

Survey type: Zero Offset VSP
Company: Nexus Energy
Well: Culverin 1
Field: Exploration
Country: Australia
Run: 2
Date: 8-Jan-2006

Recorded by: Kasian S. / Tim Hopper

Witnessed by: M. Woodmansee / R. Blackmore

Report Contents

Section	Page Number
Introduction	3
Well Information	4
Well Sketch	5
Well Inclination List	6
Tool Sketch	8
Tool Configuration	9
Operating Time Summary	10
VSP Survey Information	11
Source Information	12
Geometry Information (X-Y)	14
Geometry Information (X-Z)	15
Geometry Information (Y-Z)	16
Time/Depth Plot	17
Velocity Plot	18
Stack Summary Listing	19
Shot Summary Listing	24
Field Processing Report	
Process flow and parameter	30
Process Parameter	31
Raw Stack (Z) plot	34
Raw Stack (X) plot	35
Raw Stack (Y) plot	36
Raw Stack (Z) Magnified plot	37
Raw Stack (TRY) plot	38
Raw Stack (HMX) plot	39
HMX angle plot	40
TRY angle plot	41
VSP Raw Stack (Z) FK	42
VSP Raw Stack (Z) FZ	43
VSP Downgoing plot	44
VSP Upgoing plot	45
VSP Waveshape Decon Downgoing plot	46
VSP Waveshape Decon Upgoing plot	47
VSP Waveshape Decon Upgoing FK plot	48
VSP Corridor Stack Input plot	49
VSP Corridor Stack Output plot	50
Source Signature QC Report	52
Gun Controller QC Report	53
Amplitude QC Report	57
Observers Report	64
GR Correlation Log Report	69
Tidal Water Level Report	71
Tool Evaluation Test Report	73

Introduction

A borehole seismic survey was recorded in Suite 1 Run 2 in the vertical (max. 4.3 deg deviation) offshore exploration well Culverin-1 on 08 Jan 2006. This survey included Rig Source VSP measurements from 3750 m MD RT to 620.8 m MD RT. The data were acquired using 4 shuttles VST-C (15.12 m spacing) downhole Tool.

A Delta G-Gun cluster (3 x 150 cu. inch G-GUN) was deployed from the Rig Ocean Patriot with an azimuth of 209 degrees with reference to North. The offset of gun was fixed 64 m from the wellhead. The guns were submerged from a buoy to 4.6 meters below water surface. TRISOR-OFS was deployed 1.25 meters below the center of the gun cluster.

TRISOR-OFS Gun controller was used for the auto-tuning of cluster gun. Firing pressure and the depth of the gun was monitored and recorded at each shot for source QC purpose. Off tuning shots of cluster gun were rejected from stacking.

Survey Results

Total acquisition time for the survey was recorded as 12 hrs 15 mins from rig up to full rig down.

Data quality generally for the VSP considered to be good throughout the survey. At least 5 good repeatable shots were recorded at each VSP level (3750 m to 3220.8 m) and Check-Shot level (3166.2 m to 620.8 m). The Check-Shot survey was ended at the seabed.

Gamma Ray Log was recorded (up log) while main VSP survey. Depth offset 0.5 meters shallower is observed. The depth offset is not corrected in this report.

The tide level used “zero” for the static correction. Static correction of transit time does not use water tide level in this report.

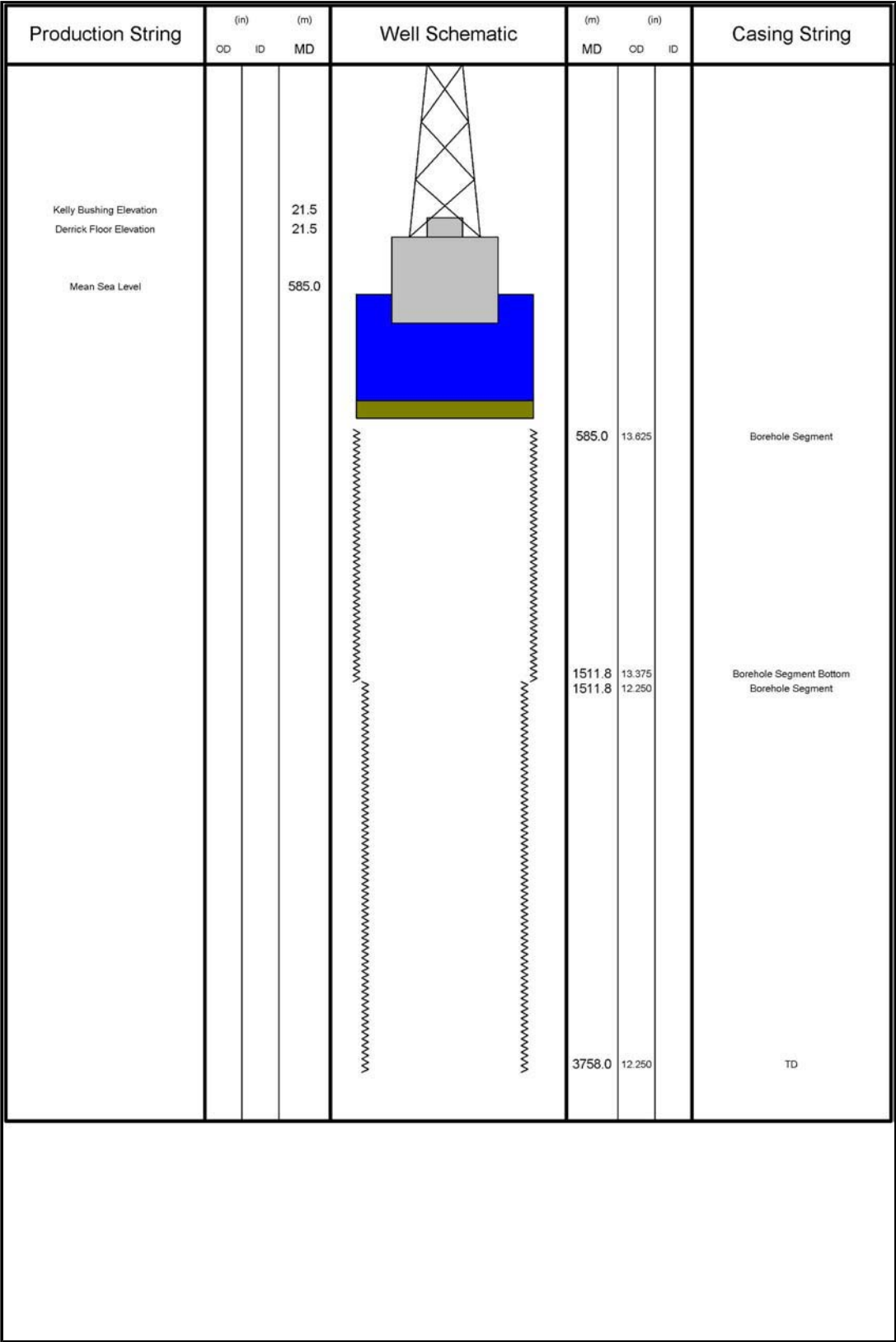
Company	Nexus Energy
Well	Culverin 1
Field	Exploration
Country	Australia
State	Victoria
Logging Date	8-Jan-2006
Run Number	2
Service Order	AUSL06151649
Well Head (Latitude)	38 24' 8.14" S
Well Head (Longitude)	148 39' 41.92" E
Well Head (X Coordinate)	644437.3 UTM
Well Head (Y Coordinate)	5748256.5 UTM
Total Depth - Driller	3758.0 m
Total Depth - Logger	3757.0 m
Maximum Hole Deviation	4.3 deg
Azimuth of Maximum Deviation	
Program Version	13C0-300
Bit Size	12.250 in
Recorded by	Kasian S. / Tim Hopper
Witnessed by	M. Woodmansee / R. Blackmore

Elevation Permanent Datum	LAT
Elevation Permanent Datum	0.0 m
Above Permanent Datum	21.5 m
Drilling Measured From	Drill Floor
Derrick Floor	21.5 m
Ground Level	-585.0 m
Kelly Bush	21.5 m
Log Measured From	Drill Floor
Elevation Log Zero	21.5 m

Water Velocity	1524.0 m/s
Seismic Reference Datum	0.0 m

[illegible]

Well Sketch

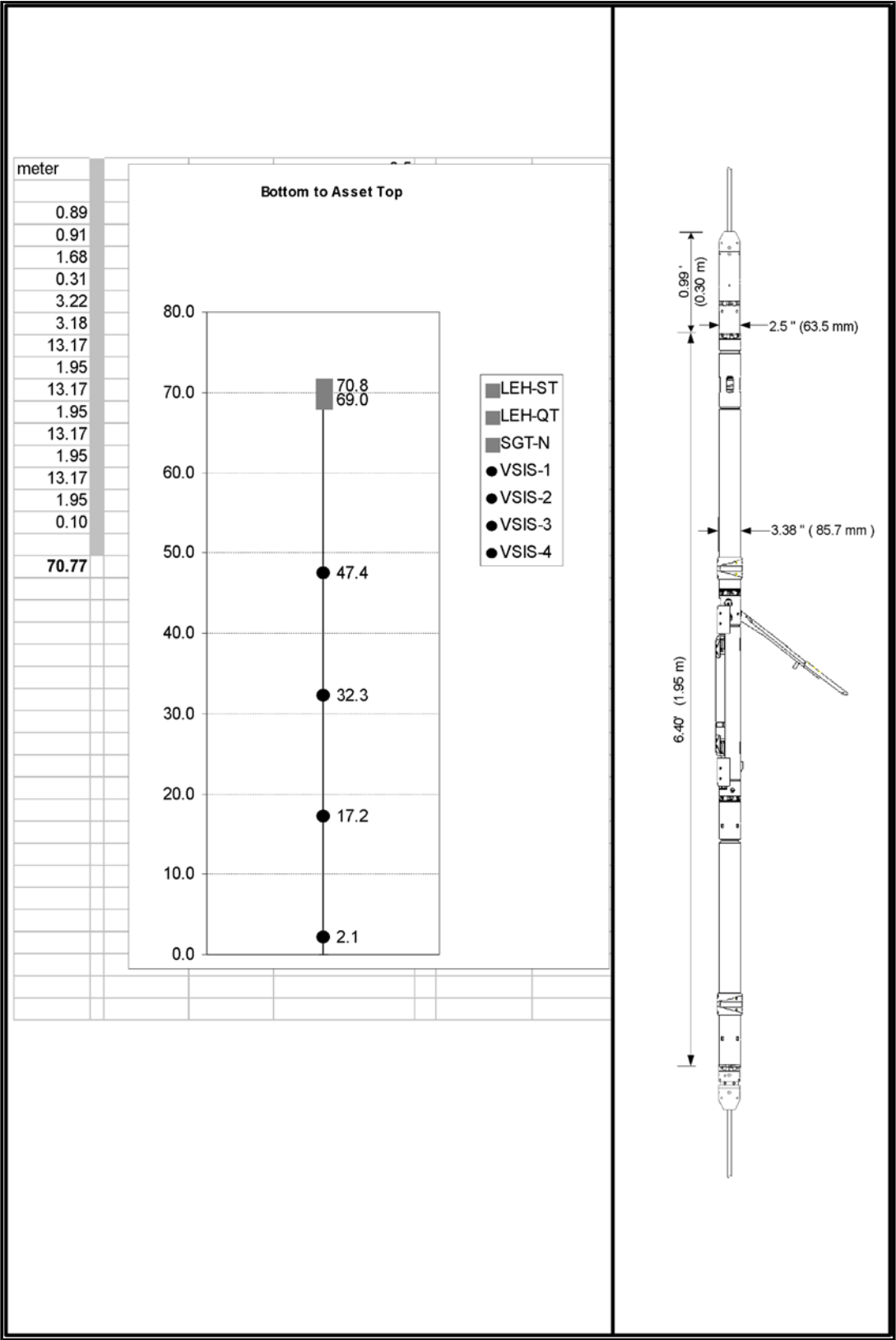


Well Inclinometry List

Measured Depth (m)	Deviation (deg)	Azimuth (deg)	True Vertical Depth (m)
0.00	0.00	227.00	
681.95	1.26	227.00	681.90
767.68	0.81	263.55	767.62
825.04	0.93	254.57	824.97
911.19	1.09	257.49	911.11
1027.78	0.85	252.60	1027.68
1056.46	0.79	254.04	1056.36
1085.16	0.77	260.55	1085.06
1113.81	0.62	255.11	1113.70
1142.54	0.51	257.73	1142.43
1171.11	0.43	257.64	1171.00
1228.35	0.22	250.90	1228.24
1257.08	0.17	244.39	1256.97
1342.79	0.06	257.65	1342.68
1371.46	0.03	247.14	1371.35
1428.75	0.11	336.43	1428.64
1486.03	0.16	21.18	1485.92
1509.77	0.09	0.70	1509.66
1540.46	0.33	354.58	1540.35
1569.11	0.36	350.12	1569.00
1597.73	0.50	2.93	1597.62
1626.44	0.63	1.96	1626.33
1655.17	0.86	9.39	1655.05
1683.81	1.15	21.61	1683.69
1712.56	1.54	24.62	1712.43
1741.12	1.85	23.41	1740.98
1769.90	2.12	24.21	1769.74
1798.49	2.39	23.17	1798.31
1827.17	2.73	24.42	1826.96
1855.78	2.98	24.43	1855.54
1884.43	3.09	24.80	1884.15
1913.08	3.07	24.58	1912.75
1941.89	3.12	23.61	1941.52
1970.98	3.18	24.11	1970.57
1999.06	3.22	24.85	1998.60
2027.82	3.27	25.23	2027.32
2056.65	3.24	27.04	2056.10
2085.12	3.33	26.59	2084.53
2113.64	3.40	27.83	2113.00
2142.04	3.46	29.61	2141.35
2170.63	3.60	30.30	2169.88
2199.17	3.77	30.65	2198.36
2227.87	3.85	36.05	2227.00
2256.54	3.99	35.43	2255.60

2285.35	4.14	37.21	2284.34
2314.02	4.15	34.69	2312.93
2342.60	4.24	35.48	2341.44
2371.30	4.20	37.23	2370.06
2399.91	4.28	37.96	2398.59
2428.46	4.30	38.32	2427.06
2457.14	4.30	37.54	2455.66
2514.65	4.09	38.40	2513.02
2543.24	4.05	40.48	2541.53
2572.00	4.01	40.97	2570.22
2600.65	3.91	40.54	2598.80
2629.39	3.86	40.58	2627.48
2658.02	3.89	41.30	2656.04
2686.60	3.77	41.46	2684.56
2715.15	3.77	40.42	2713.05
2743.83	3.80	42.10	2741.67
2772.65	3.83	43.73	2770.42
2801.66	3.84	42.76	2799.37
2830.44	3.89	43.81	2828.08
2859.14	3.95	44.31	2856.71
2887.70	3.86	45.65	2885.21
2916.43	3.87	45.26	2913.87
2944.96	3.83	45.79	2942.34
2973.53	3.73	46.71	2970.84
3002.19	3.72	46.75	2999.44
3059.49	3.72	46.57	3056.62
3088.21	3.81	46.46	3085.28
3116.08	3.75	45.37	3113.09
3145.07	3.74	48.33	3142.02
3173.79	3.67	49.59	3170.68
3202.65	3.71	48.97	3199.48
3231.77	3.53	48.20	3228.54
3260.37	3.66	49.86	3257.08
3317.48	3.72	47.74	3314.08
3346.36	3.65	50.41	3342.90
3375.03	3.69	54.03	3371.51
3404.40	3.54	54.90	3400.82
3432.80	3.59	51.96	3429.16
3461.32	3.48	51.53	3457.63
3490.24	3.38	50.31	3486.50
3519.26	3.32	50.11	3515.47
3547.59	3.32	49.95	3543.75
3555.34	3.36	53.74	3551.49
3583.83	3.00	50.85	3579.93
3641.38	2.98	50.16	3637.41
3758.00	2.98	50.16	3753.87

Tool Sketch



Downhole Equipment Information

Tool Type	VSIT
Surface Equipment	TRISOR-OFS
Combined Tool	DTC-H 9166 , SGT-N 9901
Number of Shuttles	4
Nominal Receiver Spacing	15.12 m
Gimbaled (Y/N)	No
Downhole Geophone Type	GAC-D 3-axis orthogonal
Sensitivity	0.5 V/G 3%
Natural Frequency	20 Hz
Damping Factor	N/A
DC Resistance	1500 Ohms 3% @25 degC
Measurement Specification	
Dynamic range	> 105 dB at 36 dB
Distortion	< -90 dB
Analog Low-Cut filter	0.3 Hz, -6 dB/Oct
Digital Low-Cut filter	None
DC Offset removal	Averaging by surface software
Digital High-Cut filter	Linear phase at down hole
Pass band ripple	+/- 0.01 dB
Stop band attenuation	< -130 dB
Bandwidth	80% of Nyquist frequency
Test Signal harmonic distortion	< -110 dB
Tool SN	
VSPC-BA	8111
VSCC-BB	8111
VSII-AB	8311
Receiver #1 (VSIS-CA)	8229
VSII-AB	8309
Receiver #2 (VSIS-CA)	8226
VSII-AB	8315
Receiver #3 (VSIS-CA)	8228
VSII-AB	8318
Receiver #4 (VSIS-CA)	8230
VSIA	8057

Operation Time Summary

DATE	Time Start	Time Taken Hr : min	OPERATION
8-Jan-06	7:00	0:30	Rig Up VSI
	7:30	0:15	Surface Check VSI
	7:45	0:25	RIH in hole to 600 m
	8:10	0:10	VSI at 600 m, perform system check
	8:20	1:10	RIH in hole
	9:30	0:15	Commence QC shot at 1599.9 m
	9:45	0:41	RIH in hole
	10:26	0:14	Commence QC shot at 2541.4 m
	10:40	0:44	RIH in hole
	11:24	0:11	Commence QC shot at 3509 m
	11:35	0:35	RIH in hole
	12:10	5:31	VSI at TD commence VSP
	17:41	0:49	VSI at sea bed Complete survey, POOH
	18:30	0:45	VSI at surface, commence rig down of VSI
	19:15		Rig down completed well released
		12:15	HRS –TOTAL OPERATING TIME

Remarks:

General Information

Survey Type	Zero Offset VSP
Surface Recording Length	1024.0 ms
Surface Sampling Rate	0.25 ms
Downhole Recording Length	5000.0 ms
Downhole Sampling Rate	1.0 ms
Top of Survey	620.8 m
Bottom of Survey	3749.9 m
Number of Shots	207
Number of Downhole Traces	828
Number of Downhole Traces used for Processing	684

Borehole Seismic Source Information

Engineer: Kasian S. / Tim Hopper

Well Name: Culverin-1

Date: 08-Jan-2006

Rig: Ocean Patriot

<Geometrical Coordinates>

Longitude: 148 39' 14.92" E

Latitude: 38 24' 8.14" S

<UTM Coordinates>

Easting: 644,437.3 E

Northing: 5,748,256.4 N

Permanent Datum: LAT

Log Measured From: DF

Elev. 21.5

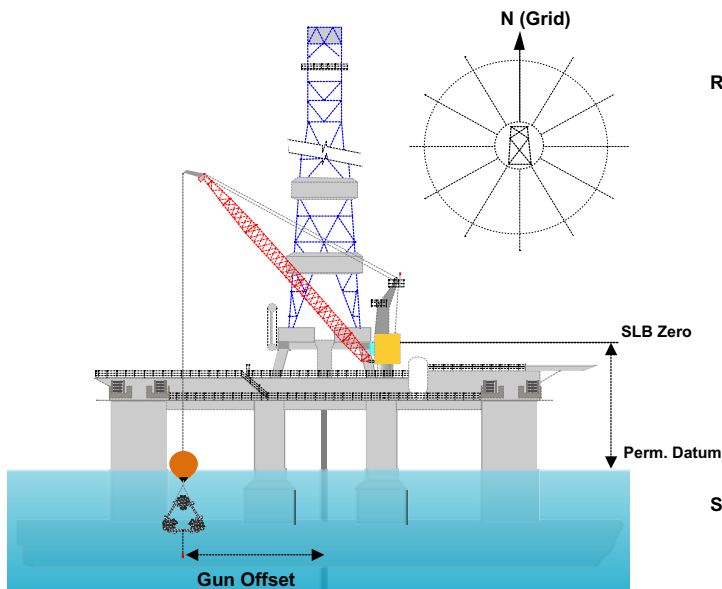
Unit : m

SRD (Seismic Reference Datum): LAT

Elev. 0.0

from SLB zero: 21.5 (SRDS)

Water Depth: 585.0



RIG Heading: 272.5 deg
 Rig Crane used: ☒ Port side ☐ Starboard side
 Rig Crane azimuth (from Rig Heading): 63.0 deg
 Gun Azimuth (Grid North): 209.5 deg (GAZI)
 Hy1 Azimuth (Grid North): 209.5 deg

Gun Offset: 64.0 (GOFF)
 NF Hydrophone Offset: 64.0

Surface Velocity: 1524 m/s (SVEL)

Cluster Gun Type:

☐ WSGC-P90☒ WSGC-T90

Gun Type:

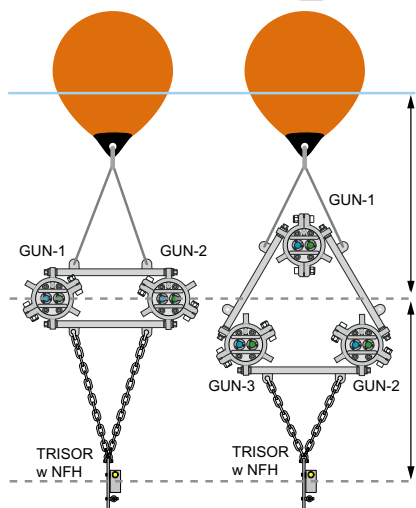
☒ WSG-G150 (G-Gun 150cu.inch)
☐ WSG-G250 (G-Gun 250cu.inch)

GUN-1 sn: 371646

GUN-2 sn: 371663

GUN-3 sn: 17812

Cluster Frame sn: APG05



Gun Depth from Local Tide 4.6

Gun Depth from SLB 26.1 (GDSZ)

NF Hydrophone Type: FJORD HD1-TC

SN: HD1-TC0409-068-016F (WSQB-UB 8025)

Sensitivity (nC/B): 75.8 (-016F)

Hy 1 Depth from Gun 1.25

Hy 1 Depth from LT 5.85

Hy 1 Depth from SLB zero 27.35

Air Gun Firing Pressure: 1800 psi

Source of Air supply: Rig Supply

Air Controller (Regulator) Type: WAP-SS01

Accumulator Pressure (Inlet pressure): 1900 psi

sn: V18-P0001

Sea Condition

Sea Condition: Moderate

Low Tide Level: 0.2

High Tide Level: 0.7

Wave Height: 0.0

at 04:39 08/Jan/06

at 16:49 08/Jan/06

Main survey started at 12:10 08/Jan/06

ended at 17:43 08/Jan/06

Tide Table available: ☒ Yes ☐ No

HSE

Safe Distance: 8.1

Observation of Marine Mammals

Marine Mammals sighted in 30 minutes before the survey

Soft-Start implemented:

☐ Yes ☒ No
☒ Yes ☐ No

Borehole Seismic Gun Tuning Information

Surface Sensor Channels / Gun Controller

SS Channels

S1 : Near Field Hydrophone

Gun Controller

WSQB-GCRIG

WSQB-UB sn : 8025

WSQB-PC sn : 8025

WSQB-PPRIG sn : 8030

WSQB-LPU sn : 488

WSQB-UB Sensor Specifications

Sensor	Type	ADC(bit)	ADC(ms)	Gain(dB)	Filter	Accuracy
Gun TB	G-Gun M/P	12	0.1	-24 to 24	1 KHz	
NFH	HD1-TC	16	0.25	-24 to 24	8th order Bessel (1Hz to 500Hz)	
Depth	SP65B 100 A7	12	per shot	fix	N/A	1.50%
Pressure	SP97AFS-300A- 21B ABS	12	per shot	fix	N/A	2%
FP current		12	0.1	fix	N/A	

Loaded Trisor Configuration File name : WSQB8025_T90v211.cfg

Exported Database File name : TRISOR.DAT

Cluster Gun Tuning / Quality Control

Gun Delay (ms)

GUN-1 AUTO

GUN-2 AUTO

GUN-3 AUTO

Gun Delay Offset value (ms) : 2.4

Cluster Gun Tuning QC

	GUN-1 DLY (ms)	GUN-2 DLY (ms)	GUN-3 DLY (ms)
Shot-1	12.7	12.7	11.6
Shot-2	12.8	12.7	11.8
Shot-3	12.8	12.6	11.7
Shot-4	12.7	12.8	11.7
Shot-5	12.8	13.0	11.7
Shot-6	12.8	12.6	11.9
Shot-7	12.6	12.7	11.6
Average	12.8	12.7	11.7

Quality Check Surface Signal (S1) / Filling Time (air Regulator)

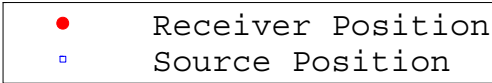
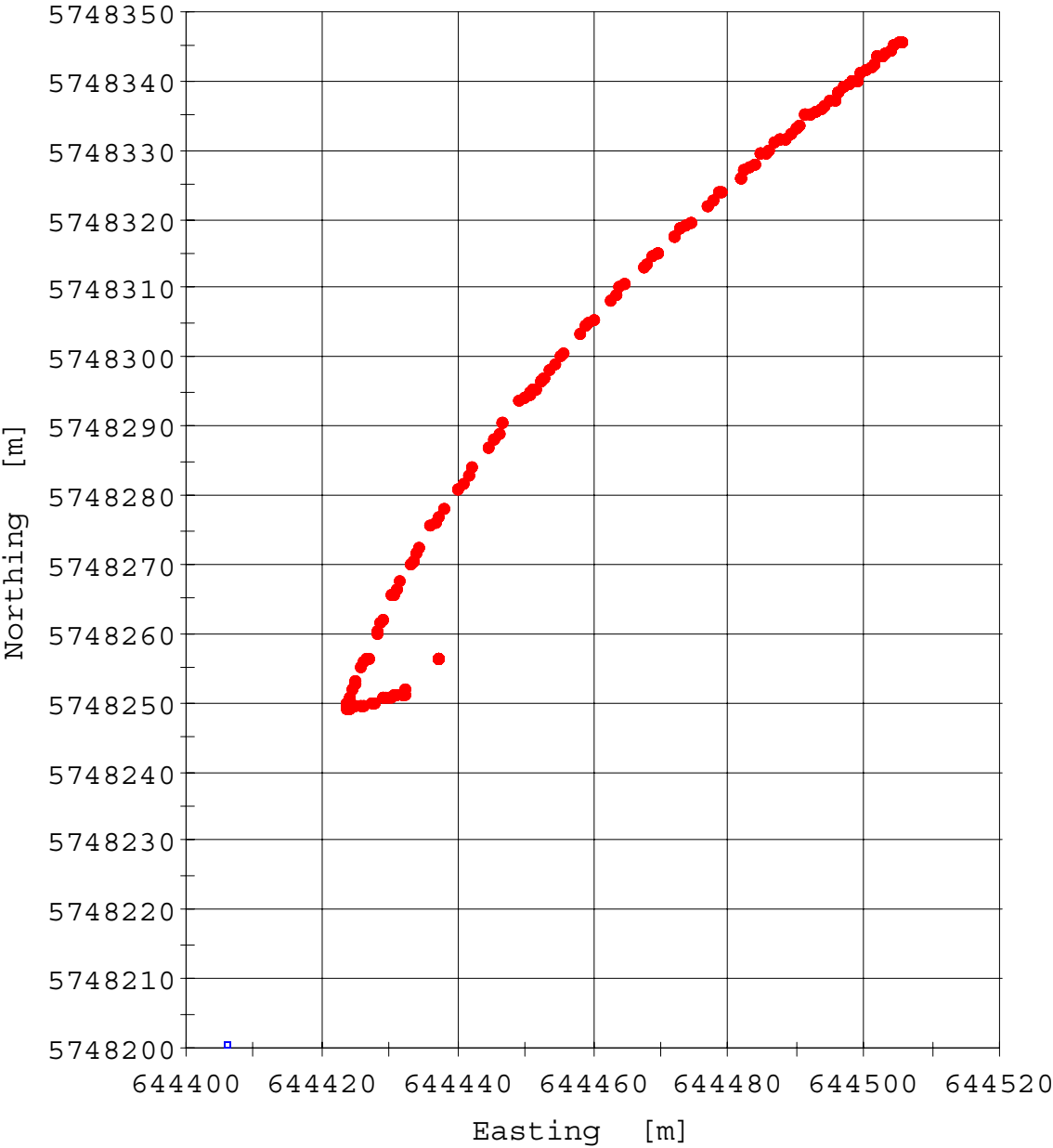
	S1 Time Break (ms)	PP (bit)	Filling Time (sec)
Shot-1	0.0	7	5
Shot-2	0.0	7	5
Shot-3	0.0	7	5
Shot-4	0.0	7	5
Shot-5	0.0	7	5

