BASIN OIL N.L.
ACN 000 628 017

WELL COMPLETION REPORT

TARALEA -1

April 1998

Compiled By: Geoffrey P McDonagh Pty Ltd

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WELL:	**TARALEA #1**	**RIG:**	**ODE Rig 30**
WELL TYPE:	**EXPLORATION**	**SPUD:**	**2030 hours, 18-01-97**
OPERATOR:	**Cultus Petroleum (Australia) NL**	**TD REACHED:**	**1730 hours, 05-02-97**
BASIN:	**Onshore Otway Basin Victoria**	**RIG RELEASED:**	**0900 hours, 08-02-97**
BLOCK/LICENCE:	**PEP 101**	**COMPLETED:**	**N/A**
LATITUDE:	**38° 13' 43.62" S (prelim)**	**STATUS:**	**Plugged & abandoned exploration well**
LONGITUDE:	**142° 12' 28.84" E (prelim)**	**TYPE COMPLETION::**	**N/A**
X coord:	**605 732.04 mE**	**TYPE STRUCTURE:**	**Rollover/tilted fault block**
Y coord:	**5 768 096.01mN**		**Basin margin three way dip closure**
SEISMIC STATION:	**SP 350 on Line OPX90A-71**	**ZONE(S):**	**Upper Eumeralla Formation**
			Heathfield Member
			Windermere Member
ELEVATION GL:	**49 m AHD (prelim)**	**REMARKS:**	**Original proposed T.D. of 1500mRT, well**
RT:	**53.3 m**		**deepened to 2800mRT**
TD:	**2802.0 m MD (Logr Ext)**		
	2800 m MD (Drlr)		

CASING SIZE	SHOE DEPTH (mRT)	TYPE
16"	12.0	Conductor
9 5/8"	492.8	N80 Casing

AGE	FORMATION OR ZONE TOPS	DEPTH (m) LOGGERS MD	DEPTH (m) SUBSEA TVD	THICKNESS (metres)	HIGH (H) LOW (L)	TWT (msec)
TERTIARY	NEWER VOLCANICS	4.3	53.3	35.7	NP	
TERTIARY	PORT CAMPBELL LIMESTONE	40.0	13.3	93.0	35.7mL	
TERTIARY	GELLIBRAND MARL	133.0	-79.7	243.0	41mH	124
TERTIARY	CLIFTON FORMATION	376.0	-322.7	25.0	15mL	341
TERTIARY	DILWYN FORMATION	401.0	-347.7	84.0	5mL	400
TERTIARY	PEMBER MUDSTONE	485.0	-431.7	37.5	13mL	471
TERTIARY	PEBBLE POINT FORMATION	522.5	-469.2	24.5	20.5mL	505
LATE CRETACEOUS	PAARATTE FORMATION	547.0	-493.7	78.0	15mH	527
LATE CRETACEOUS	SKULL CREEK MUDSTONE	625.0	-571.7	30.0	15mL	596
LATE CRETACEOUS	NULLAWARRE GREENSAND	655.0	-601.7	9.0	25mL	623
LATE CRETACEOUS	BELFAST MUDSTONE	664.0	-610.7	28.5	24mL	630
EARLY CRETACEOUS	UPR. EUMERALLA FORMATION	692.5	-639.3	660.0	32.5mL	655
EARLY CRETACEOUS	HEATHFIELD MEMBER	1352.5	-1299.2	84.0	51.5mH	1149
EARLY CRETACEOUS	LWR. EUMERALLA FORMATION	1436.5	-1383.2	1035.5	20.5mH	1202
EARLY CRETACEOUS	KILLARA COALS	2472.0	-2418.7	232.5	NP	1775
EARLY CRETACEOUS	WINDERMERE MEMBER	2704.5	-2651.2	93.9	NP	1900
* Geophysical prognosis	T.D. (LOGR. EXTRAP.)	2800.0	-2746.7			

LOG INTERPRETATION (Interval Averages)					
ZONE	INTERVAL m MD	THICKNESS	NP m	POR %	SW %
N/A					

PERFORATIONS (4 shots/ft)	
ZONE	INTERVAL m MD
N/A	

CORES				
ZONE	NO.	INTERVAL m MD	CUT m	REC m
N/A				

LOG (BPB)	RUN	INTERVAL mRT	BHT/TIME	LOG	RUN	INTERVAL mRT	BHT/TIME
CIS (Velocity Survey)	1	1790.0 - Surface 20 Levels		PSD (Dipmeter)	3	2798.0-2500.0	116°C/24.0hrs
DLL-GR-SP-CAL-DT-MLL	2	2797.6-492.8 2797.6-2498.6 & 1499.1-1492.8	110°C /17.0 hrs				

FORMATION TESTS

NO.	INTERVAL (mRT)	FORMATION	FLOW (mins)	SHUT IN (mins)	BOTTOM GAUGE IP/FP (psia)	SIP	MAX SURF PRESS (psia)	FLUID TO SURF (mins)	TC/ BC	REMARKS
N/A										

SUMMARY:

Taralea 1 was drilled as an exploration well in the southwestern portion of permit PEP 101, onshore Otway Basin. This block is located approximately 200km west of Melbourne in the central western part of Victoria.

The Taralea well was designed to test large rollover fault block complex on the downthrown side of a major fault. Closure had been mapped at three levels: top Eumeralla, Heathfield Member and Base Tertiary. The primary objective comprised sandstones of the Upper Eumeralla Formation while the Heathfield and Pebble Point reservoirs were considered secondary targets. These reservoirs were encountered in Pretty Hill - 1 which is located outside of closure, some 7 km west of the Taralea well.

Taralea - 1 was spudded on the 18th of January, 1997 with 16" conductor pipe set at 12 mRT. Drilling proceeded with the 12 1/4 " BHA to 495 mRT where 9 5/8" casing was set at 492.8 mRT. The 8 ½" BHA was then used to drill to 1500 mRT.

The Pebble Point Formation was intersected from 522.2 - 547 mRT and came in 24.5m low to prognosis. No reservoir was developed at this level and no hydrocarbon indications were observed.

The primary objective Upper Eumeralla Formation was encountered at 692.5 mRT, some 32.5m low to prognosis. The sandstones present in this section were described as very fine to medium grained with poor visible porosity. No oil fluorescence was observed while gas readings were minor (5 units, C1 only).

The sandstones of the Heathfield Member were intersected from 1353.5 - 1436.5 mRT and came in 51.5m high to prognosis. Sandstones were described as very fine to medium grained with poor to fair visual porosity. Once again no oil fluorescence was recorded and gas readings were minor (9 units, C1 only).

Taralea - 1 reached the original proposed total depth of 1500 mRT on the 27th January, 1997. However, due to the lack of shows up to this point, it was decided to deepen the well to 2800 mRt by drilling ahead with the 8 ½" BHA. This would allow a test of a basin margin closure at the Near Base Eumeralla level. Reservoir was predicted to be present within the basal Windermere Member of the Lower Eumeralla Formation. This unit was encountered in Windermere - 2, some 16 km west of Taralea - 1.

The revised Total Depth of 2800 mRT was reached on the 5th of February, 1997. The Windermere Member was intersected at 2704.5 mRT and was made up of claystone and interbedded sandstone. The latter was described as very fine to fine grained and hard, with no visual porosity. No oil fluorescence was observed and gas readings were minor (5 units, C1-C4).

After reaching total depth, wireline logs were run which confirmed the lack of hydrocarbons. No cores were cut and no formation testing was performed . Consequently, the well was plugged and abandoned with three cement plugs set as follows:

Plug 1: 725-665 mRT; Plug 2: 523-468 mRT; Plug 3: 5 sack surface plug

The rig was released on the 8th of February, 1997

1.0 INTRODUCTION

Taralea-1 is an exploration well located in PEP 101 in the onshore Victorian section of the Otway Basin (Figure 1) approximately 200km west of Melbourne. The operator is Basin Oil, a wholly owned subsidiary of Cultus.

The Taralea prospect is a seismically defined large rollover/fault Block complex situated on the down thrown side of a major fault. The well was designed to test the hydrocarbon potential of the Upper Eumeralla Formation and the Pebble Point Formations.

The well was spudded at 20.30hrs on the 18th of January, 1997 and reached the original prognosed total depth of 1500 mRT at 20.00hrs on 27th of January, 1997. The well was then deepened to 2800 mRT to test closure at the Near Base Eumeralla level.

Taralea-1 was plugged and abandoned as a dry hole. No significant hydrocarbons were recorded during the drilling of the well.

OD & E Rig 30 was released on the 8th of February, 1997.

2.0 PRE-DRILLING SUMMARY

2.1 Regional Geology

The Otway Basin formed as a result of Mesozoic tensional forces which produced a complex of localised intra-cratonic sub-basins (GFE, 1994) (Figure 2). This involved two main tectonic phases, a Late Jurassic to Early Cretaceous rift phase marked by extension and rapid subsidence, and a Late Cretaceous to Recent post-rift phase characterized by slower subsidence, and at times compressional forces (Abele *et al*, 1995 - Geol. Rpt. 103).

The Otway Basin consists of four major sedimentary sequences (Figure 3), each deposited during different phases of separation of southern Australia from Antarctica.

The earliest sequence consists of terrestrial sediments deposited in localized intra-cratonic grabens and half grabens, during the Late Jurassic to Early Cretaceous while extension was active. Organic-rich non marine sediments were deposited in the deeper parts of the grabens or more marginal low energy settings.

The second major sequence, which also contained non marine sediments, was deposited in an intra-cratonic sag basin, although significant basement extension cannot be documented.

The third sequence developed towards the beginning of the Late Cretaceous and entailed major extension. Although terrestrial sediments continued to be deposited, marine rocks formed an important part of the sequence for the first time.

A major period of erosion followed uplift in the Late Cretaceous, forming an unconformity surface that is regionally mappable throughout the basin. Sedimentation resumed with the deposition of largely non marine sediments, with minor marine influences. The percentage of marine sediment rapidly increased with the outbuilding of coastal plain and shelf deposits (GFE, 1994). This process is continuing to the present day.

2.2 Previous Drilling

Since the 1860s the Otway Basin has been recognised as a potential petroleum province. It was the location for Australia's first oil exploration well, Salt Creek, at Alfred Flat, South Australia, in 1866 (Sprigg, 1986). Discovery of bitumen strandings, seepages and oil scums led to the onset of exploration in the basin. Over 150 wells have since been drilled in the Otway Basin, both onshore and offshore, with the greatest number of discoveries of hydrocarbons in the coastal region between Port Campbell and Mt. Gambier.

Mapping of anticlinal structures and intermittent drilling of shallow wells took place between the early 1890s and late 1950s, however no discoveries were made during this period. It was not until 1959, when Frome-Broken Hill drilled Port Campbell-1, that a discovery was made. It flowed gas from the Late Cretaceous Waarre Formation at an initial rate of 1.5mmcfd, however it was deemed non commercial as the rate declined rapidly. Shell initiated drilling offshore in the Victorian section of the basin in 1967, followed closely by Esso, though there were no large successes. It wasn't until 1979 that the first commercial hydrocarbon gas, from the Waarre Formation, was discovered by Beach Petroleum at North Paaratte-1. The field was brought on stream in 1986. Following North Paaratte-1, Wallaby Creek and Grumby were two more fields discovered by Beach, (also the Waarre Formation) in 1981. Subsequent exploration resulted in the establishment, by Beach, of the Iona gas field in 1988, then the Boggy Creek CO_2 field, by GFE Resources, in late 1991. The first offshore success was with BHP Petroleum's Minerva-1, in 1993, just off Port Campbell. The Mylor (Bridge/GFE) field was discovered in 1994, marking the first recovery of oil from the Waarre Formation (Foster and Hodgson, 1995). The Langley (GFE) field was also discovered in 1994. The most recent discovery in the area was made by Basin Oil in 1996 when the Skull Creek field was discovered.

All of the commercial discoveries in the Victorian section of the Otway Basin are located within the Port Campbell region. The following fields are located in PPL 1 and 2:- North Paaratte, Wallaby Creek, Grumby, Iona and Skull Creek with Mylor just to the north of the boundary of PPL1. Boggy Creek, a CO_2 producing field is situated approximately five kilometres west in PPL3.

Given the modest cost of exploration and development in the region and the ready market for any discoveries, the area has excellent potential to produce profitable returns (Traviati and Smith, 1994).

2.3 Drilling Rationale

Taralea-1 drilled on the large Taralea structure to test the hydrocarbon potential of the Lower Cretaceous upper Eumeralla Formation.

As closure is mapped on three levels, the upper Eumeralla, the Heathfield Member and the Pebble Point Formation, the well was programmed to test these units. After drilling through these targets without shows of hydrocarbons, it was decided to deepen the well to the Near Base Eumeralla Level where the structure was mapped with dip closure on three sides and fault closure to the north against the Windermere Fault. The three primary targets were present in reservoir facies in the Pretty Hill - 1 well some 7 km west of Taralea - 1. The predicted lower target was the Windermere Member which was encountered as reservoir section in the Windermere - 2 well about 16 km west of Taralea - 1.

3.0 Results of Drilling

3.1 Stratigraphic and Geophysical Prognosis

Interpretation of the Taralea Structure (Figure 4) was based on a 1 km x 1 km grid of fair to good quality seismic data. Six surveys were used to delineate the structure and these were shot between 1988 and 1995. Data from the adjoining PEP 111 were also used to tie the surveys to adjacent wells.

The Pebble Point Formation was found to have very poor reservoir properties. The sample descriptions indicate that it consists of claystone with common fine to very coarse quartz grains rather than the expected reservoir sandstone. The Upper Eumeralla was also recorded as a claystone interbedded with sandstone, light to medium grey, very fine to medium grained, moderately to well sorted with weak calcareous and siliceous cement and white argillaceous matrix. There was poor visible porosity.

The Heathfield Member when intersected consisted of a sandstone, off white to medium green grey, very fine to medium grained with occasional coarse and very coarse grains. There was a common white argillaceous matrix, poor to fair visible porosity but no shows. It was interbedded with claystone. The Windermere Member of the Eumeralla Formation, the lowest target, consisted of claystone grading to and interbedded with sandstone. There were no shows.

The seismic reflectors used to define the structure were the "Top Clifton", "Top Pebble Point", "Base Tertiary", "Top Eumeralla", "Heathfield Sandstone", "Near Base Eumeralla", "Top Crayfish", "Top Casterton" and "Top Basement". The last three reflectors were not intersected in the well.

Most picks were slightly higher than the depth where the formations were encountered. The "Top Eumeralla" was 32.5m low to prognosis and the Heathfield Sandstone 51.5m low. The base of the Tertiary was drilled 15m higher than expected, but the other reflectors were picked 15 to 24m higher than drilling indicated (Figure 5).

3.2 Stratigraphic Summary

The Eumeralla Formation, the youngest formation in the Late Jurassic to Early Cretaceous Otway Group, is a thick megasequence of volcanogenic sandstone and mudstone and represents the early sedimentary fill of the rifted Otway Basin. Sediments making up the Eumeralla Formation were deposited by braided rivers in a variety of environments ranging from high-energy fluviatile to low-energy lacustrine (Abele *et al*, 1995 - Geol. Rpt. 103).

The first marine incursion is marked by the Late Cretaceous Sherbrook Group. Sedimentation began in fluviatile to coastal environments on the upper and lower delta plain forming the Waarre Formation. Progressive deepening allowed the deposition of offshore mud to form the Belfast Mudstone. The Nullawarre Greensand was deposited in a shallow marine environment due to a sudden fall in sea level (Abele *et al*, 1995 - Geol. Rpt. 103). A rising sea level led to the deposition of the Skull Creek Mudstone in a pro-delta environment. The sediments of the Paaratte Formation were deposited in a prograding deltaic environment culminating in a shallow marine to fluviatile environment. The Sherbrook Group unconformably overlies the Otway Group, and is unconformably overlain by the Wangerrip Group.

The Palaeocene to Early Eocene Wangerrip Group was deposited in shallow marine and deltaic environments, also with a predominantly non marine source. The oldest formation, the Pebble Point, reflects the initial transgression. As the water deepened, a deltaic sequence prograded out into the basin, with the Pember Mudstone and the Dilwyn Formation representing the pro-delta and lower delta plain deposits respectively (Tickell, *et al.*, 1992 - Geol. Rpt. 95).

The succeeding Middle Eocene to Early Oligocene Nirranda Group is predominantly marine with a mixed terrigenous/carbonate source, and was deposited in estuarine and coastal settings. The Mepunga Formation disconformably overlying the Dilwyn, is interpreted as a beach barrier system conformably overlain by the open marine Narrawaturk Marl (Blake, 1980).

Finally, the Late Oligocene to Late Miocene Heytesbury Group marks the first major development of shelf carbonates, with only a minor terrigenous sediment input. The group is made up of the Clifton Formation, a shallow marine sheet of carbonate sand, the Gellibrand Marl, deposited in a low energy, continental shelf environment, and the overlying Port Campbell Limestone, in a moderate continental shelf region, above fair weather base (Abele *et al*, 1995 - Geol. Rpt. 103).

The uppermost unit in the well is referred as the Newer Basalt. It was grey black with fine olivine crystals and feldspar and quartz in a mafic cryptocrystalline groundmass and with vughy porosity in part.

3.3 Hydrocarbons

The primary objectives of the Taralea well were the Early Cretaceous Upper Eumeralla Formation sands. Of lesser significance, but still considered important were the Pebble Point Formation of Tertiary age, and the Early Cretaceous Heathfield Member. When these were without encouraging signs, the well was deepened to test the Windermere Member of the basal Eumeralla Formation. This was also without significant shows.

Haliburton Energy Services provided the mud logging services for Taralea-1. Whilst drilling, cuttings and gas levels were carefully monitored. Cuttings were examined under ultra-violet light to detect any hydrocarbon fluorescence. Gas equipment used by Haliburton in the monitoring of gas levels comprised an FID Gas Chromatograph and an FID Total Gas Detector.

As mentioned above only insignificant gas shows were detected, and no oil fluorescence was recorded anywhere in the well.

4.0 REFERENCES

Abele, C., Pettifer, G., Tabassi, A., 1995
The Stratigraphy, Structure, Geophysics, and Hydrocarbon Potential of the Eastern Otway Basin. Department of Agriculture, Energy and Minerals of Victoria. Geological Survey of Victoria, Geological Survey Report 103.

