chlumberger

APPENDIX 3 OF WCR VOL 2 SMILER-1 W1122

MELBOURNE LOG INTERPRETATION CEN

PO BOX 7435
479 ST. KILDA ROAD
MELBOURNE VICTORIA 3004

Schlumberger

Schlumberger Oilfield Australia Pty. Ltd.

Level 3, 312 St Kilda Road, MELBOURNE VIC 3004
P.O. Box 7435, 479 St Kilda Road, MELBOURNE VIC 3004
Phone: (03) 696 6266 Fax: (03) 690 0309 Telex: AA 151320

ESSO AUSTRALIA LTD

WELL SEISMIC PROCESSING REPORT

Zero Offset VSP and Geogram

SMILER-1

FIELD : WILDCAT

COUNTRY : AUSTRALIA

COORDINATES : 038 28' 55.18" S
: 148 23' 17.09" E

LOCATION : VEA

DATE OF SURVEY : 13 JULY 1995

REFERENCE NO. : SYJ.561131/561132

INTERVAL : 2614 - 182 M

CONTENTS

1. Introduction 1

2. Data Acquisition 1

3. Sonic Calibration Processing 2

3.1 Sonic Calibration 2

3.2 Open Hole Logs 3

3.3 Correction to Datum and Velocity Modelling 3

3.4 Sonic Calibration Results 3

4. Synthetic Seismogram Processing 4

4.1 Depth to Time Conversion 4

4.2 Primary Reflection Coefficients 4

4.3 Primaries with Transmission Loss 5

4.4 Primaries plus Multiples 5

4.5 Multiples Only 5

4.7 Polarity Convention 5

4.8 Convolution 6

5. VSP Processing 6

5.1 Stacking 6

5.2 Spherical Divergence Correction and Bandpass Filter 6

5.3 Velocity Filter 7

5.4 Waveshaping Deconvolution 7

5.5 VSP Acoustic Impedance Inversion 8

A Summary of Geophysical Listings 9

A1 Geophysical Airgun Report 9

A2 Drift Computation Report 10

A3 Sonic Adjustment Parameter Report 10

A4 Velocity Report 11

A5 Time Converted Velocity Report 11

List of Tables

1 Survey Parameters 1

2 Sonic Drift 3

List of Figures

1 Wavelet Polarity Convention

VSP PLOTS

Plot 1	Stacked Data	PE600691
Plot 2	Amplitude Recovery	PE600692
Plot 3	Velocity Filter	PE600693
Plot 4	Waveshaping Deconvolution Zero Phase	PE600694
Plot 5	Waveshaping Deconvolution - Corridor Stack	PE600695
Plot 5 a	Waveshaping Deconvolution - Corridor Stack (-90 deg. phase applied)	PE600696
Plot 6	VSP and Geogram Composite - normal polarity 20 cm/sec (-90 deg. phase applied)	PE600697
Plot 7	VSP and Geogram Composite - reverse polarity 20 cm/sec (-90 deg. phase applied)	PE600698

GEOGRAM PLOTS

Drift Corrected Sonic	PE600702
Seismic Calibration Log	PE600703
25 hz zero phase Geogram 10 cm/sec	PE600699
35 hz zero phase Geogram 10 cm/sec	PE600700
45 hz zero phase Geogram 10 cm/sec	PE600701

1. Introduction

Two vertical seismic profile was recorded with the Combinable Seismic Imager tool (CSI) at the Smiler1 well. The data was processed using the conventional zero offset processing chain using only the vertical component.

2. Data Acquisition

The data was acquired in a single logging run using the three component Combinable Seismic Imager tool (CSI). An array of three sleeve air guns were used as the source. The gun was positioned 5 meters below mean sea level . Recording was made on the Schlumberger Maxis 500 Unit using DLIS format .

Table 1. Survey Parameters

Elevation of KB	25.0 M
Elevation of DF	24.7 M
Elevation of GL	- 122.0 M
Total Depth	2432M
Energy Source	3 X 150 cu in. airguns
Source Offset	50 M
Source Depth	5 M below MSL
Reference Sensor	Hydrophone
Hydrophone Offset	50 M
Hydrophone Depth	10 M below MSL
Source & Hyd. Azimuth	69.0 Degr.

3. Sonic Calibration Processing

3.1 Sonic Calibration

A 'drift' curve is obtained using the sonic log and the vertical check level times. The term 'drift' is defined as the seismic time (from check shots) minus the sonic time (from integration of edited sonic). Commonly the word 'drift' is used to identify the above difference, or to identify the gradient of drift versus increasing depth, or to identify a difference of drift between two levels.

The gradient of drift, that is the slope of the drift curve, can be negative or positive.

$$\frac{\Delta dr \text{ if } t}{\Delta dept\, h} < 0$$

For a negative drift the sonic time is greater than the seismic time over a certain section of the log.

For a positive drift $\frac{\Delta \text{drift}}{\Delta \text{depth}} > 0$, the sonic time is less than the seismic time over a certain section of the log.

The drift curve, between two levels, is then an indication of the error on the integrated sonic or an indication of the amount of correction required on the sonic to have the TTI of the corrected sonic match the check shot times.

Two methods of correction to the sonic log are used.

1. Uniform or block shift. This method applies a uniform correction to all the sonic values over the interval. This uniform correction is applied in the case of positive drift and is the average correction represented by the drift curve gradient expressed in μsec/ft .

2. ΔT Minimum. In the case of negative drift a second method is used, called ΔT minimum. This applies a differential correction to the sonic log, where it is assumed that the greatest amount of transit time error is caused by the lower velocity sections of the log. Over a given interval the method will correct only Δt values which are higher than a threshold, the Δt_{min} . Values of Δt which are lower than the threshold are not corrected. The correction is a reduction of the excess of Δt over Δt_{min}, $\Delta t - \Delta t_{min}$.

$\Delta t - \Delta t_{min}$ is reduced through multiplication by a reduction coefficient which remains constant over the interval. This reduction coefficient, named G, can be defined as:

$$G = 1 + \frac{\text{drift}}{\int (\Delta t - \Delta t_{min}) dZ}$$

Where drift is the drift over the interval to be corrected and the value $\int (\Delta t - \Delta t_{min}) dZ$ is the time difference between the integrals of the two curves Δ t and Δt_{min}. only over the intervals where $\Delta t > \Delta t_{min}$.

Hence the corrected sonic: $\Delta t = G(\Delta t - \Delta t_{min}) + \Delta t_{min}$.

3.2 Open Hole Logs

The sonic log has been recorded from 2605.0 to 170.0 metres below DF. This sonic log has been edited to alleviate cycle skipping and spiky data. The density log has also been edited to take into account bad hole condition.

The gamma ray and caliper logs are included as correlation curves.

3.3 Correction to Datum and Velocity Modelling

The sonic calibration processing has been referenced to mean sea level which the seismic reference datum . Static corrections are applied to correct for source offset and source depth. This involves using a water velocity of 1524 m/sec.

3.4 Sonic Calibration Results

The top of the sonic log (178.0 metres below DF) is chosen as the origin for the calibration drift curve.

The drift curve is the correction imposed upon the sonic log. The adjusted sonic curve is considered to be the best result using the available data. A list of shifts used on the sonic data is given below.

Table 2: Sonic Drift

Depth Interval (metres below KB)	Block Shift μsec/mt	Δt_{min} μsec/mt	Equiv Block shift μsec/mt
0 - 182	0.00	-	0.00
182 - 926.6	6.72	-	6.72
926.6 - 1430.4	9.92	-	9.92
1430.4 - 2613.1	4.23	-	4.23

4. Synthetic Seismogram Processing

GEOGRAM plots were generated using 25, 35, and 45 Hz zero phase ricker wavelets.

The presentations include both normal and reverse polarity on a time scale of 10 cm/sec.

GEOGRAM processing produces synthetic seismic traces based on reflection coefficients generated form sonic and density measurements in the well-bore. The steps in the processing chain are the following:

Depth to time conversion
Reflection coefficient generation
Attenuation coefficient calculation
Convolution
Output

4.1 Depth to Time Conversion

Open hole logs are recorded from the bottom to top with a depth index. This data is converted to a two-way time index and flipped to read form the top to bottom in order to match the seismic section.

4.2 Primary Reflection Coefficients

Sonic and density data are averaged over chosen time intervals (normally 2 or 4 millisecs). Reflection coefficients are then computed using:

$$R = \frac{\rho_2.v_2 - \rho_1.v_1}{\rho_2.v_2 + \rho_1.v_1}$$

where:

ρ_1 = density of the layer above the reflection interface
ρ_2 = density of the layer below the reflection interface
v_1 = compressional wave velocity of the layer above the reflection interface
v_2 = compressional wave velocity of the layer below the reflection interface

This computation is done for each time interval to generate a set of primary reflection coefficients without transmission losses.

4.3 Primaries with Transmission Loss

Transmission loss on two-way attenuation coefficients is computed using:

$$A_n = (1 - R_1^2).(1 - R_2^2).(1 - R_3^2)...(1 - R_n^2)$$

A set of primary reflection coefficients with transmission loss is generated using:

$$Primary_n = R_n.A_{n-1}$$

4.4 Primaries plus Multiples

Multiples are computed from these input reflection coefficients using the transform technique from the top of the well to obtain the impulse response of the earth. The transform outputs primaries plus multiples.

4.5 Multiples Only

By subtracting previously calculated primaries form the above result we obtain multiples only.

4.6 Wavelet

A theoretical wavelet is chosen to use for convolution with the reflection coefficients previoulsy generated. Choices available include:

Klauder wavelet
Ricker zero phase wavelet
Ricker minimum phase wavelet
Butterworth wavelet
User defined wavelet

Time variant Butterworth filtering can be applied after convolution.

4.7 Polarity Convention

An increase in acoustic impedance gives a positive reflection coefficient, is written to tape as a negative number and is displayed as a white trough under normal polarity. Polarity conventions are displayed in figure 1.

4.8 Convolution

The standard procedure of convolving the wavelet with reflection coefficients; the output is the synthetic seismogram.

5. VSP Processing

The vertical component of the VSP data was processed using the conventional zero offset vertical incident processing chain. The following subsections describe the main aspects of the processing chain.

5.1 Stacking

After splicing, reordering and selecting the raw shots, a median stack was performed on the vertical and horizontal component data. The surface sensor (hydrophone) breaks are used as the zero time for stacking. The break time of each trace is recomputed after stacking.

The data quality is fairly good with the vertical component stacks displaying a consistent signature and a high signal to noise ratio, as seen on Plot 1.

5.2 Spherical Divergence Correction and Bandpass Filter

A bandpass filter of 5-100 hertz bandwidth was applied and time varying gain function of the exponential form :

$$GAIN(T) = \left(\frac{T}{T_o}\right)^{\alpha}$$

where T is the recorded time, T_o is the first break time and $\alpha = 1.0$

Trace equalisation was applied by normalising the RMS amplitude of the first break to correct for transmission losses of the direct wave. A normalisation window of 100 millisecs was used (see plot 2).

5.3 Velocity filter

The downgoing coherent energy is estimated using a five levels median velocity filter. The filter array is moved down one level after each computation and the process is repeated level by level over the entire dataset. As a result, the deepest and shallowest levels are lost because of edge effects.

The residual wavefield is obtained by subtracting the downgoing coherent energy from the total wavefield. The residual wavefield is dominated by reflected compressional events (plot 3).

The upgoing wavefield is enhanced by making a median stack of the upgoing aligned traces using a 5 levels filter. The data is now displayed in two way time (plot 3).

5.4 Waveshaping Deconvolution

The waveshaping deconvolution operator is a double sided operator and is designed trace by trace opening 20 ms before the first break with a window length of 1000 ms. The desired outputs were chosen to be zero phase with a band width of 5-80 Hz. Once the design is made upon the downgoing wavefield, it is applied to the downgoing and subtracted wavefield at the same level. The upgoing compressional wavefield is enhanced in an exactly analogous manner to before.

The trace by trace deconvolution is applied in order to collapse the multiple sequence of shear arrivals, diffractions or out of plane reflections. The result of waveshaping deconvolution on the upgoing wavefield is shown in Plot 4.

A corridor stack was computed on the data after zero phase waveshaping deconvolution by defining a constant 150 ms timing window along the time depth curve and stacking the data onto a single trace. This trace under normal circumstances should satisfy the assumption of one dimensionality and provide the best seismic representation of the borehole. This is displayed on Plot 5 .

5.5 VSP Acoustic Impedance Inversion

The zero phase waveshaping should permit a better interpretation of acoustic contrast, hence the data used for the inversion has been taken from the VSP after zero phase waveshaping deconvolution.

The inversion technique is based on entropy minimisation of the reflection coefficient series. In other words, the algorithm chooses the sparsest sequences of reflection coefficients as the preferred solution. The low frequency trend is extracted from the time depth curve such that the inversion technique is achieved without any input from the logged data.

It is important to point out that the acoustic impedance inversion is obtained without any input from the logged data. The quality of the inversion can be assessed by the similarity of the match between the logged impedance and inverted impedance.

Plots 6 and 7 are composite displays of the VSP data, inverted impedance, logged impedance and synthetic seismograms. These displays are a guide to the tie between the geograms and corridor stack.

There is a fairly good tie between the synthetic seismogram and VSP. There are some subtle variations on the Amplitude of the events. The VSP provides a measure of the earth filter effect whilst the synthetic makes some very basic assumptions to approximate the earth filter effect.

A Summary of Geophysical Listings

Five geophysical data listings are appended to this report. Following is a brief description of the format of each listing.

A1 Geophysical Airgun Report

1. Level number: the level number starting from the top level (includes any imposed shots).

2. Measured depth from KB: dkb, the depth in metres from kelly bushing.

3. Vertical depth form SRD: dsrd, the depth in metres from seismic reference datum.

4. Observed travel time HYD to GEO: tim0, the transit time picked form the stacked data by subtracting the surface sensor first break time from the downhole sensor first break time.

5. Vertical travel time SRC to GEO: timv, is corrected for source to hydrophone distance and for source offset.

6. Vertical travel time SRD to GEO: shtm, is timv corrected for the vertical distance between source and datum.

7. Average velocity SRD to GEO: the average seismic velocity from datum to the corresponding checkshot level, $\frac{dsrd}{shtm}$.

8. Delta depth between shots: Δdepth, the vertical distance between each level.

9. Delta time between shots: Δtime, the difference in vertical travel time (shtm),between each level.

10. Interval velocity between shots: the average seismic velocity between each level, $\frac{\Delta depth}{\Delta time}$.

A2 Drift Computation Report

1. Level number: the level number starting from the top level (includes any imposed shots).

2. Vertical depth from KB: the depth in metres from kelly bushing

3. Vertical depth from SRD: the depth in metres from seismic reference datum.

4. Vertical travel time SRD to GEO: the calculated vertical travel time from datum to downhole geophone (see column 7, Geophysical Airgun Report).

5.Integrated raw sonic time: the raw sonic log is integrated from top to bottom and listed at each level. An initial value at the top of the sonic log is set equal to the checkshot time at that level. This may be an imposed shot if a shot was not taken at the top of the sonic.

6. Computed drift at level: the checkshot time minus the integrated raw sonic time.

7. Computed blk-shft correction: the drift gradient between any two checkshot levels $\left(\frac{\Delta \text{ drift}}{\Delta \text{ depth}}\right)$.

A3 Sonic Adjustment Parameter Report

1. Knee number: the knee number starting from the highest knee. (The first knees listed will generally be at SRD and the top of sonic. The drift imposed at these knees will normally be zero.)

2. Vertical depth from KB: the depth in metres from kelly bushing

3. Vertical depth from SRD: the depth in metres from seismic reference datum.

4. Drift at knee: the value of drift imposed at each knee.

5. Blockshift used: the change in drift divided by the change in depth between any two levels.

6. Delta-T minimum used: see section 4 of report for an explanation of $\Delta\, t_{min}$.

7. reduction factor: see section 4 of report.

8. Equivalent blockshift: the gradient of the imposed drift curve.

A4 Velocity Report

1. Level number: the level number starting from the top level (includes any imposed shots).

2. Vertical depth from KB: the depth in metres form kelly bushing.

3. Vertical depth from SRD: the depth in metres from seismic reference datum.

4. Vertical travel time SRD to GEOPH: the vertical travel time from SRD to downhole geophone (see column 7, Geophysical Airgun Report)

5. Integrated adjusted sonic time: the adjusted sonic log is integrated from top to bottom. An initial value at the top of the sonic is set equal the checkshot time at that level. (the adjusted sonic log is the drift corrected sonic log.)

6. Drift=shot time-raw sonic: the check shot time minus the raw integrated sonic time.

7. Residual=shot time-adj sonic: the check shot time minus the adjusted integrated sonic time. This is the difference between calculated drift and the imposed drift.

8. Adjusted interval velocity: the interval velocity calculated from the integrated adjusted sonic time at each level.

A5 Time Converted Velocity Report

the data in this listing has been resampled in time.