Other Logs Information

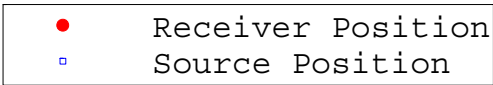
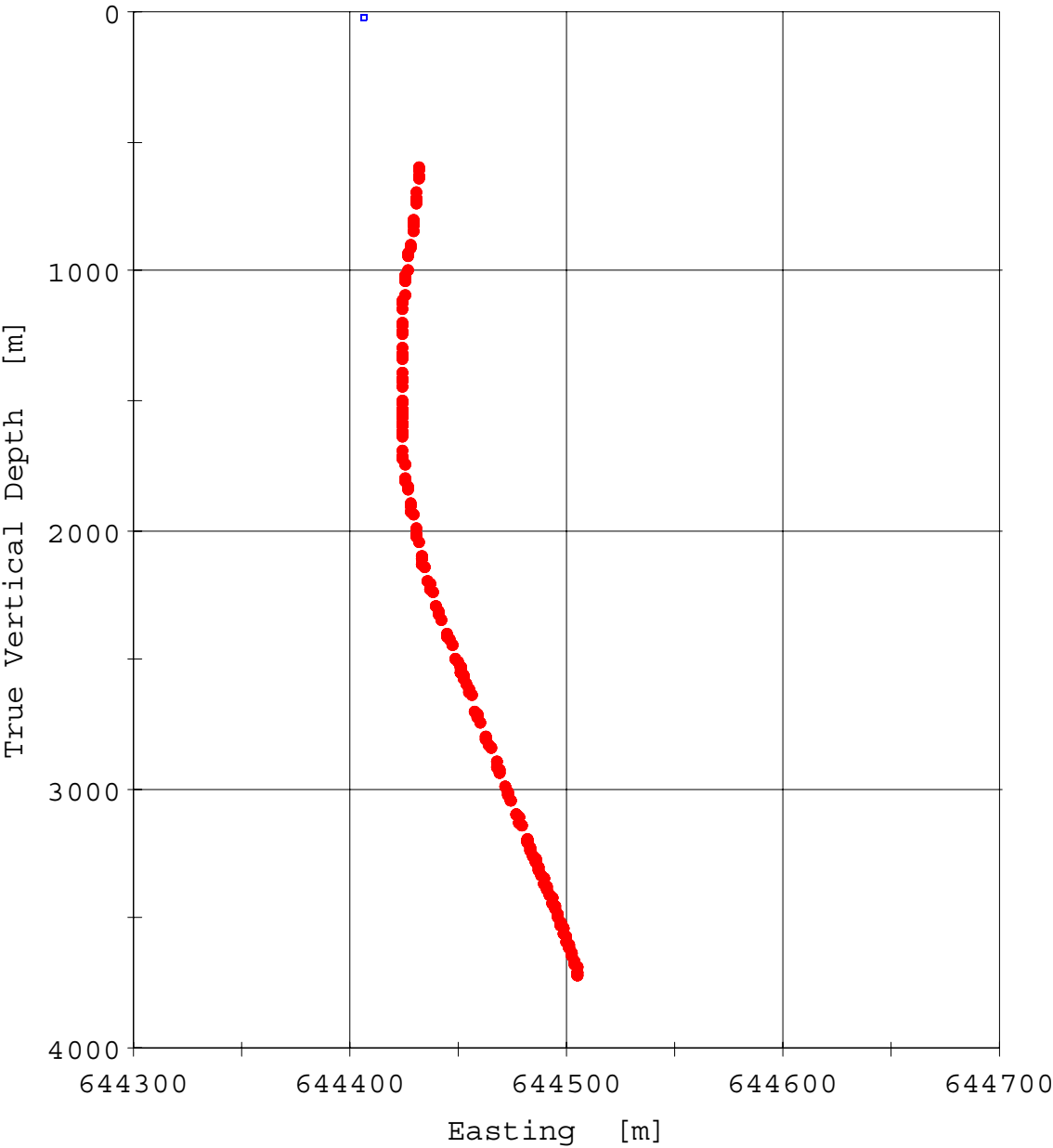
Sonic Log: DSI	Interval:	from 3.758.0	to 2.713.0	Date: 07/Jan/06
Density Log: PEX	Interval:	from 3.758.0	to 2.713.0	Date: 07/Jan/06

Remarks

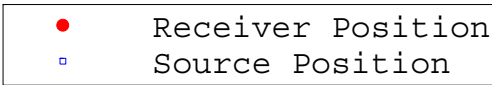
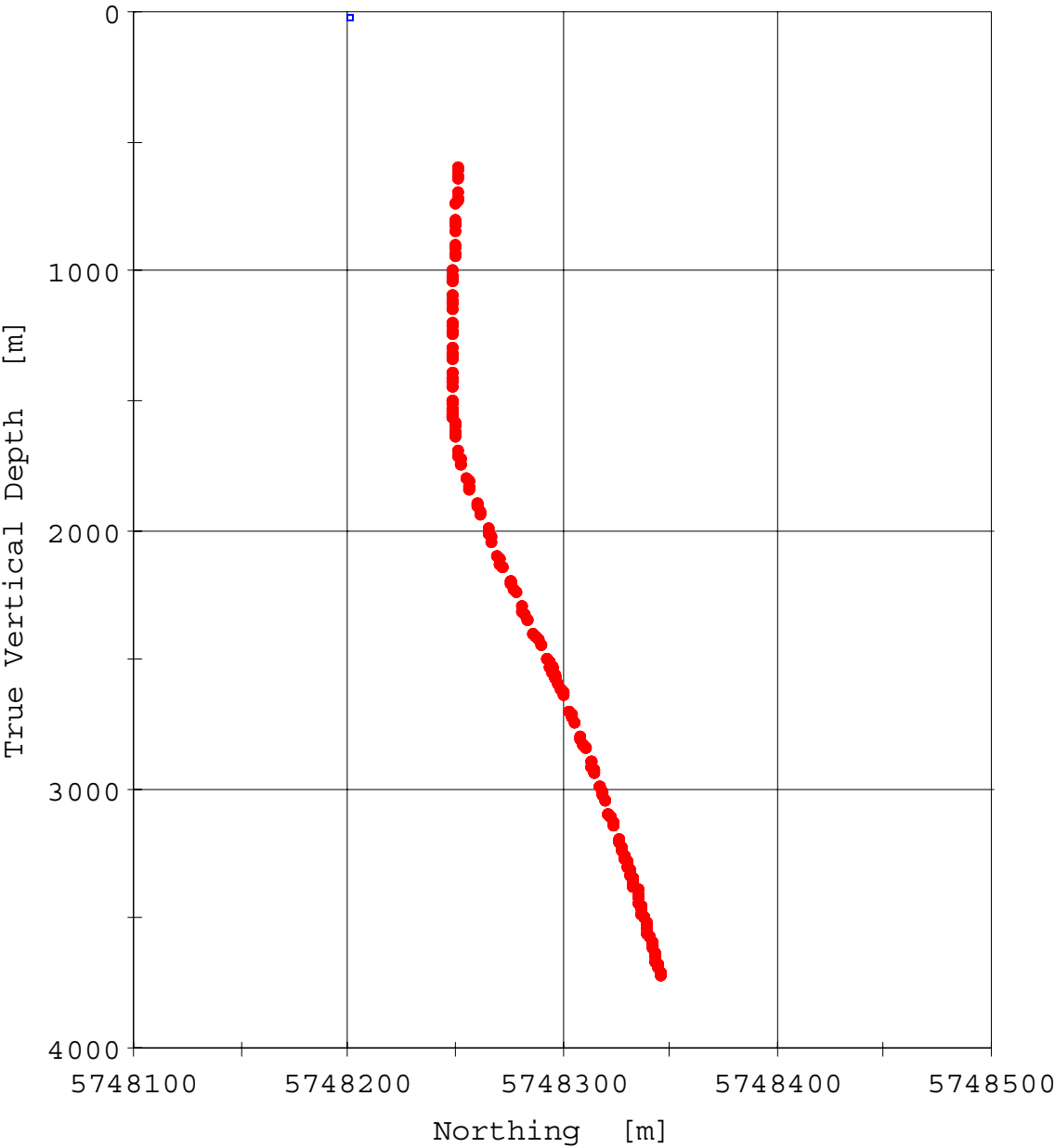
Geometry Information Page (X-Y)



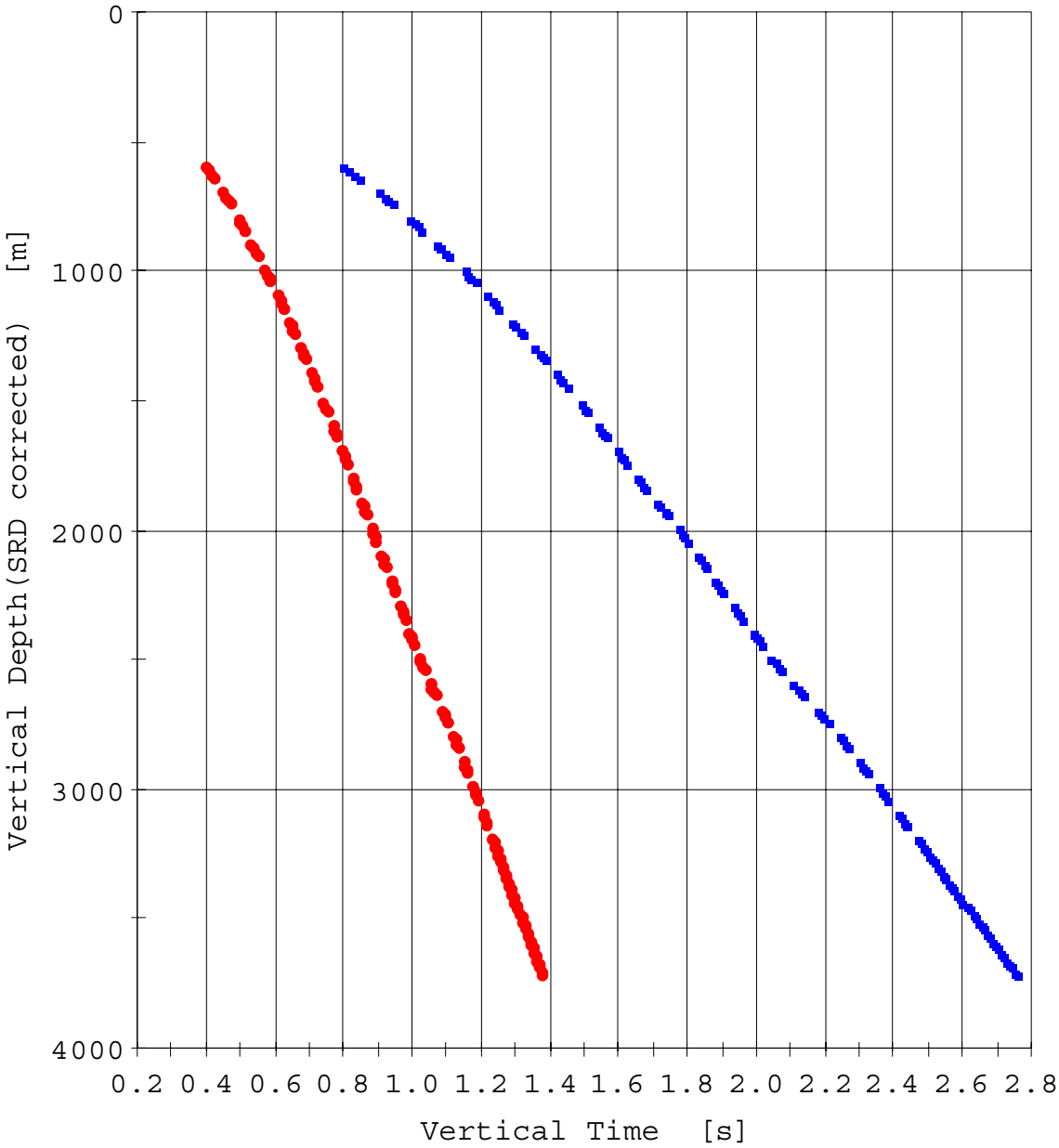
Geometry Information Page (X-Z)



Geometry Information Page (Y-Z)

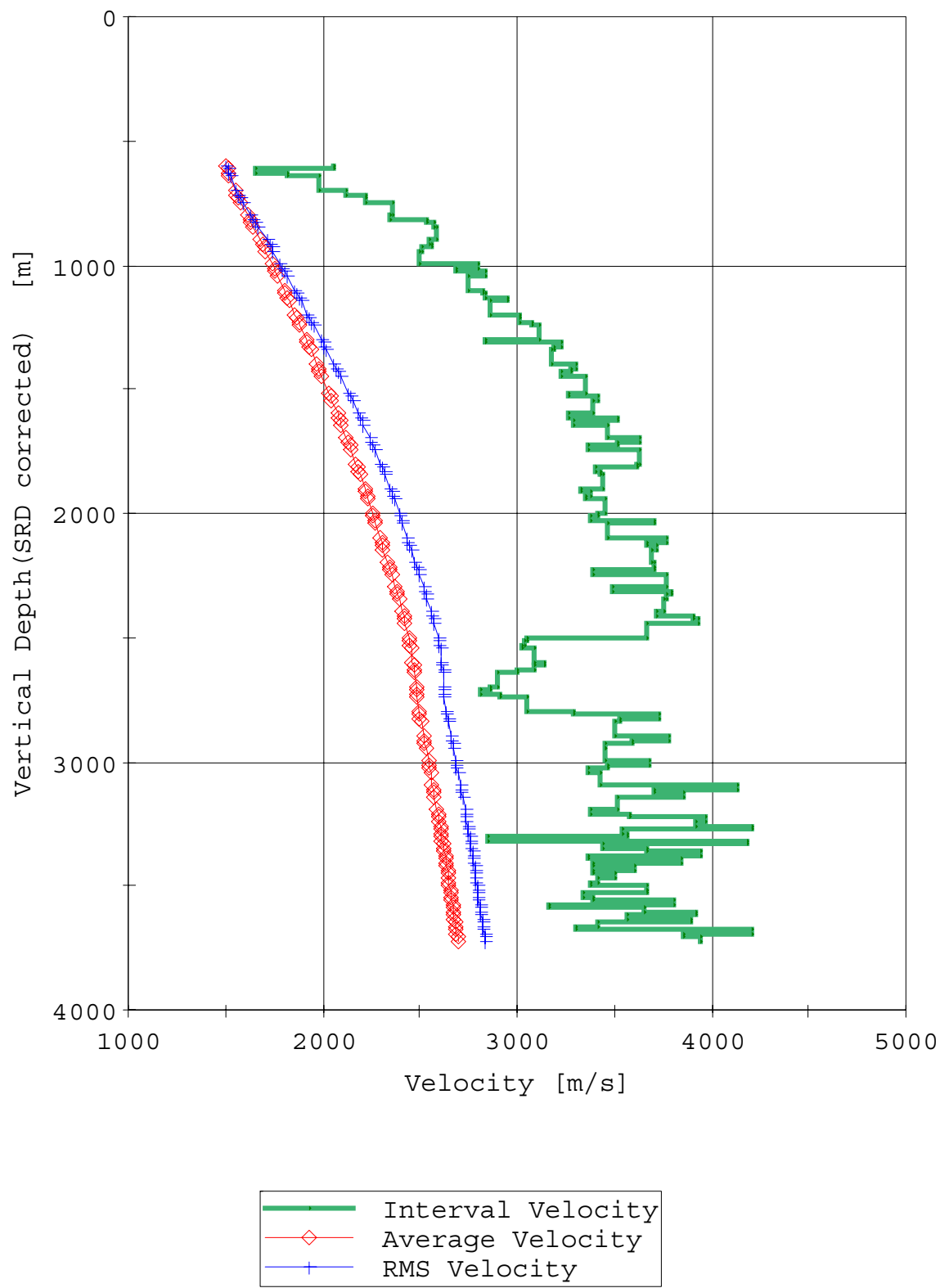


Time Depth Plot Page



- One-way Vertical Time
- Two-way Vertical Time

Velocity Plot Page



Stack Summary Listing (1/5) from VSI_004_OceanPatriot_geo_wavelfield_z.1df

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
	0	0	0	0	0			
						1501.7		
40	620.8	599.2	0.3971	0.3990	0.7981		1501.7	1501.7
						2060.8		
40	635.9	614.3	0.4043	0.4064	0.8128		1511.8	1513.6
						1659.9		
40	651.0	629.5	0.4133	0.4155	0.8310		1515.0	1517.0
						1813.6		
40	666.1	644.6	0.4216	0.4238	0.8476		1520.9	1523.3
						1984.6		
39	720.8	699.2	0.4490	0.4513	0.9027		1549.2	1555.4
						2124.2		
39	735.9	714.3	0.4560	0.4585	0.9169		1558.1	1565.8
						2219.9		
39	751.0	729.4	0.4628	0.4653	0.9305		1567.8	1577.3
						2214.9		
39	766.1	744.6	0.4696	0.4721	0.9442		1577.1	1588.4
						2356.1		
38	820.8	799.2	0.4926	0.4953	0.9906		1613.6	1632.4
						2342.3		
38	835.9	814.3	0.4991	0.5017	1.0035		1623.0	1643.5
						2534.2		
38	851.0	829.4	0.5050	0.5077	1.0154		1633.7	1656.7
						2578.4		
38	866.1	844.5	0.5108	0.5136	1.0271		1644.5	1670.1
						2584.6		
37	920.8	899.2	0.5318	0.5347	1.0694		1681.6	1715.6
						2543.5		
37	935.9	914.3	0.5378	0.5407	1.0813		1691.1	1726.8
						2559.6		
37	951.0	929.4	0.5436	0.5466	1.0931		1700.5	1738.0
						2515.4		
37	966.1	944.5	0.5496	0.5526	1.1051		1709.4	1748.3
						2496.4		
36	1020.8	999.2	0.5714	0.5745	1.1489		1739.4	1782.6
						2804.2		
36	1035.9	1014.3	0.5768	0.5799	1.1597		1749.3	1794.7
						2691.4		
36	1051.0	1029.4	0.5824	0.5855	1.1709		1758.3	1805.5
						2835.0		
36	1066.2	1044.6	0.5877	0.5908	1.1816		1768.0	1817.4
						2748.3		
35	1120.8	1099.2	0.6075	0.6107	1.2214		1799.9	1855.0
						2826.0		
35	1135.9	1114.3	0.6129	0.6160	1.2321		1808.8	1865.6
						2834.6		
35	1151.0	1129.4	0.6182	0.6214	1.2427		1817.6	1876.1
						2943.5		
35	1166.1	1144.5	0.6233	0.6265	1.2530		1826.9	1887.3
						2859.5		
34	1220.7	1199.1	0.6423	0.6456	1.2912		1857.4	1923.1
						3012.7		
34	1235.8	1214.2	0.6474	0.6506	1.3012		1866.3	1933.8
						3013.2		
34	1251.0	1229.3	0.6524	0.6556	1.3112		1875.1	1944.4
						3076.6		

Stack Summary Listing (2/5) from VSI_004_OceanPatriot_geo_wavelfield_z.1df

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
34	1266.1	1244.5	0.6573	0.6605	1.3211		1884.0	1955.2
						3106.9		
33	1320.8	1299.1	0.6748	0.6781	1.3563		1915.8	1993.5
						2838.9		
33	1335.9	1314.3	0.6801	0.6835	1.3669		1923.0	2001.5
						3231.1		
33	1351.0	1329.4	0.6848	0.6881	1.3763		1931.9	2012.4
						3182.6		
33	1366.1	1344.5	0.6896	0.6929	1.3858		1940.4	2022.7
						3178.8		
32	1420.8	1399.2	0.7067	0.7101	1.4202		1970.4	2058.4
						3296.5		
32	1435.9	1414.3	0.7113	0.7147	1.4294		1978.9	2068.7
						3273.0		
32	1451.0	1429.4	0.7159	0.7193	1.4386		1987.2	2078.7
						3227.8		
32	1466.2	1444.5	0.7206	0.7240	1.4480		1995.3	2088.2
						3355.0		
31	1535.9	1514.3	0.7414	0.7448	1.4896		2033.2	2133.8
						3258.2		
31	1551.1	1529.4	0.7460	0.7494	1.4988		2040.8	2142.6
						3417.6		
31	1566.2	1544.6	0.7504	0.7538	1.5077		2048.9	2152.2
						3389.2		
30	1620.8	1599.2	0.7665	0.7700	1.5399		2077.0	2185.3
						3263.4		
30	1635.9	1614.3	0.7712	0.7746	1.5492		2084.1	2193.3
						3509.7		
30	1651.0	1629.4	0.7755	0.7789	1.5578		2091.9	2202.8
						3290.4		
30	1666.2	1644.5	0.7801	0.7835	1.5670		2099.0	2210.7
						3465.4		
29	1720.4	1698.8	0.7957	0.7991	1.5983		2125.7	2242.1
						3634.5		
29	1735.5	1713.9	0.7999	0.8033	1.6066		2133.5	2251.5
						3512.1		
29	1750.7	1729.0	0.8042	0.8076	1.6152		2140.9	2260.1
						3368.4		
29	1765.8	1744.1	0.8087	0.8121	1.6242		2147.7	2267.7
						3628.6		
28	1820.8	1799.1	0.8238	0.8272	1.6545		2174.8	2299.8
						3622.1		
28	1835.9	1814.2	0.8280	0.8314	1.6628		2182.0	2308.4
						3405.1		
28	1851.0	1829.3	0.8324	0.8358	1.6717		2188.5	2315.6
						3421.8		
28	1866.1	1844.4	0.8369	0.8403	1.6805		2195.0	2322.7
						3439.9		
27	1920.8	1898.9	0.8528	0.8561	1.7122		2218.1	2348.3
						3322.1		
27	1935.9	1914.0	0.8573	0.8607	1.7213		2223.9	2354.5
						3374.6		
27	1951.0	1929.1	0.8618	0.8651	1.7303		2229.8	2360.9
						3350.4		
27	1966.1	1944.2	0.8663	0.8696	1.7393		2235.7	2367.1
						3452.6		

Stack Summary Listing (3/5) from VSI_004_OceanPatriot_geo_wavelfield_z.1df

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
26	2020.7	1998.7	0.8821	0.8854	1.7709		2257.4	2390.8
						3414.2		
26	2035.9	2013.8	0.8865	0.8899	1.7797		2263.1	2396.9
						3378.2		
26	2051.0	2028.9	0.8910	0.8943	1.7886		2268.7	2402.8
						3706.6		
26	2066.1	2044.0	0.8951	0.8984	1.7968		2275.2	2410.3
						3460.0		
25	2120.8	2098.6	0.9109	0.9142	1.8284		2295.7	2432.3
						3762.8		
25	2135.9	2113.7	0.9149	0.9182	1.8364		2302.1	2439.7
						3663.3		
25	2151.0	2128.8	0.9191	0.9223	1.8446		2308.1	2446.5
						3718.3		
25	2166.2	2143.9	0.9231	0.9264	1.8527		2314.3	2453.5
						3685.6		
24	2220.8	2198.4	0.9380	0.9412	1.8823		2335.9	2477.6
						3701.3		
24	2235.9	2213.5	0.9420	0.9452	1.8905		2341.8	2484.2
						3705.3		
24	2251.0	2228.6	0.9461	0.9493	1.8986		2347.6	2490.7
						3388.5		
24	2266.1	2243.7	0.9506	0.9538	1.9075		2352.5	2495.6
						3766.1		
23	2320.8	2298.2	0.9651	0.9682	1.9364		2373.6	2519.3
						3489.0		
23	2335.9	2313.2	0.9694	0.9725	1.9451		2378.5	2524.5
						3793.6		
23	2351.0	2328.3	0.9734	0.9765	1.9530		2384.3	2530.9
						3772.2		
23	2366.1	2343.4	0.9774	0.9805	1.9610		2390.0	2537.2
						3755.5		
22	2420.8	2397.9	0.9920	0.9950	1.9901		2409.9	2559.2
						3721.9		
22	2435.9	2413.0	0.9960	0.9991	1.9982		2415.2	2565.0
						3907.0		
22	2451.0	2428.1	0.9999	1.0029	2.0059		2420.9	2571.5
						3929.9		
22	2466.1	2443.1	1.0038	1.0068	2.0136		2426.7	2578.0
						3669.6		
21	2520.8	2497.6	1.0187	1.0216	2.0433		2444.8	2597.2
						3049.4		
21	2535.9	2512.7	1.0236	1.0266	2.0532		2447.7	2599.5
						3034.8		
21	2551.0	2527.8	1.0286	1.0315	2.0631		2450.5	2601.8
						3031.2		
21	2566.2	2542.9	1.0336	1.0365	2.0730		2453.3	2604.0
						3090.4		
20	2620.8	2597.4	1.0512	1.0542	2.1083		2463.9	2612.9
						3132.7		
20	2635.9	2612.5	1.0561	1.0590	2.1179		2467.0	2615.5
						3088.9		
20	2651.0	2627.6	1.0610	1.0639	2.1277		2469.8	2617.9
						2995.5		
20	2666.1	2642.6	1.0660	1.0689	2.1378		2472.3	2619.8
						2901.8		

