SDA 1085

WILD DOG-1
WELL COMPLETION REPORT
TORQUAY SUB-BASIN
VIC/P28

SHELL AUSTRALIA

UPSTREAM OIL AND NATURAL GAS

SDA 1085

WILD DOG-1
WELL COMPLETION REPORT
TORQUAY SUB-BASIN
VIC/P28

VOLUME 1
BASIC DATA

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THE SHELL COMPANY OF AUSTRALIA LIMITED

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1. INTRODUCTION

1.1 General

Offshore exploration permit VIC/P28 is located in the Torquay Sub-basin, south of the entrance to Port Phillip Bay, south-east Australia. The permit comprises 118 graticular blocks and covers an area of 7900 km^2. Water depth over the permit area generally is between 70 and 80 metres.

Wild Dog-1 was spudded on Christmas Eve, 24 December 1992 and reached total depth of 1200 mSS (1222 mBRT) 11 days later. The objectives of the well were to test sandstones of the Eocene Boonah Formation and the Upper Cretaceous Eastern View Group. A good seal and high quality sands were encountered but were found to be 100% water bearing.

Following analysis of all data, including wireline logs, the well was plugged and abandoned without testing and the rig released on 9 January, 1993.

1.2 Drilling

The well was drilled by the Diamond M General Company semi-submersible *Ocean Epoch*, formerly the Diamond M Epoch. The rig was taken onto contract when the final anchor was racked at the end of the Sagasco Resources well Flinders-1, at 1400 hrs on Tuesday 22 December.

To reduce the mobilisation/demobilisation costs of the rig an agreement had been reached with Sagasco Resources to share the rig under a three well plus options contract. The Sagasco wells King-1 and Flinders-1, drilled in Tasmanian waters, directly preceded Wild Dog-1. The rig itself had been towed from Western Australia prior to Sagasco operations and returned there after Wild Dog-1 (no options were exercised).

Jointly contracting the rig with Sagasco led to jointly tendering for services and supply base facilities. The supply base used was Bell Bay, close to Launceston on the north coast of Tasmania, about 20 hrs each way for the supply boats. Helicopters ran from the Geelong Airport at Grovedale, Geelong, a 15-20 mins flight to the rig.

The tow to location took 25 hours and first anchor down occurred at 1500 hrs on Wednesday, 23 December. The well was spudded at 1515 hrs on Thursday, 24 December after a trouble free anchor operation.

Problems were encountered after drilling 36" hole and running 30" structural casing. Prior to cementation circulation was impeded, resulting in retrieval of the casing to surface. On inspection three pieces of tyre were found jamming the floatshoe, the source of which remains unknown. The rerun joints were cemented without incident. The 30" shoe was placed at 134 mBRT, 33 metres beneath the seabed.

A 12 1/4" pilot hole for shallow gas was drilled and opened to 17 1/2" for 13 3/8" casing. A 13 3/8" shoe was placed at 320 mBRT and cemented in place. Time was lost whilst attempting to run the BOP stack and riser because of heavy weather, but after 1.5 days they were successfully landed and tested. The remainder of the well passed smoothly with 12 1/4" hole allowing 9 5/8" casing to be placed at 738 mBRT and 8 1/2" hole drilled through the objective to a total depth of 1222 mBRT, 11 days after spud.

Total depth was reached at 1200 mSS, being 62 metres into the Eumeralla Formation. Logs over the target sands indicated them to be fully water bearing and the well was plugged and abandoned.

The rig came off contract when the last anchor was racked at 1030 hrs on Saturday 9 January, 1993, a total Shell phase of 17.85 days. The AFE timing allowed 17.5 days for the well and three days were directly applicable to the two major downtime incidents outlined above.

2. KEY WELL DATA

Well	:	Wild Dog No. 1
Well Type	:	Exploration
Permit	:	VIC/P28
Well Operator	:	The Shell Company of Australia Ltd.
Farm-in Partner	:	Woodside Oil Ltd. - funding 100% of well costs to earn right to acquire 50% equity in permit.
Location	:	Latitude 38° 47' 16.78" S
	:	Longitude 144° 07' 33.08" E
	:	Easting 250 358.2 m E
	:	Northing 5 702 810.3 m N
Final Position	:	13.9 m on bearing 330.4° from planned position.
Drilling Contractor	:	Diamond M General Company
Drilling Unit	:	*Ocean Epoch* (Semi-submersible with Topdrive)
Rig Heading	:	237.8° True N
Permanent Datum	:	Mean Sea Level (MSL)
Drill Floor Elevation	:	22.3 m above MSL
Water Depth	:	79 m below MSL
Total Depth	:	1200 mSS
Start of Operation	:	1400 hrs 22 December 1992
Spudded	:	1515 hrs 24 December 1992
Drilling Completed	:	0730 hrs 4 January 1993
Rig Released	:	1030 hrs 9 January 1993
Total Days	:	17.85 (start operations to rig release)

Total Cost	:	A$ 5.9 million
Final Well Status	:	Plugged and abandoned
Hole size and depth	:	36" to 112 mSS 17 1/2" to 303 mSS 12 1/4" to 721 mSS 8 1/2" to 1200 mSS
Casing Summary	:	Top 18 3/4" Vetco SG5 wellhead at 77.5 mSS 30" to 112 mSS 20-13 3/8" to 298 mSS 9 5/8" to 716 mSS
Wireline Logging Contractor	:	Halliburton Logging Services
Wireline Logging	:	Suite 1 - 12 1/4" hole Run #1 - SDL/LSS/GR/DTD/CAL (GR to surface)
	:	Suite 2 - 8 1/2" hole Run #1 - MSFL/DLL/FWS/GR Run #2 - SDL/CNS/GR Run #3 - SED/GR, CBL for 9.5/8" TOC Run #4 - SFT/GR Run #5 - Wellshoot (11 levels, 2 repeats) Run #6 - Sidewall Cores (24 shots, 17 recovered)
Production Testing	:	None performed
Abandonment Plugs	:	Plug 1 Cement 1041-1200 mSS Plug 2 Cement 864 -1041 mSS Plug 3 Cement 651 - 748 mSS Plug 4 Bridge Plug - 228 mSS Plug 5 Cement 135 - 228 mSS

3. WELL HISTORY

3.1 Site survey

A site survey at the Wild Dog-1 location was performed during 18-21 June, 1992, by Associated Surveys International, Perth, using the vessel *Derwent Enterprise*, chartered from Korevaar Marine of Melbourne. At the wellsite the following services were performed:

(i) an echo sounder survey over a 2 km x 2 km area (100 m grid spacing)
(ii) a sidescan sonar survey over the same grid
(iii) 18 drop cores taken over the drilling and anchoring sites
(iv) an estimate of current at the drilling location

Shell was represented on board the *Derwent Enterprise* by John Rutherford, a specialist surveyor contracted from BHP Engineering to supervise the survey.

The seabed at the drilling location is almost flat with a slight slope from south (77 m) to north (78 m) - the drilling location is thought to be approximately 77.4 m below sea level (depending on tides). The seabed has no protuberances or debris and no evidence of shallow gas seeps. The side scan sonar indicated fine grained sediments on bottom with very shallow current scoured features. This was confirmed with the drop cores which typically penetrated 1.5 m into the sediment but on retrieval only 30 cm of uncohesive uniform fine sands with minor fine shell gravel was left in the corebarrel (sediment was seen washing from the barrel on retrieval). The cutting shoe typically had traces of a cohesive sandy clay indicating a firmer layer approximately 1.5 m beneath the seabed. The sidescan sonar suggested that this firmer material breaks to seabed in the west and north-west of the survey area. The current meter indicated minor flow with a maximum of 0.4 knots being recorded.

3.2 Rig positioning

The *Ocean Epoch* was positioned at the wellsite using a combination of differential GPS and Syledis radio positioning. Associated Surveys International performed the work.

The final location results were derived from Syledis observations:

Latitude	38° 47' 16.78"
Longitude	144° 07' 33.08"
Easting	250 358.2 m E
Northing	5 702 810.3 m N

Spheroid	Australian National
Datum	AGD 84
Projection	Australian Map Grid
	Central Meridian 147° E (Zone 55)

The final drillstem position was located 13.9 metres on a grid bearing of 330.4° from the intended Wild Dog-1 location.

3.3 Drilling operations

A full listing detailing time and operations on the well is contained in appendix C2.

3.3.1 Rig move, positioning and anchoring

The *Ocean Epoch* was released from the Sagasco Resources Flinders-1 well location after racking the last anchor at 1400 hrs on 22 December, 1992. It was towed to the Wild Dog-1 location, a distance of 117 nautical miles, by the *Terje Viking* (Tidewater Port Jackson Marine) with the *Ragna Viking* (TPJM) in attendance. First anchor was dropped at the new location at 1500 hrs on 23 December. An average speed of 4.7 knots was attained with the 8160 BHP tow/supply vessel.

All eight anchors were run by 2300 hrs on the same day; all held pretension of 125 tonnes. There had been some concern during the planning phase that there might be some slippage - one of the offset wells, Nerita-1, suffered two weeks lost time trying to gain anchor tension - but the new anchors contracted with the rig, 10 tonne Stevpris, gripped immediately. The rig was ballasted down to its drilling draft of 16.7 m by 1100 hrs 23 December.

A seabed survey was made by the ROV prior to spud.

3.3.2 Drilling 36" hole for 30" casing

A 26" bit with a 36" hole opener was used to drill this phase. The seabed was tagged at 79 mSS (101 mBRT) and Wild Dog-1 was spudded at 1515 hrs on 24 December, 1992. No TGB, although mobilised for contingency, was used. The 36" hole was drilled to 134 mBRT in 2.25 hrs.

Three joints of 30" casing with Vetco ST-2 connectors and the PGB were run to 134 m. Pressure whilst circulating prior to cementing indicated a blockage resulting in the retrieval of the casing to surface. On inspection three pieces of rubber tyre were found blocking the floatshoe. Usual checks whilst running the casing had been made and the origin of the rubber is still unknown. Once the shoe joint had been changed out and the hole checked, casing was run and cemented in place with 800 sacks of Class G cement at an average slurry density of 1.90 sg. It was not possible

to observe cement returns at seabed due to the silt kicked up and low current holding it around the drilling location.

3.3.3 Drilling 17 1/2" hole for 20-13 3/8" casing

After waiting on cement, the 30" shoe was drilled out with the 26" bit which was then stood back and a 12 1/4" pilot hole drilled through the section as a precaution against shallow gas. This hole was opened to 17 1/2" with a second pass, both sections being completed to 325 mBRT in about 18 hrs.

The 13 3/8" casing was run with the 18 3/4" wellhead housing to put the shoe at 320 mBRT. One joint of 20" casing was inserted beneath the housing to enable a cleaner cut of the 30"-20" casing on abandonment (the previous two wells drilled by Sagasco with 13 3/8" casing inside 30" casing resulted in messy, time consuming abandonment operations). This 20" joint sat inside 30" casing just beneath the wellhead. This 20"-13 3/8" string was cemented in place by a stinger cementation using 1000 sacks of Class G cement with a lead density of 1.58 sg and a tail density of 1.90 sg. Again, no returns were observed at surface because of sediment thrown up by operations.

The BOP stack and marine riser were prepared and run but 1.5 days were lost waiting on weather to subside to enable the BOP to be landed on the wellhead. Once landed all functions were tested satisfactorily.

3.3.4 Drilling 12 1/4" hole for 9 5/8" casing

The top two hole sections had been drilled with seawater and gel sweeps to seabed. Now that returns were being taken to the rig, a seawater/gel/polymer system was displaced to the hole after the 13 3/8" shoetrack had been drilled.

A Formation Intake Test indicated leakoff at 1.63 sg EMW, and drilling began to a casing setting depth around 740 mBRT. Dynamic losses occurred through the section although the hole was static on flowchecks. The losses were not stemmed as dilution of the mud by seawater/starch additions was used to counter the buildup of fines from the highly dispersive Puebla Clay.

The full section was drilled in a little over 12 hrs for an average ROP of 30-35 m/hr. Only one tricone bit was used for the full section. The drilling assembly was tripped out of the hole recording an electronic multishot survey, the hole being in good condition.

Electric logs were run but the tools hung up on a ledge at 567 mBRT. Dropping out the density tool from the string did not help to pass the ledge on rerun so a wiper trip was run with the 12 1/4" drilling assembly.

A third attempt to log after this wiper trip was successful and the full suite of logs was obtained, the GR running back to seabed. The full suite was SDL/LSS/GR/Cal/Tension.

The 9 5/8" casing, in total some 53 joints, was run and cemented in place with the shoe at 738 mBRT. Six hundred sacks of Class G cement were used to cement the string. On displacement, the top plug did not bump, hence the casing could not be tested at this stage. Subsequently the plug was found at 693 mBRT, 21 m high, and was drilled out accordingly.

3.3.5 Drilling 8 1/2" Hole

The 9 5/8" casing was tested to a reduced pressure of 13790 kPa (2000 psi) when the cement was tagged high with the 8 1/2" assembly. Once the shoetrack had been cleaned out, 5 m of new hole was drilled and the mud system changed out to a KCl/PHPA system. A Formation Intake Test indicated leak off at 1.65 sg EMW.

The 8 1/2" hole was drilled from 748 mBRT to 921 mBRT at which point samples were circulated to the surface. Drilling continued uneventfully for the rest of the section into the Eumeralla Formation without any hydrocarbon shows. The whole section, 748-1222 mBRT, was drilled with one bit in 24 hrs. Because there had been no requirement to come to surface during the interval, the monel collar required for the electronic multishot survey had not been installed, so a trip was made for that purpose. The final trip out of the hole whilst recording the survey indicated that the hole was in good condition for the logging operation.

The following logs were run in the hole:

DLL(SP)/MSFL/LSS/GR/DTD
SDL/DSN/GR/DTD
SED/GR/DTD
SFT/QPG/GR
Wellshoot (Seismograph Services Ltd.)
Sidewall Samples

Analysis of these logs, SFT and lack of shows whilst drilling indicated the well to be fully water bearing and the instruction to plug and abandon was given.

3.3.6 Abandonment

Abandonment involved setting four cement plugs and one bridge plug in the hole. The first two openhole plugs were designed to cement back above all permeable formations encountered. The stinger had to be retrieved from the hole between plugs to investigate high circulating pressure but no blockage was evident.

After the second open hole plug had been placed and set, excess drilling fluid was bullheaded from the rig to the remaining open hole, avoiding unnecessary overboard discharge for environmental reasons.

The third cement plug was placed across the 9 5/8" shoe and a steel bridge plug was placed inside 9 5/8" casing. TOC outside 9 5/8" casing had been seen well inside the 13 3/8" shoe on a CBL/VDL, hence a fourth cement plug was placed inside 9 5/8" casing above the bridge plug extending to 45 m from seabed.

The 9 5/8" wearbushing was pulled and a casing cutter run to cut 9 5/8" casing at a depth of 88 mSS. On retrieval with a spear, the 9 5/8" casing hung up on the seal assembly and had to be tapped loose before coming to surface. The riser and BOPs were pulled, laid down and set back.

Casing cutting knives cut the 20"-30" casing strings below mudline and retrieved the housings and PGB to the surface in one trip.

The final ROV survey indicated a clear seabed.

3.3.7 De-anchoring

During de-anchoring one of the anchors was lost whilst all of the chain was recovered, the break being at the Regan swivel connected to the anchor. This anchor remains on the seabed, approximately 1000 m from the well location on a bearing of 115°.

3.4 List of contractors

The following contractors were engaged for Wild Dog-1:

Service	Contractor
Drilling Contractor	Diamond M General Company
Supply Boats	Tidewater Port Jackson Marine
Helicopters	Lloyd Helicopter Group
Cementing	Halliburton Australia
Mud Engineering	International Drilling Fluids
Mud Logging	Halliburton Geodata
Wireline Logging	Halliburton Logging Services
Wellhead Services	ABB Vetco Gray
Drilling Tools	Austoil
Deviation Surveys	Sperry Sun
Casing Services	Weatherford Australia
ROV Services	Subsea International Australia
Coring	DB Stratabit
Production Testing	Schlumberger Seaco Ltd
Site Survey	Associated Surveys International
Rig Positioning	Associated Surveys International
Communications	Telecom Australia
Weather Forecasting	Meteorological Bureau of Melbourne
Environmental Consultation	Dames and Moore

Supervisory Personnel	Tri-Ocean Australia Pty Ltd (R. Crabtree) Labrador Petro Management (G. Wild) Carber Pty Ltd (J. Lambert) DAC and Associates (A. Chapman) Energy Pers. and Dev. Services (S. Irvine) Oilfield Logistics (N. Willoughby) SIPM (H. Hoogmolen)

3.5 **Operational summaries** (See also appendix A)

3.5.1 Bit performance

Drilling Wild Dog-1 required five bits - the bit record can be found in appendix A2. Bits were provided by Smith International, Perth, and performed satisfactorily. The tophole 26" bit was rerun ex-Sagasco and provided a considerable cost saving. The 36" hole opener cutters were sold back for part credit to Austoil. Each of the subsequent 12 1/4" pilot, 17 1/2", 12 1/4" and 8 1/2" sections were completed with one bit each, only the 8 1/2" bit being pushed to a 5-4-1/8" grading in 24 hours use. Extended jets were used on this run and were probably beneficial, the increased on-bottom jetting action working on the softer sediments. Appendix A2 contains bit run information.

3.5.2 Botton hole assemblies

Wild Dog-1 was drilled as a vertical well, with a maximum deviation of 1.07^{0} at 1213 mBRT. Pendulum assemblies were generally used e.g.:

Bit
2x Drill collars
Stabiliser
1 x Drill collar
Stabiliser
3 x Drill collars
Stabiliser
etc.

with one monel collar being installed above the bit for the EMS surveys in 12 1/4" and 8 1/2" holes. Appendix A3 contains BHA information.

3.5.3 Mud summary

Chemical consumption is reported in appendix A4.

A 55 m^3 pit of 1.3 sg freshwater/gel kill mud was prepared for emergency use prior to spud but was not required through the entire operation.

36" Hole - Seawater plus gel sweeps

This section was drilled with seawater and high viscosity gel sweeps at 9 m intervals and as required, returns to seabed. When casing point was reached the hole was swept with an 8 m^3 high viscosity sweep, then displaced to a bentonite high viscosity fluid at 150% hole volume prior to pulling out for casing. Because problems were seen with the 30" shoe, the whole sweep procedure was repeated on cleanout for the second casing run, resulting in an 130% overrun in gel volume used relative to programme.

12 1/4" Pilot and 17 1/2" Hole - Seawater plus gel sweeps

As per the previous section, seawater was used with high viscosity gel sweeps, and returns went to seabed. Again, as per the previous section, a funnel viscosity of 100 sec/qt was maintained for the sweeps. Whilst drilling the pilot hole, sweeps were used each 9 metres, increasing to each stand for the 17 1/2" hole. At casing point for each bit, the hole was swept with an 8 m^3 high viscosity sweep. The hole was displaced to high viscosity fluid before making a wiper trip. No fill or drag was encountered and when back on bottom the hole was displaced with 150% hole volume of high viscosity bentonite fluid. The casing was run and cemented without problem.

12 1/4" Hole - Seawater/gel/polymer

The 12 1/4" section was drilled with returns back to the rig after the BOP and riser had been installed. Bad weather prevented the stack being connected for about 1.5 days - during this time bentonite was prehydrated and stored but no polymers were added until it was known drilling was to proceed. The basic seawater/gel was supplemented with additions of starch (Idflo) and mud detergent. This fluid was displaced into the hole after the shoetrack had been drilled with seawater prior to the FIT.

This 12 1/4" section drilled through the highly dispersive Puebla clay. High rates of penetration and a fines build up resulting in increased weight were always likely. This problem did occur along with a rapid build up in yield point and gel strength, indicating the highly reactive nature of the formation. The solids control equipment proved ineffective in removing these fines which eluded the mud cleaners/desilters. As mud weight increased a strict dump and dilute regime was introduced.

As drilling continued seepage losses averaging 6 m^3/hr, combined with losses over the shakers, meant that dumping was no longer required and

dilution with pH treated seawater with 2 lb/bbl starch (Idflo) controlled properties. Dynamic losses peaked at 51 m^3/hr at 658 mBRT. The hole was static on flowchecks and consequently no attempt was made to stem the losses.

Annular packoffs, a feature of this interval, were not encountered, due in some part to the detergent - some cavings were evident but did not pose any problem.

At casing point, a high viscosity sweep was spotted on bottom prior to pulling out for logs - the logs held up on the first run in the hole but after a wiper trip the tools reached bottom without problem. Prior to cementing casing the mud yield point and gels were lowered by a treatment of chrome free lignosulphonate.

8 1/2" Hole - Seawater/KCl/PHPA

After cleanout of the 12 1/4" shoetrack and rathole with the old mud system, the new seawater/KCl/PHPA(Idbond) mud was circulated into place prior to the FIT. The shakers were partially bypassed to minimise loss of pure fluid for the first few circulations, but after the concentration of Idbond was increased to about 1 lb/bbl active PHPA, they proved very effective in removing drill solids. KCl was maintained at 2.75-3% by weight resulting in 30-35,000 ppm chlorides.

On wiper trips average overpulls of 20,000 lbs were encountered with maximums up to 50-60,000 lbs. Some backreaming was required but generally the hole remained in gauge and in good condition. The full section took a little over 24 hrs to drill.

The seawater/KCl/PHPA system provided a stable gauge hole for logging and eliminated any potential initial and progressive tight hole from clay hydration. After five logging runs with no wiper trips the hole was still in good condition before it was plugged and abandoned.

3.5.4 Casing and cementing

Appendix A5 contains details of the casing and cement jobs.

30" Casing

Three joints of 30" structural casing were run complete with the PGB. No TGB had been used initially and the 30" shoe was run straight into the 36" hole on sea bottom. Prior to cementation the casing was circulated without problem. The pump was shut down to check the bullseye and when circulation recommenced the casing was partially plugged. The

string was retrieved from the hole, the obstruction found in the shoe and the backup shoe run in the ground. The original shoe joint had been checked visually and water circulated through in the moonpool, but the three pieces of rubber tyre which subsequently blocked the valve were not spotted. The origin of these pieces is still unclear.

Cementation occurred without problem although no returns were seen at seabed because of murky water. A stinger cementation was performed.

20-13 3/8" Casing

To reduce consumable and discharge volumes the following section was planned as 17 1/2" hole for 13 3/8" casing with a crossover directly below the 18 3/4" wellhead housing. In the previous two Sagasco wells, problems occurred during abandonment when the cutter knives could not cut the smaller casing efficiently. At short notice a 20" joint was sourced and inserted into the string directly below the housing. During abandonment this proved a worthwhile investment as several hours were saved cutting 20"-30" casing.

The casing was run and cemented without problems, but again no returns were seen at seabed because of murky water. Again, a stinger cementation was performed and no 13 3/8" plugs were used.

9 5/8" Casing

The 9 5/8" string was set prior to drilling the reservoir section. Dynamic losses had been seen whilst drilling 12 1/4" hole and there was concern that the top of cement might not reach inside the 13 3/8" shoe as programmed. Casing was run and cemented although the top plug failed to bump due to under displacement. Full returns were recorded. The TOC was confirmed inside the 13 3/8"-9 5/8" annulus by CBL/VDL prior to abandonment.

No 7" liner was set, the well being plugged and abandoned after wireline logging.

3.5.5 Deviation control

Wild Dog-1 was drilled as a vertical well with Totco surveys taken intermittently and electronic multishot surveys over 12 1/4" and 8 1/2" sections. The maximum deviation angle of 1.07 degrees was recorded close to total depth.

Totco and EMS survey data is presented in appendix A7. Azimuth readings are corrected from magnetic to true North but at the low inclinations recorded these readings are meaningless.

3.5.6 Environmental discharges

Four main waste streams have been identified for the rig:

(i) cuttings from the hole, subsurface material circulated from deeper formations and deposited on the seabed.

(ii) mud, associated with the dumped cuttings and dumped from the rig at the completion of a phase. The mud system was designed specifically to avoid harmful and toxic additives. At the completion of operations, the majority of excess mud was bullheaded to the formation to avoid this overboard discharge.

(iii) treated sewage from the accommodation block.

(iv) gaseous exhaust emissions from the main diesel generators on the rig.

None of these discharges will significantly affect the local environment around the drilling site after completion of operations.

All other rig waste was collected into containers to be shipped ashore for disposal in Tasmania. The rig's burning basket was not used.

No spills of any nature were reported from the rig during the entire operation.

Prior to departing the location, the ROV performed a video survey and confirmed the location to be free of debris. The wellhead and top casing strings had been cut and retrieved from 6 m below the seabed although one of the 10 tonne Stevpris anchors was lost about 1000 m from the location during the de-anchoring operation.

3.6 Formation evaluation

See appendix B for additional information.

3.6.1 Mudlogging

Halliburton Geodata provided real time monitoring and recording of all drilling parameters and gas levels in the mud return system. Cuttings samples were collected and analysed for lithology and hydrocarbon indications. Samples were programmed to be caught at 5 m intervals through 12 1/4" hole and 3 m intervals through 8 1/2" hole. Although additional sample catchers were provided, high ROP meant not all these samples were collected.

Samples were distributed as follows:

Shell	1 set sample envelopes, 1 set samplex trays, 1 set bagged unwashed.
Woodside	1 set sample envelopes, 1 set samplex trays, 1 set bagged unwashed.
AGSO	1 set sample envelopes.
DEM	1 set sample envelopes.

All parties acknowledged receipt of the cuttings at the end of the project.

3.6.2 Wireline logging

Halliburton Logging Services recorded electric logs in 12 1/4" and 8 1/2" hole sections. The following log was run in 12 1/4" hole:

SDL/LSS/GR/Cal/Tension.

whilst in 8 1/2" hole the following suite was run over the target sands:

DLL(SP)/MSFL/LSS/GR/DTD
SDL/DSN/GR/DTD
SED/GR/DTD
SFT/QPG/GR
Wellshoot (Seismograph Services Ltd.)
Sidewall Samples

Refer to appendix B1 for more details and section 3.7 for the petrophysical analysis.

3.6.3 Sidewall core samples

One gun of 24 shots was run in the hole, from which 17 sidewall cores were recovered, 2 cores pulled out and 5 shots failed to fire. Refer to appendix E.

3.6.4 Velocity Survey

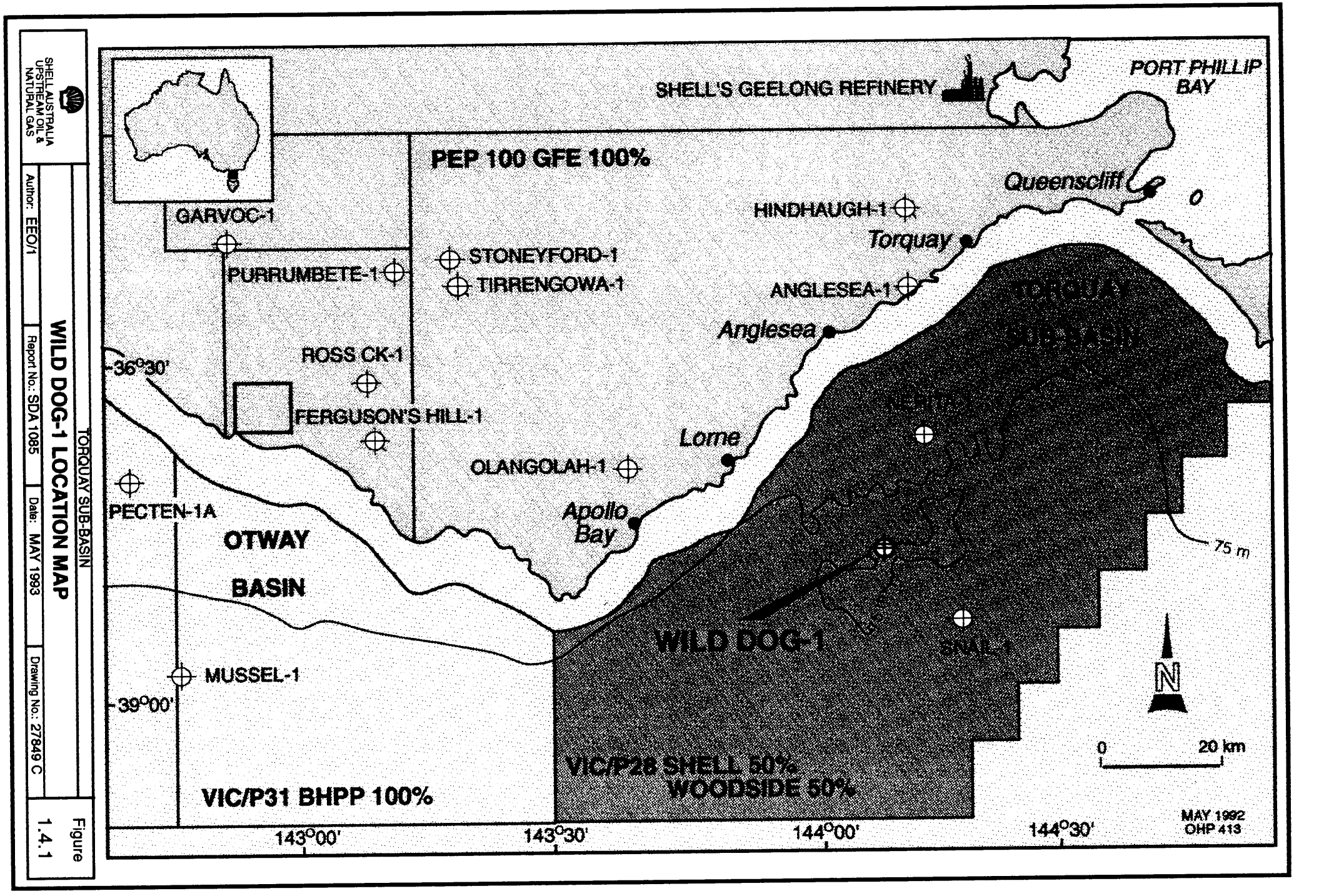
Seismograph Survey Ltd. performed a wellshoot velocity survey as a subcontract to the Halliburton Logging Services contract utilising the HLS unit and cable. Eleven levels plus two repeats were fired.

3.7 **Petrophysics**

Wireline logs run by Halliburton Logging Services (HLS) are summarised in appendix B1.

The log quality and repeatability of the basic open hole logs is satisfactory (appendix B2). The density log was adversely affected by hole rugosity in the top of the objective sands (interval 938 - 946 m).

The Sequential Formation Tester (SFT) was run with a quartz pressure gauge, to obtain formation pressures. For the pressure data and plot refer to appendix B3.


