

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1
OS1: WSTA
OS2:
OS3:
OS4:
OS5:

OTHER SERVICES2
OS1:
OS2:
OS3:
OS4:
OS5:

REMARKS: RUN NUMBER 1
Hole drilled with APC/XCB.
All depths in Meters Below Rig Floor (MBRF).
Hole flushed with Sepiolite/Barite mud.
Sae Floor Driller- 1314.6 MBRF
Sea Floor Logger- 1314 MBRF.
Total Depth Driller- 1614.6 MBRF
Total Depth Logger- 1609 MBRF.
Casing bottom Driller- 1387 MBRF.
Casing Bottom Logger- 1384 MBRF
WSTA calipers were broken when the heave compensator tripped out.
Heave was 3-4 meters.

REMARKS: RUN NUMBER 2

RUN 1
SERVICE ORDER #:
PROGRAM VERSION: 12C0-301
FLUID LEVEL:

RUN 2
SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

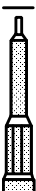
LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1
SURFACE EQUIPMENT
WSAM
OPTION
BGKT_PANEL

RUN 2

DOWNHOLE EQUIPMENT

LEH-QT
LEH-QT
 6.73

SAH-E
SAH-E

5.84

WSTA-A
WSTA_SONDE
OYO-GEOPHONES

4.98

WSTA Arm
Tension

— TOOL ZERO

TOOL BOTTOM

MAXIMUM STRING DIAMETER 4.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Production String

(in)	(m)
OD	ID MD

Well Schematic

(m)	(in)
MD	OD ID

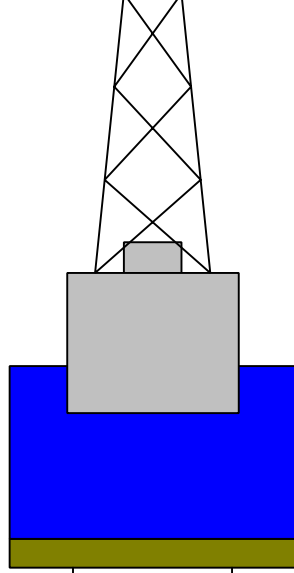
Casing String

Kelly Bushing Elevation
Derrick Floor Elevation

Mean Sea Level

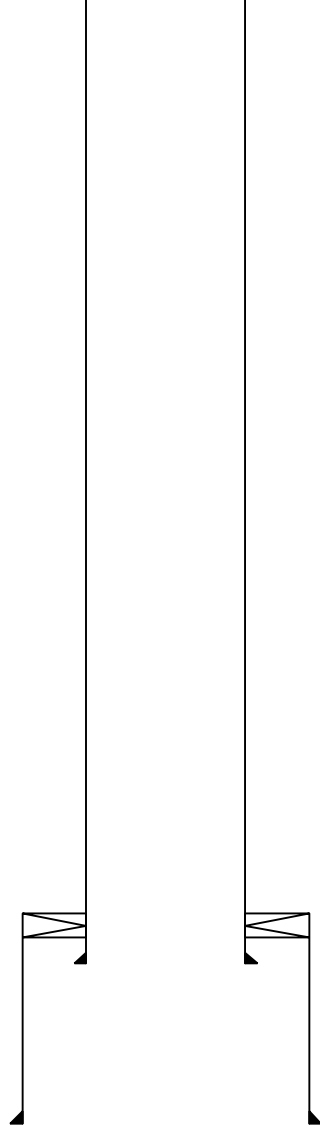
11.3
11.0

0.0



0.0 5.500

Casing String



1314.6 9.875
1387.6 **5.500** 9.875

Casing String
~~Casing String~~

1614.6 9.875

Casing Shoe

VSP STACK SUMMARY LISTING (TWO WAY CORRECTED TIMES)

Gun and Hydrophone Coordinates:

Gun Azimuth 0.0 DEG
 Gun Offset 49.0 M
 Gun Depth From Schlumberger Zero 12.3 M
 Hydrophone Depth From Schlumberger Zero 12.3 M
 SRD Depth From Schlumberger Zero 10.3 M

Other VSP constants:

True Vertical Time Correction YES
 Surface Velocity 1524.00 M/S

Stack number	Measured Depth (1) (M)	Measured Trans Time SRD (2) (MS)	True Vert. Depth from (3) (M)	Corrected Trans Time (4) (MS)	Interval Velocity (M/S)
--------------	---------------------------	-------------------------------------	----------------------------------	----------------------------------	----------------------------

16	1495.0	992.07	1484.7	1985.68	1246.43
15	1500.0	996.08	1489.7	1993.71	1811.52

15	1500.0	996.08	1489.7	1995.71	4844.52
14	1504.0	996.90	1493.7	1995.36	1709.64
13	1516.0	1003.92	1505.7	2009.40	1565.08
12	1525.0	1009.67	1514.7	2020.90	3625.34
11	1530.0	1011.04	1519.7	2023.66	1768.69
10	1535.0	1013.87	1524.7	2029.31	1610.96
9	1540.0	1016.97	1529.7	2035.52	1770.59
8	1545.0	1019.79	1534.7	2041.17	1664.52
7	1548.0	1021.59	1537.7	2044.77	1413.93
6	1559.9	1030.00	1549.6	2061.60	-11648.17
5	1565.0	1029.56	1554.7	2060.73	1311.00
4	1570.0	1033.38	1559.7	2068.36	1188.49
3	1580.0	1041.79	1569.7	2085.18	1302.19
2	1584.9	1045.55	1574.6	2092.71	2251.31
1	1590.0	1047.81	1579.7	2097.24	0.00

- (1) Measured Depth is Cable Depth Referenced to Schlumberger Zero.
(2) TVD is referenced to SRD (5)
(3) TW Transit time with respect to SRD(5) corrected for Deviation
(4) Interval Velocity corrected for Deviation.
(5) SRD is Seismic Reference Depth.