Stack Summary Listing (4/5) from VSI_004_OceanPatriot_geo_wavelfield_z.1df

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
19	2720.8	2697.2	1.0848	1.0877	2.1754		2479.7	2624.9
						2857.7		
19	2735.9	2712.3	1.0901	1.0930	2.1859		2481.6	2626.1
						2805.6		
19	2751.0	2727.4	1.0955	1.0983	2.1967		2483.2	2627.0
						2914.1		
19	2766.2	2742.4	1.1007	1.1035	2.2070		2485.2	2628.4
						3046.1		
18	2820.8	2796.9	1.1186	1.1214	2.2428		2494.1	2635.6
						3295.5		
18	2835.9	2812.0	1.1232	1.1260	2.2520		2497.4	2638.6
						3723.5		
18	2851.0	2827.1	1.1273	1.1300	2.2601		2501.8	2643.3
						3526.2		
18	2866.1	2842.2	1.1316	1.1343	2.2686		2505.6	2647.2
						3502.6		
17	2920.8	2896.7	1.1472	1.1499	2.2998		2519.1	2660.6
						3774.1		
17	2935.9	2911.8	1.1512	1.1539	2.3078		2523.5	2665.3
						3594.1		
17	2951.0	2926.9	1.1554	1.1581	2.3162		2527.4	2669.2
						3455.9		
17	2966.1	2942.0	1.1598	1.1624	2.3249		2530.9	2672.6
						3449.8		
16	3020.7	2996.4	1.1756	1.1782	2.3564		2543.2	2684.5
						3675.5		
16	3035.8	3011.5	1.1797	1.1823	2.3646		2547.1	2688.6
						3462.7		
16	3050.9	3026.6	1.1840	1.1867	2.3734		2550.4	2691.8
						3370.5		
16	3066.0	3041.7	1.1885	1.1912	2.3823		2553.5	2694.7
						3429.6		
15	3120.8	3096.3	1.2045	1.2071	2.4142		2565.1	2705.7
						4136.4		
15	3135.9	3111.3	1.2081	1.2107	2.4215		2569.8	2711.1
						3707.1		
15	3151.0	3126.4	1.2122	1.2148	2.4296		2573.6	2715.1
						3854.6		
15	3166.1	3141.5	1.2161	1.2187	2.4374		2577.7	2719.5
						3517.5		
14	3220.8	3196.1	1.2317	1.2342	2.4684		2589.6	2731.0
						3373.1		
14	3235.9	3211.2	1.2362	1.2387	2.4774		2592.4	2733.6
						3582.0		
14	3251.0	3226.3	1.2404	1.2429	2.4858		2595.7	2736.9
						3968.2		
14	3266.2	3241.4	1.2442	1.2467	2.4934		2599.9	2741.5
						3923.1		
12	3281.3	3256.4	1.2481	1.2506	2.5011		2604.0	2745.9
						4208.3		
12	3296.4	3271.5	1.2516	1.2541	2.5083		2608.6	2751.2
						3535.0		
12	3311.5	3286.6	1.2559	1.2584	2.5168		2611.7	2754.2
						3570.5		
12	3326.6	3301.7	1.2602	1.2626	2.5253		2614.9	2757.3
						2849.0		

Stack Summary Listing (5/5) from VSI_004_OceanPatriot_geo_wavelfield_z.1df

Stack Number ACQUISITION SHOT_ NUMBER	Measured Depth [m] CABLE_ LENGTH	True Vertical Depth [m] RECEIVER_ CORRECTION_ Z	Measured Time [s] TRANSIT_ TIME	One-way Vertical Time [s] TRANSIT_ TIME_SRD	Two-way Vertical Time [s] TRANSIT_ TIME_ INITIAL	Interval Velocity [m/s] VELOCITY_ 1	Average Velocity [m/s] VELOCITY_ 2	RMS Velocity [m/s] VELOCITY_ 3
11	3341.8	3316.8	1.2655	1.2679	2.5359		2615.9	2757.7
						4178.5		
11	3356.9	3331.9	1.2691	1.2715	2.5431		2620.3	2762.8
						3437.4		
11	3372.0	3347.0	1.2735	1.2759	2.5519		2623.2	2765.4
						3665.6		
11	3387.1	3362.1	1.2776	1.2800	2.5601		2626.5	2768.8
						3937.8		
10	3402.2	3377.1	1.2814	1.2839	2.5678		2630.4	2773.0
						3364.0		
10	3417.3	3392.2	1.2859	1.2884	2.5767		2633.0	2775.3
						3839.3		
10	3432.5	3407.3	1.2899	1.2923	2.5846		2636.6	2779.1
						3395.7		
10	3447.6	3422.4	1.2943	1.2967	2.5935		2639.2	2781.5
						3597.7		
9	3462.7	3437.5	1.2985	1.3009	2.6019		2642.3	2784.5
						3384.6		
9	3477.8	3452.6	1.3030	1.3054	2.6108		2644.9	2786.8
						3497.2		
9	3492.9	3467.7	1.3073	1.3097	2.6194		2647.7	2789.4
						3414.4		
9	3508.0	3482.8	1.3117	1.3141	2.6282		2650.3	2791.7
						3378.5		
8	3523.2	3497.9	1.3162	1.3186	2.6372		2652.7	2793.9
						3671.0		
8	3538.3	3513.0	1.3203	1.3227	2.6454		2655.9	2797.1
						3668.1		
8	3553.4	3528.1	1.3245	1.3268	2.6536		2659.0	2800.2
						3338.0		
8	3568.5	3543.1	1.3290	1.3313	2.6627		2661.3	2802.2
						3395.2		
7	3583.7	3558.3	1.3335	1.3358	2.6716		2663.8	2804.4
						3801.5		
7	3598.9	3573.4	1.3374	1.3398	2.6796		2667.2	2807.9
						3165.0		
7	3614.0	3588.5	1.3422	1.3446	2.6891		2668.9	2809.2
						3650.1		
7	3629.1	3603.6	1.3464	1.3487	2.6974		2671.9	2812.2
						3915.1		
6	3644.1	3618.6	1.3502	1.3525	2.7050		2675.5	2815.9
						3570.3		
6	3659.2	3633.7	1.3544	1.3567	2.7135		2678.2	2818.6
						3895.2		
6	3674.3	3648.8	1.3583	1.3606	2.7212		2681.7	2822.2
						3417.4		
6	3689.4	3663.9	1.3627	1.3650	2.7301		2684.1	2824.4
						3298.8		
5	3704.6	3679.0	1.3673	1.3696	2.7392		2686.1	2826.1
						4204.2		
5	3719.7	3694.1	1.3709	1.3732	2.7464		2690.1	2830.6
						3853.9		
5	3734.8	3709.2	1.3748	1.3771	2.7543		2693.4	2834.0
						3939.9		
5	3749.9	3724.3	1.3787	1.3810	2.7619		2696.9	2837.7

Shot Summary Listing (1/5)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
620.8	1	40	23.0	13.2	887.5	237, 238, 239
635.9	2	40	-7.0	13.2	933.0	237, 238, 239
651.0	3	40	16.4	13.3	878.4	237, 238, 239
666.1	4	40	19.1	13.3	758.4	237, 238, 239
720.8	1	39	23.8	13.2	907.3	234, 235, 236
735.9	2	39	-6.9	13.2	923.6	234, 235, 236
751.0	3	39	14.2	13.4	881.3	234, 235, 236
766.1	4	39	15.9	13.3	744.7	234, 235, 236
820.8	1	38	23.9	13.2	901.4	231, 232, 233
835.9	2	38	-6.5	13.3	914.3	231, 232, 233
851.0	3	38	12.0	13.3	869.4	231, 232, 233
866.1	4	38	13.0	13.3	740.7	231, 232, 233
920.8	1	37	22.0	13.2	912.6	228, 229, 230
935.9	2	37	-7.4	13.2	916.9	228, 229, 230
951.0	3	37	12.7	13.4	883.9	228, 229, 230
966.1	4	37	9.5	13.2	744.4	228, 229, 230
1020.8	1	36	20.7	13.2	887.8	225, 226, 227
1035.9	2	36	-7.3	13.2	904.7	225, 226, 227
1051.0	3	36	9.3	13.4	868.5	225, 226, 227
1066.2	4	36	8.2	13.4	742.6	225, 226, 227
1120.8	1	35	18.5	13.2	904.4	222, 223, 224
1135.9	2	35	-7.0	13.2	901.8	222, 223, 224
1151.0	3	35	7.0	13.4	865.9	222, 223, 224
1166.1	4	35	-0.3	13.3	741.2	222, 223, 224
1220.7	1	34	17.1	13.2	896.8	219, 220, 221
1235.8	2	34	-7.8	13.2	898.8	219, 220, 221
1251.0	3	34	4.9	13.4	855.6	219, 220, 221
1266.1	4	34	-1.4	13.3	724.4	219, 220, 221

Shot Summary Listing (2/5)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
1320.8	1	33	15.0	13.2	896.3	216, 217, 218
1335.9	2	33	-8.4	13.3	887.9	216, 217, 218
1351.0	3	33	4.5	13.3	863.4	216, 217, 218
1366.1	4	33	-7.6	13.3	719.3	216, 217, 218
1420.8	1	32	13.7	13.2	886.0	212, 213, 214, 215
1435.9	2	32	-5.0	13.3	896.7	212, 213, 214, 215
1451.0	3	32	4.2	13.4	859.6	212, 213, 214, 215
1466.2	4	32	-12.7	13.3	714.9	212, 213, 214, 215
1535.9	2	31	-2.4	13.9	899.8	207, 208, 209, 210, 211
1551.1	3	31	3.5	13.5	854.0	207, 208, 209, 210, 211
1566.2	4	31	-12.5	13.2	698.6	207, 208, 209, 210, 211
1620.8	1	30	27.0	13.2	879.6	204, 205, 206
1635.9	2	30	-2.1	13.2	902.4	204, 205, 206
1651.0	3	30	4.4	13.7	837.0	204, 205, 206
1666.2	4	30	-12.3	13.6	727.8	204, 205, 206
1720.4	1	29	33.0	13.0	877.4	201, 202, 203
1735.5	2	29	-2.1	13.2	883.8	201, 202, 203
1750.7	3	29	7.1	13.4	846.9	201, 202, 203
1765.8	4	29	-12.1	13.2	718.0	201, 202, 203
1820.8	1	28	33.0	13.0	884.6	198, 199, 200
1835.9	2	28	-2.4	13.3	873.7	198, 199, 200
1851.0	3	28	8.0	13.4	847.6	198, 199, 200
1866.1	4	28	-11.9	13.2	721.9	198, 199, 200
1920.8	1	27	33.0	13.0	865.3	195, 196, 197
1935.9	2	27	-2.4	13.2	866.7	195, 196, 197
1951.0	3	27	7.8	13.2	802.7	195, 196, 197
1966.1	4	27	-11.7	13.2	703.1	195, 196, 197
2020.7	1	26	32.8	12.9	837.0	192, 193, 194

Shot Summary Listing (3/5)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
2035.9	2	26	-2.7	13.1	868.9	192, 193, 194
2051.0	3	26	7.7	13.3	837.0	192, 193, 194
2066.1	4	26	-11.6	13.1	701.4	192, 193, 194
2120.8	1	25	31.4	12.9	826.3	187, 188, 190, 191
2135.9	2	25	-2.7	13.1	837.9	187, 188, 190, 191
2151.0	3	25	5.8	13.2	810.5	187, 188, 190, 191
2166.2	4	25	-10.3	13.1	701.1	187, 188, 190, 191
2220.8	1	24	28.2	12.9	852.2	183, 184, 185, 186
2235.9	2	24	-2.6	13.1	851.4	183, 184, 185, 186
2251.0	3	24	-3.5	13.2	800.5	183, 184, 185, 186
2266.1	4	24	-13.9	13.1	677.8	183, 184, 185, 186
2320.8	1	23	23.8	13.0	834.9	179, 180, 181, 182
2335.9	2	23	-2.6	13.2	842.0	179, 180, 181, 182
2351.0	3	23	-10.4	13.3	798.9	179, 180, 181, 182
2366.1	4	23	-14.4	13.1	685.1	179, 180, 181, 182
2420.8	1	22	21.3	13.0	841.0	175, 176, 177, 178
2435.9	2	22	-2.7	13.1	814.6	175, 176, 177, 178
2451.0	3	22	-11.5	13.2	798.3	175, 176, 177, 178
2466.1	4	22	-11.1	13.3	662.0	175, 176, 177, 178
2520.8	1	21	18.9	13.0	841.3	171, 172, 173, 174
2535.9	2	21	-4.1	13.3	829.5	171, 172, 173, 174
2551.0	3	21	-14.1	13.3	797.4	171, 172, 173, 174
2566.2	4	21	-9.5	13.3	662.3	171, 172, 173, 174
2620.8	1	20	22.2	13.0	840.2	167, 168, 169, 170
2635.9	2	20	-0.3	13.2	831.0	167, 168, 169, 170
2651.0	3	20	-14.6	13.2	800.3	167, 168, 169, 170
2666.1	4	20	-9.4	13.2	687.4	167, 168, 169, 170
2720.8	1	19	18.7	13.2	801.2	163, 164, 165, 166

Shot Summary Listing (4/5)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
2735.9	2	19	-4.8	13.3	818.6	163, 164, 165, 166
2751.0	3	19	-5.9	13.2	781.1	163, 164, 165, 166
2766.2	4	19	-20.3	13.3	656.2	163, 164, 165, 166
2820.8	1	18	24.4	13.0	827.6	159, 160, 161, 162
2835.9	2	18	5.3	13.0	813.5	159, 160, 161, 162
2851.0	3	18	-5.1	13.0	800.7	159, 160, 161, 162
2866.1	4	18	-14.1	13.0	672.1	159, 160, 161, 162
2920.8	1	17	24.3	13.0	812.7	152, 153, 154, 155, 156, 157
2935.9	2	17	-1.9	13.6	812.4	152, 153, 154, 155, 156, 157
2951.0	3	17	-5.9	13.7	776.5	152, 153, 154, 155, 156, 157
2966.1	4	17	-10.2	13.0	675.3	152, 153, 154, 155, 156, 157
3020.7	1	16	25.3	12.9	826.1	145, 146, 147, 148, 149, 150, 151
3035.8	2	16	12.1	13.0	822.4	145, 146, 147, 148, 149, 150, 151
3050.9	3	16	-9.2	13.2	766.1	145, 146, 147, 148, 149, 150, 151
3066.0	4	16	-22.0	13.0	659.5	145, 146, 147, 148, 149, 150, 151
3120.8	1	15	32.3	12.8	826.0	138, 139, 141, 142, 143, 144
3135.9	2	15	0.2	13.0	792.9	138, 139, 140, 141, 142, 143, 144
3151.0	3	15	-8.4	13.0	787.4	138, 139, 140, 141, 142, 143, 144
3166.1	4	15	-22.8	13.1	655.1	138, 139, 140, 141, 142, 143, 144
3220.8	1	14	33.1	13.4	788.1	131, 132, 133, 134, 135, 136
3235.9	2	14	2.5	12.9	800.9	131, 132, 133, 134, 135, 136
3251.0	3	14	-4.0	13.0	762.1	131, 132, 133, 134, 135, 136
3266.2	4	14	-16.5	13.1	658.4	131, 132, 133, 134, 135, 136
3281.3	1	12	33.1	12.8	816.2	122, 124, 125, 126, 127, 128
3296.4	2	12	-9.3	13.0	798.2	118, 122, 123, 124, 125, 126, 127, 128
3311.5	3	12	-2.2	13.6	749.1	118, 122, 123, 124, 125, 126, 127, 128
3326.6	4	12	-15.8	13.2	662.0	118, 122, 123, 124, 125, 126, 127, 128
3341.8	1	11	32.7	12.9	811.5	109, 110, 111, 112, 113, 114, 116

Shot Summary Listing (5/5)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
3356.9	2	11	-0.2	13.3	773.8	109, 110, 111, 112, 113, 114, 116
3372.0	3	11	-4.8	13.1	760.6	109, 110, 111, 112, 113, 114, 116
3387.1	4	11	-10.1	12.9	642.7	109, 110, 111, 112, 113, 114, 116
3402.2	1	10	31.6	13.3	789.1	99, 100, 104, 105, 106, 107, 108
3417.3	2	10	4.5	12.9	793.1	99, 100, 104, 105, 106, 107, 108
3432.5	3	10	1.7	13.2	755.2	99, 100, 104, 105, 106, 107, 108
3447.6	4	10	-14.8	13.2	660.5	99, 100, 104, 105, 106, 107, 108
3462.7	1	9	24.9	12.8	800.1	92, 94, 95, 96, 97, 98
3477.8	2	9	-0.0	12.9	777.6	92, 94, 95, 96, 97, 98
3492.9	3	9	3.1	13.1	766.1	92, 94, 95, 96, 97, 98
3508.0	4	9	-22.6	12.9	649.0	92, 94, 95, 96, 97, 98
3523.2	1	8	25.0	13.0	779.1	86, 87, 88, 89, 90, 91
3538.3	2	8	-3.1	12.9	775.6	86, 87, 88, 89, 90, 91
3553.4	3	8	3.2	13.4	754.1	86, 87, 88, 89, 90, 91
3568.5	4	8	-11.6	13.4	632.7	86, 87, 88, 89, 90, 91
3583.7	1	7	23.7	13.1	751.0	78, 79, 80
3598.9	2	7	-3.4	13.3	773.8	78, 79, 80
3614.0	3	7	2.9	13.6	741.1	78, 79, 80
3629.1	4	7	0.8	13.4	617.4	78, 79, 80
3644.1	1	6	19.7	13.4	763.9	60, 61, 62, 63, 70
3659.2	2	6	-13.6	13.6	760.7	60, 61, 62, 63, 70
3674.3	3	6	2.5	13.5	739.6	60, 61, 62, 63, 70
3689.4	4	6	-8.2	13.6	621.8	60, 61, 62, 63, 70
3704.6	1	5	4.0	13.2	753.2	51, 52, 53, 55, 56, 57, 58, 59
3719.7	2	5	-31.0	14.1	745.1	51, 52, 53, 55, 56, 57, 58, 59
3734.8	3	5	3.8	13.3	750.2	51, 52, 53, 55, 56, 57, 58, 59
3749.9	4	5	-69.0	12.5	607.6	51, 52, 53, 55, 56, 57, 58, 59

Field Processing Report

Process Flow	Parameter
<pre>graph TD LoadLdf --> TraceRange TraceRange -- Output_1 --> 3CPolarization TraceRange -- Output_2 --> 3CPolarization TraceRange -- Output_3 --> Shft Shft -- Output_1 --> Frequency2 Shft -- Output_2 --> BPFilte1 Shft -- Output_3 --> Frequency BPFilte1 -- Output_1 --> GenVel1 GenVel1 -- Enhance --> WaveDecon GenVel1 -- Residual --> WaveDecon WaveDecon --> BPFilte1 BPFilte1 -- Up_Output --> Frequency1 BPFilte1 -- Output --> TVG_TAR[TVG(TAR)] TVG_TAR -- Output_1 --> GenVel1 GenVel1 -- Output_1 --> Frequency3 GenVel1 -- Enhanced --> Corridor</pre>	<p>[LoadLdf] Input 1: VSI_004_OceanPatriot_geo_wavefield_x.ldf Input 2: VSI_004_OceanPatriot_geo_wavefield_y.ldf Input 3: VSI_004_OceanPatriot_geo_wavefield_z.ldf</p> <p>[Frequency2] Apply FZ</p> <p>[BPFilte1] Phase: Zero Band Width: 5.0 - 90.0Hz</p> <p>[GenVel1] Apply internal Normalization/Denormalization Median Filter 9 Traces</p> <p>[WaveDecon] Waveshape Deconvolution Design Filter trace Input start at TRANSIT_TIME wavelet: 8.0 - 85.0 Hz zero-phase Polarity: Positive</p> <p>[Frequency1] Process all samples Apply FK</p> <p>[BPFilte1] Phase: Zero Band Width: 8.0 - 85.0Hz</p> <p>[TVG(TAR)] Travel time exponent = 1.50</p> <p>[Frequency3] Process all samples Apply FK</p> <p>[GenVel1] Median Filter 7 Traces</p> <p>[Corridor] Window Start: TRANSIT_TIME - 0.000 (s) Window End: TRANSIT_TIME - -0.200 (s) (Deepest 10 traces remain) Mean Stack BPF 5.0 - 90.0Hz</p> <p>[Frequency] Process all samples Apply FK</p>

[LoadLdf]

FileLoadLdf Parameters

Input 1: VSI_004_OceanPatriot_geo_wavelfield_x.ldf
Input 2: VSI_004_OceanPatriot_geo_wavelfield_y.ldf
Input 3: VSI_004_OceanPatriot_geo_wavelfield_z.ldf

[TraceRange]

Trace Range Set Manual Parameters

Trace Range Set Parameters

From

1 To

Align events using times of 36 Remove Bad Trace

[Shift]

Shift Parameters

Shift: + TRANSIT_TIME_ACCURACY - 0 s
Update selected headers

[Frequency2]

Spectral Analyser Parameters

Process from TRANSIT_TIME - 0.020 s
Gate Length = 3.000 s = (samples) 3001
= (F Max = 200 Hz
= (Apply F Max)
Trace range from 1 to 36
Depth/Offset header = RECEIVER_POSITION_Z
Output is Frequency Domain
Compute Amplitude spectrum in dB

[BPFILTER]

BPF Parameters

Butterworth Filter, Zero Phase
Characteristic: 5.000 Hz to 90.000 Hz Order 3

[GenVelFil]

Mean/Median Generalized Velocity Filter Parameters

Align events using times of TRANSIT_TIME x 1.000
Compute both enhanced and residual output
Apply internal Normalization/Denormalization based on RMS of time window
From TRANSIT_TIME - 0.020 s
Window length = 0.500 s

Median Stacking

Stacking window (traces): 9

Stacking window (samples): 1

Source and receiver coordinates Parameters

Source Offset: SOURCE_LINE_POSITION_RHO

Source Depth: SOURCE_LINE_POSITION_Z

Receiver Offset: RECEIVER_LINE_POSITION_RHO

Receiver Depth: RECEIVER_LINE_POSITION_Z

[WaveDecon]

Waveshaping deconvolution Parameters

Design Filter trace by trace

Filter input start at TRANSIT_TIME - 0.080 s
Filter input window: 1.000 s
Filter Length is filter input window
Desired wavelet created by filtered unit impulse from 8.000 Hz to 85.000 Hz
Positive wavelet polarity
Wavelet delay time = Filter Length / 2
White noise (%): 5.000
Waveshaping optimization Parameters

[Frequency1]

Spectral Analyser Parameters

Process all samples
Depth/Offset header = RECEIVER_POSITION_Z
Output is FK Domain
Compute Amplitude spectrum in dB

[BPFfilter1]

BPF Parameters

Butterworth Filter, Zero Phase
Characteristic: 8.000 Hz to 85.000 Hz Order 3

[TVG(TAR)]

Time-Varying Gain Parameters

Window start at TRANSIT_TIME - 0.000000
Window length = 4.999000
Travel time exponent = 1.500000
Exponential Weighting = 0.000000

[Frequency3]

Spectral Analyser Parameters

Process all samples
Depth/Offset header = RECEIVER_POSITION_Z
Output is FK Domain
Compute Amplitude spectrum in dB

[3CPolarization]

Polarizations Parameters

Compute polarization from TRANSIT_TIME - 0.005000 s for 0.025 s using threshold
Apply rotation on traces
2D rotation
save Hmn/Hmx angle in POLARIZATION_1 and rectilinearity in USER_KEY_1
save Try/Nry angle in POLARIZATION_2 and rectilinearity in USER_KEY_2
Reference to Z

[GenVelfill1]

Mean/Median Generalized Velocity Filter Parameters

Align events using times of TRANSIT_TIME x -1.000
Compute both enhanced and residual output
Median Stacking
Stacking window (traces): 7
Stacking window (samples): 1
Source and receiver coordinates Parameters
Source Offset: SOURCE_LINE_POSITION_RHO
Source Depth: SOURCE_LINE_POSITION_Z

Receiver Offset: RECEIVER_LINE_POSITION_RHO
Receiver Depth: RECEIVER_LINE_POSITION_Z

[Corridor]

Corridor stack Parameters

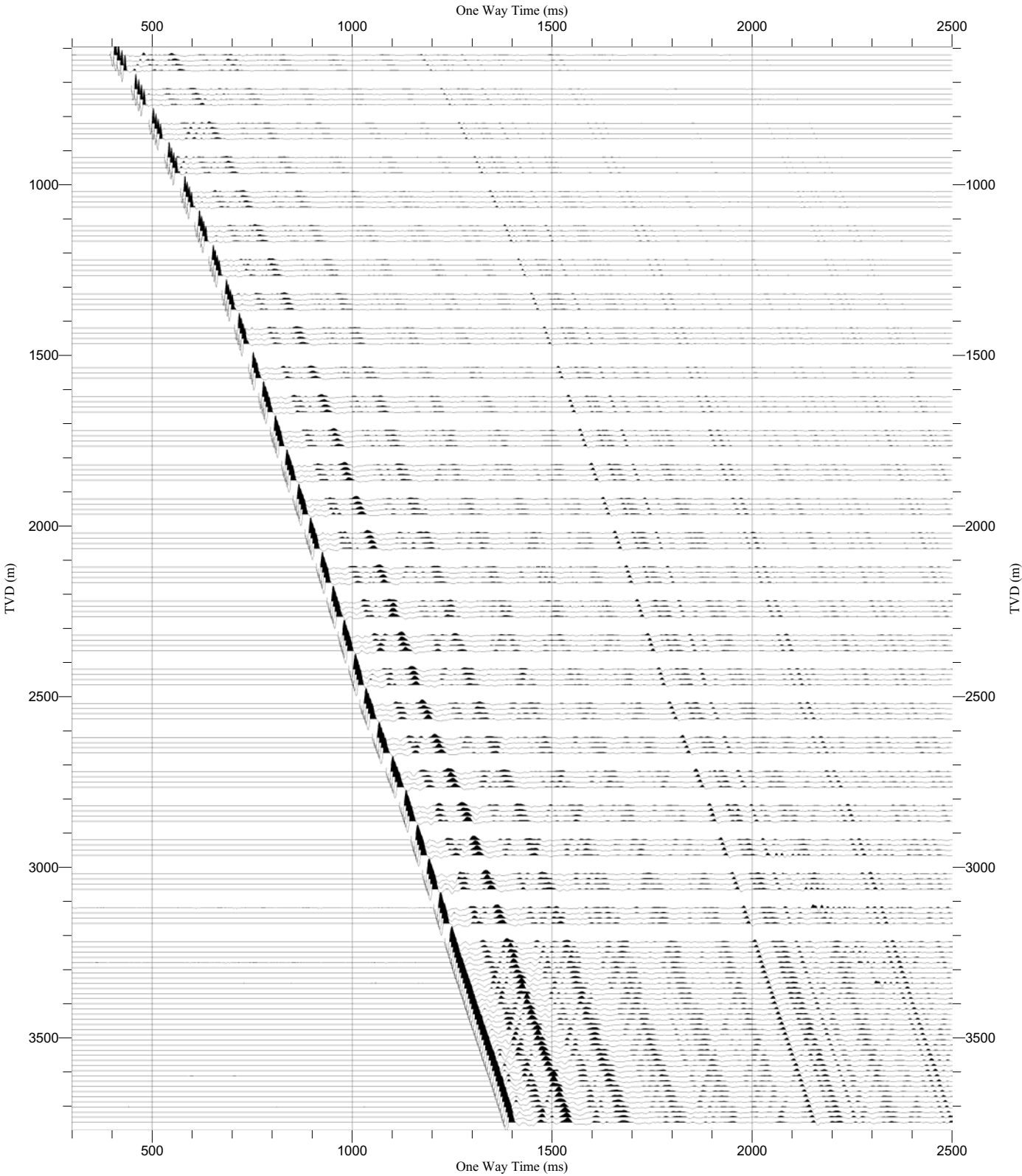
Mute before TRANSIT_TIME - 0 s
Mute after TRANSIT_TIME - -0.200 s
All traces except the deepest (traces): 10
Depth header: RECEIVER_POSITION_Z
Mean stack
Apply +TT with TRANSIT_TIME
Replicate corridor stack x 10
Apply BPF on resulting corridor stack
BPF Parameters
Butterworth Filter, Zero Phase
Characteristic: 5.000 Hz to 90.000 Hz Order 3