SHELL AUSTRALIA UPSTREAM OIL & NATURAL GAS
WILD DOG-1 LOCATION MAP
TORQUAY SUB-BASIN
Author: EEO/1
Report No.: SDA 1085
Date: MAY 1993
Drawing No.: 27849 C
Figure 1.4.1
SHELL'S GEELONG REFINERY
PORT PHILLIP BAY
PEP 100 GFE 100%
GARVOC-1
PURRUMBETE-1
STONEYFORD-1
TIRRENGOWA-1
HINDHAUGH-1
Queenscliff
Torquay
ANGLESEA-1
Anglesea
ROSS CK-1
FERGUSON'S HILL-1
OLANGOLAH-1
Lorne
Apollo Bay
PECTEN-1A
OTWAY BASIN
MUSSEL-1
WILD DOG-1
SNAIL-1
75 m
N
0
20 km
VIC/P28 SHELL 50%
WOODSIDE 50%
VIC/P31 BHPP 100%
-36°30'
-39°00'
143°00'
143°30'
144°00'
144°30'
MAY 1992
OHP 413

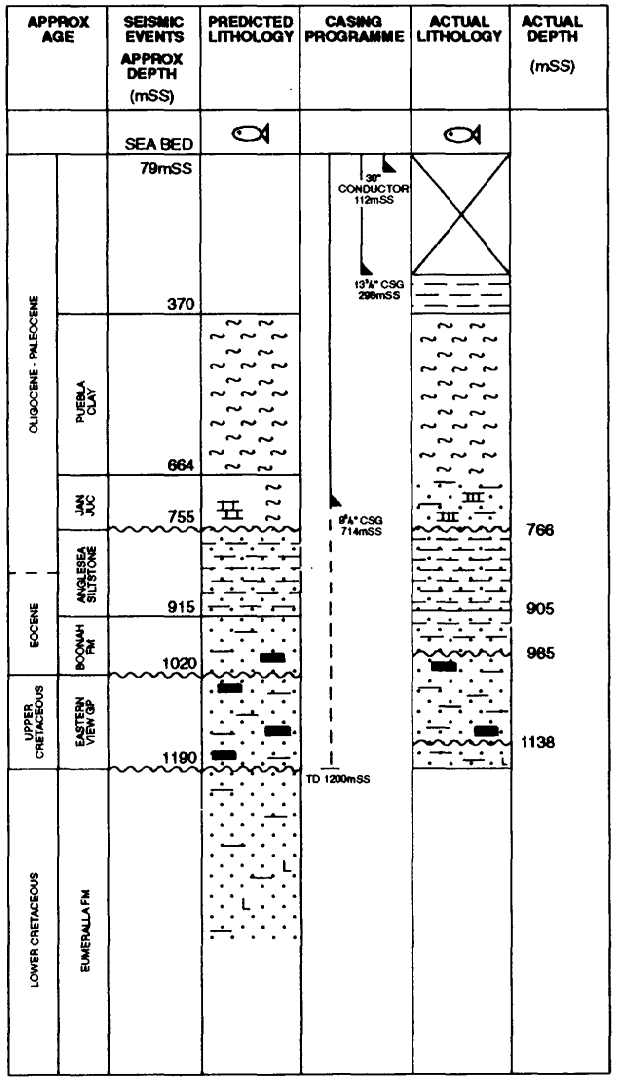
SHELL AUSTRALIA
UPSTREAM OIL & NATURAL GAS

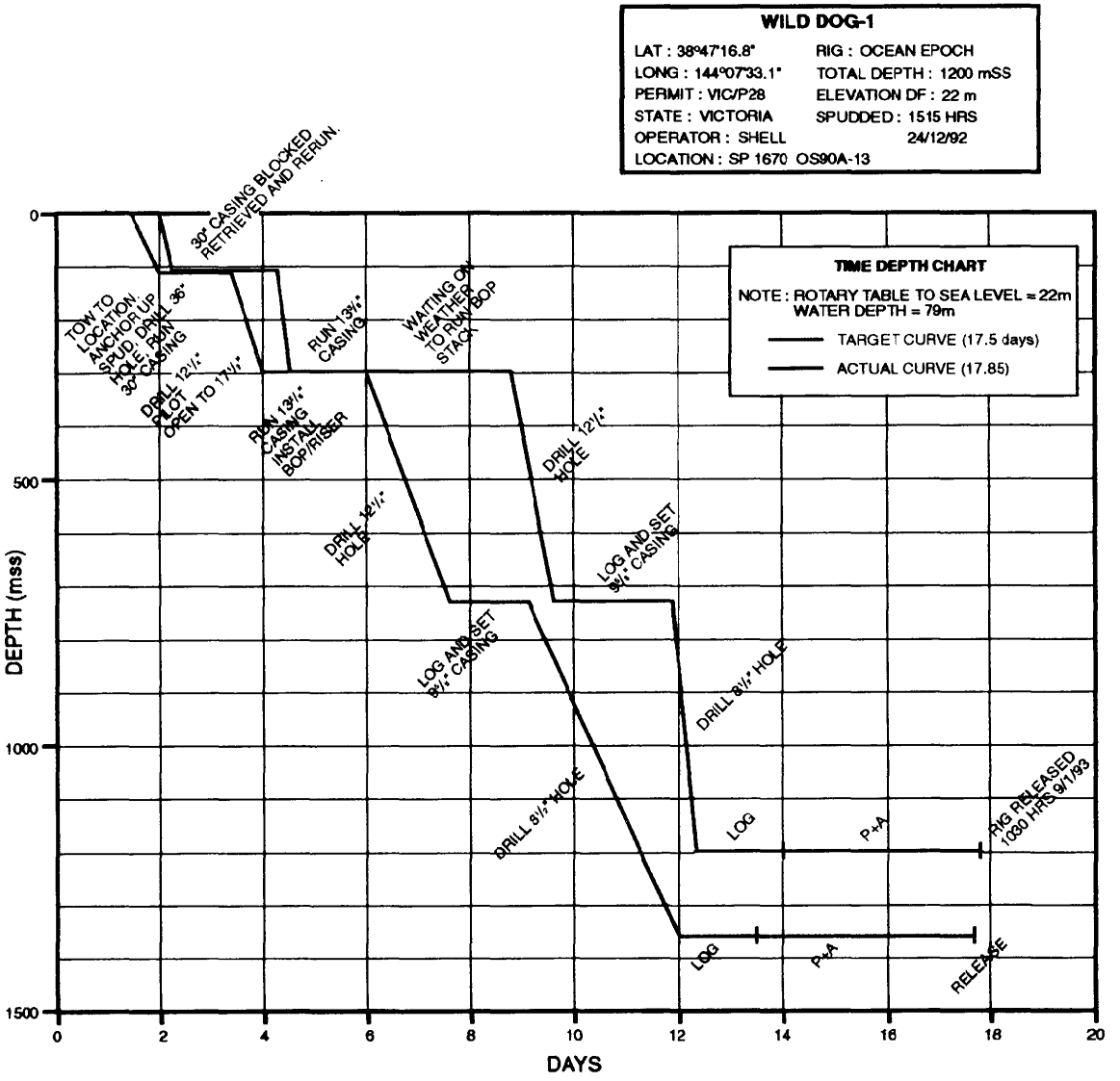
WILD DOG-1 TIME DEPTH CHART

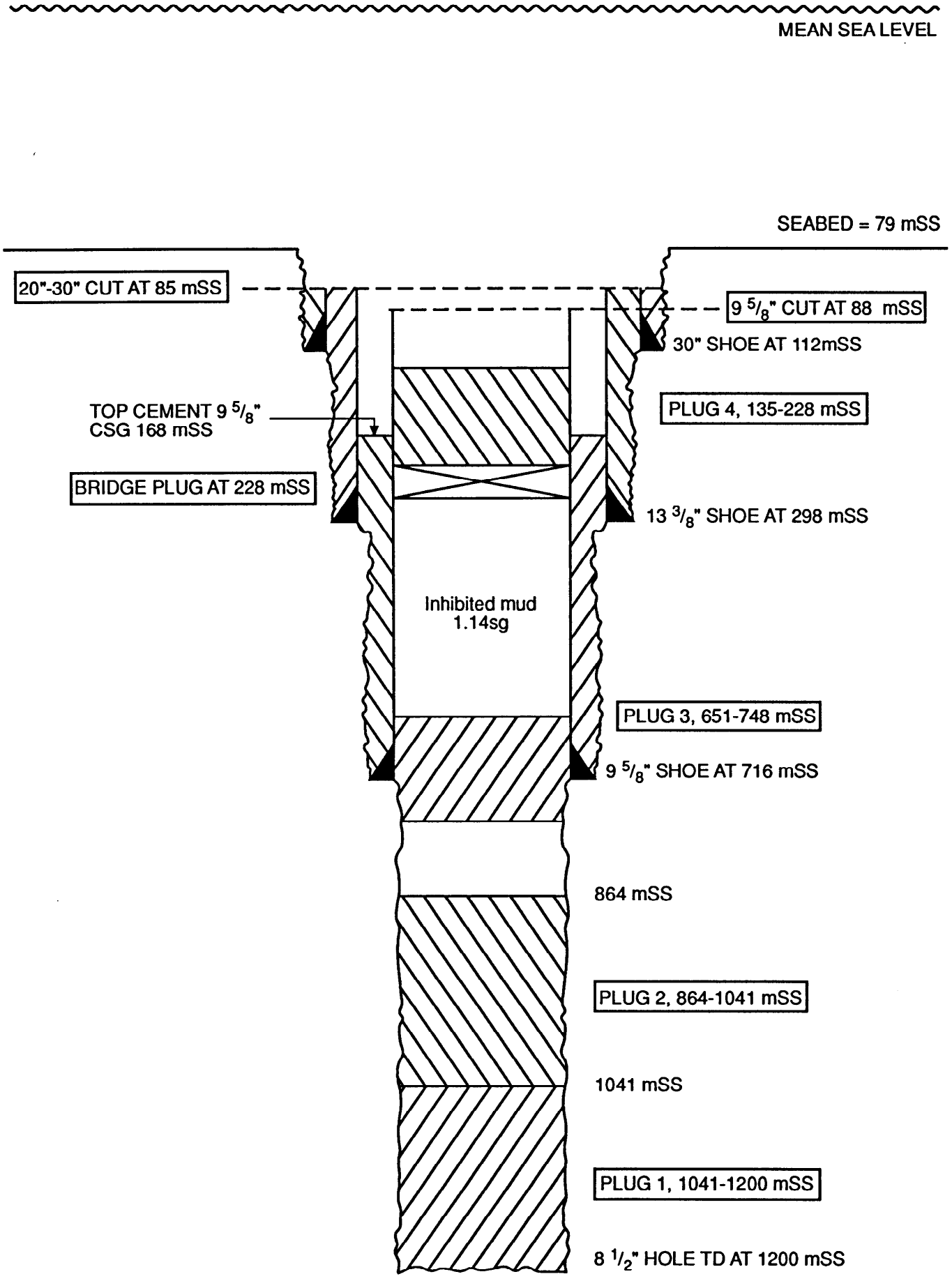
TORQUAY SUB-BASIN

Author:	Report No.:	Date:	Drawing No.:
EEO/1	SDA 1085	JANUARY 1993	28294C

Figure 2







SHELL AUSTRALIA UPSTREAM OIL & NATURAL GAS	TORQUAY SUB-BASIN				Figure 3
	WILD DOG-1 ABANDONMENT STATUS				
	Author: EEO/1	Report No.: SDA 1085	Date: JAN 1993	Drawing No.: 28247C	

APPENDIX A

DRILLING DATA

APPENDIX A1 - DRILLING RIG SPECIFICATION

Drilling Contractor	:	Diamond M General Company
Drilling Vessel	:	*Ocean Epoch* (formerly Diamond M Epoch)
Year Built	:	1977
Type	:	Semi-submersible, 8 Stevpris anchors
Classification	:	ABS Maltese Cross A1 Drilling Unit
Water Depth Capacity	:	46 - 366 m
Variable Deck Load	:	2512 short tons (drilling mode)
Power System	:	2x EMD 16E-9 diesel nngines, 3070 HP, each driving EMD 2000 kW AC Generators. 1x EMD 16E-8 Diesel Engine 2200 HP, driving EMD 1500 kW AC Generator.
Drawworks	:	Oilwell E-3000, driven by 2x GE 752 DC motors.
Top Drive	:	Varco Model TDS-4, 650 ton, with GE 752 DC motor.
Derrick	:	Skytop Brewster, 185 ft, with 1 000 000 lbs hook-load capacity.
Motion Compensator	:	Vetco Model 400-20D, with 400 000 lbs capacity, and 20 ft stroke.
Crown Block	:	Oilwell block, 760 ton capacity.
Travelling Block	:	Oilwell block, 650 ton capacity, with BJ5500 Dynaplex hook.
Mud Pumps	:	2x Oilwell A1700 PT Triplex, each driven by 2 GE 752 DC motors.
Blowout Preventers	:	1x 18 3/4", 10 000 psi subsea BOP, with the following major components (H_2S trim): - Riser Connector : Cameron Collet, 18 3/4", 10 000 psi. - Annular Preventer : 2 x Cameron DL, 18 3/4", 5 000 psi. - Ram Preventer : 2 x Cameron double ram, type UII, 18 3/4", 10 000 psi. - Wellhead Connector : Cameron Collet, 18 3/4", 10 000 psi.

APPENDIX A2 - WILD DOG-1 BIT RECORD

Run No.	Size	Type (Smith)	IADC Code	Jets	Depth (mBRT)	Metres drilled	Hours on bottom	WOB (tonnes)	RPM	Flow (Litres/min)	Pressure (MPa)	Condition	Remarks
1RR	26"	DSJC	1.1.1	3 x 16	101	34	2.25	0-4	60	4160	6.9	3-3-I	ex SAGASCO rerun
1RR	26"	DSJC	1.1.1	3 x 16	135	2	0.25	0-4	60	4160	6.9	3-3-I	Cleanout 30" casing
2	12 1/4"	FDS	1.1.6	3 x 16	137	188	7.75	0-4	80-120	2840	13.8	3-3-I	Pilot hole - full section
3	17 1/2"	DSJ	1.1.3	3 x 16	137	(188)	3.5	0-4	120	3400	17.9	2-2-I	Opening hole - full section
4	12 1/4"	FDS	1.1.6	3 x 16	325	418	13	4-8	120	2840	16.5	2-2-I	12 1/4" - full section
5	8 1/2"	FDS	1.1.6	3 x 12 (ext)	743	479	25.8	4-13	90-130	1300	10.4	5-4-1/8"	8 1/2" - full section to TD

APPENDIX A4 - WILD DOG-1 MUD/CEMENT CONSUMABLES

MUD CONSUMABLES

PRODUCT	UNIT SIZE	UNIT COST	INITIAL STOCK	LOADOUT TO RIG	CONSUMED 36" HOLE	CONSUMED 17.1/2" HOLE	CONSUMED 12.1/4" HOLE	CONSUMED 8.1/2" HOLE	WRITTEN OFF + KILL MUD	MATERIAL BACKLOADED	CUMULATIVE CONSUMED
BARITE	TONNES	$305.22	75.3	53.1	0	0	0.8	19.2	24.6	83.8 *	44.6
BENTONITE	TONNES	$488.85	47.8	18.3	13.7	18.7	3.9	0	2.7	27.1 *	39
AL STEARATE	10 KG	$92.50	30	0	0	0	0	0	0	30	0
BARITE	25 KG	$7.29	20	0	0	0	0	0	20	0	20
CAUSTIC SODA	25 KG	$46.35	80	0	5	6	39	24	1	5	75
POTASS. HYDROXIDE	25 KG	$57.00	24	0	0	0	0	0	0	24	0
DRILLING DETERGENT	200 LITRES	$271.45	4	0	0	0	2	0	2	0	4
IDF CFL	25 KG	$33.30	20	80	0	0	26	0	6	68	32
GYPSUM	25 KG	$12.58	90	0	0	0	0	60	0	30	60
IDBOND	25 LITRES	$185.38	127	0	0	0	0	101	0	26	101
IDCIDE L	25 LITRES	$158.90	15	0	0	0	4	2	2	7	8
IDF SMX	25 KG	$112.55	40	0	0	0	0	0	0	40	0
IDFLO	25 KG	$50.32	160	0	0	0	120	0	0	40	120
IDFREE	200 LITRES	$503.18	4	0	0	0	0	0	0	4	0
IDPAC	25 KG	$167.51	191	0	0	0	13	58	0	120	71
IDPAC XL	25 KG	$167.51	150	0	0	0	0	0	0	150	0
IDVIS	25 KG	$387.98	23	30	0	0	2	13	2	36	17
QUIKSEAL	40 LBS	$43.03	60	120	0	0	0	0	0	180	0
LIME	25 KG	$11.15	83	0	15	37	0	0	0	31	52
MICA	25 KG	$19.20	60	40	0	0	0	0	0	100	0
NUTPLUG	25 KG	$36.48	25	80	0	0	0	0	5	100	5
SODA ASH	25 KG	$18.54	86	0	6	13	28	21	5	13	73
SODA BICARB	25 KG	$20.20	100	0	0	0	0	0	0	100	0
SODIUM SULPHITE	25 KG	$28.00	9	20	0	0	8	8	0	13	16
IDSPERSE	25 LITRES	$121.75	34	0	0	0	0	0	0	34	0
IDFILM	200 LITRES	$584.61	6	0	0	0	0	4	0	2	4
IDF DEFOAMER	25 LITRES	$98.36	14	0	0	0	0	0	0	14	0
POTASSIUM CHLORIDE	25 KG	$12.12	0	600	0	0	0	315	5	280	320
		COST (A$)	$182,230	$56,139	$7,207	$10,073	$15,738	$48,298	$11,193	$145,860	$92,509

* GEL/BARITE STOCK SOLD ON WITH RIG

CEMENT CONSUMABLES

PRODUCT	UNIT SIZE	UNIT COST	INITIAL STOCK	LOADOUT TO RIG	CONSUMED 30" CSG	CONSUMED 13.3/8" CSG	CONSUMED 9.5/8" CSG	CONSUMED ABANDON	WRITTEN OFF	MATERIAL BACKLOADED	CUMULATIVE CONSUMED
CEMENT	94 LB SKS	$10.66	1785	1794	793	1032	556	908	0	290 **	3289
BENTONITE	25 KG	$12.22	93	0	0	20	25	0	0	48	45
CACL2 (HALLIBURTON)	25 KG	$33.68	40	0	38	2	0	0	0	0	40
CACL2 (IDF)	25 KG	$17.00	24	80	0	37	37	6	0	24	80
		COST (A$)	$21,920	$20,484	$9,733	$11,942	$6,861	$9,781	$0	$4,086	$38,318

** CEMENT STOCK SOLD TO SAGASCO/SHELL FOR DISPOSAL

APPENDIX A3 - WILD DOG-1 BOTTOM HOLE ASSEMBLY RECORD

Assembly No.	Bit No.	Assembly	Function
1.	1 RR	Bit - HO - Float - 3 x 9 1/2" DC - XO - 4 x 8" DC - XO - 6 x HWDP	Drill 36" hole
2.	1 RR	Bit - HO - Float - 3 x 9 1/2" DC - XO - 4 x 8" DC - XO - 6 x HWDP	Cleanout 36" hole
3.	1 RR	Bit - Float - 3 x 9 1/2" DC - XO - 4 x 8" DC - XO - 6 x HWDP	Cleanout 30" casing
4.	2	Bit - Float - 2 x 8 DC - 12 1/4" Stab - 8" DC - 12 1/4" Stab - 3 x 8" DC - 12 1/4" Stab - 6 x 8" DC - XO - HWDP	12 1/4" pilot hole for shallow gas
5.	3	Bit - Float - 2 x 9 1/2" DC - 17 1/2" Stab - 9 1/2" DC - 17 1/2" Stab - XO - 3 x 8" DC - 12 1/4" Stab - 6 x 8" DC - XO - 12 x HWDP	Opening pilot hole to 17 1/2" for casing
6.	4	Bit - Float - 8" Monel DC - 8" DC - 12 1/4" Stab - 8" DC - 12 1/4" Stab - 3 x 8" DC -12 1/4" Stab - 6 x 8" DC - XO - 12 x HWDP	12 1/4" hole section
7.	4 RR	Bit - Float - 8" Monel DC - 8" DC - 12 1/4" Stab - 8" DC - 12 1/4" Stab - 3 x 8" DC - 12 1/4" Stab - 6 x 8" DC - XO - 12 x HWDP	Wiper trip during logging
8.	5	Bit - Float - 2 x 6 1/2" DC - 8 1/2" Stab - 6 1/2" DC - 8 1/2" Stab - 3 x 6 1/2" DC - 8 1/2" Stab - 12 x 6 1/2" DC - 15 x HWDP	8 1/2" hole section to TD
9.	5 RR	Bit - Float - Monel DC - 6 1/2" DC - 8 1/2" Stab 6 1/2" DC - 8 1/2" Stab - 3 x 6 1/2" DC - 8 1/2" Stab - 12 x 6 1/2" DC - 15 x HWDP	Pick up monel for EMS survey

P & A assys (cmt stinger etc.) not included.

APPENDIX A5 - WILD DOG-1

CASING RECORD

Casing Size	30"	13 3/8" (1 x 20" joint)	9 5/8"
Weight	461 kg/m (310 ppf)	101 kg/m (68 ppf) (20" - 198 kg/m)	70 kg/m (47 ppf)
Grade	B	K55	N80
Shoe Depth (mBRT)	134	320	738
Shoe Type	Halliburton	Weatherford Guide Shoe	Weatherford SureSeal PDC
Collar depth (mBRT)	-	307	714
Collar type	-	Weatherford SureSeal PDC	Weatherford SureSeal PDC
Centralisers	-	5 Bow cents (ST IV)	10 Bow cents (ST III)
Connectors/threads	ST-2	BTC (20" - ALT-2)	New Vam

APPENDIX A5 - WILD DOG-1 CEMENT RECORD

Job	Class G Cement (tonnes/sks)	Mix Water + Additives	Slurry Weight (sg)	Slurry Volume (m^3)	Top of Cement	Remarks
30" Casing	32.0 (750)	Seawater + 2% BWOC $CaCl_2$	1.90	24.6	Seabed	No visual returns- too cloudy
13 3/8" Casing Lead	17.2 (404)	Seawater + 2% BWOC $CaCl_2$ + 2.2% BWOC Gel	1.58	20.0	Seabed	No visual returns - too cloudy
Tail	25.1 (588)	Seawater + 1% BWOC $CaCl_2$	1.90	19.1		
9 5/8" Casing Lead	10.7 (252)	Freshwater + 2% BWOC $CaCl_2$ + 2.2% BWOC Gel	1.58	12.8	190 mBRT	TOC by CBL
Tail	14.5 (340)	Seawater + 1% BWOC $CaCl_2$	1.90	11.0		
Abandon Plug 1	8.3 (194)	Freshwater	1.90	5.5	1063 mBRT	Open hole plug
Abandon Plug 2	11.0 (258)	Freshwater	1.90	8.4	886 mBRT	Open hole plug
Abandon Plug 3	4.3 (100)	Freshwater + 2% BWOC $CaCl_2$	1.90	3.2	673 mBRT	Across 9 5/8" shoe
Abandon Plug 4	5.0 (117)	Seawater + 2% BWOC $CaCl_2$	1.90	3.8	157 mBRT	Inside 9 5/8" casing

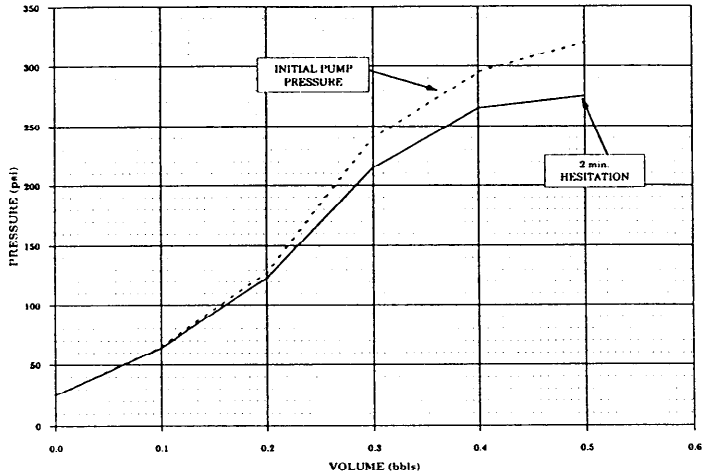
DCc oc

APPENDIX A6 - WILD DOG -1

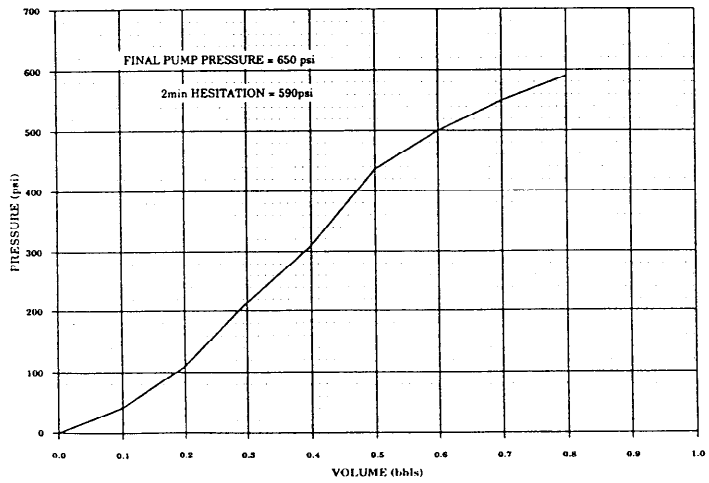
FORMATION INTAKE TESTS

Shoe Depth (mBRT)	Hole Size	Surface Pressure kPa (psi)	Mud Wt (sg)	EMG at leak off (sg)	Remarks
320	12 1/4"	1827 (265)	1.05	1.63	0.04 m^3 lost to formation
738	8 1/2"	4070 (590)	1.08	1.64	0.05 m^3 lost to formation

13.3/8" Shoe / 12 1/4"Hole



9 5/8" Shoe / 8 1/2" Hole



APPENDIX A7 - WILD DOG-1

DEVIATION RECORD

1. TOTCO SURVEYS

Number	Depth	Section	Result
1.	101 mBRT	Seabed	1/2^{o}
2.	134 mBRT	36" TD	1/2^{o}
3.	320 mBRT	17 1/2" TD	1/2^{o}
4.	1050 mBRT	Half way in 8 1/2" hole	1/2^{o}

2. ELECTRONIC MULTISHOT SURVEYS

Two EMS surveys were taken over 12 1/4" open hole (327 - 737 mBRT) and 8 1/2" open hole (745 - 1218 mBRT). Results over page, maximum inclination recorded, 1.07^{o}.

APPENDIX A7 - WILD DOG-1 DEVIATION RECORD - EMS LISTING

Measured Depth mBRT	Inclin. Degrees	Azimuth Degrees	True Vert Depth (m)	RECTANGULAR COORDINATES		Dogleg Deg/10m	Vert Sect
0.00	0.00	0.00	0.00	0.00 S	0.00 E	0.00	0.00
326.81	0.73	136.70	326.80	1.51 S	1.43 E	0.02	0.81
336.53	0.68	130.35	336.52	1.60 S	1.51 E	0.10	0.86
365.18	0.60	132.85	365.17	1.81 S	1.75 E	0.03	1.01
393.78	0.28	142.19	393.77	1.97 S	1.91 E	0.11	1.10
422.56	0.29	111.58	422.55	2.05 S	2.02 E	0.05	1.18
451.24	0.09	79.57	451.23	2.07 S	2.11 E	0.08	1.25
480.22	0.15	312.69	480.21	2.04 S	2.10 E	0.07	1.26
508.66	0.13	274.10	508.65	2.01 S	2.04 E	0.03	1.21
537.56	0.15	297.68	537.55	1.99 S	1.97 E	0.02	1.16
566.43	0.11	317.25	566.42	1.96 S	1.92 E	0.02	1.12
594.44	0.13	306.44	594.43	1.92 S	1.88 E	0.01	1.09
622.95	0.13	307.38	622.94	1.88 S	1.83 E	0.00	1.06
651.59	0.22	297.06	651.58	1.83 S	1.75 E	0.03	1.00
680.40	0.06	353.55	680.39	1.79 S	1.70 E	0.07	0.97
709.13	0.26	119.31	709.12	1.81 S	1.76 E	0.10	1.02
720.13	0.25	112.80	720.12	1.83 S	1.80 E	0.03	1.05
729.82	0.22	97.84	729.81	1.84 S	1.84 E	0.07	1.08
737.43	0.22	104.23	737.42	1.85 S	1.87 E	0.03	1.10
745.14	0.09	315.50	745.13	1.85 S	1.88 E	0.39	1.12
754.68	0.10	342.70	754.67	1.83 S	1.87 E	0.05	1.11
764.34	0.46	357.74	764.33	1.79 S	1.87 E	0.38	1.12
792.95	0.49	6.47	792.94	1.55 S	1.87 E	0.03	1.22
821.66	0.44	15.93	821.64	1.32 S	1.92 E	0.03	1.34
850.06	0.57	321.17	850.04	1.11 S	1.86 E	0.17	1.36
878.49	0.66	327.79	878.47	.86 S	1.68 E	0.04	1.28
906.98	0.59	0.32	906.96	.57 S	1.60 E	0.12	1.30
935.66	0.53	1.98	935.64	.29 S	1.60 E	0.02	1.40
964.23	0.53	20.01	964.21	.04 S	1.65 E	0.06	1.54
993.13	0.50	69.54	993.11	-.13 S	1.82 E	0.15	1.75
1021.78	0.49	64.15	1021.76	-.23 S	2.04 E	0.02	2.00
1050.38	0.55	71.31	1050.35	-.33 S	2.28 E	0.03	2.25
1079.16	0.66	74.49	1079.13	-.41 S	2.57 E	0.04	2.56
1107.84	0.81	49.46	1107.81	-.59 S	2.89 E	0.12	2.91
1136.82	0.65	42.12	1136.79	-.85 S	3.15 E	0.06	3.25
1165.26	0.76	48.12	1165.22	-1.09 S	3.40 E	0.05	3.57
1194.16	0.77	63.66	1194.12	-1.31 S	3.72 E	0.07	3.94
1203.89	0.96	62.26	1203.85	-1.37 S	3.85 E	0.20	4.09
1213.58	1.07	56.30	1213.54	-1.46 S	4.00 E	0.16	4.26
1217.95	1.02	49.26	1217.91	-1.51 S	4.06 E	0.32	4.33