Blake, W.J.R. 1990 Geology and Hydrogeology of Early Tertiary sediments of the Otway Basin. M.Sc. Thesis, Latrobe University, Melbourne (unpublished)

Foster, J.D. and Hodgson, A.J., 1995 Port Campbell Reviewed: Methane and Champagne. APEA Journal 35(1), pp. 418-435

GFE Resources Ltd., 1994 Otway Basin Regional Study. Volumes 1 and 3a. Confidential Report.

Sprigg, R.C., 1986 A history of the search for commercial hydrocarbons in the Otway Basin complex. In R.C. Glenie (ed.) Second Southeastern Australia Oil Exploration Symposium. PESA Symposium, Melbourne, 1985 pp. 173-200

Tickell, S.J., Edwards, J. and Abele, C., 1992 Port Campbell Embayment 1:100,000 Map Geological Report, Geological Survey of Victoria, Geological Survey Report 95, 97p.

Traviati, M. and Smith, S.B., 1994 The Otway Basin: The emergence of a new petroleum province. ANZ McCaughan 15p

FIGURE 1

WELL LOCATION MAP

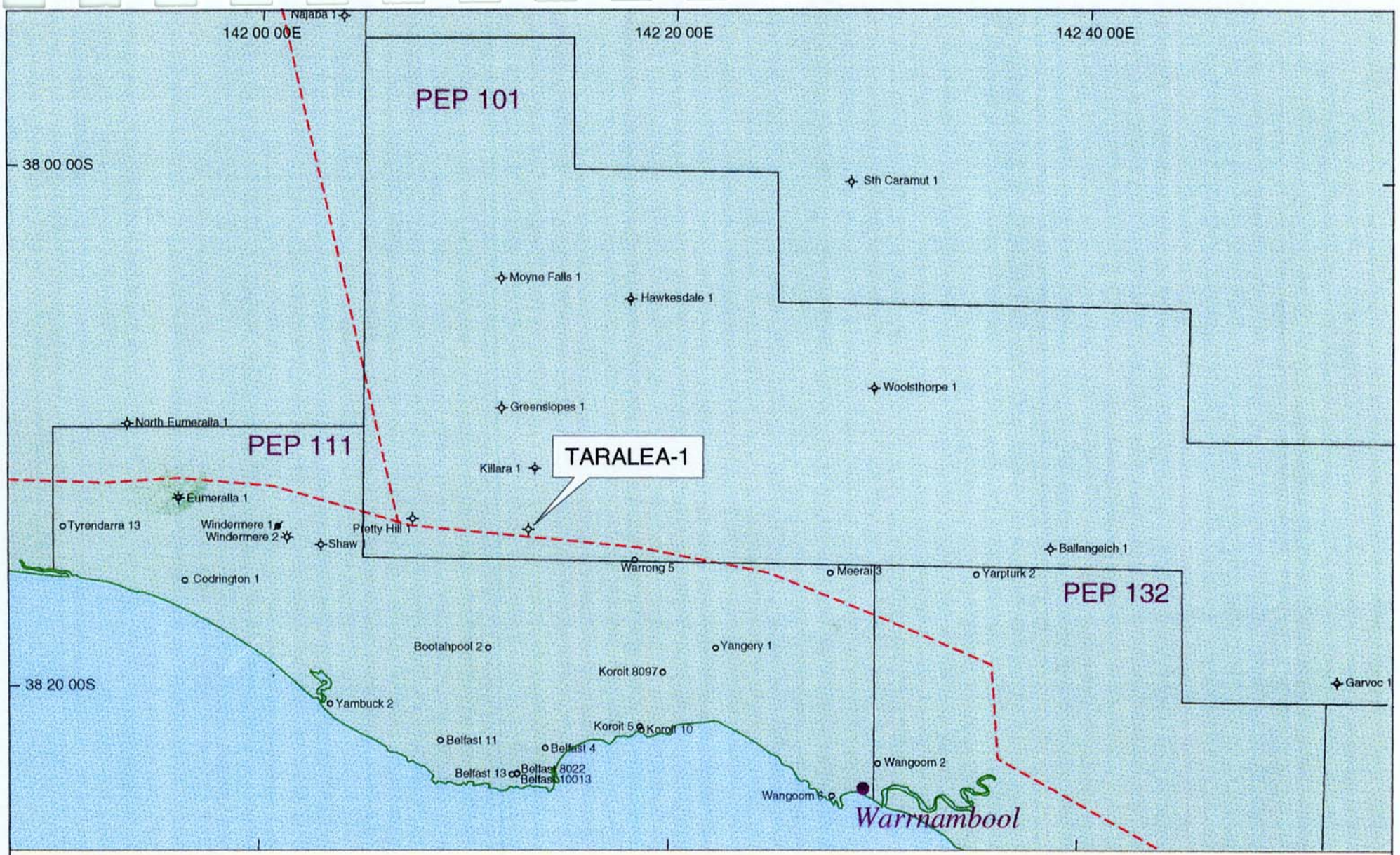

142 00 00E
142 20 00E
142 40 00E
38 00 00S
38 20 00S
Najaba 1
PEP 101
Sth Caramut 1
Moyne Falls 1
Hawkesdale 1
Woolsthorpe 1
Greenslopes 1
North Eumeralla 1
PEP 111
TARALEA-1
Killara 1
Eumeralla 1
Tyrendarra 13
Windermere 1
Windermere 2
Pretty Hill 1
Shaw
Warrong 5
Ballangeich 1
Meerai 3
Yarpturk 2
Codrington 1
PEP 132
Bootahpool 2
Yangery 1
Koroit 8097
Garvoc 1
Yambuck 2
Koroit 5
Koroit 10
Belfast 11
Belfast 4
Belfast 13
Belfast 8022
Belfast 10013
Wangoom 2
Wangoom 6
Warrnambool
Water bore
Exploration well
Pipeline
0
km
20
CULTUS
OTWAY BASIN - VICTORIA
PEP 101/111
WELL LOCATION MAP
AUTHOR: I.L.SAYERS DATE: NOV.1996 FILE: OTWAY/PEP111/KOROITA4.DGN
FIGURE 1

FIGURE 2

STRUCTURAL ELEMENTS MAP - OTWAY BASIN

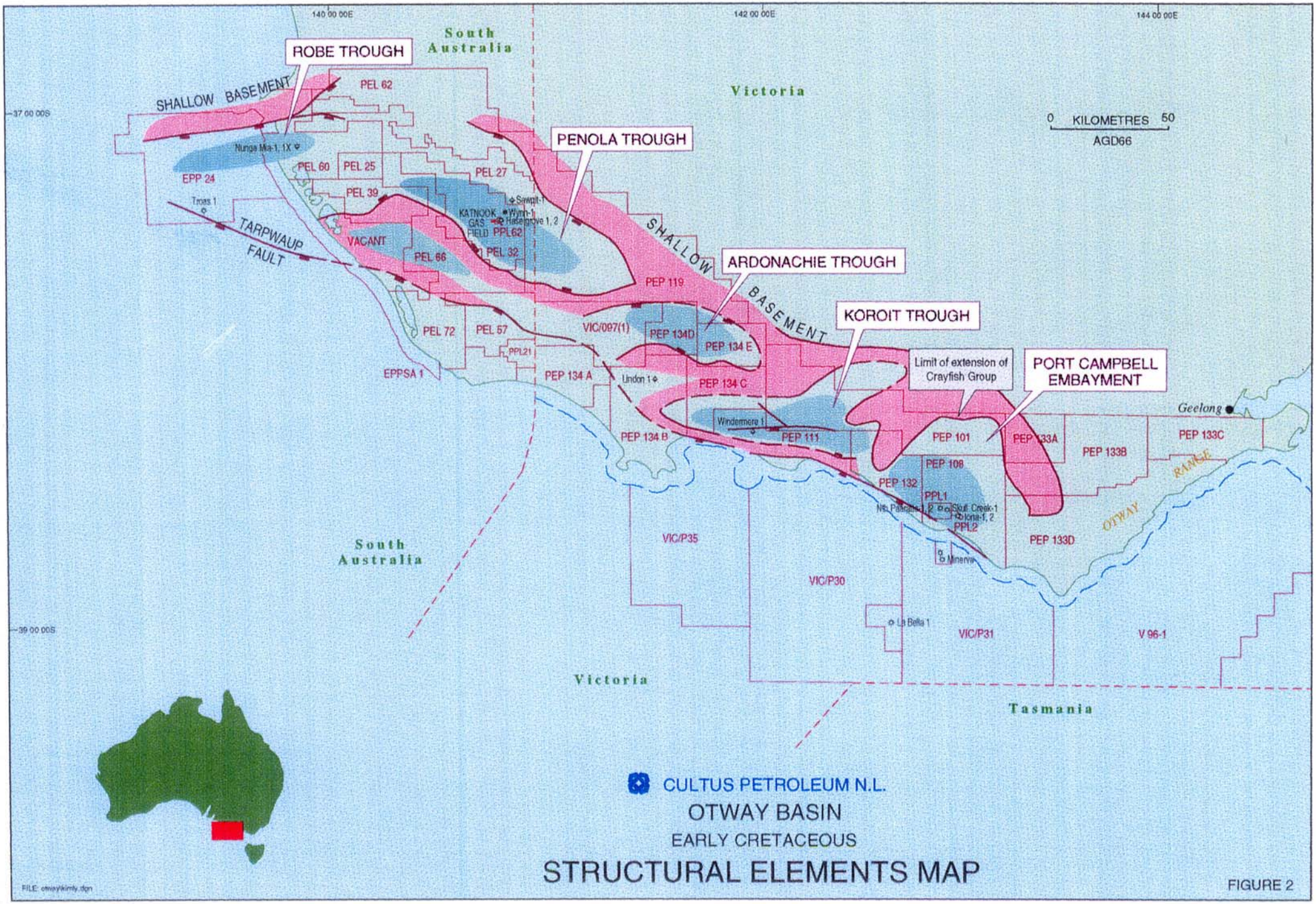

140 00 00E
142 00 00E
144 00 00E
37 00 00S
39 00 00S
South Australia
Victoria
ROBE TROUGH
SHALLOW BASEMENT
PENOLA TROUGH
ARDONACHIE TROUGH
KOROIT TROUGH
PORT CAMPBELL EMBAYMENT
Limit of extension of Crayfish Group
TARPWAUP FAULT
0 KILOMETRES 50
AGD66
PEL 62
PEL 60
PEL 25
PEL 27
PEL 39
PEL 66
PEL 32
PEL 72
PEL 57
PPL21
EPP 24
EPPSA 1
Troas 1
Nunga Mia-1, 1X
Sawpit-1
Wynn-1
Haselgrove 1, 2
KATNOOK GAS FIELD
PPL62
VACANT
PEP 119
VIC/097(1)
PEP 134D
PEP 134 E
PEP 134 A
PEP 134 C
PEP 134 B
Lindon 1
Windermere 1
PEP 111
PEP 101
PEP 133A
PEP 133B
PEP 133C
PEP 108
PEP 132
PPL1
PPL2
Nth Paaratte 1, 2
Skull Creek-1
Iona-1, 2
Minerva
PEP 133D
RANGE
OTWAY
VIC/P35
VIC/P30
VIC/P31
La Bella 1
V 96-1
Geelong
Tasmania
CULTUS PETROLEUM N.L.
OTWAY BASIN
EARLY CRETACEOUS
STRUCTURAL ELEMENTS MAP
FIGURE 2
FILE: otwayklimly.dgn

FIGURE 3

STRATIGRAPHIC TABLE - OTWAY BASIN

OTWAY BASIN - VICTORIA

SCHEMATIC STRATIGRAPHIC TABLE

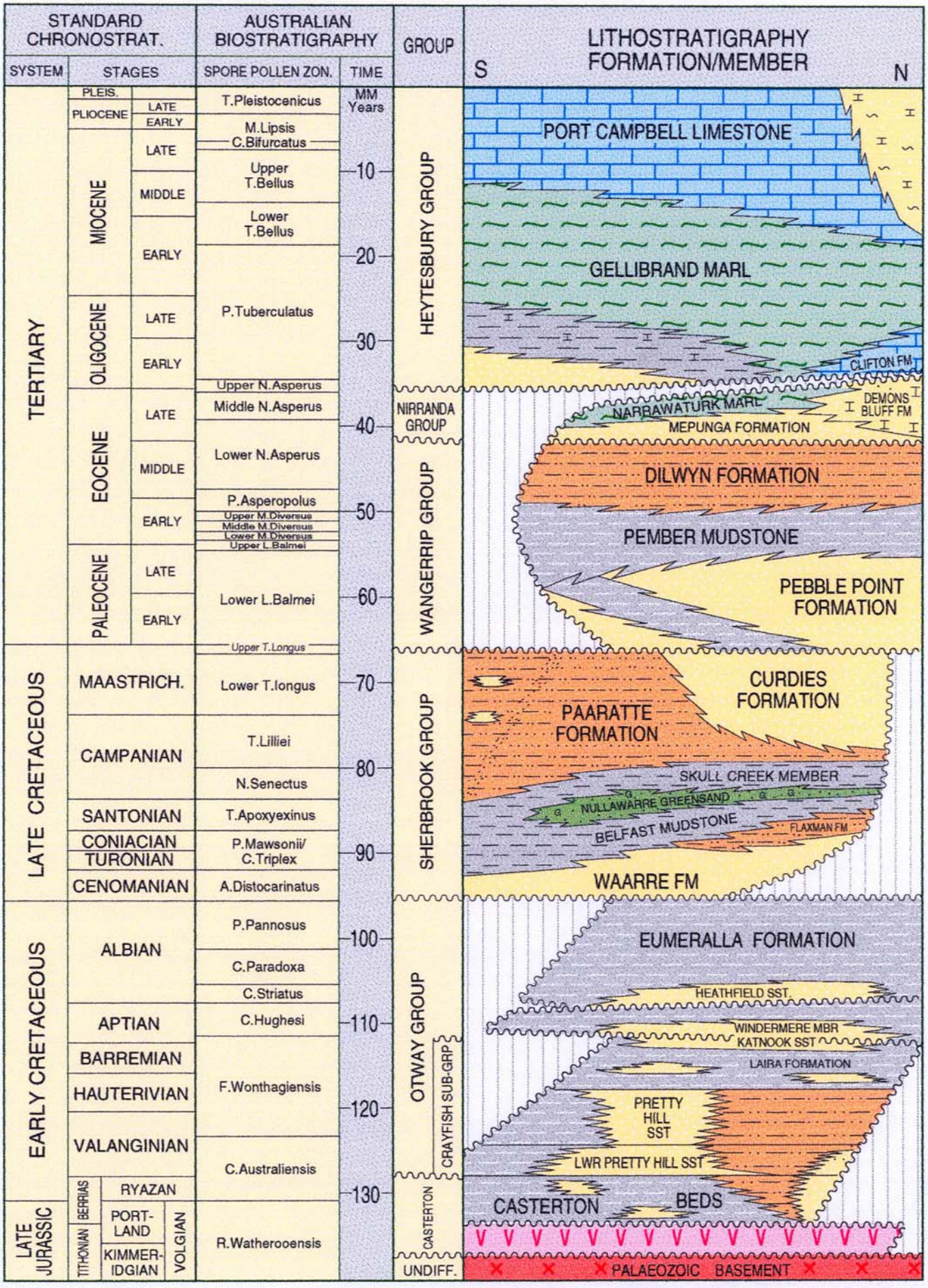


FIGURE 4

SEISMIC SECTION OPX90A-71 THROUGH TARALEA-1

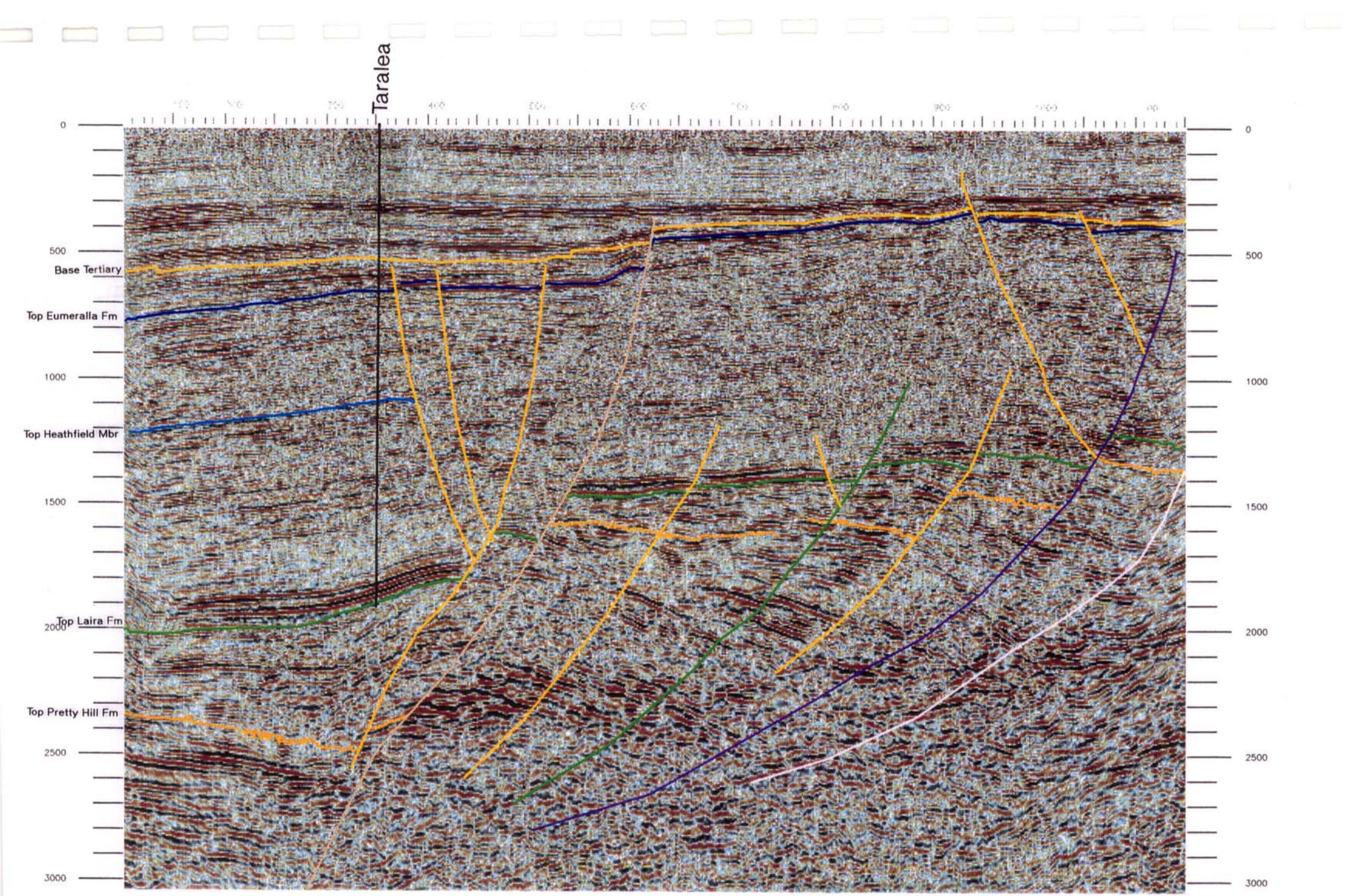


Figure 4 OPX90A–71

FIGURE 5

PREDICTED vs ACTUAL STRATIGRAPHIC SECTION

CULTUS PETROLEUM (AUSTRALIA) N.L.