[Frequency]

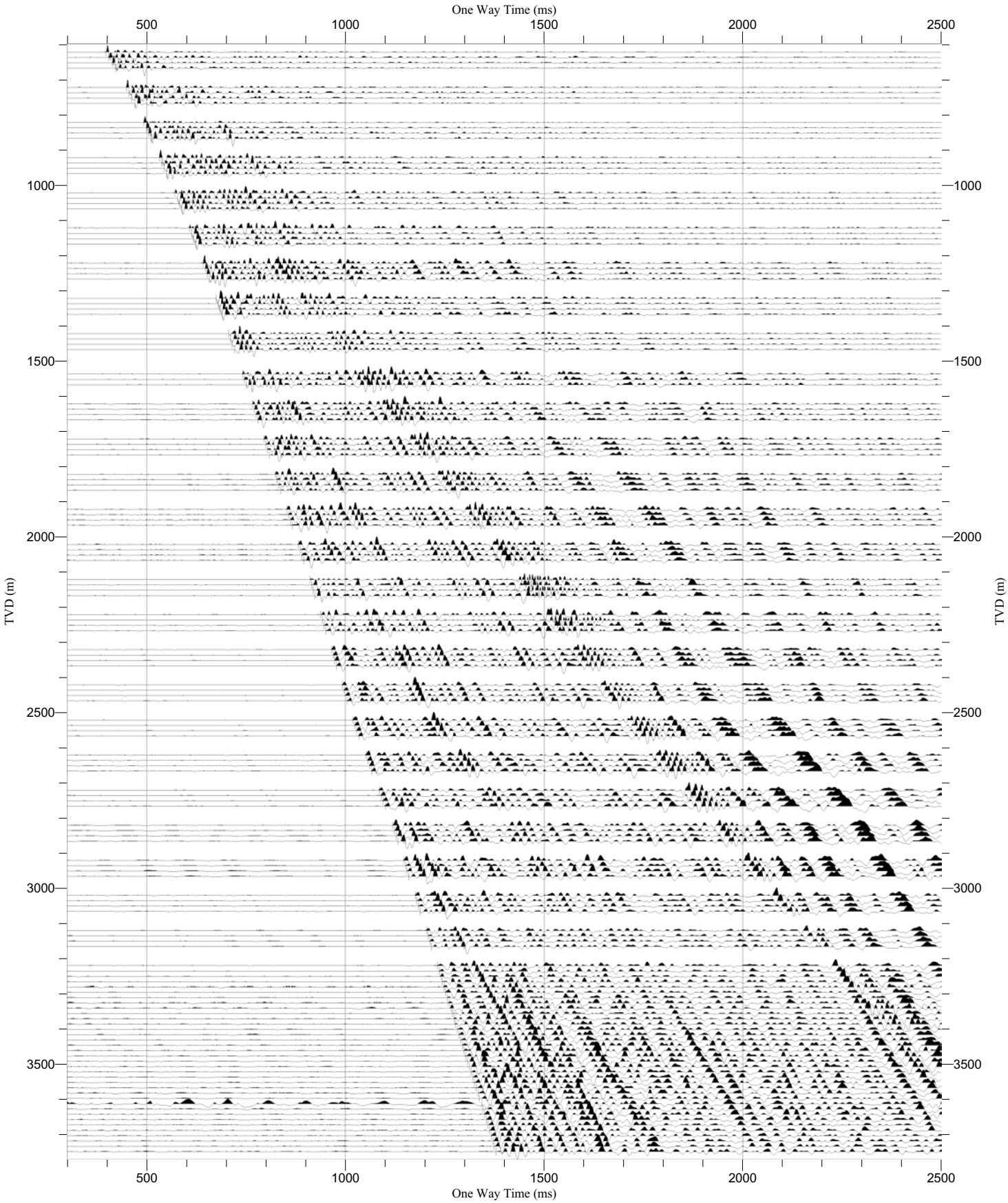
Spectral Analyser Parameters

Process all samples
Depth/Offset header = RECEIVER_POSITION_Z
Output is FK Domain
Compute Amplitude spectrum in dB

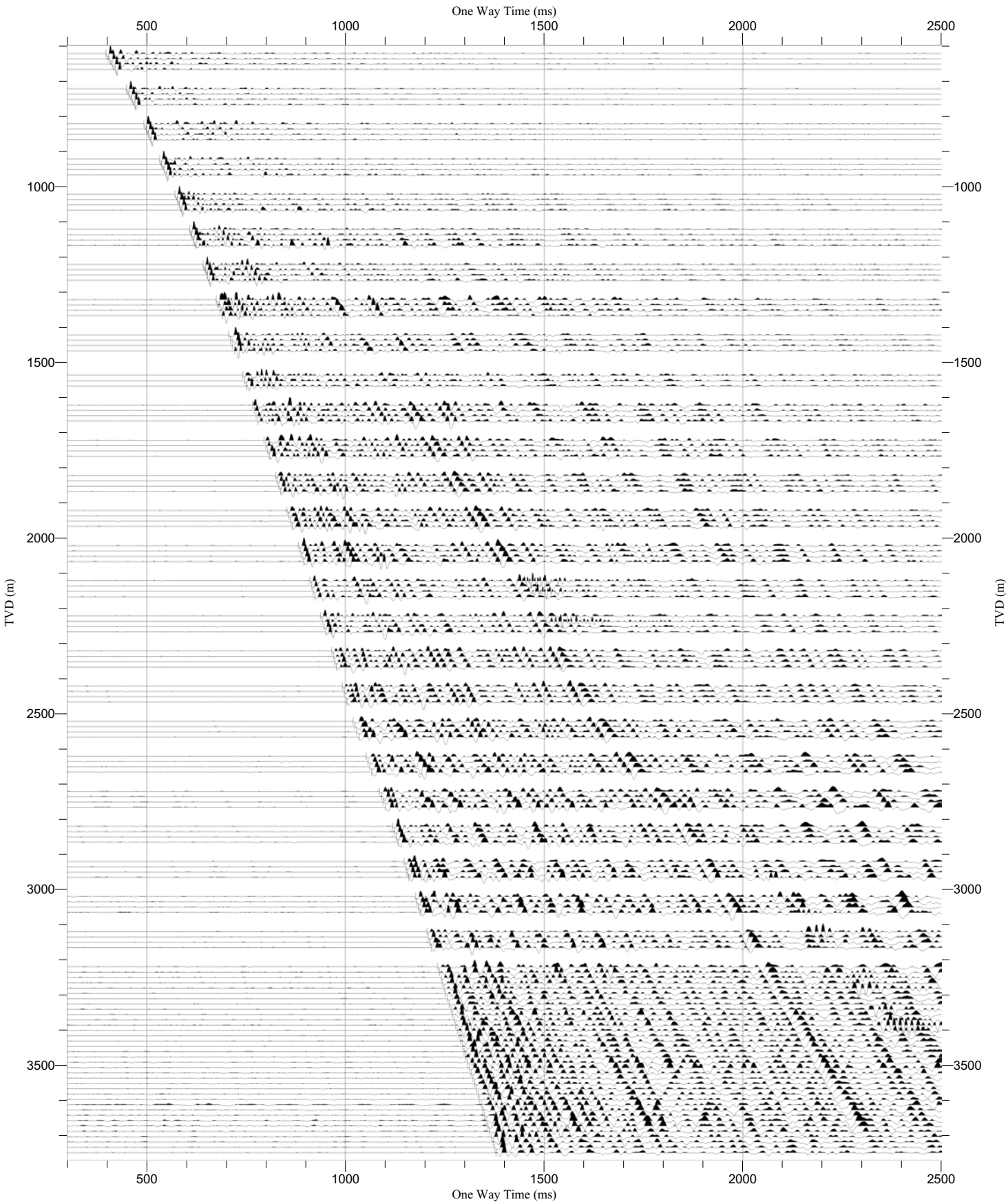
Raw Stack (Z)	Normalization Trace by Trace (200%) Polarity Normal One Way Time (ms) Scaling 7.2 cm/sec, 1/16340	
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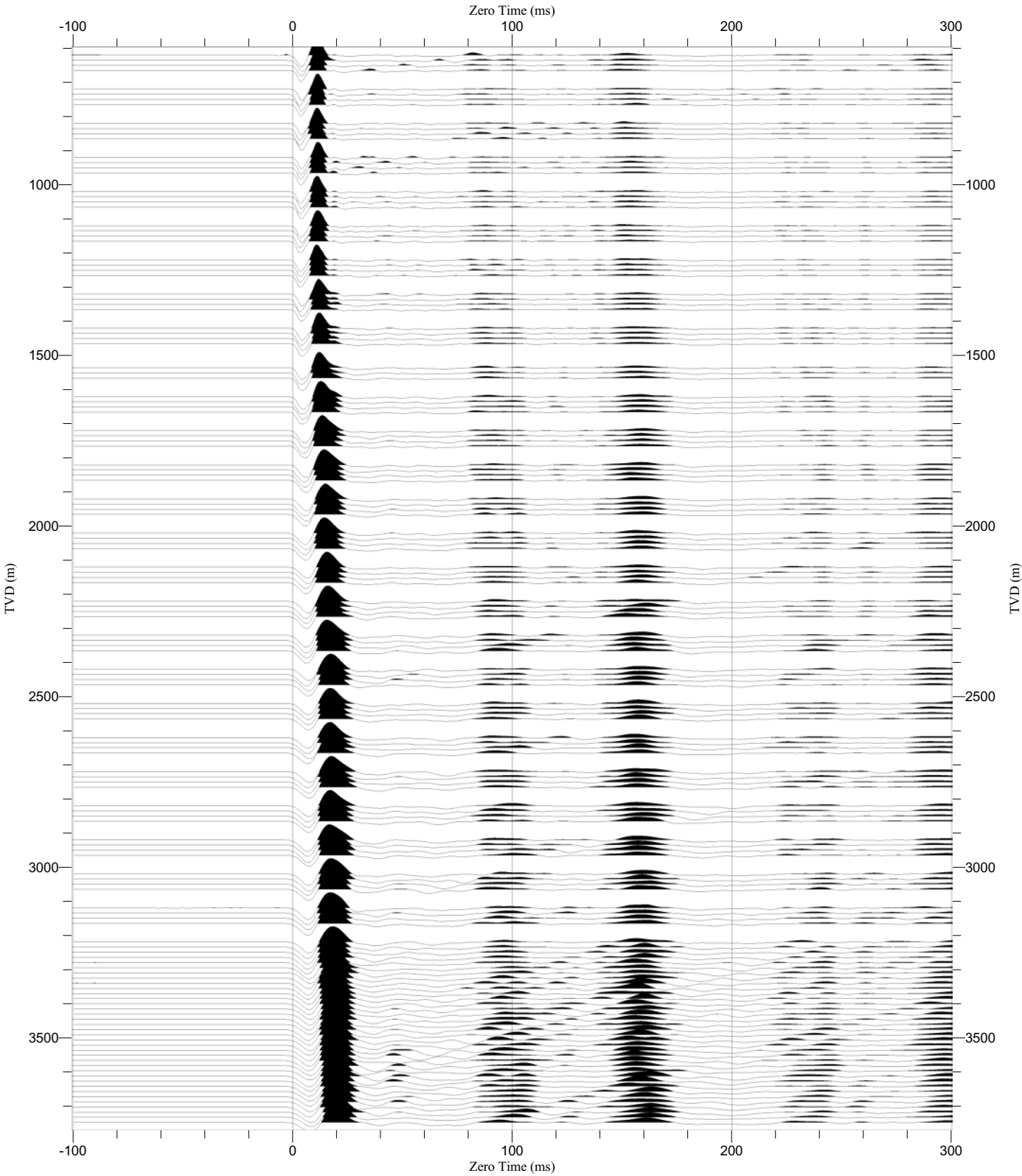
Raw Stack (X)	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/14810	
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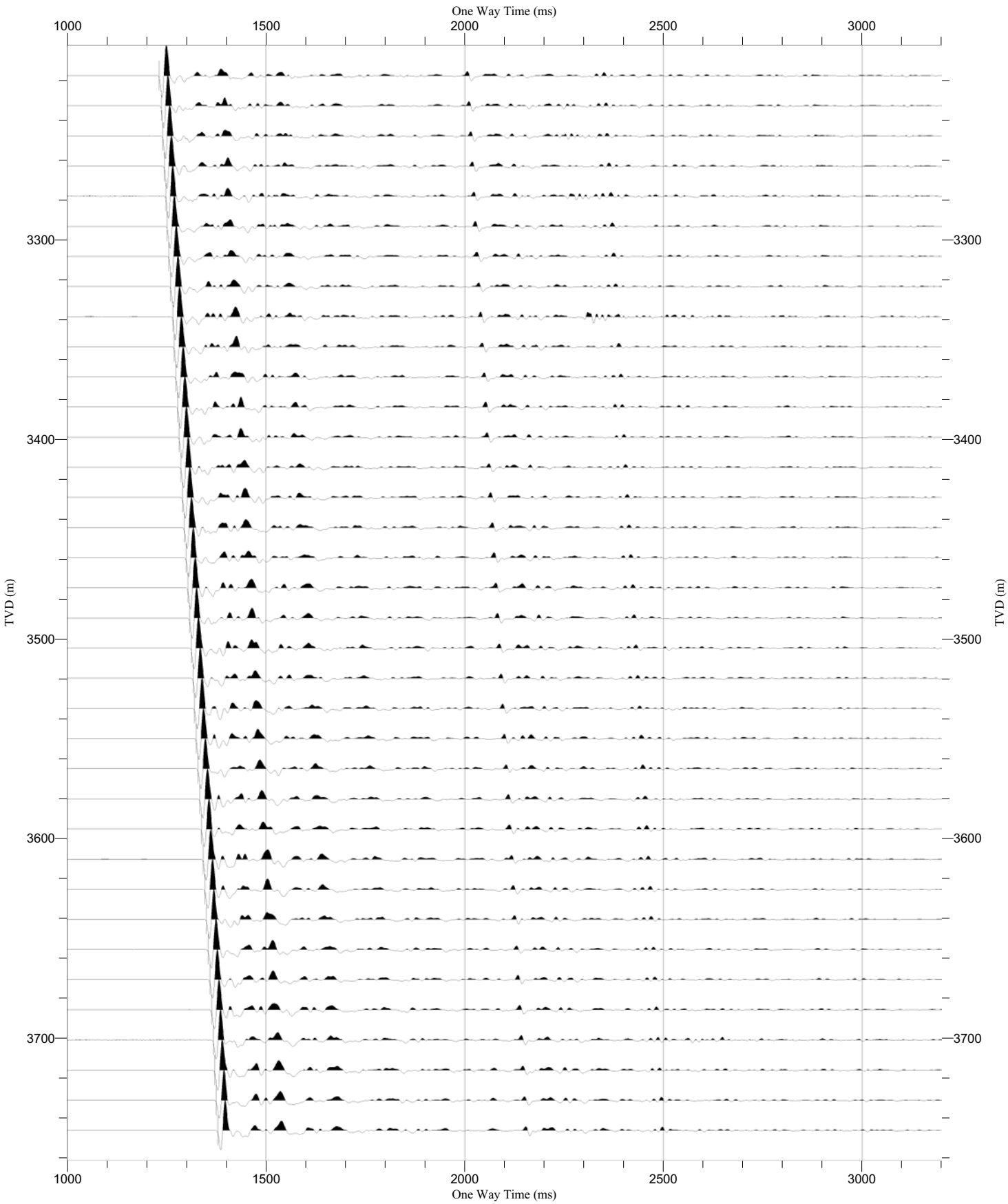
Raw Stack (Y)	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/14810	
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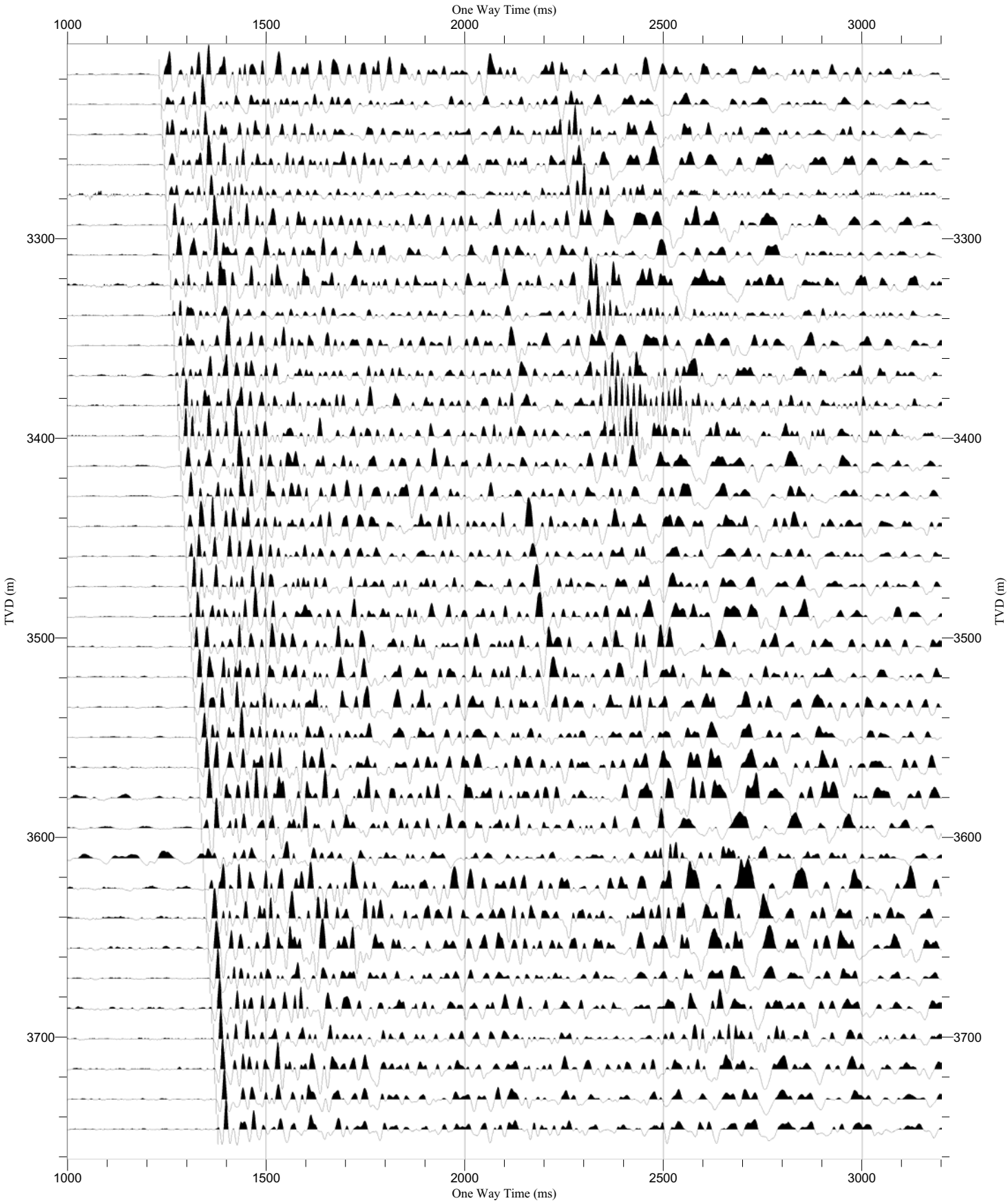
Raw Stack (Z) (Magnified)	Normalization Trace by Trace (200%) Polarity Normal Zero Time (ms) Scaling 39.4 cm/sec, 1/16340	
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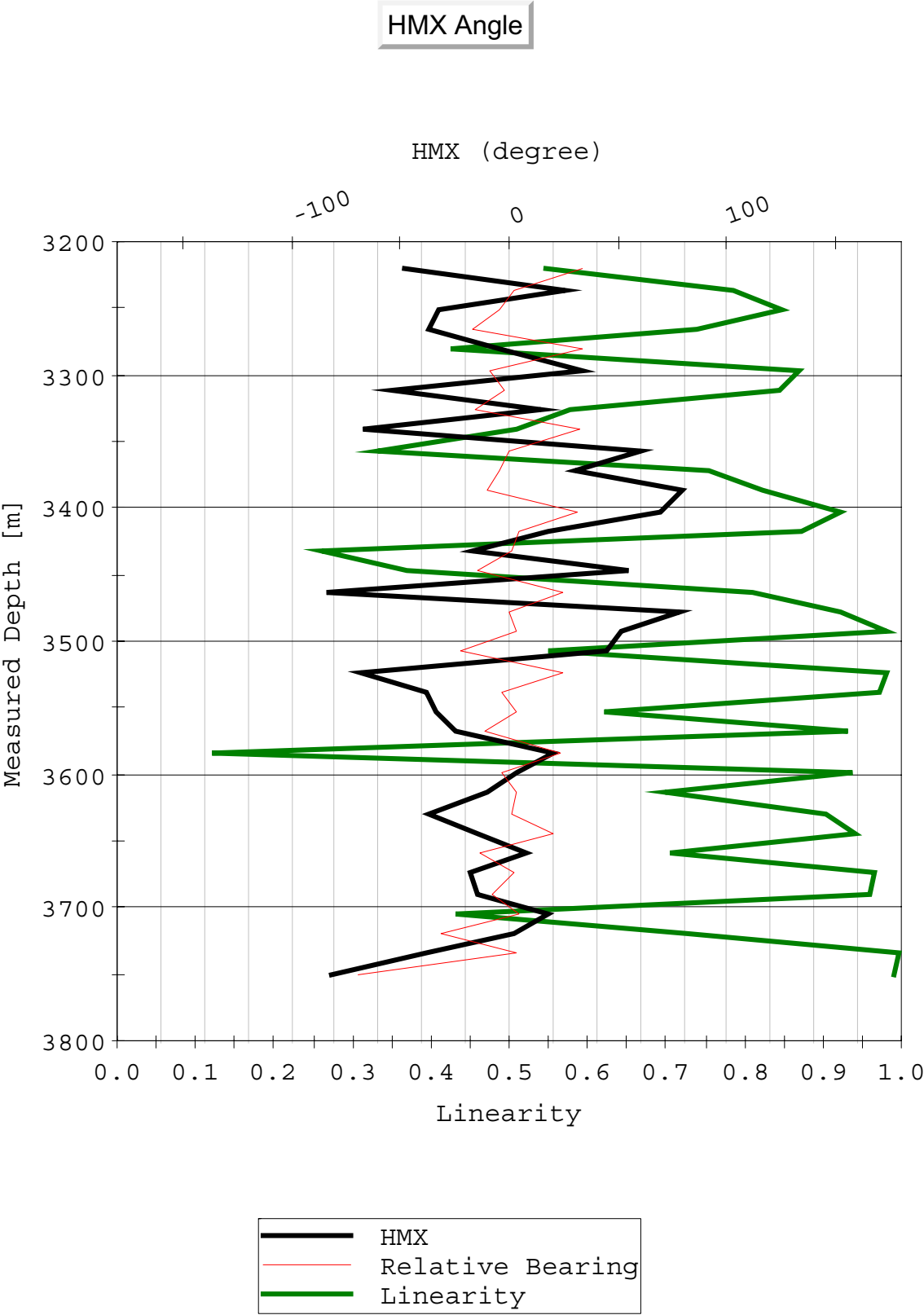