APPENDIX B

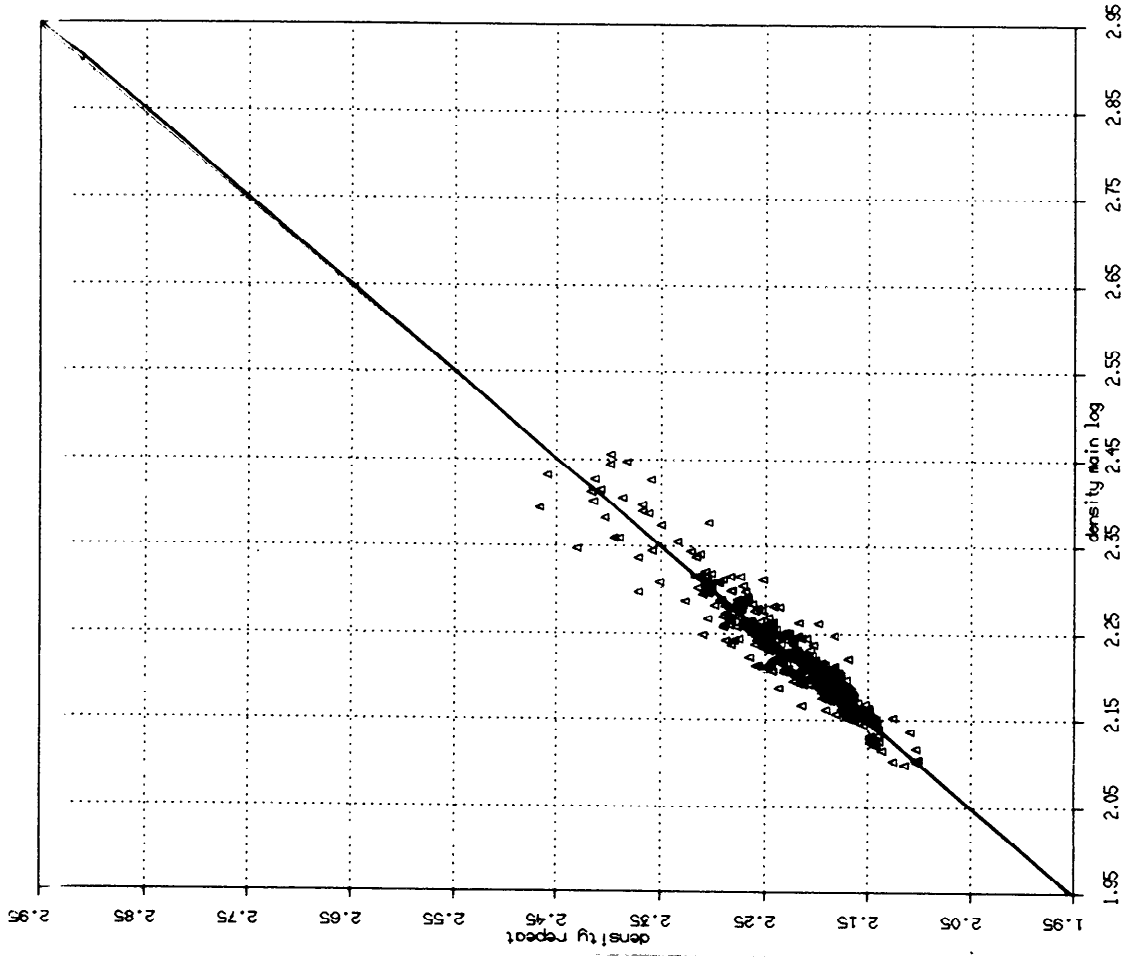
FORMATION EVALUATION

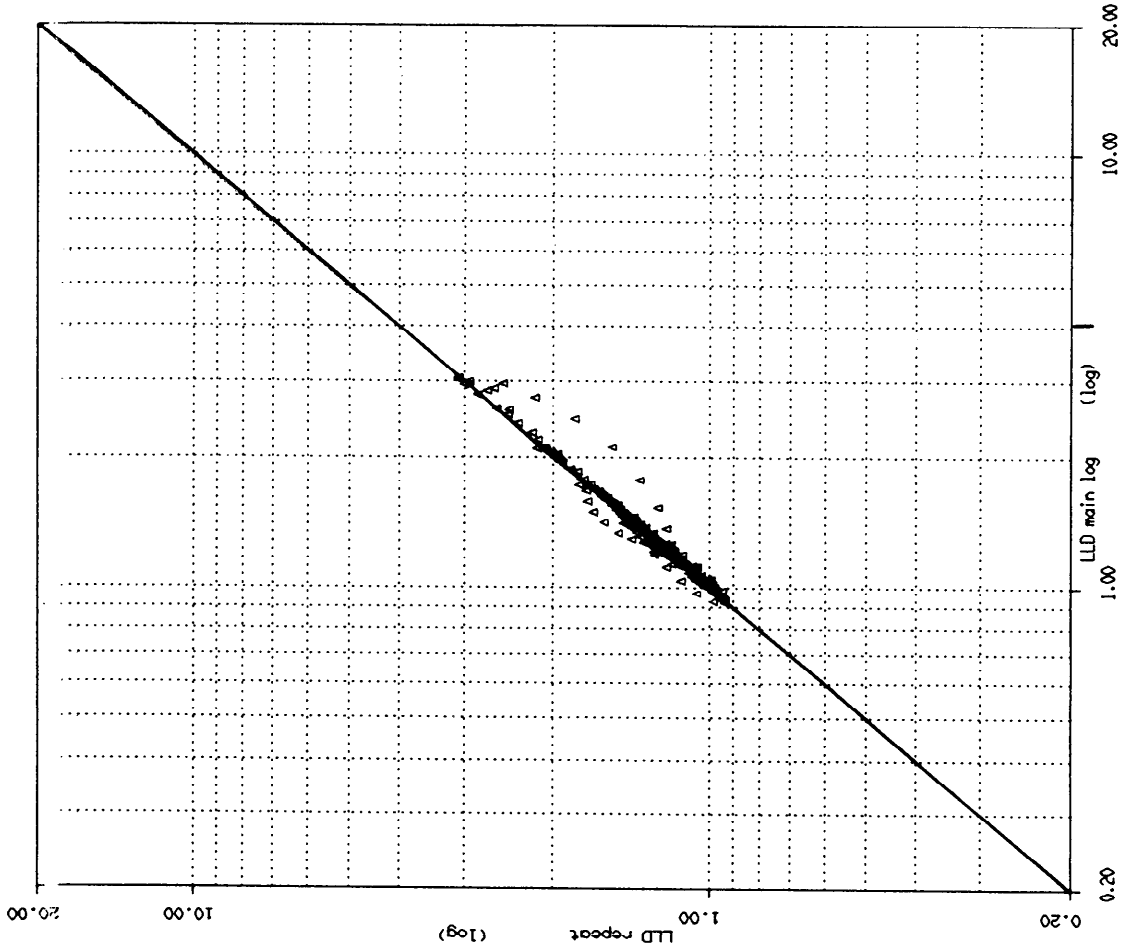
B1	Wireline logs run
B2	Repeat sections checkplots
B3	Pressure-depth plot

TABLE B1 WILD DOG-1 WIRELINE LOGS RUN

Contractor: Halliburton Logging Services

Suite (Hole Size)	Date	Log No.	Log Type	Depth interval (metre BRT)	Max. Temp. (^{o}C)	Time Taken (hr)	Lost Time (hr)	Remarks
Suite 1 (12 1/4")	1/1/93	1	SDL/LSS/GR/DTD	325 - 743 (GR to seabed)	41.7	14 3/4	6 1/4	Time lost with tool hanging up on ledge. Ran wiper trip.
Suite 2 (8 1/2")	4/1/93	1	DLL(SP)/MSFL/LSS/GR/DTD	734 - 1222	60.0	6	2	Human error while making up tool
	4/1/93	2	SDL/DSN/GR/DTD	734 - 1222	64.4	3 1/4	1/4	-
	4/1/93	3	SED/GR/DTD (dipmeter)	734 - 1222	67.7	5 1/4	-	TOC 9 5/8" csg also
	5/1/93	4	SFT/QPG/GR	928 - 1046	-	4 1/2	-	Reduced programme
	5/1/93	5	WELLSHOOT (SEISMOGRAPH SERVICES LTD)	225 - 1220	-	3	1/2	11 levels/2 repeats
	5/1/93	6	SWS	747 - 1220	-	4	-	24 shot/17 recovered





SHELL AUSTRALIA
UPSTREAM OIL & NATURAL GAS

TORQUAY SUB-BASIN

REPEAT SECTIONS CHECKPLOTS, WILD DOG-1

APP. B2

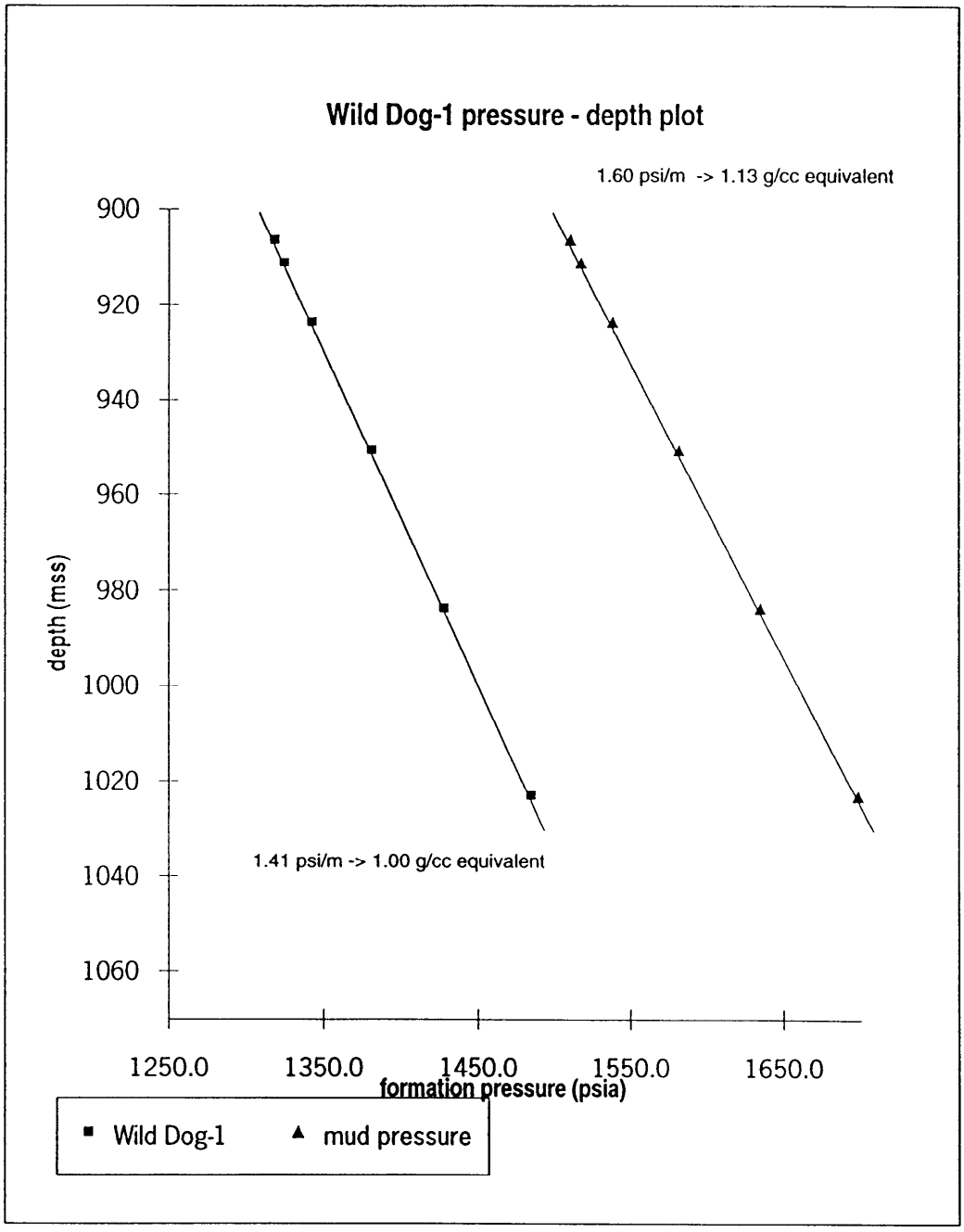
Author: EEP/3 | Report No.: SDA 1085 | Date: FEBRUARY 1993 | Drawing No.: 28299

WILD DOG-1 SFT DATA

RT = 22.3 m above msl crystal gauge used

		form. pressure		mud pressure		calc. perm
m RT	mss	psia	Bar	psia	Bar	mDarcy
928.7	906.4	1318.8	90.93	1511	104.18	728
933.5	911.2	1324.9	91.35	1518	104.66	1,500
946.0	923.7	1342.8	92.58	1539	106.11	971
973.0	950.7	1381.2	95.23	1582	109.08	1,082
1006.0	983.7	1428.0	98.46	1635	112.73	720
1045.5	1023.2	1484.9	102.38	1698	117.07	1,162

Note: 1 Bar = 100 kPa = 14.504 psi



SHELL AUSTRALIA UPSTREAM OIL & NATURAL GAS	TORQUAY SUB-BASIN			APP. B3
	PRESSURE–DEPTH PLOT, WILD DOG–1			
Author: EEP/3	Report No.: SDA 1085	Date: FEBRUARY 1993	Drawing No.: 28302	

APPENDIX C

PERFORMANCE

C1 Time breakdown

C2 Daily activity report

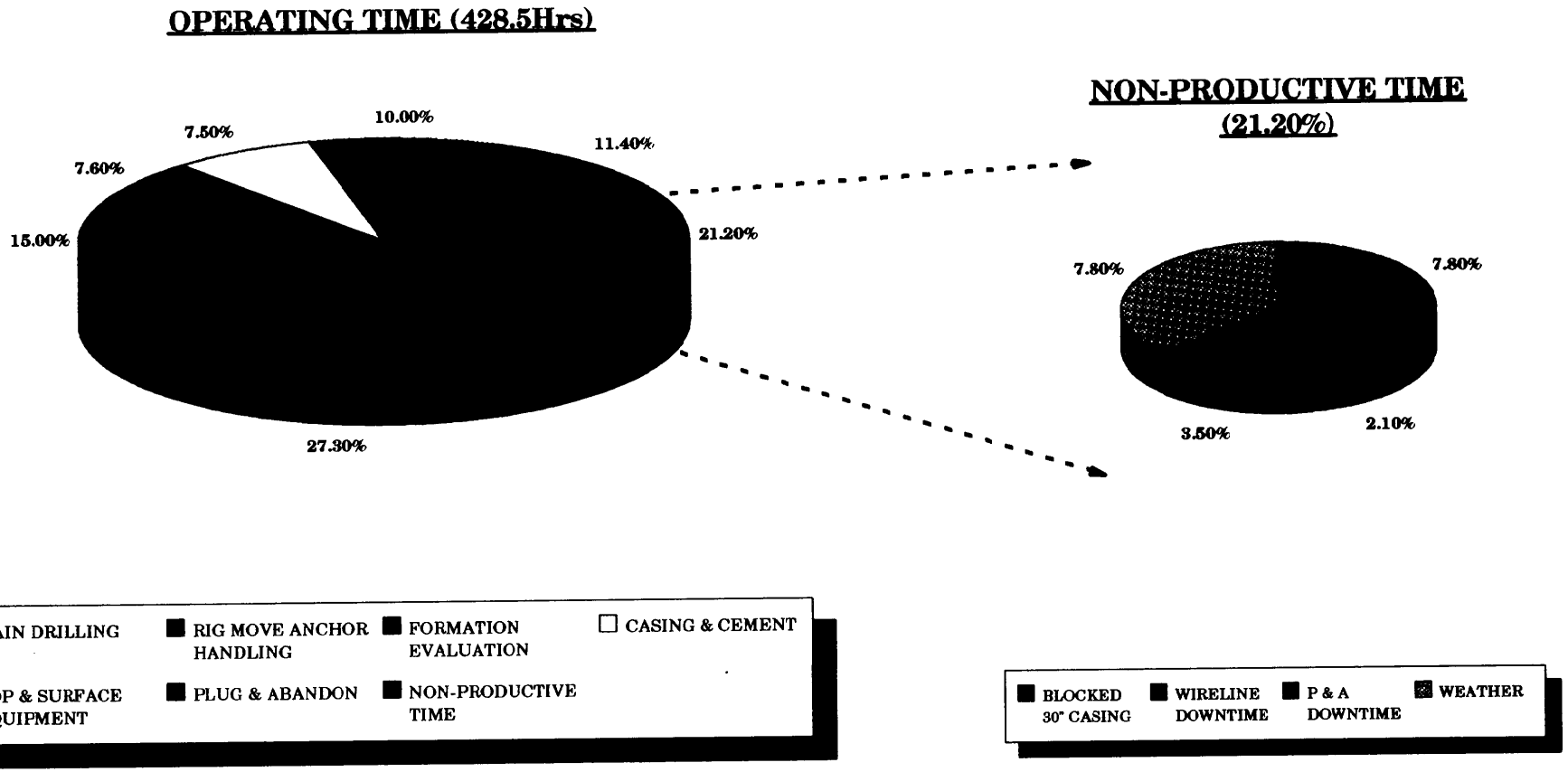
APPENDIX C1 - WILD DOG-1

TIME-BREAKDOWN (HOURS)

	Normal Operations	Remedial and Non Productive Operations
Rig Move + Preparation	25.0	
Anchor Handling	39.5	
Primary Drill Operations		
- bit on bottom	53.75	
- ream/condition/circulate	15.75	
- round trips & BHA handling	40.0	
- deviation surveys	5.25	
- formation intake tests	1.75	
Casing and Cementing	32.25	33.5
BOP/Surface Equipment	42.75	
Formation Evaluation		
- circulating for samples	1.0	
- wireline logging	31.75	9.0
Plug and Abandon	48.75	15.0
Weather Downtime	-	33.5
Total (hrs)	337.50	91.0
(%)	(78.8%)	(21.2%)

Total time for operations 428.5 hours (17.85 days)

WILD DOG-1
TIME BREAKDOWN



DAILY ACTIVITY REPORT

Well : WILD DOG-1
22-12-92 to 09-01-93

DATE	START TIME	DURATION	PROGRESS	ACT CODE	RUN	ACTIVITY DESCRIPTION	KEYWORD
Phase : DRILLING		Start : 22-12-92 1400		End : 24-12-92 1515			
22-12-92	1400	10:00	0	10 G1	0	DIAMOND M OCEAN EPOCH UNDER CONTRACT TO SHELL. ALL ANCHORS RACKED AT FLINDERS-1 (SAGASCO), RIG COMMENCED TOW	
23-12-92	0000	15:00	0	10 G1	0	ON TOW TO VIC/P28 WITH TERJE VIKING, AVER.SPEED 5 kn.TERJE VIKING ON BRIDLE, RAGNA VIKING STANDING BY,	
23-12-92	1500	07:00	0	10 G1	0	DROPPED 7 ANCHOR AT WILD DOG-A LOCATION, No.3 @ 17:05hrs, No.2 @ 18:25, No.6 @ 19:49 hrs, No.8 @ 20:10, No.1 @ 21:38, No.4 @ 22:06	
23-12-92	2200	01:00	0	10 G1	0	ANCHOR No.5 @ 23:04 hrs.	
23-12-92	2300	01:00	0	10 G1	0	POSITIONED RIG AT LOCATION.ABOUT 5m FROM INTENDED POINT.	
24-12-92	0000	03:00	0	10 G1	0	PRETENSIONED ANCHORS TO 250 kips. ALL HOLDING.	
24-12-92	0300	05:00	0	10 G1	0	BALLASTED RIG DOWN TO DRILLING DRAUGHT 16.7 m. RIG HEADING IS 244 degrees AZ	
24-12-92	0800	03:00	0	10 G1	0	MAKING UP 36" DRILLING ASSY. MADE UP 30" RUNNING TOOL AND STOOD BACK IN DERRICK.	
24-12-92	1100	02:00	0	10 G1	0	MOVED PGB TO MOONPOOL BEAMS, RIGGED UP TO RUN 30" CONDUCTOR, RAN 30" CASING AND HUNG IN PGB.	
24-12-92	1300	00:30	0	10 G1	0	MOVED 30" AND PGB TO BOW SIDE OF MOONPOOL	
24-12-92	1330	01:45	0	10 G1	1	RIH 36" ASSY, TAGGED SEABED @ 101.3 m , TOOK CHECK SURVEY, 0.5 degrees. MIXED SPUDMUD, 1.04 SG	
24-12-92	1515	02:15	33	20 H1	1	SPUDDED IN WILD DOG-1 AT 15:15 hrs ON 24 DEC'92 DRILLED TO 134.4 m. PUMPED VISCOUS MUD VERY JOINT +/-3 m3 EVERY 9 m.	
24-12-92	1730	02:00	0	40 H1	1	DISPLACED HOLE TO SPUD MUD, DROPPED TOTCO, 0.5 deg AT 134m. PULLED BACK TO 110 m, WAIT ON FILL.	
24-12-92	1930	01:30	0	31 H1	1	RIH, TAGGED BOTTOM, NO FILL, CIRC.SPUD MUD, POH	
24-12-92	2100	01:00	0	60 H4	0	RAN 30" CONDUCTOR, FILLED CASING AT SEALEVEL.	
24-12-92	2200	00:30	0	60 H4	0	STABBED SHOE INTO HOLE WITH ROV ASSISTANCE.	
24-12-92	2230	00:30	0	60 H4	0	CONTINUED TO RUN TO BOTTOM AT 134.4 m	
24-12-92	2300	01:00	0	60 H4	0	CIRC 40 m3 BEFORE CEMENT JOB. AT 62 spm = 500 psi	
25-12-92	0000	00:30	0	60 H4	0	NOTICED UNUSUAL HIGH PRESSURES WHILE CIRC.	
25-12-92	0030	00:30	0	60 H4	0	CIRC WITH EXCESSIVE PRESSURE.	
25-12-92	0100	00:30	0	60 H4	0	PICKED UP CASING 2 m, SLOPE INDICATOR AT 3/4 deg.	
25-12-92	0130	02:30	0	40 H4	0	WASHED CASING TO BOTTOM, PRESSURE INCREASE, 16 spm =500 psi.WORKED PIPE OVER 2 m INTERVAL, SHOE BLOCKED. PULLED SHOE OUT OF HOLE, STILL HIGH PRESS	
25-12-92	0400	02:00	0	60 L7	0	PULLED CONDUCTOR BACK TO SURFACE, CHECKED ALL SURFACE EQUIPMENT,OK. SUSPECT DEBRIS IN SHOE	
25-12-92	0600	16:45	0	60 L7	0	LAID DOWN 30" CASING, FOUND 2 PIECES RUBBER ON SHOE AND 1 PCE JAMMED, RUBBER LOOKS LIKE CUT CAR TYRES. 6 x 4 inch	

DAILY ACTIVITY REPORT

Well : WILD DOG-1
22-12-92 to 09-01-93

DATE	START TIME	DURATION	PROGRESS	ACT CODE	RUN	ACTIVITY DESCRIPTION	KEYWORD
25-12-92	2245	01:15	0	60 L7	0	PICKED UP NEW SHOEJOINT,INTERM.JOINT + HOUSING TESTED SHOE, LANDED IN PGB, MOVED PGB AND CONDUCTOR TO BOWSIDE OF MOONPOOL.	
26-12-92	0000	03:00	0	60 L7	0	PREPARED CONDUCTOR FOR RUNNING.	
26-12-92	0300	01:00	0	31 L7	1	RIH WITH 36" DRILLING ASSY, JUMPED ROV	
26-12-92	0400	00:45	0	31 L6	0	REPAIR TO ROV THRUSTERS, NO POWER	
26-12-92	0445	00:15	0	31 L7	1	STABBED INTO HOLE WITH ROV ASSISTANCE	
26-12-92	0500	00:30	0	31 L7	1	WASHED TO BOTTOM AT 134.4 m, MAX WOB REAMING IS 4 mt.	
26-12-92	0530	00:30	0	40 L7	1	CIRCULATED HOLE CLEAN WITH HI-VISCOUS MUD	
26-12-92	0600	00:15	0	31 L7	1	PULLED OUT OF HOLE TO 114 m.	
26-12-92	0615	00:30	0	31 L7	1	WAITED ON CHECK FOR FILL.	
26-12-92	0645	00:15	0	31 L7	1	RAN IN TO TD AT 134.4 m, NO FILL	
26-12-92	0700	01:00	0	40 L7	1	DISPLACED HOLE TO HI-VIS MUD. PULLED OUT	
26-12-92	0800	01:30	0	60 L7	0	PICKED UP RUNNING TOOL AND RAN CONDUCTOR TO 134.4m STABBED IN HOLE WITH ROV ASSISTANCE.	
26-12-92	0930	00:30	0	60 L7	0	CIRCULATED CASING VOLUME + 150 %, TESTED CEMENT LINES TO 2000 psi.	
26-12-92	1000	00:30	0	65 H4	0	MIXED AND PUMPED 750 sk CLASS'G' CEMENT, SG 1.90 200 % EXCESS	
26-12-92	1030	02:30	0	60 H4	0	WAITED ON CEMENT, UNABLE TO SEE CEMENT RETURNS WITH ROV DUE TO LOW VISIBILITY.	
26-12-92	1300	01:00	0	31 H1	0	BACKED OUT RUNNING TOOL, POOH AND LAID DOWN TOOL.	
26-12-92	1400	03:00	0	31 H1	1	LAID DOWN 36" HOLE OPENER, PREPARED 12.1/4" ASSY, MADE UP 18.3/4"RUNNING TOOL.	
26-12-92	1700	02:15	0	31 H1	2	MADE UP 26" BHA, JETTED 30" HOUSING, STABBED INTO 30".	
26-12-92	1915	01:15	0	60 H4	2	WAITED ON CEMENT.	
26-12-92	2030	02:45	0	31 H1	2	RIH, TAGGED CEMENT AT 127 m,DRILLED CEMENT TO 134 m.CLEANED OUT SUMP TO 135 m. DRILLED TO 137 m SWEEPED HOLE WITH 5 m3 MUD	
26-12-92	2315	00:45	0	31 H1	2	POOH, CHANGES ASSY FOR 12.1/4"	
27-12-92	0000	00:30	0	31 H1	3	PREPARED 12.1/4" DRILLING ASSY	
27-12-92	0030	00:30	0	80 L2	3	HELD SHALLOW GAS PROCEDURES MEETING WITH DRILLING CREW.	
27-12-92	0100	01:00	0	31 H1	3	RIH WITH 12.1/4" PILOT HOLE ASSY. STABBED IN HOUSING WITH USE OF GUIDE ROPES.	
27-12-92	0200	07:45	188	20 H1	3	DRILLED 12.1/4" PILOT HOLE TO 325 m.SWEEPED HOLE REGULARLY WITH HI-VIS SLUGS	
27-12-92	0945	00:30	0	40 H1	3	CIRC VISCOUS MUD AROUND, 10 m3.	
27-12-92	1015	01:45	0	31 H1	3	POOH, LAID DOWN 12.1/4" BIT AND STABS.	
27-12-92	1200	00:30	0	31 H4	0	PREPARED DRILLPIPE STINGER FOR 13.3/8" CEMENT JOB	
27-12-92	1230	01:45	0	24 H1	4	MADE UP 17.1/2" ASSY, RIH.	
27-12-92	1415	03:30	0	24 H1	4	OPENED HOLE TO 17.1/2" FROM 137 - 325 m. REAMED CONNECTIONS, CIRC 8 m3 MUD EACH CONNECTION.	
27-12-92	1745	00:45	0	40 H1	4	CIRC HOLE WITH HI-VIS MUD.	
27-12-92	1830	01:00	0	31 H1	4	POOH TO SHOE, WAITED ON FILL.	

DAILY ACTIVITY REPORT

Well : WILD DOG-1
22-12-92 to 09-01-93

DATE	START TIME	DURATION	PROGRESS	ACT CODE	RUN	ACTIVITY DESCRIPTION	KEYWORD
27-12-92	1930	01:00	0	31 H1	4	RIH, TAGGED BOTTOM AT 325, NO FILL.	
27-12-92	2030	00:30	0	40 H1	4	CIRCULATED CLEAN AND DISPLACED HOLE TO VISCOUS MUD.	
27-12-92	2100	01:15	0	31 H1	4	DROPPED TOTCO, 0.5 degrees AT 320 m. POOH, HOLE OK.	
27-12-92	2215	01:45	0	60 H4	4	RAN 17 jts 13.3/8" CASING,1 jt 20" CASING & CROSS OVER. RAN 180 m. CEMENT STINGER.	
28-12-92	0000	03:30	0	60 H4	0	RUNNING DP STINGER IN 13.3/8" CASING.	
28-12-92	0330	01:00	0	60 H4	0	PICKED UP 18.3/4" WELLHEAD,RAN AND LANDED CASING, CHECKED LATCH WITH 50,000 lbs OVERPULL OK. SHOE AT 320.52 m	
28-12-92	0430	00:30	0	40 H4	0	CIRC HOLE WITH SEAWATER.	
28-12-92	0500	00:15	0	65 H4	0	CEMENTED CASING AS PER PROGRAMME.	
28-12-92	0515	01:15	0	65 H4	0	PUMPED SLURRY: LEAD 404 sk 1.56 sg, TAIL 588 sk SD 1.89 sg. DISPLACED WITH 22 bbl SEAWATER.	
28-12-92	0630	02:00	0	60 H4	0	RELEASED RUNNING TOOL, POOH AND LAID DOWN TOOL	
28-12-92	0830	02:30	0	31 H1	3	LAID DOWN 17.1/2 inch BIT AND 9 inch ASSEMBLY	
28-12-92	1100	01:00	0	31 K3	0	MADE UP 2 jts OF RISER, PREPARED TO RUN BOP's.	
28-12-92	1200	01:45	0	31 K3	0	MOVED BOP STACK OVER TO MOONPOOL BEAMS	
28-12-92	1345	01:15	0	68 K3	0	FUNCTION TESTED BOTH PODS, TESTED LMRP CONNECTOR TO 200 psi/3 min, 1200psi/5 min.	
28-12-92	1500	05:30	0	31 K3	0	RAN BOP STACK.TESTED CHOKE AND KILL LINES TO 7500 psi. PICKED UP SLIP JOINT.	
28-12-92	2030	03:30	0	80 L3	0	WAITED ON WEATHER. EXCESSIVE HEAVE TO CONNECT BOP's TO WELLHEAD. WIND WEST, 25/35 kn. HEAVE MAX 2.2 m/AVERAGE 1.5 m	
29-12-92	0000	24:00	0	80 L3	0	WAITING ON WEATHER	WEATHR
30-12-92	0000	02:00	0	80 L3	0	WAITING ON WEATHER HEAVE 2.0 m REDUCING TO 1.5 m.	WEATHR
30-12-92	0200	03:00	0	80 L3	0	WHILE WOW TESTED KILL & CHOKE LINES TO 200 psi LOW AND 5000 psi HIGH. STANDPIPE MANIFOLD 200 psi LOW AND 3000 psi HIGH.	WEATHR
30-12-92	0500	01:00	0	80 L3	0	WAITED ON WEATHER. JUMPED ROV, LOWERED BOP TO 2 m ABOVE PGB. MOVED RIG 1 m TO PORT FORWARD.	WEATHR
30-12-92	0600	02:30	0	67 K3	0	CONNECTED KILL AND CHOKE LINES, POD LINES AND MRTS.	
30-12-92	0830	00:30	0	67 K3	0	AIR UP MRTS, LANDED BOP's (MARGINAL CONDITIONS DUE TO 1.5 - 1.8 m HEAVE)	
30-12-92	0900	00:30	0	67 K3	0	BUILD UP AIR PRESSURE ON COMPENSATOR SYSTEM, MADE 50 K OVER PULL CHECK.	
30-12-92	0930	02:00	0	67 K3	0	UNPINNED SLIP JOINT, INSTALLED DIVERTER.	
30-12-92	1130	01:15	0	67 K3	0	RAN IN HOLE TESTPLUG TO TEST BOP's	
30-12-92	1245	05:15	0	68 K4	0	TESTED BOP STACK: WELLHEAD CONNECTOR 200/7500 psi RAMS,KILL & CHOKE LINES- 200/5000 psi, ANNULARS 200/3500 psi, SHEAR RAMS 200/2400 psi.	
30-12-92	1800	04:30	0	68 K4	0	ALL LOW PRESSURE TESTS HELD FOR 5 mins, HIGH PRESS TESTS HELD FOR 10 mins. ACCUMULATOR AS PER PROGR.	

