

ATTACHMENT TO

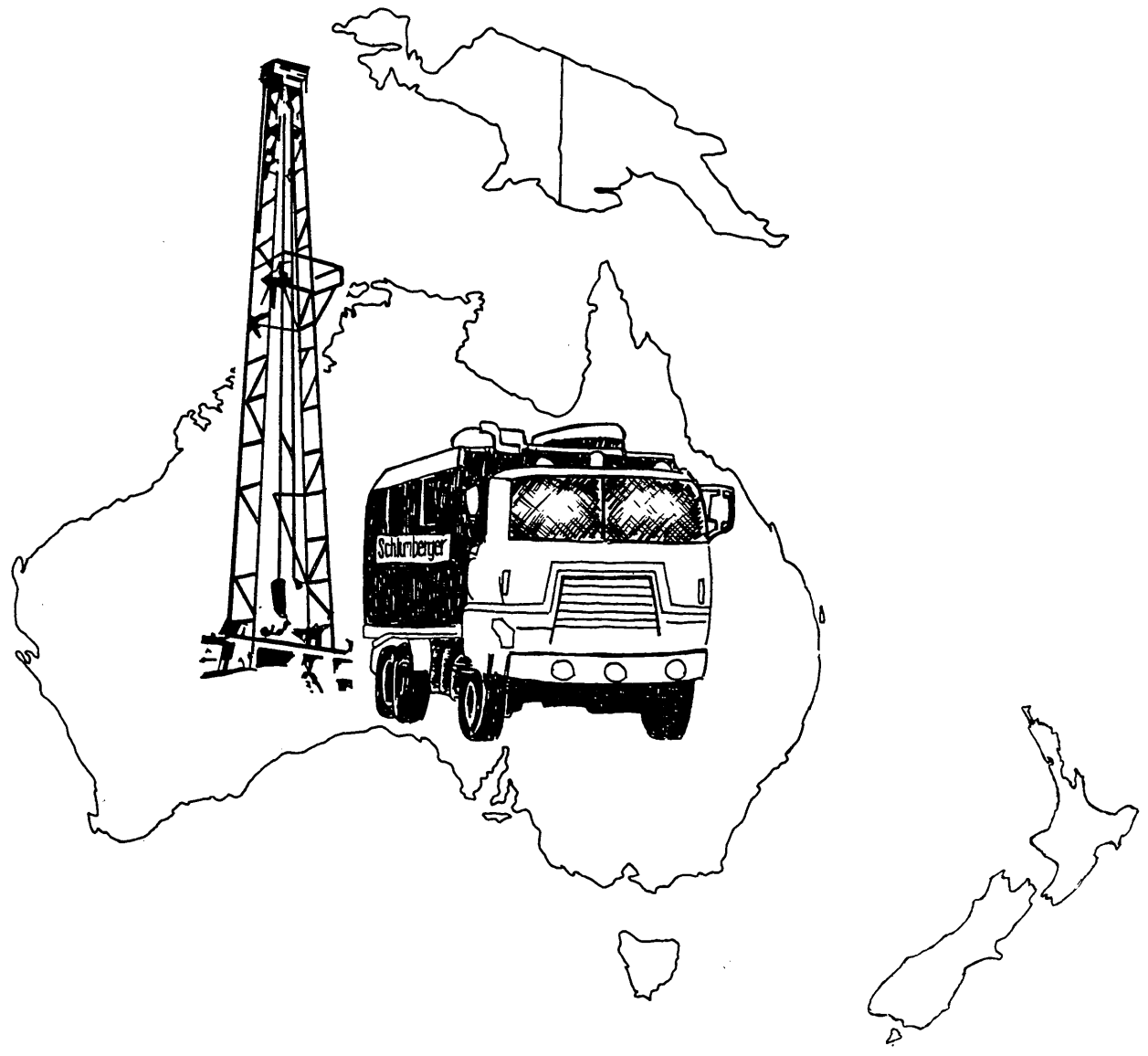
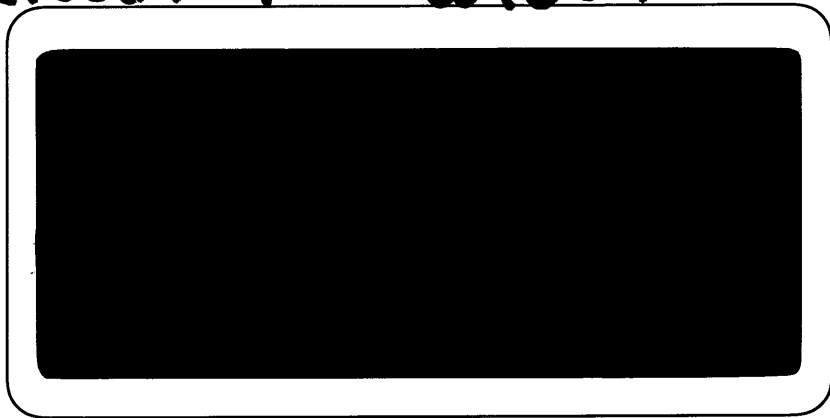
WCR VOL 1

TURRUM-4 W1069

DEPT. NAT. RES & ENV



PE906492



**Schlumberger**

W1069

Schlumberger

**PETROLEUM DIVISION**

ESSO AUSTRALIA LTD

**16 MAR 1993**

SONIC CALIBRATION  
AND GEOGRAM  
PROCESSING REPORT

TURRUM 4

FIELD : TURRUM

COUNTRY : AUSTRALIA

COORDINATES : 38° 27' 8" S  
148° 26' 2" E

DATE OF SURVEY : 10 SEP 1992

REFERENCE NO. : SYJ-560827

INTERVAL : 2772.0 - 196.0 M

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## 1. Introduction

A checkshot survey of the TURRUM #4 well has been used to calibrate the sonic log and generate synthetic seismograms using 20,25,35 hertz zero phase Ricker wavelets with a -90 degrees phase shift. The final presentation includes synthetic seismograms, at 40 cm/sec as well as a drift corrected sonic plot and a seismic calibration log.

## 2. Data Acquisition

The data was acquired with the CSAT acquisition tool. Recording was made on the MAXIS Unit using DLIS format.

Table 1: Survey Parameters

Datum	MSL
Elevation KB	23 metres AMSL
Elevation GL	63.0 metres below MSL
Total Depth	2772 metres below KB
Energy Source	Airgun
Source Offset	69 metres
Source Depth	10 metre below MSL
Source Azimuth	118°
Reference Sensor	Hydrophone
Hydrophone Offset	69 metres
Hydrophone Depth	17 metres below MSL
Hydrophone Azimuth	118°

### 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.

For a negative drift  $\frac{\Delta drift}{\Delta depth} < 0$ , the sonic time is greater than the seismic time over a certain section of the log.

For a positive drift  $\frac{\Delta drift}{\Delta depth} > 0$ , 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  $\mu\text{sec}/\text{ft}$ .
2.  **$\Delta T$  Minimum** In the case of negative drift a second method is used, called  $\Delta t$  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  $\Delta t$  values which are higher than a threshold, the  $\Delta t_{min}$ . Values of  $\Delta t$  which are lower than the threshold are not corrected. The correction is a reduction of the excess of  $\Delta t$  over  $\Delta t_{min}$ ,  $\Delta t - \Delta t_{min}$ .

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

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

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  $\Delta t$  and  $\Delta t_{min}$ , 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 Correction to Datum**

The corrected sonic log is indexed to true vertical depth and referenced to mean sea level. Static corrections are applied to correct for source offset and source depth by assuming a water velocity of 1524 metres/sec.

### **3.3 Open Hole Logs**

The sonic log has been recorded from 2772.0 to 196.0 metres below KB. The overall log quality is good with small zones having been patched out. A density log was recorded from TD up to 1888 metres and is extrapolated to the surface with a constant density value.

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

### **3.4 Sonic Calibration Results**

The top of the sonic log (196 metres below KB) is chosen as the origin for the calibration drift curve. The drift curve indicates a number of corrections to be made to 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 in the adjusted sonic parameter report.

## 4. Synthetic Seismogram Processing

GEOGRAM plots were generated using 20,25,35 HZ zero phase Ricker wavelets with a negative 90 degrees phase shift .

The presentations include both normal and reverse polarity on a time scale of 40cm/sec.

GEOGRAM processing produces synthetic seismic traces based on reflection coefficients generated from 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 from 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 mil-lisecs). Reflection coefficients are then computed using:

$$R = \frac{\rho_2 \cdot \nu_2 - \rho_1 \cdot \nu_1}{\rho_2 \cdot \nu_2 + \rho_1 \cdot \nu_1}$$

where:

- $\rho_1$  = density of the layer above the reflection interface
- $\rho_2$  = density of the layer below the reflection interface
- $\nu_1$  = compressional wave velocity of the layer above the reflection interface
- $\nu_2$  = 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:

$$A_n = (1 - R_1^2) \cdot (1 - R_2^2) \cdot (1 - R_3^2) \dots (1 - R_n^2)$$

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

$$Primary_n = R_n \cdot A_{n-1}$$

### 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 from the above result we obtain multiples only.

### 4.6 Wavelet

A theoretical wavelet is chosen to use for convolution with the reflection coefficients previously 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.



## 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 meters from kelly bushing .
3. Vertical depth from SRD : *dsrd*, the depth in meters from seismic reference datum.
4. Vertical depth from GL : *dgl*, the depth in meters from ground level.
5. Observed travel time HYD to GEO : *tim0*, the transit time picked from the stacked data by subtracting the surface sensor first break time from the downhole sensor first break time.
6. Vertical travel time SRC to GEO : *timv*, is corrected for source to hydrophone distance and for source offset.
7. Vertical travel time SRD to GEO : *shtm*, is *timv* corrected for the vertical distance between source and datum.
8. Average velocity SRD to GEO : the average seismic velocity from datum to the corresponding checkshot level,  $\frac{dsrd}{shtm}$ .
9. Delta depth between shots :  $\Delta depth$ , the vertical distance between each level.
10. Delta time between shots :  $\Delta time$ , the difference in vertical travel time (*shtm*) between each level.
11. 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 meters from kelly bushing .
3. Vertical depth from SRD : the depth in meters from seismic reference datum.
4. Vertical depth from GL : the depth in meters from ground level.
5. Vertical travel time SRD to GEO : the calculated vertical travel time from datum to downhole geophone (see column 7, Geophysical Airgun Report).

6. 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.
7. Computed drift at level : the checkshot time minus the integrated raw sonic time.
8. Computed blk-shft correction : the drift gradient between any two checkshot levels ( $\frac{\Delta drift}{\Delta depth}$ ).

### 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 meters from kelly bushing .
3. Vertical depth from SRD : the depth in meters from seismic reference datum.
4. Vertical depth from GL : the depth in meters from ground level.
5. Drift at knee : the value of drift imposed at each knee.
6. Blockshift used : the change in drift divided by the change in depth between any two levels.
7. Delta-T minimum used : see section 4 of report for an explanation of  $\Delta t_{min}$ .
8. Reduction factor : see section 4 of report.
9. 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 meters from kelly bushing .
3. Vertical depth from SRD : the depth in meters from seismic reference datum
4. Vertical depth from GL : the depth in meters from ground level
5. Vertical travel time SRD to GEOPH : the vertical travel time from SRD to downhole geophone (see column 7, Geophysical Airgun Report)
6. Integrated adjusted sonic time : the adjusted sonic log is integrated from top to bottom. An initial value at the the top of the sonic is set equal the checkshot time at that level. (The adjusted sonic log is the drift corrected sonic log.)

7. Drift=shot time-raw sonic : the check shot time minus the raw integrated sonic time.
8. 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.
9. 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 milliseconds) and the sampling rate is 2 milliseconds.
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.

$$v_{rms} = \sqrt{\frac{\sum_1^n v_i^2 t_i}{\sum_1^n t_i}}$$

where  $v_i$  is the velocity between each 2 milliseconds interval.

6. First normal moveout : the correction time in milliseconds to be applied to the two way travel time for a specified moveout distance (default = 3000 feet).

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

where:

$$\begin{aligned} \Delta t &= \text{normal moveout (secs)} \\ X &= \text{moveout distance (meters )} \\ t &= \text{two way time (secs)} \\ v_{rms} &= \text{rms velocity (meters /sec)} \end{aligned}$$

7. Second normal moveout : the correction time in milliseconds to be applied to the two way travel time for a specified moveout distance (default = 4500 feet).
8. Third normal moveout : the correction time in milliseconds to be applied to the two way travel time for a specified moveout distance (default = 6000 feet).

9. Interval velocity : the velocity between each sampled depth. Typically, the sampling rate is 2 milliseconds two way time, (1 millisecond one way time) therefore the interval velocity will be equal to the depth increment divided by 0.001. It is equivalent to column 9 from the the Velocity Report.

