

Schlumberger SYDNEY LOG INTERPRETATION CENTRE

GEOGRAM*

(Synthetic Seismogram)

Company: ESSO AUSTRALIA LTD. DEPT. MAT. RES & ENV
 Well: HARLEQUIN #1 PE603199
 Field: WILDCAT
 Country: AUSTRALIA
 Reference No: 569304 Interval: 0.00 to 2574.00
 Date Logged: 1 FEB 89 Date Processed: 10 FEB 89
 Location: 038 11 59.94 S 147 42 28.06 E
 Elevations: KB: 21.00 DF: 20.70 GL: -43.00
 Permanent Datum: MSL Depth Units: METRES

LOG INFORMATION

FIELD RECORDING: Engineer: Y.G.ZHANG Location: Program Version: 30.4
 COMPUTATION: Analyst: N.SMITH Centre: SYJ Baseline: 16.900X2

ELEVATION ABOVE MEAN SEA LEVEL
 Logging Datum: 21.00
 Seismic Reference Datum: 0.00

Sonic Calibration By Check Shots: YES Sonic Edited By Analyst: YES

Two-Way Time Sample Interval: 2 ms Environment: Onshore

True Vertical Depth Corrections Applied: N/A
 Source of True Vertical Depth Data:
 Maximum Hole Deviation:

Run	Date	Tool Type	Bit Size/Depth	Casing Size/Depth	Top Depth	Bottom Depth
1		BHC			200.0 M	793.0 M
2	1 FEB 89	BHC	12 1/4" @ 2574.5 M	13 3/8" @ 780 M	746.0	2546.5

VSP Run	Date	Gun Offset	Hydro Offset	Gun Elevation	Hydro Elevation	Gun Azimuth	Hydro Azimuth
1	1 FEB 89	40 M	40 M	-9.1 M BELOW GL	-9.1 M BELOW GL		

GEOGRAM MODEL ASSUMPTIONS

Equal time slice model of horizontal plane layers.
 Plane acoustic waves at normal incidence.
 No intrinsic attenuation.

POLARITY
 An upgoing wave, reflected by an increase in acoustic impedance with depth, is displayed as a white trough under normal polarity.

SIGNATURES
 All signatures displayed in the Geogram results correspond to a wavelet convolved with a reflection coefficient of -0.5 (A decrease in acoustic impedance with depth).

REMARKS

10 CM/SEC
 35 HZ MINIMUM PHASE

The well name, location and borehole reference data were furnished by the customer. All interpretations are optional based on inference from electrical or other measurements and we cannot, and do not guarantee, the accuracy or correctness of any interpretations, and we will not, except in the case of gross or willful negligence on our part, be liable for any damages, including consequential damages, incurred by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

