

Schlumberger

Company: **Lamont Doherty**

Well: **Expedition 339, Site U1386C GC-01A**

Field: **Mediterranean Outflow (Portugal)**

Rig: **JOIDES Resolution** Ocean: **Atlantic**

Versatile Seismic Imager
Gamma Ray
Vertical Seismic Profile

Rig: JOIDES Resolution
Field: Mediterranean Outflow (Portugal)
Location: Latitude: N 36° 49.69'
Well: Expedition 339, Site U1386C GC
Company: Lamont Doherty

LOCATION		Elev.:	K.B.	11.00 m
Latitude: N 36° 49.69'		G.L. -562.20 m		
Longitude: W 7° 45.33'		D.F. 11.00 m		
Permanent Datum:	Mean Sea Level	Elev.:	0.00 m	
Log Measured From:	Drill Floor	11.00 m above Perm. Datum		
Drilling Measured From:	Drill Floor			
API Serial No.	Max. Hole Devi. 0 deg	Longitude W 7° 45.33'	Latitude N 36° 49.69'	

Logging Date	8-Dec-2011		
Run Number	1		
Depth Driller	1099 m		
Schlumberger Depth	1098 m		
Bottom Log Interval	942 m		
Top Log Interval	574 m		
Casing Driller Size @ Depth	10.750 in @ 676 m		
Casing Schlumberger	675 m		
Bit Size	9.875 in		
Type Fluid In Hole	Seawater Gel		
Density	1.25 g/cm3		
Fluid Loss	PH		
Source Of Sample	N/A		

RM @ Measured Temperature	@	@
RMF @ Measured Temperature	@	@
RMC @ Measured Temperature	@	@
Source RMF	RMC	N/A
RM @ MRT	RMF @ MRT	
Maximum Recorded Temperatures	21 degC @ 21	@ 21
Circulation Stopped	7-Dec-2011	11:00
Logger On Bottom	8-Dec-2011	11:30
Unit Number	625003	Houston
Recorded By	K. Swain	
Witnessed By	T. Williams, J. Lofi	

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RMF @ Measured Temperature	@	@	
RMC @ Measured Temperature	@	@	
Source RMF	RMC	N/A	
RM @ MRT	RMF @ MRT		
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RMF @ Measured Temperature	@	@	
RMC @ Measured Temperature	@	@	
Source RMF	RMC	N/A	
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Unit Number	625003	Houston	
Recorded By	K. Swain		
Witnessed By	T. Williams, J. Lofi		

Run 1

Run 2

Run

DISCLAIMER

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OTHER SERVICES1

OS1: DSI
OS2: HLDS
OS3: FMS
OS4: HNGS
OS5: DITE/HRLA

OTHER SERVICES2

OS1:
OS2:
OS3:
OS4:
OS5:

REMARKS: RUN NUMBER 1

Hole GC-01A Hole C was drilled with a 9 7/8" RCB bit to TDD of 1099mbrf.
Hole depth referenced from sea floor based on driller measurement is 526m.
VSI geometry as shown on geometry display.
SRD = mean sea level
Borehole rugosity and soft formation inhibit VSI anchoring and subsequently affects data quality.

REMARKS: RUN NUMBER 2

All logs recorded via wireline thru 5.5" drillpipe and RCB coring BHA. consisting of a bit release sub, Kinley sub, drill collars. The rotary coring bit was released on bottom prior to logging.

VSI run as single shuttle tool with EDTC for gamma ray and vertical acceleration
Could not go lower than 942mbrf as a bridge kept the tool from reaching TD.
Shot levels above this depth. Tool clamping/anchoring difficulties required many shots and trying at different depths.

RUN 1

SERVICE ORDER #:
PROGRAM VERSION: 19C0-187
FLUID LEVEL:

RUN 2

SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

RUN 2

SURFACE EQUIPMENT

SIMU-WSAM 767
WITM (EDTS)-A 1

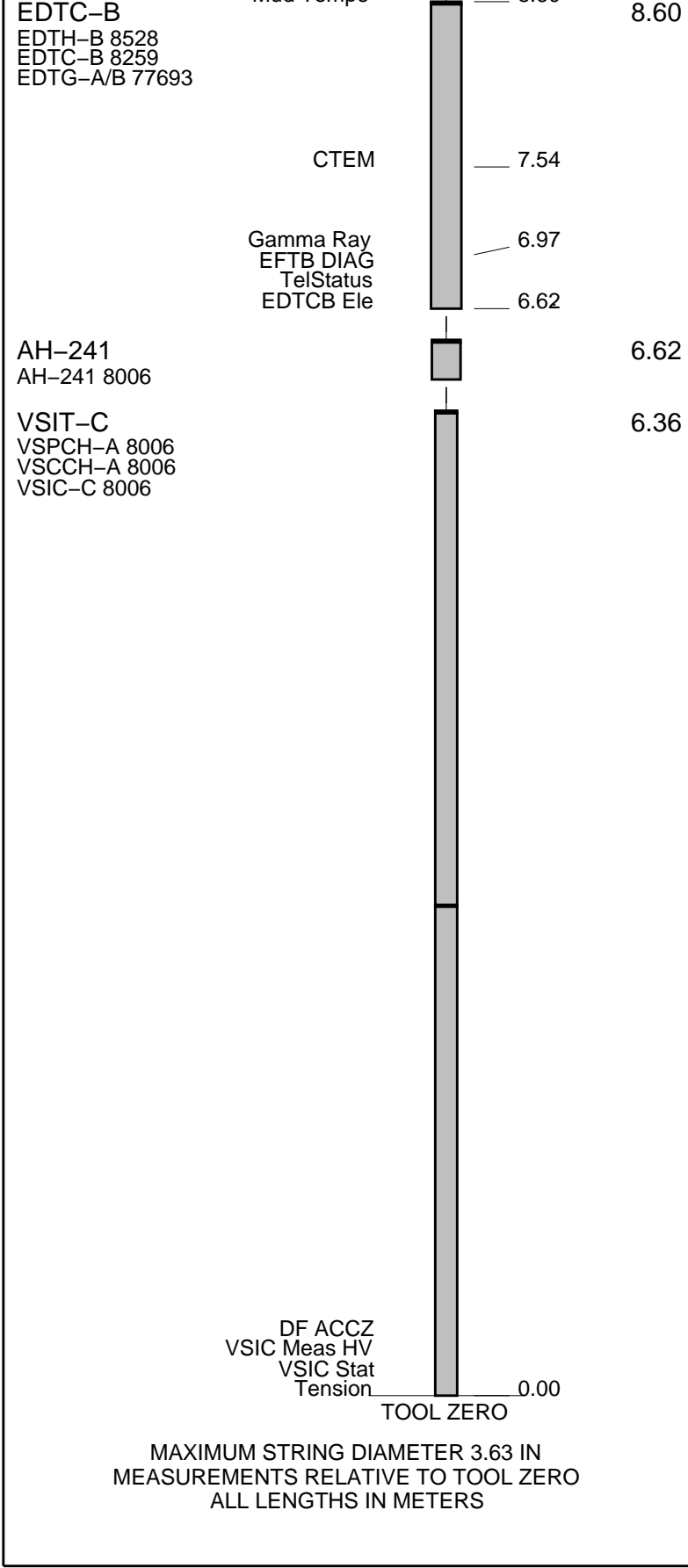
DOWNHOLE EQUIPMENT

LEH-QT 9.49
LEH-QT 301



MDSB_EDTC
Mud Tempe

8.60

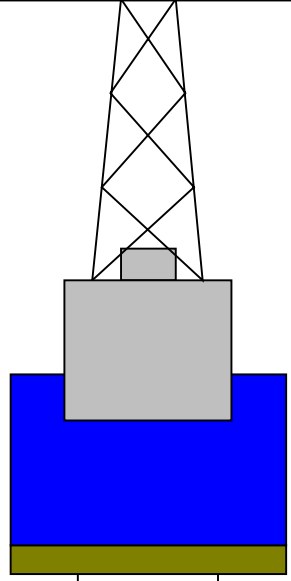


Production String	(in)	(M)	Well Schematic	(M)	(in)	Casing String
	OD	ID		MD	MD	

Kelly Bushing Elevation
Derrick Floor Elevation

Mean Sea Level

-573.2
-573.2
-562.2

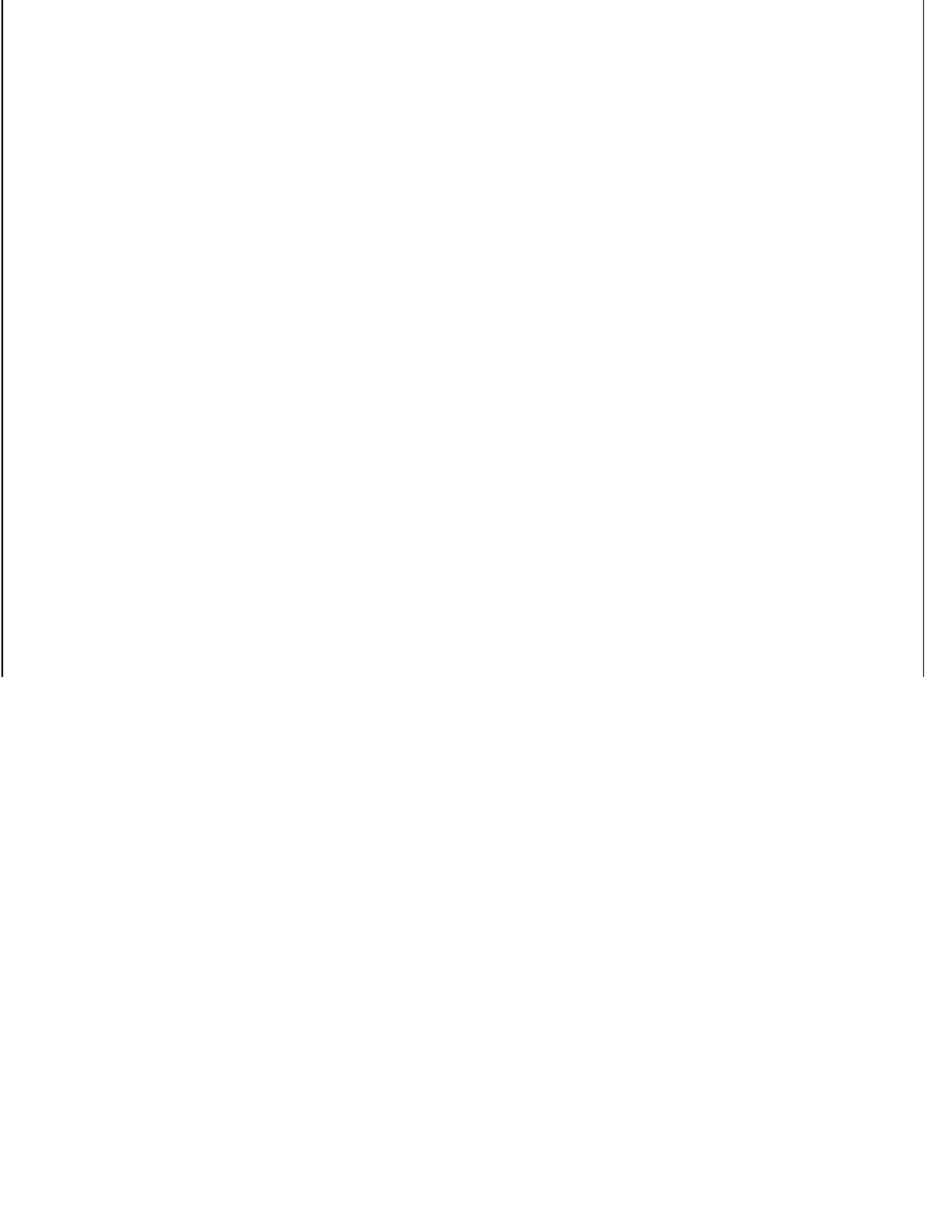


4.1

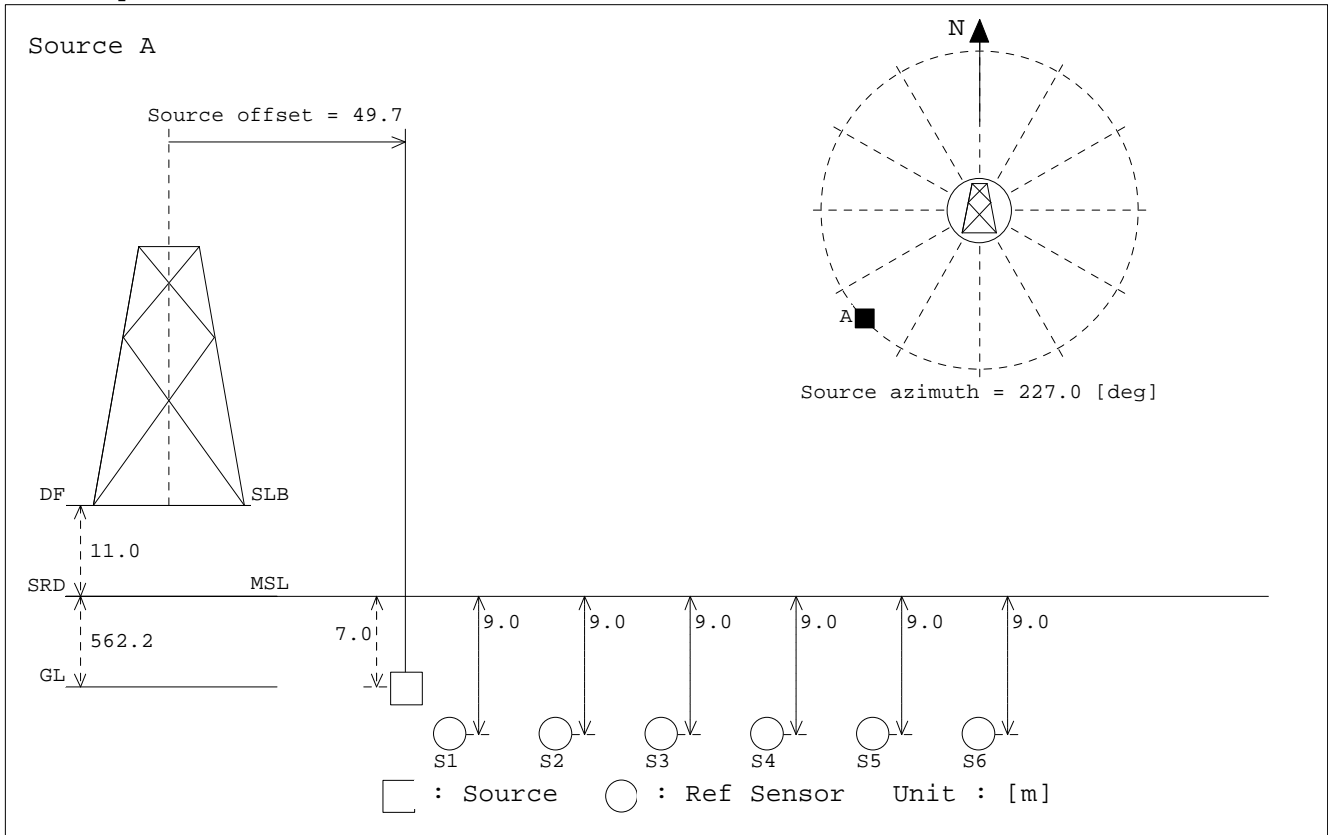


0
102
526
3.80
9.875

Sea Floor
Open Hole
Total Depth



Geometry Sketch (1/1)



Stack Summary Listing - Source:A (1/1)

Stack number	Well depth [m]	TVD from [m]	TT [ms]	TT(TVD Corrected) [ms]	TWT(TVD Corrected) [ms]	Interval Velocity [m/s]	Average Velocity [m/s]	RMS Velocity [m/s]
12	843.1	832.1	551.4	556.4	1112.7	2046.0	1495.5	1495.5
10	874.9	863.9	566.8	571.9	1143.8	998.0	1510.5	1513.2
9	886.0	875.0	578.0	583.0	1166.0	1707.5	1500.7	1505.0
8	906.0	895.0	589.7	594.8	1189.6	-367.7	1504.8	1509.3
7	915.9	904.9	562.9	568.0	1136.0	2001.4	1593.1	1542.3
6	925.9	914.9	567.9	573.0	1146.1	259.7	1596.6	1546.9
5	935.0	924.0	602.7	607.8	1215.6	-185.1	1520.2	1503.3
4	940.2	929.2	574.1	579.3	1158.6	4207.9	1604.1	1539.4
2	942.4	931.4	574.6	579.8	1159.6		1606.4	1543.7