# SCHLUMBERGER (SEG-1976) WAVELET POLARITY CONVENTION

Figure 1

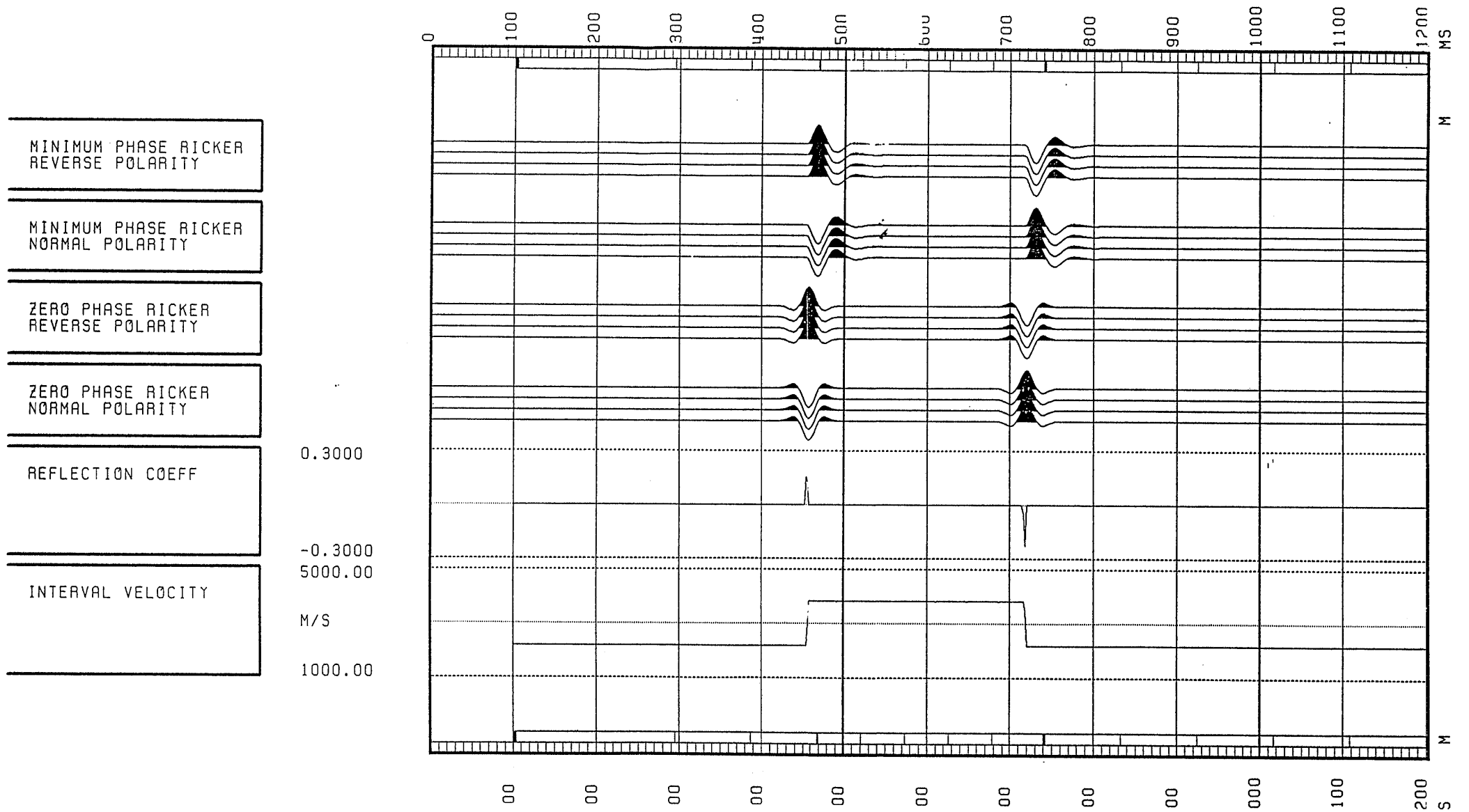
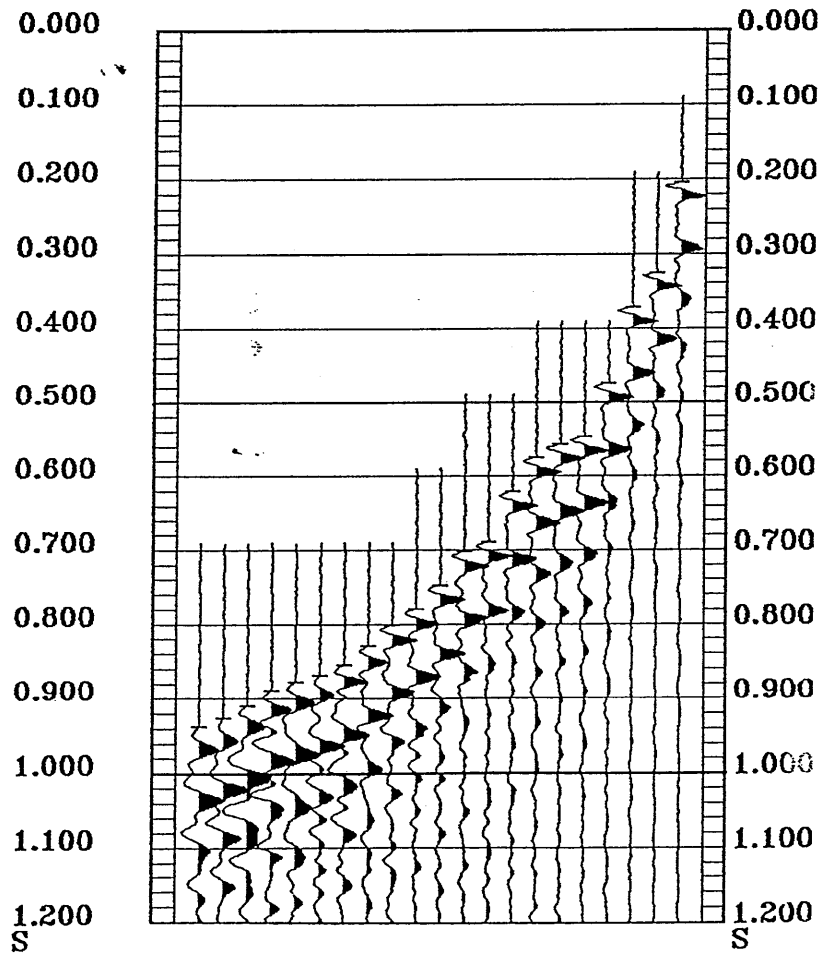


FIGURE 2

CLIENT = ESSO AUSTRALIA LTD.  
 FIELD = OUTPOST  
 WELL = TURRUM-4

RAW DEPTH	TRANSIT TIME	LEVEL NO
447.0	0.204	21
780.0	0.325	20
925.0	0.372	19
1243.0	0.474	18
1495.0	0.548	17
1528.0	0.557	16
1581.0	0.575	15
1726.0	0.621	14
1919.0	0.688	13
1963.0	0.702	12
2109.5	0.747	11
2220.5	0.779	10
2239.5	0.801	9
2339.0	0.829	8
2487.0	0.854	7
2534.0	0.868	6
2564.0	0.877	5
2600.0	0.888	4
2668.0	0.908	3
2731.4	0.924	2
2772.0	0.937	1



**LIST OF ENCLOSURES**

Drift Corrected Sonic

Seismic Calibration Log

25 hz zero phase Geogram with -90 degrees phase shift 40 cm/sec

35 hz zero phase Geogram with -90 degrees phase shift 40 cm/sec

45 hz zero phase Geogram with -90 degrees phase shift 40 cm/sec

Figure 1. Wavelet Polarity Convention.

Figure 2. Stacked Data.

SHOTS



ANALYST: T. BOWMAN

14-SEP-92 23:00:33

PROGRAM: GSHOT 007.E08

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*****  
*                                     *  
*                                     *  
*                                     *  
*****  
*          SCHLUMBERGER          *  
*                                     *  
*****
```

GEOPHYSICAL AIRGUN REPORT

COMPANY : ESSO AUSTRALIA LTD  
WELL : TURRUM #4  
FIELD : OUTPOST  
STATE : VICTORIA  
COUNTRY : AUSTRALIA  
REFERENCE: 560827  
LOGGED : 10-SEP-92

## 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 BOREHOLE AXIS IN EW DIRECTION (CF. GUNELZ)  
 HYDNSZ - HYDROPHONE DISTANCE FROM THE BOREHOLE AXIS IN NS DIRECTION (CF. GUNELZ)  
 TRTHYD - TRAVEL TIME FROM THE HYDROPHONE TO THE SOURCE  
 TRTSRD - TRAVEL TIME FROM THE SOURCE TO THE SRD  
 DEWVWEL - 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	:	23.0000	M
ELEV OF SRD AB. MSL (WST)	SRD	:	0	M
ELEVATION OF KELLY BUSHING	EKB	:	23.0000	M
ELEV OF GL AB. SRD (WST)	GL	:	-63.0000	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	-10.00	60.92	-32.39	-17.00	60.92	-32.39

	TRT HYD-SC MS	TRT SC-SRD MS
1	4.59	6.56

	MD @ KB M	VD @ KB M	VD @ SRD M	E-W COORD M	N-S COORD M
1	86.00	86.00	63.00	0	0
2	196.14	196.14	173.14	0	0
3	447.00	447.00	424.00	0	0
4	780.00	780.00	757.00	0	0
5	925.00	925.00	902.00	0	0
6	1243.00	1243.00	1220.00	0	0
7	1495.00	1495.00	1472.00	0	0
8	1528.00	1528.00	1505.00	0	0
9	1581.00	1581.00	1558.00	0	0
10	1725.00	1725.00	1702.00	0	0
11	1919.00	1919.00	1896.00	0	0
12	1963.00	1963.00	1940.00	0	0
13	2109.50	2109.50	2086.50	0	0
14	2220.50	2220.50	2197.50	0	0
15	2299.50	2299.50	2276.50	0	0
16	2399.00	2399.00	2376.00	0	0
17	2487.00	2487.00	2464.00	0	0
18	2534.00	2534.00	2511.00	0	0
19	2564.00	2564.00	2541.00	0	0
20	2600.00	2600.00	2577.00	0	0
21	2668.00	2668.00	2645.00	0	0
22	2731.40	2731.40	2708.40	0	0
23	2772.00	2772.00	2749.00	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	86.00	63.00	0	52.49	34.77	41.33	1524			
2	196.14	173.14	110.14	95.00	91.73	98.29	1762	110.14	56.95	1934
3	447.00	424.00	361.00	204.09	205.84	212.41	1996	250.86	114.12	2198
4	780.00	757.00	694.00	325.05	328.25	334.81	2261	333.00	122.40	2721
5	925.00	902.00	839.00	371.64	375.11	381.67	2363	145.00	46.87	3094
6	1243.00	1220.00	1157.00	474.23	478.05	484.61	2517	318.00	102.93	3089
7	1495.00	1472.00	1409.00	546.26	550.24	556.80	2644	252.00	72.19	3491
8	1528.00	1505.00	1442.00	556.79	560.79	567.35	2653	33.00	10.55	3129
9	1581.00	1558.00	1495.00	574.62	578.64	585.20	2662	53.00	17.85	2969
10	1725.00	1702.00	1639.00	620.50	624.57	631.14	2697	144.00	45.94	3135
11	1919.00	1896.00	1833.00	688.32	692.45	699.01	2712	194.00	67.88	2858
12	1963.00	1940.00	1877.00	701.62	705.76	712.32	2723	44.00	13.31	3305
13	2109.50	2086.50	2023.50	746.56	750.74	757.30	2755	146.50	44.98	3257
14	2220.50	2197.50	2134.50	778.62	782.82	789.39	2784	111.00	32.09	3460
15	2299.50	2276.50	2213.50	800.67	804.89	811.45	2805	79.00	22.07	3580
16	2399.00	2376.00	2313.00	828.93	833.17	839.73	2829	99.50	28.28	3519
17	2487.00	2464.00	2401.00	853.84	858.09	864.66	2850	88.00	24.93	3531
18	2534.00	2511.00	2448.00	868.14	872.40	878.96	2857	47.00	14.31	3285
19	2564.00	2541.00	2478.00	876.97	881.24	887.80	2862	30.00	8.83	3396
20	2600.00	2577.00	2514.00	888.25	892.52	899.08	2866	36.00	11.29	3190
21	2668.00	2645.00	2582.00	907.89	912.17	918.73	2879	68.00	19.65	3461
22	2731.40	2708.40	2645.40	924.43	928.72	935.28	2896	63.40	16.55	3831
23	2772.00	2749.00	2686.00	936.60	940.89	947.46	2901	40.60	12.18	3335

DRIIFT

DRIIFT

ANALYST: T. BOWMAN

14-SEP-92 23:02:29

PROGRAM: GDRIFT 007.E09

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*****  
*                                     *  
*                                     *  
*                                     *  
*                                     *  
*          SCHLUMBERGER              *  
*                                     *  
*                                     *  
*****
```

DRIFT COMPUTATION REPORT

COMPANY : ESSO AUSTRALIA LTD  
WELL : TURRUM #4  
FIELD : OUTPOST  
STATE : VICTORIA  
COUNTRY : AUSTRALIA  
REFERENCE: 560827  
LOGGED : 10-SEP-92

## 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)  
 RAW - RAW SONIC (WST)  
 SHDR - DRIFT AT SHOT OR KNEE  
 BL - BLOCK SHIFT BETWEEN SHOTS OR KNEE

## (GLOBAL PARAMETERS)

## (VALUE)

ELEV OF KB AB. MSL (WST)	KB	:	23.0000	M
ELEV OF SRD AB. MSL (WST)	SRD	:	0	M
ELEVATION OF KELLY BUSHI	EKB	:	23.0000	M
ELEV OF GL AB. SRD (WST)	GL	:	-63.0000	M
TOP OF ZONE PROCD (WST)	XSTART	:	0	M
BOT OF ZONE PROCD (WST)	XSTOP	:	0	M
RAW SONIC CH NAME (WST)	GAD001	:	DT.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/F
1	86.00	63.00	0	41.33	41.33	0	0
2	196.14	173.14	110.14	98.29	98.29	0	0
3	447.00	424.00	361.00	212.41	209.24	3.17	3.85
4	780.00	757.00	694.00	334.81	328.96	5.85	2.46
5	925.00	902.00	839.00	381.67	374.64	7.04	2.49
6	1243.00	1220.00	1157.00	484.61	472.97	11.64	4.41
7	1495.00	1472.00	1409.00	556.80	542.93	13.88	2.71
8	1528.00	1505.00	1442.00	567.35	552.63	14.72	7.80
9	1581.00	1558.00	1495.00	585.20	569.88	15.32	3.44
10	1725.00	1702.00	1639.00	631.14	613.72	17.42	4.44
11	1919.00	1896.00	1833.00	699.01	679.67	19.34	3.02
12	1963.00	1940.00	1877.00	712.32	692.77	19.55	1.48
13	2109.50	2086.50	2023.50	757.30	735.94	21.36	3.76
14	2220.50	2197.50	2134.50	789.39	767.13	22.25	2.45
15	2299.50	2276.50	2213.50	811.45	788.81	22.64	1.49
16	2399.00	2376.00	2313.00	839.73	816.02	23.71	3.28
17	2487.00	2464.00	2401.00	864.66	840.13	24.52	2.81
18	2534.00	2511.00	2448.00	878.96	854.01	24.96	2.82
19	2564.00	2541.00	2478.00	887.80	862.07	25.72	7.78
20	2600.00	2577.00	2514.00	899.08	872.02	27.06	11.35
21	2668.00	2645.00	2582.00	918.73	890.79	27.94	3.94
22	2731.40	2708.40	2645.40	935.28	908.35	26.93	-4.87
23	2772.00	2749.00	2686.00	947.46	918.37	29.09	16.21



## 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	:	23.0000	M
ELEV OF SRD AB. MSL(WST)	SRD	:	0	M
ELEVATION OF KELLY BUSHI	EKB	:	23.0000	M
ELEV OF GL AB. SRD(WST)	GL	:	-63.0000	M
UNIFORM EARTH VELOCITY	UNERTH	:	1524.00	M/S