ONSHORE OTWAY BASIN

PEP 101

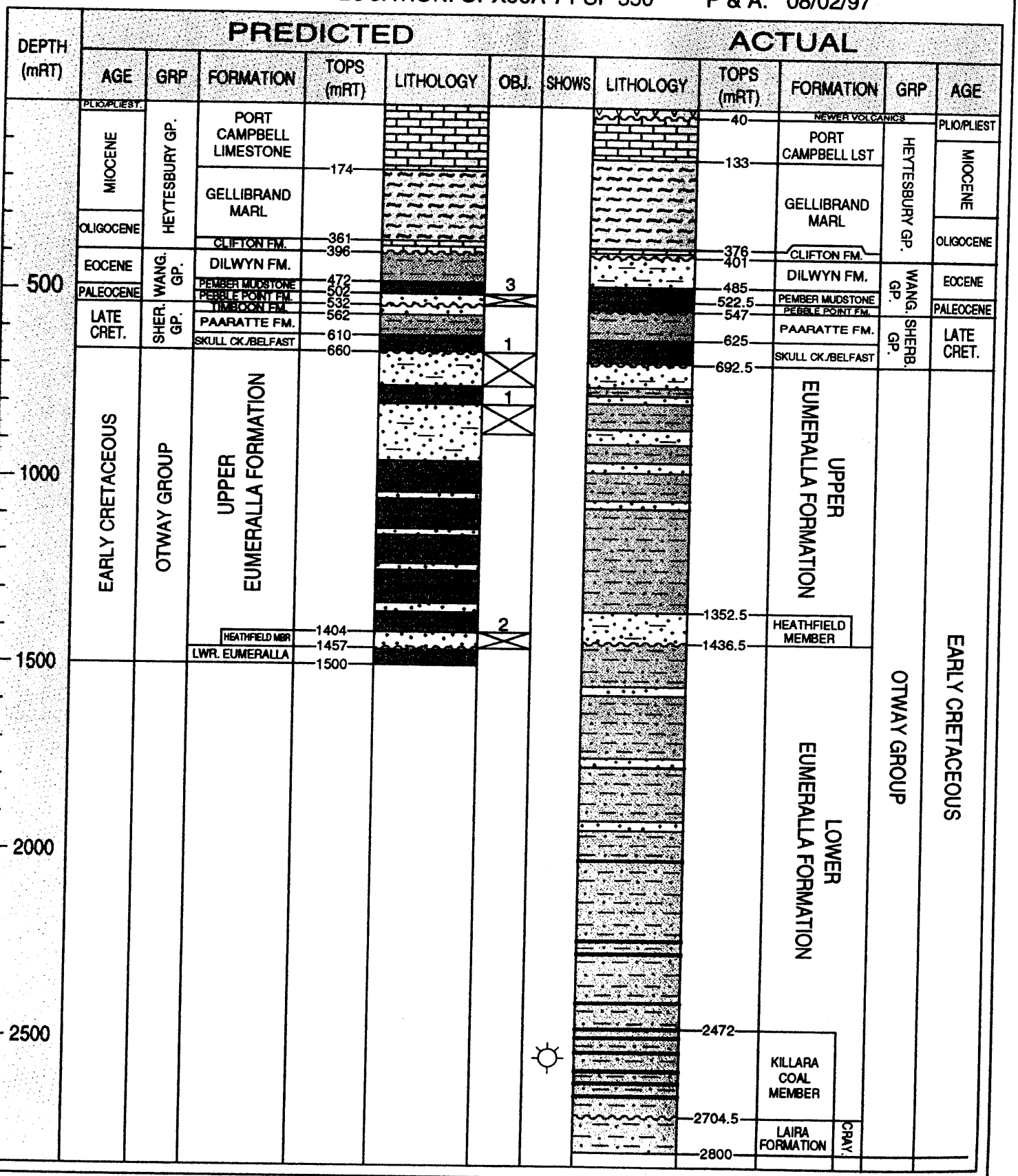
TARALEA-1

PREDICTED v ACTUAL STRATIGRAPHIC SECTION

GL: 49m
RT: 53.3m
TD: 2800mRT

LAT: 38°13'43.62"S
LONG: 142°12'28.84"E
LOCATION: OPX90A-71 SP 350

RIG: ODE 30
SPUD: 18/01/97
P & A: 08/02/97



AUTHOR: ILS DRAWN: MAG DATE: APRIL 1997 FILE NAME: PEP101/TARAPVA.DGN

FIGURE 5

APPENDIX 1

LITHOLOGICAL DESCRIPTIONS

APPENDIX 1

1. Lithological descriptions

Interval (m)	Description
Surface - 40	**Newer Basalt** **Basalt** Dark grey, grey black, occasionally red brown near surface, fine olivine crystals in mafic cryptocrystalline ground mass, rare fine feldspar crystals, occasional rounded quartz grains, trace vughy porosity.
40 - 133	**Port Campbell Limestone** Calcarenite: creamy white to very light grey, rarely light yellow, fine to medium grained, in general becoming more calcilutitic with depth, common broken fossil fragments including bryozoa, shell fragments, forams, sponge spicules and echinoid spines, trace to common glauconite, weak calcareous cement, trace to occasionally common medium grey argillaceous matrix, friable, good visual porosity, at top decreasing in general to poor with depth, grading to and interbedded with Marl: medium to light grey, very calcareous, trace bryozoa, shell fragments, forams, sponge spicules, echinoid spines, very soft, non fissile.
133 -376	**Gellibrand Marl** Marl: medium green to medium olive grey, occasionally light to medium grey, medium brown grey, moderately to very calcareous, abundant bryozoa, forams, and shell fragments, common echinoid spines and sponge spicules, trace to occasionally common glauconite, trace glauconite replaced fossil fragments, rare clear quartz grains in part, very soft, sticky, non fissile.
376 - 401	**Clifton Formation** Calcarenite: off white to yellow to red, pink, coarse to very coarse grained, composed almost entirely of fossil fragments, forams, sponge spicules, echinoid spines, very iron oxide rich often with iron oxide replaced fossil fragments, common brown rounded iron oxide pellets, common brown stained rounded very fine to very coarse quartz grains, weak to moderate calcareous cement, friable to moderately hard, poor to fair intergranular porosity.

401 - 485 **Dilwyn Formation**

Sandstone grading to silty Claystone

Sandstone: Medium brown, very fine to very coarse, dominantly medium, angular to sub rounded, dominantly sub angular, poorly sorted, very weak silica cement, trace pyrite cement, common to abundant medium to dark brown argillaceous and silt matrix - often matrix supported, trace yellow orange quartz grains, friable, poor to rarely very good visual inferred porosity, grading to and interbedded with

Claystone: dark brown, very silty, often abundant dispersed very fine to very coarse quartz grains - grading into argillaceous sandstone in part, trace to common pyrite, trace fossil fragments, trace black coaly detritus, common black carbonaceous flecks in part, very soft, very dispersive, non fissile.

485 - 522.5 **Pember Mudstone**

Claystone

medium to dark brown grey, very silty, trace black carbonaceous flecks, trace to common pyrite, trace fossil fragments, trace micromica, soft, moderately dispersive, non fissile.

522.5 - 547 **Pebble Point Formation**

Claystone

green black to dark orange brown, very glauconitic in part, common fine to very coarse brown quartz grains, iron oxide rich in part, very calcareous, trace to common medium brown cryptocrystalline dolomite, common marcasite, trace to common micromica in part, soft. Arenaceous texture, non fissile.

547 - 625 **Paaratte Formation**

Claystone, medium to dark grey to medium brown grey, very silty, trace dispersed very fine to occasionally fine quartz and partially altered feldspar grains, common black carbonaceous flecks and very fine detritus, trace medium brown cryptocrystalline dolomite, trace glauconite, trace micromica, soft, non fissile, with minor laminated

Sandstone, off white, very fine, subangular to subrounded, well sorted, weak to occasionally strong calcareous cement, abundant white argillaceous and silt matrix, trace very fine black carbonaceous matter, trace glauconite, friable to occasionally hard, no visual porosity, no oil fluorescence.

625 - 655	**Skull Creek Mudstone** Claystone, medium brown grey to green black, moderately silty, trace glauconite, trace very fine to fine quartz and partially altered feldspar grains, trace to occasionally common medium to very coarse yellow stained quartz grains, trace pyrite, trace medium brown cryptocrystalline dolomite in part, trace micromica, firm, non fissile
655 - 664	**Nullawaare Greensand** Claystone, medium brown grey to green black, moderately silty, abundant glauconite, trace very fine to fine quartz and partially altered feldspar grains, trace to occasionally common medium to very coarse yellow stained quartz grains, trace pyrite, trace medium brown cryptocrystalline dolomite in part, trace micromica, firm, non fissile
664 - 692.5	**Belfast Mudstone** Claystone, medium brown grey to green black, moderately silty, trace glauconite, trace very fine to fine quartz and partially altered feldspar grains, trace to occasionally common medium to very coarse yellow stained quartz grains, trace pyrite, trace medium brown cryptocrystalline dolomite in part, trace micromica, firm, non fissile
692.5 - 907	**Upper Eumeralla Formation** Claystone interbedded with Sandstone Claystone: off white to light brown , light green grey, slightly silty, trace to common very fine to fine quartz, altered feldspar and multicoloured lithic sand grains, trace black carbonaceous flecks and detritus, trace fine to medium brown mica flakes, trace micromica, soft non fissile, interlaminated with Sandstone: light to medium green grey, very fine to medium, dominantly fine, subangular to subrounded, moderately to well sorted, weak calcareous and silica cements, common to abundant off white argillaceous matrix, abundant off white partially altered feldspar grains, abundant green, grey and brown lithics, common red and black lithics, trace medium to coarse brown mica flakes, trace black coaly detritus, rare pyrite, friable, poor visual porosity, no oil fluorescence
907 - 1352.5	Claystone: light grey, light grey green, very light brown, slightly to moderately silty, trace to very common very fine to fine quartz, altered feldspar, and multi coloured lithic sand grains, trace black carbonaceous flecks and detritus, rare fine to medium brown mica flakes, trace micromica, soft, non fissile, interbedded with: Sandstone: light to medium grey green very fine to occasionally medium, dominantly fine, subangular to subrounded, moderately

to well sorted, weak silica cement, nil to occasionally moderate calcareous cement, abundant off white argillaceous matrix - often matrix supported, abundant off white partially altered feldspar grains, abundant green to grey lithics, common red brown and black lithics, trace to common fine to coarse brown mica flakes, trace black coaly detritus, friable, very poor to poor visual porosity, no oil fluorescence.

1352.5 - 1436.5 **Heathfield Member**

Sandstone: off white to medium green grey, very fine to medium, occasional coarse to very coarse grains, dominantly fine at top becoming dominantly medium with depth, subangular to subrounded, moderately to well sorted, weal silica cement, weak to moderate calcareous cement, comm to abundant off-white, argillaceous matrix, abundant off white partially altered feldspar grains and green to grey lithics, common red brown and black lithics, trace brown mica flakes, trace black coaly detritus, friable, poor to fair visual porosity, - in general improving with depth, no oil fluorescence, interbedded with

Claystone; off white to medium grey, light green to medium brown, occasionally medium grey, slightly silty, occasionally very finely to finely arenaceous with partially altered feldspar, multicoloured lithics and quartz sand grains, trace black carbonaceous detritus and flecks, rare brown mica flakes, trace micromica, firm non fissile

1436.5 - 1490 **Lower Eumeralla Formation**

Claystone with minor interbedded Sandstone

Claystone: Light grey, light grey green light brown, slightly silty, occasionally very finely arenaceous with partially altered feldspar, multicoloured lithics and quartz sand, trace black carbonaceous detritus and flecks, rare brown mica flakes, rare pyrite, trace micromica, firm, non-fissile to slightly fissile, interbedded with

Sandstone: off white, light to medium green grey, very fine to fine, subangular to subrounded, weak silica cement, moderate to abundant calcareous cement, abundant off white argillaceous matrix, common off white partially altered feldspar grains, abundant green to grey lithics, common red brown and black lithics, trace brown mica flakes, trace black coaly detritus, friable, poor visual porosity, no oil fluorescence.

1490 - 2800 **Lower Eumeralla Formation**

Claystone grading to and interbedded with Sandstone. Coal present between 1904m and 2101m and between 2146m and 2740m.

Killara Coals from 2472 to 2704

Claystone: off white to light olive grey, light brown grey rarely medium to dark brown grey, slightly to occasionally very silty, occasionally non silty, occasionally very finely arenaceous with multicoloured lithics, altered feldspar and minor quartz, grains, trace black carbonaceous detritus and flecks, trace micromica, firm slightly sub fissile, grading to and laminated with

Sandstone: off white to light green grey, light olive grey, silty to very fine, well sorted, weak to moderate calcareous cement, abundant white argillaceous matrix - matrix supported and grading to arenaceous kaolinite, abundant partially altered feldspar, common red and brown lithics, trace black coaly detritus, friable to moderately hard, no visual porosity, no oil fluorescence

coal: black, dark brown, argillaceous, blocky to subconchoidal fracture, earthy to subvitreous texture, hard brittle.

APPENDIX 2

ELECTRIC LOG DATA

APPENDIX 2a

FIELD ELECTRIC LOG REPORT

CULTUS PETROLEUM N.L.
ELECTIC LOGGING REPORT SHEET

Well Name: Taralea-1	Permit: PEP101	Observer: David Horner	Date: 6-2-97

TIME	OPERATION
0430	Rig up check shot survey.
1200	Rig down check shot survey.
1200	Rig up DLL/MRS/CSS string.
1350	Tag TD, commence main log.
1815	Rig down DLL/MRS/CSS string.
1815	Rig up PSD.
2050	Tag to commence main log.
2320	Rig down PSD.

APPENDIX 2b

ELECTRIC LOG SUMMARY (To be sent)

APPENDIX 2c

LOG ANALYSIS RESULTS (To be sent)

APPENDIX 3

WELL LOCATION SURVEY DATA

ALAN H. SIMPSON

LAND SURVEYOR — WARRNAMBOOL

125a Kepler Street, Warrnambool

Phone: (03) 5561 1846
Fax: (03) 5562 1775

Ref: W1286

26th February, 1997

The Manager,
CULTUS PETROLEUM NL,
Level 4, 828 Pacific Highway,
GORDON, 2072

Attn: Mr Graham Brumby,

RE: TARALEA-1
REVISED LOCATION

Further to your fax of 20th February we have carried out the required survey work and forward for your records a sketch diagram indicating the position of the gas well plug and steel surround and relevant co-ordinates for each point to AMG Zone 54 as well as approximate site levels to A.H.D.. The uncertainty in level value is due to the distance from the nearest reliable level mark. Extensive survey will be required to enhance this accuracy.

We enclose our account for this work. If you have any queries about this matter please do not hesitate to contact me.