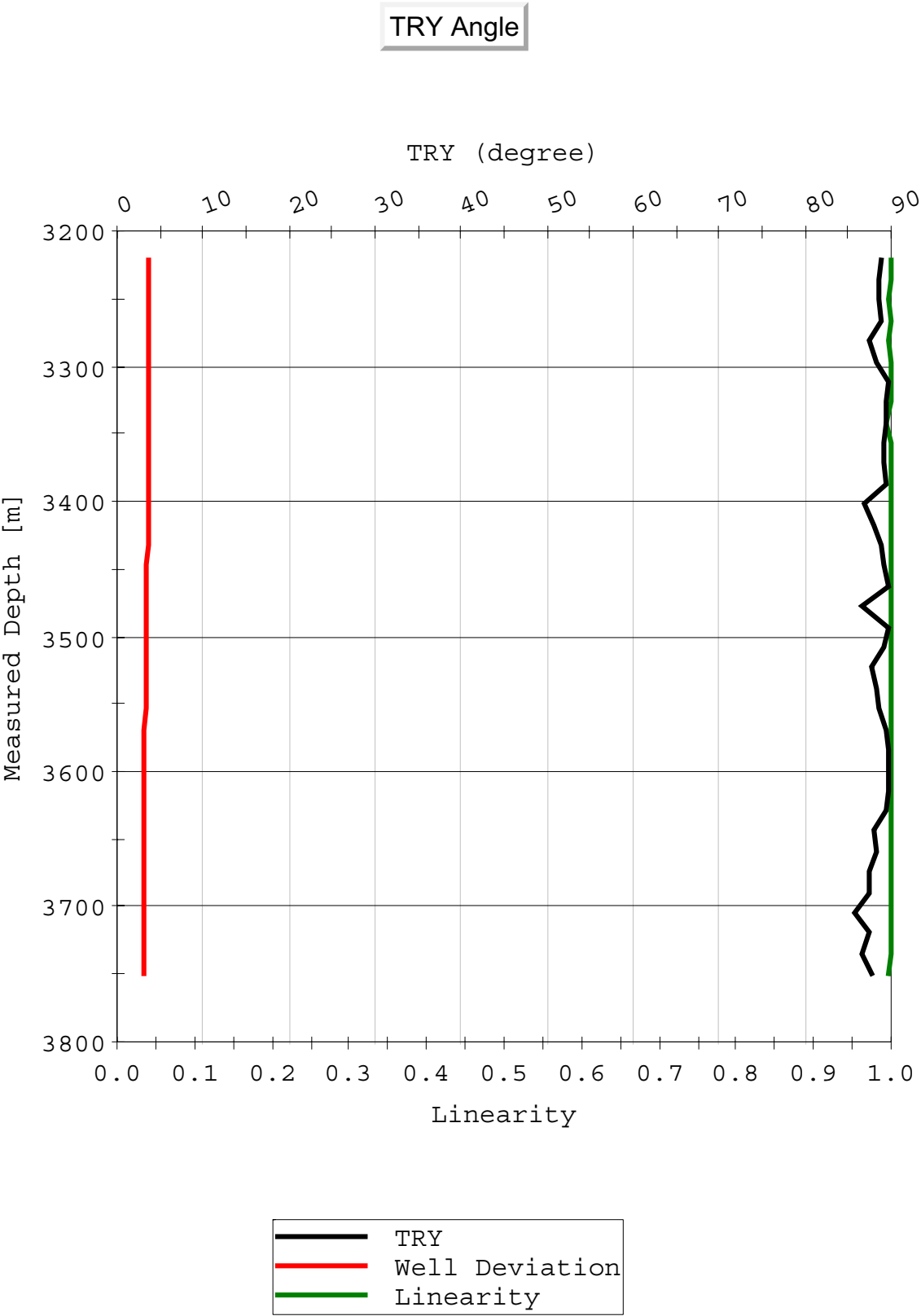
Raw Stack (TRY)	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/2610	
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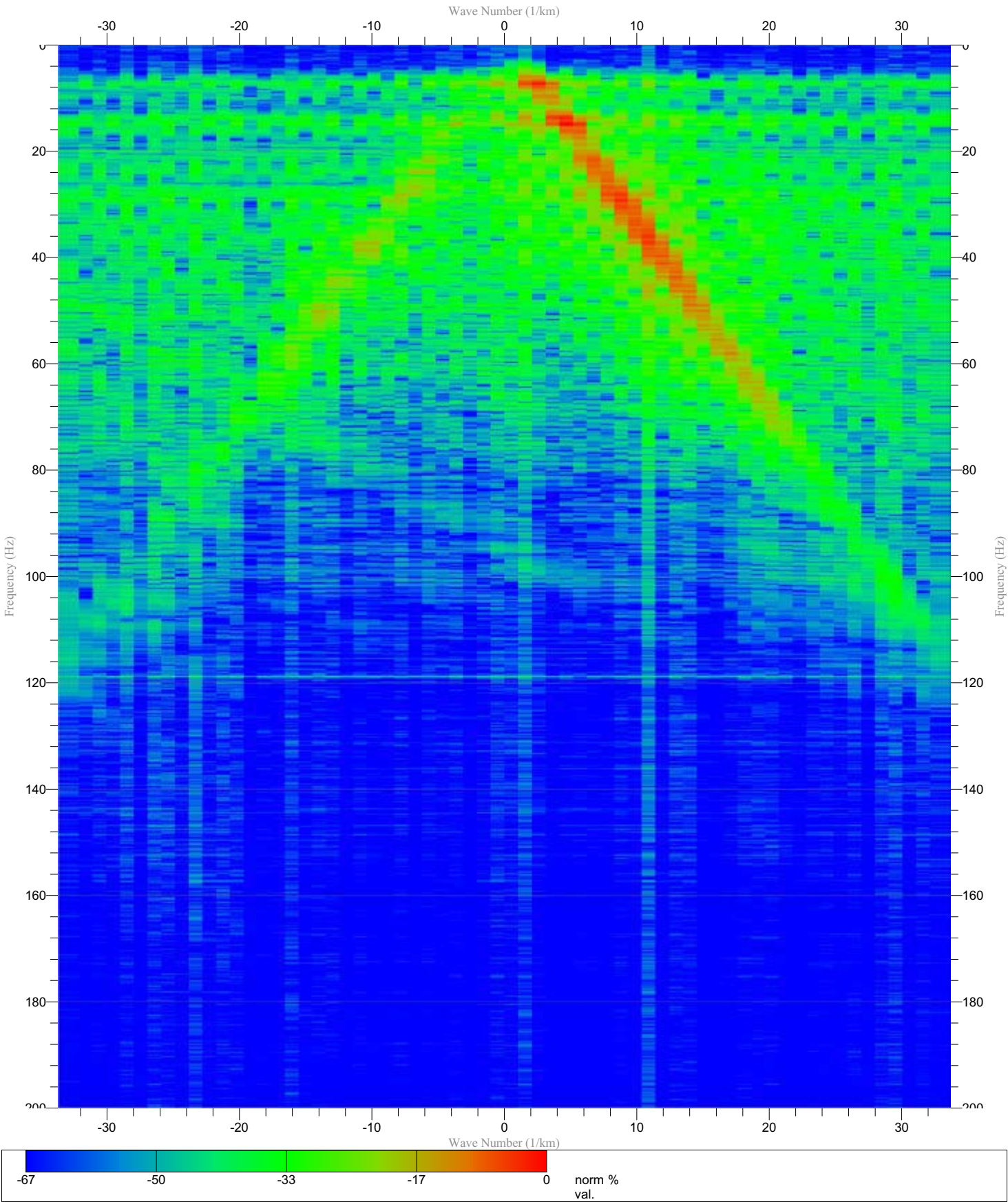
Raw Stack (HMX)	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/2610	
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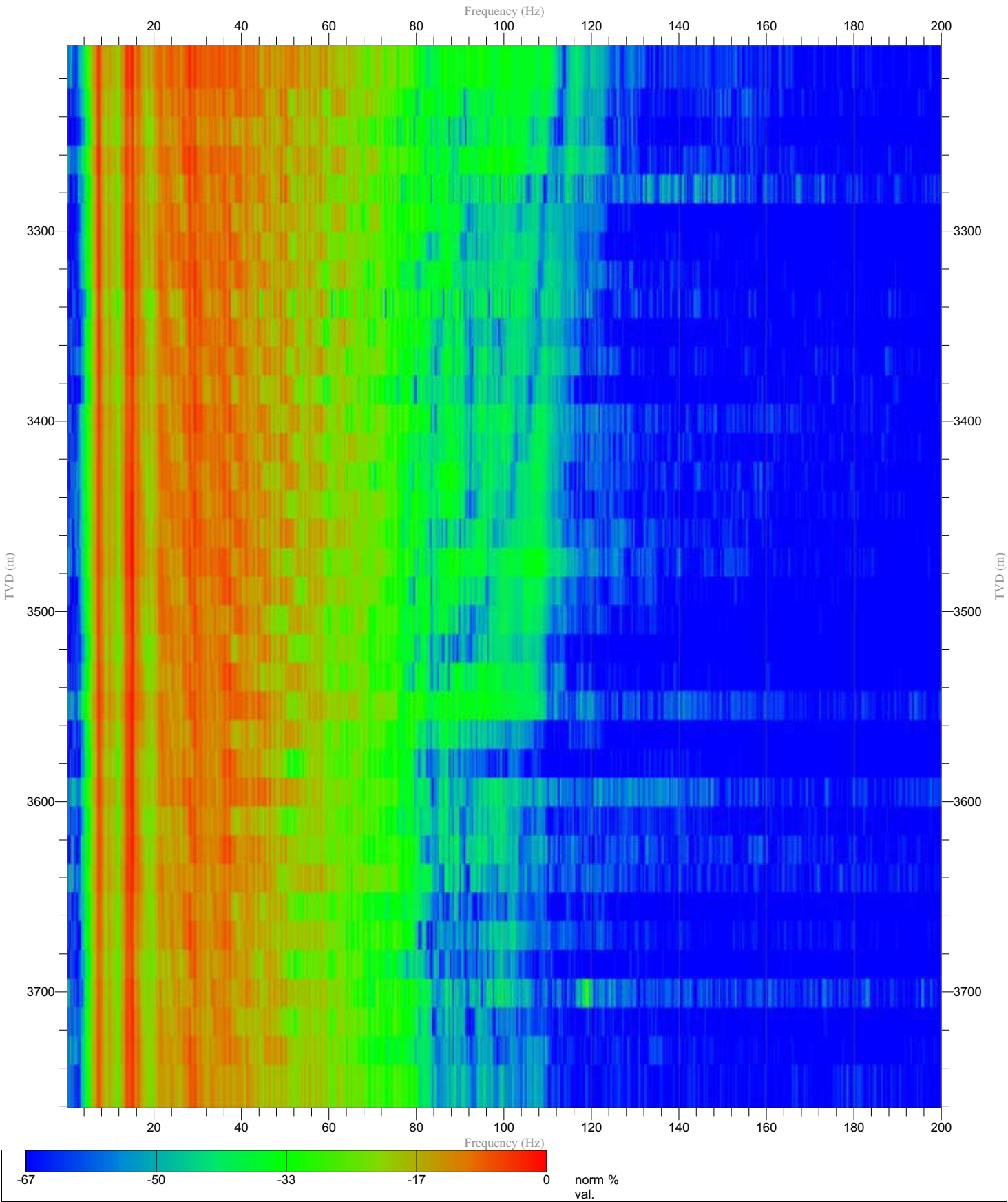




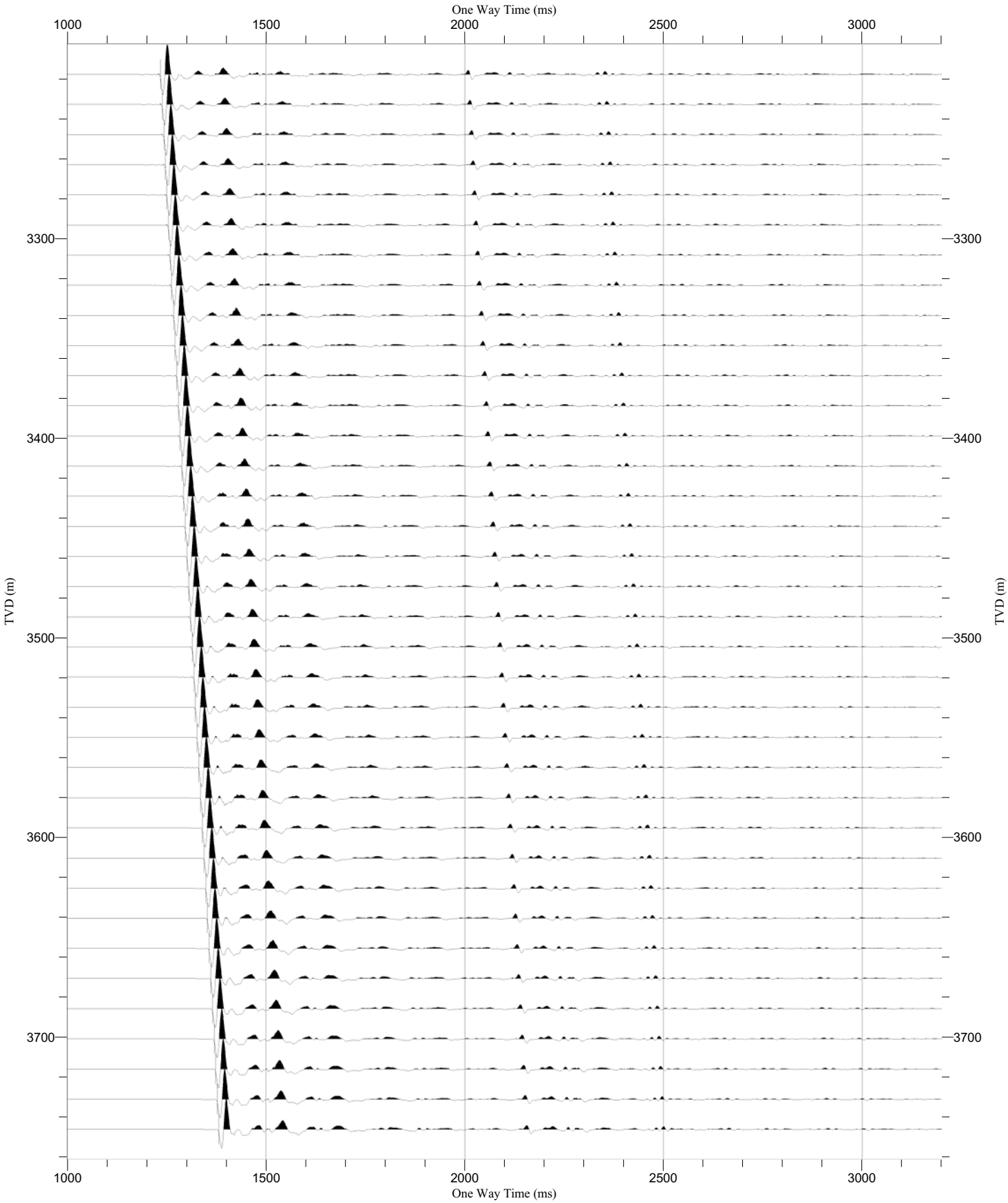
VSP Raw Stack (Z) FK Apply FK	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.11 cm/Hz, 0.25(1/km)/cm	
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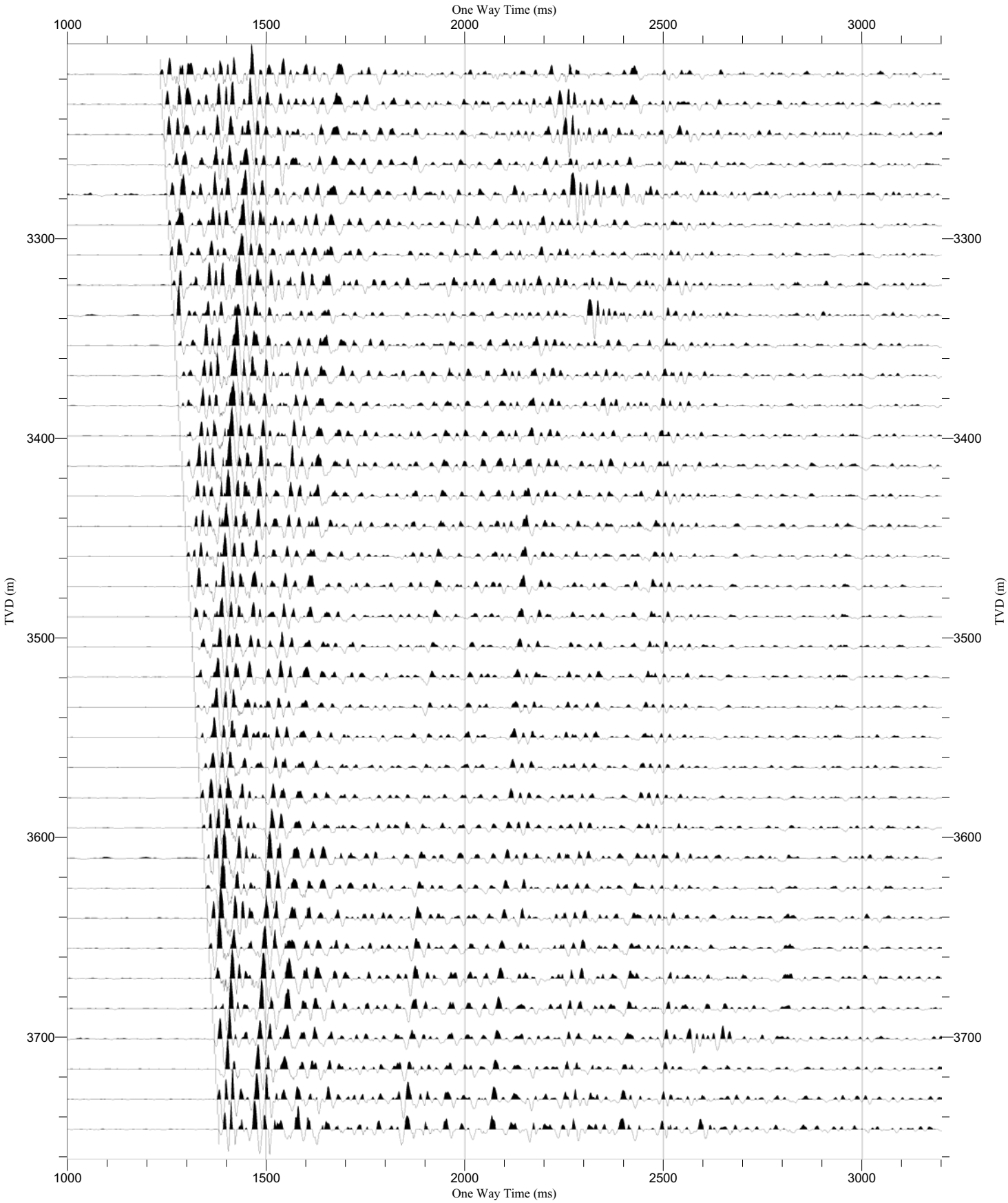
VSP Raw Stack (Z) FZ Apply FZ	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.1 cm/Hz, 1/2620	
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VSP Downgoing BPF 5.0 - 90.0Hz Median Filter 9 Traces	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/2610	
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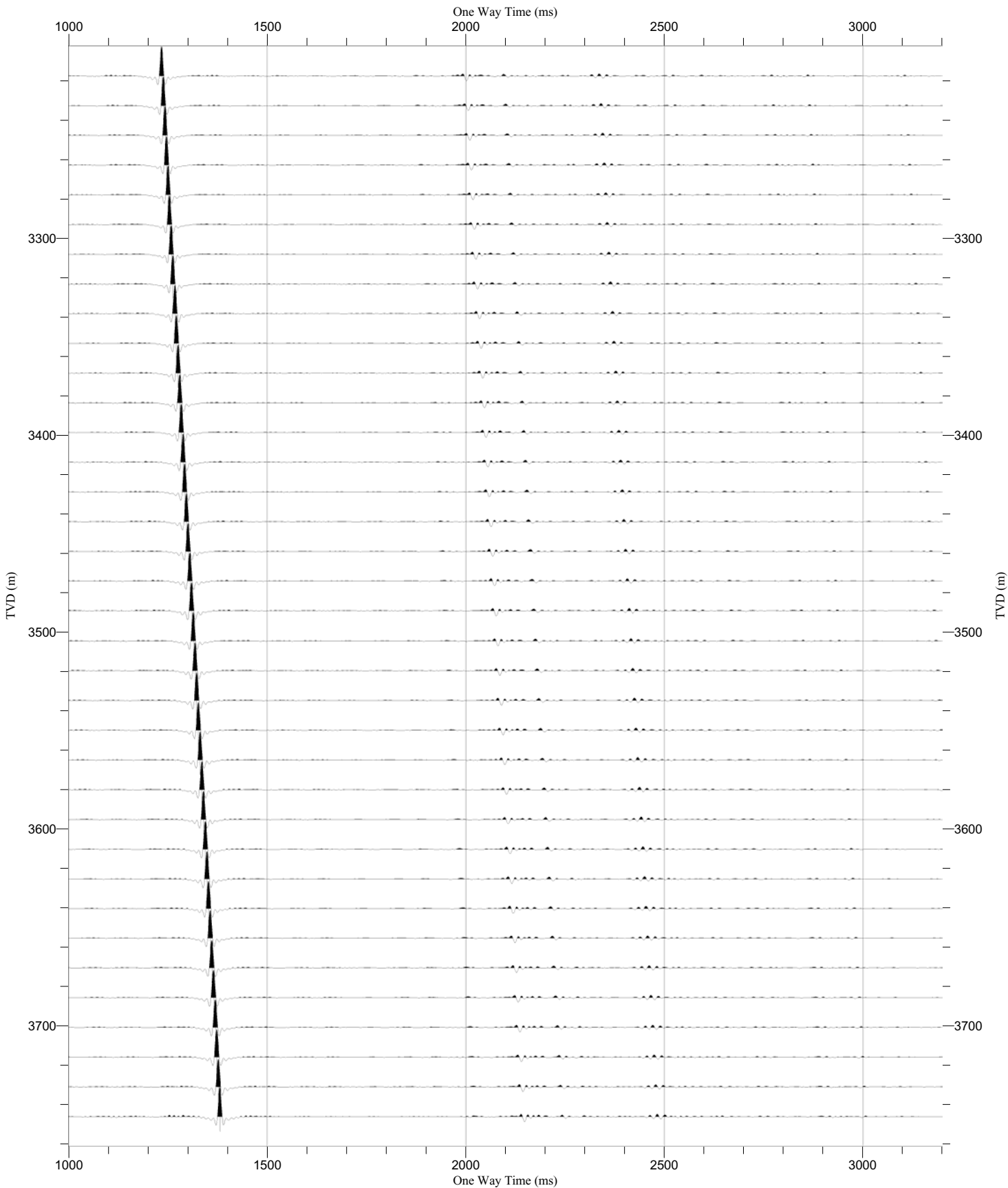


VSP Upgoing BPF 5.0 - 90.0Hz Median Filter 9 Traces	Normalization Trace by Trace (100%) Polarity Normal One Way Time (ms) Scaling 7.6 cm/sec, 1/2610	
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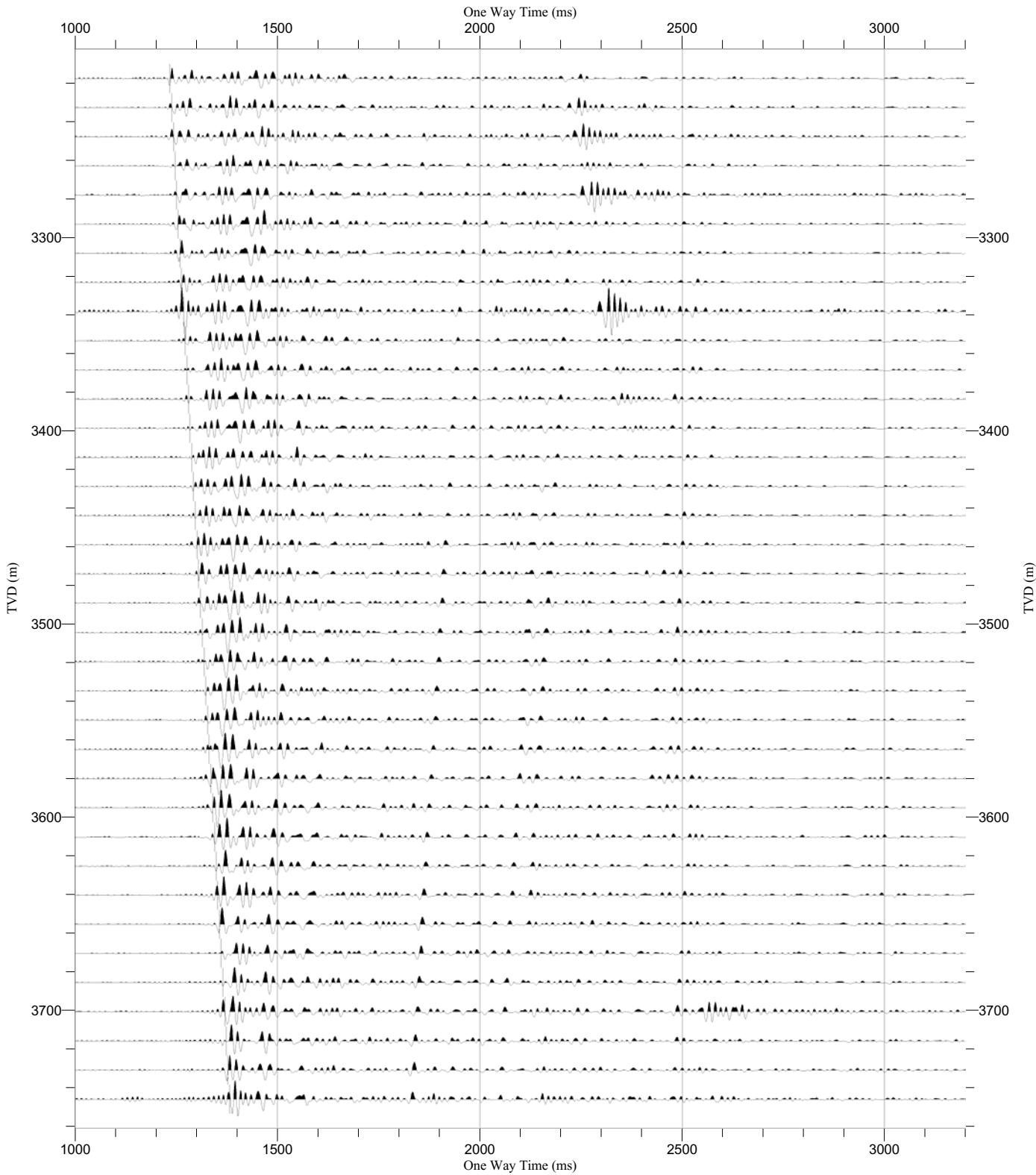



VSP Waveshape decon downgoing
BPF 5.0 - 90.0Hz
Median Filter 9 Traces
Waveshape Decon.(wavelet: 8.0 - 85.0 Hz zero-phase)

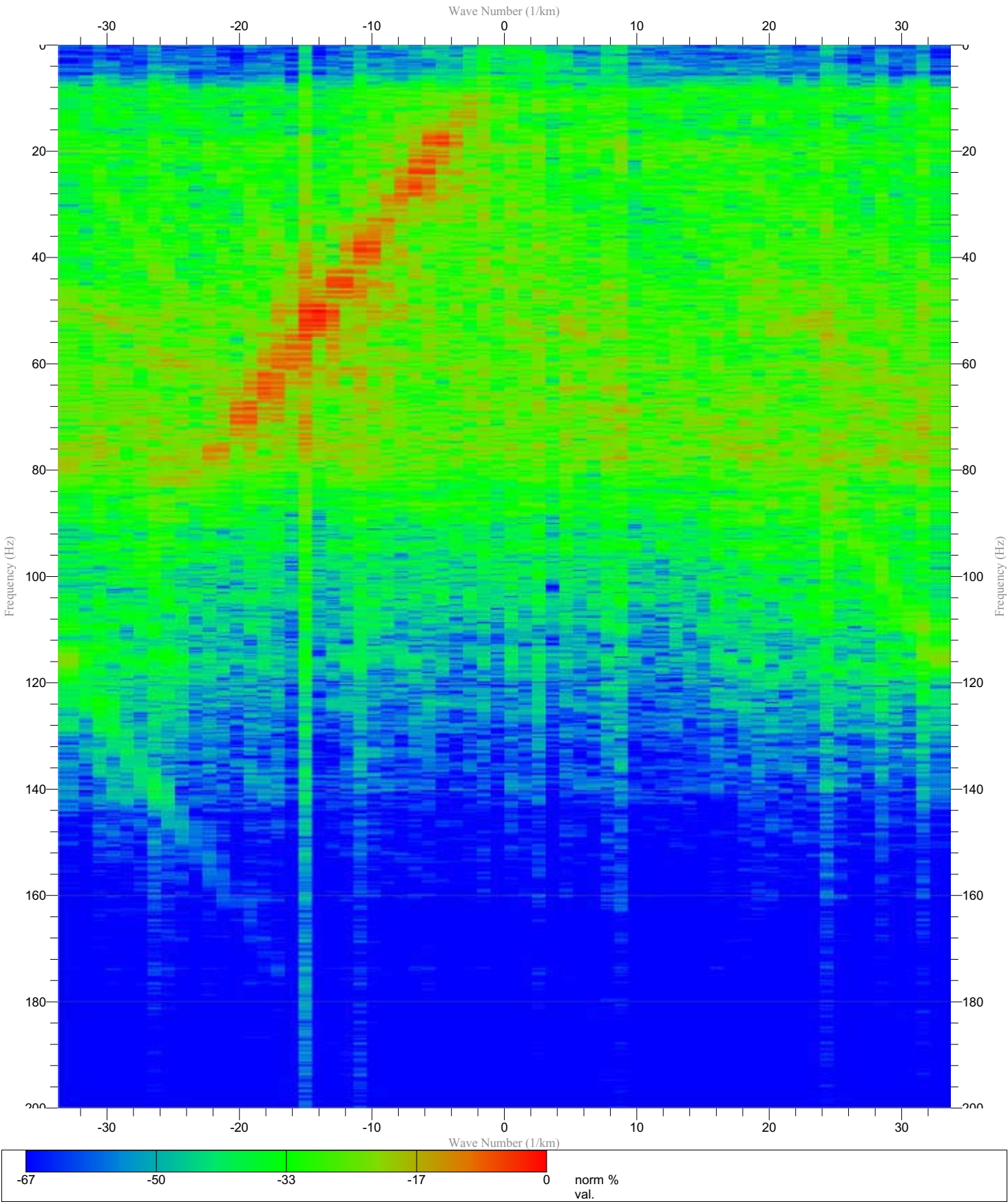
Normalization Largest Trace in Gather (100%)
Polarity Normal
One Way Time (ms)
Scaling 7.6 cm/sec, 1/2640