VSP STACK SUMMARY LISTING

Gun and Hydrophone Coordinates:

Gun Azimuth 0.0 DEG
Gun Offset 49.0 M
Gun Depth From Schlumberger Zero 12.3 M
Hydrophone Depth From Schlumberger Zero 12.3 M
SRD Depth From Schlumberger Zero 10.3 M

Other VSP constants:

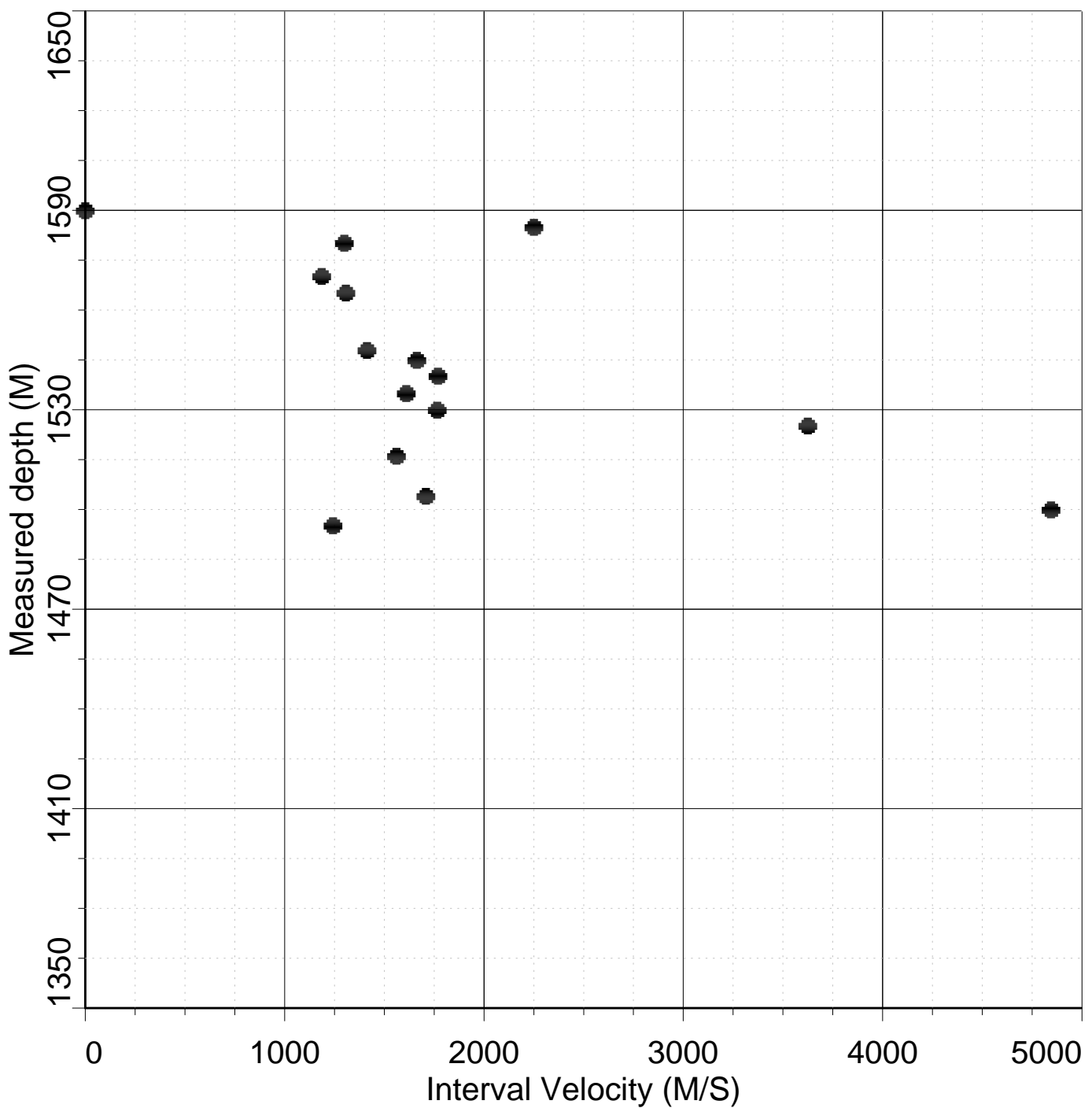
True Vertical Time Correction YES
Surface Velocity 1524.00 M/S