Yours faithfully

Alan H. Simpson
LICENSED SURVEYOR

VISITED OFFICE: Fridays by appointment — Harewards Road, TIMBOON 3268 Phone: (03) 5598 6522

ALAN H. SIMPSON

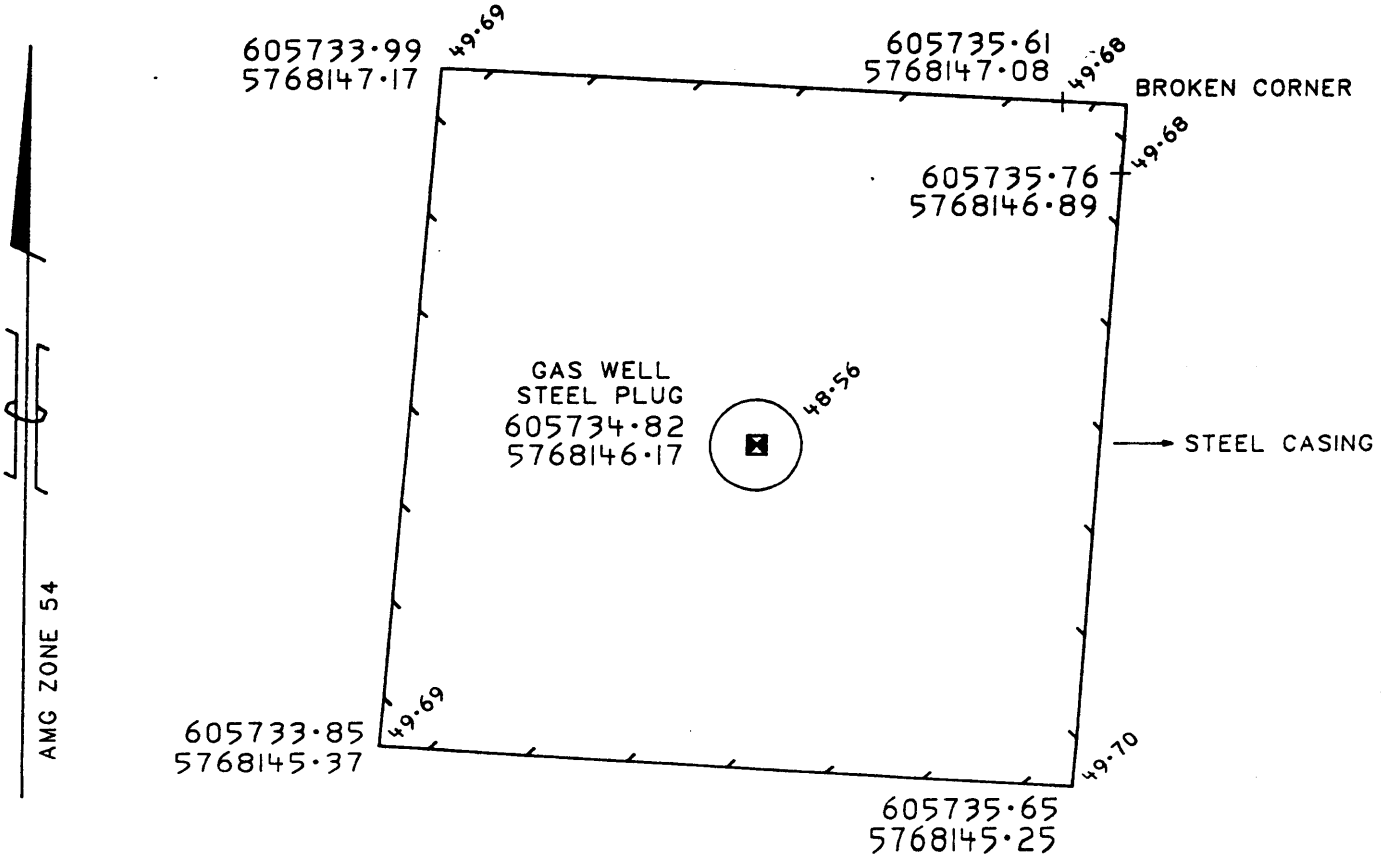
LAND SURVEYOR — WARRNAMBOOL

Phone: (03) 5561 1846

TARALEA-1 (REVISED)

SCALE 1:20

DATUM OF BEARINGS IS TO AMG ZONE 54
LEVELS ARE TO APPROXIMATE AHD +/- 0·25m
LEVELS ARE SHOWN AS THUS 49·69



I CERTIFY THAT THIS SKETCH CORRECTLY REPRESENTS
THE SITE CONDITIONS ON 24/2/1997.

ALAN H. SIMPSON L.S.

VISITED OFFICE: Fridays by appointment — Haywards Road, TIMBOON, 3268. Phone: (018) 528 653

W1286.G38

VISITED OFFICE: Fridays by appointment — Haywards Road, TIMBOON, 3268. Phone: (018) 528 653

APPENDIX 4

DRILLING SUMMARY

CULTUS PETROLEUM NL

TARALEA #1

The location of the well is X: 605 732.04 E, Y: 5 768 096.01 N in Block PEP 101, Onshore Otway Basin, Victoria. Taralea #1 was an exploration well, spudded at 20:30 hours on 18th January 1997 by O.D.&E. Rig #30. RT was 4.3 m.

12-1/4" hole was drilled using water with SAPP and Alum. Lost returns through the rathole and remedied by cementing the ratehole and re-installed the rathole sleeve. Difficulty was experienced drilling through the Newer Volcanic basalt. Used a downhole motor to drill an 8-1/2" pilot hole to 48m RT. Penetrated through basalt at 40m RT. Opened hole to 12-1/4" and drilled through the Port Campbell Limestone, Gellibrand Marl, Clifton and Dilwyn Formation, and into the Pember Mudstone at 495m RT. As the Gellibrand Marl was encountered the viscosity was dropped and the pH lowered. However at 363m RT difficulty was experienced where large soft clay clumps blocked the flowline and created mud rings in the conductor. Also a KCL sweep was made between 363m and 366m RT, flocculation caused the second group of mud rings. Pulled the bit at 471m RT due to slow ROP and strapped out of the hole. Picked up new bit, RIH and washed to bottom. Drilled to 495m RT. Prior to running 9-5/8" casing the hole was circulated and conditioned. Ran 3 surveys over the interval with an average deviation of 0.25°

Ran 9-5/8" casing with the shoe set at 492.8m RT. 287sx Class G cement with 3% PHG at 12.5 ppg and 124sx Class G cement plus 1% CaCl2 at 15.8ppg was displaced and pumped to surface. The plug was bumped, the casing tested to 3000psi and the float held when pressure was released. Installed Bradenhead and nippled up BOP's and Choke manifold. Pressure tested BOP's, choke manifold and valves, casing, kelly cocks and standpipe to 300/3000psi. Annular tested to 300/1500psi.

Made up 8-1/2" BHA, RIH and tagged cement at 479m RT. Drilled out cement, shoe and 3m of open hole to 498m RT. Displaced hole with a KCL/PHPA Polymer mud at 8.5ppg. Ran FIT to 370psi with 8.5ppg mud equating to 12.9 ppg EMW. No leak off was seen on the chart recorder.

8-1/2" hole was drilled from 498m RT through the Pember, Pebble Point, Paaratte, Skull Creek, Nullawarre, Belfast, Upper Eumeralla, Heatherfield Formations and into the Lower Eumeralla Formation to 1462m RT. Pulled bit due to slow ROP. Circulated bottoms up and dropped survey. Tight hole experienced at intermitted intervals from 1392m to 960m RT, through the Heathfield Member and Upper Eumeralla Formations with 25K overpull. Ran 4 surveys over the interval 498m to 1462m RT with the last deviation at 2.0°. Picked up re-run bit, motor and junk basket. Changed out under gauge reamers for stabilisers. RIH to 886m RT. Wash and reamed through the Upper and Lower Eumeralla Formation from 886m to 917m, 1161m to 1183m and 1423 to 1462m RT. Worked junk basket and drilled 8-1/2" hole from 1462m to 1468m RT. ROP dropped to zero, circulated, dropped survey and POOH. Tight hole experienced in the Heathfield and Upper Eumeralla Formations. Picked up new bit and, washed and reamed from 1454m to 1468m RT with 3m fill. Drilled 8-1/2" hole to the Original TD at 1500m RT and reached on day 10 at 07:00 hours on 27th January 1997.

Continued drilling 8-1/2" hole through the Lower Eumeralla Formation from 1500m to 1704m RT. Ran 10 stand wiper trip and experienced tight hole at intermitted intervals from 1551m to 1410m RT through the Heathfield Member and Upper Eumeralla Formations with 20-30K overpull. Continued drilling through the Lower Eumeralla Formation from 1704m to 1904m RT. Ran 10 stand wiper trip with no drag. Continued drilling through the Lower Eumeralla Formation from 1904m to 1951m RT, circulated bottoms up and POH. Tight hole experienced at intermitted intervals from 1421m to 1369m RT, through the Heathfield Member Formations with 15-20K overpull. Picked up new bit, RIH and, washed and reamed from 1919m to 1951m RT. Continued drilling 8-1/2" hole from 1951m to 2101m RT, dropped kelly on connection, dropped survey and POH. Layed out motor, picked up new bit and BHA. RIH and, washed and reamed from 2098m to 2101m RT. Drilled from 2101m to 2126m RT, dropped survey and POH. Picked up motor, RIH and washed last 54m. Continued drilling from 2126m to 2368m RT through the Lower Eumeralla Formation with 10-15K drag on connections. Ran 10 stand wiper trip with 10-15k drag. Drilled 8-1/2" hole from 2368m to 2615m RT and into the Killara Coals. Circulated bottoms up and POH. Picked up new bit and RIH to 2543m RT and worked tight spot. Washed and reamed from 2593m to 2615m RT. Continued drilling from 2615m RT through the Killara Coals and into the Windermere Member Formation to TD at 2800m RT reached on day 19 at 17:30 hours on 5th February 1997.

Ran 7 surveys over the interval 1462m to 2800m RT with the last deviation at 7.5°. Lost on average 3 bbl/hr while drilling through the Killara Coals. Circulated bottoms up, checked for flow and ran a 10 stand wiper trip. Conditioned well, dropped survey, checked for flow and strapped out of the hole.

Rigged up and ran the following:

(1) Velocity data survey, 21 levels.
(2) Electric log#1 DLL-MSFL-GR-SP-CAL-SONIC-MSFL
(3) Electric log#2 Dipmeter

Ran open ended drillpipe to 725m RT and conditioned hole. Set abandonment plug #1 from 725m to 665m RT with 74sx Class G cement. Slowly POH to 523m RT and circulated pipe clean. Set abandonment plug #2 from 523m to 463m RT with 72sx Class G cement. Pulled 2 stands and circulated pipe clean. RIH and tagged plug #2 at 468m RT with 10K. Circulated casing with 9.2 ppg inhibitive mud from 465m RT. Layed down remaining drillpipe. Recovered wellhead and welded on top plate. Set abandonment plug #3 on the plate, used 5 sx Class G cement. Erected well marker post. The rig was released at 09:00 hours on 8th February 1997.

The well was completed in 20.52 days at an estimated cost of $1.34 mm at an average cost of $479/m plugged and abandoned.

ENCLOSURE 1

TARALEA 1 COMPOSITE LOG.....1:500

PE605507

This is an enclosure indicator page.
The enclosure PE605507 is enclosed within the container PE907484 at this location in this document.

The enclosure PE605507 has the following characteristics:

ITEM_BARCODE	= PE605507
CONTAINER_BARCODE	= PE907484
NAME	= Taralea-1 Composite Log
BASIN	= OTWAY
OFFSHORE?	= Y
DATA_TYPE	= WELL
DATA_SUB_TYPE	= COMPOSITE_LOG
DESCRIPTION	= Taralea-1 Composite Log, Scale 1:500, (Enclosure 1 from WCR vol.1), Basin Oil NL, 8 February 1997.
REMARKS	=
DATE_WRITTEN	= 08-FEB-1997
DATE_PROCESSED	=
DATE_RECEIVED	=
RECEIVED_FROM	= Basin Oil N.L.
WELL_NAME	= Taralea-1
CONTRACTOR	=
AUTHOR	=
ORIGINATOR	= Basin Oil N.L.
TOP_DEPTH	= 50
BOTTOM_DEPTH	= 2750
ROW_CREATED_BY	= DN07_SW

(Inserted by DNRE - Vic Govt Mines Dept)

ENCLOSURE 2

HALIBURTON FORMATION EVALUATION (MUD) LOG.....1:500

PE605508

This is an enclosure indicator page.
The enclosure PE605508 is enclosed within the container PE907484 at this location in this document.

The enclosure PE605508 has the following characteristics:

ITEM_BARCODE	= PE605508
CONTAINER_BARCODE	= PE907484
NAME	= Taralea-1 Mud Log
BASIN	= OTWAY
OFFSHORE?	= Y
DATA_TYPE	= WELL
DATA_SUB_TYPE	= MUD_LOG
DESCRIPTION	= Taralea-1 Formation Evaluation Mud Log Scale 1:500 Enclosure 2
REMARKS	=
DATE_WRITTEN	=
DATE_PROCESSED	=
DATE_RECEIVED	= 28-JAN-1999
RECEIVED_FROM	= Basin Oil N.L.
WELL_NAME	= Taralea-1
CONTRACTOR	= Halliburton Pty Ltd
AUTHOR	=
ORIGINATOR	= Basin Oil N.L.
TOP_DEPTH	= 11
BOTTOM_DEPTH	= 2800
ROW_CREATED_BY	= DN07_SW

(Inserted by DNRE - Vic Govt Mines Dept)

ENCLOSURE 3

VELOCITY SURVEY RESULTS

VELSEIS PROCESSING

Unit 1B 14 Argon St
Sumner Park Qld 4074
PO Box 617 Sumner Park
Qld 4074 Australia

Telephone (617) 3279 0400
Facsimile (617) 3279 0743

Velseis Processing Pty Ltd ACN 058 427 204

12 February, 1997

Cultus Petroleum
Level 4
828 Pacific Hwy
Gordon NSW 2072

Attention: Mr. Peter Southwell

Dear Sir

Please find enclosed trace playouts and the preliminary Velocity survey report of Taralea No. 1..

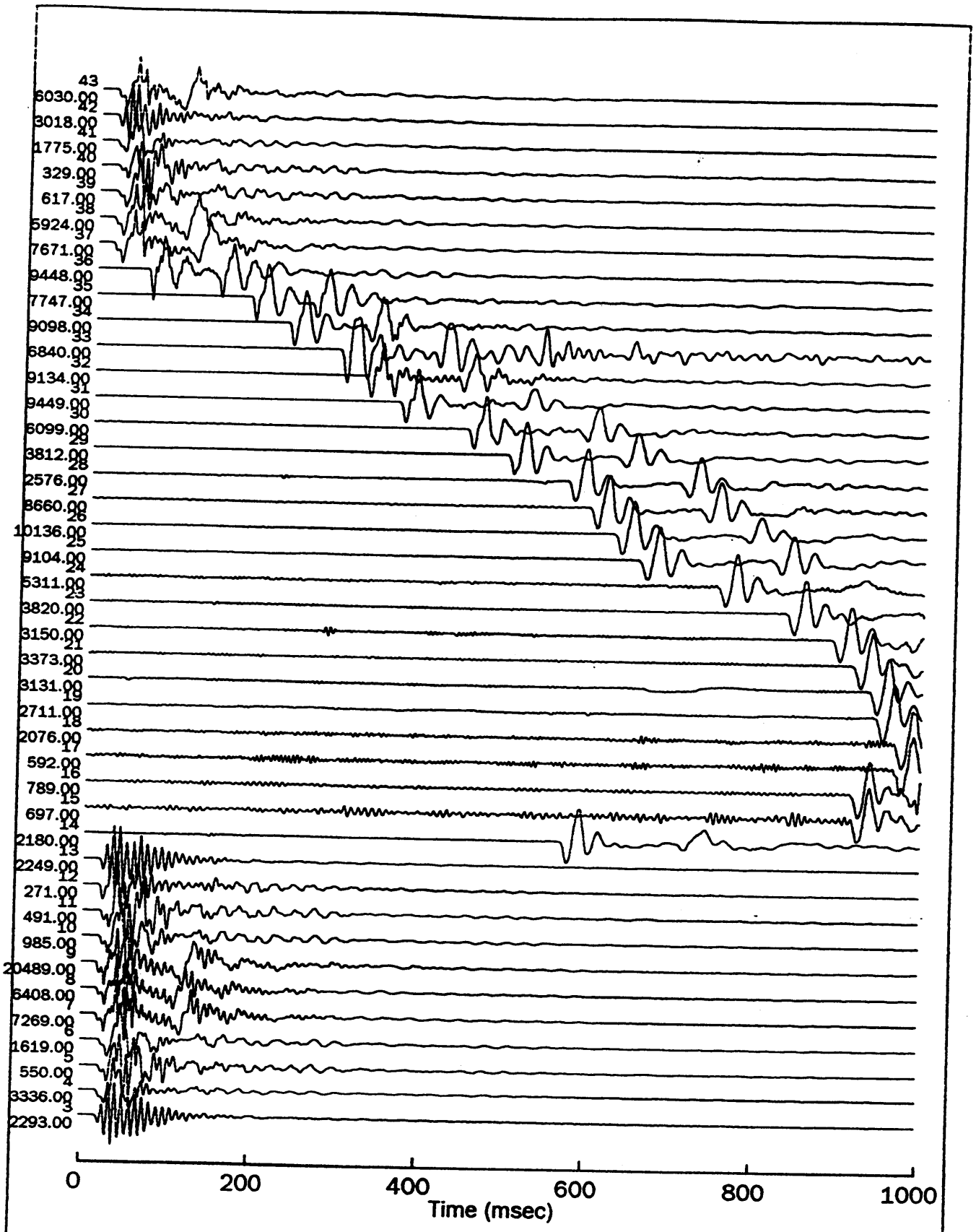
A datum of 0.0 metres ASL has been used. This level was shot six times during the survey and all have been used to calculate an average effective datum correction time of 19.0msec. Please note this value includes a 2.5msec instrument delay which must be subtracted to obtain the raw time.

An examination of surface channel information indicated consistent shot character with no evidence of pit fatigue.

