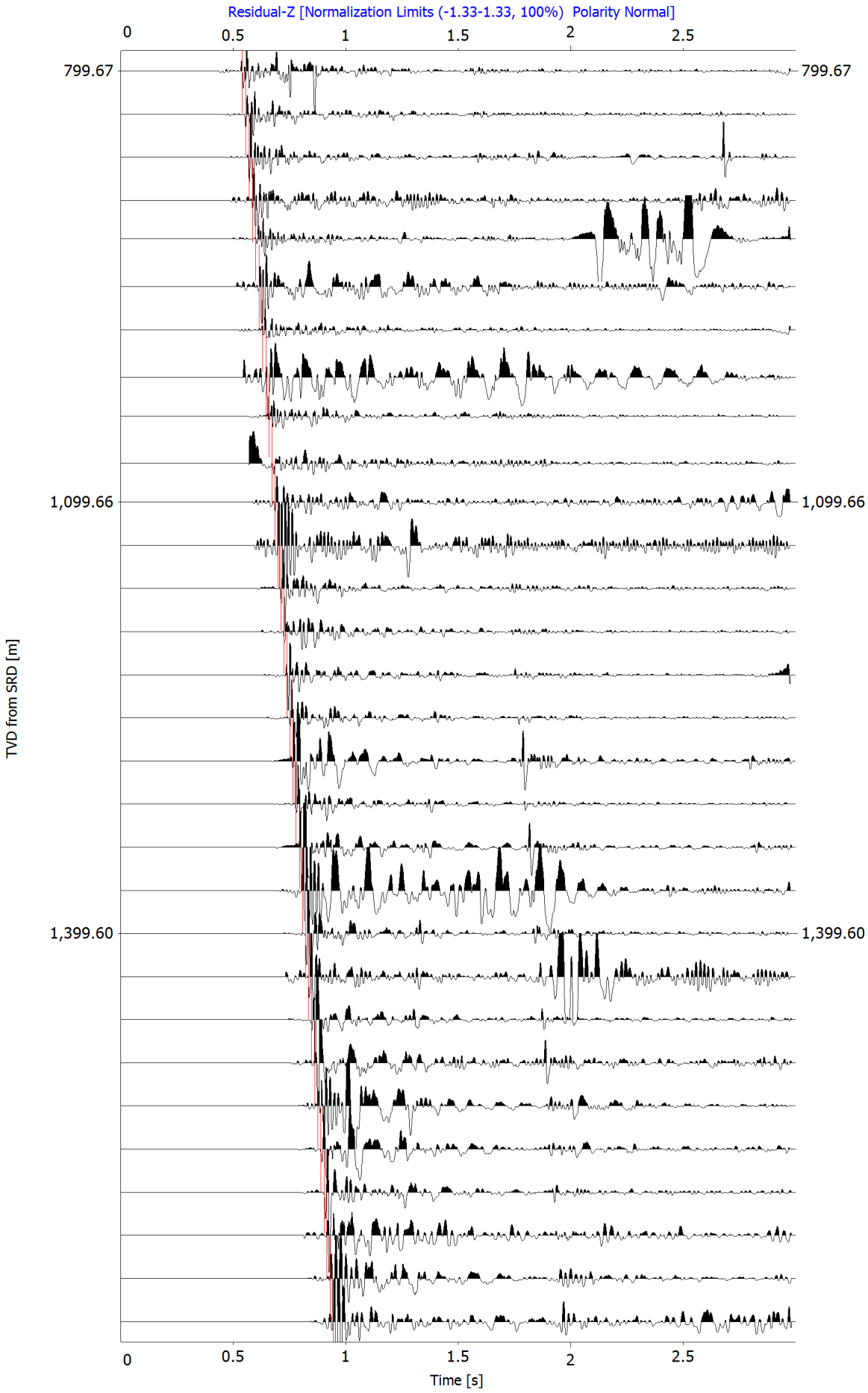
Processing	Category	Parameter	Value	Unit
Geometry Update	Well Information	Coordinate Easting (UTM)		m
		Coordinate Northing (UTM)		m
		Well Deviation Survey File, If Well Is Deviated		
		Extrapolate WDS with Constant Deviation	Yes	
	Elevation	Seismic Reference Datum (SRD) above MSL		m
		Surface/Water Velocity (SVEL)		m/s
		Permanent Datum	DF	
		Elevation of Permanent Datum above MSL for OTHER		m
		Logging Measured From	DF	
		Elevation of Kelly Bushing above MSL		m
		Elevation of Ground Level above MSL		m
		Elevation of Derrick Floor above MSL		m
	Receiver Position	Update Receiver Position	Yes	
	Source Position	Update Source Position	Yes	
		Source / Surface Sensor Depth Reference	DF	
		Source Offset		m
		Source Azimuth to Well Head		deg
		Source Depth from Reference		m
	Surface Sensor	Sensor 1 Position is	Not Used	
		S1 Offset		m
		S1 Azimuth		deg
		S1 Depth from Reference		m
		Sensor 2 Position is	Not Used	
		S2 Offset		m
		S2 Azimuth		deg
		S2 Depth from Reference		m
		Sensor 3 Position is	Not Used	
		S3 Offset		m
		S3 Azimuth		deg
		S3 Depth from Reference		m
		Sensor 4 Position is	Not Used	
		S4 Offset		m
		S4 Azimuth		deg
		S4 Depth from Reference		m
		Sensor 5 Position is	Not Used	
		S5 Offset		m
		S5 Azimuth		deg
		S5 Depth from Reference		m
		Sensor 6 Position is	Not Used	
		S6 Offset		m
		S6 Azimuth		deg
		S6 Depth from Reference		m
		Sensor 7 Position is	Not Used	
		S7 Offset		m
		S7 Azimuth		deg