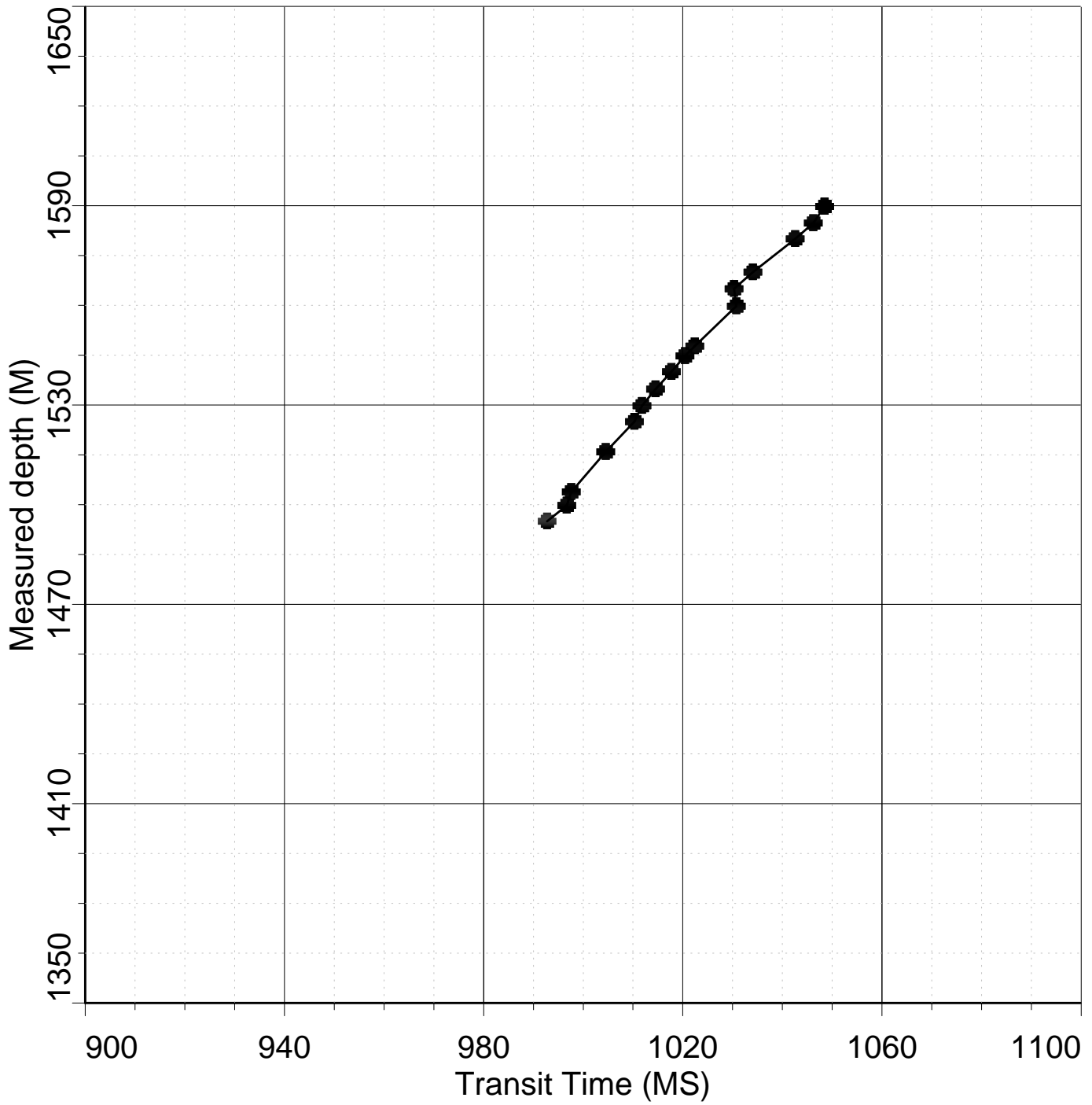
Stack number	Measured Depth (1) (M)	Measured Trans Time (2) (MS)	True Vert. Depth from (3) (M)	Corrected Trans Time (4) (MS)	Interval Velocity (5) (M/S)
--------------	---------------------------	---------------------------------	----------------------------------	----------------------------------	--------------------------------

16	1495.0	992.07	1484.7	992.84	1246.43
15	1500.0	996.08	1489.7	996.85	4844.52
14	1504.0	996.90	1493.7	997.68	1709.64
13	1516.0	1003.92	1505.7	1004.70	1565.08
12	1525.0	1009.67	1514.7	1010.45	3625.34
11	1530.0	1011.04	1519.7	1011.83	1768.69
10	1535.0	1013.87	1524.7	1014.66	1610.96
9	1540.0	1016.97	1529.7	1017.76	1770.59
8	1545.0	1019.79	1534.7	1020.58	1664.52
7	1548.0	1021.59	1537.7	1022.38	1413.93
6	1559.9	1030.00	1549.6	1030.80	-11648.17

5	1565.0	1029.56	1554.7	1030.36	1311.00
4	1570.0	1033.38	1559.7	1034.18	1188.49
3	1580.0	1041.79	1569.7	1042.59	1302.19
2	1584.9	1045.55	1574.6	1046.35	2251.31
1	1590.0	1047.81	1579.7	1048.62	0.00