## (ZONED PARAMETERS)

## (VALUE)

## (LIMITS)

LAYER OPTION FLAG VELOC	LOFVEL	:	1.000000		30479.7	-	0
USER VELOC (WST)	LAYVEL	:	1934.000	M/S	196.140	-	86.0000
			1524.000		86.0000		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
1	86.00	63.00	0	41.33	41.33	0	0	1524
2	196.14	173.14	110.14	98.29	98.29	0	0	1934
3	447.00	424.00	361.00	212.41	211.74	3.17	.67	2211
4	780.00	757.00	694.00	334.81	334.77	5.85	.04	2707
5	925.00	902.00	839.00	381.67	382.17	7.04	-.50	3059
6	1243.00	1220.00	1157.00	484.61	484.29	11.64	.32	3114
7	1495.00	1472.00	1409.00	556.80	557.25	13.88	-.45	3454
8	1528.00	1505.00	1442.00	567.35	567.34	14.72	.01	3270
9	1581.00	1558.00	1495.00	585.20	585.14	15.32	.06	2978
10	1725.00	1702.00	1639.00	631.14	630.45	17.42	.69	3178
11	1919.00	1896.00	1833.00	699.01	698.38	19.34	.63	2856
12	1963.00	1940.00	1877.00	712.32	711.93	19.55	.39	3248
13	2109.50	2086.50	2023.50	757.30	756.60	21.36	.70	3280
14	2220.50	2197.50	2134.50	789.39	788.93	22.25	.46	3434
15	2299.50	2276.50	2213.50	811.45	811.42	22.64	.03	3513
16	2399.00	2376.00	2313.00	839.73	839.99	23.71	-.26	3483
17	2487.00	2464.00	2401.00	864.66	865.31	24.52	-.65	3475
18	2534.00	2511.00	2448.00	878.96	879.83	24.96	-.87	3237
19	2564.00	2541.00	2478.00	887.80	888.31	25.72	-.51	3537
20	2600.00	2577.00	2514.00	899.08	898.75	27.06	.34	3450
21	2668.00	2645.00	2582.00	918.73	918.45	27.94	.23	3451
22	2731.40	2708.40	2645.40	935.28	936.88	26.93	-1.60	3440
23	2772.00	2749.00	2686.00	947.46	947.50	29.09	-.04	3825

ANALYST: T. BOWMAN

14-SEP-92 23:24:16

PROGRAM: GADJST 008.E08

```
*****  
*                                     *  
*                                     *  
*                                     *  
*****  
*                                     *  
*   SCHLUMBERGER                     *  
*                                     *  
*****
```

SONIC ADJUSTMENT PARAMETER REPORT

COMPANY : ESSO AUSTRALIA LTD  
WELL : TURRUM #4  
FIELD : OUTPOST  
STATE : VICTORIA  
COUNTRY : AUSTRALIA  
REFERENCE: 560827  
LOGGED : 10-SEP-92

ANALYST: T. BOWMAN

14-SEP-92 23:24:16

PROGRAM: GADJST 008.E08

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*****  
*                                     *  
*                                     *  
*                                     *  
*****  
*          SCHLUMBERGER          *  
*                                     *  
*****
```

SONIC ADJUSTMENT PARAMETER REPORT

COMPANY : ESSO AUSTRALIA LTD  
WELL : TURRUM #4  
FIELD : OUTPOST  
STATE : VICTORIA  
COUNTRY : AUSTRALIA  
REFERENCE: 560827  
LOGGED : 10-SEP-92

## 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 ADJUSTMENT 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	:	7.50000	US/F
UNIFORM EARTH VELOCITY	UNERTH	:	1524.00	M/S

## (ZONED PARAMETERS)

## (VALUE)

## (LIMITS)

USER DRIFT ZONE (WST)	ZDRIFT	:	29.09000	MS	2772.00	-	2299.00
			22.60000		2299.00		1526.50
			14.70000		1526.50		779.000
			5.800000		779.000		196.140
			0		196.140		0
ADJUSMNT MODE (WST)	ADJOPZ	:	-999.2500		30479.7	-	0
			-999.2500	US/F	30479.7		0
USER DELTA-T MIN (WST)	ADJUSZ	:	1.000000		30479.7	-	0
			1.000000		30479.7		0
LAYER OPTION FLAG VELOC	LOFVEL	:	1934.000	M/S	196.140	-	86.0000
			1524.000		86.0000		0

COMPANY : ESSO AUSTRALIA LTD

WELL : TURRUM #4

PAGE 2

KNEE NUMBER	VERTICAL DEPTH FROM KB M	VERTICAL DEPTH FROM SRD M	VERTICAL DEPTH FROM GL M	DRIFT AT KNEE MS	BLOCKSHIFT USED US/F	DELTA-T MINIMUM USED US/F	REDUCTION FACTOR G	EQUIVALENT BLOCKSHIFT US/F
2	196.14	173.14	110.14	0	0			0
3	779.00	756.00	693.00	5.80	3.03			3.03
4	1526.50	1503.50	1440.50	14.70	3.63			3.63
5	2299.00	2276.00	2213.00	22.60	3.12			3.12
6	2772.00	2749.00	2686.00	29.09	4.18			4.18

ANALYST: T. BOWMAN

14-SEP-92 23:24:24

PROGRAM: GADJST 008.E08

```
*****  
*                                     *  
*                                     *  
*                                     *  
*****  
*          SCHLUMBERGER          *  
*                                     *  
*                                     *  
*****
```

VELOCITY REPORT

COMPANY : ESSO AUSTRALIA LTD  
WELL : TURRUM #4  
FIELD : OUTPOST  
STATE : VICTORIA  
COUNTRY : AUSTRALIA  
REFERENCE: 560827  
LOGGED : 10-SEP-92

ANALYST: T. BOWMAN

14-SEP-92 23:24:24

PROGRAM: GADJST 008.E08

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*****  
*                                     *  
*                                     *  
*                                     *  
*                                     *  
*                                     *  
*          SCHLUMBERGER              *  
*                                     *  
*                                     *  
*****
```

VELOCITY REPORT

COMPANY : ESSO AUSTRALIA LTD  
WELL : TURRUM #4  
FIELD : OUTPOST  
STATE : VICTORIA  
COUNTRY : AUSTRALIA  
REFERENCE: 560827  
LOGGED : 10-SEP-92