DAILY ACTIVITY REPORT

Well : WILD DOG-1
22-12-92 to 09-01-93

DATE	START TIME	DURATION	PROGRESS	ACT CODE	RUN	ACTIVITY DESCRIPTION	KEYWORD
30-12-92	2230	01:00	0	67 K3	0	SET WEAR BUSHING IN WELLHEAD	
30-12-92	2330	00:30	0	68 K4	0	TESTING VALVES IN TOPDRIVE/ STRING.	
31-12-92	0000	01:30	0	68 K4	0	TESTED TOP DRIVE BOP VALVES : 2X TIW VALVES TO 200/5000 psi	
31-12-92	0130	03:00	0	31 H1	4	RIH 12.1/4" ASSY, TAGGED CEMENT AT 289.6 m	
31-12-92	0430	00:30	0	68 K4	4	FUNCTION TESTED DIVERTER TO 600 psi, CHECKED OPEN STB AND PORT FLOWLINES, HELD KICKDRILL,P/TESTED 13.3/8" CASING TO 800 psi/10 mins. 0.5 bbl IN/OUT	
31-12-92	0500	02:30	0	20 H1	4	DRILLED CMT 289.6- 320.5 m	
31-12-92	0730	00:15	0	40 H1	4	DISPLACED HOLE TO 1.05 SG MUD, DRILLED OUT RATHOLE TO 325 m	
31-12-92	0745	00:15	5	20 H1	4	DRILLED TO 330 m	
31-12-92	0800	00:45	0	40 H1	4	CIRC BOTTOMS UP	
31-12-92	0845	00:15	0	68 K1	4	TOOK F.I.T, 1.05 sg MUD, EMW= 1.63 sg MUD IN/OUT IS 0.5/0.25 bbl.	
31-12-92	0900	12:45	413	20 H1	4	DRILLED 12.1/4" HOLE TO 743 m, REAMED CONNECTIONS DOWNHOLE LOSSES 6.34 m3/hr FROM 523-658 m. WELL STATIC ON FLOWCHECKS, MUD LOST-51 m3	
31-12-92	2145	01:00	0	40 H1	4	CIRC HOLE CLEAN, TOOK SLOW PUMP RATES, FLUSHED RISER.	
31-12-92	2245	00:45	0	40 H1	4	CIRC HOLE CLEAN, TOOK SLOW PUMP RATES FLUSHED RISER	
31-12-92	2330	00:30	0	31 H1	4	FLOW CHECK, POOH, 20k O/PULL AT 645, HOLE SECTION VERY GOOD, RIH FOR CHECKTRIP	
01-01-93	0000	00:30	0	31 H1	4	CHECKTRIP TO BTM, HOLE OK.	
01-01-93	0030	00:40	0	40 H1	4	CIRC BOTTOMS UP	
01-01-93	0110	00:20	0	70 K1	4	DROPPED EMMS, FLOW CHECK	
01-01-93	0130	02:45	0	31 H1	4	POOH, RECOVERED EMMS, STRAPPED PIPE (0.1 m DIFF.)	
01-01-93	0415	00:15	0	70 K1	0	RIGGED UP HALLIBURTON LOGGING	
01-01-93	0430	00:30	0	70 K1	0	HLS MADE UP TOOL STRING	
01-01-93	0500	01:00	0	70 K1	0	RAN LOG #1 SDL/LSS/GM/DTD/CAL	
01-01-93	0600	02:15	0	70 K1	0	LOG HELD UP AT 567 m. PULLED OUT, RIGGED DOWN	
01-01-93	0815	03:00	0	31 H1	0	MADE UP 9.5/8" HANGER AND STOOD BACK. MADE CHECKTRIP TO BOTTOM WITH 12.1/4" DRL ASSY. NO RESISTANCE	
01-01-93	1115	01:30	0	40 H1	4	CIRC HOLE CLEAN, COND MUD. SPOTTED 50 bbl HI-VIS MUD ON BOTTOM	
01-01-93	1245	02:15	0	31 H1	4	POOH, HOLE OK	
01-01-93	1500	00:15	0	70 K1	0	HLS LOGGED TO 741.5 m	
01-01-93	1515	03:45	0	70 K1	0	LOGGED SDL/FWS/GR TO 741.5 m, HOLE OK.	
01-01-93	1900	01:00	0	31 K2	0	MADE UP AND RAN WEARBUSHING, RETREIVE WEARBUSHING, POOH	
01-01-93	2000	04:00	0	60 H4	0	RAN 9.5/8" CASING, 53 JTS TOTAL TO 738 m (SHOE)	
02-01-93	0000	01:15	0	60 H4	0	CONNECTED HANGER, LANDED CASING WITH 220,000 lbs WEIGHT ON INDICATOR.	
02-01-93	0115	01:00	0	40 H4	0	CIRCULATED DP AND CASING CONTENTS + 20%	
02-01-93	0215	00:45	0	65 H4	0	PUMPED 40 bbl OF SEAWATER PREFLUSH, TESTED LINES TO 5000psi, PUMPED 80 bbl OF LEADSLURRY 1.58 sg, 70 bbl OF TAILSLURRY 1.89 sg +1.5% CACL2.	

DAILY ACTIVITY REPORT

Well : WILD DOG-1
22-12-92 to 09-01-93

DATE	START TIME	DURATION	PROGRESS	ACT CODE	RUN	ACTIVITY DESCRIPTION	KEYWORD
02-01-93	0300	01:45	0	65 H4	0	DROPPED DART, DISPLACED CEMENT with 152 bbl MUD, OVERDISPLACED 1/2 OF SHOETRACK (NO BUMP),NO BACK-FLOW,575 psi BACKPRESS.	
02-01-93	0445	00:15	0	60 H4	0	SET SEAL ASSY,TEST SAME,TO 200/5000 psi OK.	
02-01-93	0500	01:15	0	31 H4	0	POOH,LAID DOWN RUNNING TOOL AND CEMENTHEAD.	
02-01-93	0615	01:15	0	31 H4	0	RAN AND SET WEARBUSHING.	
02-01-93	0730	00:30	0	31 H1	0	MADE UP 18 SGLS OD DP, RACKED IN DERRICK	
02-01-93	0800	02:00	0	31 H1	0	LAID DOWN 12.1/4" DRILLING ASSY.	
02-01-93	1000	05:00	0	31 H1	5	MADE UP 8.1/2" BIT #5,BHA, RIH TO 680 m.	
02-01-93	1500	00:30	0	90 L1	5	SERVICED TOPDRIVE	
02-01-93	1530	00:30	0	31 H1	5	TAGGED CEMENT AT 693 m (TOPPLUG), TESTED CASING TO 2000 psi.OK.	
02-01-93	1600	03:45	0	20 H2	5	DRILLED CEMENT TO 743 m. FOUND SHOE AT 738 m.	
02-01-93	1945	00:45	0	40 H1	5	DISPLACED HOLE TO NEW MUD SG 1.08 (IDBOND/KCL)	
02-01-93	2030	00:15	5	20 H1	5	DRILLED TO 748 m.	
02-01-93	2045	00:45	0	40 K2	5	CIRCULATED AND CONDITIONED MUD FOR FORMATION INTAKE TEST.	
02-01-93	2130	01:00	0	68 K3	5	PERFORMED FIT, PUMPED 5 bbl,CLOSED RAMS, 0.8/0.5 bbl IN/OUT, SURF PRESS.590 psi. EMW 1.64 sg.	
02-01-93	2230	01:30	18	20 H1	5	DRILLED TO 766 m, DRILLING AHEAD.	
03-01-93	0000	06:00	155	20 H1	5	DRILLING AHEAD, DEPTH AT 0600 IS 921 m.	
03-01-93	0600	01:00	0	40 H1	5	CIRCULATED FOR SAMPLES	
03-01-93	0700	04:30	130	20 H1	5	DRILLED TO 1051 m.	
03-01-93	1130	00:30	0	40 H1	5	CIRCULATED PRIOR TO WIPERTRIP	
03-01-93	1200	00:15	0	70 H2	5	DROPPED DEVIATION SURVEY INSTRUMENT	
03-01-93	1215	01:15	0	31 H1	5	FLOWCHECK, PUMPED SLUG AND POH TO SHOE. BACKREAMED 896-825 m.AVERAGE DRAG 10-20 klbs.	
03-01-93	1330	00:15	0	70 H2	5	RETRIEVED DEVIATION INSTRUMENTS.	
03-01-93	1345	00:30	0	90 L1	5	SERVICED TOPDRIVE, FLUSHED RISER	
03-01-93	1415	00:30	0	31 H1	5	RIH TO 997 m.	
03-01-93	1445	00:30	0	31 K1	5	REAMED SECTION 997-1051 m.	
03-01-93	1515	06:15	171	20 H1	5	DRILLED TO 1222 m. TD (50 m INTO EUMERALLA FORM.)	
03-01-93	2130	00:45	0	40 H1	5	CIRCULATED HOLE CLEAN	
03-01-93	2215	01:45	0	31 H1	5	FLOWCHECK, PUMPED SLUG, POOH MAX OVERPULL 25 k. AT 1063 m.AVERAGE DRAG 10k. STRAPMEASURED STRING.	
04-01-93	0000	01:30	0	31 H1	5	POOH	
04-01-93	0130	01:30	0	31 H1	5	ADDED 6.1/2" NMDC TO ASSY. RIH TO BOTTOM, NO RESISTANCE OR FILL, HOLE OK	
04-01-93	0300	01:30	0	40 H1	6	CIRCULATED HOLE CLEAN, DROPPED S/SUN MAGN MULTI SHOT INSTRUMENT (EMMS)	
04-01-93	0430	02:00	0	31 H1	6	FLOWCHECK, PULLED OUT, FLOWCHECKS AT SHOE AND AT HWDP.	
04-01-93	0630	00:15	0	70 H2	6	RETRIEVED EMMS INSTRUMENTS	
04-01-93	0645	00:45	0	31 H1	6	COMPLETED POOH	
04-01-93	0730	00:30	0	70 K1	0	RIGGED UP HALLIBURTON LOGGING SERVICES	
04-01-93	0800	06:00	0	70 K1	0	LOGGED MSFL-DLL-FWAC-NGAT (LOGGERS DEPTH 1223)	

DAILY ACTIVITY REPORT

Well : WILD DOG-1
22-12-92 to 09-01-93

DATE	START TIME	DURATION	PROGRESS	ACT CODE	RUN	ACTIVITY DESCRIPTION	KEYWORD
04-01-93	1400	02:00	0	70 K1	0	LOGGED #2 SDL-DSN-NGRT	
04-01-93	1600	05:30	0	70 K1	0	LOGGED #3 SED-STA-GR	
04-01-93	2130	02:30	0	70 K1	0	LOG #4 SFT-GR	
05-01-93	0000	02:00	0	70 K1	0	CONTINUED LOGGING RUN #4	
05-01-93	0200	03:00	0	70 K1	0	LOG #5 WELLSHOOT HLS/SSL.	
05-01-93	0500	04:00	0	70 K1	0	LOG #6 CST. RAN 24 shots, MISFIRED-5, LOST-2, RECOVERED 17 SAMPLES.	
05-01-93	0900	00:30	0	70 K1	0	RIGGED DOWN HLS.	
05-01-93	0930	02:00	0	31 Z0	0	RIH WITH 151 m.OF 2.3/8"CEMENT STINGER TO 1222 m.	
05-01-93	1130	00:30	0	40 Z0	0	CIRCULATED BOTTOMS UP	
05-01-93	1200	01:00	0	65 Z0	0	TESTED LINES TO 2000 psi.MIXED AND PUMPED 194 SACK 'G'CEMENT WITH FRESHWATER, SD 1.89. SET PLUG #1 FROM 1222 - 1070 m. DISPLACED WITH 9.699 m3 MUD	
05-01-93	1300	00:15	0	31 Z0	0	PULLED BACK TO 1065 m.	
05-01-93	1315	00:15	0	40 Z0	0	ATTEMPTED TO CIRCULATE.PRESSURE FLUCTUATING 400 - 1200 psi.WITH 10spm. DRAG 20-40klbs.	
05-01-93	1330	00:30	0	31 Z0	0	POOH TO SHOE	
05-01-93	1400	00:30	0	40 Z0	0	CIRCULATED BOTTOMS UP FROM SHOE, NO CEMENT RETURNS	
05-01-93	1430	02:30	0	31 Z0	0	POOH, CHECKED STINGER OK. HOLE PLAYING UP.	
05-01-93	1700	01:45	0	31 Z0	7	RIH 8.1/2" BIT AND BHA.TO 895 m.	
05-01-93	1845	02:00	0	31 K1	7	HELD UP AT BRIDGE AT 895 m. REAMED FROM 864-1063 m LOCATED TOP OF CEMENT AT 1063 m.	
05-01-93	2045	00:45	0	40 Z0	7	WEIGHT TESTED TOC WITH 20,000 LBS CIRCULATED HOLE CLEAN	
05-01-93	2130	02:00	0	31 Z0	0	FLOW CHECK, SLUG, POOH BIT.	
05-01-93	2330	00:30	0	31 Z0	0	RIH 151 m. CEMENTSTINGER TO 1062 m.	
06-01-93	0000	01:15	0	31 Z0	0	CONTINUED RIH 2.3/8" CEMENT STINGER TO 1062 m.	
06-01-93	0115	00:30	0	40 Z0	0	CIRCULATED BOTTOMS UP.	
06-01-93	0145	01:00	0	65 Z0	0	TESTED CEMENT LINE TO 2000psi. SET CEMENTPLUG #2 FROM 1062-900 m.WITH 258 SACK CLASS"G"CEMENT SD 1.88, FRESH WATER,DISPLACED WITH 7.473 m3 MUD.	
06-01-93	0245	00:30	0	31 Z0	0	POOH TO 850 m.	
06-01-93	0315	00:30	0	40 Z0	0	CIRCULATED BOTTOMS UP AT 850 m.NO CEMENT RETURNS NO LOSSES	
06-01-93	0345	00:30	0	31 Z0	0	POOH TO SHOE	
06-01-93	0415	01:00	0	90 Z0	0	SLIP AND CUT BLOCKLINE	
06-01-93	0515	00:45	0	31 Z0	0	CONTINUED POOH.	
06-01-93	0600	00:45	0	31 Z0	0	LAID DOWN 6.1/2" BHA.	
06-01-93	0645	01:00	0	31 Z0	0	MADE UP 8.1/2" BIT AND RIH TO SHOE, WOC.	
06-01-93	0745	02:15	0	31 Z0	0	LAID DOWN EXCESS DP AND HWDP.	
06-01-93	1000	00:30	0	31 Z0	0	RIH, TAGGED TOP CEMENT AT 886 m. WEIGHT TESTED WITH 10,000 lbs./PRESSURE TESTED 400 psi.OK.	
06-01-93	1030	01:15	0	31 Z0	0	POOH	
06-01-93	1145	01:30	0	31 Z0	0	RIH 2.3/8" CEMENT STINGER TO 770 m.	
06-01-93	1315	03:15	0	40 Z0	0	ESTABLISHED INJECTION RATE AND BULLHEADED 137 m3 EXCESS MUD INTO FORMATION.BLED BACK 5 m3. WELL STATIC.	

DAILY ACTIVITY REPORT

Well : WILD DOG-1
22-12-92 to 09-01-93

DATE	START TIME	DURATION	PROGRESS	ACT CODE	RUN	ACTIVITY DESCRIPTION	KEYWORD
06-01-93	1630	00:30	0	65 Z0	0	TESTED CEMENT LINES 2000 psi. SET PLUG #3 AT 770 m PUMPED 125 SACK CLASS'G' CEMENT/SEAWATER, SD 1.89 DISPLACED WITH 6.2 m3 SEAWATER,LEFT INHIBITED MUD	
06-01-93	1700	00:15	0	40 Z0	0	LEFT INHIBITED MUD IN 9.5/8" CASING.	
06-01-93	1715	01:00	0	31 Z0	0	POOH TO 250 m.	
06-01-93	1815	00:15	0	40 Z0	0	CIRCULATED CLEAN, NO CEMENT RETURNS.	
06-01-93	1830	01:00	0	31 Z0	0	POOH, LAID DOWN EXCESS DP, STOOD BACK TUBING IN DERRICK.	
06-01-93	1930	02:15	0	31 Z0	0	RIH 8.1/2" BIT, LOCATED TOC AT 673 m./10,000 lbs. PRESSURE TESTED WITH 2000 psi.	
06-01-93	2145	01:45	0	31 Z0	0	POOH BIT.	
06-01-93	2330	00:30	0	31 Z0	0	RIH EZ/SV BRIDGE PLUG ON DP AT SET SAME AT 250 m.	
07-01-93	0000	01:15	0	31 Z0	0	SET BRIDGE PLUG AT 250 m.	
07-01-93	0115	00:45	0	65 Z0	0	SET CEMENT PLUG #5 FROM 249-150 m.WITH 117 SACK CLASS'G' CEMENT/SEAWATER, SD 1.89, DISPLACED WITH 0.95 m3 SEAWATER.	
07-01-93	0200	00:45	0	31 Z0	0	POOH TO 120 m.CIRCULATED CLEAN. TRACES CEMENT AT BOTTOMS UP.	
07-01-93	0245	04:00	0	31 Z0	0	POOH, LAID DOWN EXCESS DP, STINGER, PULLED. WEARBUSHING.	
07-01-93	0645	01:15	0	31 Z0	0	LOCATED TOC AT 157 m. TESTED WITH 800 psi, OK, LAID OUT EXCESS PIPE.	
07-01-93	0800	01:00	0	25 Z0	0	RIH 9.5/8" A/Z CASING CUTTER	
07-01-93	0900	00:15	0	25 Z0	0	CUT 9.5/8" CASING AT 110.8 m.	
07-01-93	0915	05:00	0	31 K2	0	RAN 9.5/8"SPEAR,ENGAGED AND PULLED HANGER 0.5 m.UP STUCK,RELEASED SPEAR,RAN 16.3/4" HANG OFF TOOL-BUMPERSUB-SPEAR. WORKED CASING DOWN,FISHED &RECOVR	
07-01-93	1415	09:00	0	67 K3	0	PULLED RISER AND BOP'S (UNLATCHED AT 1500 hrs) LANDED BOP ON BEAMS AT 20.30 hrs.MOVED LMRP AND STOOD BACK BOP ON STUMP. CLEARED DRILLFLOOR.	
07-01-93	2315	00:45	0	31 Z0	0	LAID OUT 9.5/8" CUTTER	
08-01-93	0000	06:00	0	31 Z0	0	MADE UP 20X30" MARINE CUTTER ASSY. RIH. STARTED CUTTING AT 02.30 hrs	
08-01-93	0600	00:45	0	31 Z0	0	CONTINUED TO CUT 20"-30" CONDUCTORS AT 107 m.	
08-01-93	0645	01:30	0	31 Z0	0	JUMPED ROV. ENGAGED SPEAR, PULLED 50,000 lbs, FREE POOH WITH PGB AND CASINGS, LAID DOWN SEAL ASSY.	
08-01-93	0815	01:15	0	31 Z0	0	MADE UP 20" RUNNING TOOL.UNLATCHED CASING FROM PGB LAID DOWN RUNNING TOOL AND CASING STUBS.	
08-01-93	0930	02:30	0	31 Z0	0	LAID OUT AUSTOIL CUTTING TOOLS, DP AND DC'S. COMPLETED BACKLOADING ON MAERSK LIFTER.	
08-01-93	1200	05:00	0	10 Z0	0	DEBALLASTED RIG TO TRANSIT DRAUGHT,PREPARED FOR OCEAN TOW.	
08-01-93	1700	07:00	0	10 G1	0	PULLING ANCHORS.#5/R-VKG,18:10-19:25; #1/T-VKG, 18:30-22:25; #8/R-VKG,21:12-23:03,ANCHOR LOST,ALL CHAIN RECOVERED.	
09-01-93	0000	06:00	0	10 G1	0	CONT.PULLING ANCHORS. #4/T-VKG,22:55-00:04; #7/R-VKG, 23:30-01:35. 4hrs DUE TO T/VKG RECIEVING TOW BRIDLE.	

DAILY ACTIVITY REPORT

Well : WILD DOG-1
22-12-92 to 09-01-93

DATE	START TIME	DURATION	PROGRESS	ACT CODE	RUN	ACTIVITY DESCRIPTION	KEYWORD
09-01-93	0600	04:30	0	10 G1	0	#3 ANCHOR/TERJE VIKING,01:35-05:30 ATTACHING TOW BRIDLE TO RAGNA VIKING	
09-01-93	1030	**:**	0	10 G1	0	RIG ON TOW AND OFF CONTRACT ENROUTE TO DAMPIER.	

END OF REPORT

KEY TO ABBREVIATIONS

Underlying of an abbreviation is used to indicate emphasis,
e.g. hd = very hard

Brackets around an abbreviation are used to indicate diminutive adjectives or adverbs, e.g. (srt) = poorly sorted

LITHOLOGY

gk	=	greywacke
ss / sst	=	sandstone
st	=	siltstone
ms	=	mudstone
ls	=	limestone
clyst	=	claystone

COLOUR

bf	=	buff
bl	=	blue
brn	=	brown
gn	=	green
gy	=	grey
yel	=	yellow
wh	=	white
pl	=	pale
lt	=	light
m	=	medium
dk	=	dark
v dk	=	very dark

MINERALOGY

arg	=	argillaceous
c / carb	=	carbonaceous
cht	=	chert
calc	=	calcareous
co	=	coally
dol	=	dolomitic
gc	=	glauconite
lit	=	Lithic
s / snd	=	sand
sil	=	silica
slt / slty	=	silt / Silty

APPENDIX D

LITHOLOGICAL DESCRIPTIONS

mc	=	micaceous
pyr	=	pyrite / pyritic
qz / qtz	=	quartz
fld	=	feldspar
volc	=	volcanic
chl	=	chlorite
biot	=	biotite

GRAIN SIZE

vf	=	very fine
f	=	fine
m	=	medium
c	=	coarse
vc	=	very coarse

SORTING

srt	=	sorted

GRAIN SHAPE

ang	=	angular
rnd	=	rounded

HARDNESS

disp	=	dispersive
frm	=	firm
hd	=	hard
sft	=	soft
fri	=	friable
lse	=	loose
brit	=	brittle
uncons	=	unconsolidated

MATRIX

cl	=	clay
slt	=	silt

GENERAL

a/a	=	as above
abd	=	abundant
agg	=	aggregate
blky	=	blocky
cmt	=	cement
com	=	common
conch	=	conchoidal
fis	=	fissile
foss	=	fossil / fossiliferous
frac	=	fracture
grns	=	grains
immed	=	immediately
inf	=	inferred
lam	=	laminated
lge	=	large
micro-f	=	micro-fine
mod	=	moderate
mtx	=	matrix
nod	=	nodules
occ	=	occasional
por	=	porosity
pt	=	point
ptgs	=	partings
samp	=	sample
vit	=	vitreous
xln	=	crystalline

FOSSILS

bry	=	bryozoan
ech	=	echinoid
gast	=	gastropod
benth	=	benthonic
plank	=	planktonic
frag	=	fragments

WILD DOG-1 CUTTINGS SAMPLE DESCRIPTIONS

DEPTH (mbdf)	%	LITHOLOGY
325-327	100	CALCARENITE: pl gy, f - m (c) xln, frm, hd, (arg mtx), gc, (pyr mtx), (m-c snd foram, shell frag,)
330	100	CALCARENITE: a/a
	Tr	CLAYSTONE: m-dk gy, frm, (fis), (calc)
333	100	CALCARENITE: a/a
336	100	CALCARENITE: a/a
339	100	CALCARENITE: a/a, (elongated benthonic foram)
342	100	CALCARENITE: pl-lt gy, f-(m) xln, frm-hd, (arg mtx), (gc), (pyr mtx), (c lse snd), abd foram, (shell frag)
345	90	CALCARENITE; a/a
	10	CLAYSTONE: m-dk brn gy, (calc), frm-(hd), (fis)
348	90	CALCARENITE: a/a
	10	CLAYSTONE: a/a
351	90	CALCARENITE: a/a
	10	CLAYSTONE: a/a
354	60	CALCARENITE: a/a
	40	CLAYSTONE: m-dk gy, (calc), uncons-frm,
357	80	CALCARENITE: pl gy, f-(m) xln, (arg mtx), frm-(hd), foram, shell frag, bry, (ech spines), (gast)
	20	CLAYSTONE: m-dk gy, (calc),frm-hd, (fis)
360	90	CALCARENITE: a/a
	10	CLAYSTONE: a/a
363	90	CALCARENITE: a/a
	10	CLAYSTONE: a/a
366	100	CALCARENITE: a/a
372	50	CALCARENITE: a/a
	50	MARL: pl-lt gy, uncons, (pyr mtx), abd foram, shell frag, bry

378	100	MARL: a/a
387	100	MARL: a/a
393	100 Tr	MARL: a/a, CALCARENITE: a/a
399	100	MARL: a/a
405	100	MARL: a/a
414	100	MARL: pl-lt gy, predom uncons, (m-c ang snd), (pyr mtx), abd foram (benth & plank), shell frag
420	100	MARL: a/a
426	40 60	MARL: a/a CALC CLAYSTONE: pl-lt gy, predom uncons, (pyr), (lit), abd foss a/a
432	100	CALC CLAYSTONE: a/a
441	100	CALC CLAYSTONE: a/a
453	100	CALC CLAYSTONE: pl-lt gy, predom uncons, abd foss a/a
459	100	CALC CLAYSTONE: pl-lt gn gy, a/a
468	100	CALC CLAYSTONE: lt gn gy, uncons, abd foram (benth & plank), shell frags
477	100	CALC CLAYSTONE: a/a
483	100	CALC CLAYSTONE: a/a
492	100	CALC CLAYSTONE: a/a, (bry, gast)
501	100	CALC CLAYSTONE: a/a
507	100	CALC CLAYSTONE: a/a, (echin spines)
516	100	CALC CLAYSTONE: lt gn gy, uncons, com-abd foss a/a
522	100	CALC CLAYSTONE: lt gn gy, (m gy), a/a
528	100	CALC CLAYSTONE: m gy, uncons-sft, abd foss a/a

534	100	CALC CLAYSTONE: a/a
552	100	CALC CLAYSTONE: a/a
561	100	CALC CLAYSTONE: a/a, (pyr mtx)
570	100	CALC CLAYSTONE: m gy, becoming less calc, uncons-frm), (blky)-(fis), com-abd foss a/a
582	100	CALC CLAYSTONE: m gy, uncons-sft (frm), (pyr mtx), (mic), com foss incl foram (benth & plank), gast, shell frag, bry, echin spine
	Tr	SANDSTONE: dirty pl gy, vf, calc cmt, frm-hd
588	100	CLAYSTONE: a/a, predom uncons, (m snd)
594	100	CLAYSTONE: lt-m gy, sft-frm (uncons), (blky)-(fis), becoming less calc, (slt), (pyr mtx), com-abd foss a/a
	Tr	SANDSTONE: lt brn yel, (calc cmt), frm-hd, no shows
600	100	CLAYSTONE: m-(dk) gy, predom uncons, (sft-frm), (blky), calc, abd foss a/a
606	100	CLAYSTONE: a/a, (blk lit ? coal frag)
612	100	CLAYSTONE: a/a
	Tr	SANDSTONE: a/a
618	10	SANDSTONE: a/a
	90	CLAYSTONE: a/a, becoming more calc
624	80	SANDSTONE: arg, pl-lt dirty gy, vf, grades to slt, (calc cmt), fri-(hd), (lit), abd foss a/a, no por, no show
	20	CLAYSTONE: a/a
630	70	SANDSTONE: a/a, predom uncons
	30	CLAYSTONE: a/a
639	70	SANDSTONE: arg, pl-lt dirty gy, vf, grades to slt, (calc cmt), (gc), abd foss - foram, bry, gast, no shows
	30	CLAYSTONE: a/a
648	100	SANDSTONE: a/a
657	50	SANDSTONE: a/a
	40	SILTSTONE: arg, uncons
	10	CLAYSTONE: a/a

669	20	SANDSTONE: arg, pl-lt gy, vf, uncons, gc nod, (foram), (shell frag), no shows
	80	SILTSTONE: arg, snd, uncons, gc nod
675	10	SANDSTONE: a/a
	70	SILTSTONE: a/a
	20	CLAYSTONE: m gy, calc, sft-(frm), (foss)
684	10	SANDSTONE: a/a
	60	SILTSTONE: a/a
	30	CLAYSTONE: a/a
693	60	SANDSTONE: a/a
	40	SILTSTONE: arg, uncons, gc, foram
702	80	SILTSTONE: arg, uncons, (gc), foram
	20	CLAYSTONE: a/a
711	10	SANDSTONE: arg, pl gy-off wh, vf, calc cmt, frm, gc, foss a/a, no por, no shows
	30	SILTSTONE: lt-m gy, calc, uncons-frm, (blky), (gc)
	60	CLAYSTONE: lt-m (gn) gy, uncons-sft (frm), calc, foram (benth & plank)
717	10	SANDSTONE: a/a
	90	CLAYSTONE: a/a, slty
726	90	SILTSTONE: arg, uncons, snd, (gc), foram, shell frag
	10	CLAYSTONE: m gy, calc, sft-(frm), (blky)-(fis), (gc), foram
732	50	SILTSTONE: a/a
	50	CLAYSTONE: a/a
738	40	SILTSTONE: a/a, (gc), abd foss - foram, shell frag, (gast)
	60	CLAYSTONE: a/a
744	20	SANDSTONE: arg, vf, calc cmt, (gc), abd foss a/a
	20	SILTSTONE: a/a
	60	CLAYSTONE: a/a
747	20	SILTSTONE: snd, lt yel brn, lt gn gy, calc cmt, (gc), sft-frm
	80	CLAYSTONE: lt gy, m brn gy, lt gy is calc, m brn is lit, sft-(frm), blky