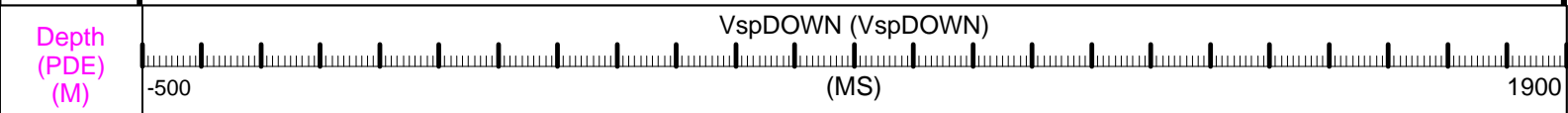
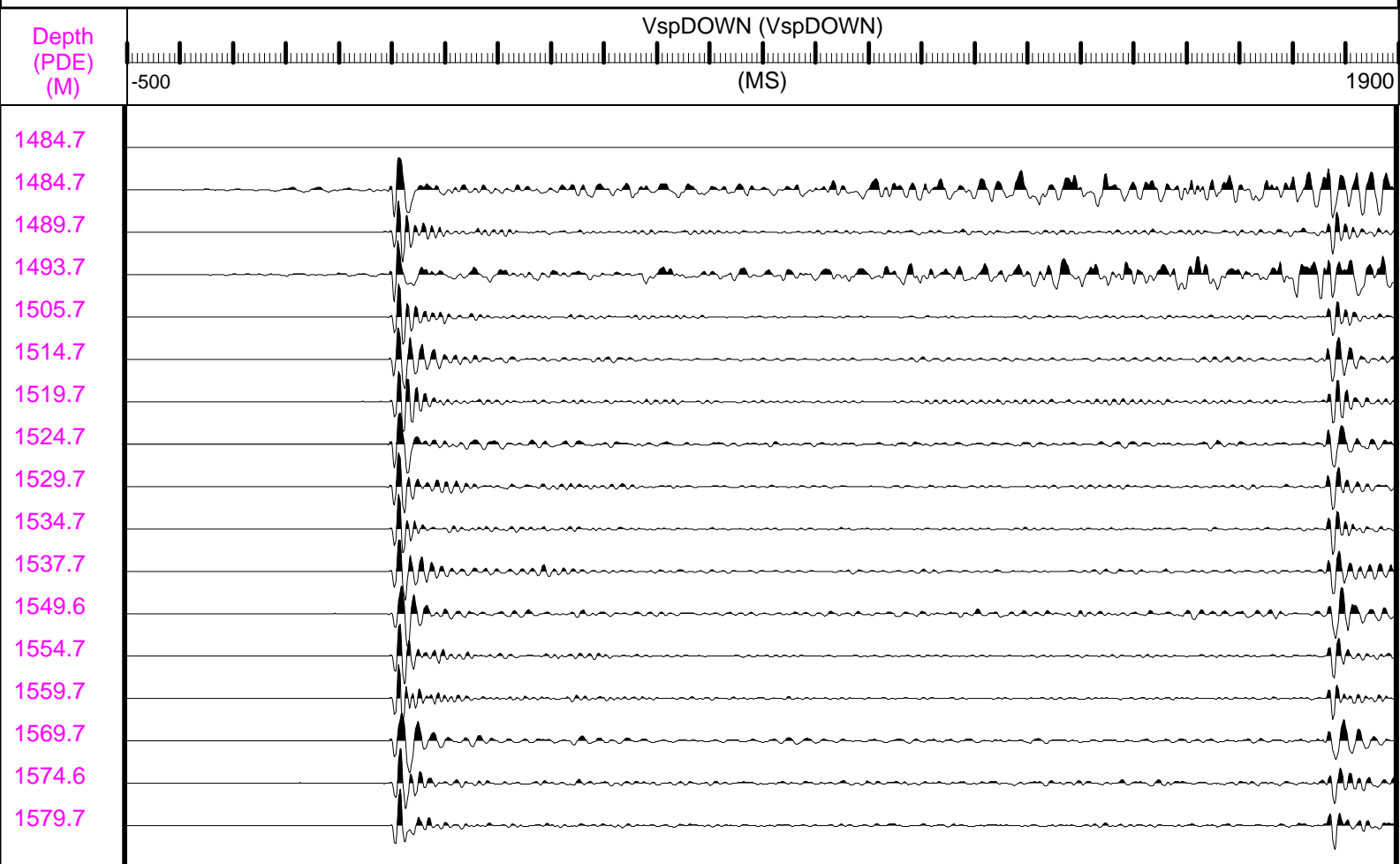
- (1) Measured Depth is Cable Depth Referenced to Schlumberger Zero.
- (2) TVD is referenced to SRD (5)
- (3) Transit time with respect to SRD(5) corrected for Deviation.
- (4) Interval Velocity corrected for Deviation.
- (5) SRD is Seismic Reference Depth.





VSP PROCESSING

Data Corrected to SRD and TVD
Input data filtered from 5 to 120 Hz
Arbitrary Origin Plot
SEG Reverse Polarity
 $TAR = DATA(I)*1.200$
Z-AXIS Processed



Format: vspDOWN Vertical Scale: 0.25" per 1SAMPLES Graphics File Created: 08-Oct-2005 16:38

OP System Version: 12C0-301
MCM

WSTA-A 12C0-301

OP System Version: 12C0-301
MCM

WSTA-A 12C0-301

VSP PROCESSING

Data Corrected to SRD and TVD

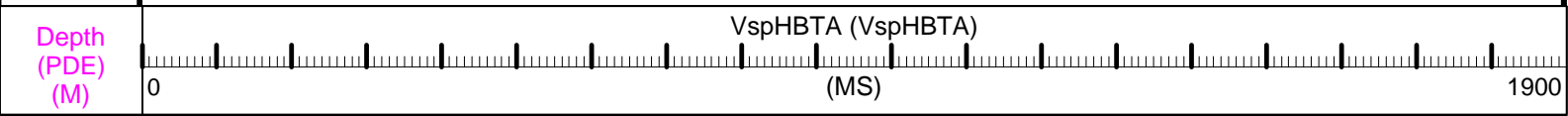
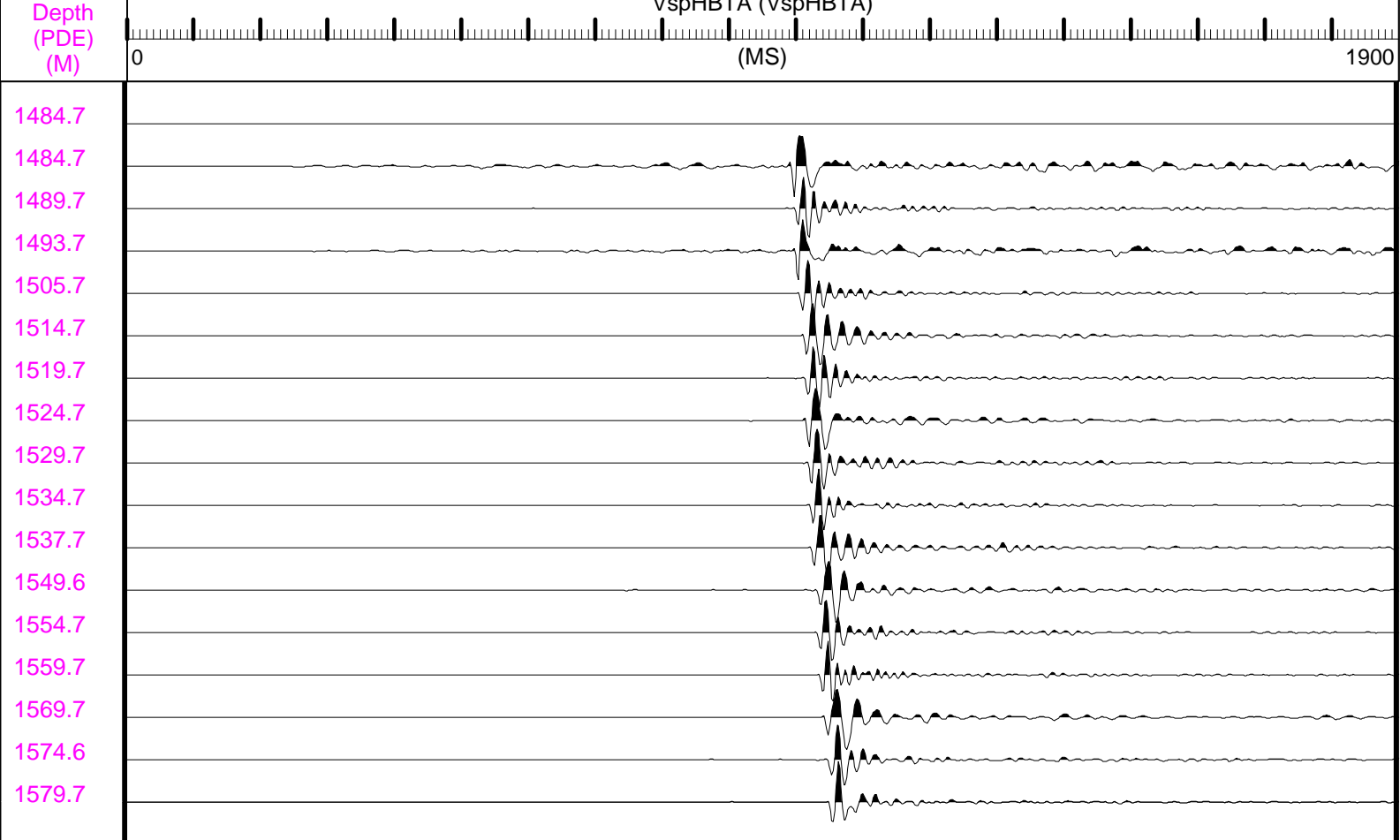
Input data filtered from 5 to 120 Hz