TIME-DEPTH

ANALYST: T. BOWMAN

14-SEP-92 23:26:21

PROGRAM: GTRFRM 001.E12

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*****  
*                                     *  
*                                     *  
*                                     *  
*****  
*                                     *  
*   SCHLUMBERGER                     *  
*                                     *  
*****
```

TIME CONVERTED VELOCITY REPORT

COMPANY : ESSO AUSTRALIA LTD  
WELL : TURRUM #4  
FIELD : OUTPOST  
STATE : VICTORIA  
COUNTRY : AUSTRALIA  
REFERENCE: 560827  
LOGGED : 10-SEP-92

## 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	:	23.0000	M
ELEV OF SRD AB. MSL(WST)	SRD	:	0	M
ELEV OF GL AB. SRD(WST)	GL	:	-63.0000	M
UNIFORM EARTH VELOCITY	UNERTH	:	1524.00	M/S
UNIFORM DENSITY VALUE	UNFDEN	:	2.30000	G/C3

## (MATRIX PARAMETERS)

MVOUT DIST	
M	
1	1000.0
2	1500.0
3	2000.0

COMPANY : ESSO AUSTRALIA LTD

WELL : TURRUM #4

PAGE 2

(ZONED PARAMETERS)		(VALUE)	(LIMITS)
LAYER OPTION FLAG VELOC	LOFVEL	: 1.000000	30479.7 - 0
USER VELOC (WST)	LAYVEL	: 1934.000 M/S	196.140 - 86.0000
		1524.000	86.0000 0
LAYER OPTION FLAG DENS	LOFDEN	: -1.000000	30479.7 - 0
USER SUPPLIED DENSITY DA	LAYDEN	: 0 G/C3	0 - 0

COMPANY : ESSO AUSTRALIA LTD

WELL : TURRUM #4

PAGE 3

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
2.00	24.52	1.52	1524	1524	654.17	982.25	1310.34	1524
4.00	26.05	3.05	1524	1524	652.18	980.26	1308.34	1524
6.00	27.57	4.57	1524	1524	650.20	978.27	1306.35	1524
8.00	29.10	6.10	1524	1524	648.22	976.28	1304.36	1524
10.00	30.62	7.62	1524	1524	646.24	974.30	1302.37	1524
12.00	32.14	9.14	1524	1524	644.28	972.32	1300.39	1524
14.00	33.67	10.67	1524	1524	642.32	970.35	1298.41	1524
16.00	35.19	12.19	1524	1524	640.36	968.38	1296.43	1524
18.00	36.72	13.72	1524	1524	638.41	966.42	1294.46	1524
20.00	38.24	15.24	1524	1524	636.47	964.46	1292.49	1524
22.00	39.76	16.76	1524	1524	634.54	962.50	1290.52	1524
24.00	41.29	18.29	1524	1524	632.61	960.54	1288.56	1524
26.00	42.81	19.81	1524	1524	630.68	958.60	1286.59	1524
28.00	44.34	21.34	1524	1524	628.77	956.65	1284.63	1524
30.00	45.86	22.86	1524	1524	626.85	954.71	1282.68	1524
32.00	47.38	24.38	1524	1524	624.95	952.77	1280.73	1524
34.00	48.91	25.91	1524	1524	623.05	950.84	1278.78	1524
36.00	50.43	27.43	1524	1524	621.15	948.91	1276.83	1524
38.00	51.96	28.96	1524	1524	619.27	946.99	1274.89	1524
40.00	53.48	30.48	1524	1524	617.39	945.06	1272.95	1524
42.00	55.00	32.00	1524	1524	615.51	943.15	1271.01	1524
44.00	56.53	33.53	1524	1524	613.64	941.24	1269.07	1524
46.00	58.05	35.05	1524	1524	611.78	939.33	1267.14	1524
48.00	59.58	36.58	1524	1524	609.92	937.42	1265.21	1524

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
50.00	61.10	38.10	1524	1524	608.07	935.52	1263.29	1524
52.00	62.62	39.62	1524	1524	606.23	933.62	1261.37	1524
54.00	64.15	41.15	1524	1524	604.39	931.73	1259.45	1524
56.00	65.67	42.67	1524	1524	602.55	929.84	1257.53	1524
58.00	67.20	44.20	1524	1524	600.73	927.96	1255.62	1524
60.00	68.72	45.72	1524	1524	598.91	926.08	1253.71	1524
62.00	70.24	47.24	1524	1524	597.09	924.20	1251.80	1524
64.00	71.77	48.77	1524	1524	595.28	922.33	1249.90	1524
66.00	73.29	50.29	1524	1524	593.48	920.46	1247.99	1524
68.00	74.82	51.82	1524	1524	591.68	918.60	1246.10	1524
70.00	76.34	53.34	1524	1524	589.89	916.74	1244.20	1524
72.00	77.86	54.86	1524	1524	588.11	914.88	1242.31	1524
74.00	79.39	56.39	1524	1524	586.33	913.03	1240.42	1524
76.00	80.91	57.91	1524	1524	584.55	911.18	1238.53	1524
78.00	82.44	59.44	1524	1524	582.79	909.34	1236.65	1524
80.00	83.96	60.96	1524	1524	581.03	907.50	1234.77	1524
82.00	85.48	62.48	1524	1524	579.27	905.66	1232.90	1811
84.00	87.29	64.29	1531	1531	574.35	899.06	1224.65	1934
86.00	89.23	66.23	1540	1542	568.18	890.55	1213.86	1934
88.00	91.16	68.16	1549	1552	562.31	882.49	1203.65	1934
90.00	93.10	70.10	1558	1562	556.70	874.81	1193.97	1934
92.00	95.03	72.03	1566	1571	551.33	867.50	1184.76	1934
94.00	96.96	73.96	1574	1579	546.19	860.52	1175.99	1934
96.00	98.90	75.90	1581	1587	541.26	853.84	1167.62	1934

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
98.00	100.83	77.83	1588	1595	536.51	847.43	1159.61	1934
100.00	102.77	79.77	1595	1603	531.93	841.28	1151.94	1934
102.00	104.70	81.70	1602	1610	527.52	835.36	1144.58	1934
104.00	106.63	83.63	1608	1617	523.25	829.66	1137.50	1934
106.00	108.57	85.57	1614	1623	519.12	824.16	1130.69	1934
108.00	110.50	87.50	1620	1629	515.12	818.85	1124.12	1934
110.00	112.43	89.43	1626	1636	511.24	813.71	1117.79	1934
112.00	114.37	91.37	1632	1641	507.47	808.73	1111.66	1934
114.00	116.30	93.30	1637	1647	503.81	803.90	1105.74	1934
116.00	118.24	95.24	1642	1652	500.24	799.22	1100.00	1934
118.00	120.17	97.17	1647	1657	496.77	794.67	1094.43	1934
120.00	122.10	99.10	1652	1662	493.38	790.24	1089.03	1934
122.00	124.04	101.04	1656	1667	490.08	785.93	1083.78	1934
124.00	125.97	102.97	1661	1672	486.85	781.72	1078.67	1934
126.00	127.91	104.91	1665	1676	483.69	777.63	1073.70	1934
128.00	129.84	106.84	1669	1681	480.61	773.63	1068.86	1934
130.00	131.77	108.77	1673	1685	477.59	769.72	1064.14	1934
132.00	133.71	110.71	1677	1689	474.63	765.90	1059.53	1934
134.00	135.64	112.64	1681	1693	471.74	762.17	1055.03	1934
136.00	137.58	114.58	1685	1697	468.89	758.51	1050.63	1934
138.00	139.51	116.51	1689	1700	466.11	754.93	1046.33	1934
140.00	141.44	118.44	1692	1704	463.37	751.42	1042.13	1934
142.00	143.38	120.38	1695	1707	460.68	747.98	1038.01	1934
144.00	145.31	122.31	1699	1711	458.04	744.60	1033.97	1934

COMPANY : ESSO AUSTRALIA LTD

WELL : TURRUM #4

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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
146.00	147.24	124.24	1702	1714	455.45	741.28	1030.02	1934
148.00	149.18	126.18	1705	1717	452.90	738.03	1026.14	1934
150.00	151.11	128.11	1708	1720	450.39	734.83	1022.33	1934
152.00	153.05	130.05	1711	1723	447.91	731.68	1018.59	1934
154.00	154.98	131.98	1714	1726	445.48	728.59	1014.92	1934
156.00	156.91	133.91	1717	1729	443.09	725.54	1011.31	1934
158.00	158.85	135.85	1720	1732	440.72	722.54	1007.76	1934
160.00	160.78	137.78	1722	1734	438.40	719.59	1004.27	1934
162.00	162.72	139.72	1725	1737	436.10	716.68	1000.83	1934
164.00	164.65	141.65	1727	1739	433.84	713.82	997.45	1934
166.00	166.58	143.58	1730	1742	431.61	710.99	994.12	1934
168.00	168.52	145.52	1732	1744	429.41	708.20	990.84	1934
170.00	170.45	147.45	1735	1747	427.23	705.45	987.60	1934
172.00	172.38	149.38	1737	1749	425.09	702.74	984.41	1934
174.00	174.32	151.32	1739	1751	422.97	700.06	981.27	1934
176.00	176.25	153.25	1742	1753	420.87	697.42	978.17	1934
178.00	178.19	155.19	1744	1755	418.81	694.81	975.11	1934
180.00	180.12	157.12	1746	1758	416.76	692.23	972.08	1934
182.00	182.05	159.05	1748	1760	414.74	689.68	969.10	1934
184.00	183.99	160.99	1750	1762	412.75	687.16	966.15	1934
186.00	185.92	162.92	1752	1764	410.77	684.67	963.24	1934
188.00	187.86	164.86	1754	1765	408.82	682.20	960.36	1934
190.00	189.79	166.79	1756	1767	406.89	679.77	957.52	1934
192.00	191.72	168.72	1758	1769	404.98	677.36	954.71	1934



COMPANY : ESSO AUSTRALIA LTD

WELL : TURRUM #4

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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
194.00	193.66	170.66	1759	1771	403.09	674.97	951.92	1934
196.00	195.59	172.59	1761	1773	401.22	672.61	949.17	1934
198.00	197.47	174.47	1762	1774	399.54	670.54	946.82	1880
200.00	199.41	176.41	1764	1775	397.68	668.19	944.08	1940
202.00	201.59	178.59	1768	1780	395.05	664.63	939.69	2175
204.00	203.58	180.58	1770	1782	393.08	662.09	936.69	1990
206.00	205.55	182.55	1772	1784	391.20	659.68	933.86	1971
208.00	207.53	184.53	1774	1786	389.29	657.23	930.96	1985
210.00	209.53	186.53	1776	1788	387.38	654.76	928.04	1994
212.00	211.56	188.56	1779	1791	385.37	652.14	924.91	2031
214.00	213.60	190.60	1781	1793	383.34	649.48	921.74	2044
216.00	215.72	192.72	1784	1796	381.12	646.51	918.12	2117
218.00	217.87	194.87	1788	1800	378.80	643.38	914.30	2157
220.00	219.98	196.98	1791	1803	376.66	640.52	910.84	2110
222.00	222.05	199.05	1793	1806	374.69	637.93	907.73	2061
224.00	224.13	201.13	1796	1808	372.67	635.25	904.51	2085
226.00	226.17	203.17	1798	1810	370.81	632.81	901.60	2040
228.00	228.31	205.31	1801	1814	368.67	629.93	898.10	2144
230.00	230.42	207.42	1804	1816	366.68	627.28	894.90	2102
232.00	232.52	209.52	1806	1819	364.71	624.65	891.73	2103
234.00	234.60	211.60	1809	1821	362.82	622.16	888.73	2080
236.00	236.69	213.69	1811	1824	360.95	619.66	885.74	2086
238.00	238.81	215.81	1814	1827	358.99	617.03	882.55	2125
240.00	240.91	217.91	1816	1829	357.12	614.55	879.56	2097

COMPANY : ESSO AUSTRALIA LTD

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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
242.00	243.03	220.03	1818	1832	355.22	612.00	876.49	2119
244.00	245.09	222.09	1820	1834	353.48	609.69	873.72	2068
246.00	247.22	224.22	1823	1836	351.61	607.18	870.69	2123
248.00	249.37	226.37	1826	1839	349.68	604.57	867.52	2155
250.00	251.46	228.46	1828	1841	347.94	602.25	864.74	2089
252.00	253.51	230.51	1829	1843	346.31	600.10	862.18	2051
254.00	255.55	232.55	1831	1844	344.74	598.03	859.73	2033
256.00	257.60	234.60	1833	1846	343.12	595.89	857.18	2057
258.00	259.68	236.68	1835	1848	341.47	593.68	854.55	2080
260.00	261.77	238.77	1837	1850	339.82	591.48	851.90	2086
262.00	263.87	240.87	1839	1852	338.16	589.25	849.23	2098
264.00	265.97	242.97	1841	1854	336.50	587.01	846.54	2106
266.00	268.12	245.12	1843	1856	334.76	584.66	843.68	2145
268.00	270.30	247.30	1846	1859	332.96	582.18	840.66	2187
270.00	272.41	249.41	1848	1861	331.34	580.00	838.04	2108
272.00	274.58	251.58	1850	1863	329.63	577.66	835.19	2162
274.00	276.67	253.67	1852	1865	328.08	575.58	832.70	2091
276.00	278.78	255.78	1854	1867	326.50	573.43	830.11	2118
278.00	280.95	257.95	1856	1869	324.84	571.16	827.35	2161
280.00	283.17	260.17	1858	1872	323.07	568.70	824.33	2221
282.00	285.32	262.32	1860	1874	321.46	566.50	821.66	2153
284.00	287.45	264.45	1862	1876	319.91	564.39	819.11	2133
286.00	289.61	266.61	1864	1878	318.32	562.21	816.46	2158
288.00	291.81	268.81	1867	1881	316.67	559.92	813.66	2199



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
338.00	347.91	324.91	1923	1939	278.64	506.24	747.46	2312
340.00	350.20	327.20	1925	1941	277.24	504.22	744.95	2290
342.00	352.53	329.53	1927	1944	275.79	502.13	742.33	2327
344.00	354.84	331.84	1929	1946	274.39	500.09	739.79	2312
346.00	357.15	334.15	1931	1948	273.00	498.08	737.28	2308
348.00	359.46	336.46	1934	1951	271.62	496.07	734.77	2316
350.00	361.75	338.75	1936	1953	270.30	494.16	732.39	2284
352.00	364.06	341.06	1938	1955	268.95	492.19	729.94	2312
354.00	366.41	343.41	1940	1957	267.56	490.16	727.38	2350
356.00	368.74	345.74	1942	1960	266.20	488.18	724.90	2333
358.00	371.08	348.08	1945	1962	264.85	486.19	722.40	2344
360.00	373.45	350.45	1947	1964	263.48	484.18	719.87	2362
362.00	375.82	352.82	1949	1967	262.12	482.17	717.33	2370
364.00	378.14	355.14	1951	1969	260.82	480.27	714.95	2328
366.00	380.40	357.40	1953	1971	259.65	478.56	712.83	2251
368.00	382.63	359.63	1954	1972	258.50	476.90	710.78	2232
370.00	385.00	362.00	1957	1975	257.19	474.95	708.31	2372
372.00	387.35	364.35	1959	1977	255.91	473.06	705.93	2354
374.00	389.75	366.75	1961	1979	254.59	471.09	703.43	2396
376.00	392.06	369.06	1963	1981	253.39	469.32	701.21	2311
378.00	394.42	371.42	1965	1983	252.14	467.47	698.88	2356
380.00	396.75	373.75	1967	1985	250.94	465.69	696.64	2330
382.00	399.10	376.10	1969	1988	249.72	463.88	694.35	2355
384.00	401.47	378.47	1971	1990	248.50	462.06	692.04	2365

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
386.00	403.76	380.76	1973	1991	247.37	460.39	689.95	2297
388.00	406.10	383.10	1975	1993	246.21	458.65	687.75	2340
390.00	408.40	385.40	1976	1995	245.09	456.99	685.67	2301
392.00	410.77	387.77	1978	1997	243.91	455.22	683.43	2369
394.00	413.13	390.13	1980	1999	242.75	453.48	681.22	2359
396.00	415.47	392.47	1982	2001	241.63	451.80	679.09	2339
398.00	417.85	394.85	1984	2003	240.47	450.05	676.88	2376
400.00	420.24	397.24	1986	2005	239.30	448.29	674.63	2392
402.00	422.58	399.58	1988	2007	238.20	446.63	672.53	2345
404.00	424.90	401.90	1990	2009	237.14	445.04	670.52	2318