Job Summary Listing (1/3)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
942.4	11:22:45	SHAK	1			bad shaker
942.4	11:23:12	SHAK	2			bad sahker
942.4	11:23:37	BKGD	3			backgrnd noise
942.4	11:31:40	SHAK	4			bad shaker
942.4	11:32:23	SHOT	5	2	A	good shot
942.4	11:34:21	SHOT	6	2	A	fixed in playback
942.4	11:35:12	SHOT	7	2	A	fixed in playback, good stack 586.1 TT
941.3	11:45:20	SHAK	8			shaker
940.2	11:51:08	SHAK	9			shaker
940.2	11:51:24	BKGD	10			bad background
940.2	11:51:50	SHOT	11	4	A	good shot, 574.7 transit time
940.2	11:52:39	SHOT	12	4	A	bad shot, not useable
935.0	11:57:41	SHAK	13			bad shaker
935.0	11:58:09	SHOT	14	5	A	not great shot
935.0	11:59:19	SHOT	15	5	A	better shot
935.0	11:59:42	SHOT	16	5	A	noisy
935.0	12:00:44	SHOT	17	5	A	reasonable, 602.3
935.0	12:05:02	SHOT	18	5	A	not good
935.0	12:05:58	SHOT	19	5	A	not good
925.9	12:11:49	SHAK	20			ok shaker
925.9	12:12:09	SHOT	21	6	A	ok shot, 568.4
925.9	12:12:27	SHOT	22	6	A	bad shot
925.9	12:13:32	SHOT	23	6	A	bad shot
915.9	12:20:04	SHOT	24	7	A	goog shot
915.9	12:20:43	SHOT	25	7	A	good
915.9	12:21:09	SHOT	26	7	A	ok
915.9	12:21:27	SHOT	27	7	A	ok
915.9	12:21:45	SHOT	28	7	A	ok, 563.5
906.0	12:27:44	SHOT	29	8	A	might be ok
906.0	12:28:54	SHOT	30	8	A	pick bad but wave good
906.0	12:29:28	SHOT	31	8	A	good
906.0	12:30:11	SHOT	32	8	A	good
906.0	12:30:29	SHOT	33	8	A	good
906.0	12:31:00	SHOT	34	8	A	good
906.0	12:31:32	SHOT	35	8	A	ok, 590.1
886.0	12:36:33	SHOT	36	9	A	bad
886.0	12:36:53	SHOT	37	9	A	bad
886.0	12:37:11	SHOT	38	9	A	ad
886.0	12:37:32	SHOT	39	9	A	good, 542.9
886.0	12:37:53	SHOT	40	9	A	bad
886.0	12:38:44	SHOT	41	9	A	bad pick and noise
886.0	12:39:12	SHOT	42	9	A	bad
874.9	12:44:40	SHOT	43	10	A	bad
874.9	12:45:24	SHOT	44	10	A	bad
874.9	12:45:54	SHOT	45	10	A	good
874.9	12:46:13	SHOT	46	10	A	bad
874.9	12:46:31	SHOT	47	10	A	very good
874.9	12:46:49	SHOT	48	10	A	good
874.9	12:47:25	SHOT	49	10	A	ok
874.9	12:47:53	SHOT	50	10	A	good, 567.4

Job Summary Listing (2/3)