One Way Time Scale Plot

SEG Reverse Polarity

TAR = DATA(I)*1**1.200

Z-AXIS Processed



Format: vspHBTA Vertical Scale: 0.25" per 1SAMPLES Graphics File Created: 08-Oct-2005 16:38

OP System Version: 12C0-301
MCM

WSTA-A 12C0-301

Output DLIS Files

DEFAULT	SEIS_WSS_017LNP	FN:16	PRODUCER	08-Oct-2005 08:59	0.0 M	0.4 M
---------	-----------------	-------	----------	-------------------	-------	-------

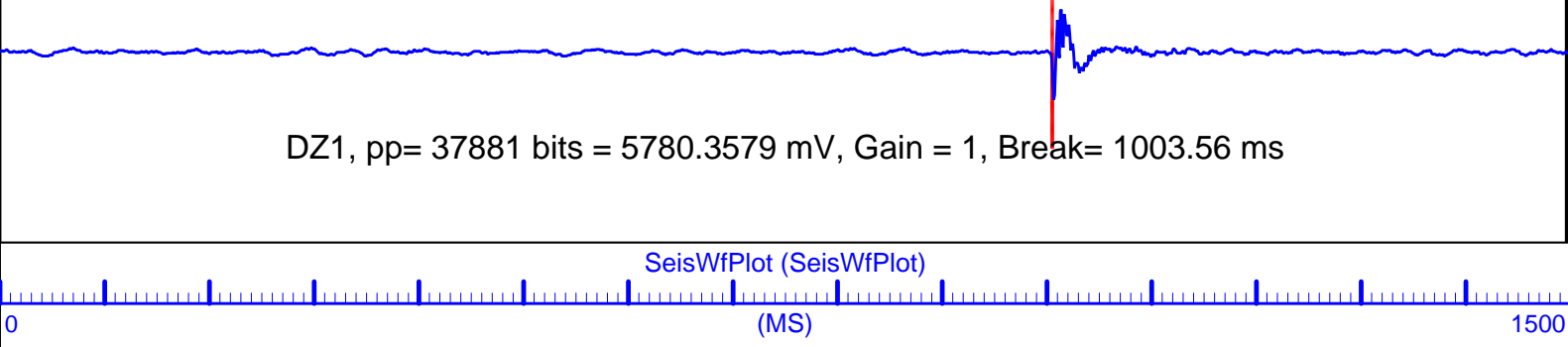
OP System Version: 12C0-301
MCM

WSTA-A 12C0-301