406.00	427.20	404.20	1991	2010	236.11	443.49	668.58	2298
408.00	429.52	406.52	1993	2012	235.06	441.92	666.58	2320
410.00	431.94	408.94	1995	2014	233.92	440.17	664.35	2419
412.00	434.36	411.36	1997	2016	232.78	438.43	662.12	2424
414.00	436.72	413.72	1999	2018	231.72	436.83	660.08	2355
416.00	438.99	415.99	2000	2019	230.77	435.39	658.27	2269
418.00	441.21	418.21	2001	2020	229.86	434.04	656.58	2227
420.00	443.30	420.30	2001	2021	229.10	432.93	655.22	2082
422.00	445.35	422.35	2002	2021	228.36	431.87	653.94	2051
424.00	447.61	424.61	2003	2022	227.44	430.47	652.18	2261
426.00	450.02	427.02	2005	2024	226.38	428.84	650.08	2408
428.00	452.35	429.35	2006	2025	225.40	427.34	648.18	2333
430.00	454.74	431.74	2008	2027	224.37	425.76	646.15	2392
432.00	457.05	434.05	2009	2029	223.43	424.33	644.34	2306

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
434.00	459.25	436.25	2010	2030	222.60	423.08	642.78	2200
436.00	461.64	438.64	2012	2031	221.60	421.53	640.78	2393
438.00	463.96	440.96	2014	2033	220.67	420.11	638.97	2317
440.00	466.26	443.26	2015	2034	219.76	418.72	637.20	2308
442.00	468.45	445.45	2016	2035	218.97	417.52	635.70	2189
444.00	470.70	447.70	2017	2036	218.13	416.24	634.08	2244
446.00	472.96	449.96	2018	2037	217.29	414.95	632.45	2258
448.00	475.44	452.44	2020	2039	216.23	413.30	630.29	2488
450.00	477.64	454.64	2021	2040	215.46	412.12	628.81	2198
452.00	479.89	456.89	2022	2041	214.63	410.86	627.21	2253
454.00	482.31	459.31	2023	2043	213.68	409.36	625.28	2410
456.00	484.60	461.60	2025	2044	212.84	408.06	623.61	2295
458.00	487.11	464.11	2027	2046	211.81	406.43	621.48	2505
460.00	489.48	466.48	2028	2048	210.91	405.02	619.66	2379
462.00	491.93	468.93	2030	2049	209.95	403.52	617.70	2444
464.00	494.36	471.36	2032	2051	209.02	402.04	615.79	2432
466.00	496.79	473.79	2033	2053	208.10	400.59	613.89	2426
468.00	499.32	476.32	2036	2055	207.09	398.98	611.78	2534
470.00	501.91	478.91	2038	2058	206.04	397.29	609.54	2594
472.00	504.56	481.56	2041	2061	204.95	395.52	607.20	2650
474.00	506.88	483.88	2042	2062	204.15	394.28	605.60	2313
476.00	509.41	486.41	2044	2064	203.18	392.72	603.55	2531
478.00	512.01	489.01	2046	2067	202.16	391.07	601.36	2606
480.00	514.56	491.56	2048	2069	201.20	389.53	599.32	2541

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
482.00	517.26	494.26	2051	2072	200.11	387.75	596.95	2703
484.00	519.80	496.80	2053	2074	199.17	386.24	594.95	2539
486.00	522.40	499.40	2055	2076	198.19	384.65	592.84	2599
488.00	524.93	501.93	2057	2079	197.28	383.17	590.89	2530
490.00	527.50	504.50	2059	2081	196.34	381.65	588.87	2569
492.00	530.07	507.07	2061	2083	195.41	380.14	586.86	2574
494.00	532.63	509.63	2063	2085	194.50	378.65	584.90	2560
496.00	535.26	512.26	2066	2088	193.54	377.08	582.80	2631
498.00	537.84	514.84	2068	2090	192.63	375.60	580.83	2575
500.00	540.55	517.55	2070	2093	191.62	373.94	578.59	2714
502.00	543.23	520.23	2073	2095	190.65	372.34	576.45	2680
504.00	545.81	522.81	2075	2097	189.77	370.89	574.52	2576
506.00	548.53	525.53	2077	2100	188.78	369.26	572.33	2720
508.00	551.18	528.18	2079	2103	187.86	367.74	570.28	2655
510.00	553.82	530.82	2082	2105	186.95	366.24	568.28	2642
512.00	556.43	533.43	2084	2107	186.08	364.80	566.35	2611
514.00	559.18	536.18	2086	2110	185.11	363.19	564.17	2745
516.00	561.80	538.80	2088	2112	184.25	361.76	562.26	2618
518.00	564.33	541.33	2090	2114	183.46	360.46	560.52	2531
520.00	566.93	543.93	2092	2116	182.62	359.08	558.66	2600
522.00	569.49	546.49	2094	2118	181.82	357.75	556.88	2569
524.00	572.05	549.05	2096	2120	181.03	356.44	555.14	2551
526.00	574.75	551.75	2098	2123	180.14	354.96	553.13	2705
528.00	577.60	554.60	2101	2126	179.16	353.29	550.86	2851

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
530.00	580.45	557.45	2104	2129	178.19	351.65	548.62	2845
532.00	582.82	559.82	2105	2130	177.54	350.60	547.23	2374
534.00	585.33	562.33	2106	2132	176.82	349.40	545.62	2513
536.00	587.84	564.84	2108	2133	176.10	348.21	544.03	2501
538.00	590.43	567.43	2109	2135	175.33	346.93	542.30	2598
540.00	593.23	570.23	2112	2138	174.43	345.40	540.22	2800
542.00	595.89	572.89	2114	2140	173.64	344.06	538.40	2660
544.00	598.69	575.69	2117	2143	172.76	342.57	536.36	2796
546.00	601.26	578.26	2118	2144	172.03	341.35	534.71	2571
548.00	603.79	580.79	2120	2146	171.34	340.19	533.15	2529
550.00	606.71	583.71	2123	2149	170.40	338.59	530.94	2915
552.00	609.51	586.51	2125	2152	169.55	337.13	528.95	2802
554.00	612.33	589.33	2128	2155	168.69	335.66	526.93	2827
556.00	615.20	592.20	2130	2158	167.82	334.16	524.85	2868
558.00	617.99	594.99	2133	2160	167.00	332.76	522.93	2787
560.00	620.87	597.87	2135	2163	166.13	331.27	520.87	2881
562.00	623.77	600.77	2138	2166	165.26	329.76	518.79	2899
564.00	626.61	603.61	2140	2169	164.43	328.34	516.82	2844
566.00	629.45	606.45	2143	2172	163.62	326.93	514.89	2835
568.00	632.37	609.37	2146	2175	162.76	325.45	512.82	2922
570.00	635.41	612.41	2149	2179	161.83	323.83	510.57	3040
572.00	638.14	615.14	2151	2181	161.11	322.58	508.85	2732
574.00	640.77	617.77	2153	2183	160.44	321.44	507.29	2629
576.00	643.56	620.56	2155	2185	159.70	320.15	505.51	2787



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
								2874
578.00	646.43	623.43	2157	2188	158.90	318.78	503.60	2790
580.00	649.22	626.22	2159	2190	158.17	317.50	501.84	2900
582.00	652.12	629.12	2162	2193	157.38	316.12	499.92	2821
584.00	654.94	631.94	2164	2195	156.64	314.84	498.13	2845
586.00	657.79	634.79	2167	2198	155.89	313.54	496.33	2838
588.00	660.63	637.63	2169	2200	155.16	312.25	494.54	2792
590.00	663.42	640.42	2171	2203	154.46	311.03	492.85	2825
592.00	666.24	643.24	2173	2205	153.74	309.78	491.11	2878
594.00	669.12	646.12	2175	2208	153.00	308.49	489.31	2946
596.00	672.07	649.07	2178	2211	152.24	307.14	487.42	2871
598.00	674.94	651.94	2180	2213	151.52	305.88	485.65	2870
600.00	677.81	654.81	2183	2216	150.81	304.63	483.90	2973
602.00	680.78	657.78	2185	2219	150.05	303.28	482.01	2988
604.00	683.77	660.77	2188	2222	149.29	301.94	480.12	2863
606.00	686.63	663.63	2190	2224	148.60	300.72	478.42	2939
608.00	689.57	666.57	2193	2227	147.88	299.45	476.63	2883
610.00	692.45	669.45	2195	2229	147.19	298.24	474.93	2874
612.00	695.33	672.33	2197	2232	146.52	297.04	473.25	3043
614.00	698.37	675.37	2200	2235	145.76	295.70	471.35	2860
616.00	701.23	678.23	2202	2237	145.11	294.54	469.72	3013
618.00	704.24	681.24	2205	2240	144.39	293.24	467.89	2913
620.00	707.16	684.16	2207	2242	143.72	292.06	466.21	2974
622.00	710.13	687.13	2209	2245	143.03	290.82	464.46	2888
624.00	713.02	690.02	2212	2248	142.38	289.67	462.85	

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
626.00	715.79	692.79	2213	2249	141.80	288.64	461.40	2767
628.00	718.63	695.63	2215	2252	141.19	287.55	459.86	2842
630.00	721.49	698.49	2217	2254	140.57	286.45	458.31	2860
632.00	724.30	701.30	2219	2256	139.98	285.40	456.84	2811
634.00	727.23	704.23	2222	2258	139.35	284.26	455.22	2927
636.00	730.01	707.01	2223	2260	138.78	283.25	453.80	2788
638.00	733.02	710.02	2226	2263	138.12	282.06	452.11	3003
640.00	735.95	712.95	2228	2265	137.50	280.95	450.52	2932
642.00	738.87	715.87	2230	2267	136.89	279.85	448.95	2924
644.00	742.12	719.12	2233	2271	136.13	278.47	446.97	3246
646.00	744.99	721.99	2235	2273	135.56	277.43	445.50	2872
648.00	747.74	724.74	2237	2275	135.03	276.49	444.17	2754
650.00	750.59	727.59	2239	2277	134.48	275.49	442.75	2841
652.00	753.48	730.48	2241	2279	133.90	274.45	441.28	2895
654.00	756.41	733.41	2243	2281	133.32	273.40	439.78	2925
656.00	759.25	736.25	2245	2283	132.78	272.42	438.38	2846
658.00	762.10	739.10	2247	2285	132.24	271.44	436.99	2847
660.00	765.15	742.15	2249	2288	131.61	270.31	435.36	3055
662.00	768.25	745.25	2251	2291	130.98	269.15	433.70	3091
664.00	771.37	748.37	2254	2294	130.34	267.98	432.01	3124
666.00	774.50	751.50	2257	2297	129.71	266.82	430.33	3125
668.00	777.59	754.59	2259	2299	129.09	265.69	428.70	3097
670.00	780.74	757.74	2262	2302	128.46	264.53	427.02	3150
672.00	783.77	760.77	2264	2305	127.89	263.47	425.51	3023

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
674.00	786.77	763.77	2266	2307	127.33	262.45	424.03	3001
676.00	789.73	766.73	2268	2309	126.78	261.45	422.60	2966
678.00	792.68	769.68	2270	2312	126.25	260.48	421.20	2948
680.00	795.62	772.62	2272	2314	125.73	259.52	419.82	2939
682.00	798.54	775.54	2274	2316	125.21	258.58	418.46	2926
684.00	801.46	778.46	2276	2318	124.71	257.65	417.12	2918
686.00	804.40	781.40	2278	2320	124.20	256.71	415.76	2940
688.00	807.45	784.45	2280	2322	123.65	255.70	414.30	3048
690.00	810.53	787.53	2283	2325	123.10	254.67	412.81	3077
692.00	813.63	790.63	2285	2327	122.54	253.64	411.32	3098
694.00	816.84	793.84	2288	2330	121.94	252.53	409.70	3217
696.00	819.96	796.96	2290	2333	121.39	251.51	408.20	3115
698.00	823.18	800.18	2293	2336	120.80	250.41	406.60	3221
700.00	826.33	803.33	2295	2339	120.25	249.38	405.09	3152
702.00	829.37	806.37	2297	2341	119.74	248.43	403.72	3037
704.00	832.67	809.67	2300	2344	119.14	247.30	402.06	3306
706.00	835.86	812.86	2303	2347	118.58	246.27	400.55	3185
708.00	839.03	816.03	2305	2350	118.04	245.26	399.07	3167
710.00	842.13	819.13	2307	2352	117.53	244.30	397.66	3102
712.00	845.24	822.24	2310	2355	117.02	243.34	396.26	3109
714.00	848.35	825.35	2312	2357	116.51	242.39	394.87	3114
716.00	851.48	828.48	2314	2360	116.00	241.44	393.47	3127
718.00	854.35	831.35	2316	2361	115.58	240.65	392.33	2873
720.00	857.13	834.13	2317	2363	115.18	239.92	391.28	2783

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
722.00	859.96	836.96	2318	2364	114.78	239.18	390.19	2823
724.00	862.90	839.90	2320	2366	114.35	238.36	389.00	2943
726.00	865.98	842.98	2322	2368	113.87	237.47	387.69	3083
728.00	869.12	846.12	2325	2371	113.38	236.54	386.33	3139
730.00	872.21	849.21	2327	2373	112.91	235.66	385.03	3086
732.00	875.41	852.41	2329	2376	112.41	234.71	383.63	3199
734.00	878.55	855.55	2331	2378	111.93	233.81	382.30	3139
736.00	881.72	858.72	2333	2380	111.45	232.89	380.95	3171
738.00	884.87	861.87	2336	2383	110.97	231.99	379.62	3156
740.00	887.99	864.99	2338	2385	110.51	231.13	378.34	3115
742.00	890.94	867.94	2339	2387	110.11	230.36	377.22	2948
744.00	893.91	870.91	2341	2389	109.70	229.59	376.08	2976
746.00	896.91	873.91	2343	2391	109.28	228.81	374.93	2996
748.00	899.93	876.93	2345	2392	108.86	228.02	373.76	3024
750.00	902.95	879.95	2347	2394	108.45	227.24	372.61	3013
752.00	905.94	882.94	2348	2396	108.05	226.47	371.49	2990
754.00	909.04	886.04	2350	2398	107.62	225.65	370.27	3109
756.00	912.17	889.17	2352	2400	107.18	224.82	369.04	3129
758.00	915.28	892.28	2354	2403	106.75	224.01	367.83	3106
760.00	918.39	895.39	2356	2405	106.33	223.20	366.63	3114
762.00	921.47	898.47	2358	2407	105.92	222.42	365.47	3074
764.00	924.49	901.49	2360	2409	105.52	221.67	364.36	3027
766.00	927.48	904.48	2362	2410	105.14	220.94	363.29	2987
768.00	930.36	907.36	2363	2412	104.79	220.28	362.31	2878

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
770.00	933.24	910.24	2364	2413	104.44	219.62	361.33	2883
772.00	936.11	913.11	2366	2414	104.10	218.97	360.37	2866
774.00	939.13	916.13	2367	2416	103.72	218.24	359.29	3021
776.00	942.36	919.36	2369	2418	103.29	217.41	358.05	3225
778.00	945.42	922.42	2371	2420	102.90	216.67	356.95	3067
780.00	948.28	925.28	2373	2422	102.57	216.04	356.02	2857
782.00	951.24	928.24	2374	2423	102.22	215.37	355.01	2961
784.00	954.12	931.12	2375	2424	101.89	214.74	354.08	2880
786.00	957.28	934.28	2377	2427	101.49	213.96	352.92	3164
788.00	960.43	937.43	2379	2429	101.09	213.21	351.79	3148
790.00	963.32	940.32	2381	2430	100.77	212.58	350.86	2893
792.00	966.30	943.30	2382	2431	100.42	211.92	349.87	2973
794.00	969.36	946.36	2384	2433	100.06	211.22	348.82	3064
796.00	972.50	949.50	2386	2435	99.68	210.48	347.72	3142
798.00	975.67	952.67	2388	2437	99.29	209.74	346.60	3168
800.00	978.78	955.78	2389	2439	98.92	209.03	345.53	3110
802.00	981.84	958.84	2391	2441	98.57	208.35	344.51	3062
804.00	984.79	961.79	2393	2442	98.25	207.73	343.58	2944
806.00	987.67	964.67	2394	2444	97.94	207.14	342.70	2880
808.00	990.58	967.58	2395	2445	97.63	206.53	341.80	2913
810.00	993.44	970.44	2396	2446	97.33	205.96	340.94	2864
