



GEOGRAM*

(Synthetic Seismogram)

Company: BHP PETROLEUM PTY. LTD.
 Well: CHAMPION-1 **25 Hz**
 Field: WILDCAT
 Country: AUSTRALIA
 Reference No: SYJ-561142/561143 Interval: 1845.00 to 1220.00
 Date Logged: 15 AUG. 1995 Date Processed: 17 AUG 1995
 Location: 038 32' 33.054" S 142 23' 18.066" E
 Elevations: KB: 25.30 DF: 25.00 GL: -54.00
 Permanent Datum: MSL Depth Units: METRES

LOG INFORMATION

FIELD RECORDING: Engineer: R.JONSSON Location: Program Version: 700-427
 COMPUTATION: Analyst: S.TCHERKASHNEV Centre: SYJ Baseline: 20.5

ELEVATION ABOVE MEAN SEA LEVEL
 Logging Datum: 25.30
 Seismic Reference Datum: 0.00

Sonic Calibration By Check Shots: YES Sonic Edited By Analyst: YES
 Two-Way Time Sample Interval: 1 ms Environment: YES

True Vertical Depth Corrections Applied: YES
 Source of True Vertical Depth Data:
 Maximum Hole Deviation: 0

| Run | Date | Tool Type | Bit Size/Depth | Casing Size/Depth | Tip Depth | Bottom Depth |
|-----|----------|-----------|----------------|-------------------|-----------|--------------|
| 1 | 15-07-95 | DLL | 12.25 IN | 13.3 IN/1216 M | 1216 M | 1856 M |

| VSP Run | Date | Gun Offset | Hydro Offset | Gun Elevation | Hydro Elevation | Gun Azimuth | Hydro Azimuth |
|---------|----------|------------|--------------|---------------|-----------------|-------------|---------------|
| 1 | 15-07-95 | 45 M | 45 M | 5 M BELOW MSL | 10 M BELOW MSL | 90. DEG | 90. DEG |

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.

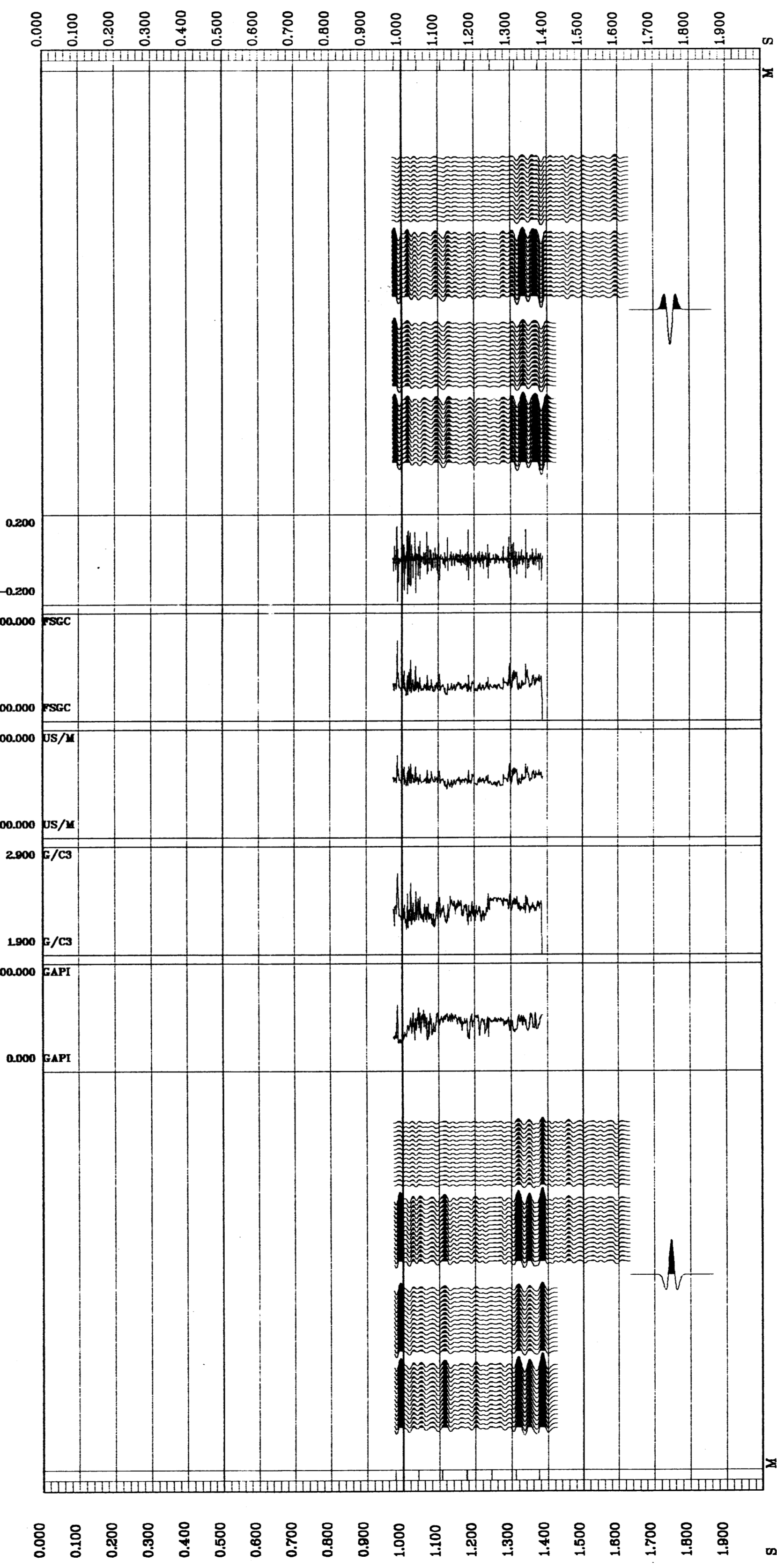
SIGNATURES
 All signatures displayed in the Geogram results correspond to a wavelet convolved with a reflection coefficient of -0.5 (A decrease in acoustic impedance with depth).

REMARKS

All interpretations are opinions based on information furnished by the customer, and do not guarantee the accuracy or completeness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretations made 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.
 The well name, location and borehole reference data were furnished by the customer.

**** GEOGRAM ****
25 HERTZ ZERO PHASE RICKER WAVELET
 VERTICAL SCALE = 10 CM/SEC

- 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 BHP PETROLEUM PTY. LTD.
 FIELD WILDCAT
 WELL CHAMPION-1
 COUNTRY AUSTRALIA