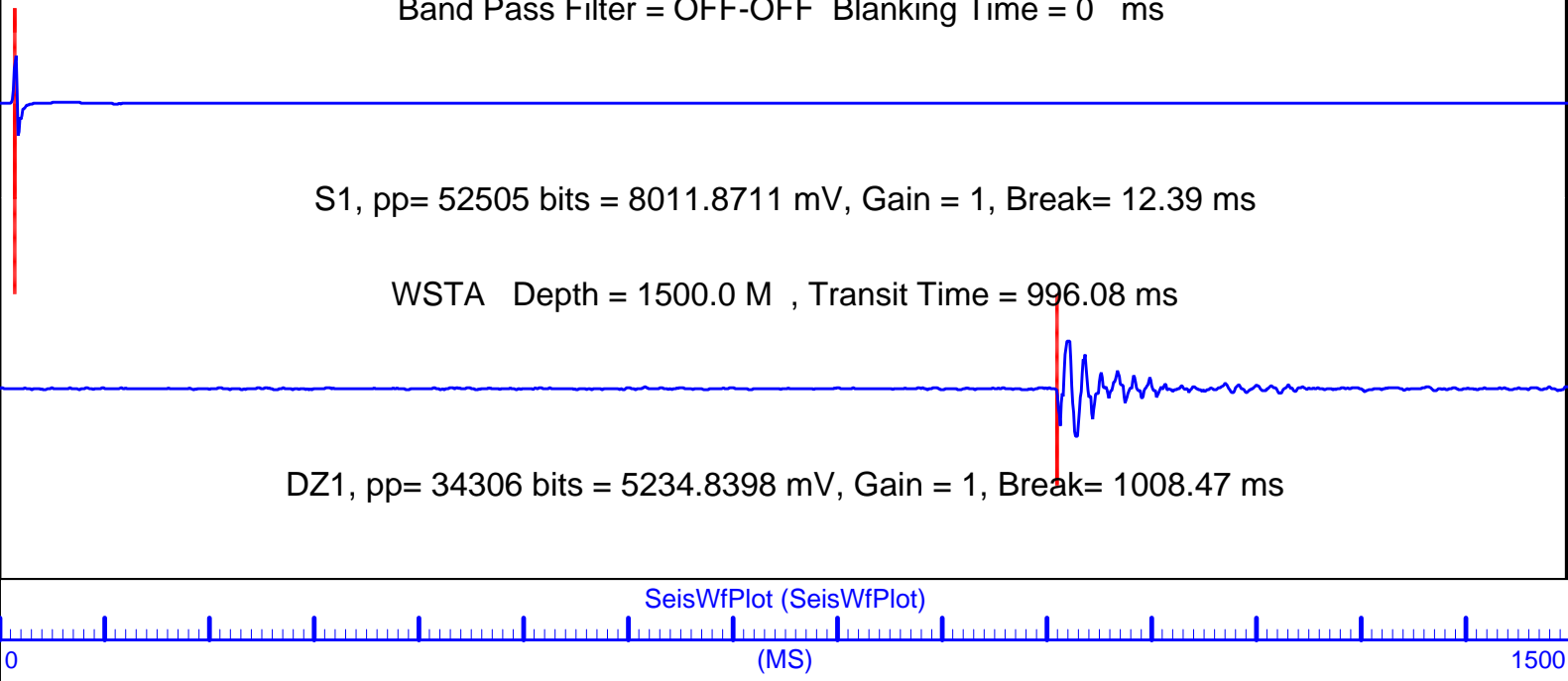
STACK # 16 8-Oct-2005-12:16 Shots: 150-151-152-155-156
Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 51239 bits = 7818.6890 mV, Gain = 1, Break= 11.49 ms

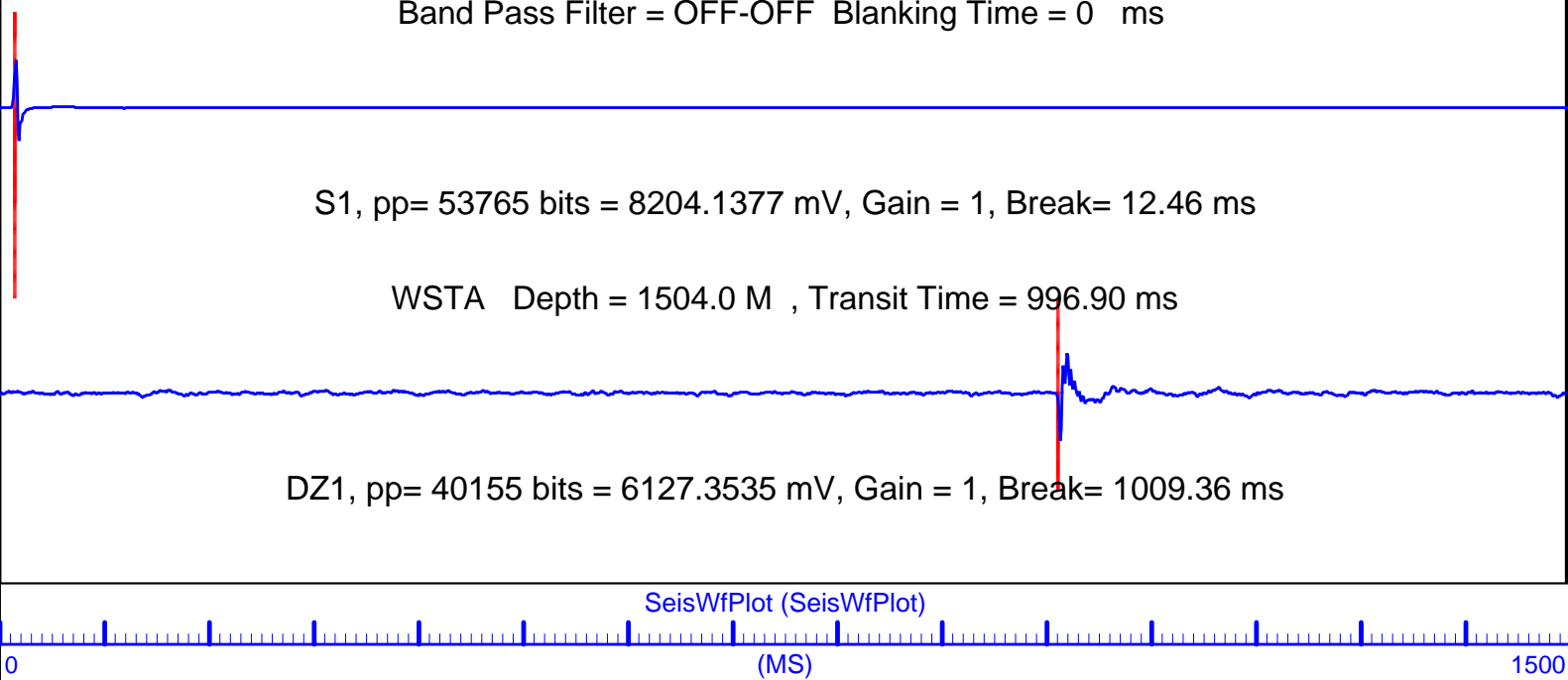
WSTA Depth = 1495.0 M , Transit Time = 992.07 ms



STACK # 15 8-Oct-2005-12:09 Shots: 141-143-144-145-146-147-149
Band Pass Filter = OFF-OFF Blanking Time = 0 ms



STACK # 14 8-Oct-2005-11:58 Shots: 128-129-130-132-136-139-140
Band Pass Filter = OFF-OFF Blanking Time = 0 ms