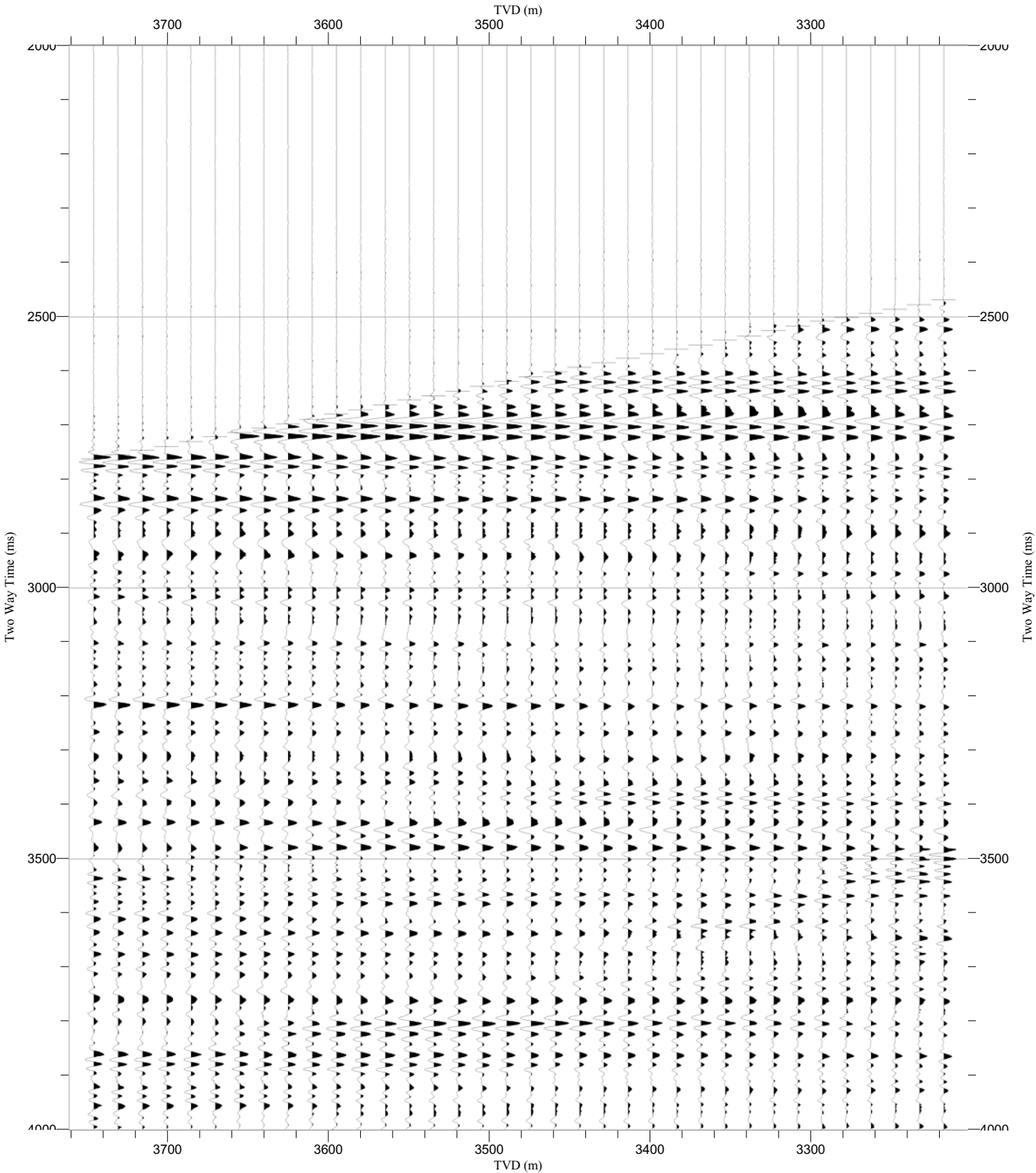
VSP Waveshape decon upgoing BPF 5.0 - 90.0Hz Median Filter 9 Traces Waveshape Decon.(wavelet: 8.0 - 85.0 Hz zero-phase)	Normalization Largest Trace in Gather (100%) Polarity Normal One Way Time (ms) Scaling 7.2 cm/sec, 1/2920	
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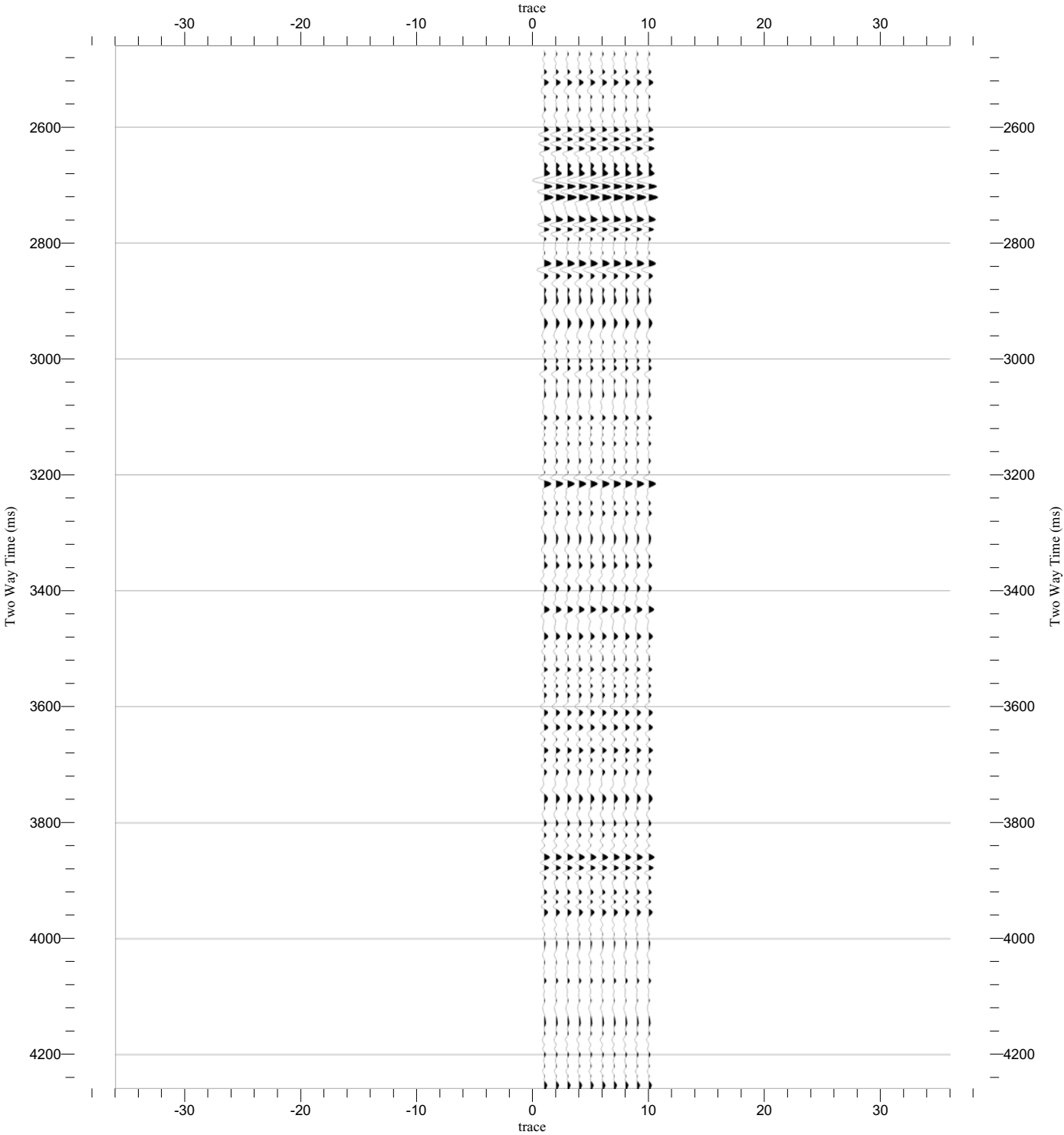
VSP Waveshape decon upgoing FK Apply FK	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.11 cm/Hz, 0.25(1/km)/cm	
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VSP Corridor Stack (Input) BPF 5.0 - 90.0Hz Median Filter 9 Traces Waveshape Decon.(wavelet: 8.0 - 85.0 Hz zero-phase) BPF 8.0 - 85.0Hz Travel time exponent = 1.50 Median Filter 7 Traces	Normalization Largest Trace in Gather (100%) Polarity Normal Two Way Time (ms) Scaling 10.1 cm/sec, 1/3330	
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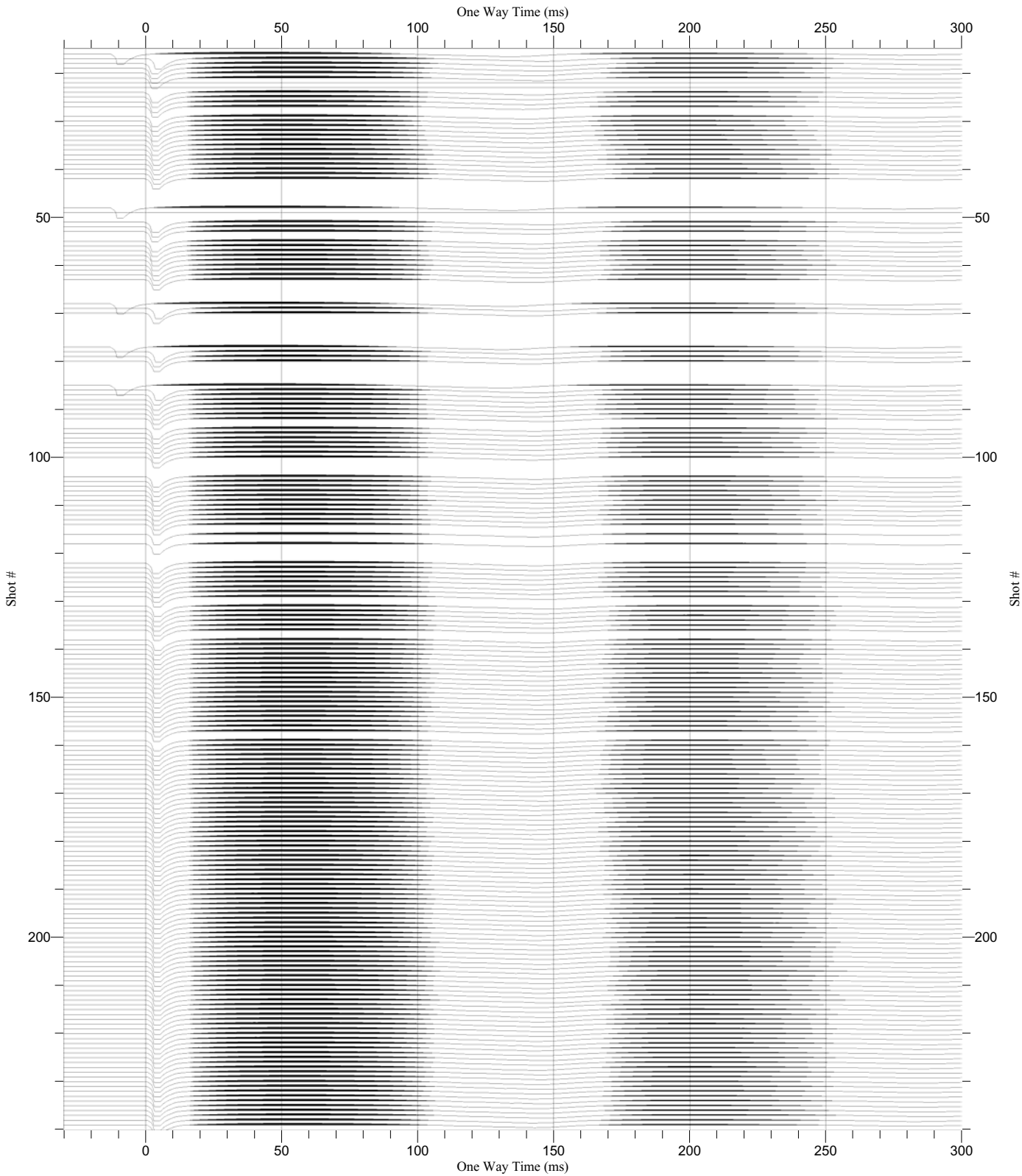


VSP Corridor Stack (output) BPF 5.0 - 90.0Hz Median Filter 9 Traces Waveshape Decon.(wavelet: 8.0 - 85.0 Hz zero-phase) BPF 8.0 - 85.0Hz Travel time exponent = 1.50 Median Filter 7 Traces Corridor Stack (Mean): BPF 5.0 - 90.0Hz	Normalization Trace by Trace (100%) Polarity Normal Two Way Time (ms) Scaling 10.0 cm/sec, 5.0 traces/cm	
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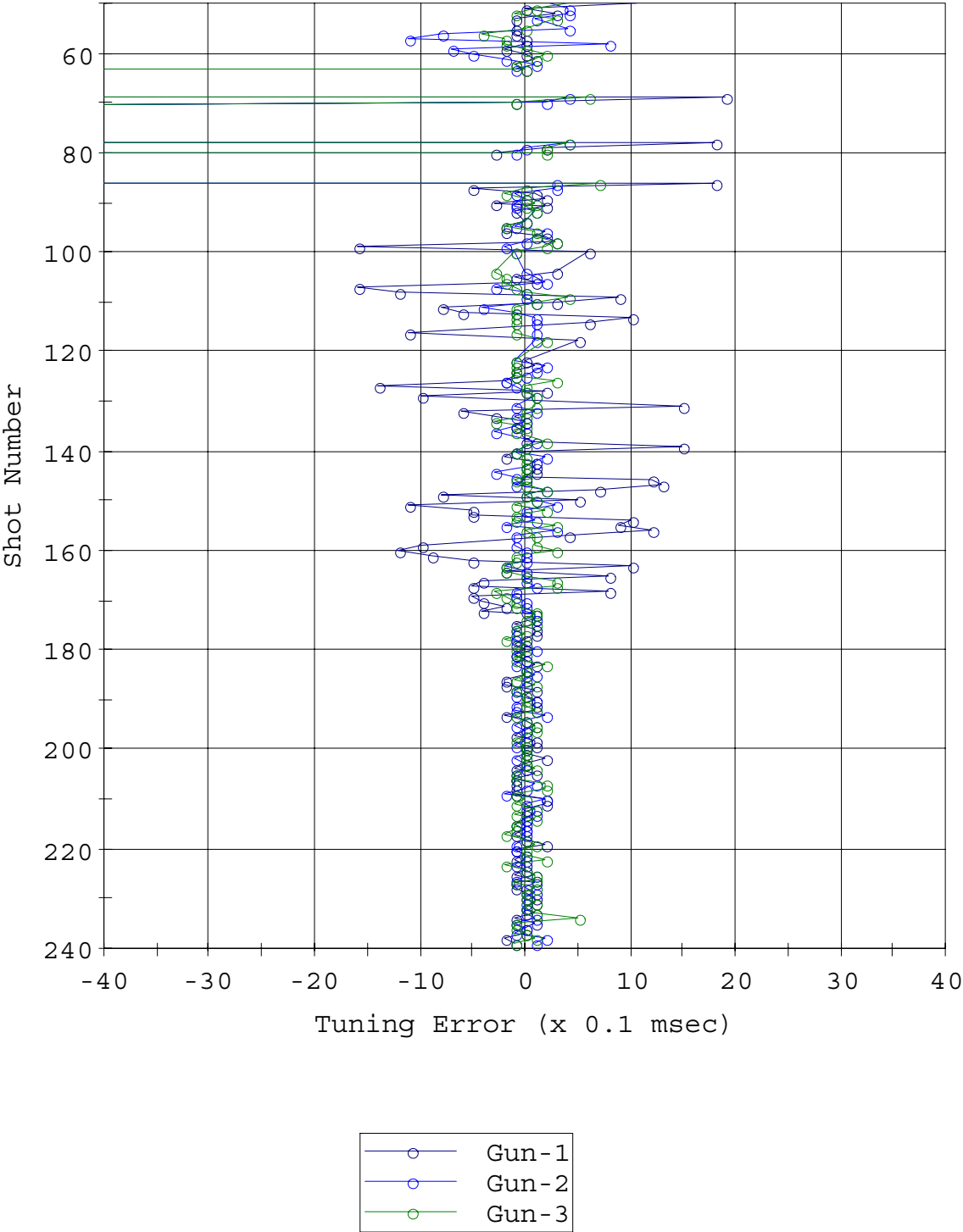


Source Signature QC Report

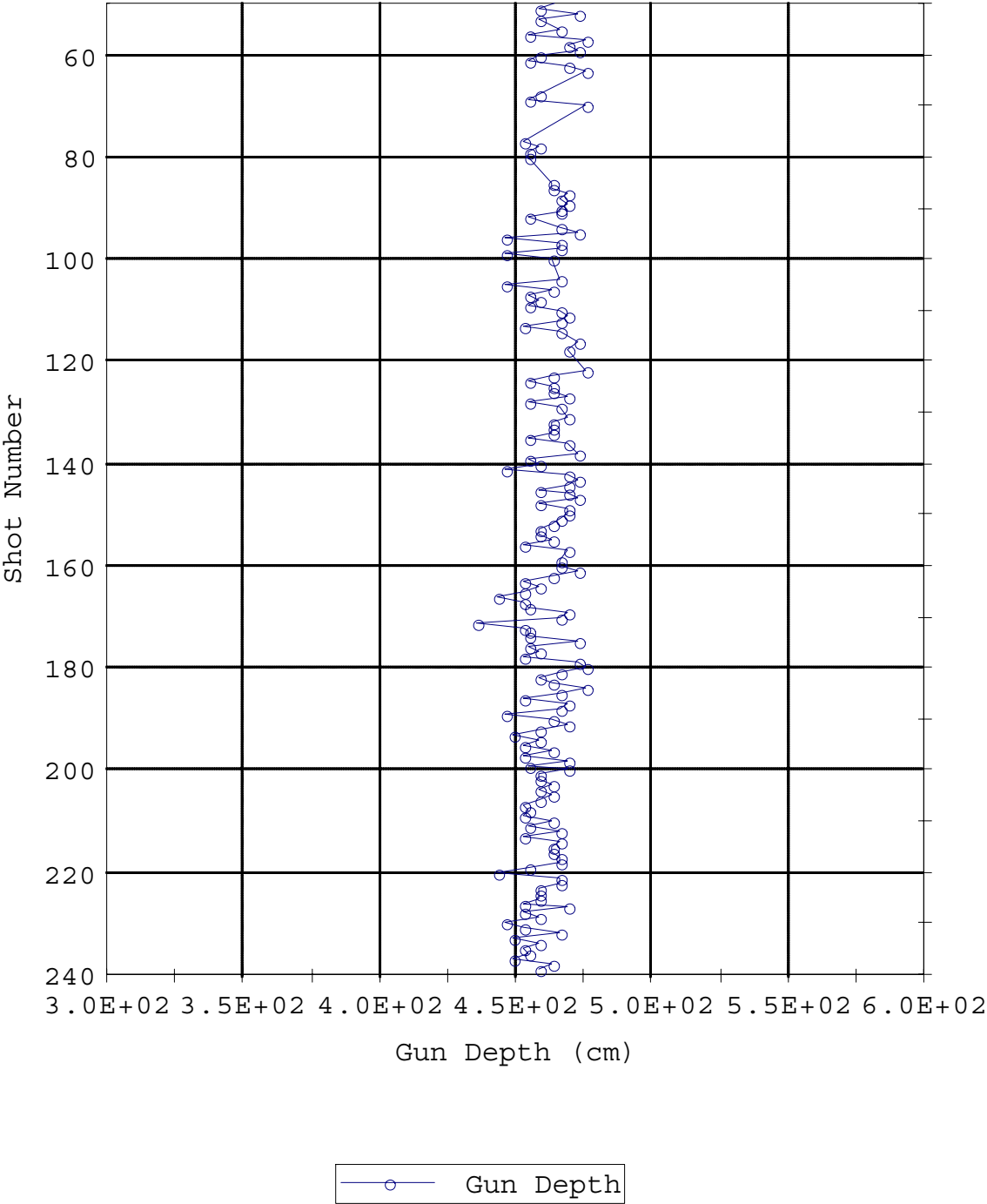
Source Sensor Signature	Normalization Largest Trace in Gather (300%) Polarity Normal One Way Time (ms) Scaling 48.85 cm/sec, 0.09/cm	
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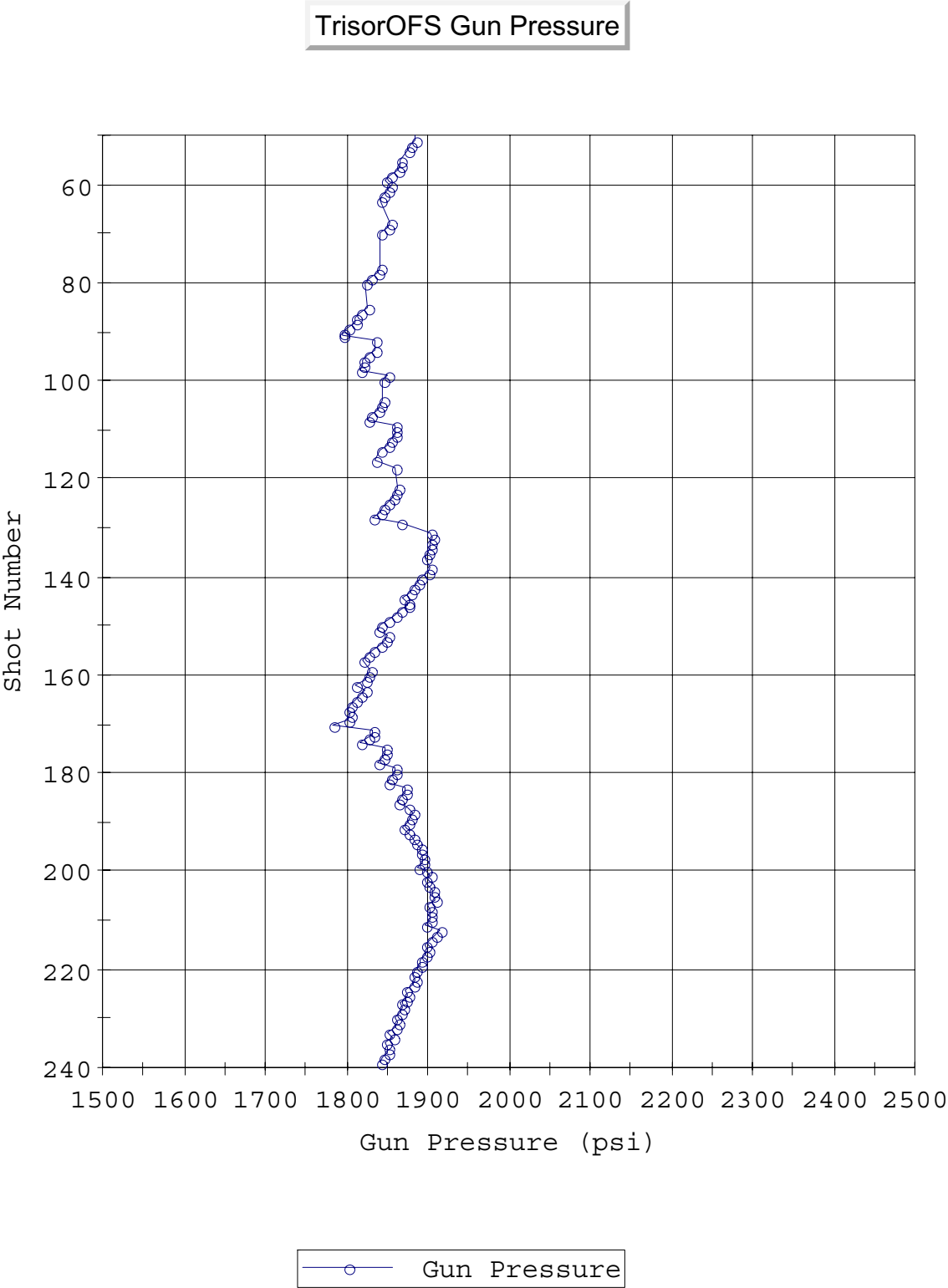