750	20	SILTSTONE: a/a, arg, sft, grading to clyst
	80	LIMESTONE (calcilutite): arg, lt yel gy, lt gn gy, off wh, frm, (py), (bry), (foss)
753	50	SILTSTONE: a/a
	50	LIMESTONE: a/a
756	50	SANDSTONE: lt gy - colourless, m-vc gr, mod well rnd, mod srt, uncons, (py)
	30	SILTSTONE: a/a
	20	LIMESTONE: a/a
759	20	SANDSTONE: a/a
	60	SILTSTONE: a/a
	20	LIMESTONE: a/a
762	10	SANDSTONE: a/a
	60	SILTSTONE: a/a
	20	CLAYSTONE: slty, (calc), dk brn, sft
	10	LIMESTONE: a/a
765	90	SANDSTONE: lt gy - colourless, f-vc gr, subang-rnd, (srt), uncons, (calc cmt), (pyr)
	10	CLAYSTONE: a/a, occ gn gy
	Tr	LIMESTONE: a/a
768	70	SANDSTONE: a/a, (gc)
	30	CLAYSTONE: a/a
771	70	SANDSTONE: a/a,
	30	CLAYSTONE: a/a
774	20	SANDSTONE: a/a,
	80	CLAYSTONE: a/a, slty, dk brn, sft, disp, not calc
777	10	SANDSTONE: a/a,
	90	CLAYSTONE: a/a
780	30	SANDSTONE: a/a,
	70	CLAYSTONE: a/a
783	30	SANDSTONE: a/a,
	70	CLAYSTONE: a/a
789	30	SANDSTONE: a/a,
	70	CLAYSTONE: a/a

795	10	SANDSTONE: a/a,
	90	CLAYSTONE: a/a
798	100	CLAYSTONE: a/a,
	Tr	SANDSTONE: a/a
804	100	CLAYSTONE: a/a, silty, (snd), (mc), (pyr)
810	100	CLAYSTONE: a/a
816	100	CLAYSTONE: a/a
822	100	CLAYSTONE: a/a
828	100	CLAYSTONE: a/a
834	20	SANDSTONE: lt gy - colourless, f-vc, ang-rnd, poorly srt, uncons, (gc), (pyr),
	80	CLAYSTONE: a/a, grading to st
840	20	SANDSTONE: a/a,
	80	CLAYSTONE: a/a
846	30	SANDSTONE: a/a, (calc cmt),
	70	CLAYSTONE: a/a
852	20	SANDSTONE: lse, m-vc, (ang)-rnd, occ w/ f mtx, (srt), (gc), (pyr mtx/cmt), no shows,
	80	CLAYSTONE: a/a, no shows
858	10	SANDSTONE: lse, c-vc, ang-(rnd), mod srt, vc - vf, arg & pyr mtx, no shows
	90	CLAYSTONE: slty, (m) -dk brn, sft-disp, blky, (gc), (co lit), (mc), (calc)
864	100	CLAYSTONE: a/a,
	Tr	SANDSTONE: a/a
870	100	CLAYSTONE: a/a,
	Tr	SANDSTONE: a/a
876	100	CLAYSTONE: dk brn, slty, ((calc)), ((gc)), sft, disp, no shows
882	100	CLAYSTONE: a/a,
	Tr	SANDSTONE: a/a

888	100	CLAYSTONE: a/a,
	Tr	SANDSTONE: a/a
891	a/a	
894	a/a	
897	a/a	
900	a/a	
903	a/a	
906	a/a	
909	a/a	
912	100	CLAYSTONE: slty, dk brn, disp, sft, (calc), ((gc)), ((pyr)), (mc)
	Tr	SANDSTONE: a/a
915	a/a	
918	a/a	
921	100	CLAYSTONE: a/a,
924	100	CLAYSTONE: a/a, tr dk brn gy, less disp, sft-brit, blky, (calc), (? co)
927	100	CLAYSTONE: a/a
930	60	SANDSTONE: uncons, qtz, m-vc, (ang)-rnd, (srt)-srt, por inf, no show,
	40	CLAYSTONE: a/a, 10% dk brn gy a/a
933	50	SANDSTONE: a/a, com pyr mtx, por, no shows
	50	CLAYSTONE: a/a
936	40	SANDSTONE: a/a, por, no shows
	60	CLAYSTONE: a/a
942	30	SANDSTONE: a/a, 30% off wh - pl gy, vf-f agg, arg mtx, non-calc, (lit), (pyr mtx), no por, no shows
	70	CLAYSTONE: a/a

945	90	SANDSTONE: predom uncons, m-c (vc), (rnd)-rnd, (vf - m aggs), srt, (sil cmt), (pyr mtx), ((gc)), por, no shows,
	10	CLAYSTONE: slt, dk brn - dk gy brn, dk brn is disp, (calc), dk gy brn is (carb), sft-brit, blky, (calc)
954	60	SANDSTONE: a/a, rock flour becoming more common
	40	CLAYSTONE: a/a, lge mc flakes
960	90	SANDSTONE: predom uncons, f-c, (ang)-(rnd), (srt), (occ agg with vf mtx), (sil cmt), (gc), por, no shows, common rock flour
	10	CLAYSTONE: a/a
966	100	SANDSTONE: a/a
	Tr	CLAYSTONE: a/a
972	70	SANDSTONE: predom uncons qtz, f-m (c-vc), (rnd)-rnd, srt, (occ agg), sil cmt, gc, por inf, no show, common rock flour
	30	CLAYSTONE: slt, dk brn, disp, lge mc flakes
	Tr	SILTSTONE: dk gr, hd, blky, (pyr)
978	80	SANDSTONE: a/a
	20	CLAYSTONE: a/a
	Tr	SILTSTONE: a/a
981	80	SANDSTONE: a/a, (pyr mtx)
	20	CLAYSTONE: a/a
	Tr	SILTSTONE: a/a
990	100	SANDSTONE: uncons, qtz, m-vc, rnd-rnd, (srt)-srt, (sil cmt), (pyr mtx), (gc), (thin st partings), por, no shows, common rock flour
	Tr	SILTSTONE: dk gy, hd, blky, (pyr), (calc)
	Tr	CLAYSTONE: a/a
993	80	SANDSTONE: a/a
	20	CLAYSTONE: a/a
	Tr	SILTSTONE: a/a
996	70	SANDSTONE: a/a
	30	CLAYSTONE:a/a
	Tr	SILTSTONE: a/a
999	60	SANDSTONE: a/a
	40	CLAYSTONE: a/a
1005	20	SANDSTONE: a/a

	80	CLAYSTONE: a/a
	Tr	SILTSTONE: a/a
	Tr	COAL
1008	10	SANDSTONE: a/a
	90	CLAYSTONE: dk brn, disp, slt, (mc), (co), tr pyritised woody frag
1011	30	SANDSTONE: uncons qtz, f-vc, (srt), (ang)-rnd, (dol Cmt), ((co frag)), (pyr mtx), por, no shows
	70	CLAYSTONE: a/a, (pyr)
	Tr	COAL
1014	10	SANDSTONE: a/a
	80	CLAYSTONE: a/a
	10	COAL: blk, grades to carb clyst, hd, blky, (conch frac), dull-(vit)
1017	Tr	SANDSTONE: a/a
	90	CLAYSTONE: dk brn, disp, slt, (pyr), (mc)
	10	CARB CLAYSTONE: dk gy, hd, blky, (pyr), grades to co
	Tr	COAL: a/a
1023	90	CLAYSTONE: a/a
	10	CARB CLAYSTONE: a/a
	Tr	COAL
1026	90	CLAYSTONE: m-dk brn, (lt brn)
	10	CARB CLAYSTONE: a/a
	Tr	COAL
	Tr	SANDSTONE: uncons, m-vc, a/a
1032	50	CLAYSTONE: lt-m gy brn, (dk brn), slt, disp (sft), (Mc), (co lit), grades to st
	50	SILTSTONE: as below
	Tr	CARB CLAYSTONE: a/a
	Tr	COAL
	Tr	SANDSTONE: a/a
1041	10	SANDSTONE: uncons, qtz, m-vc, (ang)-rnd, (srt), por, no shows
	90	SILTSTONE: arg, lt-(m) gy brn, cl mtx, f co lit, disp, calc, grades to vf sst
	Tr	CARB CLAYSTONE: a/a
1050	20	SANDSTONE: a/a, no shows
	80	SILTSTONE: a/a

1053	10	SANDSTONE: a/a
	80	SILTSTONE: a/a
	10	CARB CLAYSTONE: a/a
1056	Tr	SANDSTONE: a/a
	80	SILTSTONE: arg, lt-m brn gy, disp, cl mtx, (carb lit), non calc, grades to vf sst in parts
	20	CARB CLAYSTONE: dk brn gy, hd-brit, (sft), blky-(fis), carb lam
1059	20	SANDSTONE: uncons, qtz, m-vc (occ f-m agg), (ang)-(rnd), (srt)-srt, (pyr mtx), por, no shows
	60	SILTSTONE: a/a
	20	CARB CLAYSTONE: a/a
1062	10	SANDSTONE: a/a
	90	SILTSTONE: lt brn gy, a/a
	Tr	CARB CLAYSTONE
	Tr	COAL
1068	10	SANDSTONE: a/a
	90	SILTSTONE: a/a
	Tr	CARB CLAYSTONE
1071	10	SANDSTONE: a/a
	90	SILTSTONE: lt gy-yel gy -lt brn gy, a/a
1074	80	SANDSTONE: uncons, qtz, m-vc (rare f-m agg), (ang)-rnd, (srt)-srt, (pyr), por, no shows
	20	SILTSTONE
1080	60	SANDSTONE: a/a
	40	SILTSTONE: a/a
1083	80	SANDSTONE: a/a, ang-(rnd)
	20	SILTSTONE: a/a
	Tr	COAL
1089	100	SANDSTONE: uncons, qtz, c-vc, ang-(rnd), srt, por, no shows
	Tr	SILTSTONE
1092	90	SANDSTONE: a/a
	10	SILTSTONE: a/a
	Tr	COAL

1098	50	SANDSTONE: a/a
	50	SILTSTONE: pl-lt (brn) gy, disp, cl mtx, (carb lit), grades to vf sst, (pyr)
1104	70	SANDSTONE: a/a
	30	SILTSTONE: a/a
1110	100	SILTSTONE: a/a
1116	100	SILTSTONE: a/a
1119	10	SANDSTONE: a/a
	90	SILTSTONE: a/a
1122	90	SANDSTONE: uncons, qtz, c-(vc, m), (ang)-(rnd), srt, por, no shows
	10	SILTSTONE: a/a
	Tr	COAL
	Tr	CARB CLAYSTONE
1128	60	SANDSTONE: a/a, (pyr cmt)
	40	SILTSTONE: a/a
	Tr	CARB CLAYSTONE
1134	10	SANDSTONE: a/a
	90	SILTSTONE: arg, pl-lt (brn) gy, cl mtx, grades to vf snd, disp
1140	90	SANDSTONE: uncons, qtz, occ bl gy & wh cht, c-(vc), (ang)-rnd, srt, (pyr cmt), (carb ptgs), por, no shows
	10	SILTSTONE: a/a
1146	70	SANDSTONE: a/a, c-vc, more commonly bl gy, red or pl gn cht-like grns, srt
	30	SILTSTONE: a/a
1152	60	SANDSTONE: uncons, qtz, occ bl gy, or red, blk cht, vc-(c), (ang)-rnd, srt, por, no shows
	40	SILTSTONE: a/a
	Tr	COAL
1158	90	SANDSTONE: a/a
	10	SILTSTONE: a/a
1164	10	SANDSTONE: a/a
	10	GREYWACKE: as below
	80	SILTSTONE: a/a

1167	90	GREYWACKE: pl-lt gn gy, predom bl gy, dk gy, pl gn, gn cht lit, (Qtz), f-m, ang-(ang), (srt), st + arg mtx, disp-sft, no por, no shows
	10	SILTSTONE: a/a
1176	100	GREYWACKE: a/a, occ agg with alt vld/volc to cl
1182	100	GREYWACKE: a/a
1188	100	GREYWACKE: a/a, f-c(vc)
1194	100	GREYWACKE: a/a
1200	100	GREYWACKE: lt-m gn gy, predom cht lit - gn gy, bl gy, dk gy, pl gn, m gn, (qtz), m-c(vc), (srt), ang-(rnd), st + arg mtx (decreasing), non calc, (mc-biot), no por, no shows
1206	100	GREYWACKE: pl-lt gn/bl gy, predom cht lit a/a, (qtz), f-(m), ang-(rnd), (srt), st + arg mtrx, disp-sft, (pyr mtx), non calc, no por, no shows
1212	100	GREYWACKE: a/a, f-c
1218	100	GREYWACKE: a/a, f-c
1221	100	GREYWACKE: a/a, lt bl gy - gn gy
1224	100	GREYWACKE: lt bl gy - gn gy, predom cht lit - bl gy, gn gy, dk gy, pl-m gn, (qtz), (f)m-c, ang-(rnd), (srt), st + arg mtrx, disp-sft, (pyr mtx), non calc, no por, tr dull yel fluor from rare agg, no cut or crush cut (? mineral fluor - dol)

APPENDIX E

SIDEWALL SAMPLE DESCRIPTIONS

KEY TO ABBREVIATIONS

Underlying of an abbreviation is used to indicate emphasis,
e.g. hd = very hard

Brackets around an abbreviation are used to indicate diminutive adjectives or adverbs, e.g. (srt) = poorly sorted

LITHOLOGY

GK	=	greywacke
SS / sst	=	sandstone
ST	=	siltstone
MS	=	mudstone
LS	=	limestone
CLYST	=	claystone

COLOUR

bf	=	buff
bl	=	blue
brn	=	brown
gn	=	green
gy	=	grey
yel	=	yellow
wh	=	white
pl	=	pale
lt	=	light
m	=	medium
dk	=	dark
v dk	=	very dark

MINERALOGY

arg	=	argillaceous
c / carb	=	carbonaceous
cht	=	chert
calc	=	calcareous
co	=	coally
dol	=	dolomitic
gc	=	glauconite
lit	=	lithic
s / snd	=	sand
sil	=	silica
slt / slty	=	silt / silty

mc	=	micaceous
pyr	=	pyrite / pyritic
qz / qtz	=	quartz
fld	=	feldspar
volc	=	volcanic
chl	=	chlorite
biot	=	biotite

GRAIN SIZE

vf	=	very fine
f	=	fine
m	=	medium
c	=	coarse
vc	=	very coarse

SORTING

srt	=	sorted

GRAIN SHAPE

ang	=	angular
rnd	=	rounded

HARDNESS

disp	=	dispersive
frm	=	firm
hd	=	hard
sft	=	soft
fri	=	friable
lse	=	loose
brit	=	brittle
uncons	=	unconsolidated

MATRIX

Cl	=	clay
Slt	=	silt

GENERAL

a/a	=	as above
abd	=	abundant
agg	=	aggregate
blky	=	blocky
cmt	=	cement
com	=	common
conch	=	conchoidal
fis	=	fissile
foss	=	fossil / fossiliferous
frac	=	fracture
grns	=	grains
immed	=	immediately
inf	=	inferred
lam	=	laminated
lge	=	large
micro-f	=	micro-fine
mod	=	moderate
mtx	=	matrix
nod	=	nodules
occ	=	occasional
por	=	porosity
pt	=	point
ptgs	=	partings
samp	=	sample
vit	=	vitreous
xln	=	crystalline

FOSSILS

bry	=	bryozoan
ech	=	echinoid
gast	=	gastropod
benth	=	benthonic
plank	=	planktonic
frag	=	fragments

SIDEWALL SAMPLE DESCRIPTIONS

WELL: WILD DOG-1

DEPTH OF HOLE: 1222m RUN NO: 1 FIRED: 24 REC: 17 DESCRIPTION BY: M. KING DATE: 5-1-93 PAGE 1 OF 2

SHOT NO.	DEPTH (mRT)	RECOVERY (mm)	LITHOLOGICAL DESCRIPTION																			NATURAL FLUOR			CUT FLUOR			SOLVENT CUT	REMARKS (Residue, oil staining, acetone)
			MAIN ROCK TYPE	COLOUR	QUALIFIER TYPE	QUALIFIER %	QUALIFIER TYPE	QUALIFIER %	GRAINSIZE RANGE	GRAINSIZE DOM.	SORTING	ROUNDNESS	HARDNESS	ACCESSORIES	MATRIX TYPE	MATRIX %	CEMENT TYPE	CEMENT %	POROSITY TYPE	POROSITY %	SED. STRUCTURE	REMARKS	DISTRIB.	INTENS.	COLOUR	RATE TYPE	INTENS.	COLOUR		
1	1220	35	GK	lt bl-gn gy	Cht	30	Qz	30	vf-m	f-m	(srt)	(ang)	sft-disp	(Mc)	Slt/Cl	40						Samp disperses immed. H_2O added								
2	1191	30	GK	lt bl-gn gy	Cht	30	Qz	10	vf-c	f-m	(srt)	(ang) (rnd)	sft-disp	(Mc)	Slt/Cl	60						a/a								
3	1166	25	GK	pl bl-gy	Cht	10	Qz	40	vf-m	f	(srt)	(ang)	sft-disp	(Mc)	Slt/Cl	50						a/a								
4	1161	25	GK	pl bl-gy	Cht	10	Qz	40	vf-m	f	(srt)	(ang) (rnd)	sft-disp	(Mc)	Slt/Cl	50						a/a								
5	1152	20	ST	lt gy	S	10	C	tr-10		f-m		(rnd) rnd	sft-disp	(Mc)	Cl	10						Wavy, wispy carb + Cl lam, v disp								
6	1143.5	0																				PULLED OUT								
7	1110	23	ST	lt brn -gy	S	20	C	tr-10		f-m		(rnd) rnd	sft-disp	(Mc)	Cl	10						Wavy, wispy carb bands com f-m snd grns, v dispersive								
8	1054.5	22	MS	dk brn	S	20	C	tr-10		f-vc		(rnd) rnd	sft	Slt								blky wavy carb bands com vc snd grns								
9	1014.5	20	ST	dk brn -gy	C	20							sft-frm	(Mc)	Cl	20						thin vf snd lam, v disp								
10	1008	27	MS	v dk brn									sft-frm	(Mc) Slt								blky, disp								
11	989	30	MS	v dk brn									sft-hd				Pyr					pl brn vf sst-disp, dk gy vf sst-Pyr Cmt, hd in bands								
12	966	20	MS	dk gy									hd	Pyr (Mc)								blky, vf-f sst band, disp								
13	944	0																				MISFIRE								
14	932	12	ST	lt brn -m gy	S	30				vf-m		(rnd) rnd	sft-hd		Cl	10						disp in pt.								

SIDEWALL SAMPLE DESCRIPTIONS

WELL: WILD DOG-1

DEPTH OF HOLE: 1222m RUN NO: ....1... FIRED: 24 REC: 17 DESCRIPTION BY: ..M. KING DATE: ..5-1-93. PAGE 2. OF ...2

SHOT NO.	DEPTH (mRT)	RECOVERY (mm)	LITHOLOGICAL DESCRIPTION																				NATURAL FLUOR			CUT FLUOR				
			MAIN ROCK TYPE	COLOUR	QUALIFIER TYPE	QUALIFIER %	QUALIFIER TYPE	QUALIFIER %	GRAINSIZE RANGE	GRAINSIZE DOM.	SORTING	ROUNDNESS	HARDNESS	ACCESSORIES	MATRIX TYPE	MATRIX %	CEMENT TYPE	CEMENT %	POROSITY TYPE	POROSITY %	SED. STRUCTURE	REMARKS	DISTRIB.	INTENS.	COLOUR	RATE TYPE	INTENS.	COLOUR	SOLVENT CUT	REMARKS (Residue, oil staining, acetone)
15	928	35	SS	dk brn	arg	30			f-c	f-m	(srt)	(ang) rnd	sft-	(Mc)	Cl	30						v disp, snd is Qtz								
16	926	28	MS	dk brn									sft-	(Mc) (slt)			(calc)					blky, disp								
17	923.5	0																				MISFIRE								
18	900	0																				MISFIRE								
19	860	25	MS	dk brn									sft-	(snd) (slt) (Mc)			(calc)					blky, disp								
20	826	0																				MISFIRE								
21	790	35	MS	dk brn	S	10			f-vc			rnd	sft				calc	9				blky, disp								
22	784	30	LS	lt bf-dk brn, dk gn gy	arg	40							sft-hd	dissem Pyr in slty LS (Pyr Foss)			calc dol	32 9				LS is micro -f x/n slty in pt. MS is in bands + calc								
23	776	0																				PULLED OUT								
24	746.5	0																				MISFIRE								

APPENDIX F

VELOCITY SURVEY REPORT

BOREHOLE SEISMIC SURVEY

FIELD REPORT

WELL: Wild Dog 1

Shell Australia Pty

Seismograph Service

Results presented within this report should be considered provisional

Survey Report

Client : Shell Australia Pty. **Well: Wild Dog 1**

A Zero-Offset checkshot was acquired in the Wild Dog 1 well on the 5th January 1993. Acquisition was performed by Seismograph Service using the PDAQ Recording System. Personnel directly involved with the survey were:

Shell Representative : M.King

SSL Personnel : Paul Buckley,Greg Yates

SSL Personnel were mobilised on the 3rd January arriving onsite on the 4th January. Halliburton were logging upon our arrival at the well site.

A total of 11 levels were recorded from 1220m to surface.

Levels from 1200m to surface were recorded with channel 1 in reverse polarity due to a data cable having reverse polarity wiring.

The survey took 3hrs starting at 02.05 hrs on the 5th January and ended at 05.05 hrs on the 5th January 1993. A problem with a cable connector caused a loss of 20 mins during acquisition.

The SSL equipment was loaded on to the supply vessel for return to base. SSL Personnel left the rig-site at 18.00 hrs on the 5th January 1993, arriving back at base the 5th January 1993.

Paul Buckley
Borehole Geophysics Division

Shell Australia Pty

Seismograph Service

Survey Date:	5th January 1993
Job Reference:	BGD/AUS306
Country:	AUSTRALIA
Well Location East:	144 07 33 - E
Well Location North:	38 47 17 - S
Rig Name:	OCEAN EPOCH
Rig Heading:	246.5 degrees
Survey Datum:	MSL
Well Reference Level:	DF
Reference Level Elevation:	22.3m above MSL
Water Velocity:	1524m/s
Well Deviation:	NO
Casing Details:	738.8m @ 9 5/8"
Liner Details:	
Wireline Contractor:	H.L.S.
Observer:	Buckley/Yates
Client Representative:	M.King

Downhole Geophone 1:

Geophone Description:	GCH 100 3D
Geophone Serial No:	118
Geophone Pregain:	46 dB
Depth Offset from Zero:	0m

Surface Equipment:

Acquisition System:	PDAQ-1
Sample Interval:	1000 us
Geo Channel Record Length:	3000 samples
Ref Channel Record Length:	1000 samples
Aux Channel Record Length:	1000 samples
Channel 1:	Geo1 VZ
Channel 2:	Geo1 HX
Channel 3:	Geo1 HY
Channel 4:	Ref
Channel 5:	Off
Channel 6:	Off
Channel 7:	Off
Channel 8:	Off

Source 1: (Marine)

Observer:	
Source:	Bolt 1900B 80 cu ins
Monitor:	MP8D
Source Offset:	50.5m
Source Bearing:	2.5 degrees
Source Control System:	DAQ
External Delay:	0ms
Air Supply:	Rucker system
Fire Control:	INTERNAL
Trip Source Channel:	4
Source Reference Channel:	4
Source Depth below Surface:	5m
Monitor Depth below Surface:	3.5m
Water Depth:	79m

REC:	VOL:	LEV:	SRC:	MD(m):	DATE:	TIME:	SCX(m):	SCY(m):	FIX:
*									
*Well available 01:47 Tool on cable 01:55 Tool in well: 2:05 hrs									
*									
*All systems checked and okay.									
*									
>Source depth for source 1 = 5.0m									
>Source to Monitor separation for source 1 = 1.5m									
1	1	1	1	335.0	05/01/93	02:26:13	2.2	50.5	
2	1	1	1	335.0	05/01/93	02:26:41	2.2	50.5	
3	1	1	1	335.0	05/01/93	02:27:01	2.2	50.5	
4	1	2	1	795.0	05/01/93	02:39:14	2.2	50.5	
5	1	2	1	795.0	05/01/93	02:39:39	2.2	50.5	
6	1	2	1	795.0	05/01/93	02:39:57	2.2	50.5	
7	1	2	1	795.0	05/01/93	02:40:22	2.2	50.5	
8	1	3	1	1220.0	05/01/93	02:55:14	2.2	50.5	
9	1	3	1	1220.0	05/01/93	02:55:33	2.2	50.5	
10	1	3	1	1220.0	05/01/93	02:55:49	2.2	50.5	
11	1	3	1	1220.0	05/01/93	02:57:23	2.2	50.5	
12	1	3	1	1220.0	05/01/93	02:57:38	2.2	50.5	
13	1	3	1	1220.0	05/01/93	02:58:05	2.2	50.5	
14	1	3	1	1220.0	05/01/93	02:58:36	2.2	50.5	
15	1	3	1	1220.0	05/01/93	02:58:52	2.2	50.5	
16	1	3	1	1220.0	05/01/93	02:59:28	2.2	50.5	
17	1	3	1	1220.0	05/01/93	02:59:54	2.2	50.5	
>Source depth for source 1 = 5.0m									
>Source to Monitor separation for source 1 = 1.5m									
18	1	5	1	1220.0	05/01/93	03:31:11	2.2	50.5	
*time lost with noise problems 20 mins									
19	1	6	1	1200.0	05/01/93	03:40:32	2.2	50.5	
20	1	6	1	1200.0	05/01/93	03:40:52	2.2	50.5	
21	1	6	1	1200.0	05/01/93	03:42:02	2.2	50.5	
22	1	6	1	1200.0	05/01/93	03:42:21	2.2	50.5	
23	1	6	1	1200.0	05/01/93	03:42:43	2.2	50.5	
24	1	6	1	1200.0	05/01/93	03:43:02	2.2	50.5	
25	1	6	1	1200.0	05/01/93	03:44:15	2.2	50.5	
26	1	7	1	1165.0	05/01/93	03:49:48	2.2	50.5	
27	1	7	1	1165.0	05/01/93	03:50:05	2.2	50.5	
28	1	7	1	1165.0	05/01/93	03:50:19	2.2	50.5	
29	1	7	1	1165.0	05/01/93	03:50:33	2.2	50.5	
30	1	7	1	1165.0	05/01/93	03:50:46	2.2	50.5	
*channel 1 has reverse polarity									
31	1	8	1	1015.0	05/01/93	03:58:07	2.2	50.5	
32	1	8	1	1015.0	05/01/93	03:58:27	2.2	50.5	
33	1	8	1	1015.0	05/01/93	03:58:44	2.2	50.5	
34	1	8	1	1015.0	05/01/93	03:58:57	2.2	50.5	
35	1	9	1	930.0	05/01/93	04:03:47	2.2	50.5	
36	1	9	1	930.0	05/01/93	04:04:05	2.2	50.5	
37	1	9	1	930.0	05/01/93	04:04:19	2.2	50.5	
38	1	9	1	930.0	05/01/93	04:04:42	2.2	50.5	
39	1	9	1	930.0	05/01/93	04:04:55	2.2	50.5	
40	1	10	1	795.0	05/01/93	04:13:39	2.2	50.5	
41	1	10	1	795.0	05/01/93	04:14:00	2.2	50.5	
42	1	10	1	795.0	05/01/93	04:14:53	2.2	50.5	
43	1	10	1	795.0	05/01/93	04:15:27	2.2	50.5	

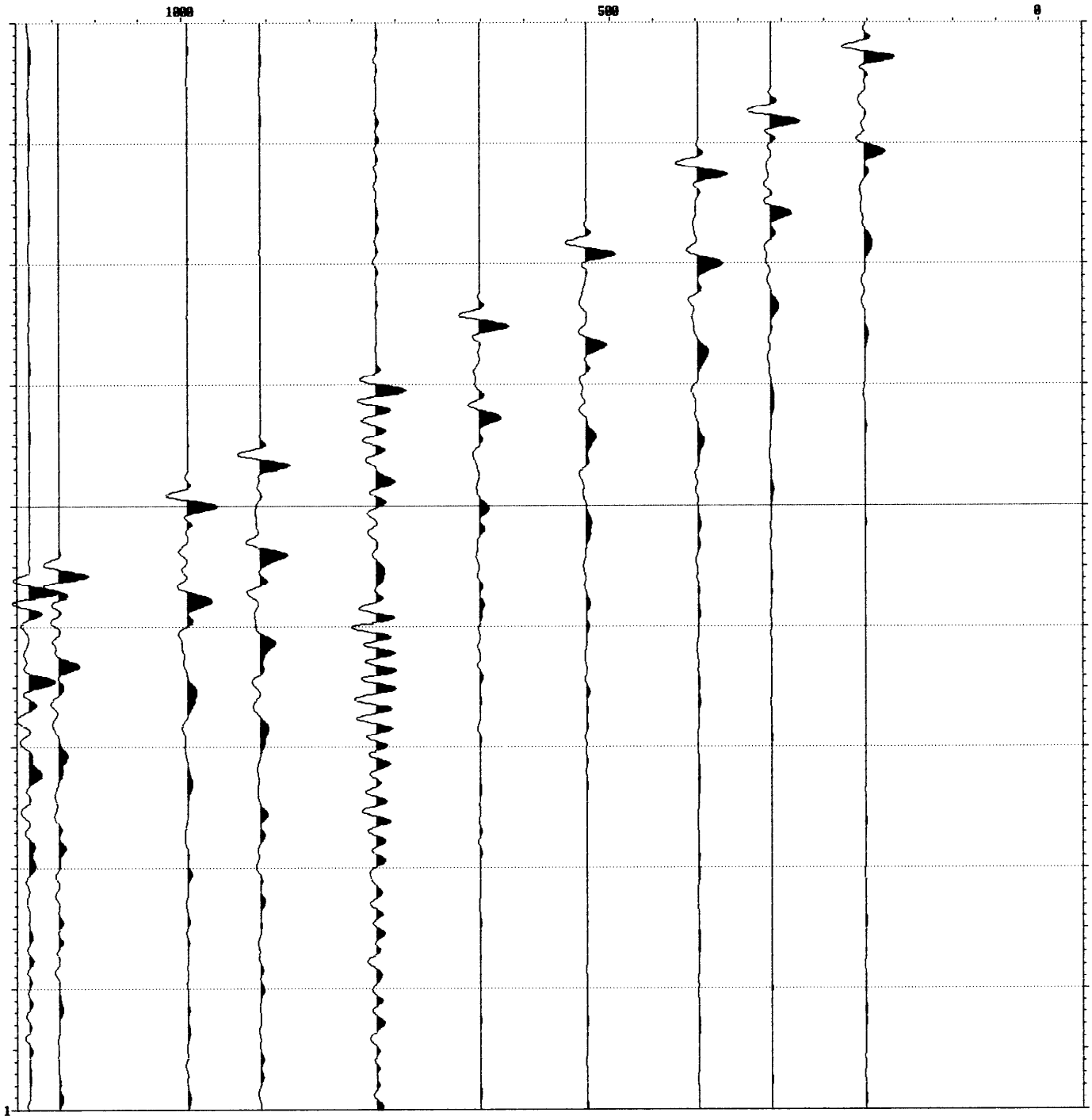
REC:	VOL:	LEV:	SRC:	MD(m):	DATE:	TIME:	SCX(m):	SCY(m):	FIX:
44	1	10	1	795.0	05/01/93	04:15:46	2.2	50.5	
45	1	10	1	795.0	05/01/93	04:16:10	2.2	50.5	
46	1	11	1	675.0	05/01/93	04:24:08	2.2	50.5	
47	1	11	1	675.0	05/01/93	04:24:33	2.2	50.5	
48	1	11	1	675.0	05/01/93	04:24:47	2.2	50.5	
49	1	11	1	675.0	05/01/93	04:25:01	2.2	50.5	
50	1	11	1	675.0	05/01/93	04:25:16	2.2	50.5	
51	1	12	1	550.0	05/01/93	04:30:25	2.2	50.5	
52	1	12	1	550.0	05/01/93	04:30:45	2.2	50.5	
53	1	12	1	550.0	05/01/93	04:31:02	2.2	50.5	
54	1	12	1	550.0	05/01/93	04:31:18	2.2	50.5	
55	1	12	1	550.0	05/01/93	04:31:37	2.2	50.5	
56	1	13	1	420.0	05/01/93	04:35:55	2.2	50.5	
57	1	13	1	420.0	05/01/93	04:36:17	2.2	50.5	
58	1	13	1	420.0	05/01/93	04:36:36	2.2	50.5	
59	1	13	1	420.0	05/01/93	04:36:58	2.2	50.5	
60	1	13	1	420.0	05/01/93	04:37:14	2.2	50.5	
61	1	14	1	335.0	05/01/93	04:42:06	2.2	50.5	
62	1	14	1	335.0	05/01/93	04:42:26	2.2	50.5	
63	1	14	1	335.0	05/01/93	04:42:44	2.2	50.5	
64	1	14	1	335.0	05/01/93	04:42:59	2.2	50.5	
65	1	14	1	335.0	05/01/93	04:43:14	2.2	50.5	
66	1	15	1	225.0	05/01/93	04:48:56	2.2	50.5	
67	1	15	1	225.0	05/01/93	04:49:15	2.2	50.5	
68	2	15	1	225.0	05/01/93	04:51:03	2.2	50.5	
69	2	15	1	225.0	05/01/93	04:51:18	2.2	50.5	
70	2	15	1	225.0	05/01/93	04:51:30	2.2	50.5	

Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05
06/01/1993 10:12

Plot polarity: SEG normal
Plot filter: 5,10,60,90Hz

Time scale: 20.00cm/s
One-way time from start

Depth scale: 1:7000
Depth m below MSL

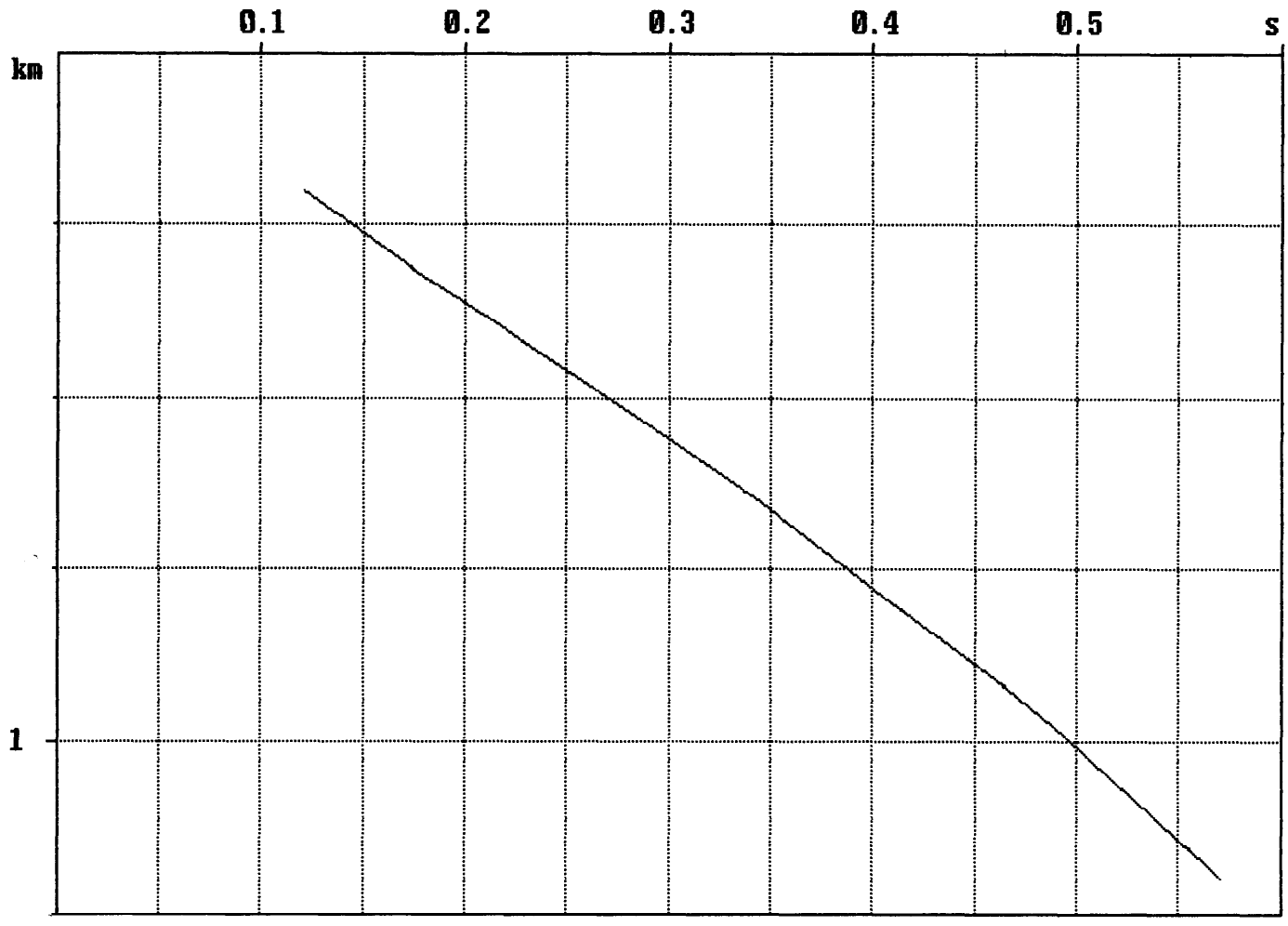


Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

Reference level:	DF	Survey datum:	MSL
Ref. elevation:	22.3m	Source offset:	50.5m
Source depth:	5m	Monitor depth:	3.5m
Surface elevation:	0m	Water velocity:	1524m/s

TIME / DEPTH



Depths and times are vertical below datum of MSL

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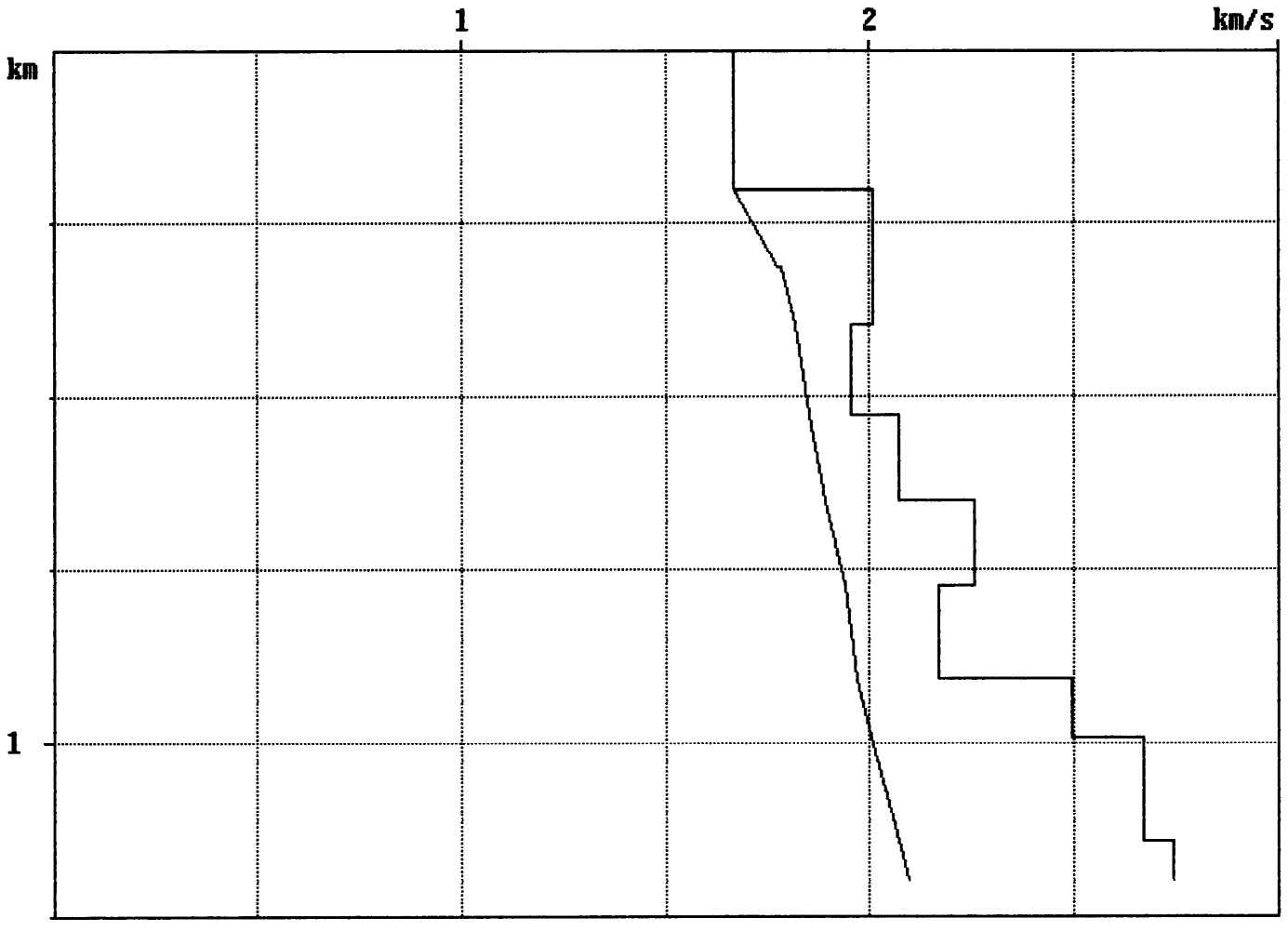
Survey date: 5th January 1993

Reference level:	DF	Survey datum:	MSL
Ref. elevation:	22.3m	Source offset:	50.5m
Source depth:	5m	Monitor depth:	3.5m
Surface elevation:	0m	Water velocity:	1524m/s

AVERAGE and INTERVAL VELOCITY / DEPTH



Depths and times are vertical below datum of MSL
Velocities are calculated from vertical depths and times below datum of MSL

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Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

Reference level:	DF	Survey datum:	MSL
Ref. elevation:	22.3m	Source offset:	50.5m
Source depth:	5m	Monitor depth:	3.5m
Surface elevation:	0m	Water velocity:	1524m/s

MD = Geophone measured depth below DF
TVDSD = Geophone vertical depth below MSL
Tpick = Reference trough to geophone trough
Tt = Tpick + external reference delay(0ms) + source to monitor delay
SGO = Source to geophone lateral offset
Tv = Vertical time from source to geophone
Ts = Static correction from source to MSL
Tcorr = Vertical time from MSL to geophone (Tv+Ts)
Vave = Average velocity from MSL to geophone
Vint = Interval velocity between indicated depths

Level No	MD (m)	TVDSD (m)	Tpick (ms)	Tt (ms)	SGO (m)	Tv (ms)	Ts (ms)	Tcorr (ms)	Vave (m/s)	Vint (m/s)
										1669
15	225.0	202.7	121.0	122.0	50.5	118.2	3.3	121.5	1669	------
14	335.0	312.7	174.0	175.0	50.5	172.7	3.3	176.0	1777	
1	335.0	312.7	173.0	174.0	50.5	171.7	3.3	175.0	1787	
										2010
13	420.0	397.7	216.0	217.0	50.5	215.2	3.3	218.5	1820	------
										1956
12	550.0	527.7	282.0	283.0	50.5	281.7	3.3	285.0	1852	------
										2074
11	675.0	652.7	342.0	343.0	50.5	341.9	3.3	345.2	1891	------
10	795.0	772.7	395.0	396.0	50.5	395.1	3.3	398.4	1939	
										2256
2	795.0	772.7	395.0	396.0	50.5	395.1	3.3	398.4	1939	------
										2173
9	930.0	907.7	457.0	458.0	50.5	457.3	3.3	460.6	1971	------
										2495
8	1015.0	992.7	491.0	492.0	50.5	491.3	3.3	494.6	2007	------
										2674
7	1165.0	1142.7	547.0	548.0	50.5	547.4	3.3	550.7	2075	------
6	1200.0	1177.7	560.0	561.0	50.5	560.5	3.3	563.7	2089	
										2746
3	1220.0	1197.7	567.0	568.0	50.5	567.5	3.3	570.8	2098	------

Shell Australia Pty
Seismograph Service
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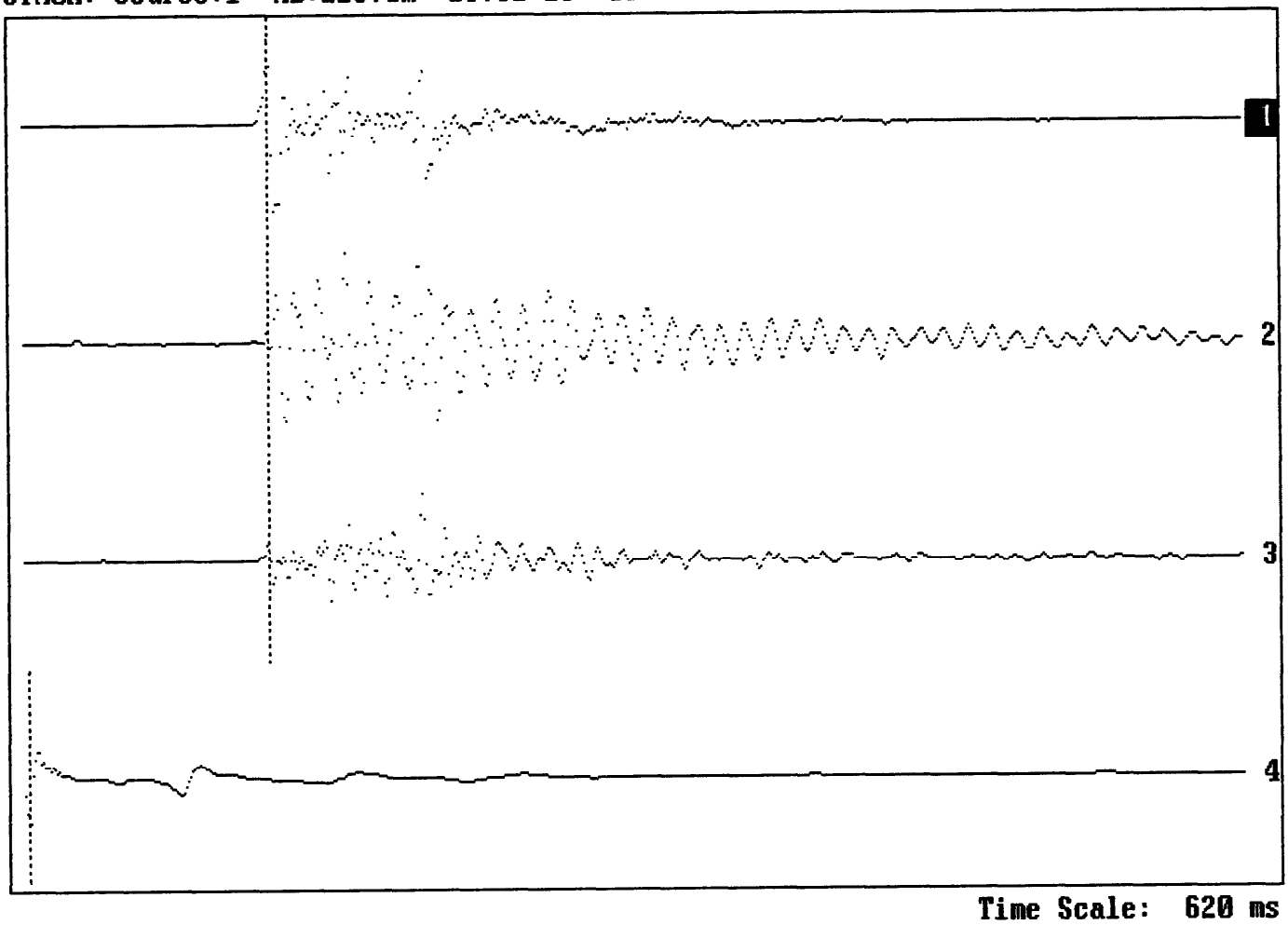
Survey date: 5th January 1993

STACK: Source:1 MD:225.0m Level:15 Geo:1 Stacked:5



Time Scale: 620 ms

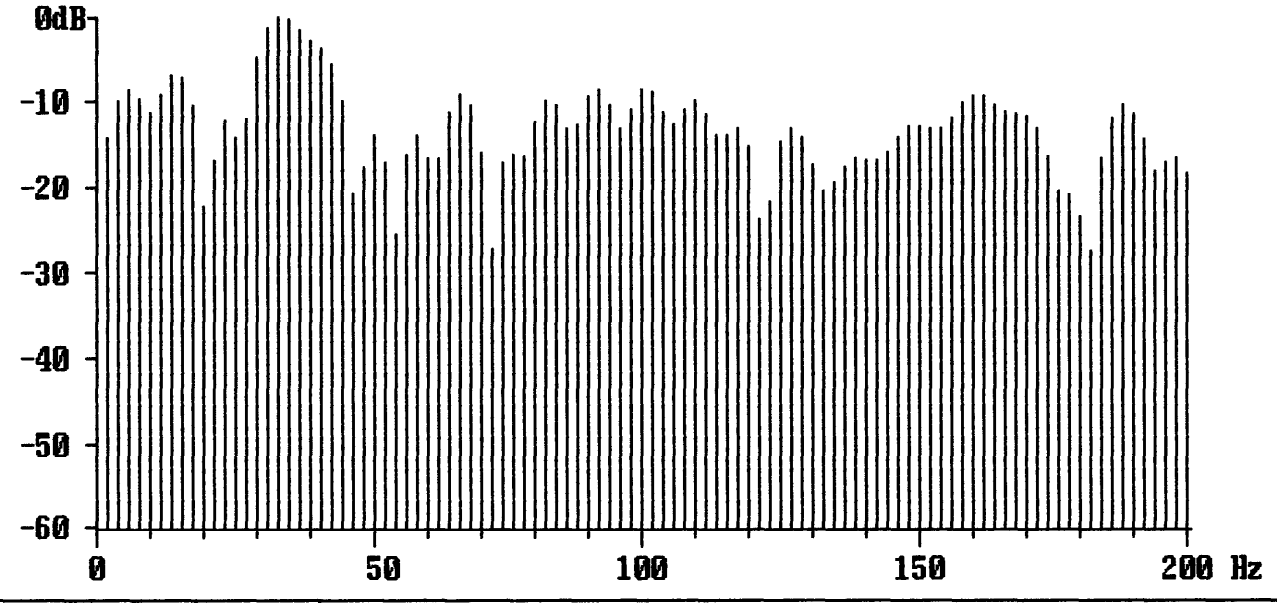
Channel:	Start(ms):	Cursor(ms):	Display gain:	Filter:
1 Geol VZ	0	123	6 dB	OUT
2 Geol HX	0	123	12 dB	OUT
3 Geol HY	0	123	12 dB	OUT
4 Ref	0	2	18 dB	OUT

Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:225.0m Level:15 Geo:1 Stacked:5

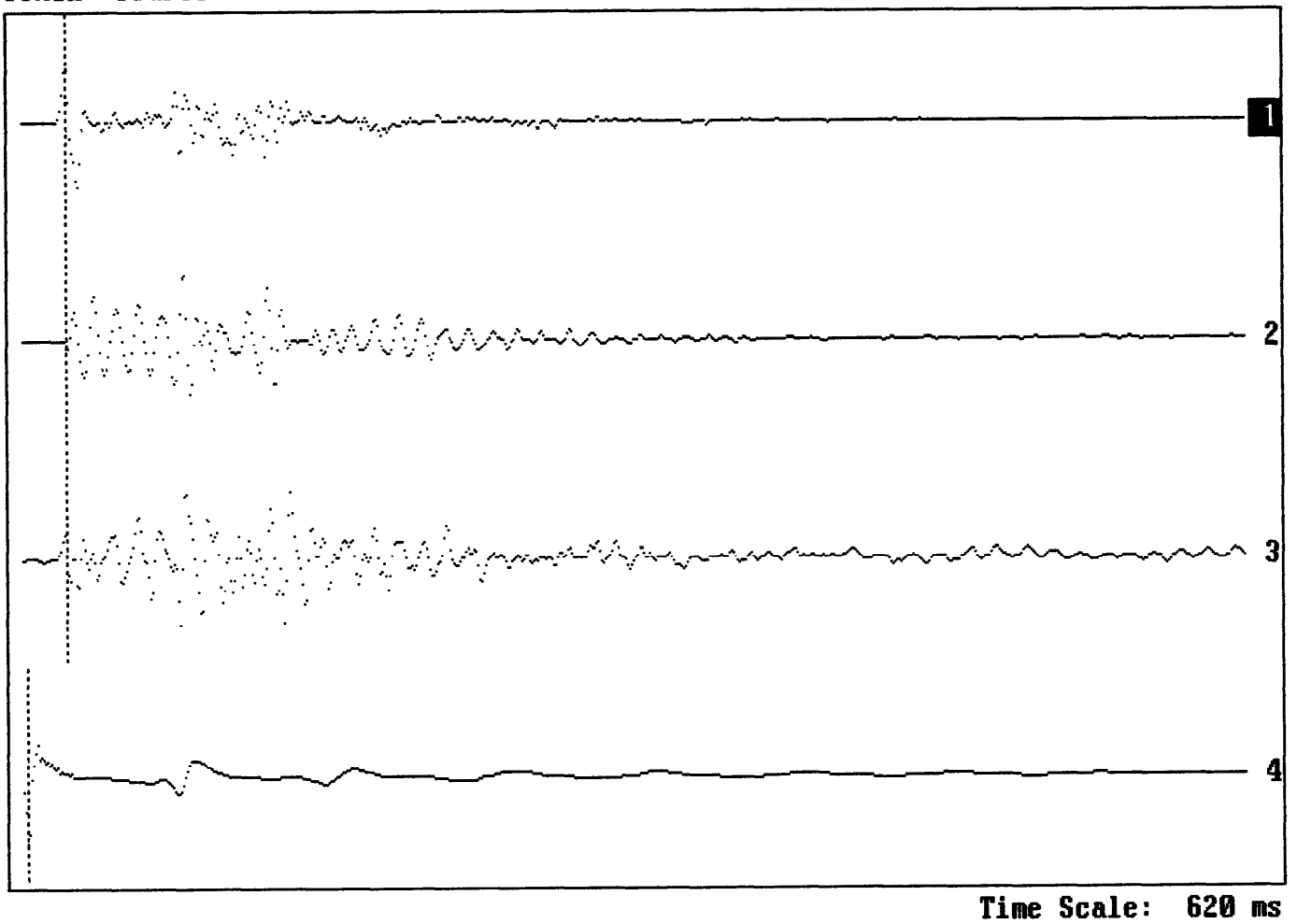
POWER SPECTRA
Channel: 1
Window: 0 to 255ms
Peak: 33.20Hz
Scale: -73dB relative to full scale



Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:335.0m Level:14 Geo:1 Stacked:5



Time Scale: 620 ms

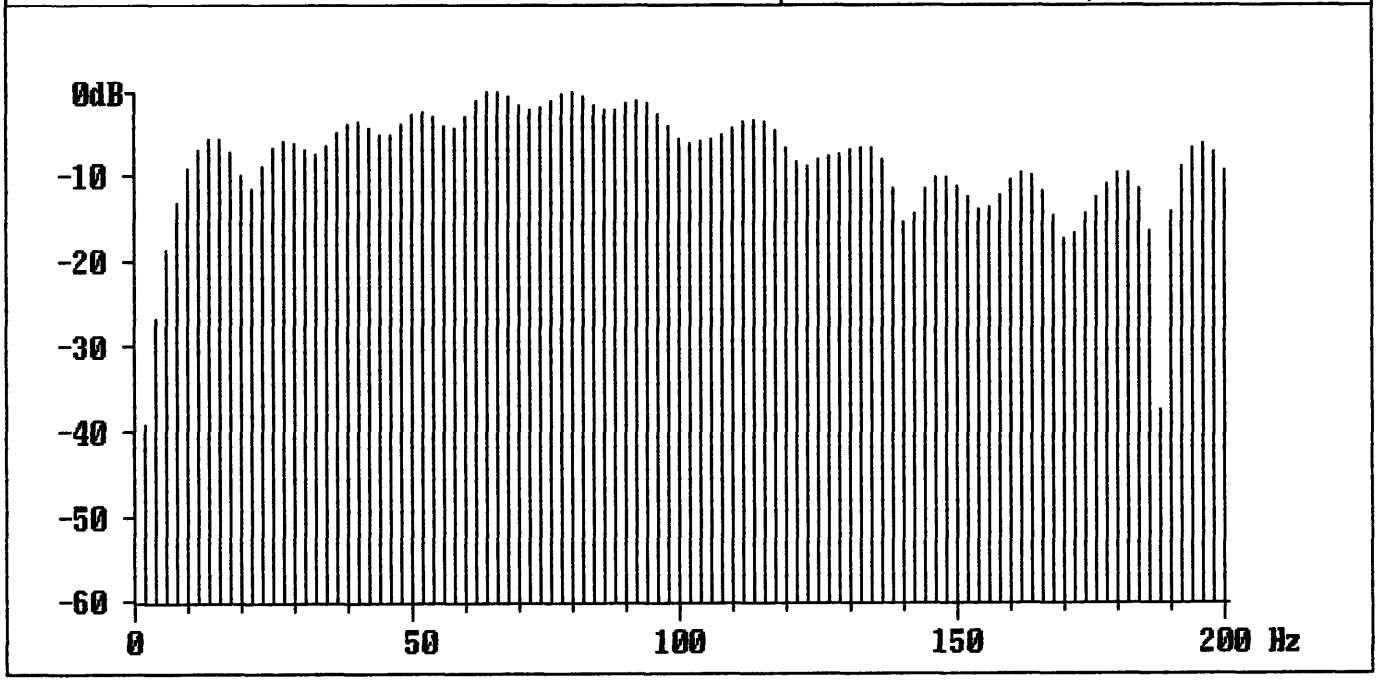
Channel:	Start(ms):	Cursor(ms):	Display gain:	Filter:
1 Geo1 VZ	154	176	6 dB	OUT
2 Geo1 HX	154	176	12 dB	OUT
3 Geo1 HY	154	176	18 dB	OUT
4 Ref	0	2	18 dB	OUT

Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:335.0m Level:14 Geo:1 Stacked:5

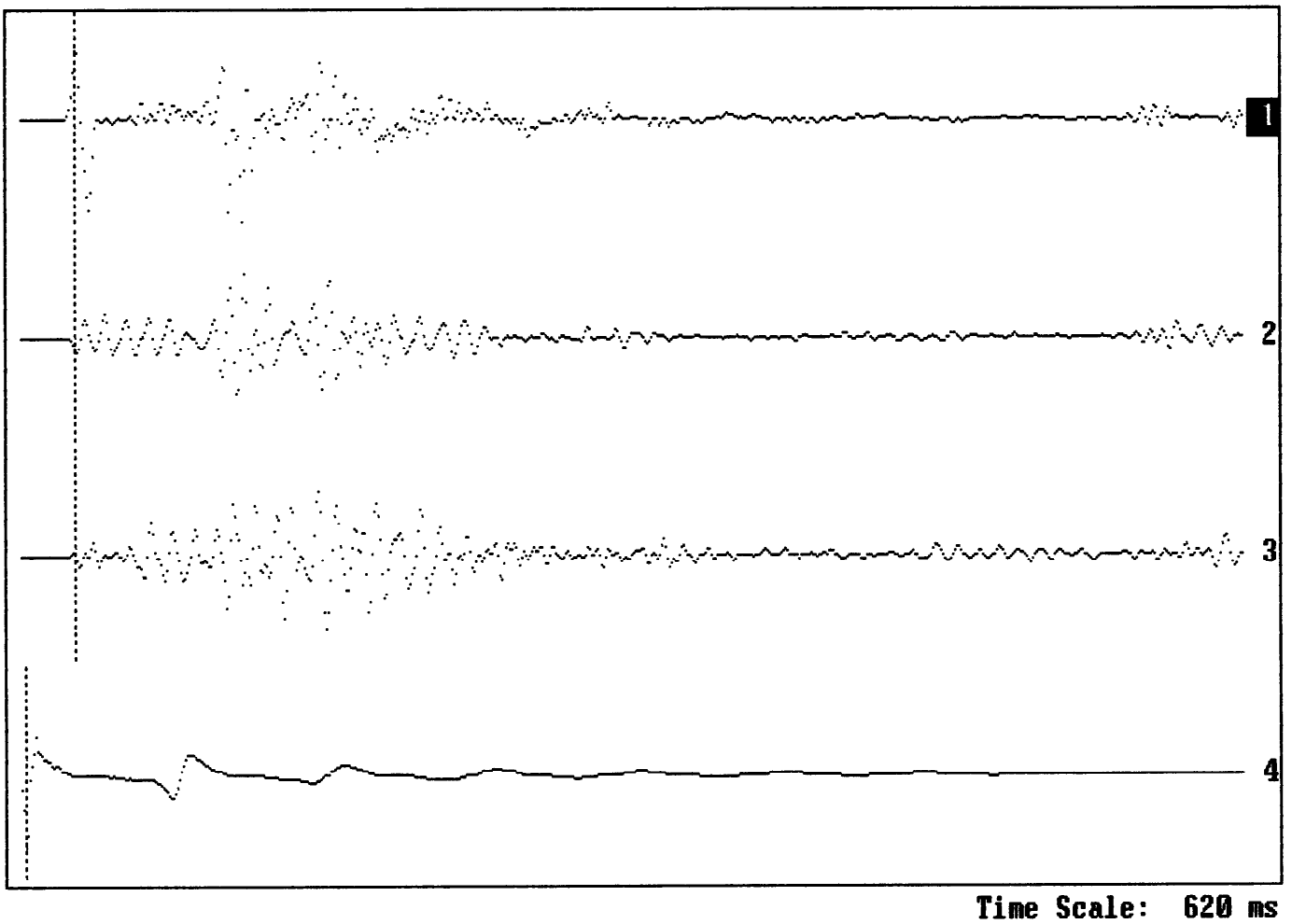
POWER SPECTRA
Channel: 1
Window: 48 to 303ms
Peak: 66.41Hz
Scale: -42dB relative to full scale



Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:420.0m Level:13 Geo:1 Stacked:4



Time Scale: 620 ms

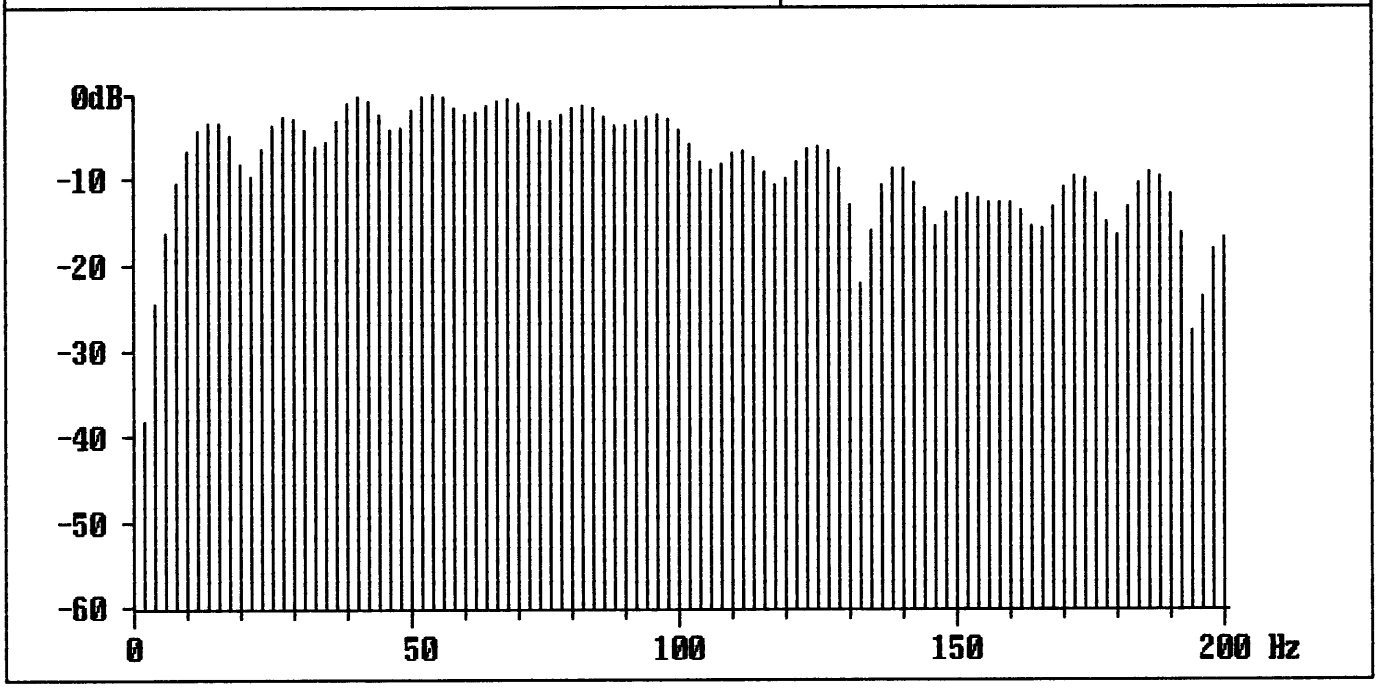
Channel:	Start(ms):	Cursor(ms):	Display gain:	Filter:
1 Geo1 VZ	191	218	12 dB	OUT
2 Geo1 HX	191	218	12 dB	OUT
3 Geo1 HY	191	218	18 dB	OUT
4 Ref	0	2	18 dB	OUT

Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:420.0m Level:13 Geo:1 Stacked:4

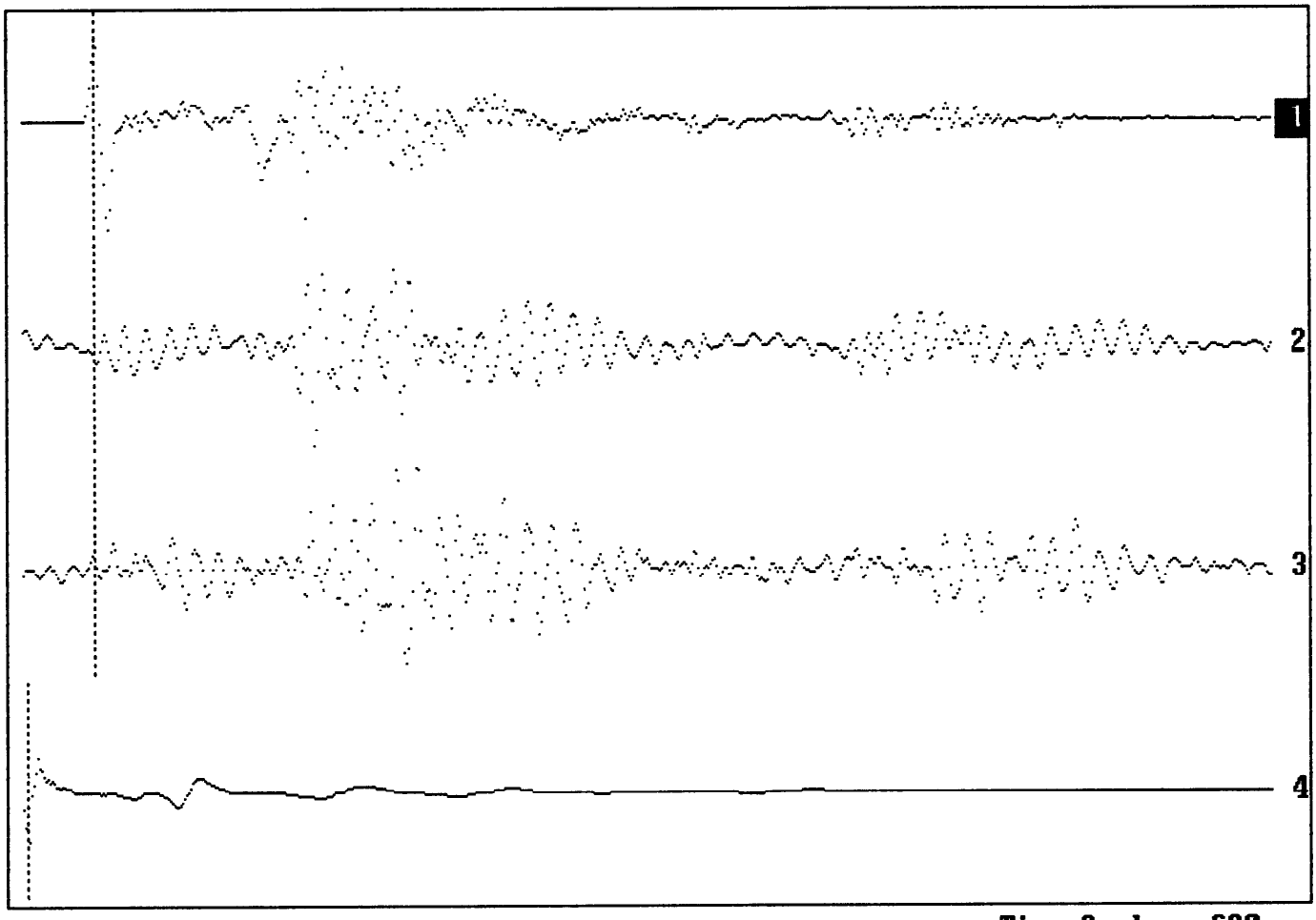
POWER SPECTRA
Channel: 1
Window: 90 to 345ms
Peak: 54.69Hz
Scale: -45dB relative to full scale



Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:550.0m Level:12 Geo:1 Stacked:5



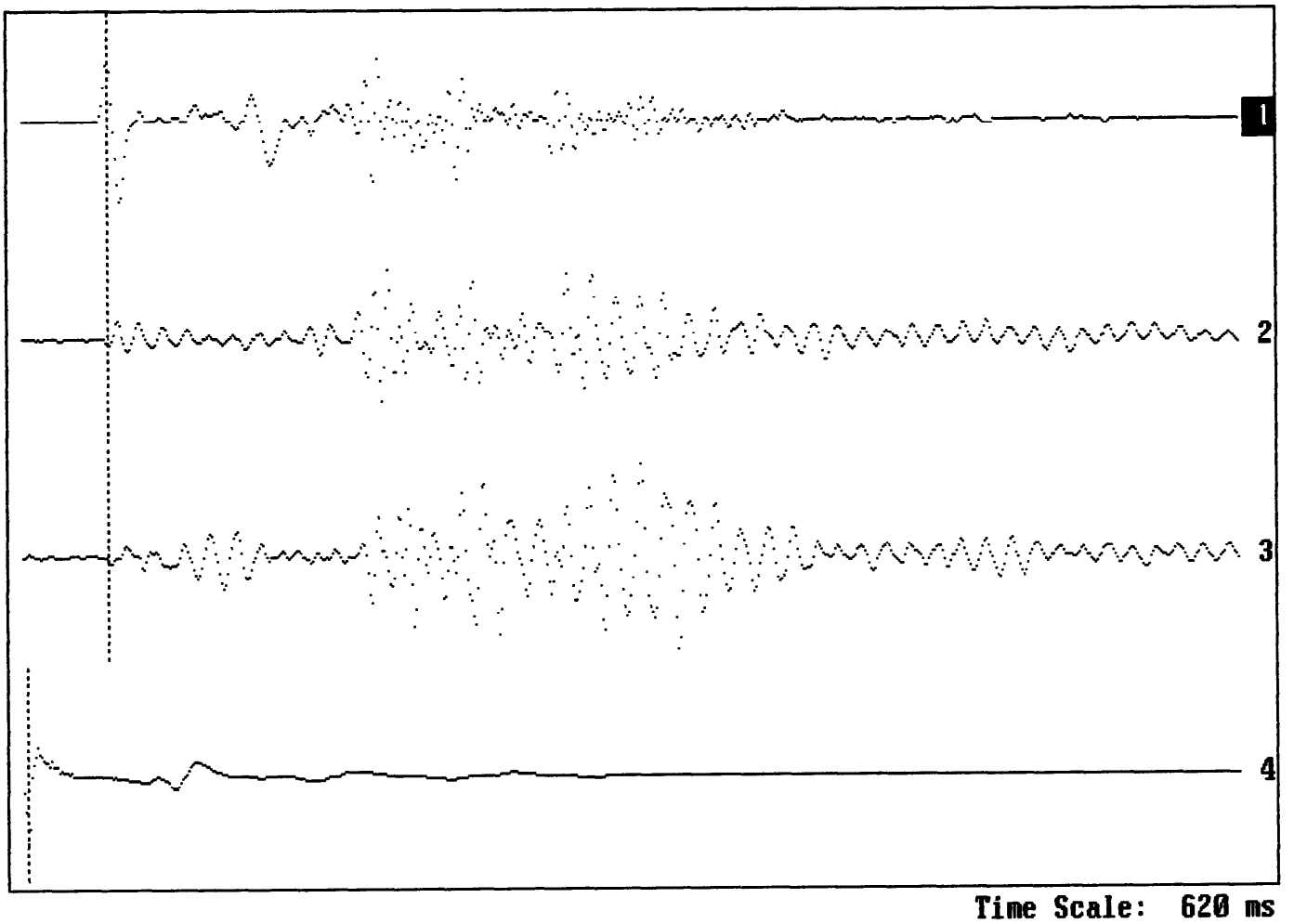
Time Scale: 620 ms

Channel:	Start(ms):	Cursor(ms):	Display gain:	Filter:
1 Geo1 VZ	249	284	18 dB	OUT
2 Geo1 HX	249	284	18 dB	OUT
3 Geo1 HY	249	284	24 dB	OUT
4 Ref	0	2	18 dB	OUT

Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:675.0m Level:11 Geo:1 Stacked:5



Time Scale: 620 ms

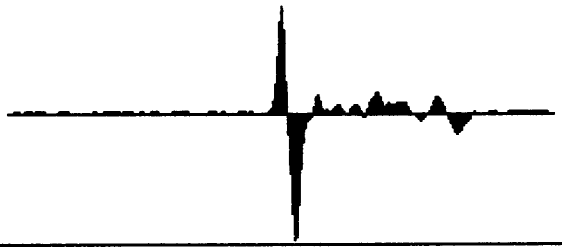
Channel:	Start(ms):	Cursor(ms):	Display gain:	Filter:
1 Geo1 VZ	301	344	18 dB	OUT
2 Geo1 HX	301	344	18 dB	OUT
3 Geo1 HY	301	344	24 dB	OUT
4 Ref	0	2	18 dB	OUT

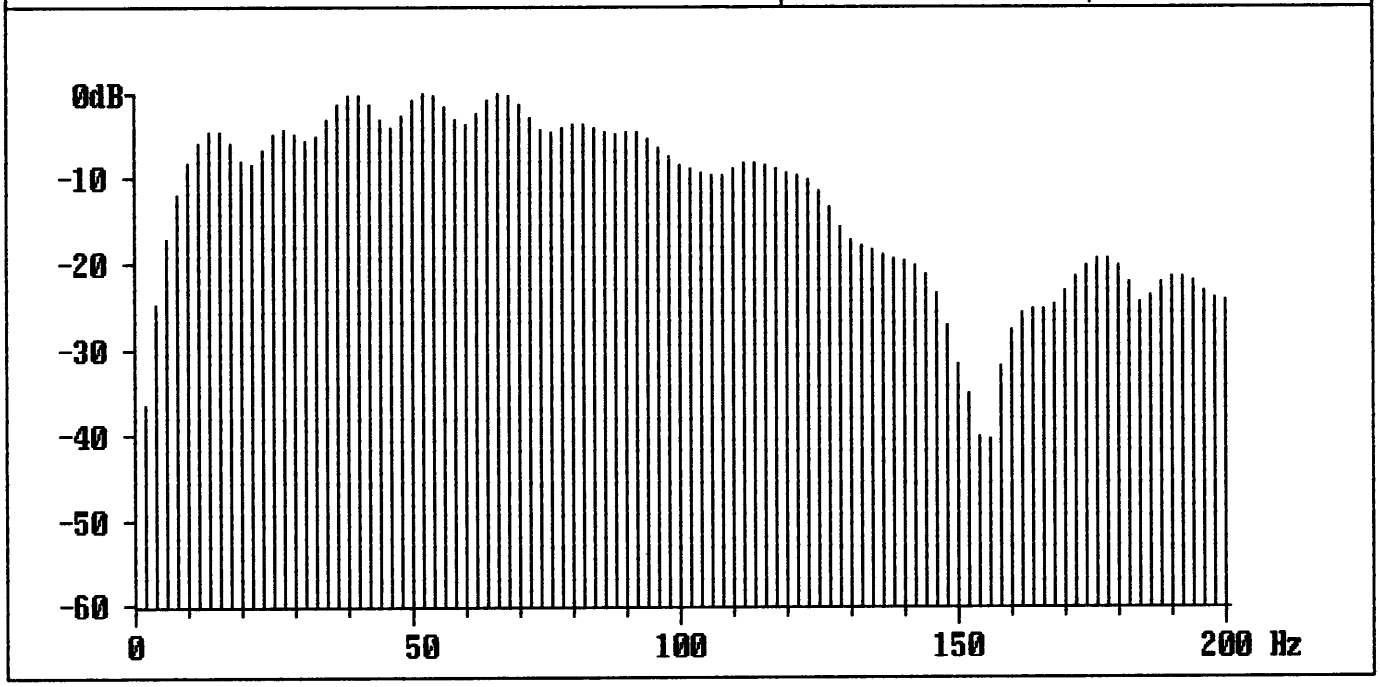
Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:675.0m Level:11 Geo:1 Stacked:5

POWER SPECTRA
Channel: 1
Window: 216 to 471ms
Peak: 52.73Hz
Scale: -51dB relative to full scale

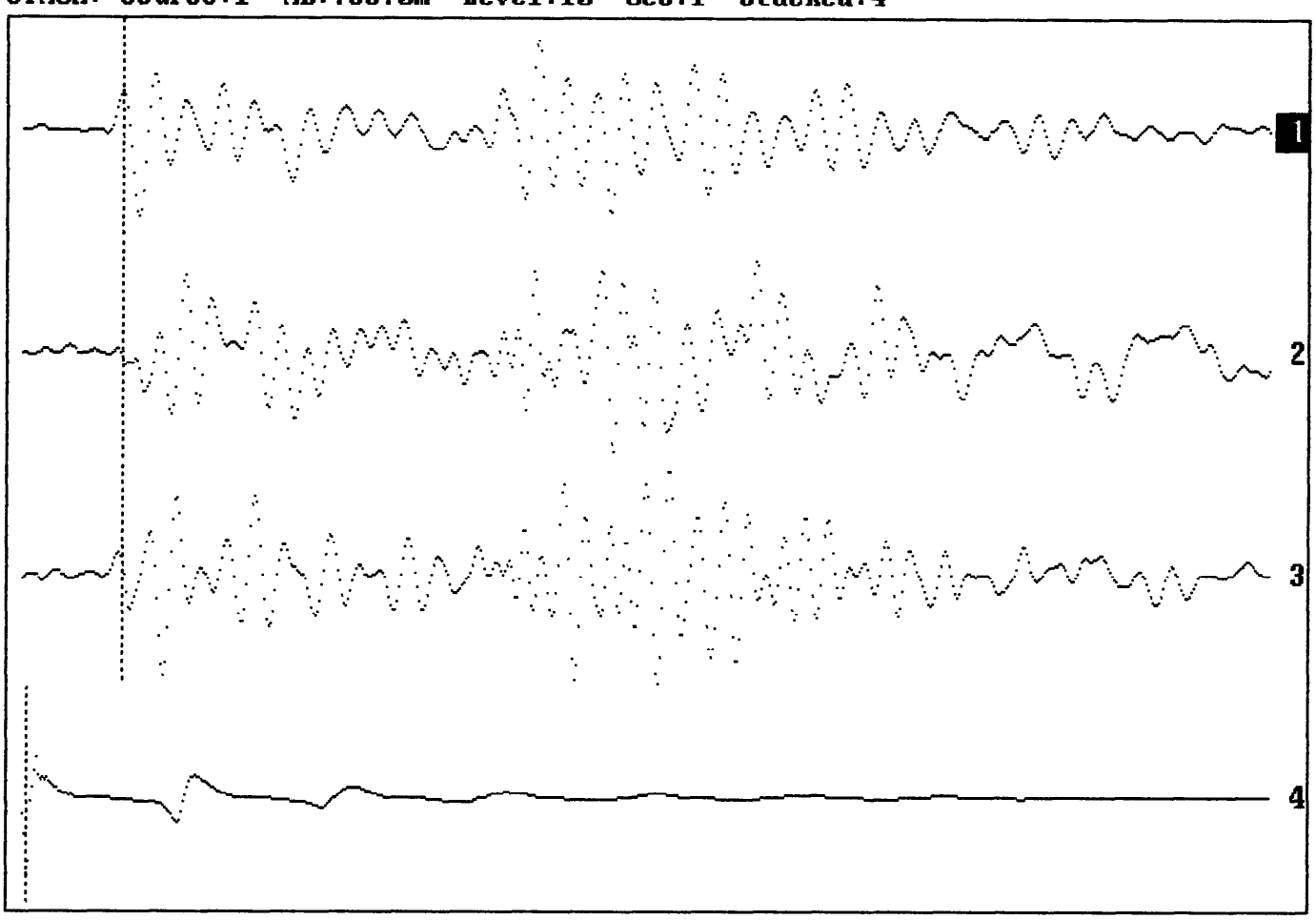




Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:795.0m Level:10 Geo:1 Stacked:4



Time Scale: 620 ms

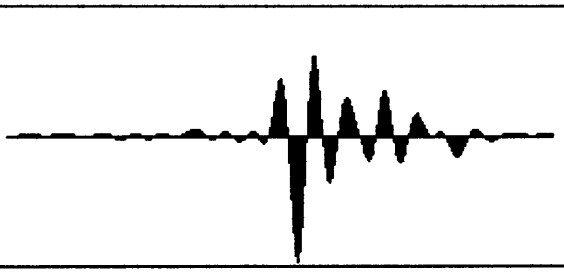
Channel:	Start(ms):	Cursor(ms):	Display gain:	Filter:
1 Geo1 VZ	348	397	18 dB	OUT
2 Geo1 HX	348	397	36 dB	OUT
3 Geo1 HY	348	397	36 dB	OUT
4 Ref	0	2	18 dB	OUT

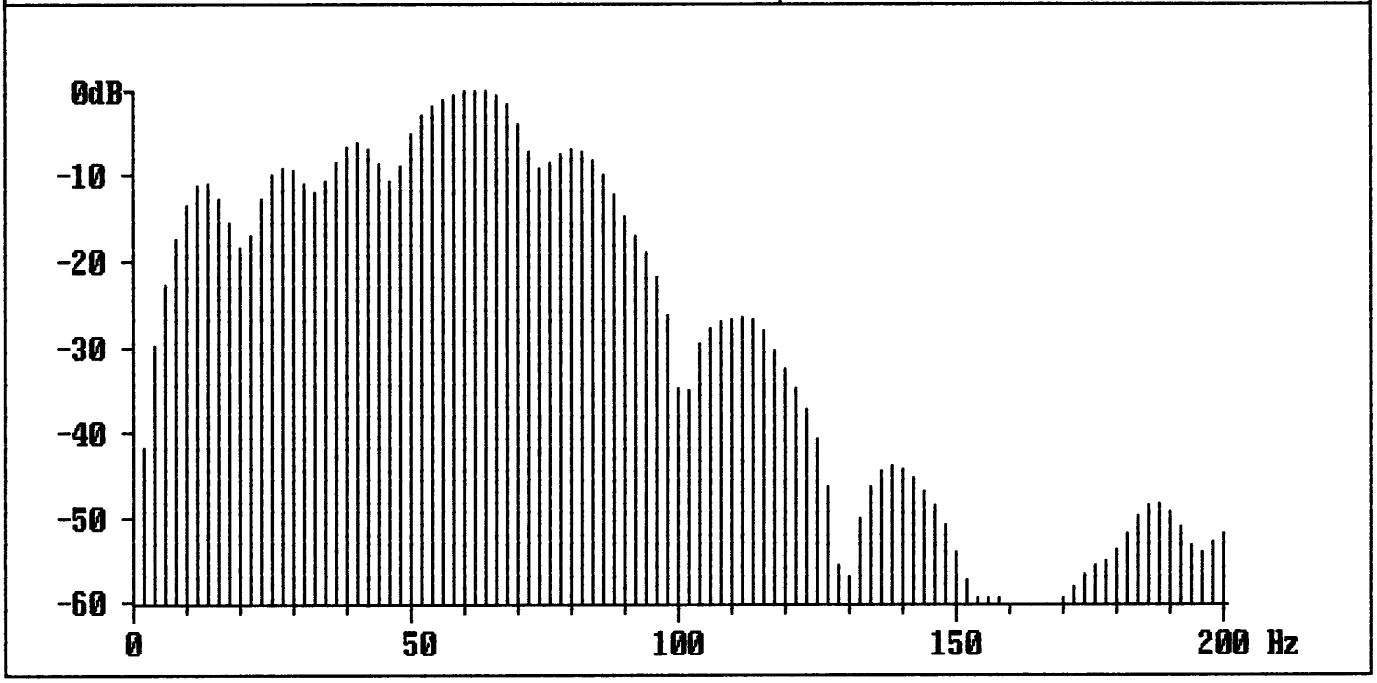
Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:795.0m Level:10 Geo:1 Stacked:4

POWER SPECTRA
Channel: 1
Window: 269 to 524ms
Peak: 62.50Hz
Scale: -45dB relative to full scale

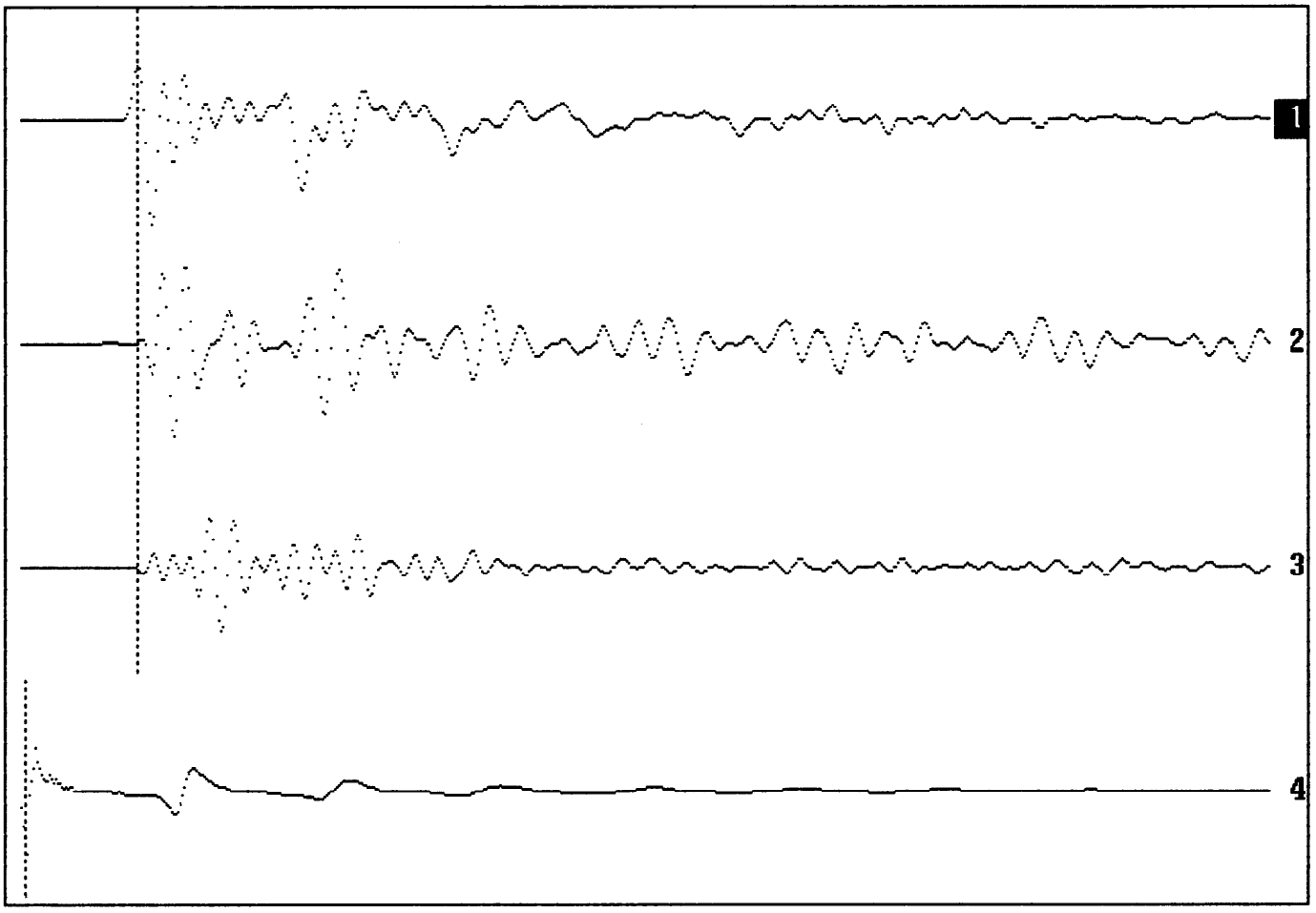




Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:930.0m Level:9 Geo:1 Stacked:2



Time Scale: 620 ms

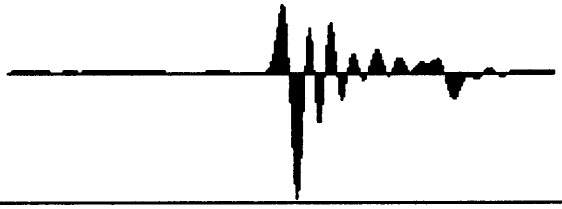
Channel:	Start(ms):	Cursor(ms):	Display gain:	Filter:
1 Geo1 VZ	402	459	24 dB	OUT
2 Geo1 HX	402	459	36 dB	OUT
3 Geo1 HY	402	459	30 dB	OUT
4 Ref	0	2	18 dB	OUT

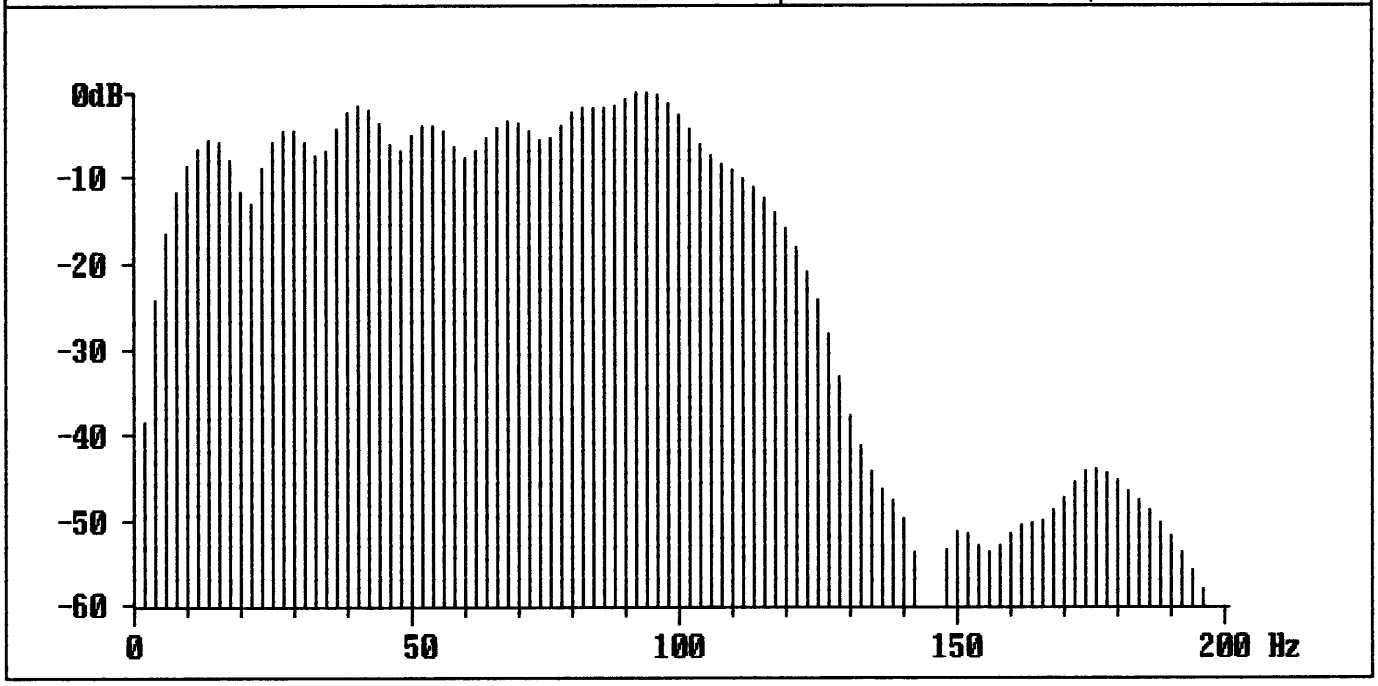
Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:930.0m Level:9 Geo:1 Stacked:2