1. Two way travel time from SRD: this is the index for the data in this listing. The first value is at SRD (0 millisecs) and the sampling rate is 2 millisecs.

2. Measured depth from KB: the depth from KB at each corresponding value of two way time.

3. Vertical depth from SRD: the vertical depth from SRD at each corresponding value of two way time.

4. Average velocity SRD to GEO: the vertical depth from SRD divided by half the two way time.

5. RMS velocity: the root mean square velocity from datum to the corresponding value of two way time.

$$v_{rms} = \sqrt{\Sigma_1^n v_i^2 t_i / \Sigma^n{}_1 t_i}$$

where v_i is the velocity between each 2 millisecs interval.

6. First normal moveout: the correction time in millisecs to be applied to the two way travel time for a specified moveout distance (default = 1000 M).

$$\Delta t = \sqrt{t^2 + \left(\frac{X}{v_{rms}}\right)^2} - t$$

where:

Δt = normal moveout (secs)
X = moveout distance (metres)
t = two way time (secs)
v_{rms} = rms velocity (metres / sec)

7. Second normal moveout: the correction time in millisecs to be applied to the two way travel tome for a specified moveout distance (default = 1500 M).

8. Third normal moveout: the correction time in millisecs to be applied to the two way travel time for a specified moveout distance (default = 2000 M)

9. Interval velocity: the velocity between each sampled depth. Typically, the sampling rate is 2 millisecs two way time, (1 millisec one way time) therefore the interval velocity will be equal to the depth increment divided by 0.002. It is equivalent to column 9 from the Velocity Report.

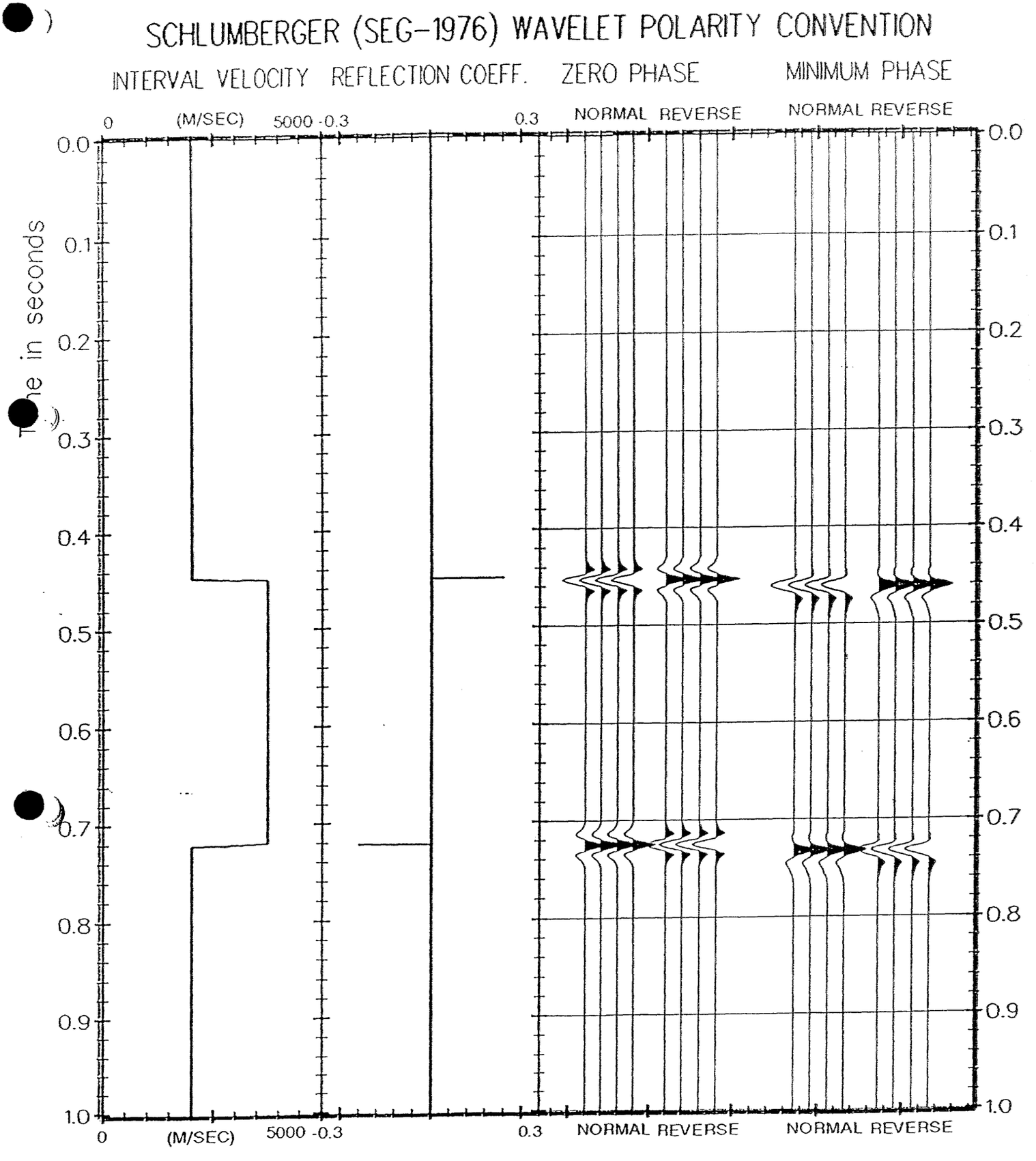


Figure 1 Wavelet Polarity Convention

SHOTS

ANALYST: A. WIBISONO 23-JUL-95 20:36:59 PROGRAM: GSHOT 007.E08

SCHLUMBERGER

GEOPHYSICAL AIRGUN REPORT

COMPANY : ESSO AUSTRALIA LTD.
WELL : SMILER-1
FIELD : WILDCAT
STATE : VICTORIA
COUNTRY : AUSTRALIA
REFERENCE: SYJ.561131/561132
LOGGED : 13-JULY-1995

LONG DEFINITIONS

GLOBAL

KB - Elevation of the KELLY-BUSHING Above MSL or MWL
SRD - Elevation of the Seismic Reference Datum Above MSL or MWL
EKB - Elevation of Kelly Bushing
GL - Elevation of Users Reference (Generally Ground Level) Above SRD
VELHYD - VELOCITY OF THE MEDIUM BETWEEN THE SOURCE AND THE HYDROPHONE
VELSUR - VELOCITY OF THE MEDIUM BETWEEN THE SOURCE AND THE SRD

MATRIX

GUNELZ - SOURCE ELEVATION ABOVE SRD (ONE FOR THE WHOLE JOB; OR ONE PER SHOT)
GUNEWZ - SOURCE DISTANCE FROM THE BOREHOLE AXIS IN EW DIRECTION (CF. GUNELZ)
GUNNSZ - SOURCE DISTANCE FROM THE BOREHOLE AXIS IN NS DIRECTION (CF. GUNELZ)
HYDELZ - HYDROPHONE ELEVATION ABOVE SRD (CF. GUNELZ)
HYDEWZ - HYDROPHONE DISTANCE FROM THE BOREH AXIS IN EW DIRECTION (CF GUNELZ)
HYDNSZ - HYDROPHONE DISTANCE FROM THE BOREH AXIS IN NS DIRECTION (CF GUNELZ)
TRTHYD - TRAVEL TIME FROM THE HYDROPHONE TO THE SOURCE
TRTSRD - TRAVEL TIME FROM THE SOURCE TO THE SRD
DEVWEL - DEVIATED WELL DATA PER SHOT : MEAS. DEPTH, VERT. DEPTH, EW, NS

SAMPLED

SHOT.GSH - Shot number
DKB.GSH - Measured Depth from Kelly-Bushing
DSRD.GSH - Depth from SRD
DGL.GSH - Vertical Depth Relative to Ground Level (User's Reference)
TIMO.GSH - Tie In Memorized Output
TIMV.GSH - Vertical Travel Time from the Source to the Geophone
SHTM.GSH - Shot time (WST)
AVGV.GSH - Average Seismic Velocity
DELZ.GSH - Depth Interval between Successive Shots
DELT.GSH - Travel Time Interval between Successive Shots
INTV.GSH - Internal Velocity, Average

(GLOBAL PARAMETERS)		(VALUE)	
ELEV OF KB AB. MSL (WST)	KB	: 25.0000	M
ELEV OF SRD AB. MSL(WST)	SRD	: 0	M
Elevation of Kelly Bushi	EKB	: 25.0000	M
ELEV OF GL AB. SRD(WST)	GL	: -122.000	M
VEL SOURCE-HYDRO(WST)	VELHYD	: 1524.00	M/S
VEL SOURCE-SRD (WST)	VELSUR	: 1524.00	M/S

(MATRIX PARAMETERS)

	SOURCE ELV M	SOURCE EW M	SOURCE NS M	HYDRO ELEV M	HYDRO EW M	HYDRO NS M
1	-5.0	46.7	17.9	-10.0	46.7	17.9

	TRT HYD-SC MS	TRT SC-SRD MS
1	3.28	3.28

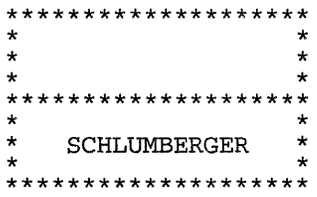
	MD @ KB M	VD @ KB M	VD @ SRD M	E-W COORD M	N-S COORD M
1	147.0	147.0	122.0	0	0
2	742.0	742.0	717.0	0	0
3	846.0	846.0	821.0	0	0
4	1026.0	1026.0	1001.0	0	0
5	1141.0	1141.0	1116.0	0	0
6	1284.0	1284.0	1259.0	0	0
7	1472.0	1472.0	1447.0	0	0
8	1608.0	1608.0	1583.0	0	0
9	1673.0	1673.0	1648.0	0	0
10	1764.0	1764.0	1739.0	0	0
11	1835.0	1835.0	1810.0	0	0
12	2031.0	2031.0	2006.0	0	0
13	2245.0	2245.0	2220.0	0	0
14	2320.0	2320.0	2295.0	0	0
15	2340.0	2340.0	2315.0	0	0
16	2360.0	2360.0	2335.0	0	0
17	2380.0	2380.0	2355.0	0	0
18	2400.0	2400.0	2375.0	0	0
19	2420.0	2420.0	2395.0	0	0
20	2440.0	2440.0	2415.0	0	0
21	2460.0	2460.0	2435.0	0	0
22	2480.0	2480.0	2455.0	0	0
23	2500.0	2500.0	2475.0	0	0
24	2507.0	2507.0	2482.0	0	0
25	2520.0	2520.0	2495.0	0	0
26	2540.0	2540.0	2515.0	0	0
27	2560.0	2560.0	2535.0	0	0
28	2580.0	2580.0	2555.0	0	0
29	2600.0	2600.0	2575.0	0	0
30	2606.0	2606.0	2581.0	0	0

LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD M	VERTIC DEPTH FROM GL M	OBSERV TRAVEL TIME HYD/GEO MS	VERTIC TRAVEL TIME SRC/GEO MS	VERTIC TRAVEL TIME SRD/GEO MS	AVERAGE VELOC SRD/GEO M/S	DELTA DEPTH BETWEEN SHOTS M	DELTA TIME BETWEEN SHOTS MS	INTERV VELOC BETWEEN SHOTS M/S
1	147.0	122.0	0	80.25	76.81	80.09	1523			
								595.0	257.55	2310
2	742.0	717.0	595.0	331.90	334.36	337.64	2124			
								104.0	35.33	2944
3	846.0	821.0	699.0	367.10	369.69	372.97	2201			
								180.0	58.55	3074
4	1026.0	1001.0	879.0	425.50	428.24	431.52	2320			
								115.0	37.87	3037
5	1141.0	1116.0	994.0	463.30	466.11	469.39	2378			
								143.0	43.67	3275
6	1284.0	1259.0	1137.0	506.90	509.78	513.06	2454			
								188.0	52.47	3583
7	1472.0	1447.0	1325.0	559.30	562.24	565.52	2559			
								136.0	35.54	3827
8	1608.0	1583.0	1461.0	594.80	597.78	601.06	2634			
								65.0	16.62	3912
9	1673.0	1648.0	1526.0	611.40	614.40	617.68	2668			
								91.0	24.02	3789
10	1764.0	1739.0	1617.0	635.40	638.42	641.70	2710			
								71.0	17.91	3963
11	1835.0	1810.0	1688.0	653.30	656.33	659.61	2744			
								196.0	48.43	4047
12	2031.0	2006.0	1884.0	701.70	704.76	708.04	2833			
								214.0	64.62	3311
13	2245.0	2220.0	2098.0	766.30	769.38	772.67	2873			
								75.0	25.21	2975
14	2320.0	2295.0	2173.0	791.50	794.59	797.87	2876			
								20.0	7.30	2739
15	2340.0	2315.0	2193.0	798.80	801.89	805.17	2875			
								20.0	5.80	3447
16	2360.0	2335.0	2213.0	804.60	807.69	810.98	2879			
								20.0	6.80	2940
17	2380.0	2355.0	2233.0	811.40	814.50	817.78	2880			
								20.0	6.40	3124
18	2400.0	2375.0	2253.0	817.80	820.90	824.18	2882			
								20.0	7.00	2857
19	2420.0	2395.0	2273.0	824.80	827.90	831.18	2881			
								20.0	6.20	3225
20	2440.0	2415.0	2293.0	831.00	834.10	837.38	2884			
								20.0	6.30	3174
21	2460.0	2435.0	2313.0	837.30	840.40	843.68	2886			
								20.0	6.30	3174
22	2480.0	2455.0	2333.0	843.60	846.70	849.99	2888			
								20.0	6.00	3332
23	2500.0	2475.0	2353.0	849.60	852.71	855.99	2891			
								7.0	2.80	2500
24	2507.0	2482.0	2360.0	852.40	855.51	858.79	2890			

LEVEL NUMBER	MEASUR DEPTH FROM KB M	VERTIC DEPTH FROM SRD M	VERTIC DEPTH FROM GL M	OBSERV TRAVEL TIME HYD/GEO MS	VERTIC TRAVEL TIME SRC/GEO MS	VERTIC TRAVEL TIME SRD/GEO MS	AVERAGE VELOC SRD/GEO M/S	DELTA DEPTH BETWEEN SHOTS M	DELTA TIME BETWEEN SHOTS MS	INTERV VELOC BETWEEN SHOTS M/S
25	2520.0	2495.0	2373.0	855.70	858.81	862.09	2894	13.0	3.30	3938
26	2540.0	2515.0	2393.0	860.90	864.01	867.29	2900	20.0	5.20	3845
27	2560.0	2535.0	2413.0	866.80	869.91	873.19	2903	20.0	5.90	3389
28	2580.0	2555.0	2433.0	871.90	875.01	878.29	2909	20.0	5.10	3920
29	2600.0	2575.0	2453.0	876.90	880.01	883.30	2915	20.0	5.00	3999
30	2606.0	2581.0	2459.0	877.90	881.01	884.30	2919	6.0	1.00	5997

DRIFT

ANALYST: A. WIBISONO 23-JUL-95 20:38:30 PROGRAM: GDRIFT 007.E09



DRIFT COMPUTATION REPORT

COMPANY : ESSO AUSTRALIA LTD.
WELL : SMILER-1
FIELD : WILDCAT
STATE : VICTORIA
COUNTRY : AUSTRALIA
REFERENCE: SYJ.561131/561132
LOGGED : 13-JULY-1995

LONG DEFINITIONS

GLOBAL

KB - Elevation of the KELLY-BUSHING Above MSL or MWL
SRD - Elevation of the Seismic Reference Datum Above MSL or MWL
EKB - Elevation of Kelly Bushing
GL - Elevation of Users Reference (Generally Ground Level) Above SRD
XSTART - TOP OF ZONE PROCESSED BY WST
XSTOP - BOTTOM OF ZONE PROCESSED BY WST
GAD001 - RAW SONIC CHANNEL NAME USED FOR WST SONIC ADJUSTMENT
UNFDEN - UNIFORM DENSITY VALUE

ZONE

LOFDEN - LAYER OPTION FLAG FOR DENSITY : -1=NONE; 0=UNIFORM; 1=UNIFORM+LAYER
LAYDEN - USER SUPPLIED DENSITY DATA

SAMPLED

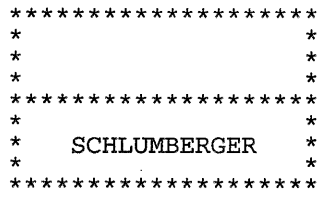
SHOT - Shot number
DKB - Measured Depth from Kelly-Bushing
DSRD - Depth from SRD
DGL - Vertical Depth Relative to Ground Level (User's Reference)
SHTM - Shot time (WST)
RAWS - Raw Sonic (WST)
SHDR - Drift at Shot or Knee
BLSH - Block Shift between Shots or Knee