In order to proceed with the final report, Velseis Processing request the following information.
-confirmation of datum
-list of formation tops
-Floppy disk (las format) of wireline services

Yours Faithfully

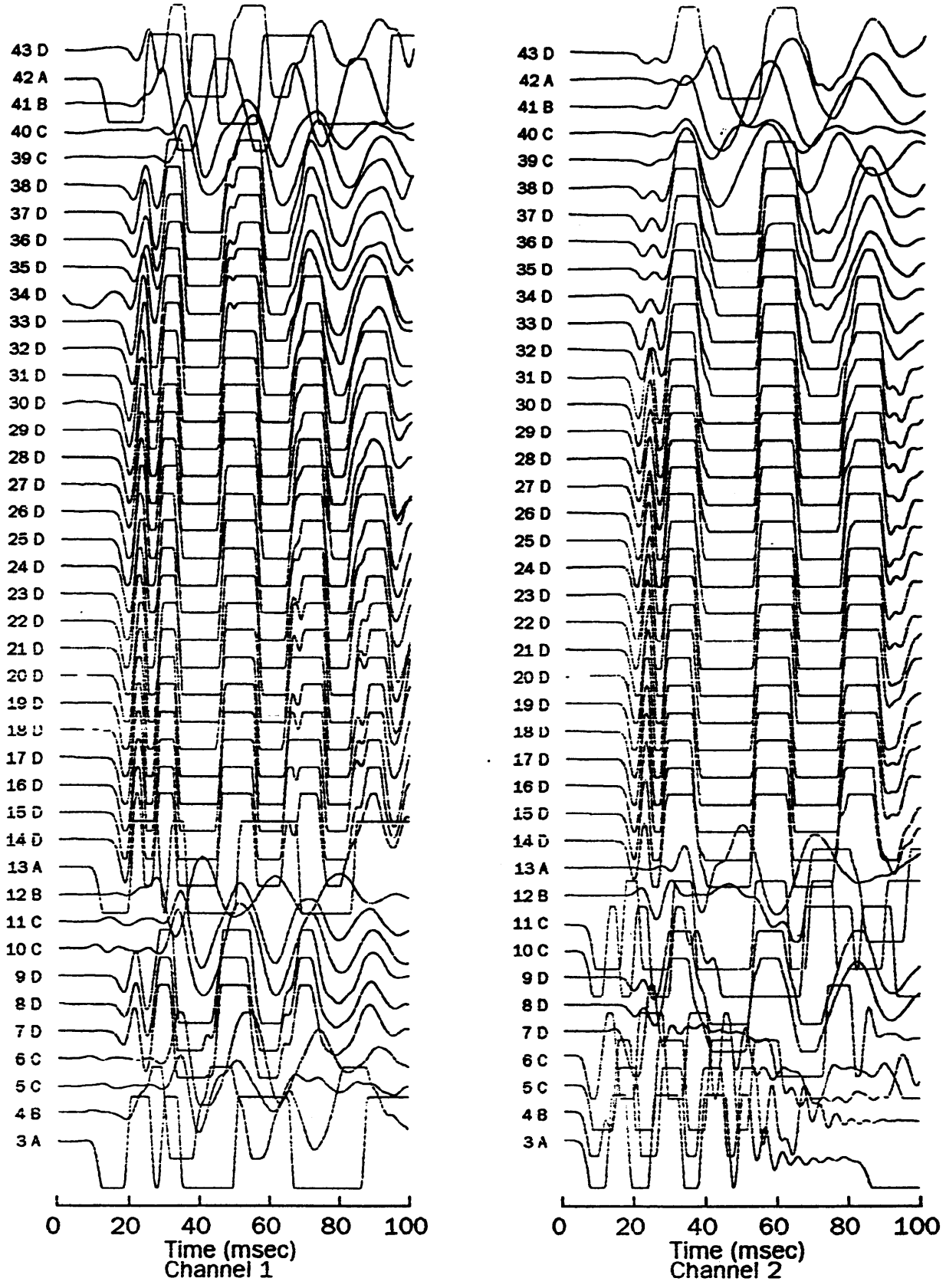
Troy Peters
Geophysicist



TARALEA 1

VELOCITY SURVEY TRACE DISPLAY

Figure 1A



TARALEA 1

VELOCITY SURVEY TRACE DISPLAY
AUXILIARY CHANNELS

Figure 1B

COMPANY : CULTUS PETROL NL
WELL : TARALEA 1

Latitude : 38 13 43.62 S Longitude : 142 12 28.84 E Survey date : 01-Jan-80 Survey units : METRES
Elevations : Datum : 0 Ground : 50 Kelly : 54.3 Times : MILLISECONDS

Shot data : Location	Elevation	Offset
A	49.0	8.5
B	49.0	18.5
C	49.0	26.5
D	48.0	26.5

Rig identification : ODE 30
Energy source : POWER GEL
Logger : BPB
Elevation velocity for shot statics : 2000
Instrument delay : 2.5 msec

SHOT CALCULATIONS :

Shot no.	Geophone depth Kelly – Datum	Shot Locn	Shot Depth	TIMES Record	TIMES Corr.	TIMES Avg.	TIMES Datum	Check shot interval distance	Check shot interval time	Velocities Average	Velocities RMS	Velocities Interval
3	53.3 -1.0	A	0.5	17.0	18.6							
4	53.3 -1.0	B	0.5	17.5	18.3							
5	53.3 -1.0	C	0.5	19.5	19.1							
6	53.3 -1.0	C	0.5	19.0	18.7							
7	53.3 -1.0	D	1.5	15.5	18.7							
8	53.3 -1.0	D	1.5	15.5	18.7							
9	53.3 -1.0	D	1.5	14.0	17.4							
10	53.3 -1.0	C	0.5	18.5	18.3							
11	53.3 -1.0	C	0.5	19.0	18.7							
12	53.3 -1.0	B	0.5	17.5	18.3							
13	53.3 -1.0	A	0.5	17.0	18.6							
43	53.3 -1.0	D	1.5	16.5	19.5							
37	54.3 0.0	D	1.5	15.5	18.7							
38	54.3 0.0	D	1.5	16.0	19.2							
39	54.3 0.0	C	0.5	19.5	19.2							
40	54.3 0.0	C	0.5	20.0	19.7							
41	54.3 0.0	B	0.5	17.5	18.3							
42	54.3 0.0	A	0.5	17.0	18.6	19.0	0.0					

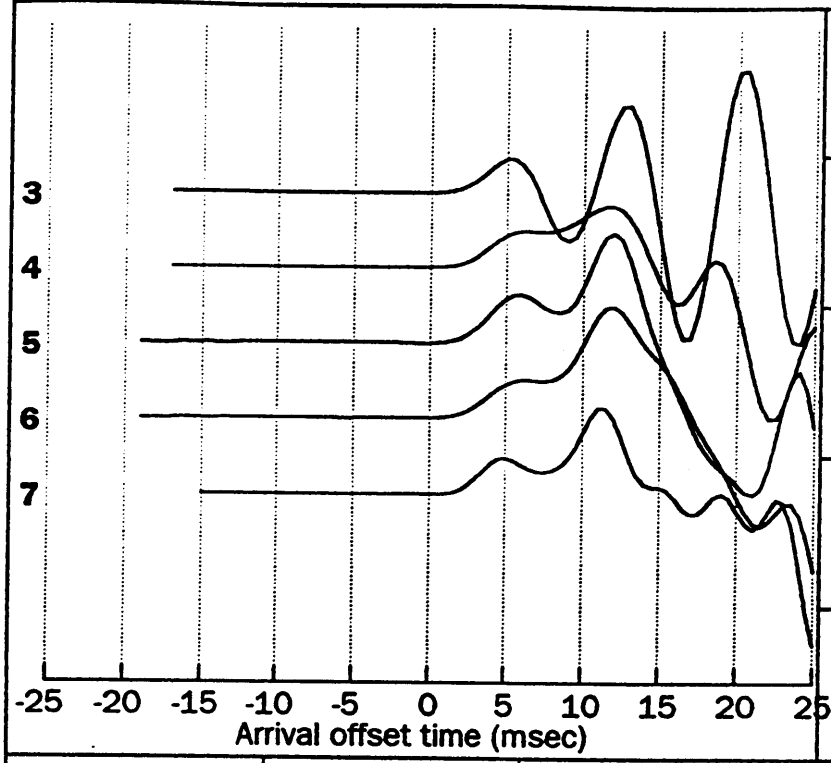
SHOT CALCULATIONS : (cont)

Shot no.	Geophone depth Kelly	Geophone depth Datum	Shot Locn	Shot Depth	TIMES Record	TIMES Corr.	TIMES Avg.	TIMES Datum	Check shot distance	Check shot time	Velocities Average	Velocities RMS	Velocities Interval
									79.7	43.7			1823.8
36	134.0	79.7	D	1.5	59.0	62.7	62.7	43.7			1823.8	1823.8	
									242.0	126.8			1908.5
35	376.0	321.7	D	1.5	185.0	189.5	189.5	170.5			1886.8	1887.2	
									109.0	46.1			2364.4
34	485.0	430.7	D	1.5	231.0	235.6	235.6	216.6			1988.5	1998.3	
									140.0	62.6			2236.4
33	625.0	570.7	D	1.5	293.5	298.2	298.2	279.2			2044.1	2054.1	
									70.0	30.5			2295.1
32	695.0	640.7	D	1.5	324.0	328.7	328.7	309.7			2068.8	2079.1	
									102.0	40.5			2518.5
31	797.0	742.7	D	1.5	364.5	369.2	369.2	350.2			2120.8	2134.5	
									203.0	80.6			2518.6
30	1000.0	945.7	D	1.5	445.0	449.8	449.8	430.8			2195.2	2211.5	
									139.0	51.0			2725.5
29	1139.0	1084.7	D	1.5	496.0	500.8	500.8	481.8			2251.3	2271.4	
14	1351.0	1296.7	D	1.5	568.0	572.8			212.0	73.0			2904.1
28	1351.0	1296.7	D	1.5	570.0	574.8	573.8	554.8			2337.2	2364.3	
									84.0	26.5			3169.8
27	1435.0	1380.7	D	1.5	595.5	600.3	600.3	581.3			2375.2	2406.9	
									96.0	29.6			3243.2
26	1531.0	1476.7	D	1.5	625.0	629.9	629.9	610.9			2417.3	2454.0	
									99.0	31.0			3193.5
25	1630.0	1575.7	D	1.0	656.0	660.9	660.9	641.9			2454.7	2494.8	
									322.0	95.0			3389.5
24	1952.0	1897.7	D	1.0	751.0	755.9	755.9	736.9			2575.2	2627.3	
									321.0	84.0			3821.4
23	2273.0	2218.7	D	1.5	835.0	839.9	839.9	820.9			2702.8	2773.2	

SHOT CALCULATIONS : (cont)

Shot no.	Geophone depth Kelly	Geophone depth Datum	Shot Locn	Shot Depth	TIMES Record	TIMES Corr.	TIMES Avg.	TIMES Datum	Check shot interval distance	Check shot interval time	Velocities Average	Velocities RMS	Velocities Interval
									227.0	54.5			4165.1
22	2500.0	2445.7	D	1.5	889.5	894.4	894.4	875.4			2793.8	2879.6	
15	2597.0	2542.7	D	1.5	916.5	921.4							
16	2597.0	2542.7	D	1.5	914.5	919.4			97.0	26.2			3702.3
21	2597.0	2542.7	D	1.5	916.0	920.9	920.6	901.6			2820.2	2906.8	
									77.0	21.3			3615.0
20	2674.0	2619.7	D	1.5	937.0	941.9	941.9	922.9			2838.6	2925.0	
									28.0	7.5			3733.3
19	2702.0	2647.7	D	1.5	944.5	949.4	949.4	930.4			2845.8	2932.4	
17	2790.0	2735.7	D	1.5	966.0	970.9			88.0	22.3			3955.1
18	2790.0	2735.7	D	1.5	967.5	972.4	971.7	952.7			2871.7	2960.4	

First arrivals plot : TARALEA 1



Shot 3 Location : A
Charge depth .5 Size .2
Phone depth : 53.3
Arrival time : 17.0 msec

Shot 4 Location : B
Charge depth .5 Size .2
Phone depth : 53.3
Arrival time : 17.5 msec

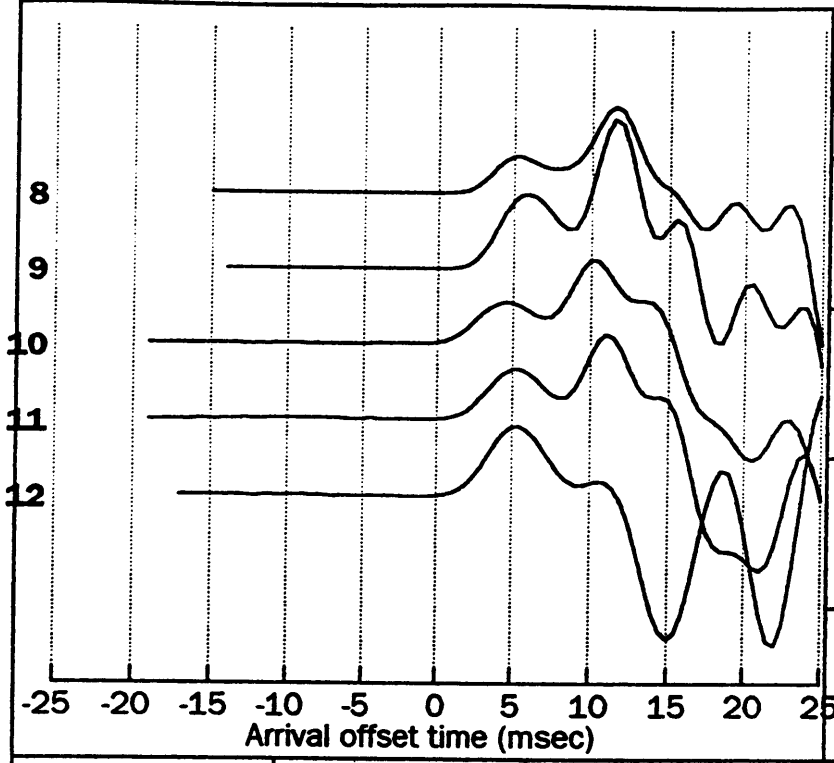
Shot 5 Location : C
Charge depth .5 Size .2
Phone depth : 53.3
Arrival time : 19.5 msec

Shot 6 Location : C
Charge depth .5 Size .2
Phone depth : 53.3
Arrival time : 19.0 msec

Shot 7 Location : D
Charge depth 1.5 Size .2
Phone depth : 53.3
Arrival time : 15.5 msec

SHOT 3		SHOT 4		SHOT 5		SHOT 6		SHOT 7	
Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl
6.0	0.00	6.0	0.00	8.0	0.00	8.0	0.00	4.0	2.00
6.5	2.00	6.5	0.00	8.5	0.00	8.5	0.00	4.5	2.00
7.0	2.00	7.0	0.00	9.0	0.00	9.0	0.00	5.0	2.00
7.5	1.00	7.5	-1.00	9.5	-2.00	9.5	0.00	5.5	1.00
8.0	0.00	8.0	-1.00	10.0	0.00	10.0	0.00	6.0	1.00
8.5	0.00	8.5	-1.00	10.5	0.00	10.5	0.00	6.5	2.00
9.0	-1.00	9.0	-1.00	11.0	-1.00	11.0	1.00	7.0	1.00
9.5	-2.00	9.5	0.00	11.5	-1.00	11.5	0.00	7.5	1.00
10.0	1.00	10.0	-1.00	12.0	-1.00	12.0	1.00	8.0	0.00
10.5	0.00	10.5	-1.00	12.5	-1.00	12.5	0.00	8.5	1.00
11.0	0.00	11.0	0.00	13.0	0.00	13.0	1.00	9.0	1.00
11.5	0.00	11.5	0.00	13.5	0.00	13.5	2.00	9.5	1.00
12.0	1.00	12.0	0.00	14.0	-1.00	14.0	1.00	10.0	0.00
12.5	0.00	12.5	1.00	14.5	-1.00	14.5	0.00	10.5	0.00
13.0	-2.00	13.0	1.00	15.0	-1.00	15.0	0.00	11.0	0.00
13.5	-3.00	13.5	0.00	15.5	-1.00	15.5	0.00	11.5	0.00
14.0	-3.00	14.0	-1.00	16.0	-1.00	16.0	0.00	12.0	1.00
14.5	-3.00	14.5	0.00	16.5	0.00	16.5	-1.00	12.5	2.00
15.0	-3.00	15.0	0.00	17.0	0.00	17.0	1.00	13.0	1.00
15.5	-4.00	15.5	-2.00	17.5	1.00	17.5	0.00	13.5	2.00
16.0	-3.00	16.0	-1.00	18.0	1.00	18.0	0.00	14.0	2.00
16.5	-3.00	16.5	0.00	18.5	2.00	18.5	0.00	14.5	2.00
17.0	**-2.00**	17.0	-2.00	19.0	1.00	**19.0**	**0.00**	15.0	1.00
17.5	-7.00	**17.5**	**-5.00**	**19.5**	**0.00**	19.5	-2.00	**15.5**	**-5.00**
18.0	-13.00	18.0	-15.00	20.0	-2.00	20.0	-7.00	16.0	-25.00
18.5	-29.00	18.5	-36.00	20.5	-6.00	20.5	-15.00	16.5	-80.00
19.0	-61.00	19.0	-76.00	21.0	-11.00	21.0	-30.00	17.0	-197.00
19.5	-111.00	19.5	-143.00	21.5	-21.00	21.5	-54.00	17.5	-406.00
20.0	-180.00	20.0	-236.00	22.0	-35.00	22.0	-89.00	18.0	-706.00
20.5	-272.00	20.5	-360.00	22.5	-52.00	22.5	-131.00	18.5	-1060.00
21.0	-371.00	21.0	-489.00	23.0	-73.00	23.0	-177.00	19.0	-1389.00
21.5	-463.00	21.5	-617.00	23.5	-93.00	23.5	-219.00	19.5	-1605.00
22.0	-523.00	22.0	-724.00	24.0	-109.00	24.0	-253.00	20.0	-1654.00
22.5	-525.00	22.5	-793.00	24.5	-118.00	24.5	-276.00	20.5	-1547.00
23.0	-448.00	23.0	-827.00	25.0	-120.00	25.0	-285.00	21.0	-1357.00
23.5	-287.00	23.5	-831.00	25.5	-113.00	25.5	-287.00	21.5	-1173.00
24.0	-54.00	24.0	-825.00	26.0	-102.00	26.0	-283.00	22.0	-1061.00
24.5	216.00	24.5	-821.00	26.5	-88.00	26.5	-280.00	22.5	-1038.00
25.0	472.00	25.0	-836.00	27.0	-79.00	27.0	-287.00	23.0	-1103.00
25.5	660.00	25.5	-878.00	27.5	-75.00	27.5	-309.00	23.5	-1271.00
26.0	731.00	26.0	-948.00	28.0	-81.00	28.0	-360.00	24.0	-1595.00
26.5	654.00	26.5	-1040.00	28.5	-103.00	28.5	-438.00	24.5	-2115.00
27.0	427.00	27.0	-1144.00	29.0	-138.00	29.0	-540.00	25.0	-2798.00
27.5	75.00	27.5	-1250.00	29.5	-183.00	29.5	-654.00	25.5	-3490.00
28.0	-347.00	28.0	-1341.00	30.0	-229.00	30.0	-752.00	26.0	-3958.00

First arrivals plot : TARALEA 1



Shot 8 Location : D
Charge depth 1.5 Size .2
Phone depth : 53.3
Arrival time : 15.5 msec

Shot 9 Location : D
Charge depth 1.5 Size .2
Phone depth : 53.3
Arrival time : 14.0 msec