812.00	996.60	973.60	2398	2448	96.96	205.25	339.88	3153
814.00	999.86	976.86	2400	2450	96.57	204.50	338.73	3267
816.00	1002.87	979.87	2402	2452	96.25	203.87	337.79	3006

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
818.00	1005.97	982.97	2403	2454	95.91	203.20	336.79	3100
820.00	1009.12	986.12	2405	2456	95.55	202.52	335.75	3147
822.00	1012.06	989.06	2406	2457	95.25	201.93	334.87	2945
824.00	1015.13	992.13	2408	2459	94.92	201.29	333.90	3070
826.00	1018.13	995.13	2410	2460	94.61	200.68	332.99	2998
828.00	1020.99	997.99	2411	2461	94.33	200.14	332.17	2858
830.00	1024.12	1001.12	2412	2463	93.99	199.48	331.18	3134
832.00	1027.20	1004.20	2414	2465	93.67	198.85	330.23	3075
834.00	1030.26	1007.26	2415	2466	93.35	198.23	329.29	3061
836.00	1033.15	1010.15	2417	2467	93.07	197.69	328.47	2887
838.00	1036.02	1013.02	2418	2468	92.79	197.16	327.67	2879
840.00	1039.05	1016.05	2419	2470	92.49	196.56	326.77	3030
842.00	1041.99	1018.99	2420	2471	92.20	196.01	325.93	2940
844.00	1044.95	1021.95	2422	2472	91.92	195.45	325.09	2953
846.00	1047.94	1024.94	2423	2474	91.63	194.88	324.23	2995
848.00	1050.92	1027.92	2424	2475	91.34	194.32	323.38	2978
850.00	1053.87	1030.87	2426	2476	91.06	193.77	322.55	2946
852.00	1056.82	1033.82	2427	2477	90.78	193.23	321.73	2952
854.00	1059.65	1036.65	2428	2478	90.53	192.74	320.98	2830
856.00	1062.54	1039.54	2429	2479	90.26	192.22	320.20	2895
858.00	1065.46	1042.46	2430	2480	90.00	191.70	319.41	2917
860.00	1068.45	1045.45	2431	2482	89.72	191.15	318.58	2987
862.00	1071.33	1048.33	2432	2483	89.46	190.65	317.82	2886
864.00	1074.49	1051.49	2434	2485	89.15	190.04	316.89	3151

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
								3277
866.00	1077.76	1054.76	2436	2487	88.82	189.38	315.89	3099
868.00	1080.86	1057.86	2437	2488	88.53	188.81	315.00	2996
870.00	1083.86	1060.86	2439	2490	88.25	188.27	314.19	3090
872.00	1086.95	1063.95	2440	2491	87.97	187.71	313.32	2964
874.00	1089.91	1066.91	2441	2492	87.70	187.19	312.54	3027
876.00	1092.94	1069.94	2443	2494	87.43	186.65	311.72	2912
878.00	1095.85	1072.85	2444	2495	87.18	186.16	310.97	3220
880.00	1099.07	1076.07	2446	2497	86.88	185.56	310.04	3251
882.00	1102.32	1079.32	2447	2498	86.57	184.94	309.10	3216
884.00	1105.54	1082.54	2449	2500	86.26	184.35	308.18	3260
886.00	1108.80	1085.80	2451	2502	85.96	183.74	307.24	3239
888.00	1112.04	1089.04	2453	2504	85.66	183.14	306.32	3214
890.00	1115.25	1092.25	2454	2506	85.36	182.55	305.42	3134
892.00	1118.39	1095.39	2456	2508	85.08	182.00	304.57	3237
894.00	1121.62	1098.62	2458	2509	84.79	181.42	303.67	3443
896.00	1125.07	1102.07	2460	2512	84.46	180.75	302.64	3263
898.00	1128.33	1105.33	2462	2514	84.16	180.17	301.73	3280
900.00	1131.61	1108.61	2464	2516	83.87	179.57	300.82	3337
902.00	1134.95	1111.95	2466	2518	83.56	178.97	299.88	3441
904.00	1138.39	1115.39	2468	2520	83.24	178.32	298.88	3460
906.00	1141.85	1118.85	2470	2523	82.92	177.68	297.87	3344
908.00	1145.19	1122.19	2472	2525	82.62	177.08	296.94	3277
910.00	1148.47	1125.47	2474	2527	82.33	176.51	296.06	3254
912.00	1151.72	1128.72	2475	2529	82.05	175.95	295.20	

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
914.00	1155.09	1132.09	2477	2531	81.75	175.35	294.27	3373
916.00	1158.33	1135.33	2479	2533	81.48	174.81	293.43	3231
918.00	1161.59	1138.59	2481	2534	81.21	174.26	292.57	3268
920.00	1164.82	1141.82	2482	2536	80.94	173.72	291.74	3228
922.00	1168.01	1145.01	2484	2538	80.68	173.20	290.94	3186
924.00	1171.33	1148.33	2486	2540	80.40	172.64	290.06	3322
926.00	1174.64	1151.64	2487	2542	80.12	172.09	289.20	3312
928.00	1177.74	1154.74	2489	2543	79.88	171.61	288.46	3103
930.00	1180.84	1157.84	2490	2544	79.65	171.13	287.72	3093
932.00	1184.08	1161.08	2492	2546	79.39	170.61	286.91	3242
934.00	1187.43	1164.43	2493	2548	79.11	170.06	286.04	3356
936.00	1190.75	1167.75	2495	2550	78.84	169.52	285.20	3318
938.00	1194.00	1171.00	2497	2551	78.59	169.00	284.40	3243
940.00	1197.29	1174.29	2498	2553	78.33	168.48	283.58	3297
942.00	1200.52	1177.52	2500	2555	78.08	167.98	282.80	3225
944.00	1203.81	1180.81	2502	2557	77.82	167.46	281.99	3294
946.00	1207.11	1184.11	2503	2559	77.56	166.94	281.18	3296
948.00	1210.31	1187.31	2505	2560	77.32	166.46	280.43	3205
950.00	1213.35	1190.35	2506	2561	77.11	166.03	279.76	3035
952.00	1216.66	1193.66	2508	2563	76.85	165.51	278.96	3310
954.00	1219.86	1196.86	2509	2564	76.62	165.04	278.22	3201
956.00	1223.14	1200.14	2511	2566	76.37	164.54	277.44	3280
958.00	1226.63	1203.63	2513	2568	76.10	163.98	276.55	3489
960.00	1229.85	1206.85	2514	2570	75.86	163.51	275.81	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
962.00	1232.86	1209.86	2515	2571	75.66	163.10	275.18	3015
964.00	1235.92	1212.92	2516	2572	75.45	162.68	274.52	3055
966.00	1238.99	1215.99	2518	2573	75.24	162.26	273.86	3075
968.00	1242.07	1219.07	2519	2574	75.03	161.84	273.21	3077
970.00	1245.39	1222.39	2520	2576	74.79	161.35	272.44	3321
972.00	1248.82	1225.82	2522	2578	74.53	160.82	271.61	3434
974.00	1252.23	1229.23	2524	2580	74.28	160.31	270.81	3404
976.00	1255.45	1232.45	2526	2582	74.06	159.86	270.09	3226
978.00	1258.60	1235.60	2527	2583	73.85	159.43	269.42	3148
980.00	1261.74	1238.74	2528	2584	73.64	159.01	268.76	3142
982.00	1265.16	1242.16	2530	2586	73.39	158.50	268.96	3418
984.00	1268.45	1245.45	2531	2588	73.16	158.04	267.24	3285
986.00	1271.64	1248.64	2533	2589	72.95	157.61	266.56	3192
988.00	1274.81	1251.81	2534	2590	72.74	157.19	265.89	3169
990.00	1278.13	1255.13	2536	2592	72.51	156.72	265.16	3321
992.00	1281.58	1258.58	2537	2594	72.27	156.22	264.37	3450
994.00	1284.91	1261.91	2539	2596	72.04	155.76	263.64	3330
996.00	1288.24	1265.24	2541	2597	71.82	155.30	262.92	3332
998.00	1291.63	1268.63	2542	2599	71.58	154.83	262.17	3388
1000.00	1294.95	1271.95	2544	2601	71.36	154.38	261.46	3325
1002.00	1298.32	1275.32	2546	2603	71.14	153.92	260.73	3370
1004.00	1301.78	1278.78	2547	2605	70.90	153.43	259.96	3457
1006.00	1305.24	1282.24	2549	2607	70.66	152.95	259.19	3462
1008.00	1308.66	1285.66	2551	2609	70.44	152.48	258.45	3422

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
1010.00	1312.00	1289.00	2552	2610	70.22	152.04	257.75	3333
1012.00	1315.34	1292.34	2554	2612	70.00	151.60	257.06	3344
1014.00	1318.69	1295.69	2556	2614	69.79	151.16	256.36	3349
1016.00	1322.04	1299.04	2557	2615	69.58	150.72	255.66	3352
1018.00	1325.51	1302.51	2559	2617	69.35	150.26	254.92	3470
1020.00	1329.00	1306.00	2561	2619	69.12	149.79	254.17	3490
1022.00	1332.19	1309.19	2562	2620	68.93	149.40	253.55	3192
1024.00	1335.59	1312.59	2564	2622	68.71	148.96	252.86	3395
1026.00	1338.99	1315.99	2565	2624	68.50	148.52	252.16	3403
1028.00	1342.14	1319.14	2566	2625	68.32	148.15	251.57	3144
1030.00	1345.34	1322.34	2568	2626	68.13	147.76	250.96	3206
1032.00	1348.78	1325.78	2569	2628	67.92	147.32	250.26	3437
1034.00	1352.28	1329.28	2571	2630	67.69	146.87	249.53	3500
1036.00	1355.87	1332.87	2573	2632	67.46	146.39	248.77	3596
1038.00	1359.35	1336.35	2575	2634	67.25	145.95	248.06	3477
1040.00	1362.92	1339.92	2577	2636	67.02	145.48	247.32	3564
1042.00	1366.44	1343.44	2579	2638	66.80	145.03	246.60	3522
1044.00	1369.95	1346.95	2580	2640	66.59	144.59	245.89	3511
1046.00	1373.34	1350.34	2582	2642	66.39	144.17	245.23	3392
1048.00	1376.76	1353.76	2584	2643	66.19	143.76	244.57	3417
1050.00	1380.18	1357.18	2585	2645	65.98	143.35	243.90	3422
1052.00	1383.73	1360.73	2587	2647	65.77	142.90	243.19	3548
1054.00	1387.29	1364.29	2589	2649	65.55	142.46	242.48	3567
1056.00	1390.72	1367.72	2590	2651	65.36	142.05	241.82	3430

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
1058.00	1394.21	1371.21	2592	2653	65.15	141.62	241.15	3489
1060.00	1397.62	1374.62	2594	2654	64.96	141.23	240.51	3401
1062.00	1401.05	1378.05	2595	2656	64.76	140.82	239.87	3435
1064.00	1404.66	1381.66	2597	2658	64.55	140.38	239.15	3610
1066.00	1408.19	1385.19	2599	2660	64.35	139.96	238.48	3527
1068.00	1411.70	1388.70	2601	2662	64.15	139.54	237.81	3511
1070.00	1415.29	1392.29	2602	2664	63.94	139.11	237.11	3596
1072.00	1418.88	1395.88	2604	2666	63.73	138.68	236.42	3591
1074.00	1422.41	1399.41	2606	2668	63.53	138.27	235.76	3525
1076.00	1426.05	1403.05	2608	2670	63.32	137.84	235.06	3638
1078.00	1429.68	1406.68	2610	2672	63.11	137.41	234.37	3632
1080.00	1433.22	1410.22	2612	2674	62.92	137.00	233.71	3539
1082.00	1436.84	1413.84	2613	2676	62.71	136.58	233.03	3618
1084.00	1440.37	1417.37	2615	2678	62.52	136.18	232.39	3537
1086.00	1444.01	1421.01	2617	2680	62.32	135.75	231.71	3636
1088.00	1447.61	1424.61	2619	2682	62.12	135.34	231.04	3603
1090.00	1451.24	1428.24	2621	2684	61.92	134.93	230.37	3629
1092.00	1454.85	1431.85	2622	2686	61.72	134.52	229.71	3603
1094.00	1458.42	1435.42	2624	2688	61.53	134.12	229.07	3574
1096.00	1462.00	1439.00	2626	2690	61.34	133.73	228.43	3577
1098.00	1465.63	1442.63	2628	2692	61.15	133.32	227.77	3637
1100.00	1469.23	1446.23	2630	2694	60.96	132.92	227.14	3593
1102.00	1472.76	1449.76	2631	2695	60.78	132.55	226.53	3528
1104.00	1476.28	1453.28	2633	2697	60.60	132.17	225.92	3530

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
1106.00	1479.84	1456.84	2634	2699	60.41	131.79	225.30	3552
1108.00	1483.26	1460.26	2636	2700	60.25	131.44	224.74	3420
1110.00	1486.79	1463.79	2637	2702	60.07	131.07	224.14	3536
1112.00	1490.53	1467.53	2639	2704	59.87	130.66	223.47	3734
1114.00	1494.17	1471.17	2641	2706	59.68	130.27	222.84	3640
1116.00	1497.44	1474.44	2642	2707	59.53	129.96	222.34	3271
1118.00	1500.85	1477.85	2644	2709	59.37	129.62	221.79	3414
1120.00	1504.45	1481.45	2645	2711	59.19	129.24	221.18	3602
1122.00	1507.84	1484.84	2647	2712	59.03	128.91	220.65	3387
1124.00	1511.20	1488.20	2648	2713	58.88	128.59	220.13	3355
1126.00	1514.50	1491.50	2649	2715	58.73	128.28	219.63	3307
1128.00	1517.65	1494.65	2650	2715	58.60	128.00	219.18	3144
1130.00	1520.72	1497.72	2651	2716	58.47	127.74	218.76	3073
1132.00	1523.75	1500.75	2651	2717	58.35	127.49	218.35	3025
1134.00	1526.96	1503.96	2652	2718	58.21	127.20	217.88	3217
1136.00	1529.87	1506.87	2653	2718	58.10	126.97	217.51	2903
1138.00	1532.87	1509.87	2654	2718	57.98	126.72	217.11	3001
1140.00	1535.82	1512.82	2654	2719	57.86	126.48	216.73	2957
1142.00	1538.75	1515.75	2655	2719	57.75	126.25	216.35	2922
1144.00	1541.68	1518.68	2655	2720	57.64	126.02	215.98	2936
1146.00	1544.69	1521.69	2656	2720	57.52	125.77	215.58	3008
1148.00	1547.64	1524.64	2656	2721	57.41	125.54	215.21	2954
1150.00	1550.53	1527.53	2657	2721	57.30	125.31	214.85	2889
1152.00	1553.46	1530.46	2657	2721	57.19	125.08	214.48	2929

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
1154.00	1556.44	1533.44	2658	2722	57.08	124.85	214.10	2981
1156.00	1559.38	1536.38	2658	2722	56.97	124.62	213.73	2942
1158.00	1562.44	1539.44	2659	2723	56.85	124.37	213.33	3056
1160.00	1565.37	1542.37	2659	2723	56.74	124.14	212.96	2928
1162.00	1568.31	1545.31	2660	2723	56.63	123.92	212.60	2938
1164.00	1571.36	1548.36	2660	2724	56.51	123.67	212.20	3056
1166.00	1574.48	1551.48	2661	2725	56.39	123.42	211.79	3122
1168.00	1577.56	1554.56	2662	2725	56.27	123.17	211.39	3073
1170.00	1580.60	1557.60	2663	2726	56.16	122.93	211.00	3038
1172.00	1583.75	1560.75	2663	2727	56.04	122.68	210.59	3152
1174.00	1586.94	1563.94	2664	2728	55.91	122.41	210.16	3189
1176.00	1590.15	1567.15	2665	2729	55.78	122.15	209.73	3211
1178.00	1593.43	1570.43	2666	2730	55.65	121.87	209.28	3277
1180.00	1596.66	1573.66	2667	2731	55.53	121.61	208.85	3233
1182.00	1599.86	1576.86	2668	2731	55.40	121.35	208.43	3197
1184.00	1603.00	1580.00	2669	2732	55.28	121.10	208.02	3145
1186.00	1606.41	1583.41	2670	2733	55.14	120.81	207.54	3410
1188.00	1609.59	1586.59	2671	2734	55.02	120.55	207.13	3178
1190.00	1612.75	1589.75	2672	2735	54.90	120.30	206.73	3160
1192.00	1615.96	1592.96	2673	2736	54.78	120.05	206.31	3207
1194.00	1619.13	1596.13	2674	2737	54.66	119.80	205.91	3172
1196.00	1622.29	1599.29	2674	2737	54.55	119.55	205.51	3157
1198.00	1625.51	1602.51	2675	2738	54.43	119.30	205.09	3221
1200.00	1628.73	1605.73	2676	2739	54.30	119.05	204.68	3227

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
								3207
1202.00	1631.94	1608.94	2677	2740	54.19	118.79	204.27	3176
1204.00	1635.12	1612.12	2678	2741	54.07	118.55	203.87	3337