Processing	Category	Parameter	Value	Unit
		S7 Depth from Reference		m
		Sensor 8 Position is	Not Used	
		S8 Offset		m
		S8 Azimuth		deg
		S8 Depth from Reference		m
Data Loading	Butterworth Filter	Low Cut Frequency	5	Hz
		High Cut Frequency	80	Hz
Wavefield Separation	Depth Range for VSP Processing	Use the Whole Range for Processing	Yes	
		Start (Top) Measured Depth for Processing		m
		End (Bottom) Measured Depth for Processing		m
	Downgoing Wavefield Separation	Stacking Mode	Median	
		Stacking Window	9	
Deconvolution	Deconvolution	Design Filter Window (ms)	1000	
		Wavelet Polarity	Positive	
Corridor Stack	Upgoing Wavefield Separation	Stacking Mode	Median	
		Stacking Window	7	
	Time Variant Gain for True Amplitude Recovery (TAR)	Travel Time Exponent	1.5	
	Corridor Stack	Replicate Corridor Stack	10	
		Corridor Stack Window (ms)	200	
		Apply BPF	Yes	
		Low Cut Frequency	5	Hz
		High Cut Frequency	80	Hz

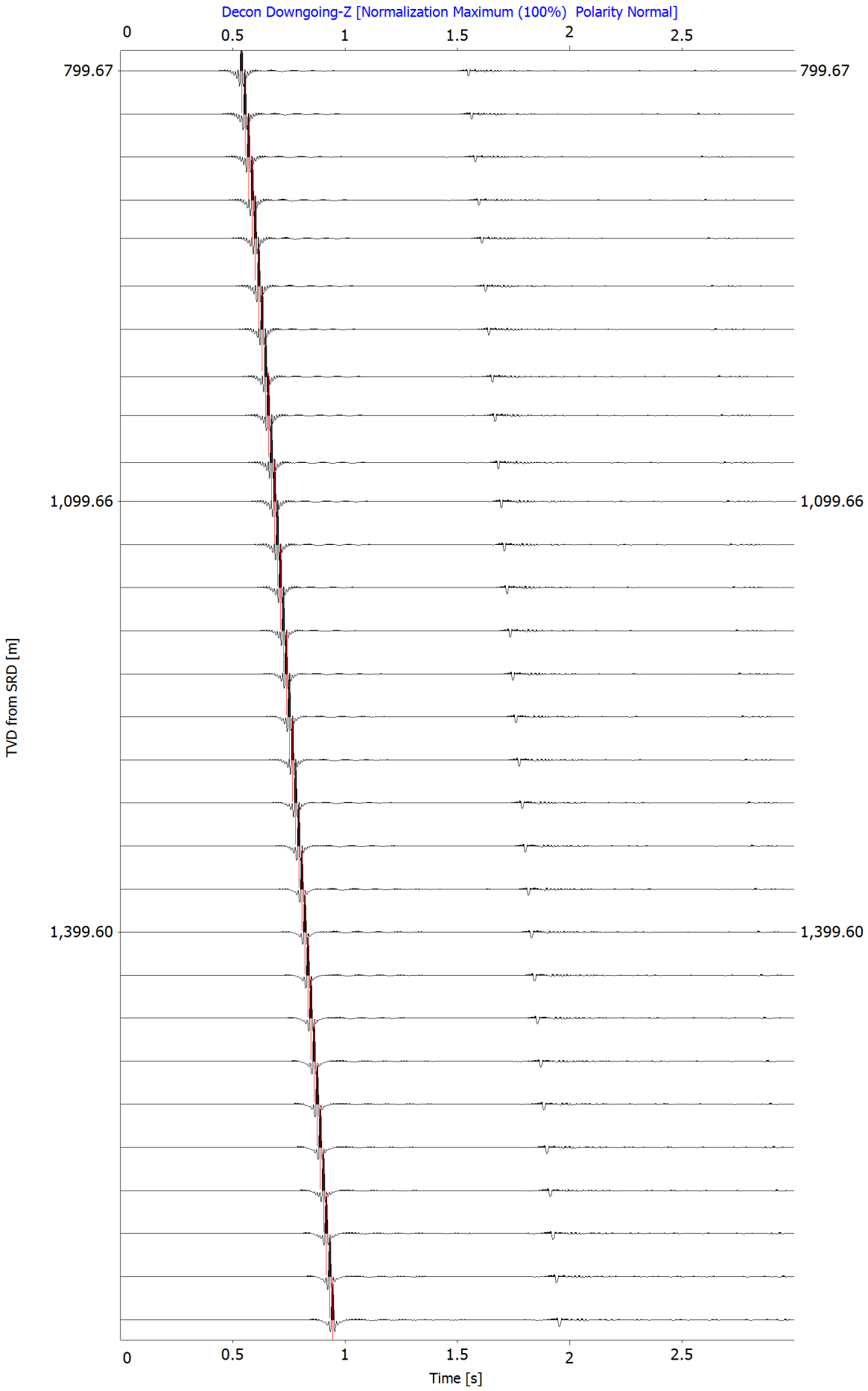
Downgoing (Z)


Downgoing-Z [Normalization Limits (-1.33-1.33, 100%) Polarity Normal]
0
0.5
1
1.5
2
2.5
799.67
1,099.66
1,399.60
TVD from SRD [m]
Time [s]