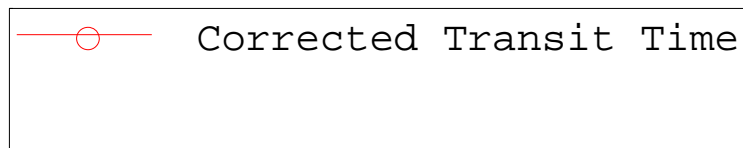
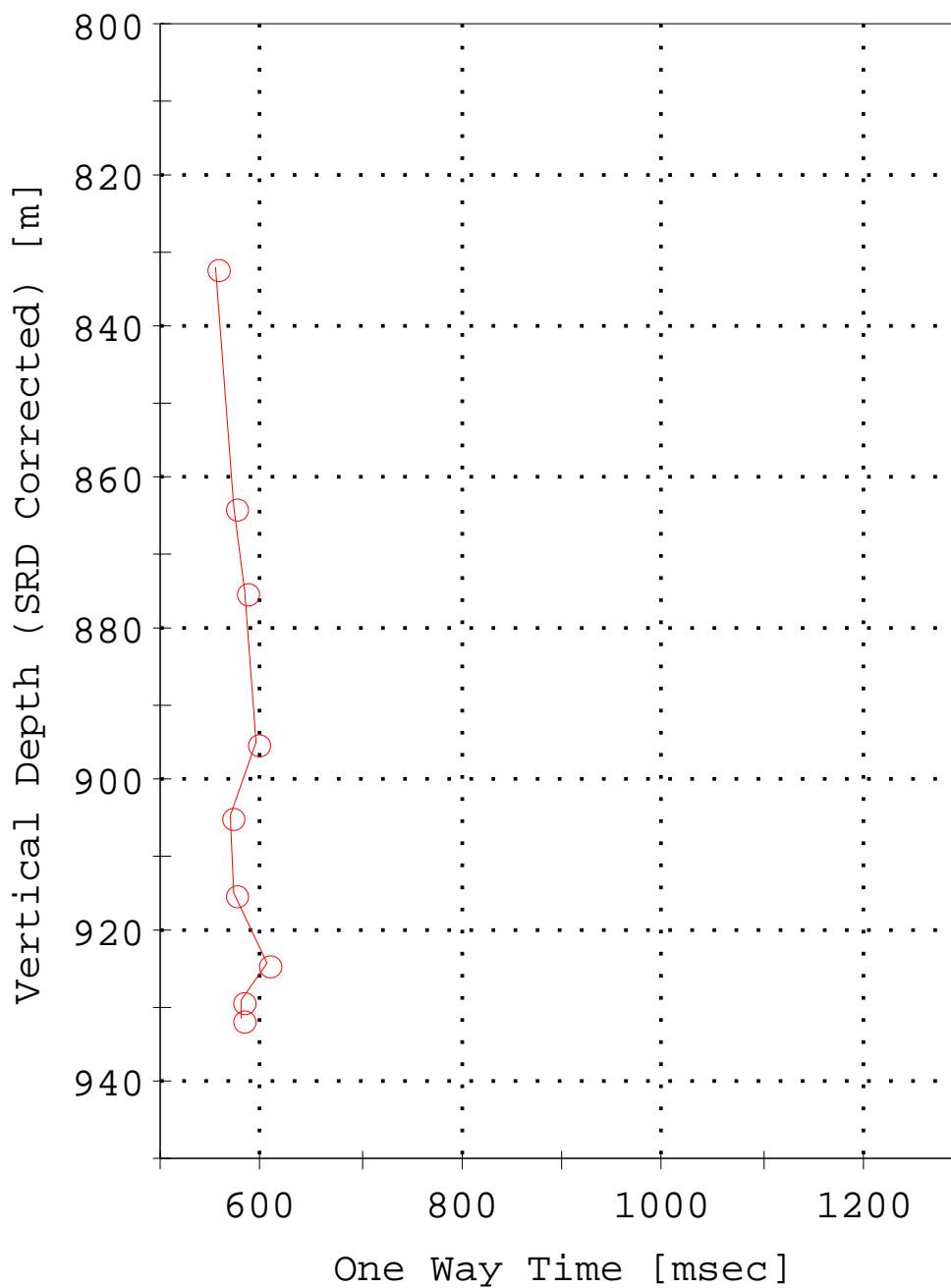
Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
860.0	12:53:09	SHOT	51	11	A	good
860.0	12:53:31	SHOT	52	11	A	noisy
860.0	12:53:52	SHOT	53	11	A	noisy
860.0	12:54:10	SHOT	54	11	A	noisy
860.0	12:54:31	SHOT	55	11	A	ok
860.0	12:55:38	SHOT	56	11	A	noisy
860.0	12:55:56	SHOT	57	11	A	noisy
860.0	12:56:17	SHOT	58	11	A	ok but some noise, 532.7
860.0	12:56:59	SHOT	59	11	A	noisy
860.0	12:57:18	SHOT	60	11	A	terrible
843.1	13:01:39	SHOT	61	12	A	terrible
843.1	13:02:06	SHOT	62	12	A	bad
843.1	13:02:32	SHOT	63	12	A	bad
843.1	13:02:50	SHOT	64	12	A	bad
843.1	13:03:08	SHOT	65	12	A	bad
843.1	13:03:32	SHOT	66	12	A	might work
843.1	13:04:07	SHOT	67	12	A	bad
843.1	13:04:37	SHOT	68	12	A	keeper
843.1	13:05:06	SHOT	69	12	A	keeper
843.1	13:05:25	SHOT	70	12	A	bad
843.1	13:05:43	SHOT	71	12	A	might work, 552.8 stack
824.0	13:11:15	SHOT	72	13	A	bad
824.0	13:11:33	SHOT	73	13	A	good
824.0	13:11:57	SHOT	74	13	A	bad
824.0	13:12:15	SHOT	75	13	A	terrible
824.0	13:12:33	SHOT	76	13	A	bad
824.0	13:12:51	SHOT	77	13	A	bd
824.0	13:13:17	SHOT	78	13	A	bad
824.0	13:13:35	SHOT	79	13	A	bad, stack 515.6
805.0	13:18:29	SHOT	80	14	A	bad
805.0	13:18:47	SHOT	81	14	A	bad
805.0	13:19:13	SHOT	82	14	A	bad
805.0	13:19:50	SHOT	83	14	A	bad
805.0	13:20:08	SHOT	84	14	A	bad
805.0	13:20:27	SHOT	85	14	A	bad
805.0	13:20:46	SHOT	86	14	A	bad
805.0	13:21:41	SHOT	87	14	A	bad, No stack unuseable
777.0	13:27:41	SHOT	88	15	A	bad
777.0	13:27:59	SHOT	89	15	A	bad
777.0	13:28:17	SHOT	90	15	A	bad
777.0	13:28:35	SHOT	91	15	A	bad
777.0	13:28:53	SHOT	92	15	A	bad
777.0	13:29:11	SHOT	93	15	A	bad
777.0	13:29:30	SHOT	94	15	A	bad
777.0	13:29:49	SHOT	95	15	A	bad
777.0	13:30:07	SHOT	96	15	A	BAD, no stack
737.0	13:38:29	SHOT	97	16	A	BAD
737.0	13:39:04	SHOT	98	16	A	B
737.0	13:39:26	SHOT	99	16	A	B
737.0	13:39:44	SHOT	100	16	A	B

Job Summary Listing (3/3)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
737.0	13:40:02	SHOT	101	16	A	B
737.0	13:40:20	SHOT	102	16	A	B
737.0	13:40:38	SHOT	103	16	A	B
737.0	13:40:57	SHOT	104	16	A	B
737.0	13:41:17	SHOT	105	16	A	bad, not useable, no stack
716.2	13:48:52	SHOT	106	17	A	OK
716.2	13:49:11	SHOT	107	17	A	BAD
716.2	13:49:30	SHOT	108	17	A	GOOD
716.2	13:50:13	SHOT	109	17	A	BAD
716.2	13:50:31	SHOT	110	17	A	MAYBE
716.2	13:51:05	SHOT	111	17	A	NO
716.2	13:51:26	SHOT	112	17	A	NO
716.2	13:51:44	SHOT	113	17	A	MAYBE
716.2	13:52:21	SHOT	114	17	A	OK
716.2	13:52:48	SHOT	115	17	A	MAYBE
716.2	13:53:14	SHOT	116	17	A	BAD, stack 457.0