(GLOBAL PARAMETERS)		(VALUE)	
ELEV OF KB AB. MSL (WST)	KB	: 25.0000	M
ELEV OF SRD AB. MSL(WST)	SRD	: 0	M
Elevation of Kelly Bushi	EKB	: 25.0000	M
ELEV OF GL AB. SRD(WST)	GL	: -122.000	M
TOP OF ZONE PROCD (WST)	XSTART	: 0	M
BOT OF ZONE PROCD (WST)	XSTOP	: 0	M
RAW SONIC CH NAME (WST)	GAD001	: DT.EDI.ATT.002.FLP.*	
UNIFORM DENSITY VALUE	UNFDEN	: 2.30000	G/C3

(ZONED PARAMETERS)		(VALUE)		(LIMITS)		
LAYER OPTION FLAG DENS	LOFDEN	: 1.000000		30479.7	-	0
USER SUPPLIED DENSITY DA	LAYDEN	: 0	G/C3	0	-	0

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/M
1	147.0	122.0	0	80.09	80.09	0	0
2	182.0	157.0	35.0	95.23	95.23	0	0
3	742.0	717.0	595.0	337.64	333.81	3.82	6.83
4	846.0	821.0	699.0	372.97	368.41	4.56	7.10
5	1026.0	1001.0	879.0	431.52	425.58	5.94	7.66
6	1141.0	1116.0	994.0	469.39	461.95	7.44	13.00
7	1284.0	1259.0	1137.0	513.06	504.90	8.16	5.02
8	1472.0	1447.0	1325.0	565.52	555.11	10.41	12.01
9	1608.0	1583.0	1461.0	601.06	590.68	10.38	-.25
10	1673.0	1648.0	1526.0	617.68	606.71	10.97	9.12
11	1764.0	1739.0	1617.0	641.70	630.36	11.34	4.02
12	1835.0	1810.0	1688.0	659.61	647.98	11.63	4.11
13	2031.0	2006.0	1884.0	708.04	695.83	12.21	2.95
14	2245.0	2220.0	2098.0	772.67	759.57	13.09	4.15
15	2320.0	2295.0	2173.0	797.87	784.28	13.59	6.67
16	2340.0	2315.0	2193.0	805.17	790.84	14.33	36.77
17	2360.0	2335.0	2213.0	810.98	797.23	13.75	-29.05
18	2380.0	2355.0	2233.0	817.78	803.60	14.18	21.46
19	2400.0	2375.0	2253.0	824.18	810.08	14.10	-3.92
20	2420.0	2395.0	2273.0	831.18	816.40	14.78	33.99
21	2440.0	2415.0	2293.0	837.38	822.59	14.79	.50
22	2460.0	2435.0	2313.0	843.68	828.85	14.83	2.07
23	2480.0	2455.0	2333.0	849.99	834.94	15.04	10.52
24	2500.0	2475.0	2353.0	855.99	841.07	14.91	-6.32

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEO MS	INTEGRATED RAW SONIC TIME MS	COMPUTED DRIFT AT LEVEL MS	COMPUTED BLK-SHFT CORRECTION US/M
25	2507.0	2482.0	2360.0	858.79	843.23	15.56	91.56
26	2520.0	2495.0	2373.0	862.09	846.64	15.45	-8.02
27	2540.0	2515.0	2393.0	867.29	852.16	15.13	-15.86
28	2560.0	2535.0	2413.0	873.19	857.34	15.86	36.12
29	2580.0	2555.0	2433.0	878.29	862.86	15.43	-21.14
30	2600.0	2575.0	2453.0	883.30	868.23	15.07	-18.41
31	2606.0	2581.0	2459.0	884.30	869.82	14.47	-99.04
32	2613.1	2588.1	2466.1	886.09	871.62	14.47	0



SONIC ADJUSTMENT PARAMETER REPORT

COMPANY : ESSO AUSTRALIA LTD.
WELL : SMILER-1
FIELD : WILDCAT
STATE : VICTORIA
COUNTRY : AUSTRALIA
REFERENCE: SYJ.561131/561132
LOGGED : 13-JULY-1995

LONG DEFINITIONS

GLOBAL

SRCDRF - ORIGIN OF ADJUSTMENT DATA
CONADJ - CONSTANT ADJUSTMENT TO AUTOMATIC DELTA-T MINIMUM = 7.5 US/F
UNERTH - UNIFORM EARTH VELOCITY (GTRFRM)

ZONE

ZDRIFT - USER DRIFT AT BOTTOM OF THE ZONE
ADJOPZ - TYPE OF ADJUSTMNENT IN THE DRIFT ZONE : 0=DELTA-T MIN, 1=BLOCKSHIFT
ADJUSZ - DELTA-T MINIMUM USED FOR ADJUSTMENT IN THE DRIFT ZONE
LOFVEL - LAYER OPTION FLAG FOR VELOCITY: -1=NONE; 0=UNIFORM; 1=UNIFORM+LAYER
LAYVEL - USER SUPPLIED VELOCITY DATA

SAMPLED

SHOT - Shot number
VDKB - Vertical Depth Relative to KB
DSRD - Depth from SRD
DGL - Vertical Depth Relative to Ground Level (User's Reference)
KNEE - Knee
BLSH - Block Shift between Shots or Knee
DTMI - Value of Delta-T Minimum used
COEF - Delta-T MIN Coefficient used in the Drift Zone
DRGR - Gradient of Drift Curve

(GLOBAL PARAMETERS)		(VALUE)		
ORIG OF ADJ DATA (WST)	SRCDRF	: 2.00000		
CONS SONIC ADJST (WST)	CONADJ	: 24.6063	US/M	
UNIFORM EARTH VELOCITY	UNERTH	: 1523.00	M/S	

(ZONED PARAMETERS)		(VALUE)		(LIMITS)	
USER DRIFT ZONE (WST)	ZDRIFT	: 15.00000	MS	2613.10	- 1430.40
		10.00000		1430.40	926.600
		5.000000		926.600	182.000
		0		182.000	0
ADJUSMNT MODE (WST)	ADJOPZ	:-999.2500		30479.7	- 0
USER DELTA-T MIN (WST)	ADJUSZ	:-999.2500	US/M	30479.7	- 0
LAYER OPTION FLAG VELOC	LOFVEL	: 0		30479.7	- 0
USER VELOC (WST)	LAYVEL	: 2310.000	M/S	182.000	- 147.000
		1523.000		147.000	0

KNEE NUMBER	VERTICAL DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	DRIFT AT KNEE MS	BLOCKSHIFT USED US/M	DELTA-T MINIMUM USED US/M	REDUCTION FACTOR G	EQUIVALENT BLOCKSHIFT US/M
2	182.0	157.0	35.0	0	0			0
3	926.6	901.6	779.6	5.00	6.72			6.72
4	1430.4	1405.4	1283.4	10.00	9.92			9.92
5	2613.1	2588.1	2466.1	15.00	4.23			4.23

ANALYST: A. WIBISONO 24-JUL-95 09:35:41 PROGRAM: GADJST 008.E08

SCHLUMBERGER

VELOCITY REPORT

COMPANY : ESSO AUSTRALIA LTD.
WELL : SMILER-1
FIELD : WILDCAT
STATE : VICTORIA
COUNTRY : AUSTRALIA
REFERENCE: SYJ.561131/561132
LOGGED : 13-JULY-1995

LONG DEFINITIONS

GLOBAL

KB - Elevation of the KELLY-BUSHING Above MSL or MWL
SRD - Elevation of the Seismic Reference Datum Above MSL or MWL
EKB - Elevation of Kelly Bushing
GL - Elevation of Users Reference (Generally Ground Level) Above SRD
UNERTH - UNIFORM EARTH VELOCITY (GTRFRM)

ZONE

LOFVEL - LAYER OPTION FLAG FOR VELOCITY: -1=NONE; 0=UNIFORM; 1=UNIFORM+LAYER
LAYVEL - USER SUPPLIED VELOCITY DATA

SAMPLED

SHOT - Shot number
DKB - Measured Depth from Kelly-Bushing
DSRD - Depth from SRD
DGL - Vertical Depth Relative to Ground Level (User's Reference)
SHTM - Shot time (WST)
ADJS - Adjusted Sonic Travel Time
SHDR - Drift at Shot or Knee
REST - Residual Travel Time at Knee
INTV - Internal Velocity, Average

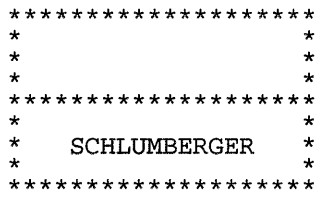
(GLOBAL PARAMETERS)		(VALUE)	
ELEV OF KB AB. MSL (WST)	KB	25.0000	M
ELEV OF SRD AB. MSL(WST)	SRD	0	M
Elevation of Kelly Bushi	EKB	25.0000	M
ELEV OF GL AB. SRD(WST)	GL	-122.000	M
UNIFORM EARTH VELOCITY	UNERTH	1523.00	M/S

(ZONED PARAMETERS)		(VALUE)		(LIMITS)
LAYER OPTION FLAG VELOC	LOFVEL	0		30479.7 - 0
USER VELOC (WST)	LAYVEL	2310.000	M/S	182.000 - 147.000
		1523.000		147.000 0

LEVEL NUMBER	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	VERTICAL TRAVEL TIME SRD/GEOPH MS	INTEGRATED ADJUSTED SONIC TIME MS	DRIFT = SHOT TIME - RAW SON MS	RESIDUAL = SHOT TIME - ADJ SON MS	ADJUSTED INTERVAL VELOCITY M/S
								3205
25	2507.0	2482.0	2360.0	858.79	857.76	15.56	1.02	
								3764
26	2520.0	2495.0	2373.0	862.09	861.22	15.45	.87	
								3568
27	2540.0	2515.0	2393.0	867.29	866.82	15.13	.47	
								3799
28	2560.0	2535.0	2413.0	873.19	872.09	15.86	1.11	
								3564
29	2580.0	2555.0	2433.0	878.29	877.70	15.43	.60	
								3668
30	2600.0	2575.0	2453.0	883.30	883.15	15.07	.15	
								3705
31	2606.0	2581.0	2459.0	884.30	884.77	14.47	-.47	
								3743
32	2613.1	2588.1	2466.1	886.09	886.65	14.47	-.56	

TIME / DEPTH

ANALYST: A. WIBISONO 24-JUL-95 09:37:32 PROGRAM: GTRFRM 001.E13



TIME CONVERTED VELOCITY REPORT

COMPANY : ESSO AUSTRALIA LTD.
WELL : SMILER-1
FIELD : WILDCAT
STATE : VICTORIA
COUNTRY : AUSTRALIA
REFERENCE: SYJ.561131/561132
LOGGED : 13-JULY-1995

LONG DEFINITIONS

GLOBAL

KB - Elevation of the KELLY-BUSHING Above MSL or MWL
SRD - Elevation of the Seismic Reference Datum Above MSL or MWL
GL - Elevation of Users Reference (Generally Ground Level) Above SRD
UNERTH - UNIFORM EARTH VELOCITY (GTRFRM)
UNFDEN - UNIFORM DENSITY VALUE

MATRIX

MVODIS - MOVE-OUT DISTANCE FROM BOREHOLE

ZONE

LOFVEL - LAYER OPTION FLAG FOR VELOCITY: -1=NONE; 0=UNIFORM; 1=UNIFORM+LAYER
LAYVEL - USER SUPPLIED VELOCITY DATA
LOFDEN - LAYER OPTION FLAG FOR DENSITY : -1=NONE; 0=UNIFORM; 1=UNIFORM+LAYER
LAYDEN - USER SUPPLIED DENSITY DATA

SAMPLED

TWOT - Two Way Travel Time (Relative to the Seismic Reference)
DKB - Measured Depth from Kelly-Bushing
DSRD - Depth from SRD
AVGV - Average Seismic Velocity
RMSV - Root Mean Square Velocity (Seismic)
MVOT - Normal Move-Out
MVOT - Normal Move-Out
MVOT - Normal Move-Out
INTV - Internal Velocity, Average

(GLOBAL PARAMETERS)		(VALUE)	
ELEV OF KB AB. MSL (WST)	KB	: 25.0000	M
ELEV OF SRD AB. MSL(WST)	SRD	: 0	M
ELEV OF GL AB. SRD(WST)	GL	: -122.000	M
UNIFORM EARTH VELOCITY	UNERTH	: 1523.00	M/S
UNIFORM DENSITY VALUE	UNFDEN	: 2.30000	G/C3

(MATRIX PARAMETERS)

	MVOUT DIST M
1	1000.0
2	1500.0
3	2000.0

(ZONED PARAMETERS)		(VALUE)		(LIMITS)		
LAYER OPTION FLAG VELOC	LOFVEL	: 0		30479.7	-	0
USER VELOC (WST)	LAYVEL	: 2310.000	M/S	182.000	-	147.000
		1523.000		147.000		0
LAYER OPTION FLAG DENS	LOFDEN	:-1.000000		30479.7	-	0
USER SUPPLIED DENSITY DA	LAYDEN	: 0	G/C3	0	-	0

