

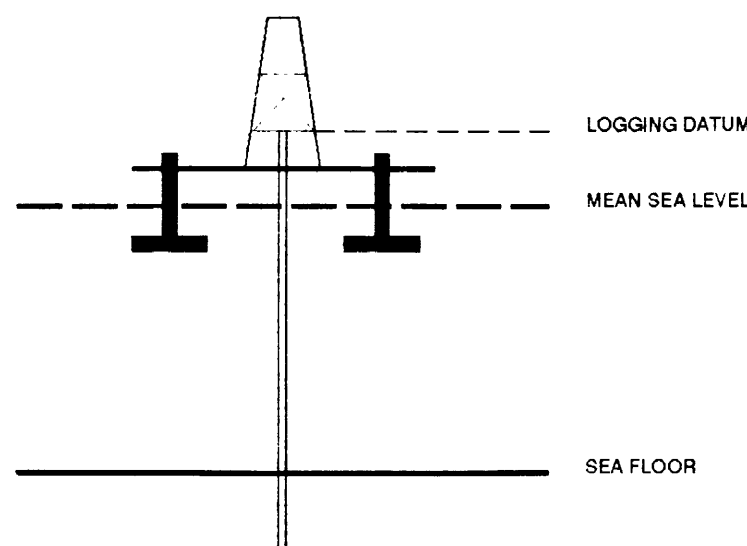
VERTICAL SEISMIC PROFILE

ZERO OFFSET VSP PLOT 3
VELOCITY FILTERING

Company: BHP PETROLEUM
Well: MINERVA 1
Field: EXPLORATION
Country: AUSTRALIA
Reference No: 560896 Interval: 2405.00 to 551.00
Date Logged: 05-04-93 Date Processed: 20-04-94
Location: 38 42' 12.23" S 142 57' 12.34" E
Elevations: KB: 25 30 DF: 25 00 GL: -57.00
Permanent Datum: MSL Depth Units: METRES
FIELD RECORDING. Engineer: M HELWIG Location: VEA Program Version: 32.4
COMPUTATION. Analyst: A WILSONO Centre: SYJ Baseline: 5.5

ELEVATION ABOVE MEAN SEA LEVEL

Logging Datum: 25 00
Seismic Reference Datum: 0.00



Total Number of Levels: 100
Depth Reference: SRD
Time Reference: SRD

Run	Date	Tool Type	Bit Size: Depth	Casing Size: Depth	Top Depth	Bottom Depth	
1	14-03-93	AS			1183 M	551 M	
2	21-03-93	AS			1793 M	1195 M	
3	25-03-93	AS			2084 M	1793 M	
4	05-04-93	AS			2112 M	2084 M	
VSP Run	Date	Gun Offset	Hydro Offset	Gun Elevation	Hydro Elevation	Gun Azimuth	Hydro Azimuth
1	14-03-93	47 M	47 M	7 M BELOW MSL	14 M BELOW MSL	50	50
2	22-03-93	47 M	47 M	7 M BELOW MSL	14 M BELOW MSL	50	50

REMARKS

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

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness 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.

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*** VELOCITY FILTER ***
VERTICAL COMPONENT.
DOWNGOING WAVEFIELD
PROCESSING SEQUENCE:
MEDIAN STACK APPLIED
STATIC CORRECTION TO MSL : 9.18 MS
BAND PASS FILTER : 5-100 HZ
NORMALISATION GATE : 100 MS
TIME VARYING GAIN : T/TO**1.00
7 LEVEL MEDIAN ESTIMATE OF DOWNGOING WAVEFIELD
VERTICAL SCALE : 10 CM/SEC
POLARITY (S.E.G.) : NORMAL