TrisorOFS Tunnig Error

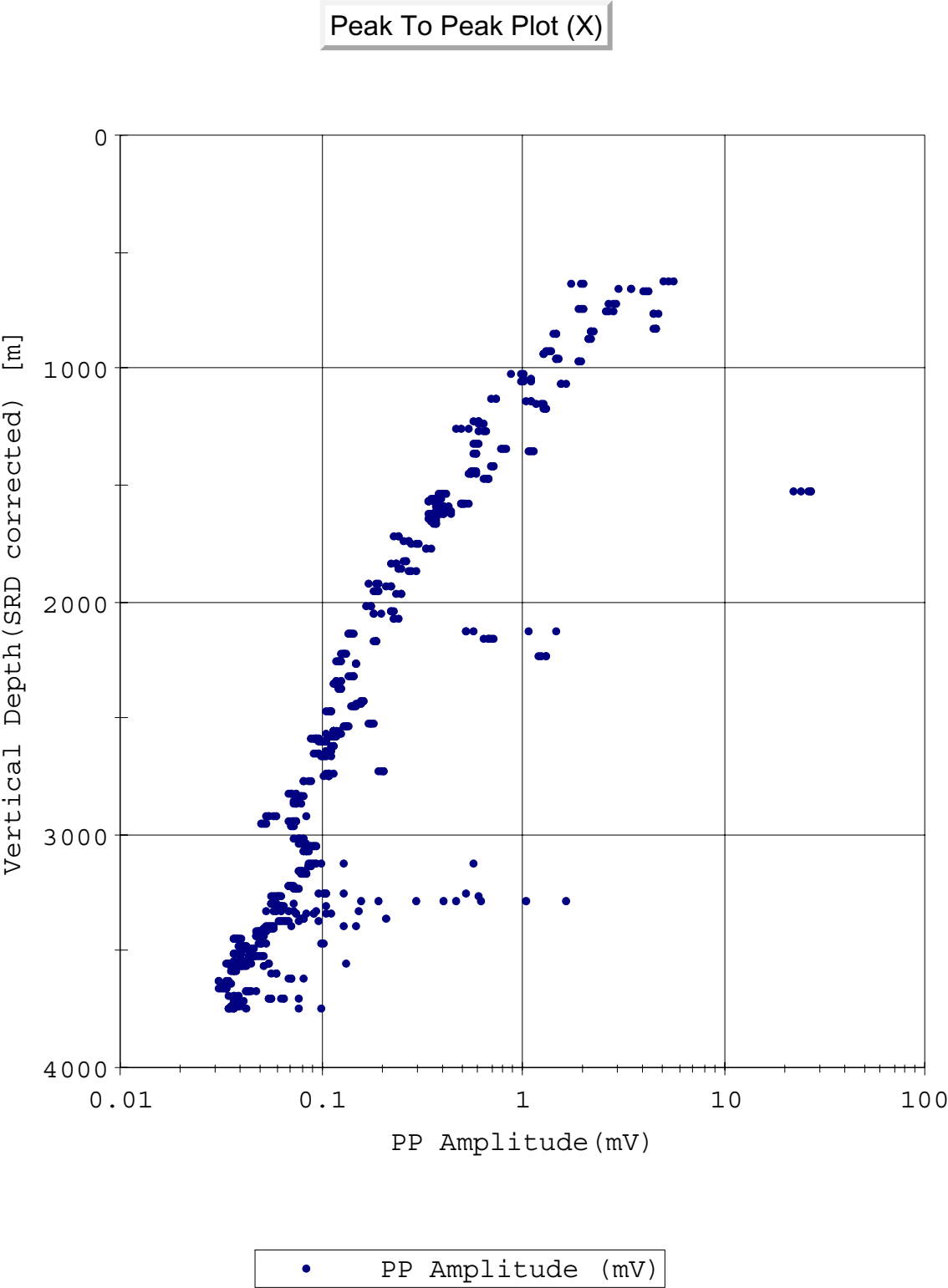


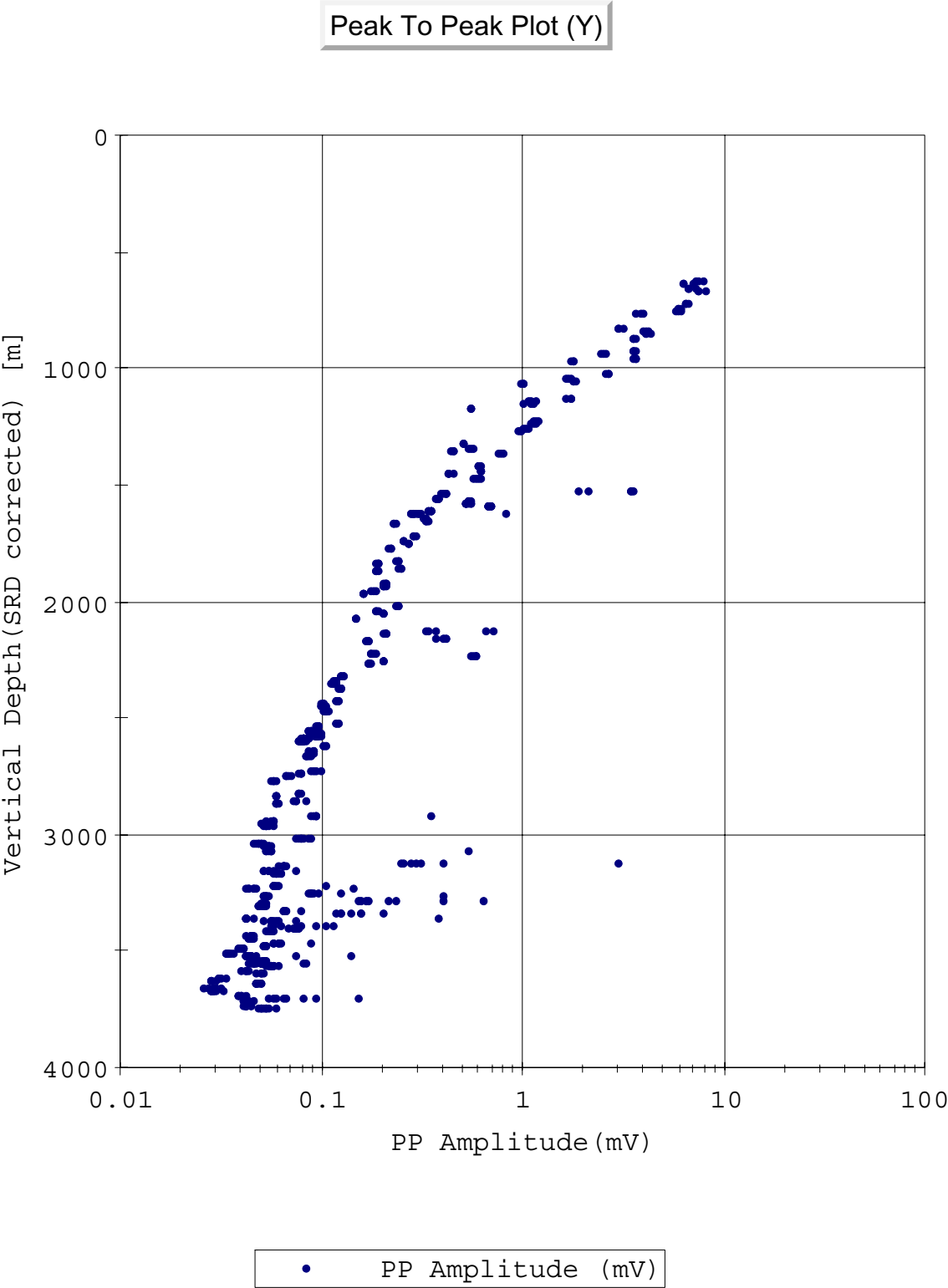
TrisorOFS Gun Depth

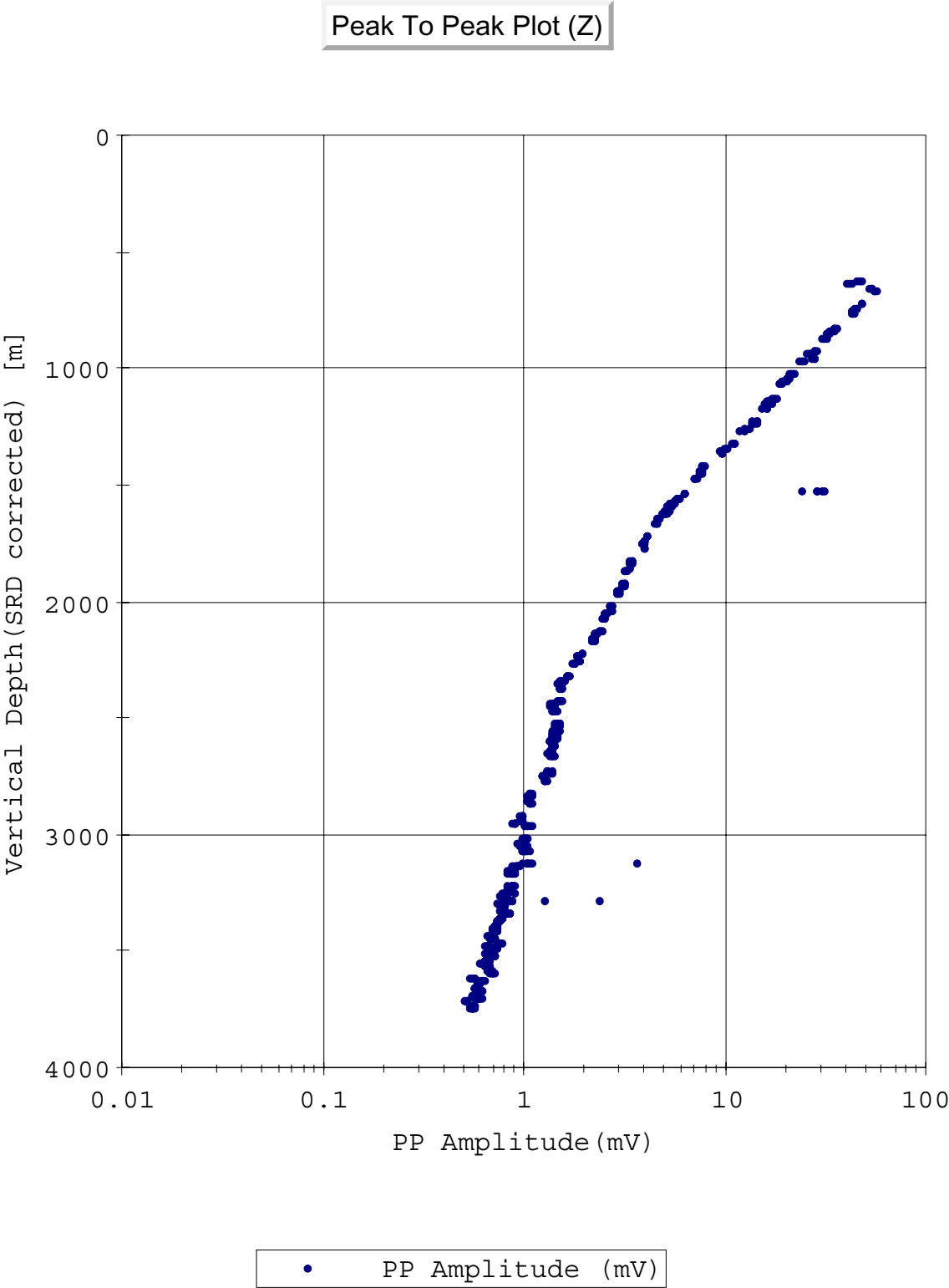


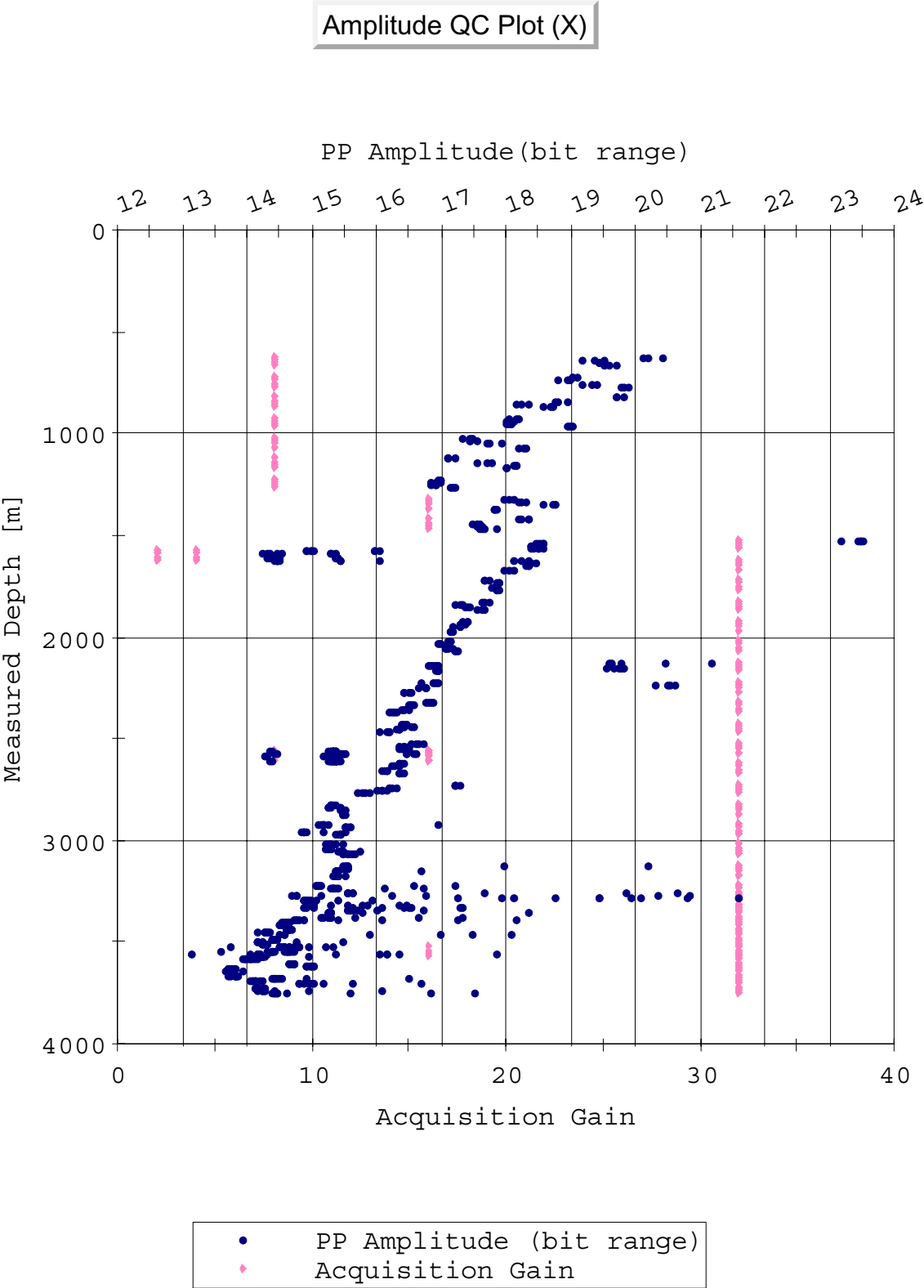


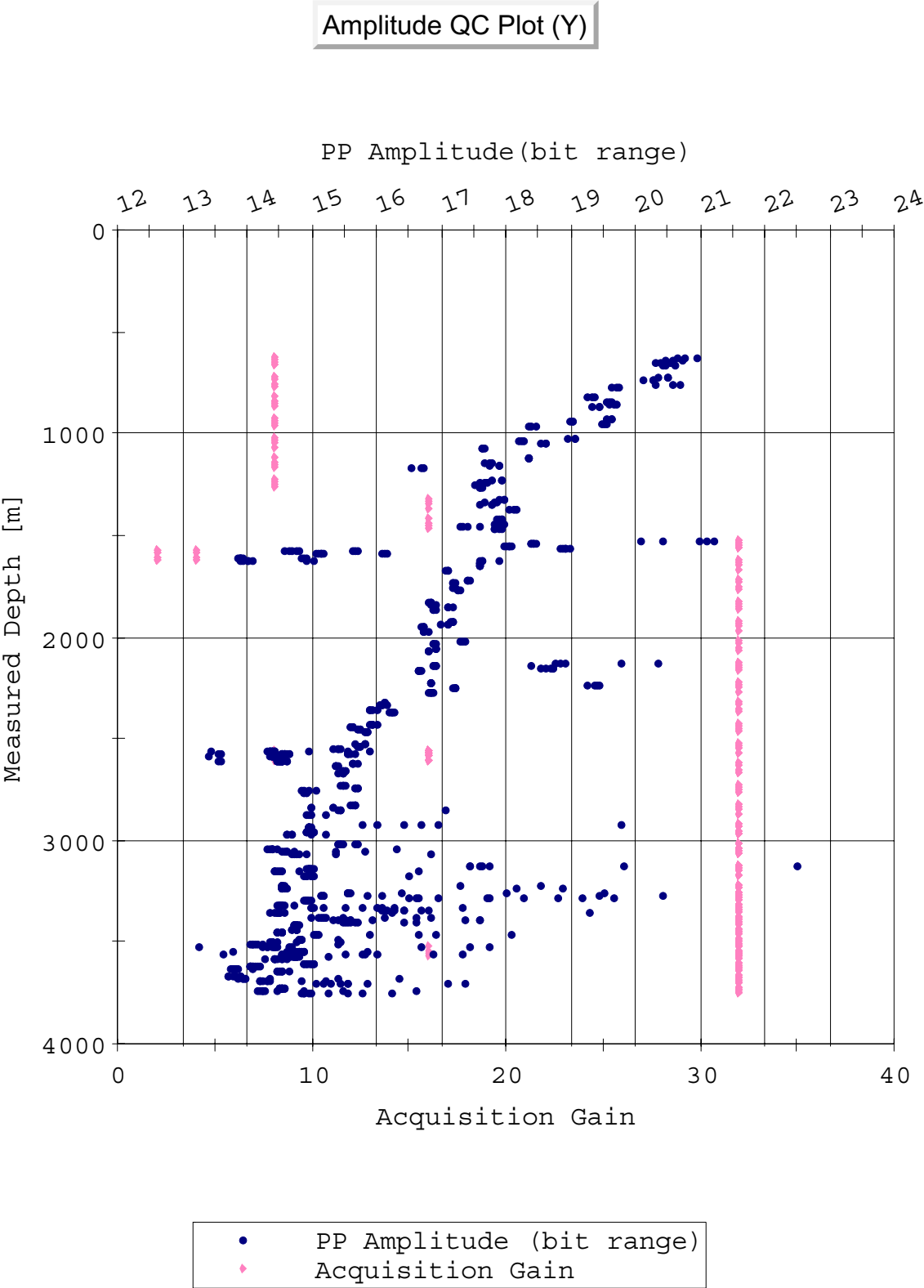
Amplitude QC Report

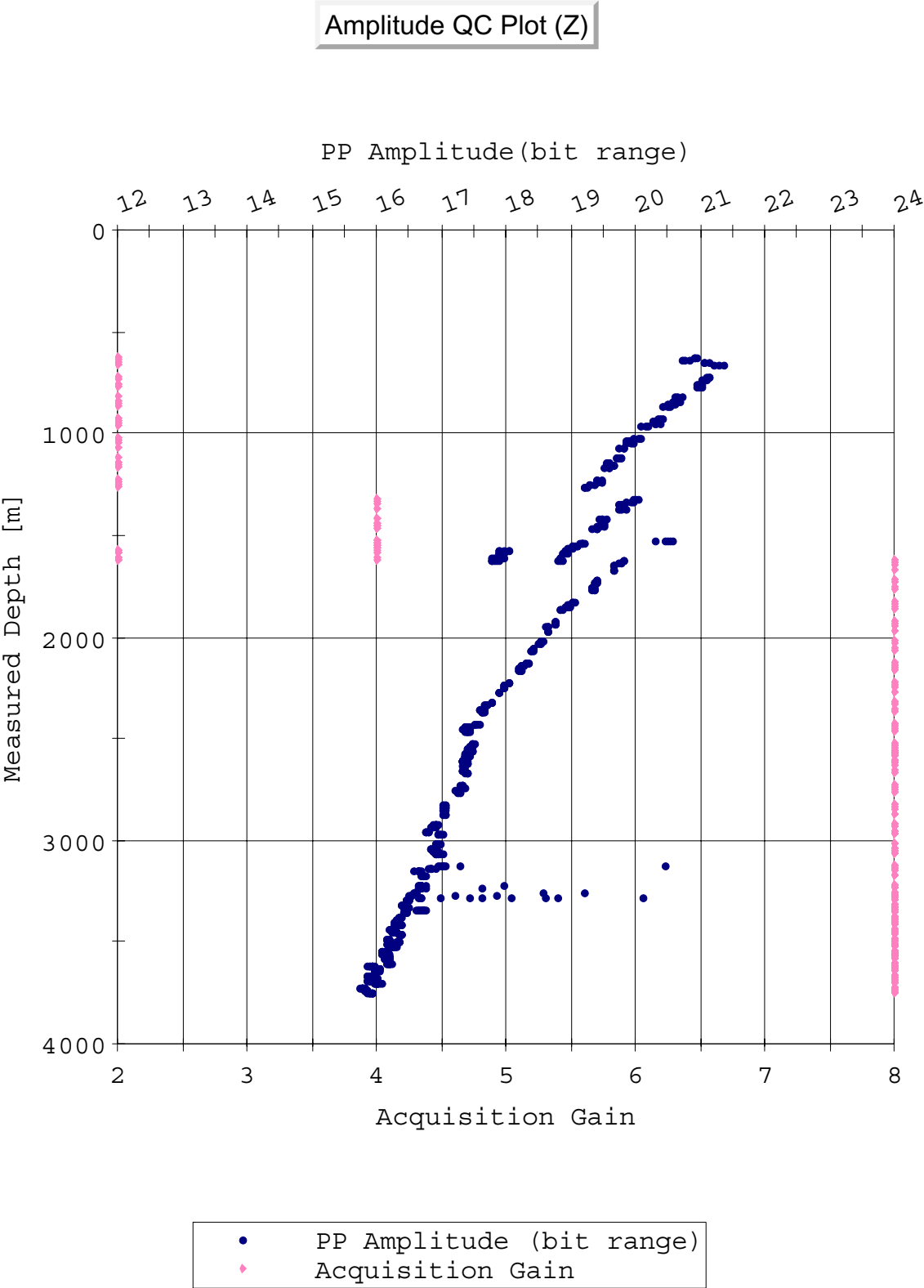












Shot and Observer Report

Observer's Note (1/4)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
659.6	08:08:56	ENLO	1			
659.6	08:09:20	ENHI	2			
659.6	08:11:09	ENLO	3			
659.6	08:11:33	ENHI	4			
659.6	08:11:41	ETHD	5			
659.6	08:11:55	DRNG	6			
659.6	08:12:09	GA02	7			
659.6	08:12:19	GA04	8			
659.6	08:12:29	GA08	9			
659.6	08:12:39	GA16	10			
659.6	08:12:49	GA32	11			
659.6	08:13:04	XTLK	12			
659.6	08:13:23	XTLK	13			
659.6	08:13:42	XTLK	14			
659.6	08:14:00	EIMP	15			
1619.4	09:20:01	SHOT	16	2	OceanPatriot	not tune
1619.4	09:20:35	SHOT	17	2	OceanPatriot	not tune
1619.4	09:21:01	SHOT	18	2	OceanPatriot	
1619.4	09:21:21	SHOT	19	2	OceanPatriot	
1619.4	09:21:44	SHOT	20	2	OceanPatriot	Stack2 CS1
1619.4	09:22:14	SHOT	21	2	OceanPatriot	Noise
1619.4	09:23:05	SHOT	22	2	OceanPatriot	Stack2 CS1
1619.4	09:23:41	SHOT	23	2	OceanPatriot	Stack2 CS1
2600.9	10:29:09	SHOT	24	3	OceanPatriot	shot 24 to 35 shown low manifold pressure
2600.9	10:29:31	SHOT	25	3	OceanPatriot	
2600.9	10:30:11	SHOT	26	3	OceanPatriot	Not tuned
2600.9	10:30:35	SHOT	27	3	OceanPatriot	Not tune
2600.9	10:30:53	SHOT	28	3	OceanPatriot	not tune
2600.9	10:31:45	SHOT	29	3	OceanPatriot	not tune
2600.9	10:32:13	SHOT	30	3	OceanPatriot	
2600.9	10:32:36	SHOT	31	3	OceanPatriot	
2600.9	10:35:04	SHOT	32	3	OceanPatriot	
2600.9	10:36:37	SHOT	33	3	OceanPatriot	
2600.9	10:37:47	SHOT	34	3	OceanPatriot	low inlet pressure
2600.9	10:38:30	SHOT	35	3	OceanPatriot	Low in let pressure
2600.9	10:39:16	SHOT	36	3	OceanPatriot	back to normal pressure
2600.9	10:39:31	SHOT	37	3	OceanPatriot	stack3 CS2
2600.9	10:39:52	SHOT	38	3	OceanPatriot	stack3 CS2
2600.9	10:40:28	SHOT	39	3	OceanPatriot	stack3 CS2
3568.6	11:28:37	SHOT	40	4	OceanPatriot	Stack4 CS3
3568.6	11:29:28	SHOT	41	4	OceanPatriot	Stack4 CS3
3568.6	11:29:52	SHOT	42	4	OceanPatriot	Stack4 CS3
3568.6	11:30:20	SHOT	43	4	OceanPatriot	
3568.6	11:38:12	SHOT	48	4	OceanPatriot	
3568.6	11:38:29	SHOT	49	4	OceanPatriot	
3568.6	11:38:50	SHOT	50	4	OceanPatriot	
3749.9	12:09:00	SHOT	51	5	OceanPatriot	
3749.9	12:09:26	SHOT	52	5	OceanPatriot	
3749.9	12:09:44	SHOT	53	5	OceanPatriot	
3749.9	12:10:14	SHOT	54	5	OceanPatriot	
3749.9	12:11:18	SHOT	55	5	OceanPatriot	
3749.9	12:11:39	SHOT	56	5	OceanPatriot	
3749.9	12:12:12	SHOT	57	5	OceanPatriot	
3749.9	12:12:34	SHOT	58	5	OceanPatriot	
3749.9	12:12:55	SHOT	59	5	OceanPatriot	
3689.4	12:18:21	SHOT	60	6	OceanPatriot	
3689.4	12:18:50	SHOT	61	6	OceanPatriot	
3689.4	12:19:11	SHOT	62	6	OceanPatriot	
3689.4	12:19:25	SHOT	63	6	OceanPatriot	tube

Observer's Note (2/4)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
3689.4	12:19:46	SHOT	64	6	OceanPatriot	
3689.4	12:34:09	SHOT	68	6	OceanPatriot	
3689.4	12:34:25	SHOT	69	6	OceanPatriot	
3689.4	12:34:42	SHOT	70	6	OceanPatriot	
3629.1	12:40:20	SHOT	71	7	OceanPatriot	
3629.1	12:41:10	SHOT	72	7	OceanPatriot	
3629.1	12:41:36	SHOT	73	7	OceanPatriot	
3629.1	12:42:41	SHOT	74	7	OceanPatriot	
3629.1	12:51:43	SHOT	77	7	OceanPatriot	
3629.1	12:51:55	SHOT	78	7	OceanPatriot	
3629.1	12:52:11	SHOT	79	7	OceanPatriot	
3629.1	12:52:26	SHOT	80	7	OceanPatriot	
3629.1	12:52:44	SHOT	81	7	OceanPatriot	
3568.5	13:00:44	SHOT	85	8	OceanPatriot	
3568.5	13:01:05	SHOT	86	8	OceanPatriot	
3568.5	13:01:17	SHOT	87	8	OceanPatriot	
3568.5	13:01:30	SHOT	88	8	OceanPatriot	
3568.5	13:01:44	SHOT	89	8	OceanPatriot	
3568.5	13:01:56	SHOT	90	8	OceanPatriot	
3568.5	13:02:08	SHOT	91	8	OceanPatriot	
3508.0	13:08:32	SHOT	92	9	OceanPatriot	
3508.0	13:08:57	SHOT	93	9	OceanPatriot	
3508.0	13:09:46	SHOT	94	9	OceanPatriot	
3508.0	13:10:05	SHOT	95	9	OceanPatriot	
3508.0	13:10:24	SHOT	96	9	OceanPatriot	
3508.0	13:10:39	SHOT	97	9	OceanPatriot	
3508.0	13:10:54	SHOT	98	9	OceanPatriot	
3447.6	13:17:17	SHOT	99	10	OceanPatriot	
3447.6	13:17:34	SHOT	100	10	OceanPatriot	
3447.6	13:17:48	SHOT	101	10	OceanPatriot	
3447.6	13:21:15	SHOT	104	10	OceanPatriot	
3447.6	13:21:29	SHOT	105	10	OceanPatriot	
3447.6	13:21:43	SHOT	106	10	OceanPatriot	
3447.6	13:21:57	SHOT	107	10	OceanPatriot	
3447.6	13:22:26	SHOT	108	10	OceanPatriot	
3387.1	13:29:03	SHOT	109	11	OceanPatriot	
3387.1	13:29:21	SHOT	110	11	OceanPatriot	
3387.1	13:29:34	SHOT	111	11	OceanPatriot	
3387.1	13:29:55	SHOT	112	11	OceanPatriot	
3387.1	13:30:19	SHOT	113	11	OceanPatriot	
3387.1	13:30:46	SHOT	114	11	OceanPatriot	
3387.1	13:31:18	SHOT	115	11	OceanPatriot	
3387.1	13:32:07	SHOT	116	11	OceanPatriot	
3387.1	13:32:51	SHOT	117	11	OceanPatriot	
3326.6	13:39:44	SHOT	118	12	OceanPatriot	
3326.6	13:40:10	SHOT	119	12	OceanPatriot	
3326.6	13:41:01	SHOT	120	12	OceanPatriot	
3326.6	13:43:56	SHOT	122	12	OceanPatriot	
3326.6	13:44:12	SHOT	123	12	OceanPatriot	
3326.6	13:44:31	SHOT	124	12	OceanPatriot	
3326.6	13:44:46	SHOT	125	12	OceanPatriot	
3326.6	13:45:00	SHOT	126	12	OceanPatriot	
3326.6	13:45:19	SHOT	127	12	OceanPatriot	
3326.6	13:45:40	SHOT	128	12	OceanPatriot	
3266.2	13:51:43	SHOT	129	13	OceanPatriot	
3266.2	13:52:04	SHOT	130	13	OceanPatriot	
3266.2	14:40:22	SHOT	131	14	OceanPatriot	
3266.2	14:40:46	SHOT	132	14	OceanPatriot	
3266.2	14:41:14	SHOT	133	14	OceanPatriot	