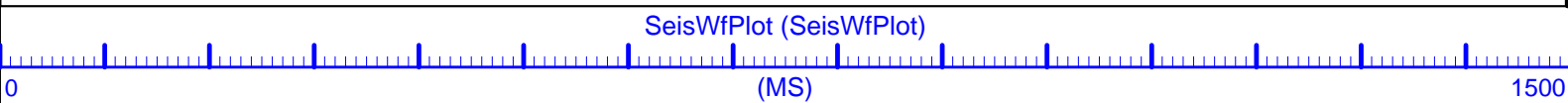
STACK # 13 8-Oct-2005-11:40 Shots: 117-119-121-122-123-124-125

Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 53261 bits = 8127.2314 mV, Gain = 1, Break= 11.50 ms

WSTA Depth = 1516.0 M , Transit Time = 1003.92 ms

DZ1, pp= 55965 bits = 8539.8418 mV, Gain = 1, Break= 1015.42 ms



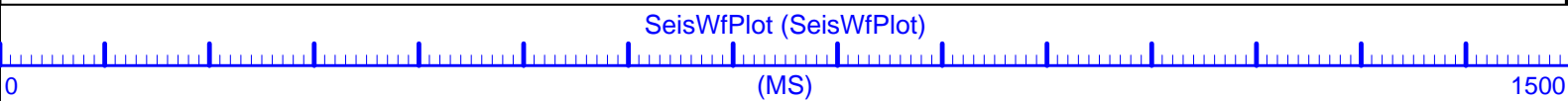
STACK # 12 8-Oct-2005-11:28 Shots: 101-103-104-107-110-113-115

Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 54620 bits = 8334.6045 mV, Gain = 1, Break= 12.43 ms

WSTA Depth = 1525.0 M , Transit Time = 1009.67 ms

DZ1, pp= 53456 bits = 8156.9868 mV, Gain = 1, Break= 1022.10 ms



STACK # 11 8-Oct-2005-11:18 Shots: 93-95-96-97-98-99-100

Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 53510 bits = 8165.2266 mV, Gain = 1, Break= 12.36 ms

WSTA Depth = 1530.0 M , Transit Time = 1011.04 ms

DZ1, pp= 60907 bits = 9293.9541 mV, Gain = 1, Break= 1023.41 ms

SeisWfPlot (SeisWfPlot)

(MS)

1500

STACK # 10 8-Oct-2005-11:13 Shots: 83-84-85-86-89-91-92

Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 54269 bits = 8281.0449 mV, Gain = 1, Break= 11.58 ms

WSTA Depth = 1535.0 M , Transit Time = 1013.87 ms

DZ1, pp= 37016 bits = 5648.3652 mV, Gain = 1, Break= 1025.45 ms

SeisWfPlot (SeisWfPlot)

(MS)

1500

STACK # 9 8-Oct-2005-11:05 Shots: 73-75-76-79-80-81-82

Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 55169 bits = 8418.3779 mV, Gain = 1, Break= 12.45 ms

WSTA Depth = 1540.0 M , Transit Time = 1016.97 ms

DZ1, pp= 42416 bits = 6472.3652 mV, Gain = 1, Break= 1029.42 ms

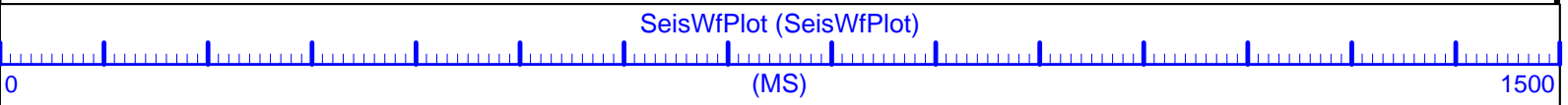
SeisWfPlot (SeisWfPlot)

STACK # 8 8-Oct-2005-10:58 Shots: 63-64-66-67-69-70-71
Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 54821 bits = 8365.2754 mV, Gain = 1, Break= 11.59 ms

WSTA Depth = 1545.0 M , Transit Time = 1019.79 ms

DZ1, pp= 58483 bits = 8924.0693 mV, Gain = 1, Break= 1031.38 ms

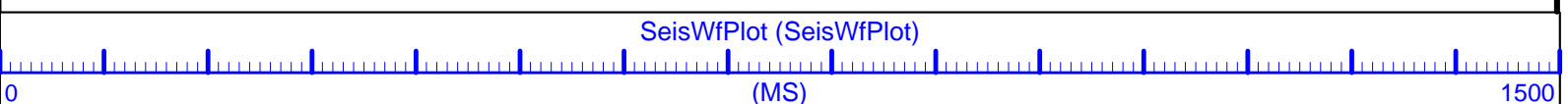


STACK # 7 8-Oct-2005-10:53 Shots: 54-56-58-59-60-61-62
Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 56016 bits = 8547.6240 mV, Gain = 1, Break= 11.62 ms

WSTA Depth = 1548.0 M , Transit Time = 1021.59 ms

DZ1, pp= 62194 bits = 9490.3408 mV, Gain = 1, Break= 1033.21 ms



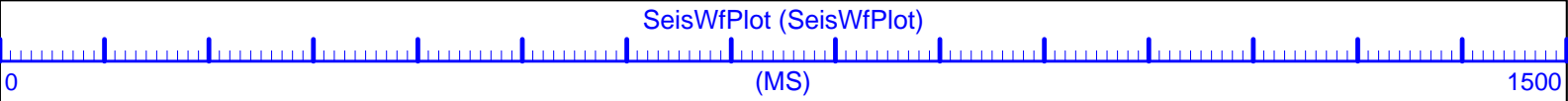
STACK # 6 8-Oct-2005-10:38 Shots: 44-45-46-49-50-52-53
Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 55911 bits = 8591.9919 mV, Gain = 1, Break= 11.64 ms