1206.00	1638.45	1615.45	2679	2742	53.94	118.28	203.43	3192
1208.00	1641.64	1618.64	2680	2743	53.82	118.04	203.03	3239
1210.00	1644.88	1621.88	2681	2744	53.71	117.79	202.62	3261
1212.00	1648.14	1625.14	2682	2745	53.58	117.53	202.21	3219
1214.00	1651.36	1628.36	2683	2745	53.47	117.29	201.81	3175
1216.00	1654.54	1631.54	2683	2746	53.35	117.05	201.42	3248
1218.00	1657.79	1634.79	2684	2747	53.24	116.80	201.01	3164
1220.00	1660.95	1637.95	2685	2748	53.12	116.56	200.63	3162
1222.00	1664.11	1641.11	2686	2748	53.01	116.33	200.25	3055
1224.00	1667.17	1644.17	2687	2749	52.91	116.12	199.90	3037
1226.00	1670.20	1647.20	2687	2750	52.81	115.90	199.55	3080
1228.00	1673.28	1650.28	2688	2750	52.71	115.68	199.19	3094
1230.00	1676.38	1653.38	2688	2751	52.60	115.46	198.83	3139
1232.00	1679.52	1656.52	2689	2751	52.49	115.24	198.46	3159
1234.00	1682.68	1659.68	2690	2752	52.39	115.01	198.09	3180
1236.00	1685.86	1662.86	2691	2753	52.28	114.78	197.72	3196
1238.00	1689.05	1666.05	2692	2754	52.17	114.55	197.34	3072
1240.00	1692.12	1669.12	2692	2754	52.07	114.34	196.99	3137
1242.00	1695.26	1672.26	2693	2755	51.96	114.12	196.63	3044
1244.00	1698.30	1675.30	2693	2755	51.86	113.91	196.29	3118
1246.00	1701.42	1678.42	2694	2756	51.76	113.69	195.94	3179
1248.00	1704.60	1681.60	2695	2757	51.65	113.47	195.57	

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
								3102
1250.00	1707.70	1684.70	2696	2757	51.55	113.26	195.22	3158
1252.00	1710.86	1687.86	2696	2758	51.45	113.04	194.86	3026
1254.00	1713.89	1690.89	2697	2758	51.35	112.84	194.53	3100
1256.00	1716.99	1693.99	2697	2759	51.25	112.63	194.19	3275
1258.00	1720.26	1697.26	2698	2760	51.14	112.39	193.80	3308
1260.00	1723.57	1700.57	2699	2761	51.03	112.15	193.41	3048
1262.00	1726.62	1703.62	2700	2761	50.94	111.95	193.08	2923
1264.00	1729.54	1706.54	2700	2762	50.85	111.77	192.78	2841
1266.00	1732.38	1709.38	2700	2762	50.77	111.60	192.50	2720
1268.00	1735.10	1712.10	2700	2762	50.69	111.44	192.25	2837
1270.00	1737.94	1714.94	2701	2762	50.61	111.27	191.97	2782
1272.00	1740.72	1717.72	2701	2762	50.53	111.11	191.70	2754
1274.00	1743.47	1720.47	2701	2762	50.46	110.95	191.44	2827
1276.00	1746.30	1723.30	2701	2762	50.38	110.78	191.17	2817
1278.00	1749.12	1726.12	2701	2762	50.30	110.61	190.90	2761
1280.00	1751.88	1728.88	2701	2762	50.22	110.45	190.64	2831
1282.00	1754.71	1731.71	2702	2762	50.14	110.29	190.36	2725
1284.00	1757.43	1734.43	2702	2762	50.07	110.13	190.11	2675
1286.00	1760.11	1737.11	2702	2762	50.00	109.99	189.87	2689
1288.00	1762.80	1739.80	2702	2762	49.93	109.84	189.63	2709
1290.00	1765.51	1742.51	2702	2762	49.86	109.69	189.38	2681
1292.00	1768.19	1745.19	2702	2762	49.79	109.54	189.14	2849
1294.00	1771.04	1748.04	2702	2762	49.71	109.37	188.87	2962
1296.00	1774.00	1751.00	2702	2762	49.62	109.19	188.58	

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
1298.00	1776.87	1753.87	2702	2762	49.54	109.02	188.30	2870
1300.00	1779.89	1756.89	2703	2763	49.46	108.84	187.99	3022
1302.00	1782.77	1759.77	2703	2763	49.38	108.67	187.72	2877
1304.00	1785.62	1762.62	2703	2763	49.30	108.50	187.45	2854
1306.00	1788.53	1765.53	2704	2763	49.22	108.33	187.17	2912
1308.00	1791.46	1768.46	2704	2763	49.14	108.16	186.89	2928
1310.00	1794.28	1771.28	2704	2763	49.06	108.00	186.63	2814
1312.00	1797.06	1774.06	2704	2763	48.99	107.85	186.37	2783
1314.00	1799.97	1776.97	2705	2764	48.91	107.68	186.10	2913
1316.00	1802.80	1779.80	2705	2764	48.83	107.52	185.83	2833
1318.00	1805.55	1782.55	2705	2764	48.76	107.37	185.59	2746
1320.00	1808.34	1785.34	2705	2764	48.69	107.22	185.34	2788
1322.00	1811.25	1788.25	2705	2764	48.61	107.05	185.06	2914
1324.00	1814.10	1791.10	2706	2764	48.54	106.89	184.80	2848
1326.00	1817.06	1794.06	2706	2764	48.45	106.72	184.52	2957
1328.00	1820.07	1797.07	2706	2765	48.37	106.54	184.23	3016
1330.00	1823.16	1800.16	2707	2765	48.28	106.36	183.92	3087
1332.00	1826.17	1803.17	2707	2766	48.20	106.18	183.63	3013
1334.00	1829.01	1806.01	2708	2766	48.13	106.02	183.37	2841
1336.00	1831.96	1808.96	2708	2766	48.05	105.85	183.09	2951
1338.00	1834.87	1811.87	2708	2766	47.97	105.69	182.83	2906
1340.00	1837.75	1814.75	2709	2767	47.89	105.53	182.57	2883
1342.00	1840.62	1817.62	2709	2767	47.82	105.38	182.31	2870
1344.00	1843.31	1820.31	2709	2767	47.76	105.24	182.08	2687



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
1346.00	1846.05	1823.05	2709	2767	47.69	105.10	181.85	2741
1348.00	1848.78	1825.78	2709	2767	47.62	104.96	181.62	2730
1350.00	1851.57	1828.57	2709	2767	47.55	104.81	181.38	2784
1352.00	1854.24	1831.24	2709	2766	47.49	104.68	181.16	2671
1354.00	1857.06	1834.06	2709	2767	47.42	104.53	180.91	2826
1356.00	1860.04	1837.04	2709	2767	47.34	104.36	180.64	2975
1358.00	1862.91	1839.91	2710	2767	47.27	104.21	180.38	2869
1360.00	1865.68	1842.68	2710	2767	47.20	104.06	180.15	2770
1362.00	1868.51	1845.51	2710	2767	47.13	103.91	179.90	2836
1364.00	1871.37	1848.37	2710	2767	47.06	103.76	179.65	2859
1366.00	1874.23	1851.23	2710	2767	46.99	103.61	179.40	2863
1368.00	1877.06	1854.06	2711	2767	46.92	103.46	179.16	2823
1370.00	1879.97	1856.97	2711	2768	46.84	103.31	178.90	2915
1372.00	1882.87	1859.87	2711	2768	46.77	103.15	178.65	2903
1374.00	1885.68	1862.68	2711	2768	46.70	103.01	178.41	2809
1376.00	1888.45	1865.45	2711	2768	46.64	102.87	178.18	2767
1378.00	1891.26	1868.26	2712	2768	46.57	102.73	177.94	2807
1380.00	1894.09	1871.09	2712	2768	46.50	102.58	177.70	2831
1382.00	1896.97	1873.97	2712	2768	46.43	102.43	177.46	2882
1384.00	1899.84	1876.84	2712	2768	46.36	102.28	177.21	2871
1386.00	1902.72	1879.72	2712	2769	46.29	102.13	176.96	2881
1388.00	1905.69	1882.69	2713	2769	46.22	101.97	176.70	2968
1390.00	1908.57	1885.57	2713	2769	46.15	101.83	176.46	2882
1392.00	1911.54	1888.54	2713	2769	46.07	101.67	176.19	2967

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
1394.00	1914.52	1891.52	2714	2770	46.00	101.51	175.93	2978
1396.00	1917.65	1894.65	2714	2770	45.92	101.34	175.64	3133
1398.00	1921.13	1898.13	2715	2771	45.82	101.12	175.28	3482
1400.00	1924.44	1901.44	2716	2772	45.73	100.93	174.96	3307
1402.00	1927.65	1904.65	2717	2773	45.64	100.74	174.66	3208
1404.00	1930.77	1907.77	2718	2773	45.56	100.57	174.37	3118
1406.00	1933.90	1910.90	2718	2774	45.48	100.40	174.09	3136
1408.00	1937.11	1914.11	2719	2775	45.40	100.22	173.79	3203
1410.00	1940.36	1917.36	2720	2775	45.31	100.04	173.48	3251
1412.00	1943.61	1920.61	2720	2776	45.23	99.86	173.18	3255
1414.00	1946.91	1923.91	2721	2777	45.14	99.67	172.87	3296
1416.00	1950.21	1927.21	2722	2778	45.05	99.48	172.55	3303
1418.00	1953.44	1930.44	2723	2778	44.97	99.30	172.25	3229
1420.00	1956.66	1933.66	2723	2779	44.88	99.12	171.96	3221
1422.00	1960.00	1937.00	2724	2780	44.80	98.93	171.64	3333
1424.00	1963.23	1940.23	2725	2781	44.71	98.76	171.35	3231
1426.00	1966.41	1943.41	2726	2781	44.63	98.59	171.06	3186
1428.00	1969.57	1946.57	2726	2782	44.55	98.42	170.78	3158
1430.00	1973.01	1950.01	2727	2783	44.46	98.22	170.45	3445
1432.00	1976.40	1953.40	2728	2784	44.37	98.03	170.13	3383
1434.00	1979.72	1956.72	2729	2785	44.29	97.84	169.82	3325
1436.00	1983.10	1960.10	2730	2785	44.20	97.65	169.50	3382
1438.00	1986.29	1963.29	2731	2786	44.12	97.48	169.22	3186
1440.00	1989.13	1966.13	2731	2786	44.06	97.35	169.00	2841

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
1442.00	1992.49	1969.49	2732	2787	43.97	97.17	168.69	3359
1444.00	1995.85	1972.85	2732	2788	43.88	96.98	168.39	3354
1446.00	1998.63	1975.63	2733	2788	43.83	96.86	168.18	2784
1448.00	2001.72	1978.72	2733	2788	43.75	96.70	167.92	3094
1450.00	2005.04	1982.04	2734	2789	43.67	96.52	167.62	3318
1452.00	2008.21	1985.21	2734	2790	43.59	96.36	167.35	3164
1454.00	2011.73	1988.73	2736	2791	43.50	96.16	167.01	3528
1456.00	2015.19	1992.19	2737	2792	43.41	95.97	166.69	3455
1458.00	2018.38	1995.38	2737	2792	43.34	95.81	166.42	3192
1460.00	2021.67	1998.67	2738	2793	43.26	95.63	166.13	3287
1462.00	2024.73	2001.73	2738	2794	43.19	95.49	165.88	3064
1464.00	2027.54	2004.54	2738	2794	43.13	95.36	165.68	2809
1466.00	2030.52	2007.52	2739	2794	43.06	95.22	165.45	2982
1468.00	2033.77	2010.77	2739	2795	42.99	95.06	165.17	3245
1470.00	2037.13	2014.13	2740	2795	42.90	94.88	164.87	3364
1472.00	2040.52	2017.52	2741	2796	42.82	94.70	164.57	3387
1474.00	2043.87	2020.87	2742	2797	42.74	94.52	164.28	3354
1476.00	2046.92	2023.92	2742	2797	42.67	94.38	164.04	3046
1478.00	2050.25	2027.25	2743	2798	42.59	94.21	163.75	3336
1480.00	2053.65	2030.65	2744	2799	42.51	94.03	163.45	3393
1482.00	2057.05	2034.05	2745	2800	42.43	93.85	163.15	3405
1484.00	2060.41	2037.41	2746	2801	42.35	93.68	162.86	3359
1486.00	2063.76	2040.76	2747	2802	42.27	93.51	162.57	3349
1488.00	2067.53	2044.53	2748	2803	42.17	93.29	162.21	3769

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
								3379
1490.00	2070.91	2047.91	2749	2804	42.08	93.12	161.92	3357
1492.00	2074.27	2051.27	2750	2805	42.01	92.95	161.63	3066
1494.00	2077.33	2054.33	2750	2805	41.94	92.81	161.40	3433
1496.00	2080.77	2057.77	2751	2806	41.86	92.63	161.10	3575
1498.00	2084.34	2061.34	2752	2807	41.77	92.44	160.78	3356
1500.00	2087.70	2064.70	2753	2808	41.69	92.27	160.50	3130
1502.00	2090.83	2067.83	2753	2809	41.62	92.13	160.26	3455
1504.00	2094.28	2071.28	2754	2810	41.54	91.95	159.96	3385
1506.00	2097.67	2074.67	2755	2810	41.46	91.78	159.68	3325
1508.00	2100.99	2077.99	2756	2811	41.39	91.62	159.41	3456
1510.00	2104.45	2081.45	2757	2812	41.31	91.45	159.11	3294
1512.00	2107.74	2084.74	2758	2813	41.24	91.29	158.85	3184
1514.00	2110.93	2087.93	2758	2813	41.17	91.14	158.60	3341
1516.00	2114.27	2091.27	2759	2814	41.09	90.98	158.33	3216
1518.00	2117.48	2094.48	2760	2815	41.02	90.83	158.08	3431
1520.00	2120.91	2097.91	2760	2816	40.94	90.66	157.80	3381
1522.00	2124.29	2101.29	2761	2816	40.87	90.50	157.52	3523
1524.00	2127.82	2104.82	2762	2817	40.79	90.32	157.22	3351
1526.00	2131.17	2108.17	2763	2818	40.71	90.16	156.95	3463
1528.00	2134.63	2111.63	2764	2819	40.63	89.99	156.67	3394
1530.00	2138.02	2115.02	2765	2820	40.56	89.83	156.39	3355
1532.00	2141.38	2118.38	2766	2821	40.49	89.67	156.13	3675
1534.00	2145.05	2122.05	2767	2822	40.40	89.48	155.81	3507
1536.00	2148.56	2125.56	2768	2823	40.32	89.31	155.52	

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
1538.00	2151.89	2128.89	2768	2824	40.25	89.16	155.26	3325
1540.00	2155.27	2132.27	2769	2824	40.17	89.00	154.99	3380
1542.00	2158.65	2135.65	2770	2825	40.10	88.84	154.73	3382
1544.00	2162.37	2139.37	2771	2827	40.01	88.65	154.41	3720
1546.00	2165.82	2142.82	2772	2827	39.94	88.49	154.13	3449
1548.00	2169.25	2146.25	2773	2828	39.86	88.33	153.86	3433
1550.00	2172.74	2149.74	2774	2829	39.79	88.16	153.58	3489
1552.00	2176.12	2153.12	2775	2830	39.72	88.01	153.32	3381
1554.00	2179.54	2156.54	2775	2831	39.64	87.85	153.05	3414
1556.00	2182.86	2159.86	2776	2832	39.57	87.70	152.80	3327
1558.00	2186.24	2163.24	2777	2832	39.50	87.55	152.55	3375
1560.00	2189.66	2166.66	2778	2833	39.43	87.39	152.28	3426
1562.00	2193.41	2170.41	2779	2835	39.34	87.20	151.97	3743
1564.00	2196.84	2173.84	2780	2835	39.27	87.05	151.70	3438
1566.00	2200.29	2177.29	2781	2836	39.20	86.89	151.44	3448
1568.00	2203.90	2180.90	2782	2837	39.12	86.72	151.15	3604
1570.00	2207.15	2184.15	2782	2838	39.06	86.58	150.91	3250
1572.00	2210.62	2187.62	2783	2839	38.98	86.42	150.65	3476
1574.00	2214.08	2191.08	2784	2840	38.91	86.27	150.38	3455
1576.00	2217.52	2194.52	2785	2841	38.84	86.11	150.13	3440
1578.00	2220.77	2197.77	2786	2841	38.78	85.98	149.90	3250
1580.00	2224.35	2201.35	2787	2842	38.70	85.81	149.61	3584
1582.00	2227.86	2204.86	2787	2843	38.63	85.65	149.35	3504
1584.00	2231.59	2208.59	2789	2844	38.55	85.48	149.05	3732

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
1586.00	2235.12	2212.12	2790	2845	38.47	85.32	148.78	3527
1588.00	2238.57	2215.57	2790	2846	38.40	85.17	148.52	3458
1590.00	2242.03	2219.03	2791	2847	38.33	85.01	148.26	3461
1592.00	2245.67	2222.67	2792	2848	38.26	84.85	147.98	3637
1594.00	2249.15	2226.15	2793	2849	38.18	84.69	147.72	3480
1596.00	2252.66	2229.66	2794	2850	38.11	84.54	147.46	3506
1598.00	2256.21	2233.21	2795	2851	38.04	84.38	147.20	3557
1600.00	2259.69	2236.69	2796	2852	37.97	84.23	146.94	3474