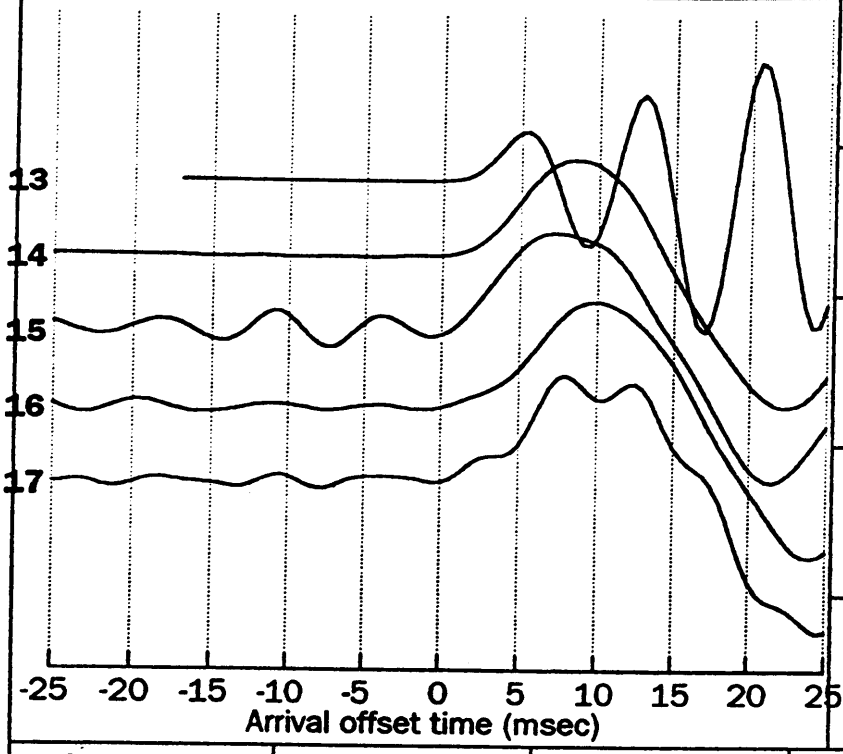
Shot 10 Location : C
Charge depth .5 Size .2
Phone depth : 53.3
Arrival time : 18.5 msec

Shot 11 Location : C
Charge depth .5 Size .2
Phone depth : 53.3
Arrival time : 19.0 msec

Shot 12 Location : B
Charge depth .5 Size .2
Phone depth : 53.3
Arrival time : 17.5 msec

SHOT 8		SHOT 9		SHOT 10		SHOT 11		SHOT 12	
Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl
4.0	-1.00	3.0	-1.00	8.0	-1.00	8.0	-1.00	6.0	0.00
4.5	0.00	3.5	0.00	8.5	-1.00	8.5	-1.00	6.5	1.00
5.0	0.00	4.0	0.00	9.0	-1.00	9.0	-1.00	7.0	0.00
5.5	-1.00	4.5	0.00	9.5	-1.00	9.5	-2.00	7.5	0.00
6.0	0.00	5.0	-1.00	10.0	0.00	10.0	-2.00	8.0	-1.00
6.5	0.00	5.5	-3.00	10.5	1.00	10.5	-2.00	8.5	1.00
7.0	0.00	6.0	-4.00	11.0	0.00	11.0	-2.00	9.0	0.00
7.5	0.00	6.5	-5.00	11.5	1.00	11.5	-1.00	9.5	1.00
8.0	0.00	7.0	-4.00	12.0	2.00	12.0	-1.00	10.0	3.00
8.5	1.00	7.5	-2.00	12.5	1.00	12.5	-1.00	10.5	1.00
9.0	1.00	8.0	-1.00	13.0	0.00	13.0	1.00	11.0	2.00
9.5	1.00	8.5	1.00	13.5	1.00	13.5	1.00	11.5	2.00
10.0	1.00	9.0	2.00	14.0	1.00	14.0	2.00	12.0	2.00
10.5	1.00	9.5	3.00	14.5	0.00	14.5	-3.00	12.5	1.00
11.0	0.00	10.0	3.00	15.0	0.00	15.0	1.00	13.0	2.00
11.5	0.00	10.5	2.00	15.5	-1.00	15.5	2.00	13.5	1.00
12.0	1.00	11.0	1.00	16.0	0.00	16.0	1.00	14.0	2.00
12.5	0.00	11.5	0.00	16.5	-1.00	16.5	0.00	14.5	2.00
13.0	1.00	12.0	0.00	17.0	-1.00	17.0	2.00	15.0	3.00
13.5	1.00	12.5	-1.00	17.5	-1.00	17.5	1.00	15.5	3.00
14.0	1.00	13.0	-2.00	18.0	-2.00	18.0	2.00	16.0	3.00
14.5	1.00	13.5	-2.00	**18.5**	**-2.00**	18.5	1.00	16.5	2.00
15.0	1.00	**14.0**	**-3.00**	19.0	-8.00	**19.0**	**0.00**	17.0	1.00
15.5	**0.00**	14.5	-7.00	19.5	-18.00	19.5	-2.00	**17.5**	**-1.00**
16.0	-10.00	15.0	-28.00	20.0	-37.00	20.0	-6.00	18.0	-5.00
16.5	-38.00	15.5	-107.00	20.5	-63.00	20.5	-14.00	18.5	-11.00
17.0	-105.00	16.0	-319.00	21.0	-99.00	21.0	-26.00	19.0	-20.00
17.5	-236.00	16.5	-764.00	21.5	-141.00	21.5	-45.00	19.5	-35.00
18.0	-447.00	17.0	-1534.00	22.0	-183.00	22.0	-69.00	20.0	-53.00
18.5	-725.00	17.5	-2638.00	22.5	-218.00	22.5	-95.00	20.5	-76.00
19.0	-1024.00	18.0	-3956.00	23.0	-243.00	23.0	-119.00	21.0	-96.00
19.5	-1271.00	18.5	-5234.00	23.5	-253.00	23.5	-139.00	21.5	-113.00
20.0	-1404.00	19.0	-6234.00	24.0	-248.00	24.0	-149.00	22.0	-123.00
20.5	-1399.00	19.5	-6821.00	24.5	-231.00	24.5	-149.00	22.5	-123.00
21.0	-1288.00	20.0	-6954.00	25.0	-203.00	25.0	-139.00	23.0	-115.00
21.5	-1135.00	20.5	-6680.00	25.5	-175.00	25.5	-120.00	23.5	-100.00
22.0	-1009.00	21.0	-6079.00	26.0	-160.00	26.0	-98.00	24.0	-80.00
22.5	-941.00	21.5	-5253.00	26.5	-169.00	26.5	-76.00	24.5	-60.00
23.0	-940.00	22.0	-4376.00	27.0	-214.00	27.0	-65.00	25.0	-40.00
23.5	-1012.00	22.5	-3764.00	27.5	-288.00	27.5	-68.00	25.5	-26.00
24.0	-1194.00	23.0	-3872.00	28.0	-377.00	28.0	-93.00	26.0	-18.00
24.5	-1524.00	23.5	-5056.00	28.5	-459.00	28.5	-137.00	26.5	-17.00
25.0	-2012.00	24.0	-7289.00	29.0	-511.00	29.0	-188.00	27.0	-21.00
25.5	-2586.00	24.5	-10132.00	29.5	-504.00	29.5	-232.00	27.5	-24.00
26.0	-3084.00	25.0	-12729.00	30.0	-458.00	30.0	-253.00	28.0	-22.00

First arrivals plot : TARALEA 1



Shot 13 Location : A
Charge depth .5 Size .2
Phone depth : 53.3
Arrival time : 17.0 msec

Shot 14 Location : D
Charge depth 1.5 Size 1
Phone depth : 1351.0
Arrival time : 568.0 msec

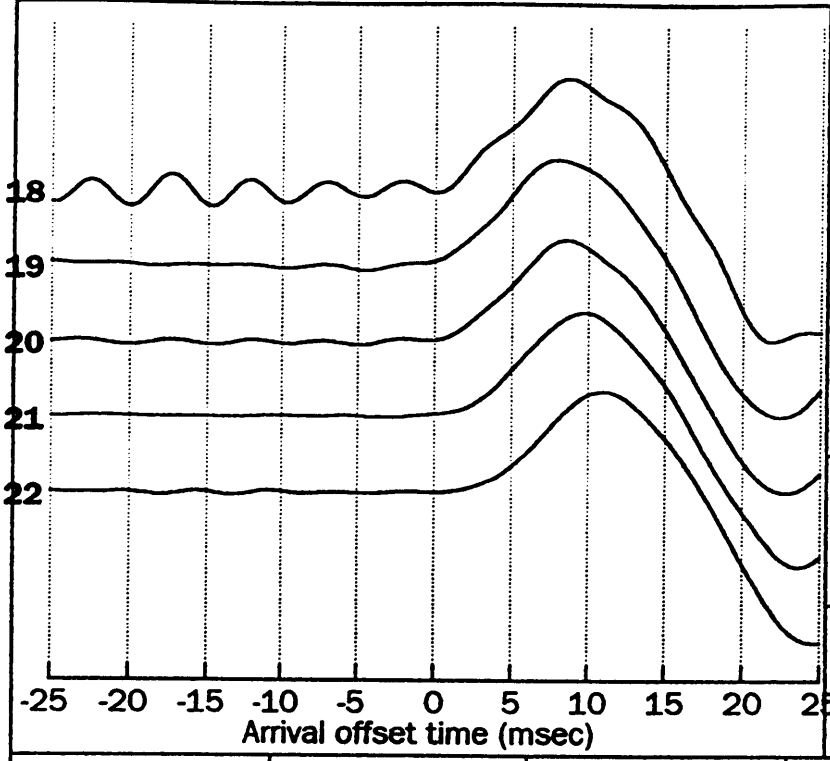
Shot 15 Location : D
Charge depth 1.5 Size 2
Phone depth : 2597.0
Arrival time : 916.5 msec

Shot 16 Location : D
Charge depth 1.5 Size 3
Phone depth : 2597.0
Arrival time : 914.5 msec

Shot 17 Location : D
Charge depth 1.5 Size 3
Phone depth : 2790.0
Arrival time : 966.0 msec

SHOT 13		SHOT 14		SHOT 15		SHOT 16		SHOT 17	
Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl
6.0	-1.00	557.0	8.00	906.0	-91.00	904.0	-10.00	955.0	-23.00
6.5	-1.00	557.5	12.00	906.5	-89.00	904.5	-9.00	955.5	-26.00
7.0	-1.00	558.0	15.00	907.0	-71.00	905.0	-6.00	956.0	-19.00
7.5	-1.00	558.5	17.00	907.5	-41.00	905.5	-1.00	956.5	-6.00
8.0	-2.00	559.0	16.00	908.0	-4.00	906.0	6.00	957.0	10.00
8.5	-1.00	559.5	15.00	908.5	33.00	906.5	13.00	957.5	22.00
9.0	-1.00	560.0	12.00	909.0	61.00	907.0	18.00	958.0	27.00
9.5	-2.00	560.5	8.00	909.5	74.00	907.5	21.00	958.5	25.00
10.0	0.00	561.0	8.00	910.0	72.00	908.0	20.00	959.0	17.00
10.5	0.00	561.5	7.00	910.5	54.00	908.5	16.00	959.5	5.00
11.0	-1.00	562.0	12.00	911.0	24.00	909.0	9.00	960.0	-7.00
11.5	-1.00	562.5	14.00	911.5	-9.00	909.5	3.00	960.5	-14.00
12.0	-1.00	563.0	16.00	912.0	-39.00	910.0	-3.00	961.0	-19.00
12.5	-2.00	563.5	15.00	912.5	-62.00	910.5	-7.00	961.5	-19.00
13.0	-3.00	564.0	14.00	913.0	-71.00	911.0	-8.00	962.0	-20.00
13.5	-4.00	564.5	7.00	913.5	-68.00	911.5	-5.00	962.5	-19.00
14.0	-3.00	565.0	1.00	914.0	-53.00	912.0	1.00	963.0	-19.00
14.5	-3.00	565.5	-3.00	914.5	-34.00	912.5	7.00	963.5	-17.00
15.0	-4.00	566.0	-5.00	915.0	-9.00	913.0	13.00	964.0	-13.00
15.5	-3.00	566.5	-6.00	915.5	11.00	913.5	17.00	964.5	-7.00
16.0	-3.00	567.0	-6.00	916.0	24.00	914.0	17.00	965.0	0.00
16.5	-3.00	567.5	-8.00	**916.5**	**26.00**	**914.5**	**13.00**	965.5	5.00
17.0	**-5.00**	**568.0**	**-12.00**	917.0	17.00	915.0	5.00	**966.0**	**2.00**
17.5	-12.00	568.5	-23.00	917.5	-1.00	915.5	-7.00	966.5	-8.00
18.0	-24.00	569.0	-42.00	918.0	-30.00	916.0	-21.00	967.0	-29.00
18.5	-50.00	569.5	-74.00	918.5	-65.00	916.5	-36.00	967.5	-53.00
19.0	-96.00	570.0	-123.00	919.0	-106.00	917.0	-50.00	968.0	-76.00
19.5	-167.00	570.5	-190.00	919.5	-151.00	917.5	-65.00	968.5	-92.00
20.0	-265.00	571.0	-279.00	920.0	-197.00	918.0	-82.00	969.0	-100.00
20.5	-388.00	571.5	-388.00	920.5	-246.00	918.5	-103.00	969.5	-102.00
21.0	-521.00	572.0	-514.00	921.0	-293.00	919.0	-127.00	970.0	-105.00
21.5	-646.00	572.5	-656.00	921.5	-337.00	919.5	-159.00	970.5	-118.00
22.0	-730.00	573.0	-802.00	922.0	-378.00	920.0	-199.00	971.0	-147.00
22.5	-747.00	573.5	-948.00	922.5	-412.00	920.5	-244.00	971.5	-194.00
23.0	-670.00	574.0	-1084.00	923.0	-436.00	921.0	-296.00	972.0	-255.00
23.5	-490.00	574.5	-1201.00	923.5	-453.00	921.5	-349.00	972.5	-319.00
24.0	-217.00	575.0	-1295.00	924.0	-459.00	922.0	-401.00	973.0	-375.00
24.5	118.00	575.5	-1361.00	924.5	-459.00	922.5	-449.00	973.5	-411.00
25.0	464.00	576.0	-1401.00	925.0	-455.00	923.0	-488.00	974.0	-421.00
25.5	758.00	576.5	-1414.00	925.5	-446.00	923.5	-520.00	974.5	-406.00
26.0	940.00	577.0	-1405.00	926.0	-436.00	924.0	-541.00	975.0	-378.00
26.5	961.00	577.5	-1379.00	926.5	-425.00	924.5	-552.00	975.5	-346.00
27.0	799.00	578.0	-1333.00	927.0	-411.00	925.0	-554.00	976.0	-325.00
27.5	473.00	578.5	-1269.00	927.5	-392.00	925.5	-547.00	976.5	-323.00
28.0	23.00	579.0	-1185.00	928.0	-365.00	926.0	-532.00	977.0	-339.00

First arrivals plot : TARALEA 1



Shot 18 Location : D
Charge depth 1.5 Size 3
Phone depth : 2790.0
Arrival time : 967.5 msec

Shot 19 Location : D
Charge depth 1.5 Size 3
Phone depth : 2702.0
Arrival time : 944.5 msec

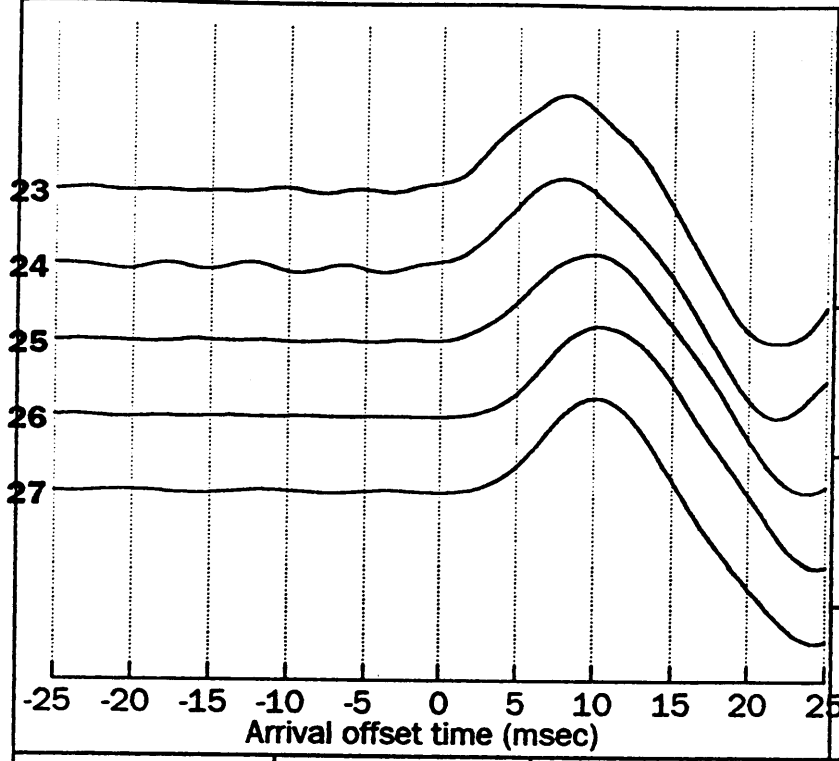
Shot 20 Location : D
Charge depth 1.5 Size 3
Phone depth : 2674.0
Arrival time : 937.0 msec

Shot 21 Location : D
Charge depth 1.5 Size 3
Phone depth : 2597.0
Arrival time : 916.0 msec

Shot 22 Location : D
Charge depth 1.5 Size 2
Phone depth : 2500.0
Arrival time : 889.5 msec