ONE WAY TIME

*** VELOCITY FILTER ***
VERTICAL COMPONENT.
RESIDUAL WAVEFIELD
PROCESSING SEQUENCE:
MEDIAN STACK APPLIED
STATIC CORRECTION TO MSL : 9.18 MS
BAND PASS FILTER : 5-100 HZ
NORMALISATION GATE : 100 MS
TIME VARYING GAIN : T/TO**1.00
DOWNGOING WAVEFIELD SUBTRACTION
RESIDUAL WAVEFIELD
VERTICAL SCALE : 10 CM/SEC
POLARITY (S.E.G.) : NORMAL

ONE WAY TIME

*** VELOCITY FILTER ***
VERTICAL COMPONENT.
RESIDUAL WAVEFIELD
PROCESSING SEQUENCE:
MEDIAN STACK APPLIED
STATIC CORRECTION TO MSL : 9.18 MS
BAND PASS FILTER : 5-100 HZ
NORMALISATION GATE : 100 MS
TIME VARYING GAIN : T/TO**1.00
DOWNGOING WAVEFIELD SUBTRACTION
RESIDUAL WAVEFIELD
VERTICAL SCALE : 10 CM/SEC
POLARITY (S.E.G.) : NORMAL

TWO WAY TIME

*** VELOCITY FILTER ***
VERTICAL COMPONENT.
ENHANCED UPGOING WAVEFIELD
PROCESSING SEQUENCE:
MEDIAN STACK APPLIED
STATIC CORRECTION TO MSL : 9.18 MS
BAND PASS FILTER : 5-100 HZ
NORMALISATION GATE : 100 MS
TIME VARYING GAIN : T/TO**1.00
DOWNGOING WAVEFIELD SUBTRACTION
5 LEVEL ENHANCED UPGOING WAVEFIELD
VERTICAL SCALE : 10 CM/SEC
POLARITY (S.E.G.) : NORMAL

TWO WAY TIME

RAW DEPTH M	TRUE VERTICAL DEPTH MSL M	TRANSIT TIME S	LEVEL NO
200.0	175.0	0.107	100
250.0	225.0	0.132	99
300.0	275.0	0.157	98
350.0	325.0	0.180	97
400.0	375.0	0.201	96
450.0	425.0	0.223	95
535.0	510.0	0.259	93
600.0	575.0	0.287	90
641.0	616.0	0.304	88
682.0	657.0	0.320	86
723.0	698.0	0.335	84
764.0	739.0	0.349	82
805.0	779.0	0.361	80
846.0	819.0	0.374	78
887.0	859.0	0.386	76
928.0	899.0	0.402	74
970.0	944.0	0.420	72
1010.0	984.0	0.433	70
1055.0	1029.0	0.449	68
1095.0	1069.0	0.462	66
1135.0	1109.0	0.475	64
1189.0	1163.0	0.490	61
1240.0	1214.0	0.510	59
1290.0	1264.0	0.524	57
1335.0	1314.0	0.539	55
1380.0	1364.0	0.553	53
1420.0	1404.0	0.566	51
1465.0	1454.0	0.579	49
1495.0	1486.0	0.595	47
1535.0	1526.0	0.609	45
1570.0	1561.0	0.623	43
1620.0	1611.0	0.638	41
1675.0	1671.0	0.653	38
1715.0	1716.0	0.665	36
1760.0	1771.0	0.680	34
1805.0	1826.0	0.702	32
1845.0	1871.0	0.715	30
1885.0	1916.0	0.728	28
1925.0	1961.0	0.742	26
1970.0	2016.0	0.755	24
2010.0	2061.0	0.768	22
2050.0	2111.0	0.782	20
2090.0	2161.0	0.797	18
2135.0	2216.0	0.811	16
2180.0	2271.0	0.825	14
2220.0	2316.0	0.838	12
2260.0	2361.0	0.851	10
2300.0	2406.0	0.864	8
2340.0	2451.0	0.877	6
2380.0	2496.0	0.890	4
2420.0	2541.0	0.903	2

COMPANY BHP PETROLEUM
FIELD EXPLORATION
WELL MINERVA 1
COUNTRY AUSTRALIA