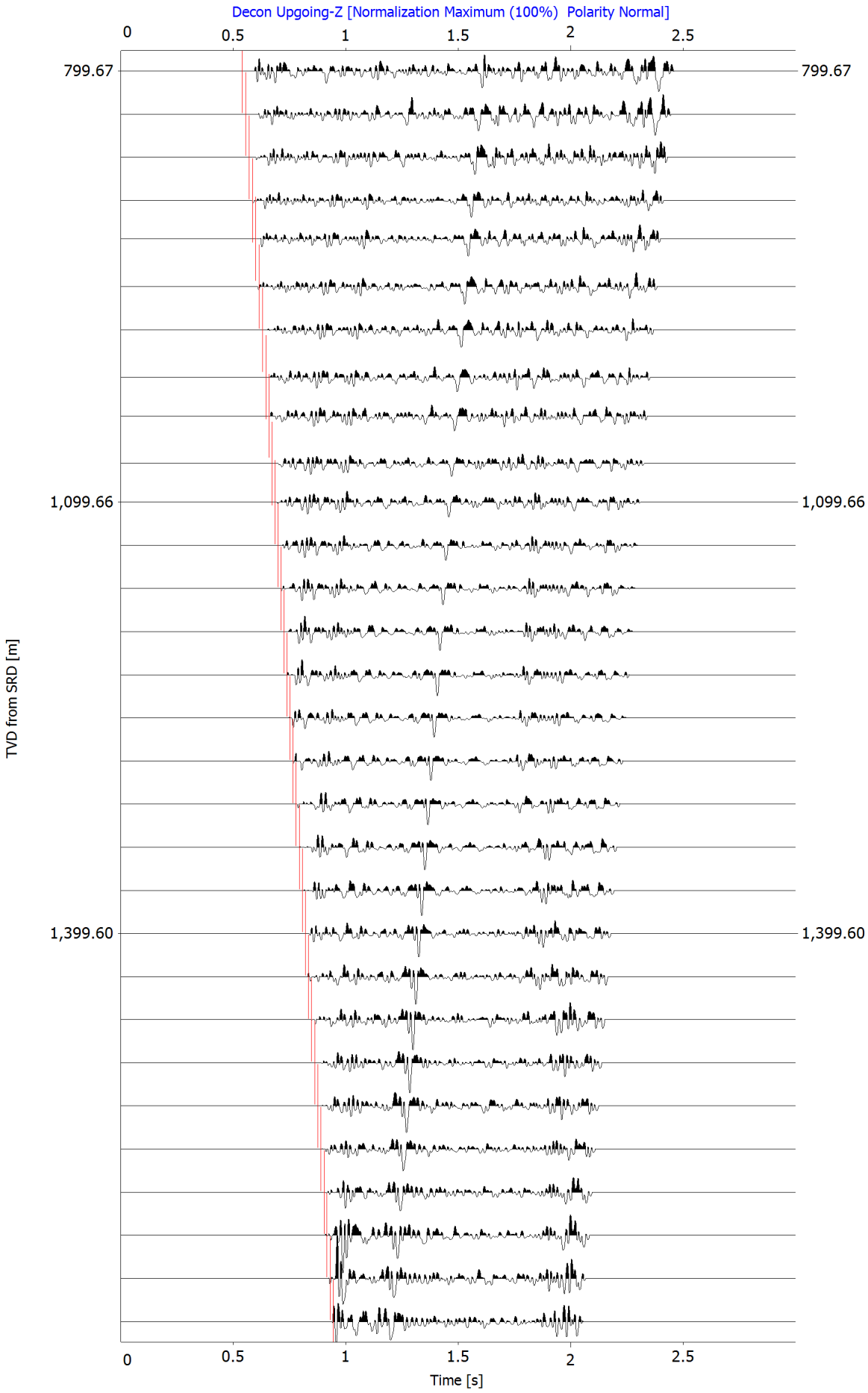
Residual 1 (Z)


Residual-Z [Normalization Limits (-1.33-1.33, 100%) Polarity Normal]
0
0.5
1
1.5
2
2.5
799.67
1,099.66
1,399.60
TVD from SRD [m]
Time [s]

Decon Downgoing (Z)