SHOT 18		SHOT 19		SHOT 20		SHOT 21		SHOT 22	
Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl
956.0	6.00	934.0	23.00	926.0	16.00	905.0	-15.00	878.0	-27.00
956.5	102.00	934.5	39.00	926.5	41.00	905.5	-18.00	878.5	-22.00
957.0	167.00	935.0	51.00	927.0	61.00	906.0	-17.00	879.0	-8.00
957.5	178.00	935.5	54.00	927.5	68.00	906.5	-11.00	879.5	11.00
958.0	136.00	936.0	46.00	928.0	60.00	907.0	-6.00	880.0	25.00
958.5	55.00	936.5	27.00	928.5	42.00	907.5	-3.00	880.5	30.00
959.0	-33.00	937.0	5.00	929.0	22.00	908.0	-2.00	881.0	26.00
959.5	-97.00	937.5	-13.00	929.5	10.00	908.5	-6.00	881.5	16.00
960.0	-117.00	938.0	-19.00	930.0	11.00	909.0	-13.00	882.0	8.00
960.5	-91.00	938.5	-9.00	930.5	26.00	909.5	-20.00	882.5	5.00
961.0	-31.00	939.0	16.00	931.0	49.00	910.0	-24.00	883.0	8.00
961.5	36.00	939.5	50.00	931.5	73.00	910.5	-23.00	883.5	17.00
962.0	83.00	940.0	78.00	932.0	85.00	911.0	-15.00	884.0	23.00
962.5	94.00	940.5	91.00	932.5	81.00	911.5	-5.00	884.5	26.00
963.0	64.00	941.0	81.00	933.0	58.00	912.0	6.00	885.0	22.00
963.5	4.00	941.5	52.00	933.5	23.00	912.5	13.00	885.5	12.00
964.0	-64.00	942.0	14.00	934.0	-11.00	913.0	15.00	886.0	0.00
964.5	-115.00	942.5	-20.00	934.5	-36.00	913.5	8.00	886.5	-8.00
965.0	-129.00	943.0	-44.00	935.0	-44.00	914.0	-5.00	887.0	-12.00
965.5	-106.00	943.5	-52.00	935.5	-38.00	914.5	-22.00	887.5	-11.00
966.0	-56.00	944.0	-55.00	936.0	-21.00	915.0	-39.00	888.0	-5.00
966.5	-2.00	**944.5**	**-62.00**	936.5	-10.00	915.5	-53.00	888.5	0.00
967.0	27.00	945.0	-90.00	**937.0**	**-15.00**	**916.0**	**-67.00**	889.0	3.00
967.5	**10.00**	945.5	-144.00	937.5	-47.00	916.5	-82.00	**889.5**	**-2.00**
968.0	-58.00	946.0	-227.00	938.0	-113.00	917.0	-105.00	890.0	-17.00
968.5	-169.00	946.5	-329.00	938.5	-206.00	917.5	-143.00	890.5	-41.00
969.0	-305.00	947.0	-443.00	939.0	-326.00	918.0	-201.00	891.0	-75.00
969.5	-442.00	947.5	-560.00	939.5	-458.00	918.5	-285.00	891.5	-119.00
970.0	-564.00	948.0	-679.00	940.0	-594.00	919.0	-397.00	892.0	-174.00
970.5	-661.00	948.5	-806.00	940.5	-730.00	919.5	-535.00	892.5	-242.00
971.0	-736.00	949.0	-945.00	941.0	-867.00	920.0	-695.00	893.0	-326.00
971.5	-805.00	949.5	-1103.00	941.5	-1011.00	920.5	-871.00	893.5	-427.00
972.0	-879.00	950.0	-1277.00	942.0	-1165.00	921.0	-1056.00	894.0	-547.00
972.5	-971.00	950.5	-1457.00	942.5	-1334.00	921.5	-1244.00	894.5	-684.00
973.0	-1084.00	951.0	-1624.00	943.0	-1515.00	922.0	-1431.00	895.0	-837.00
973.5	-1210.00	951.5	-1765.00	943.5	-1698.00	922.5	-1611.00	895.5	-1003.00
974.0	-1338.00	952.0	-1864.00	944.0	-1868.00	923.0	-1782.00	896.0	-1177.00
974.5	-1448.00	952.5	-1917.00	944.5	-2005.00	923.5	-1942.00	896.5	-1354.00
975.0	-1527.00	953.0	-1928.00	945.0	-2093.00	924.0	-2083.00	897.0	-1525.00
975.5	-1564.00	953.5	-1908.00	945.5	-2124.00	924.5	-2201.00	897.5	-1687.00
976.0	-1556.00	954.0	-1866.00	946.0	-2100.00	925.0	-2286.00	898.0	-1831.00
976.5	-1512.00	954.5	-1812.00	946.5	-2032.00	925.5	-2331.00	898.5	-1951.00
977.0	-1442.00	955.0	-1748.00	947.0	-1935.00	926.0	-2331.00	899.0	-2039.00
977.5	-1366.00	955.5	-1668.00	947.5	-1822.00	926.5	-2283.00	899.5	-2093.00
978.0	-1292.00	956.0	-1571.00	948.0	-1706.00	927.0	-2192.00	900.0	-2109.00

First arrivals plot : TARALEA 1



Shot 23 Location : D
Charge depth 1.5 Size 2
Phone depth : 2273.0
Arrival time : 835.0 msec

Shot 24 Location : D
Charge depth 1 Size 2
Phone depth : 1952.0
Arrival time : 751.0 msec

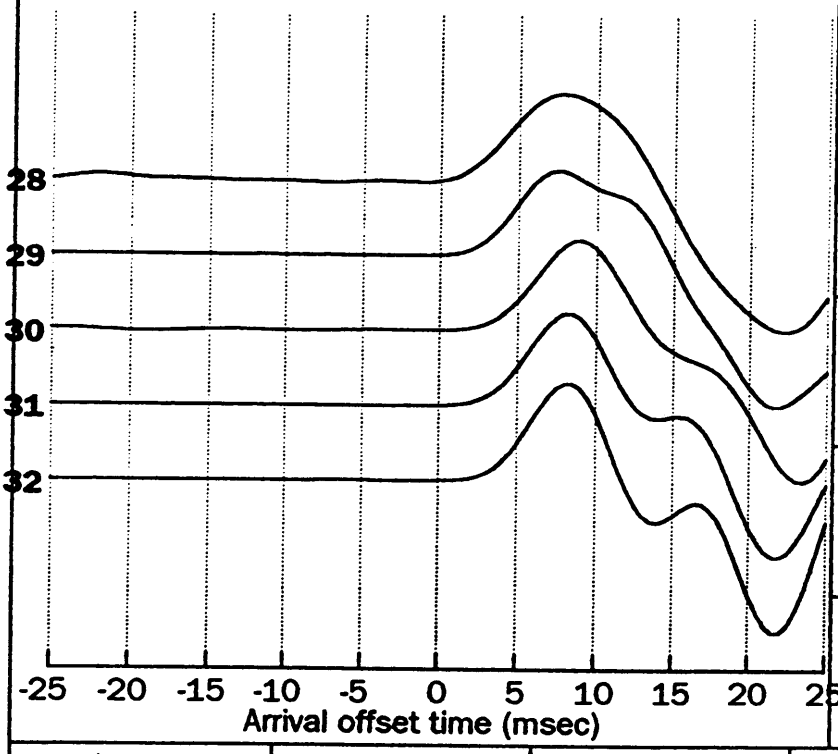
Shot 25 Location : D
Charge depth 1. Size 2
Phone depth : 1630.0
Arrival time : 656.0 msec

Shot 26 Location : D
Charge depth 1.5 Size 2
Phone depth : 1531.0
Arrival time : 625.0 msec

Shot 27 Location : D
Charge depth 1.5 Size 1
Phone depth : 1435.0
Arrival time : 595.5 msec

SHOT 23		SHOT 24		SHOT 25		SHOT 26		SHOT 27	
Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl
824.0	-56.00	740.0	37.00	645.0	-44.00	614.0	27.00	584.0	-94.00
824.5	-72.00	740.5	131.00	645.5	-8.00	614.5	19.00	584.5	-76.00
825.0	-69.00	741.0	204.00	646.0	28.00	615.0	6.00	585.0	-50.00
825.5	-42.00	741.5	240.00	646.5	50.00	615.5	-4.00	585.5	-19.00
826.0	0.00	742.0	232.00	647.0	47.00	616.0	-10.00	586.0	14.00
826.5	40.00	742.5	184.00	647.5	21.00	616.5	-8.00	586.5	47.00
827.0	63.00	743.0	111.00	648.0	-19.00	617.0	2.00	587.0	72.00
827.5	65.00	743.5	32.00	648.5	-56.00	617.5	14.00	587.5	87.00
828.0	42.00	744.0	-27.00	649.0	-76.00	618.0	26.00	588.0	89.00
828.5	7.00	744.5	-48.00	649.5	-70.00	618.5	31.00	588.5	76.00
829.0	-25.00	745.0	-25.00	650.0	-43.00	619.0	30.00	589.0	51.00
829.5	-40.00	745.5	33.00	650.5	-10.00	619.5	22.00	589.5	17.00
830.0	-32.00	746.0	110.00	651.0	13.00	620.0	8.00	590.0	-18.00
830.5	-7.00	746.5	179.00	651.5	12.00	620.5	-6.00	590.5	-50.00
831.0	20.00	747.0	217.00	652.0	-14.00	621.0	-14.00	591.0	-73.00
831.5	35.00	747.5	212.00	652.5	-56.00	621.5	-17.00	591.5	-82.00
832.0	27.00	748.0	165.00	653.0	-97.00	622.0	-14.00	592.0	-77.00
832.5	-5.00	748.5	90.00	653.5	-120.00	622.5	-4.00	592.5	-62.00
833.0	-53.00	749.0	8.00	654.0	-118.00	623.0	10.00	593.0	-35.00
833.5	-104.00	749.5	-63.00	654.5	-93.00	623.5	24.00	593.5	-5.00
834.0	-145.00	750.0	-113.00	655.0	-56.00	624.0	31.00	594.0	23.00
834.5	-174.00	750.5	-145.00	655.5	-33.00	624.5	32.00	594.5	45.00
835.0	**-199.00**	**751.0**	**-177.00**	**656.0**	**-45.00**	**625.0**	**22.00**	595.0	53.00
835.5	-235.00	751.5	-224.00	656.5	-102.00	625.5	1.00	**595.5**	**44.00**
836.0	-304.00	752.0	-306.00	657.0	-210.00	626.0	-35.00	596.0	13.00
836.5	-420.00	752.5	-433.00	657.5	-360.00	626.5	-88.00	596.5	-42.00
837.0	-585.00	753.0	-605.00	658.0	-548.00	627.0	-164.00	597.0	-129.00
837.5	-790.00	753.5	-820.00	658.5	-762.00	627.5	-272.00	597.5	-246.00
838.0	-1014.00	754.0	-1063.00	659.0	-1006.00	628.0	-421.00	598.0	-400.00
838.5	-1233.00	754.5	-1325.00	659.5	-1287.00	628.5	-622.00	598.5	-599.00
839.0	-1431.00	755.0	-1598.00	660.0	-1612.00	629.0	-884.00	599.0	-849.00
839.5	-1602.00	755.5	-1872.00	660.5	-1991.00	629.5	-1215.00	599.5	-1156.00
840.0	-1752.00	756.0	-2144.00	661.0	-2418.00	630.0	-1621.00	600.0	-1522.00
840.5	-1891.00	756.5	-2405.00	661.5	-2878.00	630.5	-2099.00	600.5	-1947.00
841.0	-2031.00	757.0	-2646.00	662.0	-3347.00	631.0	-2639.00	601.0	-2424.00
841.5	-2174.00	757.5	-2853.00	662.5	-3800.00	631.5	-3227.00	601.5	-2938.00
842.0	-2311.00	758.0	-3012.00	663.0	-4212.00	632.0	-3836.00	602.0	-3467.00
842.5	-2419.00	758.5	-3112.00	663.5	-4567.00	632.5	-4429.00	602.5	-3986.00
843.0	-2479.00	759.0	-3144.00	664.0	-4859.00	633.0	-4966.00	603.0	-4463.00
843.5	-2473.00	759.5	-3107.00	664.5	-5089.00	633.5	-5422.00	603.5	-4866.00
844.0	-2397.00	760.0	-3006.00	665.0	-5256.00	634.0	-5775.00	604.0	-5177.00
844.5	-2260.00	760.5	-2848.00	665.5	-5356.00	634.5	-6015.00	604.5	-5382.00
845.0	-2086.00	761.0	-2648.00	666.0	-5379.00	635.0	-6137.00	605.0	-5469.00
845.5	-1896.00	761.5	-2417.00	666.5	-5311.00	635.5	-6150.00	605.5	-5433.00
846.0	-1707.00	762.0	-2166.00	667.0	-5139.00	636.0	-6062.00	606.0	-5276.00

First arrivals plot : TARALEA 1



Shot 28 Location : D
Charge depth 1.5 Size 1
Phone depth : 1351.0
Arrival time : 570.0 msec

Shot 29 Location : D
Charge depth 1.5 Size 1
Phone depth : 1139.0
Arrival time : 496.0 msec

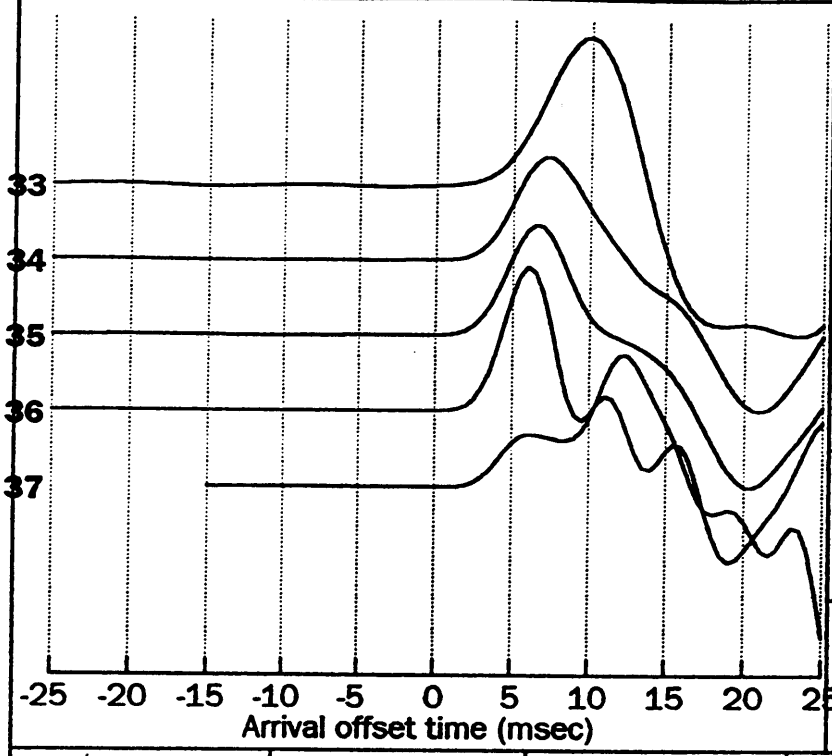
Shot 30 Location : D
Charge depth 1.5 Size 1
Phone depth : 1000.0
Arrival time : 445.0 msec

Shot 31 Location : D
Charge depth 1.5 Size 1
Phone depth : 797.0
Arrival time : 364.5 msec

Shot 32 Location : D
Charge depth 1.5 Size .5
Phone depth : 695.0
Arrival time : 324.0 msec

SHOT 28		SHOT 29		SHOT 30		SHOT 31		SHOT 32	
Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl
559.0	14.00	485.0	-3.00	434.0	7.00	354.0	7.00	313.0	-7.00
559.5	15.00	485.5	-3.00	434.5	13.00	354.5	10.00	313.5	-8.00
560.0	17.00	486.0	-1.00	435.0	17.00	355.0	11.00	314.0	-9.00
560.5	23.00	486.5	1.00	435.5	18.00	355.5	12.00	314.5	-9.00
561.0	28.00	487.0	0.00	436.0	19.00	356.0	11.00	315.0	-11.00
561.5	36.00	487.5	-1.00	436.5	19.00	356.5	9.00	315.5	-11.00
562.0	41.00	488.0	-1.00	437.0	17.00	357.0	8.00	316.0	-12.00
562.5	45.00	488.5	-3.00	437.5	14.00	357.5	7.00	316.5	-13.00
563.0	45.00	489.0	-3.00	438.0	8.00	358.0	5.00	317.0	-13.00
563.5	42.00	489.5	-1.00	438.5	1.00	358.5	4.00	317.5	-14.00
564.0	37.00	490.0	0.00	439.0	-6.00	359.0	5.00	318.0	-15.00
564.5	31.00	490.5	4.00	439.5	-13.00	359.5	6.00	318.5	-14.00
565.0	26.00	491.0	7.00	440.0	-20.00	360.0	7.00	319.0	-13.00
565.5	22.00	491.5	8.00	440.5	-23.00	360.5	7.00	319.5	-12.00
566.0	19.00	492.0	8.00	441.0	-24.00	361.0	9.00	320.0	-11.00
566.5	20.00	492.5	8.00	441.5	-22.00	361.5	9.00	320.5	-9.00
567.0	23.00	493.0	4.00	442.0	-20.00	362.0	9.00	321.0	-7.00
567.5	28.00	493.5	3.00	442.5	-14.00	362.5	7.00	321.5	-7.00
568.0	33.00	494.0	0.00	443.0	-10.00	363.0	6.00	322.0	-6.00
568.5	39.00	494.5	-1.00	443.5	-6.00	363.5	3.00	322.5	-5.00
569.0	42.00	495.0	-2.00	444.0	-5.00	364.0	1.00	323.0	-7.00
569.5	37.00	495.5	-4.00	444.5	-5.00	**364.5**	**-5.00**	323.5	-8.00
570.0	**23.00**	**496.0**	**-10.00**	**445.0**	**-9.00**	365.0	-14.00	**324.0**	**-13.00**
570.5	-4.00	496.5	-24.00	445.5	-19.00	365.5	-31.00	324.5	-23.00
571.0	-47.00	497.0	-49.00	446.0	-37.00	366.0	-65.00	325.0	-46.00
571.5	-107.00	497.5	-94.00	446.5	-66.00	366.5	-121.00	325.5	-89.00
572.0	-188.00	498.0	-163.00	447.0	-113.00	367.0	-214.00	326.0	-165.00
572.5	-288.00	498.5	-264.00	447.5	-187.00	367.5	-361.00	326.5	-292.00
573.0	-411.00	499.0	-403.00	448.0	-293.00	368.0	-579.00	327.0	-489.00
573.5	-549.00	499.5	-583.00	448.5	-446.00	368.5	-885.00	327.5	-777.00
574.0	-701.00	500.0	-804.00	449.0	-649.00	369.0	-1296.00	328.0	-1173.00
574.5	-861.00	500.5	-1056.00	449.5	-907.00	369.5	-1813.00	328.5	-1685.00
575.0	-1020.00	501.0	-1324.00	450.0	-1225.00	370.0	-2432.00	329.0	-2312.00
575.5	-1167.00	501.5	-1588.00	450.5	-1594.00	370.5	-3130.00	329.5	-3029.00
576.0	-1294.00	502.0	-1824.00	451.0	-2004.00	371.0	-3862.00	330.0	-3797.00
576.5	-1393.00	502.5	-2010.00	451.5	-2429.00	371.5	-4568.00	330.5	-4552.00
577.0	-1461.00	503.0	-2128.00	452.0	-2842.00	372.0	-5172.00	331.0	-5209.00
577.5	-1496.00	503.5	-2170.00	452.5	-3210.00	372.5	-5620.00	331.5	-5704.00
578.0	-1503.00	504.0	-2143.00	453.0	-3498.00	373.0	-5856.00	332.0	-5971.00
578.5	-1480.00	504.5	-2062.00	453.5	-3677.00	373.5	-5839.00	332.5	-5955.00
579.0	-1436.00	505.0	-1951.00	454.0	-3724.00	374.0	-5555.00	333.0	-5629.00
579.5	-1375.00	505.5	-1834.00	454.5	-3626.00	374.5	-5017.00	333.5	-4997.00
580.0	-1297.00	506.0	-1731.00	455.0	-3392.00	375.0	-4257.00	334.0	-4085.00
580.5	-1201.00	506.5	-1651.00	455.5	-3030.00	375.5	-3338.00	334.5	-2959.00
581.0	-1087.00	507.0	-1591.00	456.0	-2572.00	376.0	-2363.00	335.0	-1734.00