1602.00	2263.22	2240.22	2797	2853	37.90	84.08	146.68	3532
1604.00	2266.82	2243.82	2798	2854	37.83	83.92	146.41	3598
1606.00	2270.44	2247.44	2799	2855	37.75	83.76	146.14	3619
1608.00	2274.04	2251.04	2800	2856	37.68	83.60	145.87	3609
1610.00	2277.57	2254.57	2801	2857	37.61	83.45	145.61	3526
1612.00	2280.99	2257.99	2801	2858	37.54	83.30	145.37	3418
1614.00	2284.54	2261.54	2802	2859	37.47	83.15	145.11	3554
1616.00	2288.08	2265.08	2803	2860	37.40	83.00	144.85	3539
1618.00	2291.60	2268.60	2804	2861	37.33	82.85	144.60	3520
1620.00	2295.09	2272.09	2805	2861	37.27	82.71	144.35	3488
1622.00	2298.42	2275.42	2806	2862	37.21	82.57	144.13	3334
1624.00	2301.66	2278.66	2806	2863	37.15	82.45	143.92	3239
1626.00	2305.04	2282.04	2807	2863	37.09	82.31	143.69	3376
1628.00	2308.46	2285.46	2808	2864	37.02	82.17	143.45	3427
1630.00	2311.92	2288.92	2808	2865	36.96	82.03	143.22	3453
1632.00	2315.29	2292.29	2809	2865	36.90	81.90	142.99	3370

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
1634.00	2318.83	2295.83	2810	2866	36.83	81.75	142.74	3545
1636.00	2322.27	2299.27	2811	2867	36.76	81.61	142.51	3439
1638.00	2325.84	2302.84	2812	2868	36.70	81.47	142.25	3570
1640.00	2329.69	2306.69	2813	2870	36.62	81.29	141.96	3843
1642.00	2333.79	2310.79	2815	2871	36.53	81.10	141.63	4108
1644.00	2337.26	2314.26	2815	2872	36.46	80.96	141.39	3468
1646.00	2340.78	2317.78	2816	2873	36.40	80.82	141.15	3522
1648.00	2344.29	2321.29	2817	2874	36.33	80.68	140.92	3503
1650.00	2347.87	2324.87	2818	2875	36.27	80.53	140.67	3585
1652.00	2351.39	2328.39	2819	2876	36.20	80.39	140.43	3518
1654.00	2354.00	2331.00	2819	2875	36.17	80.32	140.30	2611
1656.00	2357.29	2334.29	2819	2876	36.11	80.19	140.09	3290
1658.00	2360.86	2337.86	2820	2877	36.05	80.05	139.85	3572
1660.00	2364.40	2341.40	2821	2878	35.98	79.91	139.61	3539
1662.00	2367.82	2344.82	2822	2878	35.92	79.78	139.39	3420
1664.00	2371.19	2348.19	2822	2879	35.86	79.65	139.18	3363
1666.00	2373.94	2350.94	2822	2879	35.82	79.57	139.04	2750
1668.00	2377.66	2354.66	2823	2880	35.75	79.42	138.78	3723
1670.00	2381.44	2358.44	2824	2881	35.68	79.26	138.51	3780
1672.00	2385.06	2362.06	2825	2882	35.62	79.12	138.26	3619
1674.00	2388.65	2365.65	2826	2883	35.55	78.97	138.02	3596
1676.00	2392.26	2369.26	2827	2884	35.49	78.83	137.78	3606
1678.00	2396.10	2373.10	2828	2886	35.41	78.67	137.51	3844
1680.00	2399.05	2376.05	2829	2886	35.37	78.58	137.35	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
1682.00	2402.74	2379.74	2830	2887	35.30	78.43	137.10	3692
1684.00	2406.18	2383.18	2830	2887	35.24	78.30	136.88	3436
1686.00	2409.59	2386.59	2831	2888	35.18	78.18	136.67	3411
1688.00	2413.19	2390.19	2832	2889	35.12	78.04	136.43	3604
1690.00	2416.93	2393.93	2833	2890	35.05	77.89	136.18	3736
1692.00	2420.59	2397.59	2834	2891	34.99	77.75	135.94	3657
1694.00	2423.49	2400.49	2834	2891	34.95	77.66	135.79	2902
1696.00	2426.75	2403.74	2835	2892	34.90	77.55	135.60	3257
1698.00	2430.41	2407.41	2836	2893	34.83	77.41	135.36	3660
1700.00	2433.98	2410.98	2836	2894	34.77	77.27	135.13	3574
1702.00	2438.00	2415.00	2838	2895	34.69	77.11	134.84	4025
1704.00	2441.63	2418.63	2839	2896	34.63	76.97	134.61	3624
1706.00	2445.34	2422.34	2840	2897	34.56	76.83	134.36	3712
1708.00	2448.94	2425.94	2841	2898	34.50	76.69	134.13	3598
1710.00	2452.54	2429.54	2842	2899	34.44	76.56	133.91	3604
1712.00	2455.72	2432.72	2842	2900	34.39	76.45	133.73	3175
1714.00	2458.48	2435.48	2842	2899	34.36	76.38	133.60	2764
1716.00	2460.83	2437.83	2841	2899	34.33	76.32	133.51	2352
1718.00	2464.62	2441.62	2842	2900	34.26	76.18	133.26	3788
1720.00	2468.46	2445.46	2844	2901	34.20	76.03	133.00	3843
1722.00	2472.41	2449.41	2845	2903	34.12	75.87	132.73	3942
1724.00	2476.19	2453.19	2846	2904	34.06	75.72	132.49	3782
1726.00	2479.96	2456.96	2847	2905	33.99	75.58	132.24	3769
1728.00	2483.39	2460.39	2848	2906	33.94	75.46	132.04	3436



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
1730.00	2486.19	2463.19	2848	2906	33.90	75.39	131.91	2796
1732.00	2489.55	2466.55	2848	2906	33.85	75.27	131.72	3362
1734.00	2493.41	2470.41	2849	2907	33.78	75.13	131.47	3860
1736.00	2497.22	2474.22	2850	2909	33.72	74.98	131.22	3805
1738.00	2500.19	2477.19	2851	2909	33.68	74.90	131.07	2974
1740.00	2502.99	2479.99	2851	2909	33.64	74.82	130.94	2802
1742.00	2506.57	2483.57	2851	2909	33.59	74.69	130.73	3574
1744.00	2510.30	2487.30	2852	2910	33.52	74.56	130.50	3738
1746.00	2514.06	2491.06	2853	2912	33.46	74.42	130.26	3756
1748.00	2517.76	2494.76	2854	2913	33.40	74.29	130.03	3702
1750.00	2521.46	2498.46	2855	2914	33.34	74.15	129.81	3700
1752.00	2525.14	2502.14	2856	2915	33.28	74.02	129.59	3678
1754.00	2527.66	2504.66	2856	2914	33.25	73.96	129.48	2518
1756.00	2529.86	2506.86	2855	2913	33.23	73.92	129.41	2201
1758.00	2532.09	2509.09	2854	2913	33.21	73.87	129.33	2229
1760.00	2534.58	2511.58	2854	2912	33.18	73.81	129.23	2489
1762.00	2538.17	2515.17	2855	2913	33.12	73.69	129.02	3591
1764.00	2541.92	2518.92	2856	2914	33.06	73.56	128.79	3750
1766.00	2545.41	2522.41	2857	2915	33.01	73.44	128.59	3494
1768.00	2549.35	2526.35	2858	2916	32.94	73.29	128.34	3940
1770.00	2552.92	2529.92	2859	2917	32.89	73.17	128.14	3573
1772.00	2556.38	2533.38	2859	2918	32.84	73.06	127.95	3452
1774.00	2560.32	2537.32	2861	2919	32.77	72.92	127.70	3940
1776.00	2563.30	2540.30	2861	2919	32.73	72.83	127.56	2981

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
1778.00	2566.41	2543.41	2861	2920	32.69	72.74	127.40	3112
1780.00	2570.51	2547.51	2862	2921	32.62	72.59	127.14	4097
1782.00	2574.33	2551.33	2863	2922	32.56	72.45	126.91	3820
1784.00	2578.12	2555.12	2864	2923	32.50	72.32	126.68	3792
1786.00	2581.88	2558.88	2865	2924	32.44	72.19	126.46	3759
1788.00	2585.50	2562.50	2866	2925	32.38	72.07	126.25	3620
1790.00	2589.20	2566.20	2867	2926	32.33	71.95	126.04	3704
1792.00	2591.90	2568.90	2867	2926	32.30	71.88	125.93	2695
1794.00	2595.12	2572.12	2867	2926	32.25	71.79	125.77	3220
1796.00	2597.89	2574.89	2867	2926	32.22	71.72	125.65	2770
1798.00	2600.99	2577.99	2868	2926	32.18	71.63	125.50	3108
1800.00	2604.91	2581.91	2869	2928	32.12	71.49	125.27	3919
1802.00	2608.65	2585.65	2870	2929	32.06	71.37	125.05	3737
1804.00	2611.83	2588.84	2870	2929	32.02	71.28	124.90	3186
1806.00	2615.02	2592.02	2870	2929	31.98	71.19	124.74	3183
1808.00	2618.84	2595.84	2871	2930	31.92	71.06	124.52	3817
1810.00	2622.59	2599.59	2872	2932	31.86	70.93	124.31	3755
1812.00	2626.25	2603.25	2873	2932	31.81	70.82	124.11	3658
1814.00	2629.78	2606.78	2874	2933	31.76	70.71	123.92	3533
1816.00	2633.26	2610.26	2875	2934	31.71	70.60	123.74	3479
1818.00	2637.58	2614.58	2876	2936	31.64	70.44	123.46	4318
1820.00	2641.22	2618.22	2877	2937	31.58	70.32	123.26	3646
1822.00	2645.14	2622.14	2878	2938	31.52	70.19	123.03	3912
1824.00	2648.13	2625.13	2878	2938	31.49	70.11	122.90	2994

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
1826.00	2652.08	2629.08	2880	2939	31.43	69.98	122.67	3946
1828.00	2656.28	2633.28	2881	2941	31.36	69.82	122.41	4207
1830.00	2660.07	2637.07	2882	2942	31.30	69.70	122.20	3788
1832.00	2662.51	2639.51	2882	2941	31.28	69.65	122.11	2438
1834.00	2664.72	2641.72	2881	2941	31.26	69.61	122.04	2213
1836.00	2666.92	2643.92	2880	2940	31.24	69.57	121.97	2196
1838.00	2670.07	2647.07	2880	2940	31.20	69.49	121.83	3150
1840.00	2673.59	2650.59	2881	2941	31.15	69.38	121.65	3520
1842.00	2677.26	2654.26	2882	2942	31.10	69.27	121.45	3674
1844.00	2681.03	2658.03	2883	2943	31.05	69.15	121.25	3771
1846.00	2684.78	2661.78	2884	2944	30.99	69.03	121.05	3747
1848.00	2688.78	2665.78	2885	2945	30.93	68.90	120.82	4000
1850.00	2692.94	2669.94	2886	2947	30.87	68.75	120.57	4154
1852.00	2696.85	2673.85	2888	2948	30.81	68.63	120.35	3913
1854.00	2700.03	2677.03	2888	2948	30.77	68.54	120.21	3178
1856.00	2702.59	2679.59	2887	2948	30.75	68.49	120.12	2560
1858.00	2704.96	2681.97	2887	2947	30.73	68.44	120.04	2378
1860.00	2708.94	2685.94	2888	2949	30.67	68.31	119.82	3972
1862.00	2713.12	2690.12	2889	2950	30.60	68.17	119.57	4182
1864.00	2716.82	2693.82	2890	2951	30.55	68.06	119.38	3705
1866.00	2720.57	2697.57	2891	2952	30.50	67.94	119.18	3749
1868.00	2723.80	2700.80	2892	2952	30.46	67.86	119.04	3222
1870.00	2726.03	2703.03	2891	2952	30.44	67.82	118.97	2230
1872.00	2728.26	2705.26	2890	2951	30.42	67.78	118.90	2240

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
1874.00	2731.86	2708.86	2891	2952	30.38	67.68	118.72	3596
1876.00	2735.70	2712.70	2892	2953	30.32	67.56	118.52	3841
1878.00	2739.54	2716.54	2893	2954	30.27	67.44	118.32	3840
1880.00	2743.29	2720.29	2894	2955	30.22	67.33	118.12	3752
1882.00	2747.05	2724.05	2895	2956	30.16	67.21	117.93	3753
1884.00	2750.97	2727.97	2896	2957	30.11	67.09	117.72	3928
1886.00	2754.78	2731.78	2897	2958	30.06	66.98	117.52	3808
1888.00	2758.70	2735.70	2898	2959	30.00	66.86	117.32	3921
1890.00	2762.53	2739.53	2899	2960	29.95	66.74	117.12	3830
1892.00	2766.34	2743.34	2900	2961	29.90	66.63	116.92	3805
1894.00	2770.14	2747.14	2901	2962	29.85	66.51	116.73	3804

PE603873

This is an enclosure indicator page.  
The enclosure PE603873 is enclosed within the  
container PE906492 at this location in this  
document.

The enclosure PE603873 has the following characteristics:

ITEM\_BARCODE = PE603873  
CONTAINER\_BARCODE = PE906492  
NAME = Synthetic Seismogram, 35Hz  
BASIN = GIPPSLAND  
PERMIT = VIC/L4  
TYPE = WELL  
SUBTYPE = SYNTH\_SEISMOGRAPH  
DESCRIPTION = Synthetic Seismogram, 35Hz, Turrum-4  
REMARKS =  
DATE\_CREATED = 14/09/92  
DATE\_RECEIVED =  
W\_NO = W1069  
WELL\_NAME = TURRUM-4  
CONTRACTOR = SCHLUMBERGER  
CLIENT\_OP\_CO = ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603869

This is an enclosure indicator page.  
The enclosure PE603869 is enclosed within the  
container PE906492 at this location in this  
document.

The enclosure PE603869 has the following characteristics:

ITEM\_BARCODE = PE603869  
CONTAINER\_BARCODE = PE906492  
NAME = Drift Corrected Sonic  
BASIN = GIPPSLAND  
PERMIT = VIC/L4  
TYPE = WELL  
SUBTYPE = WELL\_LOG  
DESCRIPTION = Drift Corrected Sonic for Turrum-4  
REMARKS =  
DATE\_CREATED = 14/09/92  
DATE\_RECEIVED =  
W\_NO = W1069  
WELL\_NAME = TURRUM-4  
CONTRACTOR = SCHLUMBERGER  
CLIENT\_OP\_CO = ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603870

This is an enclosure indicator page.  
The enclosure PE603870 is enclosed within the  
container PE906492 at this location in this  
document.

The enclosure PE603870 has the following characteristics:

ITEM\_BARCODE = PE603870  
CONTAINER\_BARCODE = PE906492  
NAME = Seismic Calibration Log  
BASIN = GIPPSLAND  
PERMIT = VIC/L4  
TYPE = WELL  
SUBTYPE = VELOCITY \_CHART  
DESCRIPTION = Seismic Calibration Log for Turrum-4  
REMARKS =  
DATE\_CREATED = 14/09/92  
DATE\_RECEIVED =  
W\_NO = W1069  
WELL\_NAME = TURRUM-4  
CONTRACTOR = SCHLUMBERGER  
CLIENT\_OP\_CO = ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

PE603871

This is an enclosure indicator page.  
The enclosure PE603871 is enclosed within the  
container PE906492 at this location in this  
document.

The enclosure PE603871 has the following characteristics:

ITEM\_BARCODE = PE603871  
CONTAINER\_BARCODE = PE906492  
NAME = Synthetic Seismogram, 20Hz  
BASIN = GIPPSLAND  
PERMIT = VIC/L4  
TYPE = WELL  
SUBTYPE = SYNTH\_SEISMOGRAPH  
DESCRIPTION = Synthetic Seismogram, 20Hz, Turrum-4  
REMARKS =  
DATE\_CREATED = 14/09/92  
DATE\_RECEIVED =  
W\_NO = W1069  
WELL\_NAME = TURRUM-4  
CONTRACTOR = SCHLUMBERGER  
CLIENT\_OP\_CO = ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)



PE603872

This is an enclosure indicator page.  
The enclosure PE603872 is enclosed within the  
container PE906492 at this location in this  
document.

The enclosure PE603872 has the following characteristics:

ITEM\_BARCODE = PE603872  
CONTAINER\_BARCODE = PE906492  
NAME = Synthetic Seismogram, 25Hz  
BASIN = GIPPSLAND  
PERMIT = VIC/L4  
TYPE = WELL  
SUBTYPE = SYNTH\_SEISMOGRAPH  
DESCRIPTION = Synthetic Seismogram, 25Hz, Turrum-4  
REMARKS =  
DATE\_CREATED = 14/09/92  
DATE\_RECEIVED =  
W\_NO = W1069  
WELL\_NAME = TURRUM-4  
CONTRACTOR = SCHLUMBERGER  
CLIENT\_OP\_CO = ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)