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
0	25.0	0						1523
2.00	26.5	1.5	1523	1523	654.60	982.90	1311.20	1523
4.00	28.0	3.0	1523	1523	652.61	980.91	1309.20	1523
6.00	29.6	4.6	1523	1523	650.63	978.92	1307.21	1523
8.00	31.1	6.1	1523	1523	648.65	976.93	1305.22	1523
10.00	32.6	7.6	1523	1523	646.68	974.95	1303.24	1523
12.00	34.1	9.1	1523	1523	644.71	972.97	1301.25	1523
14.00	35.7	10.7	1523	1523	642.75	971.00	1299.27	1523
16.00	37.2	12.2	1523	1523	640.79	969.03	1297.29	1523
18.00	38.7	13.7	1523	1523	638.85	967.06	1295.32	1523
20.00	40.2	15.2	1523	1523	636.90	965.10	1293.35	1523
22.00	41.8	16.8	1523	1523	634.97	963.14	1291.38	1523
24.00	43.3	18.3	1523	1523	633.04	961.19	1289.42	1523
26.00	44.8	19.8	1523	1523	631.11	959.24	1287.46	1523
28.00	46.3	21.3	1523	1523	629.20	957.30	1285.50	1523
30.00	47.8	22.8	1523	1523	627.28	955.36	1283.54	1523
32.00	49.4	24.4	1523	1523	625.38	953.42	1281.59	1523
34.00	50.9	25.9	1523	1523	623.48	951.48	1279.64	1523
36.00	52.4	27.4	1523	1523	621.58	949.56	1277.69	1523
38.00	53.9	28.9	1523	1523	619.70	947.63	1275.75	1523
40.00	55.5	30.5	1523	1523	617.82	945.71	1273.81	1523
42.00	57.0	32.0	1523	1523	615.94	943.79	1271.87	1523
44.00	58.5	33.5	1523	1523	614.07	941.88	1269.93	1523
46.00	60.0	35.0	1523	1523	612.21	939.97	1268.00	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
48.00	61.6	36.6	1523	1523	610.35	938.07	1266.07	1523
50.00	63.1	38.1	1523	1523	608.50	936.17	1264.15	1523
52.00	64.6	39.6	1523	1523	606.65	934.27	1262.23	1523
54.00	66.1	41.1	1523	1523	604.82	932.38	1260.31	1523
56.00	67.6	42.6	1523	1523	602.98	930.49	1258.39	1523
58.00	69.2	44.2	1523	1523	601.16	928.60	1256.48	1523
60.00	70.7	45.7	1523	1523	599.33	926.72	1254.57	1523
62.00	72.2	47.2	1523	1523	597.52	924.85	1252.66	1523
64.00	73.7	48.7	1523	1523	595.71	922.98	1250.76	1523
66.00	75.3	50.3	1523	1523	593.91	921.11	1248.86	1523
68.00	76.8	51.8	1523	1523	592.11	919.24	1246.96	1523
70.00	78.3	53.3	1523	1523	590.32	917.38	1245.06	1523
72.00	79.8	54.8	1523	1523	588.53	915.53	1243.17	1523
74.00	81.4	56.4	1523	1523	586.76	913.67	1241.28	1523
76.00	82.9	57.9	1523	1523	584.98	911.83	1239.39	1523
78.00	84.4	59.4	1523	1523	583.22	909.98	1237.51	1523
80.00	85.9	60.9	1523	1523	581.45	908.14	1235.63	1523
82.00	87.4	62.4	1523	1523	579.70	906.31	1233.76	1523
84.00	89.0	64.0	1523	1523	577.95	904.47	1231.88	1523
86.00	90.5	65.5	1523	1523	576.21	902.65	1230.01	1523
88.00	92.0	67.0	1523	1523	574.47	900.82	1228.14	1523
90.00	93.5	68.5	1523	1523	572.74	899.00	1226.28	1523
92.00	95.1	70.1	1523	1523	571.01	897.19	1224.42	1523
94.00	96.6	71.6	1523	1523	569.29	895.37	1222.56	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
96.00	98.1	73.1	1523	1523	567.58	893.57	1220.70	1523
98.00	99.6	74.6	1523	1523	565.87	891.76	1218.85	1523
100.00	101.2	76.2	1523	1523	564.17	889.96	1217.00	1523
102.00	102.7	77.7	1523	1523	562.47	888.17	1215.15	1523
104.00	104.2	79.2	1523	1523	560.78	886.37	1213.31	1523
106.00	105.7	80.7	1523	1523	559.10	884.59	1211.47	1523
108.00	107.2	82.2	1523	1523	557.42	882.80	1209.63	1523
110.00	108.8	83.8	1523	1523	555.75	881.02	1207.80	1523
112.00	110.3	85.3	1523	1523	554.08	879.25	1205.97	1523
114.00	111.8	86.8	1523	1523	552.42	877.47	1204.14	1523
116.00	113.3	88.3	1523	1523	550.77	875.71	1202.31	1523
118.00	114.9	89.9	1523	1523	549.12	873.94	1200.49	1523
120.00	116.4	91.4	1523	1523	547.47	872.18	1198.67	1523
122.00	117.9	92.9	1523	1523	545.84	870.43	1196.85	1523
124.00	119.4	94.4	1523	1523	544.21	868.67	1195.04	1523
126.00	120.9	95.9	1523	1523	542.58	866.93	1193.23	1523
128.00	122.5	97.5	1523	1523	540.96	865.18	1191.42	1523
130.00	124.0	99.0	1523	1523	539.34	863.44	1189.62	1523
132.00	125.5	100.5	1523	1523	537.74	861.70	1187.82	1523
134.00	127.0	102.0	1523	1523	536.13	859.97	1186.02	1523
136.00	128.6	103.6	1523	1523	534.54	858.24	1184.22	1523
138.00	130.1	105.1	1523	1523	532.94	856.52	1182.43	1523
140.00	131.6	106.6	1523	1523	531.36	854.80	1180.64	1523
142.00	133.1	108.1	1523	1523	529.78	853.08	1178.85	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
144.00	134.7	109.7	1523	1523	528.20	851.37	1177.07	1523
146.00	136.2	111.2	1523	1523	526.64	849.66	1175.29	1523
148.00	137.7	112.7	1523	1523	525.07	847.96	1173.51	1523
150.00	139.2	114.2	1523	1523	523.51	846.26	1171.74	1523
152.00	140.7	115.7	1523	1523	521.96	844.56	1169.97	1523
154.00	142.3	117.3	1523	1523	520.42	842.87	1168.20	1523
156.00	143.8	118.8	1523	1523	518.88	841.18	1166.43	1523
158.00	145.3	120.3	1523	1523	517.34	839.49	1164.67	1523
160.00	146.8	121.8	1523	1523	515.81	837.81	1162.91	1523
162.00	149.1	124.1	1532	1534	509.54	828.90	1151.45	2269
164.00	151.4	126.4	1542	1546	503.20	819.87	1139.82	2310
166.00	153.7	128.7	1551	1558	497.10	811.18	1128.66	2310
168.00	156.0	131.0	1560	1569	491.22	802.82	1117.92	2310
170.00	158.3	133.3	1569	1579	485.54	794.76	1107.58	2310
172.00	160.7	135.7	1577	1590	480.05	786.99	1097.62	2310
174.00	163.0	138.0	1586	1600	474.75	779.48	1088.01	2310
176.00	165.3	140.3	1594	1610	469.62	772.22	1078.73	2310
178.00	167.6	142.6	1602	1619	464.64	765.20	1069.76	2310
180.00	169.9	144.9	1610	1629	459.82	758.39	1061.08	2310
182.00	172.2	147.2	1618	1638	455.14	751.80	1052.67	2310
184.00	174.5	149.5	1625	1647	450.59	745.40	1044.53	2310
186.00	176.8	151.8	1633	1655	446.18	739.18	1036.62	2310
188.00	179.1	154.1	1640	1663	441.88	733.14	1028.95	2310
190.00	181.5	156.5	1647	1672	437.70	727.27	1021.50	

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
192.00	183.4	158.4	1649	1674	435.45	724.37	1018.04	1898
194.00	185.2	160.2	1652	1676	433.24	721.52	1014.65	1895
196.00	187.1	162.1	1654	1678	431.25	719.00	1011.69	1847
198.00	188.9	163.9	1656	1680	429.28	716.51	1008.78	1845
200.00	190.8	165.8	1658	1682	427.26	713.93	1005.74	1866
202.00	192.7	167.7	1660	1684	425.32	711.47	1002.87	1849
204.00	194.5	169.5	1662	1685	423.49	709.18	1000.21	1824
206.00	196.3	171.3	1663	1686	421.73	706.99	997.69	1808
208.00	198.1	173.1	1664	1688	420.00	704.84	995.22	1805
210.00	199.9	174.9	1666	1689	418.25	702.65	992.69	1815
212.00	201.8	176.8	1668	1691	416.16	699.94	989.46	1918
214.00	203.8	178.8	1671	1694	413.94	697.01	985.93	1963
216.00	205.7	180.7	1673	1696	411.95	694.44	982.88	1903
218.00	207.6	182.6	1675	1698	409.97	691.87	979.83	1907
220.00	209.5	184.5	1677	1700	408.13	689.53	977.08	1870
222.00	211.4	186.4	1679	1702	406.12	686.90	973.94	1930
224.00	213.3	188.3	1681	1704	404.26	684.50	971.11	1890
226.00	215.1	190.1	1683	1705	402.52	682.29	968.53	1857
228.00	217.0	192.0	1684	1707	400.74	680.01	965.87	1873
230.00	218.9	193.9	1686	1708	398.99	677.77	963.24	1871
232.00	220.8	195.8	1688	1710	397.06	675.24	960.23	1935
234.00	222.8	197.8	1691	1713	394.90	672.35	956.71	2016
236.00	224.9	199.9	1694	1716	392.61	669.25	952.92	2065
238.00	226.9	201.9	1697	1719	390.49	666.41	949.47	2021

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
240.00	228.8	203.8	1699	1721	388.72	664.11	946.75	1912
242.00	230.8	205.8	1701	1723	386.89	661.70	943.88	1940
244.00	232.8	207.8	1703	1725	384.95	659.12	940.77	1984
246.00	234.8	209.8	1706	1728	382.84	656.27	937.30	2048
248.00	236.9	211.9	1709	1731	380.61	653.23	933.57	2097
250.00	238.9	213.9	1711	1734	378.62	650.55	930.32	2027
252.00	240.9	215.9	1714	1736	376.76	648.07	927.34	1988
254.00	242.9	217.9	1715	1738	375.08	645.87	924.73	1929
256.00	244.8	219.8	1717	1740	373.30	643.51	921.90	1972
258.00	246.9	221.9	1720	1742	371.30	640.79	918.59	2060
260.00	248.8	223.8	1722	1744	369.61	638.57	915.94	1950
262.00	250.7	225.7	1723	1745	368.06	636.55	913.57	1904
264.00	252.7	227.7	1725	1747	366.37	634.30	910.89	1964
266.00	254.7	229.7	1727	1749	364.63	631.98	908.10	1990
268.00	256.7	231.7	1729	1751	362.86	629.60	905.23	2008
270.00	258.7	233.7	1731	1753	361.04	627.14	902.25	2036
272.00	260.8	235.8	1733	1755	359.28	624.76	899.38	2020
274.00	262.8	237.8	1736	1757	357.55	622.42	896.54	2018
276.00	264.8	239.8	1738	1759	355.84	620.11	893.76	2014
278.00	266.8	241.8	1740	1762	354.06	617.70	890.82	2049
280.00	268.9	243.9	1742	1764	352.33	615.35	887.98	2037
282.00	270.9	245.9	1744	1766	350.57	612.94	885.04	2059
284.00	272.9	247.9	1746	1768	348.98	610.81	882.49	1989
286.00	275.0	250.0	1748	1770	347.29	608.51	879.70	2042

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
288.00	277.0	252.0	1750	1772	345.58	606.16	876.84	2061
290.00	279.1	254.1	1752	1774	343.94	603.92	874.13	2036
292.00	281.1	256.1	1754	1776	342.38	601.82	871.60	2004
294.00	283.1	258.1	1756	1778	340.70	599.50	868.78	2069
296.00	285.3	260.3	1759	1781	338.86	596.94	865.62	2145
298.00	287.4	262.4	1761	1783	337.07	594.44	862.53	2137
300.00	289.4	264.4	1762	1784	335.70	592.61	860.37	1943
302.00	291.4	266.4	1764	1786	334.21	590.58	857.93	2009
304.00	293.5	268.5	1766	1788	332.53	588.25	855.06	2106
306.00	295.6	270.6	1768	1790	330.90	586.00	852.31	2089
308.00	297.7	272.7	1770	1792	329.28	583.75	849.56	2093
310.00	299.8	274.8	1773	1795	327.67	581.51	846.81	2098
312.00	301.9	276.9	1775	1797	326.03	579.21	843.98	2121
314.00	304.0	279.0	1777	1799	324.39	576.92	841.16	2126
316.00	306.1	281.1	1779	1801	322.78	574.66	838.39	2121
318.00	308.3	283.3	1782	1804	321.13	572.34	835.51	2151
320.00	310.3	285.3	1783	1806	319.64	570.26	832.98	2077
322.00	312.5	287.5	1786	1808	318.06	568.03	830.23	2133
324.00	314.6	289.6	1788	1810	316.51	565.87	827.57	2119
326.00	316.7	291.7	1790	1812	314.97	563.69	824.89	2129
328.00	318.9	293.9	1792	1814	313.39	561.45	822.11	2157
330.00	321.0	296.0	1794	1816	311.85	559.28	819.44	2139
332.00	323.2	298.2	1796	1819	310.34	557.15	816.80	2135
334.00	325.3	300.3	1798	1820	308.87	555.07	814.25	2121

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
336.00	327.4	302.4	1800	1823	307.39	552.98	811.67	2134
338.00	329.6	304.6	1802	1825	305.85	550.78	808.93	2177
340.00	331.7	306.7	1804	1826	304.54	548.94	806.69	2057
342.00	333.8	308.8	1806	1828	303.14	546.97	804.27	2107
344.00	335.9	310.9	1808	1830	301.69	544.90	801.71	2150
346.00	338.1	313.1	1810	1832	300.20	542.75	799.04	2183
348.00	340.3	315.3	1812	1834	298.73	540.66	796.44	2172
350.00	342.4	317.4	1814	1837	297.26	538.54	793.81	2187
352.00	344.6	319.6	1816	1839	295.79	536.42	791.16	2195
354.00	346.8	321.8	1818	1841	294.35	534.35	788.58	2183
356.00	349.0	324.0	1820	1843	292.96	532.35	786.09	2166
358.00	351.2	326.2	1822	1845	291.53	530.29	783.53	2191
360.00	353.4	328.4	1824	1847	290.09	528.20	780.92	2211
362.00	355.6	330.6	1826	1849	288.69	526.16	778.37	2200
364.00	357.8	332.8	1829	1852	287.26	524.09	775.78	2216
366.00	360.0	335.0	1831	1854	285.86	522.04	773.21	2216
368.00	362.2	337.2	1833	1856	284.48	520.04	770.71	2205
370.00	364.4	339.4	1835	1858	283.11	518.04	768.21	2210
372.00	366.7	341.7	1837	1860	281.72	516.00	765.65	2234
374.00	368.9	343.9	1839	1863	280.32	513.94	763.05	2248
376.00	371.2	346.2	1841	1865	278.95	511.94	760.53	2236
378.00	373.4	348.4	1843	1867	277.60	509.96	758.04	2230
380.00	375.6	350.6	1845	1869	276.26	507.98	755.56	2235
382.00	377.9	352.9	1848	1871	274.88	505.95	752.99	2267

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
384.00	380.1	355.1	1850	1873	273.56	504.00	750.53	2241
386.00	382.4	357.4	1852	1876	272.25	502.06	748.09	2240
388.00	384.7	359.7	1854	1878	270.85	499.99	745.45	2306
390.00	386.9	361.9	1856	1880	269.57	498.09	743.07	2237
392.00	389.2	364.2	1858	1882	268.29	496.18	740.66	2249
394.00	391.4	366.4	1860	1884	267.00	494.28	738.25	2257
396.00	393.7	368.7	1862	1886	265.70	492.34	735.79	2278
398.00	396.0	371.0	1864	1888	264.43	490.45	733.40	2263
400.00	398.2	373.2	1866	1891	263.15	488.52	730.95	2285
402.00	400.5	375.5	1868	1893	261.87	486.61	728.52	2289
404.00	402.8	377.8	1870	1895	260.59	484.68	726.07	2301
406.00	405.2	380.2	1873	1897	259.29	482.73	723.58	2318
408.00	407.5	382.5	1875	1900	257.98	480.74	721.04	2342
410.00	409.9	384.9	1877	1902	256.67	478.75	718.49	2353
412.00	412.2	387.2	1880	1905	255.38	476.79	715.98	2348
414.00	414.5	389.5	1882	1907	254.10	474.85	713.49	2347
416.00	416.9	391.9	1884	1909	252.83	472.92	711.02	2349
418.00	419.2	394.2	1886	1912	251.58	471.01	708.57	2346
420.00	421.6	396.6	1888	1914	250.34	469.13	706.16	2342
422.00	423.8	398.8	1890	1916	249.22	467.44	704.01	2257
424.00	426.2	401.2	1893	1918	247.97	465.53	701.55	2370
426.00	428.5	403.5	1895	1920	246.78	463.70	699.21	2339
428.00	430.9	405.9	1897	1922	245.61	461.92	696.92	2326
430.00	433.2	408.2	1899	1925	244.39	460.05	694.51	2373

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
432.00	435.6	410.6	1901	1927	243.16	458.14	692.05	2400
434.00	438.1	413.1	1903	1930	241.93	456.25	689.60	2404
436.00	440.5	415.5	1906	1933	240.63	454.22	686.95	2479
438.00	443.0	418.0	1909	1935	239.39	452.30	684.45	2434
440.00	445.4	420.4	1911	1938	238.21	450.47	682.08	2397
442.00	447.9	422.9	1914	1941	236.88	448.38	679.35	2533
444.00	450.3	425.3	1916	1943	235.67	446.50	676.90	2441
446.00	452.8	427.8	1918	1946	234.44	444.56	674.37	2480
448.00	455.3	430.3	1921	1949	233.20	442.61	671.83	2490
450.00	457.8	432.8	1923	1951	232.00	440.73	669.37	2470
452.00	460.2	435.2	1926	1954	230.86	438.94	667.04	2426
454.00	462.5	437.5	1927	1956	229.82	437.34	664.97	2334
456.00	465.0	440.0	1930	1958	228.71	435.59	662.70	2418
458.00	467.3	442.3	1932	1960	227.66	433.96	660.59	2365
460.00	469.7	444.7	1933	1962	226.63	432.35	658.51	2357
462.00	472.1	447.1	1936	1964	225.53	430.61	656.23	2441
464.00	474.6	449.6	1938	1966	224.41	428.85	653.93	2457
466.00	477.1	452.1	1940	1969	223.26	427.03	651.53	2505
468.00	479.6	454.6	1943	1972	222.13	425.22	649.16	2501
470.00	482.1	457.1	1945	1974	221.04	423.49	646.88	2472
472.00	484.6	459.6	1947	1977	219.90	421.68	644.50	2521
474.00	487.1	462.1	1950	1979	218.77	419.86	642.10	2536
476.00	489.7	464.7	1952	1982	217.63	418.05	639.70	2545
478.00	492.2	467.2	1955	1985	216.53	416.27	637.35	2531

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
480.00	494.7	469.7	1957	1987	215.41	414.47	634.97	2554
482.00	497.2	472.2	1959	1990	214.38	412.82	632.80	2473
484.00	499.8	474.8	1962	1992	213.29	411.07	630.48	2545
486.00	502.2	477.2	1964	1995	212.26	409.43	628.32	2486
488.00	504.7	479.7	1966	1997	211.24	407.78	626.14	2501
490.00	507.3	482.3	1969	2000	210.16	406.03	623.81	2570
492.00	509.7	484.7	1971	2001	209.21	404.51	621.82	2432
494.00	512.1	487.1	1972	2003	208.37	403.18	620.09	2317
496.00	514.5	489.5	1974	2005	207.47	401.74	618.20	2395
498.00	516.9	491.9	1975	2006	206.55	400.27	616.26	2428
500.00	519.3	494.3	1977	2008	205.63	398.79	614.31	2436
502.00	521.8	496.8	1979	2010	204.69	397.26	612.29	2476
504.00	524.4	499.4	1982	2013	203.65	395.56	610.01	2600
506.00	526.9	501.9	1984	2015	202.70	394.01	607.95	2508
508.00	529.5	504.5	1986	2018	201.70	392.39	605.79	2565
510.00	532.0	507.0	1988	2020	200.72	390.77	603.63	2571
512.00	534.6	509.6	1991	2023	199.73	389.15	601.46	2582
514.00	537.1	512.1	1993	2025	198.81	387.65	599.46	2508
516.00	539.7	514.7	1995	2027	197.83	386.04	597.31	2590
518.00	542.3	517.3	1997	2030	196.87	384.47	595.20	2580
520.00	544.8	519.8	1999	2032	195.97	382.98	593.21	2525
522.00	547.3	522.3	2001	2034	195.14	381.63	591.43	2433
524.00	549.8	524.8	2003	2036	194.27	380.20	589.52	2501
526.00	552.3	527.3	2005	2038	193.41	378.79	587.63	2497