First arrivals plot : TARALEA 1



Shot 33 Location : D
Charge depth 1.5 Size .5
Phone depth : 625.0
Arrival time : 293.5 msec

Shot 34 Location : D
Charge depth 1.5 Size .25
Phone depth : 485.0
Arrival time : 231.0 msec

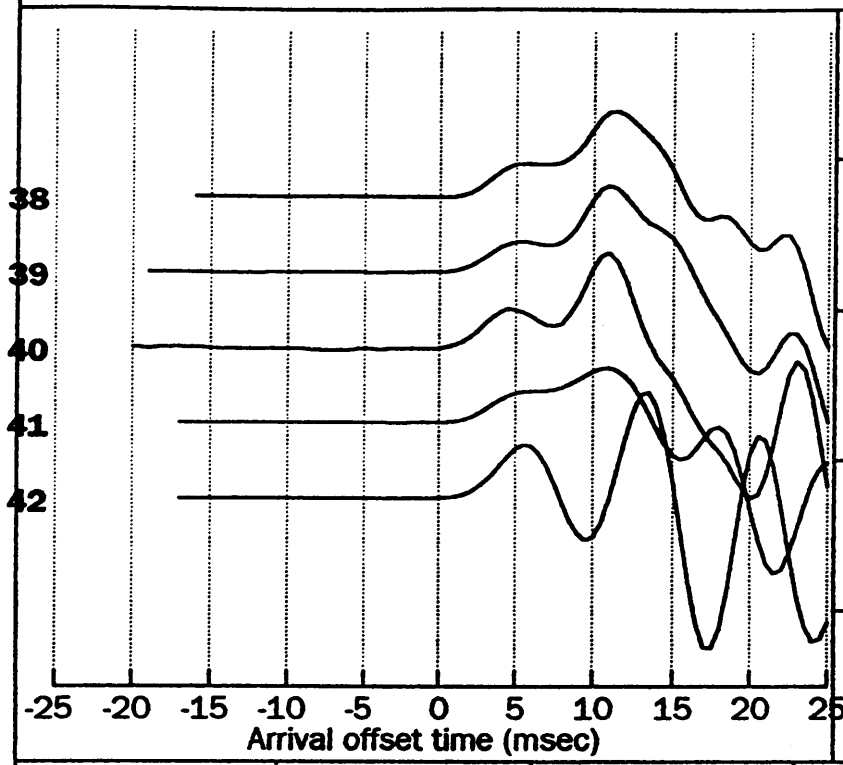
Shot 35 Location : D
Charge depth 1.5 Size .25
Phone depth : 376.0
Arrival time : 185.0 msec

Shot 36 Location : D
Charge depth 1.5 Size .25
Phone depth : 134.0
Arrival time : 59.0 msec

Shot 37 Location : D
Charge depth 1.5 Size .2
Phone depth : 54.3
Arrival time : 15.5 msec

SHOT 33		SHOT 34		SHOT 35		SHOT 36		SHOT 37	
Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl
282.0	17.00	220.0	1.00	174.0	21.00	48.0	-6.00	4.0	2.00
282.5	7.00	220.5	2.00	174.5	22.00	48.5	-7.00	4.5	2.00
283.0	1.00	221.0	3.00	175.0	21.00	49.0	-7.00	5.0	2.00
283.5	-3.00	221.5	4.00	175.5	21.00	49.5	-6.00	5.5	1.00
284.0	-5.00	222.0	3.00	176.0	19.00	50.0	-5.00	6.0	0.00
284.5	-5.00	222.5	5.00	176.5	16.00	50.5	-4.00	6.5	1.00
285.0	-3.00	223.0	6.00	177.0	13.00	51.0	-4.00	7.0	1.00
285.5	1.00	223.5	7.00	177.5	10.00	51.5	-3.00	7.5	0.00
286.0	6.00	224.0	8.00	178.0	7.00	52.0	-1.00	8.0	0.00
286.5	15.00	224.5	9.00	178.5	5.00	52.5	0.00	8.5	0.00
287.0	25.00	225.0	10.00	179.0	3.00	53.0	3.00	9.0	1.00
287.5	34.00	225.5	10.00	179.5	1.00	53.5	4.00	9.5	1.00
288.0	44.00	226.0	8.00	180.0	0.00	54.0	5.00	10.0	1.00
288.5	52.00	226.5	5.00	180.5	0.00	54.5	6.00	10.5	0.00
289.0	58.00	227.0	3.00	181.0	-1.00	55.0	4.00	11.0	1.00
289.5	63.00	227.5	1.00	181.5	-1.00	55.5	2.00	11.5	1.00
290.0	66.00	228.0	-1.00	182.0	-1.00	56.0	1.00	12.0	1.00
290.5	65.00	228.5	-4.00	182.5	-2.00	56.5	0.00	12.5	1.00
291.0	63.00	229.0	-6.00	183.0	-2.00	57.0	-2.00	13.0	1.00
291.5	60.00	229.5	-9.00	183.5	-2.00	57.5	-5.00	13.5	2.00
292.0	54.00	230.0	-9.00	184.0	-3.00	58.0	-8.00	14.0	2.00
292.5	47.00	230.5	-10.00	184.5	-5.00	58.5	-12.00	14.5	2.00
293.0	37.00	**231.0**	**-13.00**	**185.0**	**-12.00**	**59.0**	**-18.00**	15.0	1.00
293.5	**24.00**	231.5	-20.00	185.5	-28.00	59.5	-33.00	**15.5**	**-1.00**
294.0	5.00	232.0	-41.00	186.0	-65.00	60.0	-68.00	16.0	-5.00
294.5	-20.00	232.5	-90.00	186.5	-143.00	60.5	-156.00	16.5	-21.00
295.0	-62.00	233.0	-189.00	187.0	-289.00	61.0	-351.00	17.0	-61.00
295.5	-126.00	233.5	-370.00	187.5	-543.00	61.5	-739.00	17.5	-154.00
296.0	-225.00	234.0	-672.00	188.0	-940.00	62.0	-1421.00	18.0	-323.00
296.5	-376.00	234.5	-1131.00	188.5	-1506.00	62.5	-2473.00	18.5	-579.00
297.0	-595.00	235.0	-1767.00	189.0	-2245.00	63.0	-3904.00	19.0	-907.00
297.5	-899.00	235.5	-2573.00	189.5	-3115.00	63.5	-5559.00	19.5	-1254.00
298.0	-1300.00	236.0	-3501.00	190.0	-4029.00	64.0	-7188.00	20.0	-1556.00
298.5	-1803.00	236.5	-4455.00	190.5	-4849.00	64.5	-8472.00	20.5	-1755.00
299.0	-2407.00	237.0	-5301.00	191.0	-5442.00	65.0	-9059.00	21.0	-1837.00
299.5	-3094.00	237.5	-5934.00	191.5	-5712.00	65.5	-8706.00	21.5	-1826.00
300.0	-3841.00	238.0	-6273.00	192.0	-5600.00	66.0	-7395.00	22.0	-1769.00
300.5	-4598.00	238.5	-6276.00	192.5	-5126.00	66.5	-5373.00	22.5	-1701.00
301.0	-5309.00	239.0	-5970.00	193.0	-4359.00	67.0	-3050.00	23.0	-1648.00
301.5	-5935.00	239.5	-5422.00	193.5	-3425.00	67.5	-1018.00	23.5	-1636.00
302.0	-6425.00	240.0	-4732.00	194.0	-2481.00	68.0	244.00	24.0	-1714.00
302.5	-6731.00	240.5	-3978.00	194.5	-1652.00	68.5	581.00	24.5	-1947.00
303.0	-6813.00	241.0	-3235.00	195.0	-1003.00	69.0	181.00	25.0	-2383.00
303.5	-6641.00	241.5	-2534.00	195.5	-538.00	69.5	-498.00	25.5	-3004.00
304.0	-6204.00	242.0	-1869.00	196.0	-223.00	70.0	-934.00	26.0	-3700.00

First arrivals plot : TARALEA 1



Shot 38 Location : D
Charge depth 1.5 Size .2
Phone depth : 54.3
Arrival time : 16.0 msec

Shot 39 Location : C
Charge depth .5 Size .2
Phone depth : 54.3
Arrival time : 19.5 msec

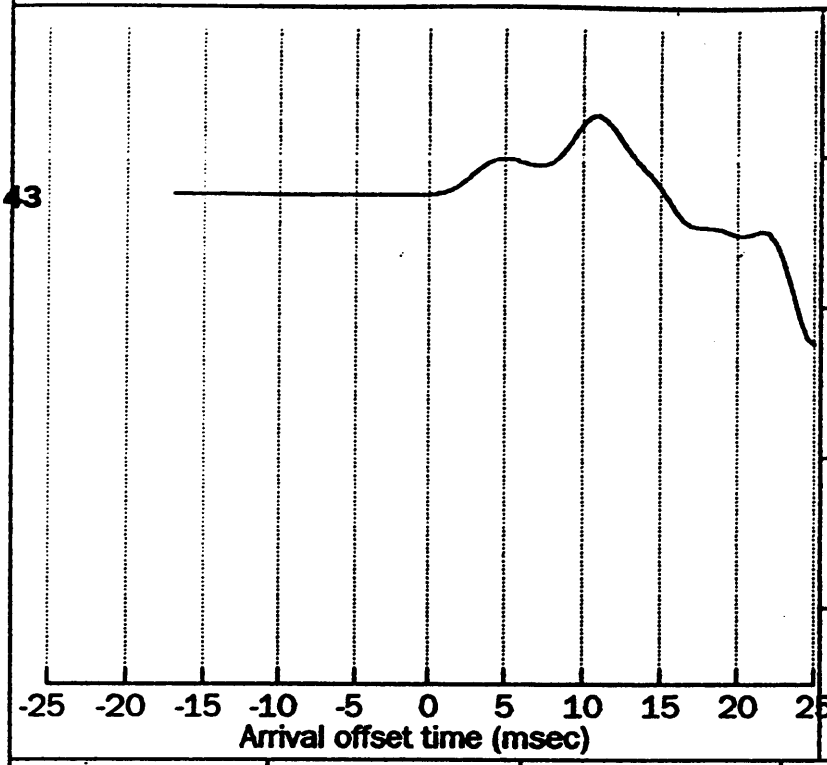
Shot 40 Location : C
Charge depth .5 Size .2
Phone depth : 54.3
Arrival time : 20.0 msec

Shot 41 Location : B
Charge depth .5 Size .2
Phone depth : 54.3
Arrival time : 17.5 msec

Shot 42 Location : A
Charge depth .5 Size .2
Phone depth : 54.3
Arrival time : 17.0 msec

SHOT 38		SHOT 39		SHOT 40		SHOT 41		SHOT 42	
Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl	Time	Ampl
5.0	1.00	8.0	1.00	9.0	1.00	6.0	2.00	6.0	0.00
5.5	1.00	8.5	1.00	9.5	2.00	6.5	1.00	6.5	0.00
6.0	0.00	9.0	1.00	10.0	2.00	7.0	2.00	7.0	0.00
6.5	0.00	9.5	0.00	10.5	2.00	7.5	1.00	7.5	1.00
7.0	-1.00	10.0	1.00	11.0	2.00	8.0	1.00	8.0	1.00
7.5	0.00	10.5	0.00	11.5	3.00	8.5	1.00	8.5	0.00
8.0	-1.00	11.0	0.00	12.0	3.00	9.0	0.00	9.0	0.00
8.5	0.00	11.5	1.00	12.5	4.00	9.5	1.00	9.5	0.00
9.0	-1.00	12.0	1.00	13.0	4.00	10.0	0.00	10.0	0.00
9.5	-1.00	12.5	0.00	13.5	3.00	10.5	2.00	10.5	0.00
10.0	0.00	13.0	1.00	14.0	4.00	11.0	2.00	11.0	-1.00
10.5	0.00	13.5	1.00	14.5	2.00	11.5	2.00	11.5	-1.00
11.0	0.00	14.0	1.00	15.0	2.00	12.0	2.00	12.0	-3.00
11.5	-1.00	14.5	2.00	15.5	2.00	12.5	2.00	12.5	-2.00
12.0	0.00	15.0	2.00	16.0	3.00	13.0	2.00	13.0	-2.00
12.5	-2.00	15.5	1.00	16.5	2.00	13.5	2.00	13.5	-2.00
13.0	-1.00	16.0	1.00	17.0	2.00	14.0	3.00	14.0	0.00
13.5	0.00	16.5	1.00	17.5	2.00	14.5	3.00	14.5	-1.00
14.0	0.00	17.0	0.00	18.0	2.00	15.0	1.00	15.0	-1.00
14.5	0.00	17.5	-1.00	18.5	2.00	15.5	0.00	15.5	-1.00
15.0	1.00	18.0	-1.00	19.0	2.00	16.0	0.00	16.0	-1.00
15.5	2.00	18.5	-1.00	19.5	2.00	16.5	-1.00	16.5	-1.00
16.0	**-1.00**	19.0	-2.00	**20.0**	**1.00**	17.0	-2.00	**17.0**	**-4.00**
16.5	-7.00	**19.5**	**-3.00**	20.5	-1.00	**17.5**	**-5.00**	17.5	-11.00
17.0	-27.00	20.0	-6.00	21.0	-4.00	18.0	-14.00	18.0	-29.00
17.5	-74.00	20.5	-13.00	21.5	-8.00	18.5	-33.00	18.5	-62.00
18.0	-167.00	21.0	-22.00	22.0	-14.00	19.0	-63.00	19.0	-120.00
18.5	-321.00	21.5	-37.00	22.5	-22.00	19.5	-105.00	19.5	-209.00
19.0	-528.00	22.0	-54.00	23.0	-32.00	20.0	-159.00	20.0	-334.00
19.5	-767.00	22.5	-71.00	23.5	-41.00	20.5	-218.00	20.5	-491.00
20.0	-993.00	23.0	-87.00	24.0	-48.00	21.0	-274.00	21.0	-668.00
20.5	-1164.00	23.5	-97.00	24.5	-52.00	21.5	-320.00	21.5	-844.00
21.0	-1263.00	24.0	-103.00	25.0	-50.00	22.0	-352.00	22.0	-987.00
21.5	-1295.00	24.5	-105.00	25.5	-47.00	22.5	-369.00	22.5	-1064.00
22.0	-1289.00	25.0	-101.00	26.0	-42.00	23.0	-375.00	23.0	-1042.00
22.5	-1273.00	25.5	-97.00	26.5	-35.00	23.5	-378.00	23.5	-907.00
23.0	-1268.00	26.0	-92.00	27.0	-30.00	24.0	-384.00	24.0	-657.00
23.5	-1287.00	26.5	-93.00	27.5	-29.00	24.5	-396.00	24.5	-320.00
24.0	-1357.00	27.0	-103.00	28.0	-32.00	25.0	-421.00	25.0	61.00
24.5	-1512.00	27.5	-124.00	28.5	-44.00	25.5	-458.00	25.5	423.00
25.0	-1785.00	28.0	-160.00	29.0	-61.00	26.0	-508.00	26.0	702.00
25.5	-2175.00	28.5	-204.00	29.5	-82.00	26.5	-561.00	26.5	835.00
26.0	-2621.00	29.0	-248.00	30.0	-105.00	27.0	-609.00	27.0	777.00
26.5	-3025.00	29.5	-281.00	30.5	-121.00	27.5	-642.00	27.5	510.00
27.0	-3275.00	30.0	-294.00	31.0	-126.00	28.0	-650.00	28.0	51.00

First arrivals plot : TARALEA 1



Shot 43 Location : D
Charge depth 1.5 Size .2
Phone depth : 53.3
Arrival time : 16.5 msec

SHOT 43	
Time	**Ampl**
6.0	3.00
6.5	3.00
7.0	3.00
7.5	2.00
8.0	1.00
8.5	1.00
9.0	1.00
9.5	1.00
10.0	1.00
10.5	1.00
11.0	2.00
11.5	2.00
12.0	2.00
12.5	2.00
13.0	3.00
13.5	3.00
14.0	3.00
14.5	3.00
15.0	2.00
15.5	1.00
16.0	1.00
16.5	**-3.00**
17.0	-15.00
17.5	-42.00
18.0	-104.00
18.5	-214.00
19.0	-385.00
19.5	-609.00
20.0	-868.00
20.5	-1114.00
21.0	-1310.00
21.5	-1425.00
22.0	-1455.00
22.5	-1414.00
23.0	-1332.00
23.5	-1239.00
24.0	-1171.00
24.5	-1166.00
25.0	-1271.00
25.5	-1517.00
26.0	-1904.00
26.5	-2375.00
27.0	-2825.00
27.5	-3133.00
28.0	-3206.00