

# GEOGRAM\*

(Synthetic Seismogram)

\* A Mark of Schlumberger

Company: ESSO AUSTRALIA LTD. DEPT. NAT. RES & ENV  
 Well: HARLEQUIN #1 PE603197  
 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: NSMTH 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 ZERO PHASE

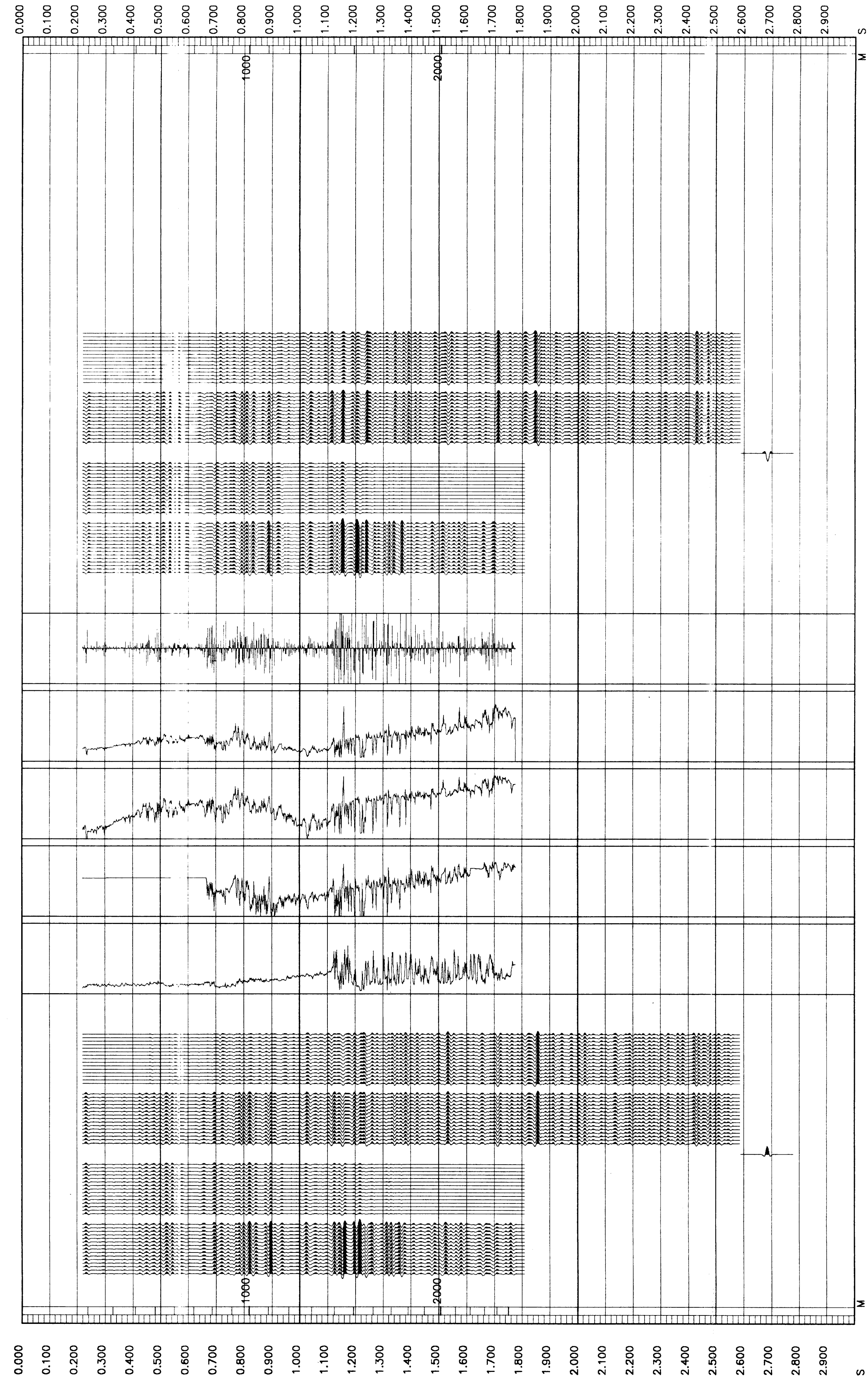
The well name, location and borehole reference data were furnished by the customer.

All interpretations are opinions based on information furnished to Schlumberger and we cannot and do not guarantee the accuracy or completeness of any interpretation, and we shall not be liable for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions set out in our current Price Schedule.

CLIENT = ESSO AUSTRALIA LTD.  
 FIELD = WILDCAT  
 WELL = HARLEQUIN 1

\*\* GEOGRAM \*\*  
 35 HERTZ ZERO 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



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 FIELD WILDCAT  
 WELL HARLEQUIN #1  
 COUNTRY AUSTRALIA