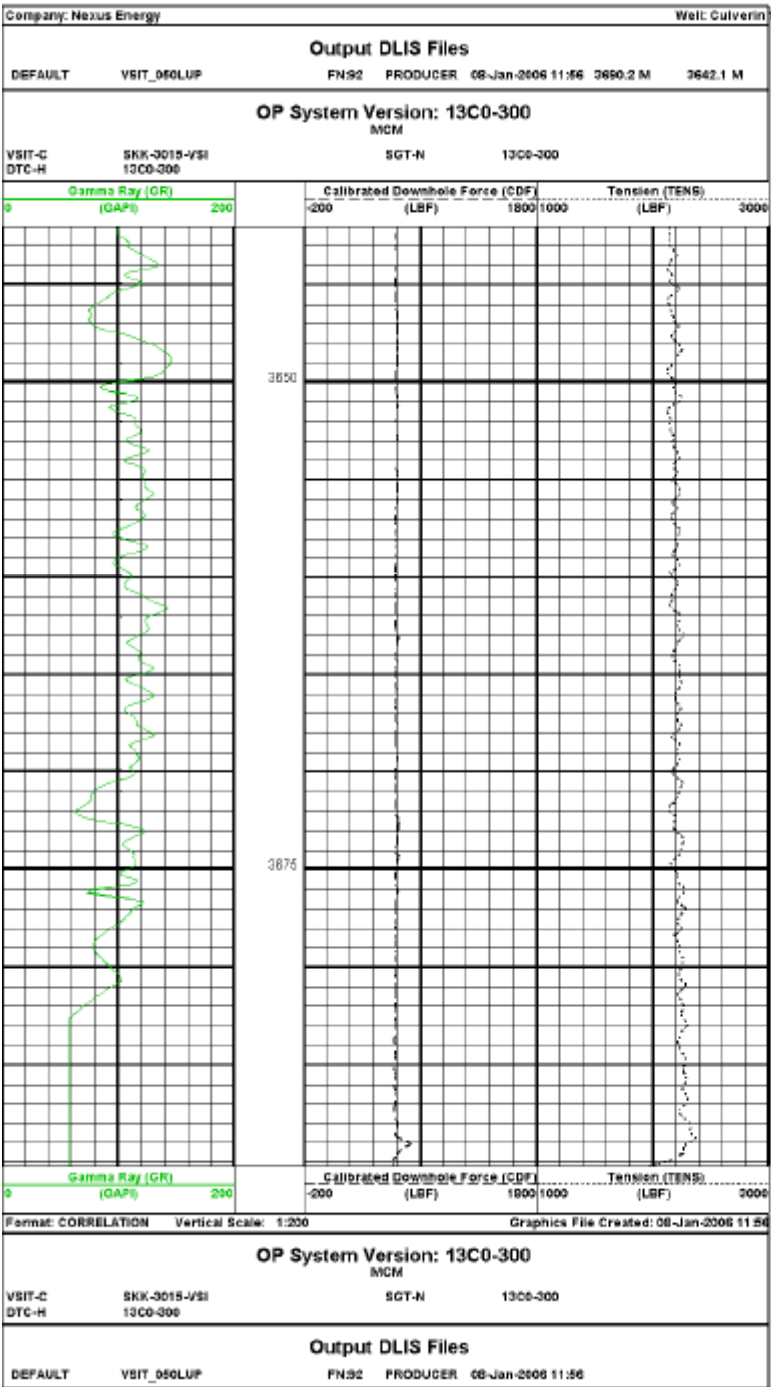
Observer's Note (3/4)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
3266.2	14:41:38	SHOT	134	14	OceanPatriot	
3266.2	14:41:56	SHOT	135	14	OceanPatriot	
3266.2	14:42:14	SHOT	136	14	OceanPatriot	
3166.1	14:50:29	SHAK	137			
3166.1	14:50:50	SHOT	138	15	OceanPatriot	
3166.1	14:51:07	SHOT	139	15	OceanPatriot	
3166.1	14:51:47	SHOT	140	15	OceanPatriot	
3166.1	14:52:14	SHOT	141	15	OceanPatriot	
3166.1	14:52:36	SHOT	142	15	OceanPatriot	
3166.1	14:52:51	SHOT	143	15	OceanPatriot	
3166.1	14:53:09	SHOT	144	15	OceanPatriot	
3066.0	14:59:36	SHOT	145	16	OceanPatriot	
3066.0	14:59:59	SHOT	146	16	OceanPatriot	
3066.0	15:00:29	SHOT	147	16	OceanPatriot	
3066.0	15:00:45	SHOT	148	16	OceanPatriot	
3066.0	15:01:18	SHOT	149	16	OceanPatriot	
3066.0	15:01:40	SHOT	150	16	OceanPatriot	
3066.0	15:02:00	SHOT	151	16	OceanPatriot	
2966.1	15:09:12	SHOT	152	17	OceanPatriot	
2966.1	15:09:29	SHOT	153	17	OceanPatriot	
2966.1	15:09:45	SHOT	154	17	OceanPatriot	
2966.1	15:10:07	SHOT	155	17	OceanPatriot	
2966.1	15:10:18	SHOT	156	17	OceanPatriot	
2966.1	15:10:37	SHOT	157	17	OceanPatriot	
2866.1	15:17:52	SHAK	158			
2866.1	15:18:16	SHOT	159	18	OceanPatriot	
2866.1	15:18:40	SHOT	160	18	OceanPatriot	
2866.1	15:19:00	SHOT	161	18	OceanPatriot	
2866.1	15:19:21	SHOT	162	18	OceanPatriot	
2766.2	15:26:15	SHOT	163	19	OceanPatriot	
2766.2	15:26:43	SHOT	164	19	OceanPatriot	
2766.2	15:27:15	SHOT	165	19	OceanPatriot	
2766.2	15:27:33	SHOT	166	19	OceanPatriot	
2666.1	15:33:56	SHOT	167	20	OceanPatriot	
2666.1	15:34:25	SHOT	168	20	OceanPatriot	
2666.1	15:34:39	SHOT	169	20	OceanPatriot	
2666.1	15:34:50	SHOT	170	20	OceanPatriot	
2566.2	15:40:52	SHOT	171	21	OceanPatriot	
2566.2	15:41:05	SHOT	172	21	OceanPatriot	
2566.2	15:41:27	SHOT	173	21	OceanPatriot	
2566.2	15:41:44	SHOT	174	21	OceanPatriot	
2466.1	15:47:49	SHOT	175	22	OceanPatriot	
2466.1	15:48:06	SHOT	176	22	OceanPatriot	
2466.1	15:48:20	SHOT	177	22	OceanPatriot	
2466.1	15:48:36	SHOT	178	22	OceanPatriot	
2366.1	15:53:32	SHOT	179	23	OceanPatriot	
2366.1	15:53:44	SHOT	180	23	OceanPatriot	
2366.1	15:54:02	SHOT	181	23	OceanPatriot	
2366.1	15:54:17	SHOT	182	23	OceanPatriot	
2266.1	15:59:17	SHOT	183	24	OceanPatriot	
2266.1	15:59:37	SHOT	184	24	OceanPatriot	
2266.1	15:59:56	SHOT	185	24	OceanPatriot	
2266.1	16:00:09	SHOT	186	24	OceanPatriot	
2166.2	16:05:18	SHOT	187	25	OceanPatriot	
2166.2	16:05:43	SHOT	188	25	OceanPatriot	
2166.2	16:06:03	SHOT	189	25	OceanPatriot	
2166.2	16:06:21	SHOT	190	25	OceanPatriot	
2166.2	16:06:38	SHOT	191	25	OceanPatriot	
2066.1	16:11:44	SHOT	192	26	OceanPatriot	

Observer's Note (4/4)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
2066.1	16:12:06	SHOT	193	26	OceanPatriot	
2066.1	16:12:26	SHOT	194	26	OceanPatriot	
1966.1	16:17:36	SHOT	195	27	OceanPatriot	
1966.1	16:17:53	SHOT	196	27	OceanPatriot	
1966.1	16:18:09	SHOT	197	27	OceanPatriot	
1866.1	16:22:49	SHOT	198	28	OceanPatriot	
1866.1	16:23:15	SHOT	199	28	OceanPatriot	
1866.1	16:23:35	SHOT	200	28	OceanPatriot	
1765.8	16:29:16	SHOT	201	29	OceanPatriot	
1765.8	16:29:46	SHOT	202	29	OceanPatriot	
1765.8	16:30:19	SHOT	203	29	OceanPatriot	
1666.2	16:36:05	SHOT	204	30	OceanPatriot	
1666.2	16:36:30	SHOT	205	30	OceanPatriot	
1666.2	16:36:48	SHOT	206	30	OceanPatriot	
1566.2	16:44:08	SHOT	207	31	OceanPatriot	Shuttle1 in wash out
1566.2	16:44:39	SHOT	208	31	OceanPatriot	
1566.2	16:45:09	SHOT	209	31	OceanPatriot	
1566.2	16:45:25	SHOT	210	31	OceanPatriot	
1566.2	16:45:46	SHOT	211	31	OceanPatriot	
1466.2	16:53:50	SHOT	212	32	OceanPatriot	
1466.2	16:54:13	SHOT	213	32	OceanPatriot	
1466.2	16:54:31	SHOT	214	32	OceanPatriot	
1466.2	16:54:47	SHOT	215	32	OceanPatriot	
1366.1	16:59:52	SHOT	216	33	OceanPatriot	
1366.1	17:00:27	SHOT	217	33	OceanPatriot	
1366.1	17:00:49	SHOT	218	33	OceanPatriot	
1266.1	17:05:49	SHOT	219	34	OceanPatriot	
1266.1	17:06:11	SHOT	220	34	OceanPatriot	
1266.1	17:06:28	SHOT	221	34	OceanPatriot	
1166.1	17:11:54	SHOT	222	35	OceanPatriot	
1166.1	17:12:08	SHOT	223	35	OceanPatriot	
1166.1	17:12:31	SHOT	224	35	OceanPatriot	
1066.2	17:18:11	SHOT	225	36	OceanPatriot	
1066.2	17:18:29	SHOT	226	36	OceanPatriot	
1066.2	17:18:45	SHOT	227	36	OceanPatriot	
966.1	17:24:28	SHOT	228	37	OceanPatriot	
966.1	17:24:45	SHOT	229	37	OceanPatriot	
966.1	17:25:01	SHOT	230	37	OceanPatriot	
866.1	17:30:33	SHOT	231	38	OceanPatriot	
866.1	17:30:49	SHOT	232	38	OceanPatriot	
866.1	17:31:06	SHOT	233	38	OceanPatriot	
766.1	17:36:41	SHOT	234	39	OceanPatriot	
766.1	17:36:59	SHOT	235	39	OceanPatriot	
766.1	17:37:13	SHOT	236	39	OceanPatriot	
666.1	17:42:35	SHOT	237	40	OceanPatriot	
666.1	17:42:50	SHOT	238	40	OceanPatriot	
666.1	17:43:03	SHOT	239	40	OceanPatriot	

GR Correlation Report



Tidal Water Level Report

TIDE TURNING POINTS FOR CULVERIN 1

ATTN: UPSTREAM PETROLEUM
VALID: JANUARY 2006
ISSUED: TUESDAY 20 DECEMBER 2005
BLOCK NUMBER: CULVERIN 1
JOB REFERENCE: T05195 HEIGHTS IN METRES AND RELATIVE TO CHART DATUM
TIMES ARE ALL RELATIVE TO 11 HOURS AFTER GMT

DATE	TIME	HEIGHT	TIME	HEIGHT	TIME	HEIGHT	TIME	HEIGHT
SUN 1	09:05	00.03	21:26	00.79				
MON 2	09:47	00.08	22:07	00.72				
TUE 3	10:22	00.16	22:33	00.63				
WED 4	10:34	00.25	22:20	00.54				
THU 5	09:36	00.34	20:09	00.48				
FRI 6	06:26	00.35	17:15	00.51				
SAT 7	04:43	00.29	16:35	00.59				
SUN 8	04:39	00.22	16:49	00.66				
MON 9	05:02	00.15	17:17	00.71				
TUE 10	05:33	00.11	17:50	00.75				
WED 11	06:09	00.08	18:27	00.76				
THU 12	06:44	00.07	19:02	00.77				
FRI 13	07:20	00.07	19:37	00.76				
SAT 14	07:55	00.09	20:13	00.74				
SUN 15	08:30	00.12	20:45	00.70				
MON 16	09:01	00.16	21:15	00.66				
TUE 17	09:25	00.21	21:32	00.61				
WED 18	09:34	00.26	21:29	00.56				
THU 19	09:14	00.31	20:44	00.51				
FRI 20	07:54	00.34	18:50	00.50				
SAT 21	05:49	00.34	17:06	00.52				
SUN 22	04:39	00.30	16:25	00.57				
MON 23	04:23	00.23	16:30	00.64				
TUE 24	04:41	00.17	16:54	00.71				
WED 25	05:11	00.11	17:29	00.76				
THU 26	05:49	00.06	18:13	00.80				
FRI 27	06:36	00.03	18:58	00.82				
SAT 28	07:23	00.03	19:49	00.80				
SUN 29	08:15	00.06	20:40	00.75				
MON 30	09:05	00.12	21:29	00.68				
TUE 31	09:51	00.21	22:10	00.59				

VSI Tool Evaluation Test Report

VSI Seismic Evaluation Report**ELECTRICAL NOISE LOW TEST****2006/01/08 08:08:56****Shot No: 1****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.1643	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1173	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4347	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.3551	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1218	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.5046	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.2313	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1216	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4786	micro V	-	2.0000	PASS
DC Offset	2	X	-25.2055	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1210	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4270	micro V	-	2.0000	PASS
DC Offset	2	Y	-25.1622	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1224	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4386	micro V	-	2.0000	PASS
DC Offset	2	Z	-25.1689	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1185	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4644	micro V	-	2.0000	PASS
DC Offset	3	X	-25.3493	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1193	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4674	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.2691	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1212	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.5246	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.1256	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1203	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4204	micro V	-	2.0000	PASS
DC Offset	4	X	-25.1649	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	X	0.1207	micro V	-	0.5000	PASS
Noise Peak	4	X	0.4692	micro V	-	2.0000	PASS
DC Offset	4	Y	-25.2175	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Y	0.1190	micro V	-	0.5000	PASS
Noise Peak	4	Y	0.3969	micro V	-	2.0000	PASS
DC Offset	4	Z	-25.2069	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Z	0.1177	micro V	-	0.5000	PASS
Noise Peak	4	Z	0.4889	micro V	-	2.0000	PASS

ELECTRICAL NOISE HIGH TEST**2006/01/08 08:09:20****Shot No: 2****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.2480	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1170	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4178	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.6932	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1163	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.4191	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.0551	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1170	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4270	micro V	-	2.0000	PASS
DC Offset	2	X	-25.2041	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1180	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4178	micro V	-	2.0000	PASS
DC Offset	2	Y	-24.9985	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1230	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4460	micro V	-	2.0000	PASS
DC Offset	2	Z	-24.9755	milli V	-100.0000	100.0000	PASS

RMS Noise Level	2	Z	0.1176	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4107	micro V	-	2.0000	PASS
DC Offset	3	X	-25.4017	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1175	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4144	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.1973	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1183	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4717	micro V	-	2.0000	PASS
DC Offset	3	Z	-24.7898	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1190	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4041	micro V	-	2.0000	PASS
DC Offset	4	X	-25.1246	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	X	0.1183	micro V	-	0.5000	PASS
Noise Peak	4	X	0.4055	micro V	-	2.0000	PASS
DC Offset	4	Y	-25.0394	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Y	0.1185	micro V	-	0.5000	PASS
Noise Peak	4	Y	0.4261	micro V	-	2.0000	PASS
DC Offset	4	Z	-24.9387	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Z	0.1197	micro V	-	0.5000	PASS
Noise Peak	4	Z	0.4449	micro V	-	2.0000	PASS

ELECTRICAL NOISE LOW TEST**2006/01/08 08:11:09****Shot No: 3****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.1623	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1190	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4288	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.3509	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1158	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.4044	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.2310	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1195	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4761	micro V	-	2.0000	PASS
DC Offset	2	X	-25.2050	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1197	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4073	micro V	-	2.0000	PASS
DC Offset	2	Y	-25.1615	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1238	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4689	micro V	-	2.0000	PASS
DC Offset	2	Z	-25.1690	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1206	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4171	micro V	-	2.0000	PASS
DC Offset	3	X	-25.3489	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1211	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4345	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.2683	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1158	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4370	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.1250	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1198	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4497	micro V	-	2.0000	PASS
DC Offset	4	X	-25.1633	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	X	0.1221	micro V	-	0.5000	PASS
Noise Peak	4	X	0.4437	micro V	-	2.0000	PASS
DC Offset	4	Y	-25.2159	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Y	0.1209	micro V	-	0.5000	PASS
Noise Peak	4	Y	0.4160	micro V	-	2.0000	PASS
DC Offset	4	Z	-25.2080	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Z	0.1189	micro V	-	0.5000	PASS
Noise Peak	4	Z	0.4273	micro V	-	2.0000	PASS

ELECTRICAL NOISE HIGH TEST**2006/01/08 08:11:33**

Shot No: 4				Station Depth: 659.56 m			
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.2225	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1176	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4624	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.6543	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1195	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.4455	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.0467	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1195	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.5319	micro V	-	2.0000	PASS
DC Offset	2	X	-25.1905	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1211	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4332	micro V	-	2.0000	PASS
DC Offset	2	Y	-24.9857	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1231	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4743	micro V	-	2.0000	PASS
DC Offset	2	Z	-24.9812	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1163	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4669	micro V	-	2.0000	PASS
DC Offset	3	X	-25.4013	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1174	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4524	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.1947	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1185	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4539	micro V	-	2.0000	PASS
DC Offset	3	Z	-24.7886	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1190	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4514	micro V	-	2.0000	PASS
DC Offset	4	X	-25.1057	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	X	0.1189	micro V	-	0.5000	PASS
Noise Peak	4	X	0.4678	micro V	-	2.0000	PASS
DC Offset	4	Y	-25.0214	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Y	0.1203	micro V	-	0.5000	PASS
Noise Peak	4	Y	0.3850	micro V	-	2.0000	PASS
DC Offset	4	Z	-24.9557	milli V	-100.0000	100.0000	PASS
RMS Noise Level	4	Z	0.1231	micro V	-	0.5000	PASS
Noise Peak	4	Z	0.4164	micro V	-	2.0000	PASS
ELECTRICAL DISTORTION TEST							
2006/01/08 08:11:41							
Shot No: 5				Station Depth: 659.56 m			
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Total Harmonic Distortion	1	X	-97.4435	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Y	-99.3667	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Z	-96.2281	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	X	-113.3720	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Y	-114.1618	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Z	-110.1160	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	X	-104.9427	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Y	-106.6128	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Z	-102.4097	dB	-	-90.0000	PASS
Total Harmonic Distortion	4	X	-107.0587	dB	-	-90.0000	PASS
Total Harmonic Distortion	4	Y	-107.9596	dB	-	-90.0000	PASS
Total Harmonic Distortion	4	Z	-109.8715	dB	-	-90.0000	PASS
SYSTEM DYNAMIC RANGE TEST							
2006/01/08 08:11:55							
Shot No: 6				Station Depth: 659.56 m			
Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
System Dynamic Range	1	X	107.1525	dB	103.0000	-	PASS
System Dynamic Range	1	Y	107.1124	dB	103.0000	-	PASS

System Dynamic Range	1	Z	106.5015	dB	103.0000	-	PASS
System Dynamic Range	2	X	107.4065	dB	103.0000	-	PASS
System Dynamic Range	2	Y	106.3178	dB	103.0000	-	PASS
System Dynamic Range	2	Z	107.3326	dB	103.0000	-	PASS
System Dynamic Range	3	X	106.9490	dB	103.0000	-	PASS
System Dynamic Range	3	Y	106.8059	dB	103.0000	-	PASS
System Dynamic Range	3	Z	106.8908	dB	103.0000	-	PASS
System Dynamic Range	4	X	106.7074	dB	103.0000	-	PASS
System Dynamic Range	4	Y	107.1207	dB	103.0000	-	PASS
System Dynamic Range	4	Z	106.7863	dB	103.0000	-	PASS

AMPLIFIER GAIN 2 TEST**2006/01/08 08:12:09****Shot No: 7****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1103	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1270	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1267	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1510	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1450	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1459	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1165	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1223	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1182	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1459	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1437	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1535	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	0.0000	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 4 TEST**2006/01/08 08:12:19****Shot No: 8****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1081	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0023	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1245	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1249	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0018	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1527	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	-0.0018	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1461	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	-0.0012	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1448	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0012	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1151	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0014	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1236	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0014	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1170	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0012	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1456	dB	-0.5000	0.5000	PASS

Gain Step Accuracy	4	X	0.0002	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1444	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	-0.0008	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1582	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	-0.0047	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 8 TEST**2006/01/08 08:12:29****Shot No: 9****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1082	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0021	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1245	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1270	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	-0.0004	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1554	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	-0.0044	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1466	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	-0.0016	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1450	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0009	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1129	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0035	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1245	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0023	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1180	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0003	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1462	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	-0.0003	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1462	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	-0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1624	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	-0.0089	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 16 TEST**2006/01/08 08:12:39****Shot No: 10****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1045	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0058	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1185	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0085	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1219	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0048	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1513	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	-0.0003	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1431	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0019	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1433	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0027	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1067	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0097	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1247	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1151	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0031	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1432	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	0.0027	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1433	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0004	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1598	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	-0.0062	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 32 TEST**2006/01/08 08:12:49****Shot No: 11****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1080	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0024	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1219	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0051	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1261	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0006	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1518	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	-0.0009	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1453	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	-0.0004	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1434	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1064	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0100	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1256	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0034	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1147	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0035	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	X	0.1477	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	X	-0.0019	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Y	0.1433	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Y	0.0003	dB	-0.5000	0.5000	PASS
Gain Accuracy	4	Z	0.1617	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	4	Z	-0.0081	dB	-0.5000	0.5000	PASS

CROSS TALK X TEST**2006/01/08 08:13:04****Shot No: 12****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk X-Y	1	-	-100.3556	dB	-	-90.0000	PASS
Cross Talk X-Z	1	-	-98.5098	dB	-	-90.0000	PASS
Cross Talk X-Y	2	-	-100.1530	dB	-	-90.0000	PASS
Cross Talk X-Z	2	-	-98.8251	dB	-	-90.0000	PASS
Cross Talk X-Y	3	-	-100.2280	dB	-	-90.0000	PASS
Cross Talk X-Z	3	-	-98.5548	dB	-	-90.0000	PASS
Cross Talk X-Y	4	-	-100.4417	dB	-	-90.0000	PASS
Cross Talk X-Z	4	-	-98.7916	dB	-	-90.0000	PASS

CROSS TALK Y TEST**2006/01/08 08:13:23****Shot No: 13****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk Y-Z	1	-	-97.7978	dB	-	-90.0000	PASS
Cross Talk Y-X	1	-	-99.8954	dB	-	-90.0000	PASS
Cross Talk Y-Z	2	-	-98.1963	dB	-	-90.0000	PASS
Cross Talk Y-X	2	-	-99.7430	dB	-	-90.0000	PASS
Cross Talk Y-Z	3	-	-97.9192	dB	-	-90.0000	PASS
Cross Talk Y-X	3	-	-99.5276	dB	-	-90.0000	PASS
Cross Talk Y-Z	4	-	-98.3293	dB	-	-90.0000	PASS
Cross Talk Y-X	4	-	-99.6655	dB	-	-90.0000	PASS

CROSS TALK Z TEST**2006/01/08 08:13:42****Shot No: 14****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk Z-X	1	-	-97.0910	dB	-	-90.0000	PASS
Cross Talk Z-Y	1	-	-96.4178	dB	-	-90.0000	PASS
Cross Talk Z-X	2	-	-97.1588	dB	-	-90.0000	PASS

Cross Talk Z-Y	2	-	-96.7522	dB	-	-90.0000	PASS
Cross Talk Z-X	3	-	-96.7783	dB	-	-90.0000	PASS
Cross Talk Z-Y	3	-	-96.3971	dB	-	-90.0000	PASS
Cross Talk Z-X	4	-	-97.1919	dB	-	-90.0000	PASS
Cross Talk Z-Y	4	-	-96.6712	dB	-	-90.0000	PASS

IMPULSE RESPONSE TEST**2006/01/08 08:14:00****Shot No: 15****Station Depth: 659.56 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Amplitude (0.3Hz)	1	X	-1.5032	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	X	-3.5801	dB	-5.0000	-	PASS
Impulse Amplitude	1	X	571.0796	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	X	0.0000	degree	-	-	-
Amplitude (0.3Hz)	1	Y	-1.4812	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Y	-3.5790	dB	-5.0000	-	PASS
Impulse Amplitude	1	Y	571.9561	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Y	-0.1948	degree	-	-	-
Amplitude (0.3Hz)	1	Z	-1.5886	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Z	-3.5774	dB	-5.0000	-	PASS
Impulse Amplitude	1	Z	572.0991	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Z	0.8680	degree	-	-	-
Amplitude (0.3Hz)	2	X	-1.5884	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	X	-3.5713	dB	-5.0000	-	PASS
Impulse Amplitude	2	X	574.6655	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	X	0.3373	degree	-	-	-
Amplitude (0.3Hz)	2	Y	-1.5174	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	Y	-3.5720	dB	-5.0000	-	PASS
Impulse Amplitude	2	Y	574.3951	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	Y	-0.5111	degree	-	-	-
Amplitude (0.3Hz)	2	Z	-1.6060	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	Z	-3.5736	dB	-5.0000	-	PASS
Impulse Amplitude	2	Z	574.2646	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	Z	0.4677	degree	-	-	-
Amplitude (0.3Hz)	3	X	-1.5605	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	X	-3.5761	dB	-5.0000	-	PASS
Impulse Amplitude	3	X	571.4480	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	X	0.8245	degree	-	-	-
Amplitude (0.3Hz)	3	Y	-1.4815	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	Y	-3.5755	dB	-5.0000	-	PASS
Impulse Amplitude	3	Y	572.1942	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	Y	-0.0064	degree	-	-	-
Amplitude (0.3Hz)	3	Z	-1.6451	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	Z	-3.5734	dB	-5.0000	-	PASS
Impulse Amplitude	3	Z	572.1552	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	Z	1.5683	degree	-	-	-
Amplitude (0.3Hz)	4	X	-1.5013	dB	-5.0000	-	PASS
Amplitude (400Hz)	4	X	-3.5743	dB	-5.0000	-	PASS
Impulse Amplitude	4	X	573.9755	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	4	X	0.5261	degree	-	-	-
Amplitude (0.3Hz)	4	Y	-1.6046	dB	-5.0000	-	PASS
Amplitude (400Hz)	4	Y	-3.5759	dB	-5.0000	-	PASS
Impulse Amplitude	4	Y	573.7048	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	4	Y	1.6686	degree	-	-	-
Amplitude (0.3Hz)	4	Z	-1.4858	dB	-5.0000	-	PASS
Amplitude (400Hz)	4	Z	-3.5773	dB	-5.0000	-	PASS
Impulse Amplitude	4	Z	574.3013	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	4	Z	0.3371	degree	-	-	-