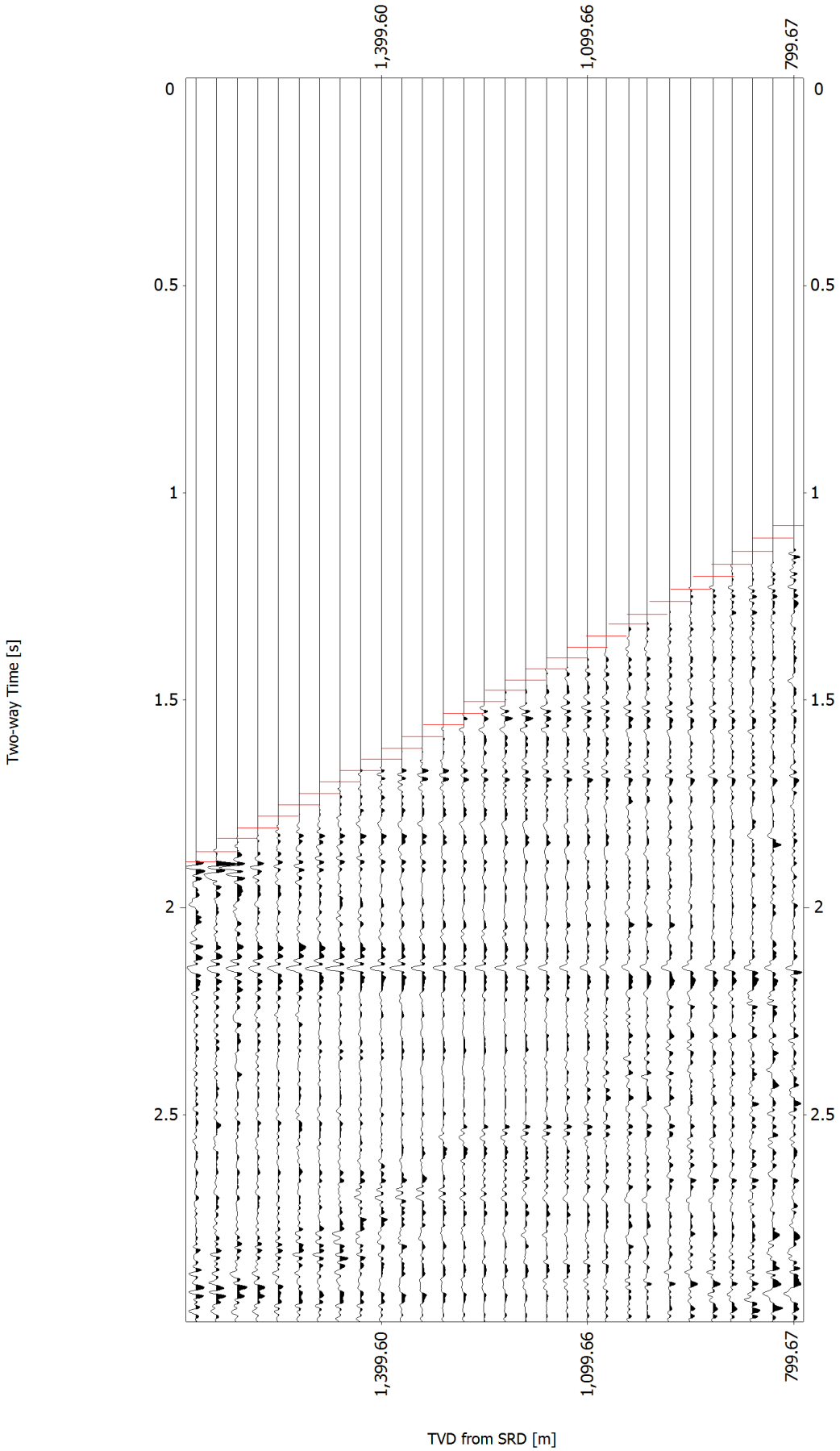


Decon Upgoing (Z)



Input for Corridor Stack in 2-Way Time

Decon Upgoin-Z (TWT) [Normalization Maximum (100%) Polarity Normal]



Corridor Stack