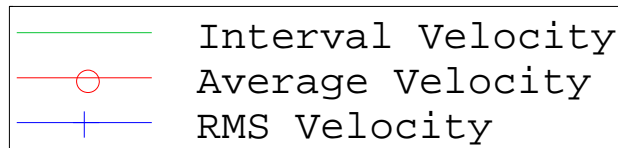
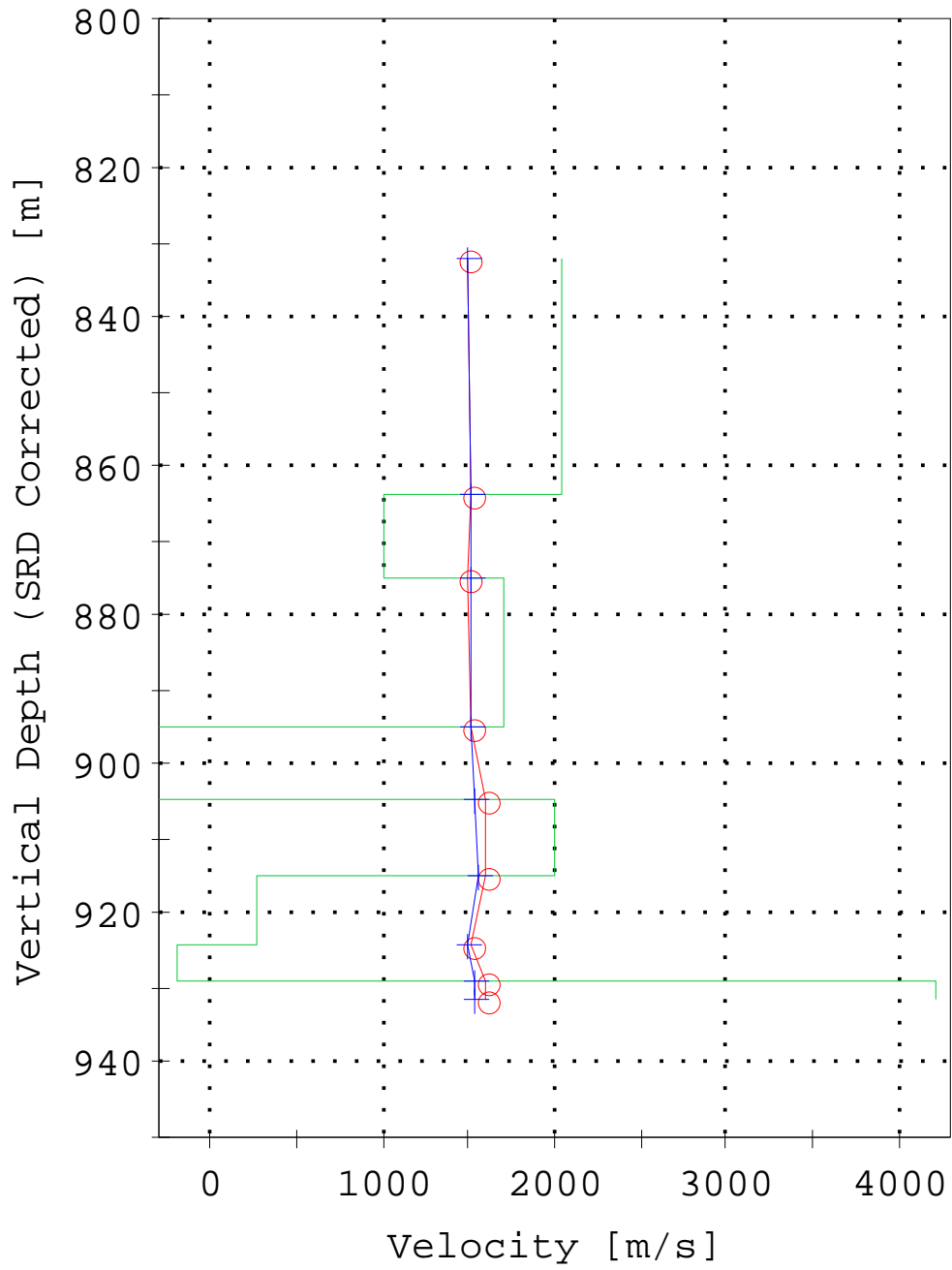
Time-Depth Plot

Source Offset = 49.68 m
Source Azimuth = 227.00 degree
Source Depth (from SRD) = 7.00 m