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
528.00	554.8	529.8	2007	2040	192.52	377.31	585.65	2550
530.00	557.3	532.3	2009	2042	191.67	375.91	583.78	2501
532.00	559.8	534.8	2011	2044	190.83	374.54	581.94	2494
534.00	562.3	537.3	2012	2045	189.99	373.16	580.09	2502
536.00	564.8	539.8	2014	2047	189.16	371.77	578.24	2513
538.00	567.3	542.3	2016	2049	188.35	370.43	576.44	2490
540.00	569.8	544.8	2018	2051	187.56	369.13	574.71	2463
542.00	572.4	547.4	2020	2053	186.68	367.66	572.72	2602
544.00	574.9	549.9	2022	2055	185.85	366.28	570.86	2543
546.00	577.4	552.4	2024	2057	185.06	364.96	569.09	2503
548.00	580.0	555.0	2025	2059	184.25	363.61	567.27	2535
550.00	582.5	557.5	2027	2061	183.43	362.25	565.44	2548
552.00	585.0	560.0	2029	2063	182.64	360.93	563.66	2526
554.00	587.6	562.6	2031	2065	181.86	359.62	561.88	2533
556.00	590.1	565.1	2033	2067	181.05	358.27	560.06	2561
558.00	592.7	567.7	2035	2069	180.26	356.93	558.25	2566
560.00	595.2	570.2	2036	2070	179.50	355.67	556.54	2511
562.00	597.7	572.7	2038	2072	178.78	354.45	554.90	2478
564.00	600.2	575.2	2040	2074	178.01	353.15	553.14	2558
566.00	602.7	577.7	2041	2076	177.27	351.92	551.48	2504
568.00	605.3	580.3	2043	2077	176.53	350.67	549.78	2534
570.00	607.7	582.7	2045	2079	175.84	349.52	548.23	2451
572.00	610.1	585.1	2046	2080	175.21	348.46	546.82	2367
574.00	612.4	587.4	2047	2081	174.60	347.44	545.45	2344

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
576.00	614.5	589.5	2047	2081	174.14	346.70	544.50	2069
578.00	616.6	591.6	2047	2081	173.69	345.98	543.57	2050
580.00	618.9	593.9	2048	2082	173.11	345.01	542.27	2311
582.00	621.2	596.2	2049	2082	172.54	344.05	541.00	2296
584.00	623.5	598.5	2050	2083	171.96	343.09	539.72	2309
586.00	625.8	600.8	2051	2084	171.36	342.09	538.36	2358
588.00	628.1	603.1	2051	2085	170.80	341.14	537.10	2300
590.00	630.3	605.3	2052	2085	170.32	340.36	536.07	2146
592.00	632.6	607.6	2053	2086	169.72	339.35	534.72	2368
594.00	634.9	609.9	2054	2087	169.17	338.43	533.49	2290
596.00	637.4	612.4	2055	2088	168.52	337.33	531.98	2481
598.00	639.9	614.9	2057	2090	167.86	336.20	530.44	2507
600.00	642.4	617.4	2058	2092	167.20	335.06	528.89	2521
602.00	644.7	619.7	2059	2092	166.66	334.15	527.66	2310
604.00	647.2	622.2	2060	2093	166.06	333.14	526.29	2409
606.00	649.6	624.6	2061	2094	165.49	332.15	524.95	2393
608.00	652.1	627.1	2063	2096	164.84	331.04	523.42	2528
610.00	654.7	629.7	2064	2098	164.16	329.87	521.81	2585
612.00	657.2	632.2	2066	2099	163.54	328.80	520.35	2495
614.00	659.8	634.8	2068	2101	162.86	327.62	518.72	2609
616.00	662.3	637.3	2069	2103	162.24	326.55	517.24	2513
618.00	664.8	639.8	2070	2104	161.64	325.52	515.84	2474
620.00	667.1	642.1	2071	2105	161.13	324.65	514.65	2318
622.00	669.7	644.7	2073	2106	160.48	323.53	513.11	2579

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
624.00	672.2	647.2	2074	2108	159.86	322.44	511.60	2558
626.00	674.7	649.7	2076	2109	159.27	321.43	510.21	2482
628.00	677.5	652.5	2078	2112	158.51	320.09	508.34	2815
630.00	680.1	655.1	2080	2114	157.86	318.94	506.74	2640
632.00	682.7	657.7	2081	2115	157.25	317.88	505.27	2560
634.00	685.5	660.5	2084	2118	156.51	316.58	503.44	2805
636.00	688.4	663.4	2086	2121	155.75	315.22	501.52	2875
638.00	691.0	666.0	2088	2122	155.13	314.13	500.01	2615
640.00	693.8	668.8	2090	2125	154.40	312.85	498.20	2818
642.00	696.7	671.7	2092	2128	153.67	311.54	496.36	2853
644.00	699.5	674.5	2095	2130	152.96	310.28	494.58	2818
646.00	702.2	677.2	2096	2132	152.33	309.17	493.03	2670
648.00	704.7	679.7	2098	2133	151.76	308.18	491.64	2558
650.00	707.4	682.4	2100	2135	151.14	307.07	490.08	2688
652.00	710.1	685.1	2101	2137	150.53	305.98	488.56	2670
654.00	712.9	687.9	2104	2139	149.85	304.78	486.87	2801
656.00	715.6	690.6	2105	2141	149.25	303.70	485.35	2679
658.00	718.3	693.3	2107	2143	148.62	302.59	483.77	2732
660.00	720.9	695.9	2109	2145	148.05	301.58	482.36	2618
662.00	723.6	698.6	2110	2147	147.47	300.54	480.90	2662
664.00	726.3	701.3	2112	2149	146.83	299.40	479.29	2778
666.00	729.2	704.2	2115	2151	146.16	298.19	477.56	2869
668.00	732.0	707.0	2117	2154	145.52	297.04	475.94	2804
670.00	735.0	710.0	2119	2156	144.82	295.78	474.13	2946

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
672.00	737.9	712.9	2122	2159	144.14	294.55	472.38	2917
674.00	740.5	715.5	2123	2161	143.60	293.57	471.00	2646
676.00	743.2	718.2	2125	2162	143.05	292.59	469.61	2656
678.00	746.0	721.0	2127	2165	142.44	291.50	468.06	2794
680.00	748.8	723.8	2129	2167	141.83	290.38	466.47	2830
682.00	751.8	726.8	2131	2169	141.16	289.17	464.72	2954
684.00	754.6	729.6	2133	2172	140.54	288.04	463.12	2861
686.00	757.3	732.3	2135	2173	140.02	287.11	461.79	2645
688.00	759.9	734.9	2136	2175	139.50	286.18	460.47	2645
690.00	762.8	737.8	2139	2177	138.86	285.01	458.80	2933
692.00	765.8	740.8	2141	2180	138.23	283.86	457.15	2927
694.00	768.6	743.6	2143	2182	137.65	282.81	455.65	2821
696.00	771.4	746.4	2145	2184	137.09	281.79	454.18	2801
698.00	774.2	749.2	2147	2186	136.55	280.80	452.76	2761
700.00	776.9	751.9	2148	2188	136.00	279.80	451.34	2782
702.00	779.9	754.9	2151	2190	135.38	278.67	449.71	2950
704.00	782.8	757.8	2153	2193	134.81	277.63	448.20	2864
706.00	785.6	760.6	2155	2195	134.27	276.63	446.78	2803
708.00	788.5	763.5	2157	2197	133.69	275.56	445.23	2912
710.00	791.5	766.5	2159	2200	133.04	274.37	443.50	3069
712.00	794.5	769.5	2162	2203	132.43	273.24	441.86	3011
714.00	797.5	772.5	2164	2205	131.83	272.14	440.26	2984
716.00	800.5	775.5	2166	2208	131.23	271.03	438.66	2999
718.00	803.4	778.4	2168	2210	130.70	270.06	437.26	2834

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
720.00	806.3	781.3	2170	2212	130.15	269.04	435.78	2910
722.00	809.2	784.2	2172	2215	129.58	267.99	434.26	2960
724.00	812.3	787.3	2175	2217	129.00	266.90	432.67	3021
726.00	815.3	790.3	2177	2220	128.42	265.82	431.10	3017
728.00	818.3	793.3	2180	2223	127.82	264.71	429.48	3073
730.00	821.5	796.5	2182	2226	127.20	263.56	427.79	3136
732.00	824.8	799.8	2185	2229	126.51	262.25	425.87	3336
734.00	828.0	803.0	2188	2232	125.90	261.12	424.20	3140
736.00	831.0	806.0	2190	2235	125.35	260.10	422.72	2995
738.00	833.9	808.9	2192	2237	124.83	259.12	421.29	2960
740.00	836.8	811.8	2194	2239	124.32	258.17	419.90	2925
742.00	839.8	814.8	2196	2242	123.79	257.19	418.46	2983
744.00	843.1	818.1	2199	2245	123.16	256.01	416.72	3259
746.00	846.5	821.5	2202	2249	122.47	254.70	414.79	3425
748.00	849.7	824.7	2205	2252	121.87	253.57	413.12	3220
750.00	852.9	827.9	2208	2255	121.30	252.49	411.53	3168
752.00	856.0	831.0	2210	2258	120.75	251.45	410.00	3120
754.00	859.1	834.1	2212	2260	120.22	250.47	408.55	3062
756.00	862.1	837.1	2215	2263	119.71	249.49	407.11	3051
758.00	865.2	840.2	2217	2265	119.17	248.49	405.63	3109
760.00	868.4	843.4	2220	2268	118.61	247.42	404.05	3207
762.00	871.7	846.7	2222	2271	118.03	246.33	402.43	3260
764.00	875.0	850.0	2225	2275	117.46	245.24	400.82	3259
766.00	878.1	853.1	2227	2277	116.94	244.25	399.35	3137

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
768.00	881.3	856.3	2230	2280	116.41	243.26	397.88	3151
770.00	884.3	859.3	2232	2283	115.92	242.31	396.48	3093
772.00	887.5	862.5	2234	2285	115.39	241.32	395.02	3169
774.00	890.7	865.7	2237	2288	114.86	240.30	393.49	3235
776.00	893.8	868.8	2239	2291	114.38	239.39	392.15	3068
778.00	896.7	871.7	2241	2292	113.95	238.58	390.95	2920
780.00	900.0	875.0	2244	2295	113.42	237.58	389.46	3238
782.00	903.2	878.2	2246	2298	112.92	236.61	388.01	3197
784.00	906.4	881.4	2248	2301	112.41	235.64	386.57	3213
786.00	909.4	884.4	2250	2303	111.96	234.79	385.31	3029
788.00	912.6	887.6	2253	2306	111.47	233.85	383.90	3191
790.00	916.2	891.2	2256	2310	110.86	232.66	382.12	3565
792.00	919.5	894.5	2259	2313	110.33	231.65	380.61	3325
794.00	922.7	897.7	2261	2316	109.84	230.71	379.20	3231
796.00	926.1	901.1	2264	2319	109.31	229.70	377.68	3348
798.00	929.0	904.0	2266	2321	108.91	228.94	376.55	2953
800.00	931.9	906.9	2267	2322	108.53	228.20	375.45	2916
802.00	934.9	909.9	2269	2324	108.13	227.44	374.32	2964
804.00	937.8	912.8	2271	2326	107.76	226.73	373.26	2881
806.00	940.9	915.9	2273	2328	107.32	225.90	372.02	3106
808.00	943.7	918.7	2274	2329	106.98	225.25	371.06	2785
810.00	946.7	921.7	2276	2331	106.58	224.48	369.90	3023
812.00	949.7	924.7	2278	2333	106.19	223.73	368.80	2974
814.00	952.6	927.6	2279	2335	105.82	223.02	367.72	2940

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
816.00	955.7	930.7	2281	2337	105.42	222.24	366.56	3051
818.00	958.7	933.7	2283	2339	105.03	221.49	365.44	3019
820.00	961.7	936.7	2285	2340	104.64	220.75	364.34	3002
822.00	964.7	939.7	2286	2342	104.27	220.03	363.26	2978
824.00	967.7	942.7	2288	2344	103.89	219.30	362.15	3020
826.00	970.6	945.6	2290	2346	103.52	218.60	361.11	2949
828.00	973.6	948.6	2291	2347	103.17	217.91	360.08	2946
830.00	976.5	951.5	2293	2349	102.81	217.23	359.06	2931
832.00	979.4	954.4	2294	2350	102.48	216.59	358.10	2873
834.00	982.3	957.3	2296	2352	102.13	215.92	357.10	2924
836.00	985.4	960.4	2297	2354	101.76	215.20	356.01	3042
838.00	988.4	963.4	2299	2356	101.40	214.50	354.96	2999
840.00	991.3	966.3	2301	2357	101.06	213.84	353.96	2950
842.00	994.2	969.2	2302	2359	100.73	213.20	353.01	2885
844.00	997.1	972.1	2304	2360	100.39	212.55	352.04	2931
846.00	1000.4	975.4	2306	2363	99.96	211.72	350.77	3308
848.00	1003.6	978.6	2308	2365	99.58	210.97	349.63	3148
850.00	1006.5	981.5	2309	2366	99.25	210.33	348.67	2940
852.00	1009.4	984.4	2311	2368	98.93	209.70	347.73	2913
854.00	1012.3	987.3	2312	2369	98.61	209.09	346.81	2890
856.00	1015.4	990.4	2314	2371	98.26	208.40	345.76	3073
858.00	1018.4	993.4	2316	2373	97.92	207.75	344.78	2994
860.00	1021.4	996.4	2317	2374	97.58	207.08	343.77	3038
862.00	1024.4	999.4	2319	2376	97.26	206.45	342.82	2964

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
864.00	1027.3	1002.3	2320	2378	96.94	205.83	341.87	2958
866.00	1030.4	1005.4	2322	2379	96.61	205.18	340.89	3021
868.00	1033.3	1008.3	2323	2381	96.29	204.56	339.94	2981
870.00	1036.3	1011.3	2325	2382	95.98	203.96	339.03	2942
872.00	1039.2	1014.2	2326	2384	95.67	203.36	338.13	2931
874.00	1042.2	1017.2	2328	2385	95.36	202.75	337.20	2972
876.00	1045.2	1020.2	2329	2387	95.03	202.11	336.23	3045
878.00	1048.3	1023.3	2331	2389	94.71	201.47	335.26	3051
880.00	1051.4	1026.4	2333	2391	94.36	200.79	334.22	3152
882.00	1054.5	1029.5	2334	2392	94.04	200.15	333.25	3072
884.00	1057.5	1032.5	2336	2394	93.73	199.54	332.31	3020
886.00	1060.6	1035.6	2338	2396	93.40	198.91	331.35	3070
888.00	1063.7	1038.7	2339	2398	93.07	198.25	330.35	3138
890.00	1066.9	1041.9	2341	2399	92.74	197.61	329.36	3125
892.00	1069.9	1044.9	2343	2401	92.43	196.98	328.41	3078
894.00	1073.0	1048.0	2345	2403	92.11	196.37	327.46	3081
896.00	1076.1	1051.1	2346	2405	91.80	195.75	326.52	3078
898.00	1079.3	1054.3	2348	2407	91.48	195.11	325.53	3156
900.00	1082.2	1057.2	2349	2408	91.19	194.54	324.67	2974
902.00	1085.2	1060.2	2351	2409	90.91	193.99	323.82	2962
904.00	1088.2	1063.2	2352	2411	90.62	193.43	322.97	2968
906.00	1091.3	1066.3	2354	2413	90.32	192.82	322.04	3103
908.00	1094.4	1069.4	2355	2414	90.01	192.22	321.11	3109
910.00	1097.6	1072.6	2357	2416	89.69	191.58	320.14	3188