S1, pp= 55911 bits = 8531.6016 mV, Gain = 1, Break= 11.64 ms

WSTA Depth = 1559.9 M , Transit Time = 1030.00 ms

DZ1, pp= 57233 bits = 8733.3291 mV, Gain = 1, Break= 1041.65 ms



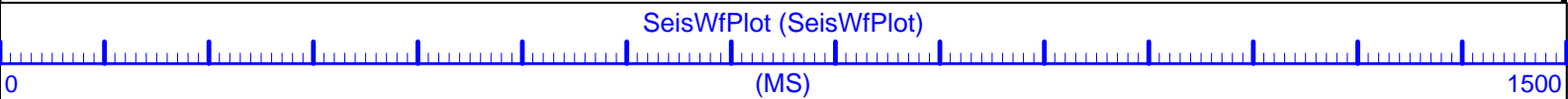
STACK # 5 8-Oct-2005-10:23 Shots: 36-37-38-39-41-42-43

Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 56794 bits = 8666.3408 mV, Gain = 1, Break= 11.60 ms

WSTA Depth = 1565.0 M , Transit Time = 1029.56 ms

DZ1, pp= 55184 bits = 8420.6670 mV, Gain = 1, Break= 1041.16 ms



STACK # 4 8-Oct-2005-10:18 Shots: 29-30-31-32-33-34-35

Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 58221 bits = 8884.0898 mV, Gain = 1, Break= 11.48 ms

WSTA Depth = 1570.0 M , Transit Time = 1033.38 ms

DZ1, pp= 56140 bits = 8566.5449 mV, Gain = 1, Break= 1044.86 ms



0 (MS) 1500

STACK # 3 8-Oct-2005-10:08 Shots: 22-23-24-25-26-27-28
Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 57698 bits = 8804.2842 mV, Gain = 1, Break= 11.61 ms

WSTA Depth = 1580.0 M , Transit Time = 1041.79 ms

DZ1, pp= 32713 bits = 4991.7598 mV, Gain = 1, Break= 1053.40 ms

0 (MS) 1500

STACK # 2 8-Oct-2005-10:01 Shots: 13-14-15-16-18-19-21
Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 57128 bits = 8717.3066 mV, Gain = 1, Break= 11.69 ms

WSTA Depth = 1584.9 M , Transit Time = 1045.55 ms

DZ1, pp= 31884 bits = 4865.2607 mV, Gain = 1, Break= 1057.23 ms

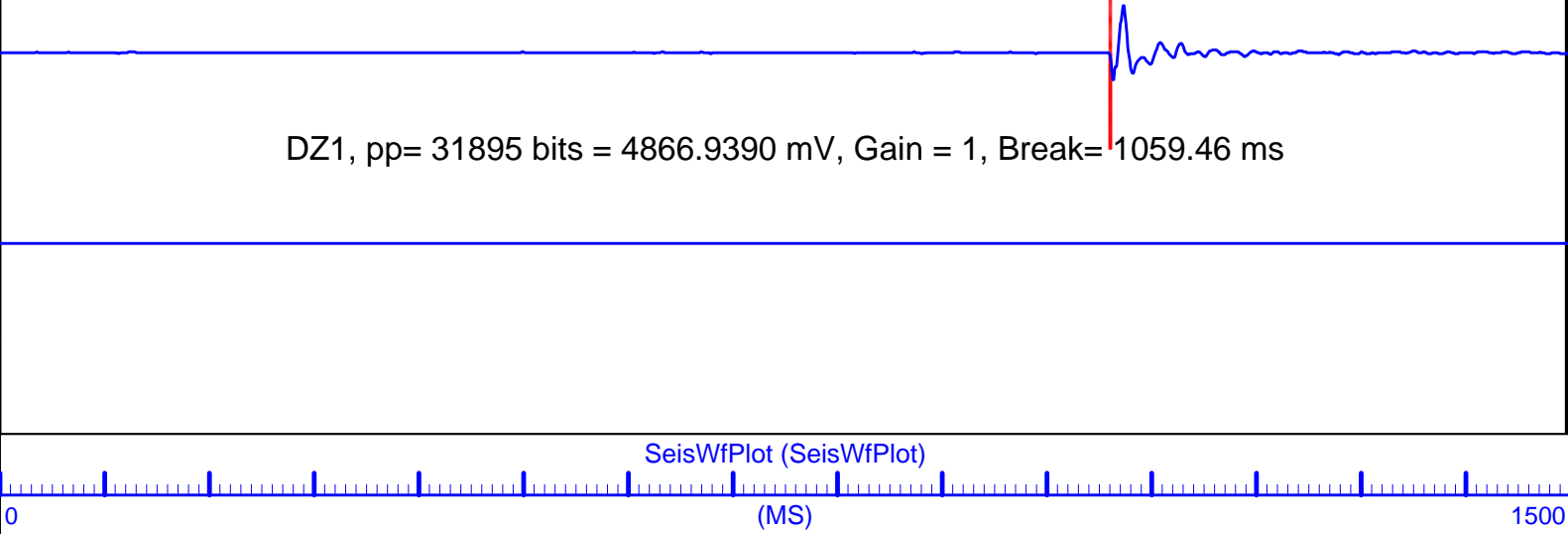
0 (MS) 1500

STACK # 1 8-Oct-2005-09:54 Shots: 6-7-8-9-10-11-12
Band Pass Filter = OFF-OFF Blanking Time = 0 ms

S1, pp= 57480 bits = 8771.0195 mV, Gain = 1, Break= 11.64 ms

WSTA Depth = 1590.0 M , Transit Time = 1047.81 ms

DZ1, pp= 31895 bits = 4866.9390 mV, Gain = 1, Break= 1059.46 ms



Format: SeisAxisWfPlotSat Vertical Scale: 0.5" per 1SAMPLES Graphics File Created: 08-Oct-2005 08:59

OP System Version: 12C0-301
MCM

WSTA-A 12C0-301

Output DLIS Files

DEFAULT SEIS_WSS_017LNP FN:16 PRODUCER 08-Oct-2005 08:59

Company: Lamont Doherty

Schlumberger

Well: IODP EXP 311 Site U1327D

Field: CAS-01B

Country: Canada

Ocean: Pacific

Well Seismic Tool