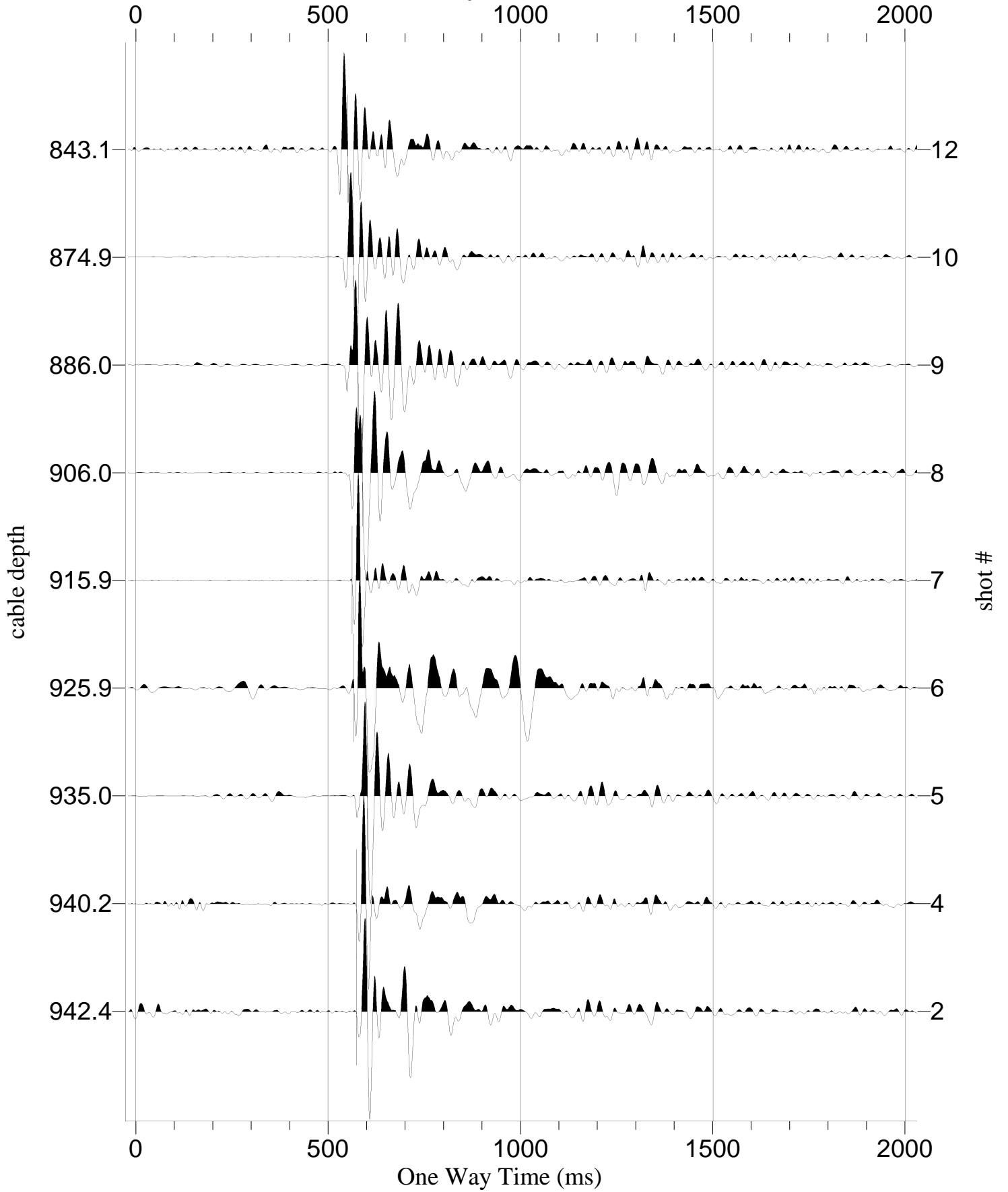


Velocity Plot

SRD below Measured Depth Zero = 11.00 m



Wavefield (A, Z)