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
912.00	1100.6	1075.6	2359	2418	89.40	191.01	319.25	3049
914.00	1103.7	1078.7	2360	2419	89.11	190.43	318.36	3080
916.00	1106.8	1081.8	2362	2421	88.80	189.83	317.43	3136
918.00	1109.9	1084.9	2364	2423	88.51	189.24	316.53	3107
920.00	1112.9	1087.9	2365	2424	88.23	188.69	315.69	3016
922.00	1115.9	1090.9	2366	2426	87.96	188.16	314.87	2985
924.00	1118.9	1093.9	2368	2427	87.69	187.62	314.05	3000
926.00	1121.9	1096.9	2369	2429	87.42	187.09	313.23	3004
928.00	1125.0	1100.0	2371	2430	87.15	186.55	312.40	3026
930.00	1128.1	1103.1	2372	2432	86.86	185.96	311.49	3154
932.00	1131.3	1106.3	2374	2434	86.57	185.39	310.60	3141
934.00	1134.5	1109.5	2376	2435	86.27	184.79	309.68	3199
936.00	1137.6	1112.6	2377	2437	85.98	184.21	308.78	3169
938.00	1140.8	1115.8	2379	2439	85.69	183.63	307.87	3193
940.00	1144.0	1119.0	2381	2441	85.40	183.06	307.00	3141
942.00	1146.9	1121.9	2382	2442	85.16	182.58	306.26	2935
944.00	1149.9	1124.9	2383	2443	84.91	182.07	305.47	3010
946.00	1153.2	1128.2	2385	2446	84.59	181.45	304.50	3329
948.00	1156.5	1131.5	2387	2447	84.30	180.86	303.59	3240
950.00	1159.6	1134.6	2389	2449	84.03	180.32	302.74	3139
952.00	1162.8	1137.8	2390	2451	83.75	179.75	301.86	3206
954.00	1166.0	1141.0	2392	2453	83.47	179.19	300.99	3200
956.00	1169.3	1144.3	2394	2455	83.17	178.60	300.07	3295
958.00	1172.5	1147.5	2396	2457	82.89	178.03	299.19	3218

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
960.00	1175.7	1150.7	2397	2458	82.62	177.49	298.35	3182
962.00	1178.8	1153.8	2399	2460	82.36	176.97	297.54	3123
964.00	1181.8	1156.8	2400	2461	82.13	176.50	296.80	2999
966.00	1185.0	1160.0	2402	2463	81.87	175.98	296.00	3123
968.00	1188.2	1163.2	2403	2465	81.59	175.43	295.14	3243
970.00	1191.4	1166.4	2405	2466	81.33	174.89	294.30	3204
972.00	1194.5	1169.5	2406	2468	81.08	174.40	293.53	3096
974.00	1197.7	1172.7	2408	2470	80.82	173.88	292.72	3174
976.00	1201.0	1176.0	2410	2471	80.55	173.32	291.84	3300
978.00	1204.3	1179.3	2412	2473	80.27	172.76	290.97	3298
980.00	1207.4	1182.4	2413	2475	80.03	172.27	290.21	3116
982.00	1210.6	1185.6	2415	2477	79.77	171.74	289.38	3230
984.00	1214.0	1189.0	2417	2479	79.49	171.18	288.49	3359
986.00	1217.3	1192.3	2419	2481	79.21	170.61	287.60	3365
988.00	1220.6	1195.6	2420	2483	78.94	170.08	286.77	3281
990.00	1223.9	1198.9	2422	2485	78.68	169.54	285.92	3307
992.00	1227.5	1202.5	2424	2487	78.37	168.92	284.95	3544
994.00	1230.8	1205.8	2426	2489	78.10	168.38	284.09	3338
996.00	1234.1	1209.1	2428	2491	77.85	167.86	283.29	3259
998.00	1237.2	1212.2	2429	2492	77.63	167.41	282.58	3085
1000.00	1240.2	1215.2	2430	2494	77.41	166.97	281.88	3057
1002.00	1243.2	1218.2	2432	2495	77.20	166.55	281.23	2986
1004.00	1246.4	1221.4	2433	2496	76.97	166.07	280.48	3170
1006.00	1249.6	1224.6	2435	2498	76.73	165.60	279.73	3195

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1008.00	1252.7	1227.7	2436	2499	76.51	165.14	279.02	3116
1010.00	1255.8	1230.8	2437	2501	76.28	164.68	278.30	3157
1012.00	1259.3	1234.3	2439	2503	76.01	164.13	277.42	3451
1014.00	1262.7	1237.7	2441	2505	75.75	163.60	276.58	3402
1016.00	1266.1	1241.1	2443	2507	75.48	163.06	275.74	3410
1018.00	1269.5	1244.5	2445	2509	75.23	162.55	274.93	3364
1020.00	1272.7	1247.7	2446	2511	75.00	162.08	274.18	3247
1022.00	1275.9	1250.9	2448	2512	74.77	161.61	273.44	3235
1024.00	1279.2	1254.2	2450	2514	74.54	161.15	272.71	3220
1026.00	1282.4	1257.4	2451	2516	74.32	160.69	271.99	3220
1028.00	1285.9	1260.9	2453	2518	74.06	160.15	271.14	3472
1030.00	1289.2	1264.2	2455	2520	73.82	159.68	270.39	3301
1032.00	1292.5	1267.5	2456	2521	73.59	159.19	269.62	3336
1034.00	1296.0	1271.0	2458	2524	73.33	158.66	268.78	3490
1036.00	1299.4	1274.4	2460	2526	73.08	158.15	267.96	3458
1038.00	1302.8	1277.8	2462	2528	72.84	157.66	267.19	3363
1040.00	1306.2	1281.2	2464	2530	72.60	157.17	266.40	3423
1042.00	1309.8	1284.8	2466	2532	72.33	156.62	265.54	3574
1044.00	1313.5	1288.5	2468	2535	72.06	156.06	264.63	3665
1046.00	1317.1	1292.1	2471	2537	71.78	155.50	263.74	3650
1048.00	1320.7	1295.7	2473	2540	71.52	154.96	262.88	3603
1050.00	1324.0	1299.0	2474	2542	71.30	154.51	262.16	3322
1052.00	1327.5	1302.5	2476	2544	71.07	154.02	261.39	3430
1054.00	1331.1	1306.1	2478	2546	70.80	153.48	260.53	3646

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1056.00	1334.9	1309.9	2481	2549	70.52	152.90	259.59	3799
1058.00	1338.6	1313.6	2483	2552	70.25	152.34	258.69	3729
1060.00	1342.3	1317.3	2486	2554	69.98	151.79	257.81	3703
1062.00	1346.1	1321.1	2488	2557	69.71	151.24	256.93	3724
1064.00	1349.8	1324.8	2490	2560	69.45	150.69	256.05	3725
1066.00	1353.5	1328.5	2492	2562	69.19	150.16	255.21	3672
1068.00	1357.2	1332.2	2495	2565	68.93	149.62	254.35	3720
1070.00	1360.9	1335.9	2497	2568	68.68	149.09	253.49	3712
1072.00	1364.6	1339.6	2499	2570	68.42	148.57	252.66	3691
1074.00	1368.4	1343.4	2502	2573	68.16	148.03	251.78	3783
1076.00	1372.1	1347.1	2504	2576	67.91	147.50	250.93	3738
1078.00	1375.8	1350.8	2506	2578	67.67	147.00	250.14	3639
1080.00	1379.4	1354.4	2508	2580	67.42	146.50	249.34	3657
1082.00	1383.0	1358.0	2510	2583	67.19	146.03	248.57	3594
1084.00	1386.7	1361.7	2512	2585	66.95	145.51	247.74	3736
1086.00	1390.3	1365.3	2514	2587	66.73	145.06	247.01	3545
1088.00	1393.9	1368.9	2516	2590	66.50	144.58	246.24	3622
1090.00	1397.7	1372.7	2519	2592	66.25	144.07	245.42	3756
1092.00	1401.3	1376.3	2521	2595	66.02	143.60	244.66	3644
1094.00	1405.0	1380.0	2523	2597	65.78	143.10	243.87	3720
1096.00	1408.8	1383.8	2525	2600	65.55	142.61	243.08	3728
1098.00	1412.4	1387.4	2527	2602	65.32	142.14	242.31	3691
1100.00	1416.1	1391.1	2529	2604	65.09	141.66	241.54	3702
1102.00	1419.8	1394.8	2531	2607	64.86	141.20	240.79	3659

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1104.00	1423.3	1398.3	2533	2609	64.66	140.77	240.10	3530
1106.00	1426.8	1401.8	2535	2611	64.46	140.35	239.43	3494
1108.00	1430.4	1405.4	2537	2613	64.24	139.91	238.71	3615
1110.00	1434.0	1409.0	2539	2615	64.04	139.47	238.01	3588
1112.00	1437.6	1412.6	2541	2617	63.83	139.05	237.34	3542
1114.00	1441.3	1416.3	2543	2619	63.61	138.60	236.60	3704
1116.00	1444.7	1419.7	2544	2621	63.43	138.22	235.99	3378
1118.00	1448.3	1423.3	2546	2623	63.22	137.78	235.27	3671
1120.00	1452.1	1427.1	2548	2625	63.00	137.32	234.53	3732
1122.00	1455.9	1430.9	2551	2628	62.77	136.84	233.76	3829
1124.00	1459.7	1434.7	2553	2631	62.54	136.36	232.98	3852
1126.00	1463.4	1438.4	2555	2633	62.33	135.92	232.26	3706
1128.00	1467.1	1442.1	2557	2635	62.12	135.49	231.56	3679
1130.00	1471.0	1446.0	2559	2638	61.90	135.02	230.81	3827
1132.00	1474.8	1449.8	2561	2640	61.68	134.56	230.06	3823
1134.00	1478.5	1453.5	2563	2643	61.47	134.13	229.36	3714
1136.00	1482.1	1457.1	2565	2645	61.27	133.72	228.69	3658
1138.00	1485.7	1460.7	2567	2647	61.09	133.33	228.06	3536
1140.00	1489.2	1464.2	2569	2648	60.91	132.95	227.45	3525
1142.00	1492.9	1467.9	2571	2651	60.70	132.53	226.76	3722
1144.00	1496.7	1471.7	2573	2653	60.50	132.10	226.07	3727
1146.00	1500.2	1475.2	2575	2655	60.32	131.72	225.44	3593
1148.00	1503.9	1478.9	2577	2657	60.12	131.31	224.78	3684
1150.00	1507.8	1482.8	2579	2659	59.91	130.87	224.07	3823

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1152.00	1511.5	1486.5	2581	2662	59.71	130.45	223.39	3773
1154.00	1515.1	1490.1	2583	2664	59.53	130.07	222.77	3605
1156.00	1519.0	1494.0	2585	2666	59.32	129.63	222.05	3861
1158.00	1522.9	1497.9	2587	2669	59.11	129.19	221.34	3889
1160.00	1526.8	1501.8	2589	2672	58.90	128.74	220.60	3946
1162.00	1530.8	1505.8	2592	2674	58.68	128.28	219.85	3997
1164.00	1534.8	1509.8	2594	2677	58.46	127.83	219.11	3988
1166.00	1538.8	1513.8	2596	2680	58.26	127.39	218.39	3937
1168.00	1542.7	1517.7	2599	2682	58.05	126.96	217.69	3901
1170.00	1546.5	1521.5	2601	2685	57.85	126.54	217.00	3881
1172.00	1550.4	1525.4	2603	2687	57.65	126.12	216.32	3884
1174.00	1554.2	1529.2	2605	2690	57.46	125.72	215.66	3832
1176.00	1558.0	1533.0	2607	2692	57.28	125.33	215.03	3757
1178.00	1561.7	1536.7	2609	2694	57.10	124.97	214.43	3656
1180.00	1565.3	1540.3	2611	2696	56.94	124.62	213.87	3592
1182.00	1568.9	1543.9	2612	2698	56.77	124.26	213.28	3669
1184.00	1572.8	1547.8	2614	2700	56.58	123.87	212.63	3832
1186.00	1576.6	1551.6	2617	2702	56.39	123.48	211.99	3832
1188.00	1580.5	1555.5	2619	2705	56.20	123.08	211.34	3889
1190.00	1584.3	1559.3	2621	2707	56.02	122.69	210.71	3824
1192.00	1588.1	1563.1	2623	2709	55.85	122.33	210.11	3755
1194.00	1592.0	1567.0	2625	2712	55.66	121.92	209.45	3943
1196.00	1595.8	1570.8	2627	2714	55.48	121.55	208.84	3795
1198.00	1599.4	1574.4	2628	2716	55.32	121.21	208.29	3633

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1200.00	1602.9	1577.9	2630	2717	55.17	120.91	207.78	3482
1202.00	1606.5	1581.5	2631	2719	55.02	120.58	207.25	3578
1204.00	1610.3	1585.3	2633	2721	54.85	120.22	206.66	3786
1206.00	1614.1	1589.1	2635	2723	54.68	119.85	206.06	3828
1208.00	1618.1	1593.1	2638	2726	54.49	119.46	205.40	3997
1210.00	1622.1	1597.1	2640	2728	54.30	119.05	204.73	4044
1212.00	1626.2	1601.2	2642	2731	54.11	118.65	204.08	4012
1214.00	1630.2	1605.2	2644	2733	53.92	118.26	203.44	4004
1216.00	1634.2	1609.2	2647	2736	53.74	117.87	202.80	4002
1218.00	1638.2	1613.2	2649	2739	53.56	117.49	202.16	3999
1220.00	1642.2	1617.2	2651	2741	53.37	117.09	201.51	4041
1222.00	1646.2	1621.2	2653	2744	53.19	116.71	200.89	4002
1224.00	1650.2	1625.2	2656	2746	53.01	116.34	200.27	3985
1226.00	1654.2	1629.2	2658	2749	52.84	115.96	199.64	4014
1228.00	1658.3	1633.3	2660	2751	52.65	115.57	199.01	4054
1230.00	1662.3	1637.3	2662	2754	52.48	115.20	198.39	4020
1232.00	1666.2	1641.2	2664	2756	52.31	114.84	197.79	3966
1234.00	1670.2	1645.2	2666	2759	52.14	114.48	197.21	3927
1236.00	1674.1	1649.1	2668	2761	51.98	114.13	196.63	3909
1238.00	1677.8	1652.8	2670	2763	51.83	113.82	196.11	3755
1240.00	1681.7	1656.7	2672	2765	51.66	113.47	195.54	3910
1242.00	1685.7	1660.7	2674	2767	51.50	113.12	194.95	3989
1244.00	1689.8	1664.8	2676	2770	51.33	112.76	194.36	4020
1246.00	1693.6	1668.6	2678	2772	51.17	112.43	193.81	3860

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1248.00	1697.3	1672.3	2680	2774	51.03	112.12	193.31	3728
1250.00	1701.0	1676.0	2682	2775	50.89	111.83	192.83	3671
1252.00	1704.7	1679.7	2683	2777	50.75	111.54	192.35	3669
1254.00	1708.4	1683.4	2685	2779	50.61	111.23	191.84	3756
1256.00	1712.3	1687.3	2687	2781	50.46	110.91	191.32	3852
1258.00	1716.2	1691.2	2689	2783	50.31	110.59	190.78	3889
1260.00	1720.1	1695.1	2691	2785	50.15	110.27	190.25	3901
1262.00	1724.0	1699.0	2693	2787	50.00	109.95	189.72	3896
1264.00	1727.8	1702.8	2694	2789	49.86	109.64	189.20	3843
1266.00	1731.6	1706.6	2696	2791	49.72	109.34	188.72	3755
1268.00	1735.2	1710.2	2698	2793	49.59	109.07	188.26	3654
1270.00	1739.1	1714.1	2699	2795	49.45	108.76	187.76	3825
1272.00	1742.9	1717.9	2701	2797	49.30	108.46	187.26	3844
1274.00	1746.7	1721.7	2703	2799	49.16	108.16	186.76	3827
1276.00	1750.5	1725.5	2705	2800	49.03	107.87	186.27	3797
1278.00	1754.2	1729.2	2706	2802	48.89	107.59	185.81	3729
1280.00	1757.9	1732.9	2708	2804	48.77	107.32	185.37	3635
1282.00	1761.4	1736.4	2709	2805	48.65	107.08	184.96	3515
1284.00	1765.0	1740.0	2710	2806	48.54	106.82	184.55	3555
1286.00	1768.7	1743.7	2712	2808	48.40	106.55	184.09	3753
1288.00	1772.6	1747.6	2714	2810	48.26	106.25	183.59	3899
1290.00	1776.6	1751.6	2716	2812	48.12	105.94	183.07	3967
1292.00	1780.6	1755.6	2718	2814	47.97	105.61	182.54	4063
1294.00	1784.6	1759.6	2720	2817	47.82	105.30	182.02	4003