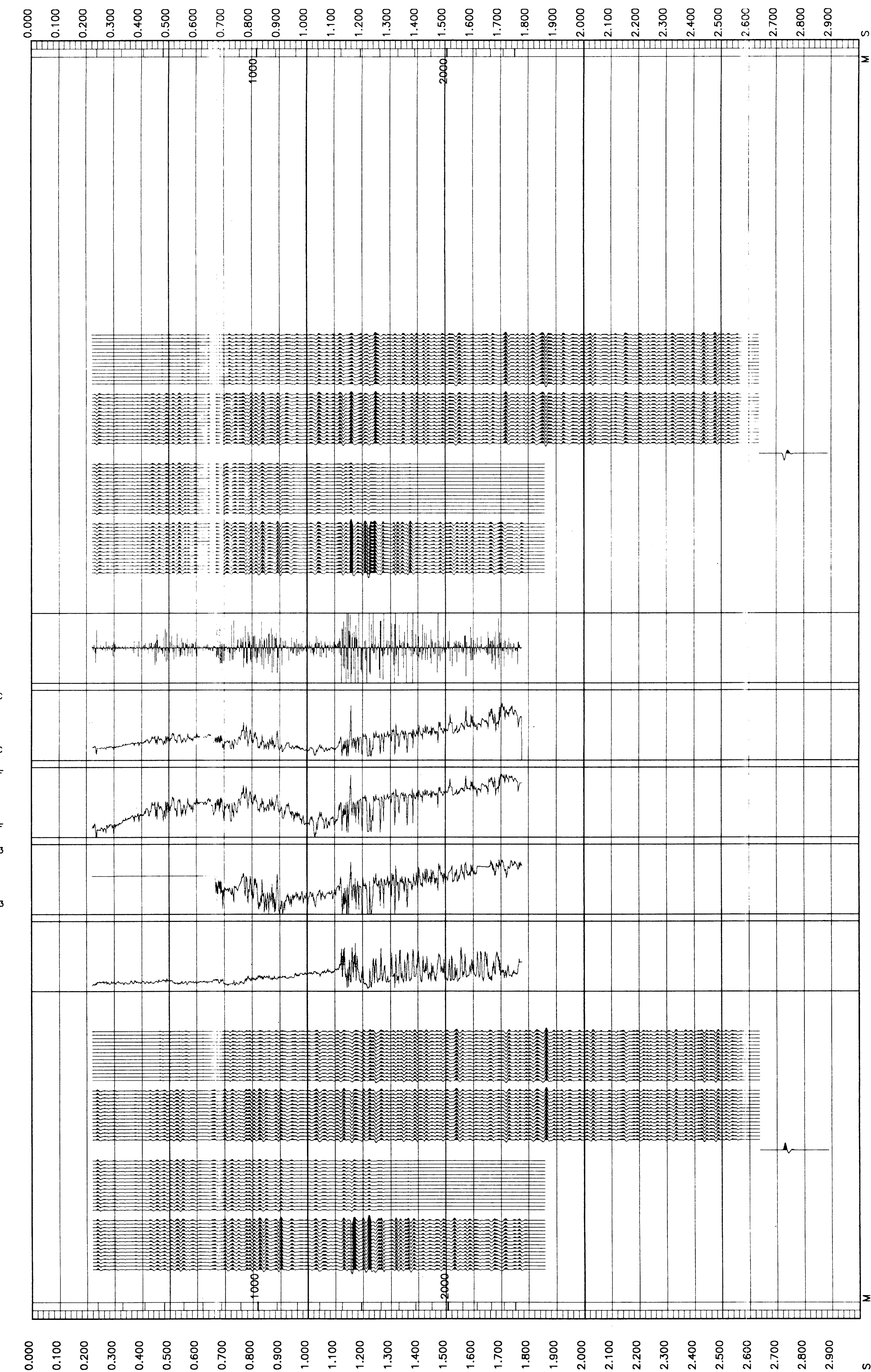
CLIENT = ESSO AUSTRALIA LTD.

FIELD = WILDCAT

WELL = HARLEQUIN 1

**** GEOGRAM ****
35 HERTZ MINIMUM PHASE
RICKER WAVELET
HARLEQUIN 1

- MULTIPLES ONLY REVERSE POLARITY
- PRIMARIES AND MULTIPLES REVERSE POLARITY
- PRIMARIES WITH TRANSMISSION LOSS REVERSE POLARITY
- PRIMARIES REVERSE POLARITY
- REFLECTION
- ACOUSTIC IMPEDANCE
- SONIC
- DENSITY
- GAMMA RAY
- MULTIPLES ONLY NORMAL POLARITY
- PRIMARIES AND MULTIPLES NORMAL POLARITY
- PRIMARIES WITH TRANSMISSION LOSS NORMAL POLARITY
- PRIMARIES NORMAL POLARITY



COMPANY ESSO AUSTRALIA LTD.
 FIELD WILDCAT
 WELL HARLEQUIN #1
 COUNTRY AUSTRALIA

Schlumberger