Output DLIS Files

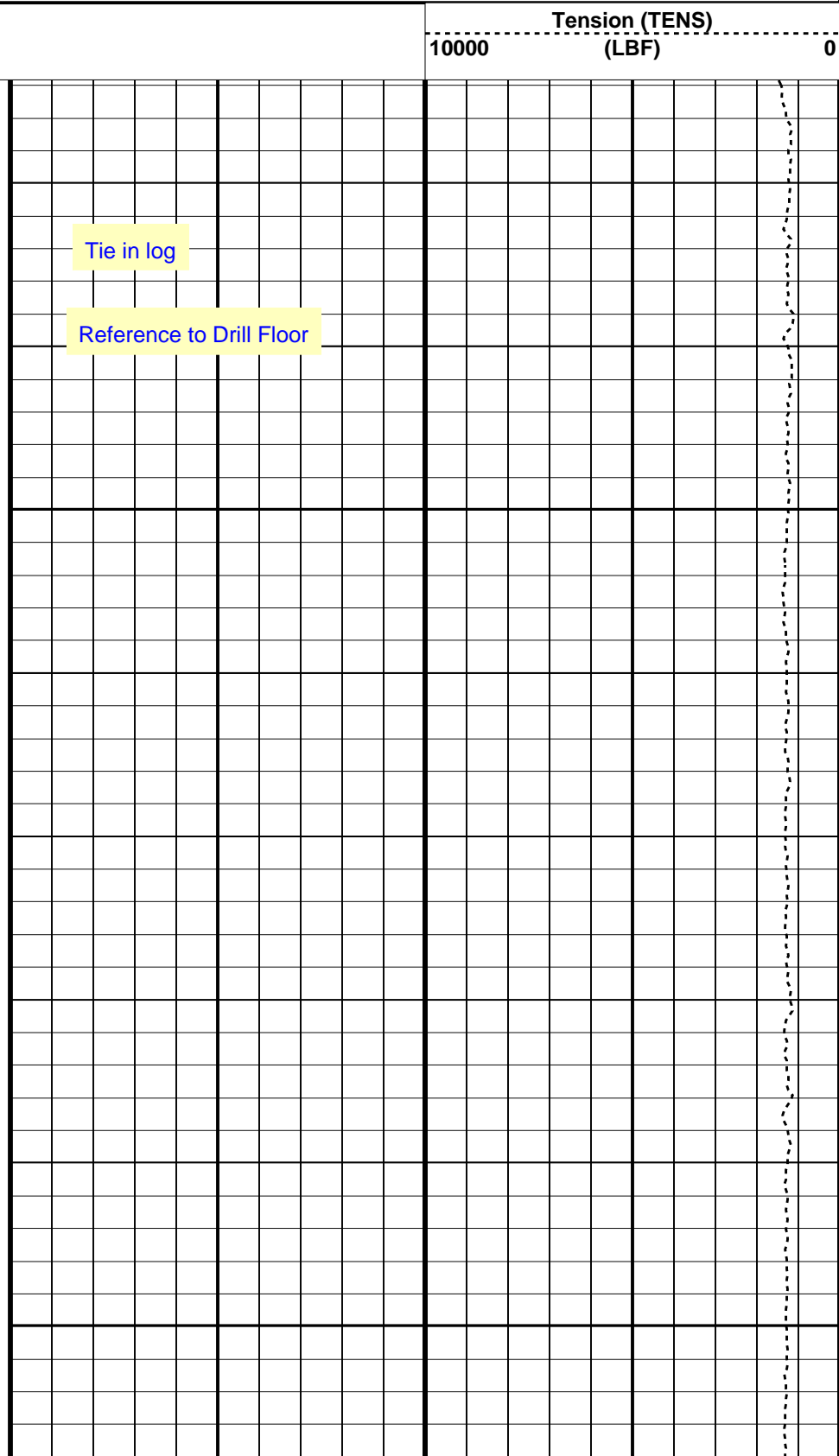
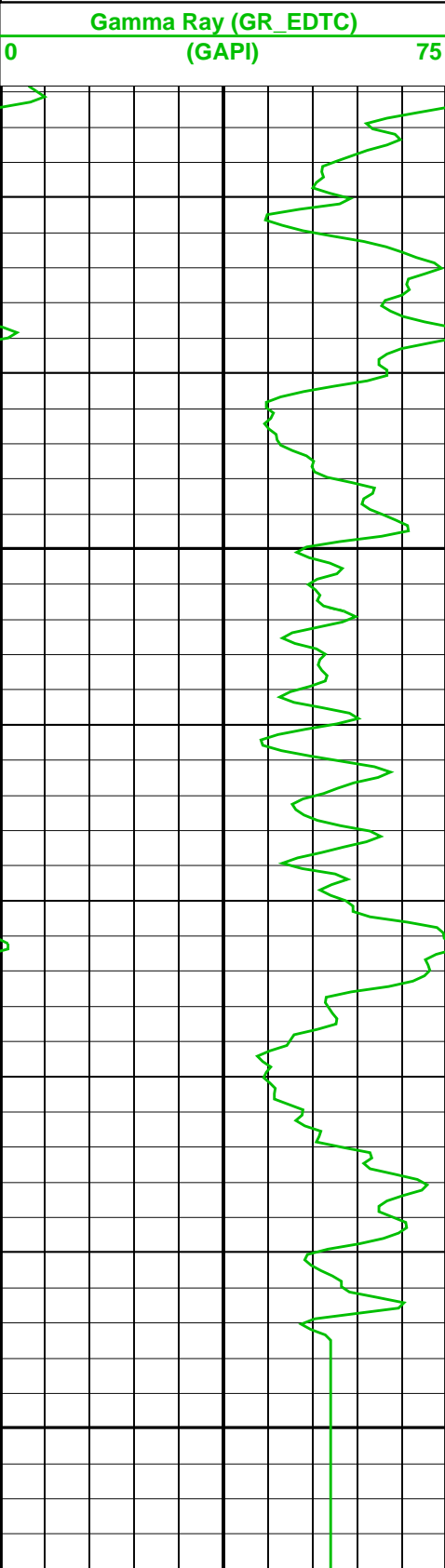
DEFAULT VSIT_024LUP
BACKUPDLIS VSIT_024LUP

FN:37 PRODUCER 08-Dec-2011 11:01
FN:38 PRODUCER 08-Dec-2011 11:01

OP System Version: 19C0-187

VSIT-C 19C0-187

EDTC-B 19C0-187



0	Gamma Ray (GR_EDTC) (GAPI)	75	10000	Gamma Ray (GR_EDTC) (LBF)	0
Format: CORRELATION_EDTCB		Vertical Scale: 1:200		Graphics File Created: 08-Dec-2011 11:01	
OP System Version: 19C0-187					
VSIT-C	19C0-187	EDTC-B	19C0-187		
Output DLIS Files					
DEFAULT	VSIT_024LUP	FN:37	PRODUCER	08-Dec-2011 11:01	
BACKUPDLIS	VSIT_024LUP	FN:38	PRODUCER	08-Dec-2011 11:01	

Calibration and Check Summary


Measurement	Nominal	Master	Before	After	Change	Limit	Units
Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration							
Before: 7-Dec-2011 19:06							
EDTC Z-Axis Acceleration	9.810	N/A	9.822	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration							
Before: Calibration out of date 26-Nov-2011 0:18							
Gamma Ray (Jig – Bkg)	163.8	N/A	163.8	N/A	N/A	14.89	GAPI
Gamma Ray (Calibrated)	164.0	N/A	164.0	N/A	N/A	15.00	GAPI

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:		
EDTC Gamma Ray Detector	EDTG – A/B	77693
Enhanced DTS Cartridge	EDTC – B	8259
Auxiliary Equipment:		
EDTC Housing	EDTH – B	8528

Enhanced DTS Cartridge Wellsite Calibration

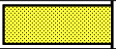


EDTC Accelerometer Calibration

Phase	EDTC Z-Axis Acceleration M/S2	Value
Before		9.822
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	

Before: 7-Dec-2011 19:06

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig – Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		9.201	Before		163.8	Before		164.0
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			148.9 (Minimum) 163.8 (Nominal) 178.7 (Maximum)			149.0 (Minimum) 164.0 (Nominal) 179.0 (Maximum)	

Before: Calibration out of date 26-Nov-2011 0:18

Company: **Lamont Doherty**

Schlumberger

Well: **Expedition 339, Site U1386C GC-01A**

Field: **Mediterranean Outflow (Portugal)**

Rig: **JOIDES Resolution**

Ocean: **Atlantic**

Versatile Seismic Imager

Gamma Ray

Vertical Seismic Profile