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1296.00	1788.6	1763.6	2722	2819	47.68	104.99	181.51	4005
1298.00	1792.6	1767.6	2724	2821	47.53	104.69	181.00	3977
1300.00	1796.6	1771.6	2726	2823	47.39	104.39	180.50	3975
1302.00	1800.6	1775.6	2727	2825	47.25	104.09	180.00	3962
1304.00	1804.5	1779.5	2729	2827	47.12	103.80	179.52	3944
1306.00	1808.5	1783.5	2731	2829	46.98	103.50	179.02	3994
1308.00	1812.5	1787.5	2733	2832	46.84	103.19	178.51	4030
1310.00	1816.6	1791.6	2735	2834	46.69	102.89	178.00	4075
1312.00	1820.7	1795.7	2737	2836	46.54	102.57	177.48	4124
1314.00	1824.8	1799.8	2739	2839	46.40	102.27	176.97	4081
1316.00	1828.7	1803.7	2741	2841	46.27	101.99	176.51	3899
1318.00	1832.5	1807.5	2743	2842	46.15	101.73	176.07	3827
1320.00	1836.3	1811.3	2744	2844	46.03	101.46	175.63	3821
1322.00	1840.4	1815.4	2746	2846	45.89	101.17	175.14	4022
1324.00	1844.5	1819.5	2749	2849	45.75	100.87	174.63	4144
1326.00	1848.6	1823.6	2751	2851	45.61	100.57	174.14	4072
1328.00	1852.7	1827.7	2753	2853	45.47	100.28	173.65	4087
1330.00	1856.8	1831.8	2755	2855	45.33	99.98	173.15	4110
1332.00	1860.8	1835.8	2757	2858	45.20	99.69	172.68	4060
1334.00	1864.9	1839.9	2758	2860	45.07	99.41	172.20	4050
1336.00	1868.9	1843.9	2760	2862	44.94	99.13	171.73	4041
1338.00	1873.0	1848.0	2762	2864	44.81	98.85	171.26	4038
1340.00	1877.0	1852.0	2764	2866	44.68	98.57	170.80	4032
1342.00	1881.1	1856.1	2766	2868	44.55	98.29	170.33	4082

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1344.00	1885.1	1860.1	2768	2870	44.42	98.02	169.88	4009
1346.00	1889.1	1864.1	2770	2872	44.29	97.75	169.42	4022
1348.00	1893.1	1868.1	2772	2874	44.17	97.48	168.97	4025
1350.00	1897.2	1872.2	2774	2877	44.04	97.21	168.52	4042
1352.00	1901.3	1876.3	2776	2879	43.91	96.94	168.06	4069
1354.00	1905.3	1880.3	2777	2881	43.79	96.66	167.61	4072
1356.00	1909.4	1884.4	2779	2883	43.66	96.39	167.16	4068
1358.00	1913.4	1888.4	2781	2885	43.54	96.13	166.71	4050
1360.00	1917.5	1892.5	2783	2887	43.41	95.86	166.26	4076
1362.00	1921.5	1896.5	2785	2889	43.29	95.60	165.83	4026
1364.00	1925.6	1900.6	2787	2891	43.17	95.34	165.39	4026
1366.00	1929.6	1904.6	2789	2893	43.05	95.08	164.96	4036
1368.00	1933.6	1908.6	2790	2895	42.93	94.83	164.53	4024
1370.00	1937.7	1912.7	2792	2897	42.81	94.57	164.10	4054
1372.00	1941.7	1916.7	2794	2899	42.70	94.32	163.68	3997
1374.00	1945.7	1920.7	2796	2901	42.58	94.07	163.26	4023
1376.00	1949.7	1924.7	2798	2903	42.46	93.82	162.84	4021
1378.00	1953.8	1928.8	2799	2905	42.35	93.57	162.42	4052
1380.00	1957.9	1932.9	2801	2907	42.23	93.31	161.99	4101
1382.00	1962.0	1937.0	2803	2909	42.11	93.06	161.56	4082
1384.00	1966.0	1941.0	2805	2911	41.99	92.81	161.14	4061
1386.00	1970.1	1945.1	2807	2913	41.88	92.56	160.73	4075
1388.00	1974.0	1949.0	2808	2915	41.77	92.33	160.34	3942
1390.00	1978.1	1953.1	2810	2917	41.66	92.09	159.93	4037

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1392.00	1982.2	1957.2	2812	2919	41.54	91.84	159.51	4105
1394.00	1986.3	1961.3	2814	2921	41.43	91.59	159.10	4081
1396.00	1990.3	1965.3	2816	2923	41.32	91.35	158.70	4043
1398.00	1994.3	1969.3	2817	2925	41.21	91.12	158.31	3982
1400.00	1998.3	1973.3	2819	2926	41.10	90.89	157.92	3994
1402.00	2002.2	1977.2	2821	2928	41.00	90.66	157.54	3964
1404.00	2006.3	1981.3	2822	2930	40.89	90.43	157.15	4028
1406.00	2010.2	1985.2	2824	2932	40.79	90.20	156.77	3975
1408.00	2014.2	1989.2	2826	2933	40.68	89.99	156.40	3915
1410.00	2018.1	1993.1	2827	2935	40.58	89.77	156.04	3917
1412.00	2022.0	1997.0	2829	2937	40.48	89.55	155.68	3910
1414.00	2025.8	2000.8	2830	2938	40.39	89.35	155.33	3850
1416.00	2029.7	2004.7	2831	2939	40.29	89.14	154.98	3833
1418.00	2033.4	2008.4	2833	2941	40.21	88.96	154.67	3681
1420.00	2036.8	2011.8	2834	2942	40.13	88.79	154.39	3492
1422.00	2040.4	2015.4	2835	2942	40.05	88.62	154.10	3546
1424.00	2043.9	2018.9	2835	2943	39.97	88.45	153.82	3484
1426.00	2047.4	2022.4	2836	2944	39.89	88.28	153.54	3497
1428.00	2050.9	2025.9	2837	2945	39.82	88.12	153.27	3479
1430.00	2054.3	2029.3	2838	2946	39.74	87.96	153.00	3403
1432.00	2057.6	2032.6	2839	2946	39.67	87.81	152.74	3392
1434.00	2061.0	2036.0	2840	2947	39.60	87.66	152.49	3341
1436.00	2064.3	2039.3	2840	2947	39.53	87.51	152.24	3343
1438.00	2067.7	2042.7	2841	2948	39.46	87.36	151.99	3359

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1440.00	2071.0	2046.0	2842	2949	39.40	87.22	151.75	3307
1442.00	2074.3	2049.3	2842	2949	39.33	87.07	151.50	3337
1444.00	2077.6	2052.6	2843	2950	39.26	86.93	151.27	3263
1446.00	2080.9	2055.9	2844	2950	39.20	86.79	151.03	3282
1448.00	2084.1	2059.1	2844	2951	39.13	86.65	150.80	3255
1450.00	2087.4	2062.4	2845	2951	39.07	86.51	150.56	3316
1452.00	2090.8	2065.8	2845	2952	39.00	86.36	150.32	3338
1454.00	2094.0	2069.0	2846	2952	38.94	86.23	150.09	3218
1456.00	2097.3	2072.3	2847	2953	38.87	86.09	149.86	3308
1458.00	2100.5	2075.5	2847	2953	38.81	85.95	149.63	3206
1460.00	2103.8	2078.8	2848	2953	38.75	85.82	149.40	3287
1462.00	2107.1	2082.1	2848	2954	38.68	85.68	149.17	3294
1464.00	2110.3	2085.3	2849	2954	38.62	85.54	148.94	3239
1466.00	2113.6	2088.6	2849	2955	38.56	85.41	148.71	3295
1468.00	2117.0	2092.0	2850	2955	38.49	85.26	148.47	3338
1470.00	2120.3	2095.3	2851	2956	38.43	85.13	148.24	3319
1472.00	2123.7	2098.7	2851	2956	38.36	84.98	148.00	3361
1474.00	2127.0	2102.0	2852	2957	38.30	84.84	147.76	3355
1476.00	2130.3	2105.3	2853	2958	38.23	84.71	147.54	3285
1478.00	2133.7	2108.7	2853	2958	38.17	84.56	147.30	3381
1480.00	2137.0	2112.0	2854	2959	38.10	84.43	147.07	3279
1482.00	2140.3	2115.3	2855	2959	38.04	84.29	146.84	3348
1484.00	2143.6	2118.6	2855	2960	37.98	84.16	146.61	3314
1486.00	2147.0	2122.0	2856	2960	37.91	84.01	146.37	3398

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1488.00	2150.4	2125.4	2857	2961	37.85	83.88	146.14	3354
1490.00	2153.7	2128.7	2857	2961	37.79	83.74	145.91	3324
1492.00	2157.0	2132.0	2858	2962	37.72	83.61	145.68	3331
1494.00	2160.4	2135.4	2859	2963	37.66	83.47	145.45	3373
1496.00	2163.7	2138.7	2859	2963	37.60	83.34	145.23	3294
1498.00	2167.0	2142.0	2860	2963	37.54	83.20	145.01	3325
1500.00	2170.3	2145.3	2860	2964	37.47	83.07	144.78	3325
1502.00	2173.6	2148.6	2861	2964	37.41	82.94	144.56	3290
1504.00	2176.9	2151.9	2862	2965	37.35	82.81	144.35	3283
1506.00	2180.2	2155.2	2862	2965	37.30	82.68	144.13	3263
1508.00	2183.5	2158.5	2863	2966	37.24	82.56	143.92	3277
1510.00	2186.6	2161.6	2863	2966	37.18	82.44	143.72	3185
1512.00	2189.9	2164.9	2864	2966	37.12	82.31	143.51	3242
1514.00	2193.1	2168.1	2864	2967	37.07	82.19	143.30	3228
1516.00	2196.4	2171.4	2865	2967	37.01	82.07	143.09	3250
1518.00	2199.5	2174.5	2865	2967	36.95	81.95	142.89	3174
1520.00	2202.7	2177.7	2865	2968	36.90	81.83	142.69	3192
1522.00	2206.0	2181.0	2866	2968	36.84	81.70	142.48	3291
1524.00	2209.3	2184.3	2867	2969	36.78	81.58	142.27	3275
1526.00	2212.5	2187.5	2867	2969	36.73	81.46	142.06	3254
1528.00	2215.7	2190.7	2867	2969	36.67	81.34	141.86	3206
1530.00	2219.0	2194.0	2868	2970	36.62	81.22	141.66	3273
1532.00	2222.3	2197.3	2868	2970	36.56	81.10	141.45	3234
1534.00	2225.5	2200.5	2869	2971	36.50	80.97	141.25	3245

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1536.00	2228.7	2203.7	2869	2971	36.45	80.86	141.05	3242
1538.00	2231.9	2206.9	2870	2971	36.40	80.74	140.86	3186
1540.00	2235.2	2210.2	2870	2972	36.34	80.62	140.65	3281
1542.00	2238.5	2213.5	2871	2972	36.28	80.50	140.44	3280
1544.00	2241.7	2216.7	2871	2972	36.23	80.38	140.24	3244
1546.00	2245.0	2220.0	2872	2973	36.17	80.26	140.04	3299
1548.00	2248.2	2223.2	2872	2973	36.12	80.14	139.85	3145
1550.00	2251.2	2226.2	2873	2973	36.07	80.04	139.68	3051
1552.00	2254.3	2229.3	2873	2973	36.03	79.94	139.50	3039
1554.00	2257.4	2232.4	2873	2973	35.98	79.83	139.32	3104
1556.00	2260.5	2235.5	2873	2974	35.93	79.73	139.15	3088
1558.00	2263.5	2238.5	2874	2974	35.88	79.62	138.97	3089
1560.00	2266.5	2241.5	2874	2974	35.83	79.53	138.81	2938
1562.00	2269.5	2244.5	2874	2974	35.79	79.43	138.64	2974
1564.00	2272.4	2247.4	2874	2974	35.75	79.34	138.49	2904
1566.00	2275.3	2250.3	2874	2974	35.70	79.24	138.33	2959
1568.00	2278.4	2253.4	2874	2974	35.66	79.14	138.16	3031
1570.00	2281.2	2256.2	2874	2974	35.62	79.05	138.01	2861
1572.00	2284.1	2259.1	2874	2973	35.57	78.96	137.85	2933
1574.00	2287.1	2262.1	2874	2973	35.53	78.86	137.69	2967
1576.00	2290.0	2265.0	2874	2973	35.49	78.78	137.54	2883
1578.00	2292.9	2267.9	2874	2973	35.44	78.68	137.39	2949
1580.00	2295.8	2270.8	2874	2973	35.40	78.59	137.23	2893
1582.00	2298.8	2273.8	2875	2973	35.36	78.50	137.08	2943

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1584.00	2301.7	2276.7	2875	2973	35.32	78.41	136.92	2922
1586.00	2304.6	2279.6	2875	2973	35.28	78.32	136.77	2895
1588.00	2307.5	2282.5	2875	2973	35.24	78.23	136.63	2862
1590.00	2310.6	2285.6	2875	2973	35.19	78.13	136.45	3111
1592.00	2313.7	2288.7	2875	2973	35.14	78.02	136.28	3154
1594.00	2316.8	2291.8	2876	2973	35.09	77.92	136.10	3118
1596.00	2320.0	2295.0	2876	2974	35.04	77.82	135.93	3109
1598.00	2323.0	2298.0	2876	2974	35.00	77.72	135.77	3034
1600.00	2325.9	2300.9	2876	2974	34.96	77.63	135.61	2946
1602.00	2328.9	2303.9	2876	2974	34.91	77.54	135.45	3008
1604.00	2331.9	2306.9	2876	2974	34.87	77.44	135.30	2981
1606.00	2334.9	2309.9	2877	2974	34.83	77.35	135.14	2929
1608.00	2337.9	2312.9	2877	2974	34.79	77.26	134.98	3049
1610.00	2341.0	2316.0	2877	2974	34.74	77.16	134.81	3135
1612.00	2344.1	2319.1	2877	2974	34.69	77.06	134.64	3083
1614.00	2347.2	2322.2	2878	2974	34.65	76.96	134.47	3116
1616.00	2350.2	2325.2	2878	2974	34.60	76.86	134.32	3002
1618.00	2353.3	2328.3	2878	2974	34.56	76.77	134.15	3075
1620.00	2356.5	2331.5	2878	2975	34.51	76.66	133.98	3183
1622.00	2359.6	2334.6	2879	2975	34.47	76.57	133.81	3107
1624.00	2362.7	2337.7	2879	2975	34.42	76.47	133.64	3105
1626.00	2365.8	2340.8	2879	2975	34.38	76.37	133.48	3116
1628.00	2368.9	2343.9	2879	2975	34.33	76.27	133.31	3084
1630.00	2372.0	2347.0	2880	2975	34.29	76.18	133.15	3069

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1632.00	2375.1	2350.1	2880	2976	34.24	76.08	132.99	3094
1634.00	2378.2	2353.2	2880	2976	34.20	75.98	132.82	3129
1636.00	2381.2	2356.2	2880	2976	34.15	75.89	132.67	3010
1638.00	2384.3	2359.3	2881	2976	34.11	75.80	132.51	3058
1640.00	2387.3	2362.3	2881	2976	34.07	75.71	132.35	3028
1642.00	2390.4	2365.4	2881	2976	34.03	75.61	132.19	3071
1644.00	2393.4	2368.4	2881	2976	33.98	75.52	132.04	3058
1646.00	2396.4	2371.4	2881	2976	33.94	75.43	131.89	2997
1648.00	2399.5	2374.5	2882	2976	33.90	75.33	131.72	3098
1650.00	2402.6	2377.6	2882	2977	33.86	75.24	131.57	3071
1652.00	2405.6	2380.6	2882	2977	33.81	75.15	131.41	3039
1654.00	2408.6	2383.6	2882	2977	33.77	75.06	131.26	3015
1656.00	2411.7	2386.7	2882	2977	33.73	74.97	131.11	3048
1658.00	2414.9	2389.9	2883	2977	33.68	74.87	130.93	3223
1660.00	2418.1	2393.1	2883	2977	33.64	74.77	130.76	3237
1662.00	2421.5	2396.5	2884	2978	33.59	74.66	130.58	3321
1664.00	2424.7	2399.7	2884	2978	33.54	74.56	130.41	3195
1666.00	2427.9	2402.9	2885	2978	33.50	74.46	130.24	3196
1668.00	2431.1	2406.1	2885	2979	33.45	74.36	130.07	3210
1670.00	2434.3	2409.3	2885	2979	33.41	74.26	129.90	3197
1672.00	2437.4	2412.4	2886	2979	33.36	74.17	129.75	3121
1674.00	2440.5	2415.5	2886	2979	33.32	74.08	129.59	3120
1676.00	2443.6	2418.6	2886	2979	33.28	73.98	129.43	3135
1678.00	2446.8	2421.8	2886	2980	33.23	73.89	129.27	3114

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1680.00	2449.9	2424.9	2887	2980	33.19	73.79	129.11	3183
1682.00	2453.1	2428.1	2887	2980	33.15	73.70	128.94	3176
1684.00	2456.3	2431.3	2887	2980	33.10	73.60	128.78	3154
1686.00	2459.4	2434.4	2888	2981	33.06	73.51	128.62	3156
1688.00	2462.6	2437.6	2888	2981	33.02	73.42	128.47	3152
1690.00	2465.8	2440.8	2889	2981	32.97	73.32	128.30	3249
1692.00	2469.1	2444.1	2889	2981	32.92	73.22	128.13	3263
1694.00	2472.4	2447.4	2889	2982	32.88	73.12	127.96	3267
1696.00	2475.6	2450.6	2890	2982	32.83	73.02	127.79	3255
1698.00	2478.8	2453.8	2890	2982	32.79	72.92	127.63	3194
1700.00	2482.2	2457.2	2891	2983	32.74	72.81	127.44	3410
1702.00	2485.5	2460.5	2891	2983	32.70	72.72	127.28	3234
1704.00	2488.6	2463.6	2892	2983	32.65	72.62	127.12	3199
1706.00	2491.9	2466.9	2892	2984	32.61	72.52	126.95	3278
1708.00	2495.0	2470.0	2892	2984	32.57	72.44	126.80	3108
1710.00	2498.2	2473.2	2893	2984	32.52	72.34	126.64	3205
1712.00	2501.3	2476.3	2893	2984	32.48	72.26	126.50	3044
1714.00	2504.5	2479.5	2893	2985	32.44	72.16	126.33	3228
1716.00	2508.0	2483.0	2894	2985	32.39	72.05	126.15	3453
1718.00	2511.8	2486.8	2895	2986	32.33	71.92	125.92	3837
1720.00	2515.6	2490.6	2896	2987	32.27	71.79	125.70	3772
1722.00	2519.2	2494.2	2897	2988	32.22	71.67	125.50	3632
1724.00	2522.8	2497.8	2898	2989	32.16	71.56	125.30	3609
1726.00	2526.3	2501.3	2898	2990	32.11	71.45	125.12	3440

TWO-WAY TRAVEL TIME FROM SRD MS	MEASURED DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	AVERAGE VELOCITY SRD/GEO M/S	RMS VELOCITY M/S	FIRST NORMAL MOVEOUT MS	SECOND NORMAL MOVEOUT MS	THIRD NORMAL MOVEOUT MS	INTERVAL VELOCITY M/S
1728.00	2529.8	2504.8	2899	2990	32.06	71.34	124.92	3535
1730.00	2533.2	2508.2	2900	2991	32.01	71.23	124.75	3417
1732.00	2536.9	2511.9	2901	2992	31.96	71.11	124.54	3676
1734.00	2540.7	2515.7	2902	2993	31.90	70.98	124.32	3817
1736.00	2544.5	2519.5	2903	2994	31.84	70.86	124.10	3809
1738.00	2548.3	2523.3	2904	2995	31.78	70.73	123.88	3816
1740.00	2552.3	2527.3	2905	2996	31.72	70.59	123.65	3954
1742.00	2556.1	2531.1	2906	2997	31.66	70.46	123.43	3833
1744.00	2559.7	2534.7	2907	2998	31.61	70.35	123.24	3586
1746.00	2563.4	2538.4	2908	2999	31.56	70.23	123.04	3653
1748.00	2566.9	2541.9	2908	3000	31.51	70.12	122.85	3569
1750.00	2570.5	2545.5	2909	3000	31.46	70.01	122.66	3583
1752.00	2574.0	2549.0	2910	3001	31.41	69.91	122.48	3518
1754.00	2577.5	2552.5	2911	3002	31.36	69.80	122.30	3509
1756.00	2581.1	2556.1	2911	3002	31.31	69.70	122.12	3523
1758.00	2584.6	2559.6	2912	3003	31.26	69.59	121.94	3533
1760.00	2588.1	2563.1	2913	3004	31.21	69.48	121.76	3536
1762.00	2591.7	2566.7	2913	3004	31.17	69.38	121.57	3585
1764.00	2595.4	2570.4	2914	3005	31.11	69.26	121.37	3739
1766.00	2599.5	2574.5	2916	3007	31.05	69.12	121.13	4016
1768.00	2603.2	2578.2	2917	3007	31.00	69.01	120.93	3726
1770.00	2606.9	2581.9	2917	3008	30.94	68.89	120.74	3709
1772.00	2610.8	2585.8	2919	3009	30.89	68.76	120.52	3913

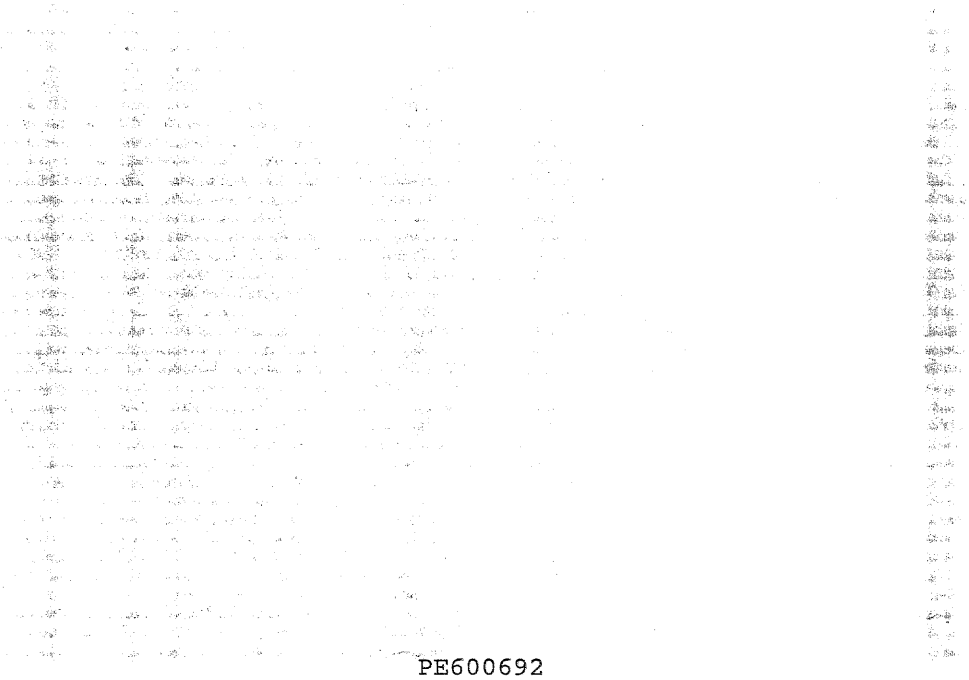
PE600691

This is an enclosure indicator page.
The enclosure PE600691 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600691 has the following characteristics:

ITEM_BARCODE	= PE600691
CONTAINER_BARCODE	= PE906443
NAME	= Vertical Seismic Profile - Plot 1
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Vertical Seismic Profile - Plot 1 - Stacked Data
REMARKS	=
DATE_CREATED	= 21/07/95
DATE_RECEIVED	= 28/07/95
W_NO	= W1122
WELL_NAME	= Smiler-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)



PE600692

This is an enclosure indicator page.
The enclosure PE600692 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600692 has the following characteristics:

ITEM_BARCODE	= PE600692
CONTAINER_BARCODE	= PE906443
NAME	= Vertical Seismic Profile - Plot 2
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Vertical Seismic Profile - Plot 2 - Amplitude Recovery
REMARKS	=
DATE_CREATED	= 21/07/95
DATE_RECEIVED	= 28/07/95
W_NO	= W1122
WELL_NAME	= Smiler-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE600693

This is an enclosure indicator page.
The enclosure PE600693 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600693 has the following characteristics:

ITEM_BARCODE	PE600693
CONTAINER_BARCODE	PE906443
NAME	Vertical Seismic Profile - Plot 3
BASIN	GIPPSLAND
PERMIT	
TYPE	WELL
SUBTYPE	VELOCITY_CHART
DESCRIPTION	Vertical Seismic Profile - Plot 3 - Velocity Filtering
REMARKS	
DATE_CREATED	21/07/95
DATE_RECEIVED	28/07/95
W_NO	W1122
WELL_NAME	Smiler-1
CONTRACTOR	Schlumberger
CLIENT_OP_CO	ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

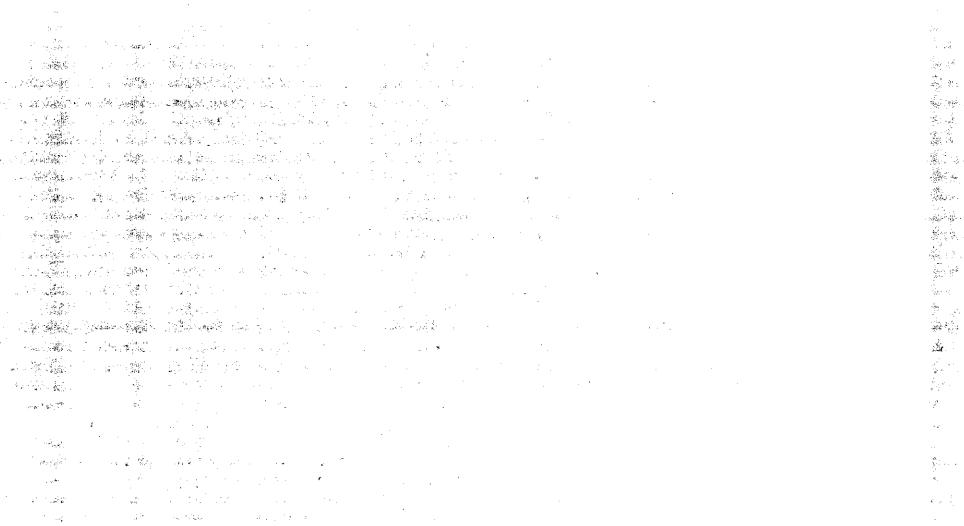
PE600694

This is an enclosure indicator page.
The enclosure PE600694 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600694 has the following characteristics:

ITEM_BARCODE	= PE600694
CONTAINER_BARCODE	= PE906443
NAME	= Vertical Seismic Profile - Plot 4
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Vertical Seismic Profile - Plot 4 - waveshaping deconvolution
REMARKS	=
DATE_CREATED	= 21/07/95
DATE_RECEIVED	= 28/07/95
W_NO	= W1122
WELL_NAME	= Smiler-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)



PE600695

This is an enclosure indicator page.
The enclosure PE600695 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600695 has the following characteristics:

ITEM_BARCODE	PE600695
CONTAINER_BARCODE	PE906443
NAME	Vertical Seismic Profile - Plot 5
BASIN	GIPPSLAND
PERMIT	
TYPE	WELL
SUBTYPE	VELOCITY_CHART
DESCRIPTION	Vertical Seismic Profile - Plot 5 - waveshaping & corridor stack
REMARKS	
DATE_CREATED	21/07/95
DATE_RECEIVED	28/07/95
W_NO	W1122
WELL_NAME	Smiler-1
CONTRACTOR	Schlumberger
CLIENT_OP_CO	ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE600696

This is an enclosure indicator page.
The enclosure PE600696 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600696 has the following characteristics:

ITEM_BARCODE	= PE600696
CONTAINER_BARCODE	= PE906443
NAME	= Vertical Seismic Profile - Plot 5a
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Vertical Seismic Profile - Plot 5a - waveshaping & corridor stack
REMARKS	=
DATE_CREATED	= 21/07/95
DATE_RECEIVED	= 28/07/95
W_NO	= W1122
WELL_NAME	= Smiler-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE600697

This is an enclosure indicator page.
The enclosure PE600697 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600697 has the following characteristics:

ITEM_BARCODE	= PE600697
CONTAINER_BARCODE	= PE906443
NAME	= Vertical Seismic Profile - Plot 6
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Vertical Seismic Profile - Plot 6 - VSP and Geogram Composite
REMARKS	=
DATE_CREATED	= 21/07/95
DATE_RECEIVED	= 28/07/95
W_NO	= W1122
WELL_NAME	= Smiler-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE600698

This is an enclosure indicator page.
The enclosure PE600698 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600698 has the following characteristics:

ITEM_BARCODE	= PE600698
CONTAINER_BARCODE	= PE906443
NAME	= Vertical Seismic Profile - Plot 7
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Vertical Seismic Profile - Plot 7 VSP& Geogram composite
REMARKS	=
DATE_CREATED	= 21/07/95
DATE_RECEIVED	= 28/07/95
W_NO	= W1122
WELL_NAME	= Smiler-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE600699

This is an enclosure indicator page.
The enclosure PE600699 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600699 has the following characteristics:

ITEM_BARCODE	= PE600699
CONTAINER_BARCODE	= PE906443
NAME	= Geogram Synthetic Seismogram
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= SYNTH_SEISMOGRAM
DESCRIPTION	= Geogram Synthetic Seismogram 25Hz
REMARKS	=
DATE_CREATED	= 21/07/95
DATE_RECEIVED	= 28/07/95
W_NO	= W1122
WELL_NAME	= Smiler-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE600700

This is an enclosure indicator page.
The enclosure PE600700 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600700 has the following characteristics:

ITEM_BARCODE	= PE600700
CONTAINER_BARCODE	= PE906443
NAME	= Geogram Synthetic Seismogram
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= SYNTH_SEISMOGRAM
DESCRIPTION	= Geogram Synthetic Seismogram 35Hz
REMARKS	=
DATE_CREATED	= 21/07/95
DATE_RECEIVED	= 28/07/95
W_NO	= W1122
WELL_NAME	= Smiler-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

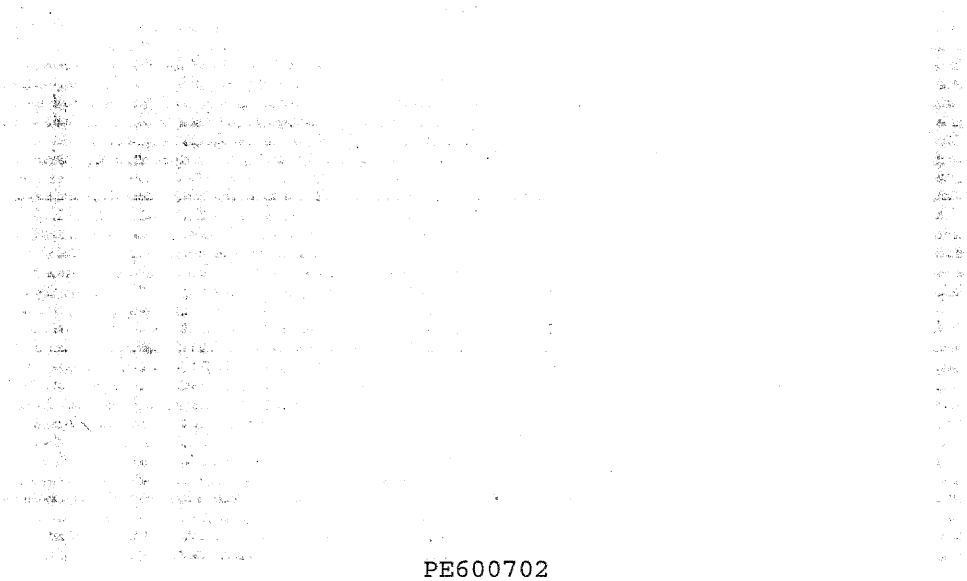
PE600701

This is an enclosure indicator page.
The enclosure PE600701 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600701 has the following characteristics:

ITEM_BARCODE	= PE600701
CONTAINER_BARCODE	= PE906443
NAME	= Geogram Synthetic Seismogram
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= SYNTH_SEISMOGRAM
DESCRIPTION	= Geogram Synthetic Seismogram 45Hz
REMARKS	=
DATE_CREATED	= 21/07/95
DATE_RECEIVED	= 28/07/95
W_NO	= W1122
WELL_NAME	= Smiler-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)



PE600702

This is an enclosure indicator page.
The enclosure PE600702 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600702 has the following characteristics:

ITEM_BARCODE	= PE600702
CONTAINER_BARCODE	= PE906443
NAME	= Drift Corrected Sonic
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Drift Corrected Sonic
REMARKS	=
DATE_CREATED	= 21/07/95
DATE_RECEIVED	= 28/07/95
W_NO	= W1122
WELL_NAME	= Smiler-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)

PE600703

This is an enclosure indicator page.
The enclosure PE600703 is enclosed within the container PE906443 at this location in this document.

The enclosure PE600703 has the following characteristics:

ITEM_BARCODE	= PE600703
CONTAINER_BARCODE	= PE906443
NAME	= Seismic Calibration Log
BASIN	= GIPPSLAND
PERMIT	=
TYPE	= WELL
SUBTYPE	= VELOCITY_CHART
DESCRIPTION	= Seismic Calibration Log - Adjusted Continuous Velocity Log
REMARKS	=
DATE_CREATED	= 21/07/95
DATE_RECEIVED	= 28/07/95
W_NO	= W1122
WELL_NAME	= Smiler-1
CONTRACTOR	= Schlumberger
CLIENT_OP_CO	= ESSO

(Inserted by DNRE - Vic Govt Mines Dept)