POWER SPECTRA
Channel: 1
Window: 331 to 586ms
Peak: 93.75Hz
Scale: -54dB relative to full scale

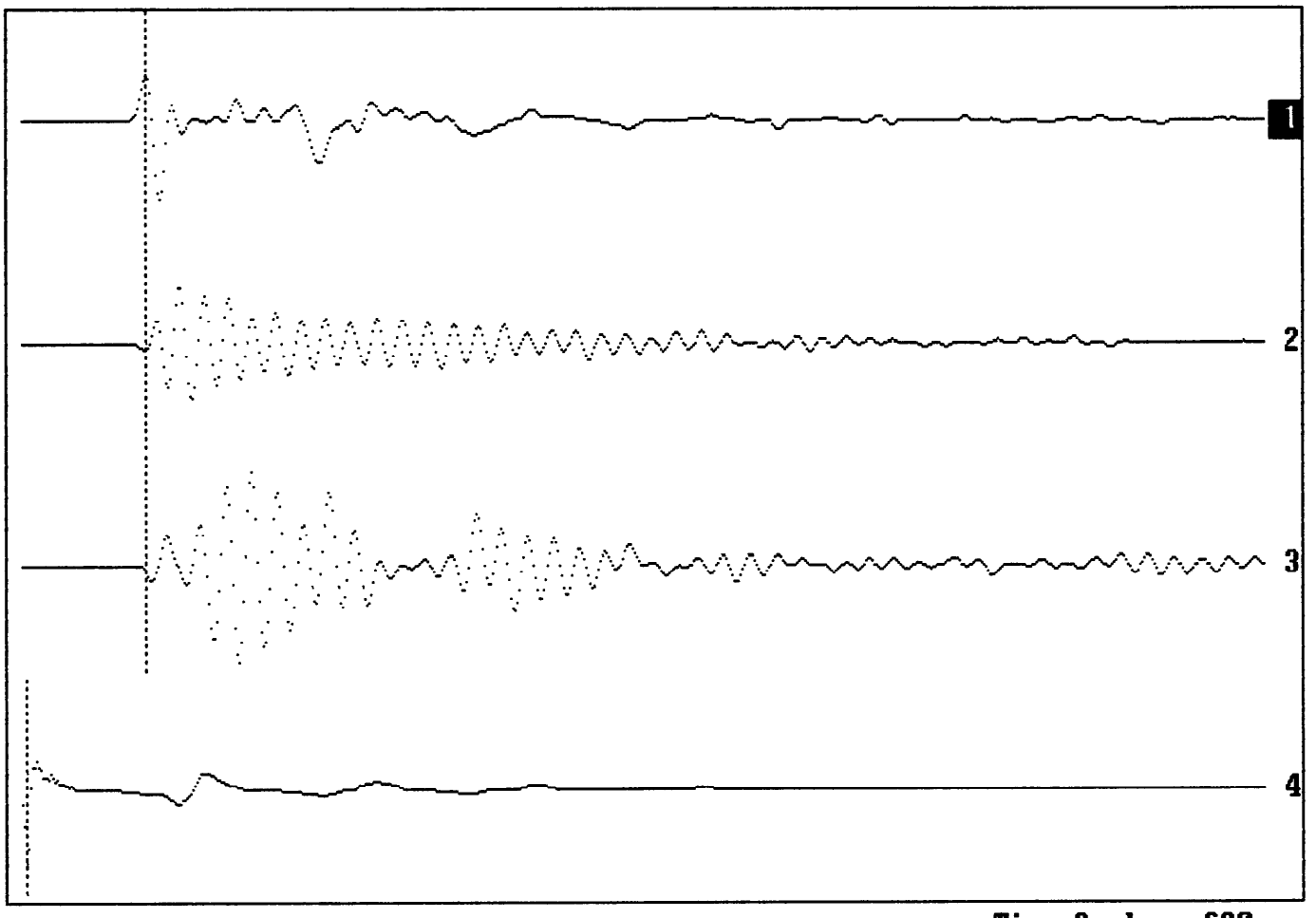




Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:1015.0m Level:8 Geo:1 Stacked:3



Time Scale: 620 ms

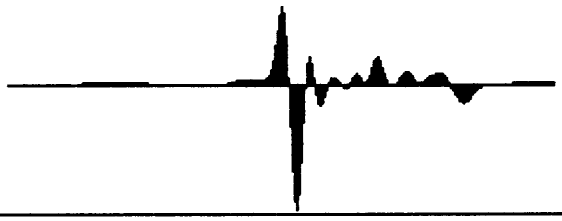
Channel:	Start(ms):	Cursor(ms):	Display gain:	Filter:
1 Geo1 VZ	432	493	24 dB	OUT
2 Geo1 HX	432	493	30 dB	OUT
3 Geo1 HY	432	493	36 dB	OUT
4 Ref	0	2	18 dB	OUT

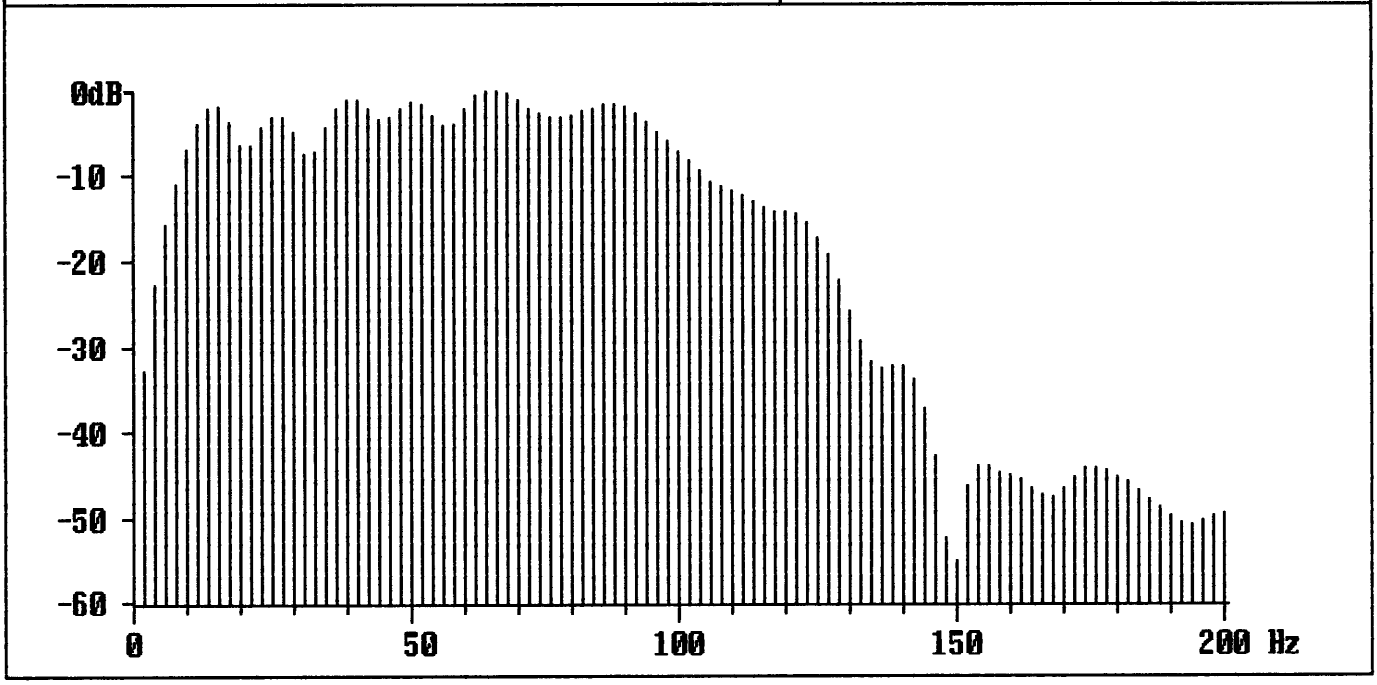
Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:1015.0m Level:8 Geo:1 Stacked:3

POWER SPECTRA
Channel: 1
Window: 365 to 620ms
Peak: 66.41Hz
Scale: -58dB relative to full scale

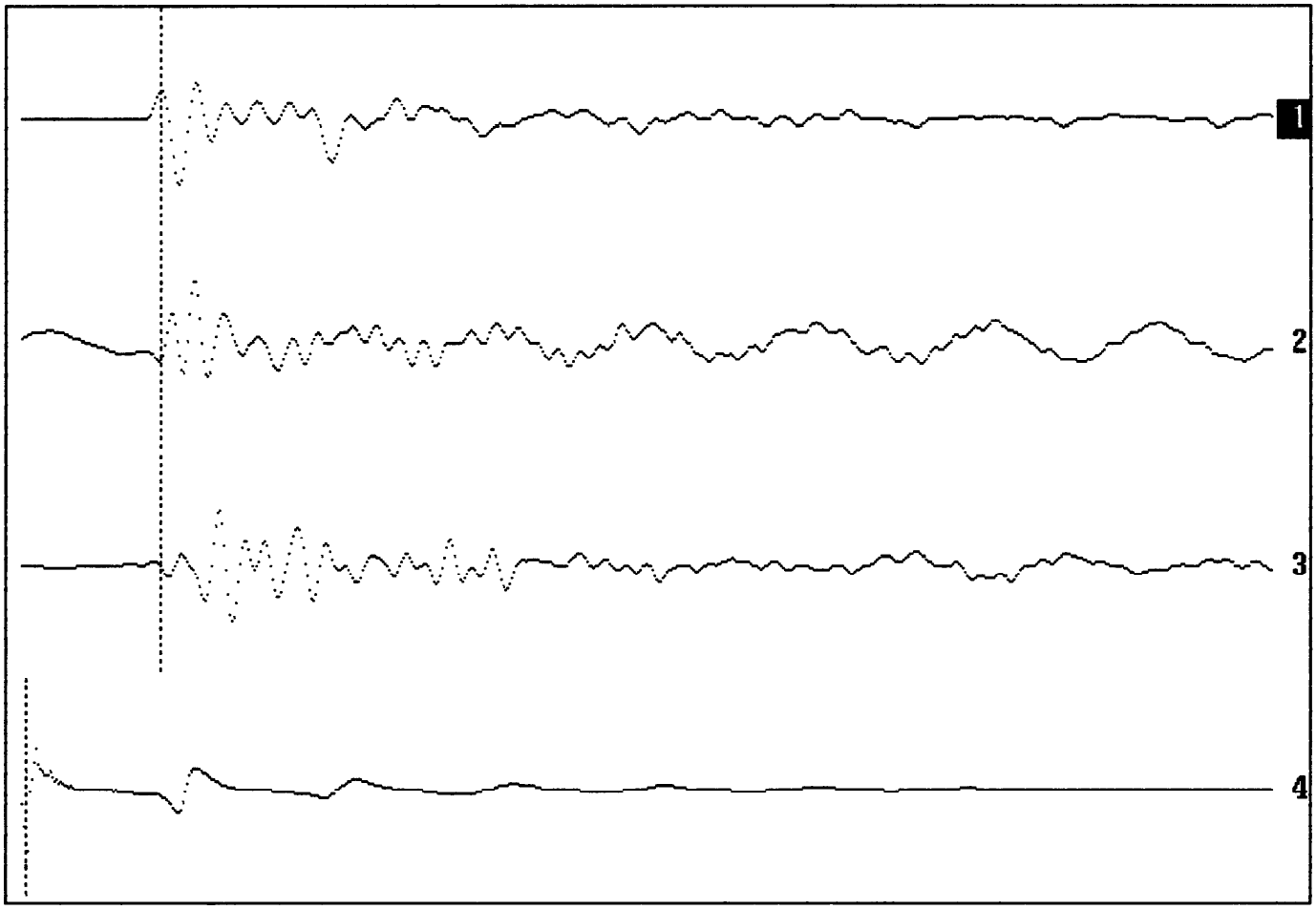




Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:1165.0m Level:7 Geo:1 Stacked:4



Time Scale: 620 ms

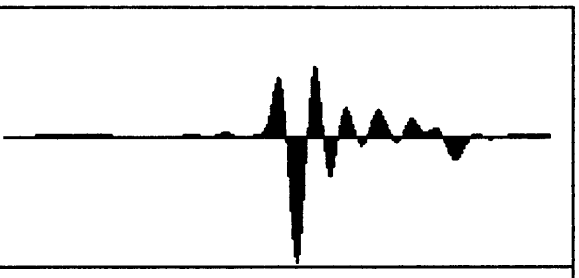
Channel:	Start(ms):	Cursor(ms):	Display gain:	Filter:
1 Geo1 VZ	481	549	24 dB	OUT
2 Geo1 HX	481	549	36 dB	OUT
3 Geo1 HY	481	549	36 dB	OUT
4 Ref	0	2	18 dB	OUT

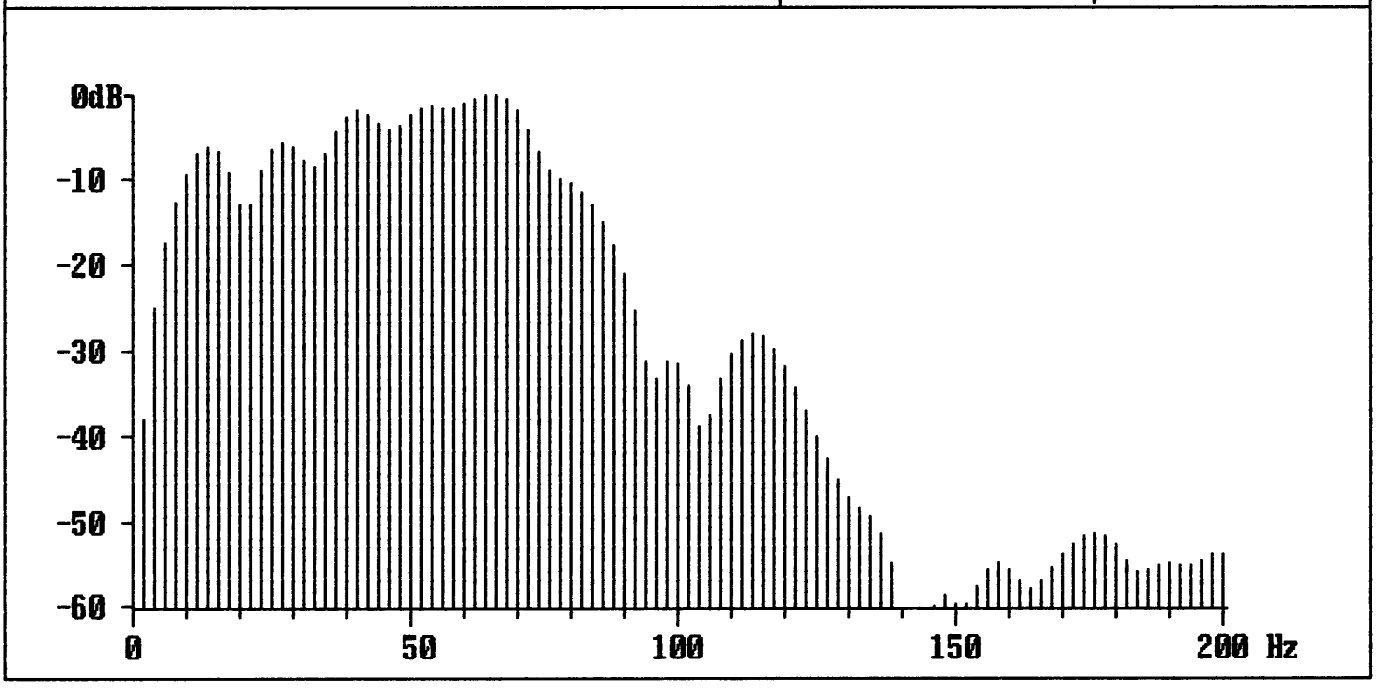
Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:1165.0m Level:7 Geo:1 Stacked:4

POWER SPECTRA
Channel: 1
Window: 421 to 676ms
Peak: 66.41Hz
Scale: -56dB relative to full scale

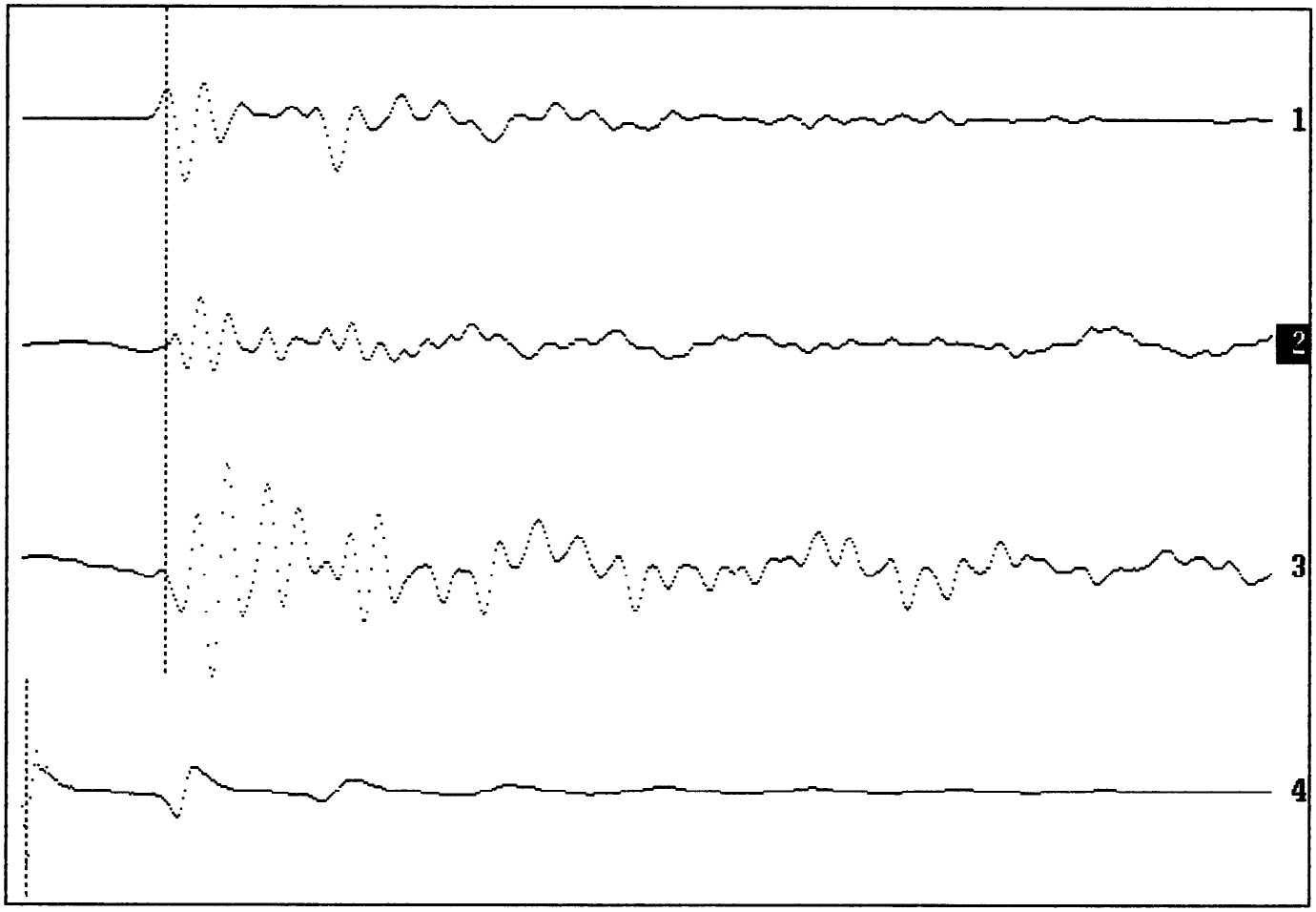




Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:1200.0m Level:6 Geo:1 Stacked:3



Time Scale: 620 ms

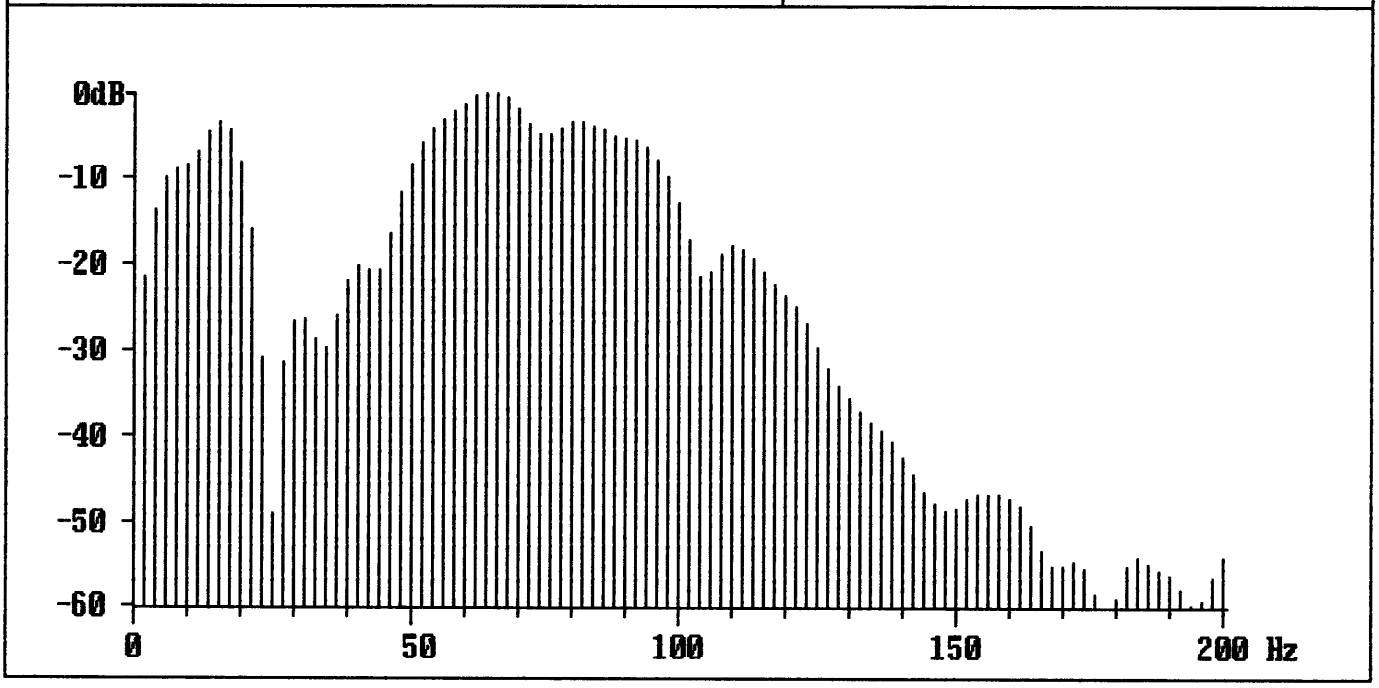
Channel:	Start(ms):	Cursor(ms):	Display gain:	Filter:
1 Geo1 VZ	492	562	24 dB	OUT
2 Geo1 HX	492	562	36 dB	OUT
3 Geo1 HY	492	562	42 dB	OUT
4 Ref	0	2	18 dB	OUT

Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:1200.0m Level:6 Geo:1 Stacked:3

POWER SPECTRA
Channel: 2
Window: 434 to 689ms
Peak: 64.45Hz
Scale: -70dB relative to full scale

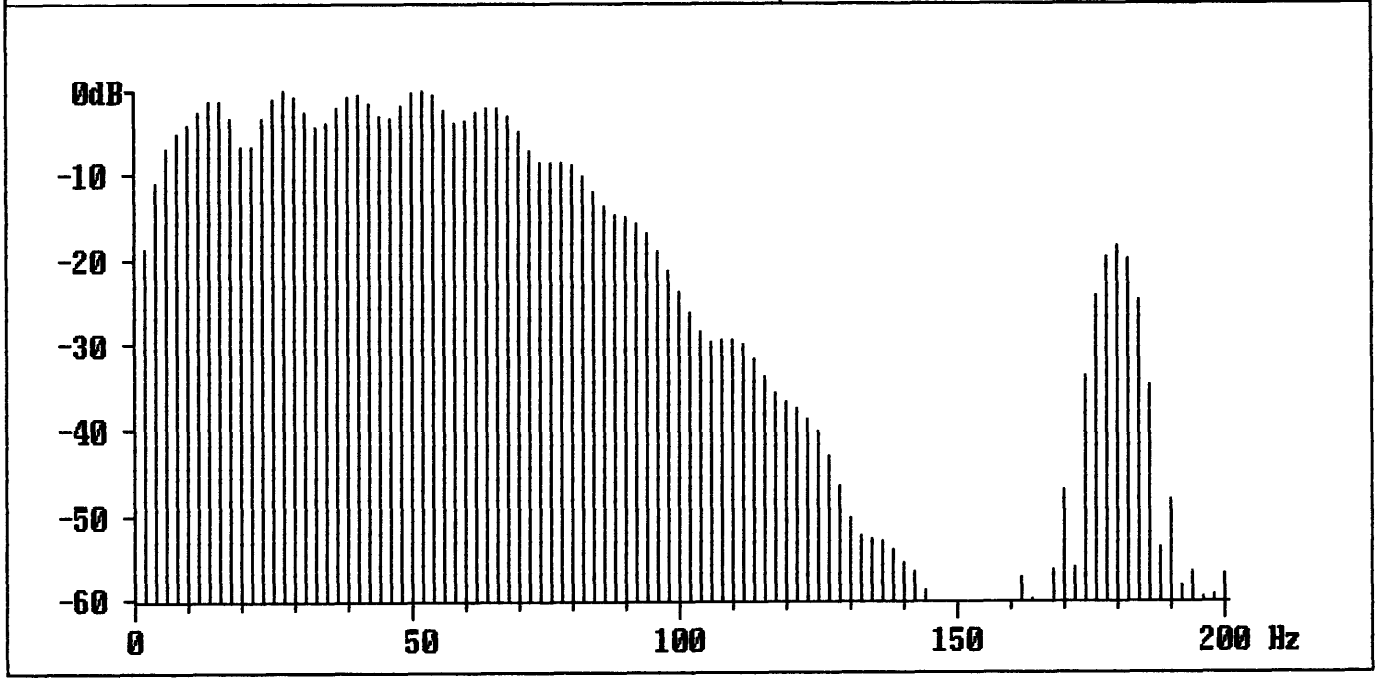


Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:1220.0m Level:3 Geo:1 Stacked:6

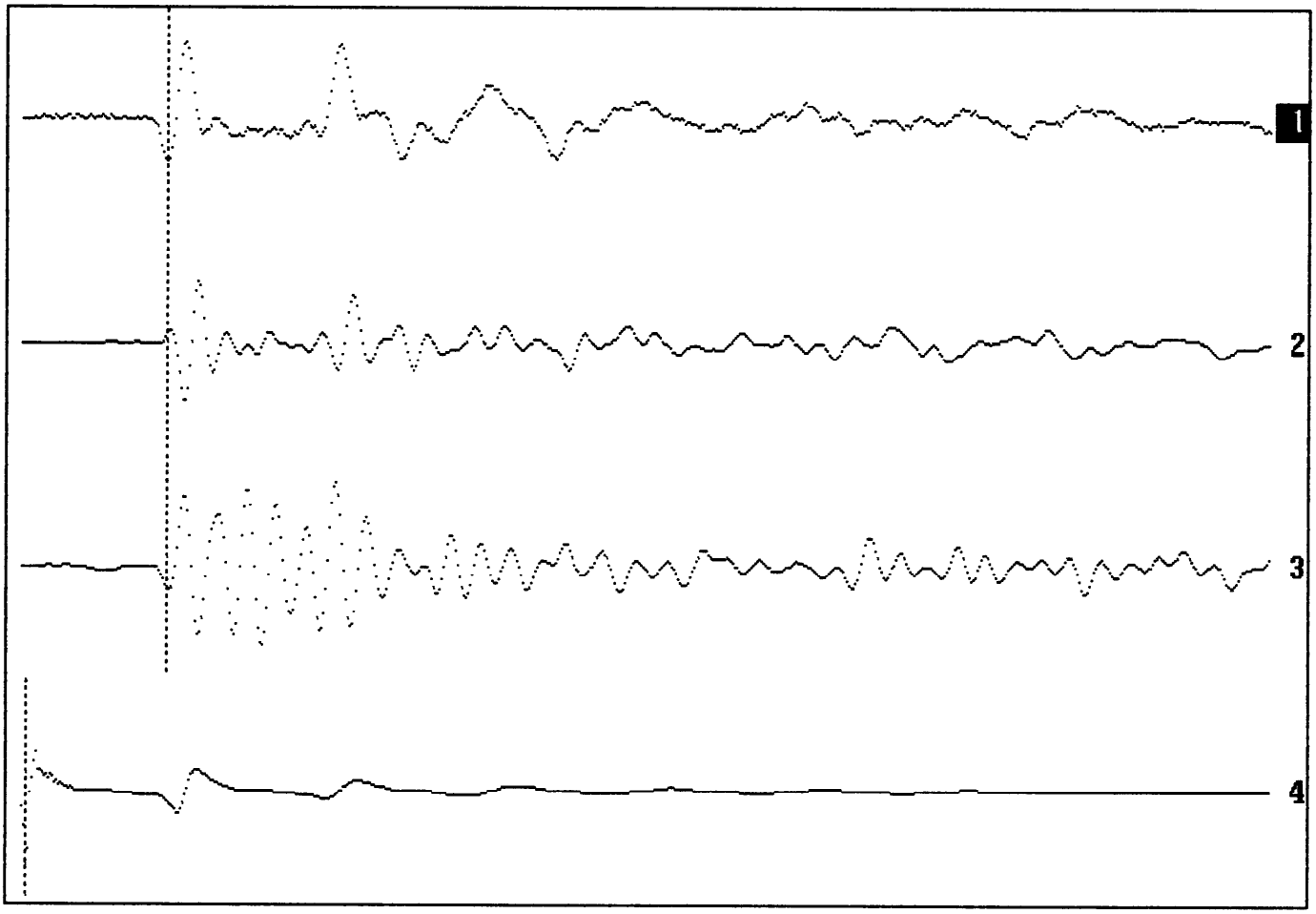
POWER SPECTRA
Channel: 1
Window: 441 to 696ms
Peak: 52.73Hz
Scale: -61dB relative to full scale



Shell Australia Pty
Seismograph Service
Delta-t DAQSYS Release 5.05

Survey date: 5th January 1993

STACK: Source:1 MD:1220.0m Level:3 Geo:1 Stacked:6



Time Scale: 620 ms

Channel:	Start(ms):	Cursor(ms):	Display gain:	Filter:
1 Geo1 VZ	498	569	30 dB	OUT
2 Geo1 HX	498	569	36 dB	OUT
3 Geo1 HY	498	569	42 dB	OUT
4 Ref	0	2	18 dB	OUT

APPENDIX G

MICROPALAEONTOLOGICAL ANALYSIS

MICROPALAEONTOLOGICAL ANALYSIS WILD DOG-1, PERMIT VIC-P-28 GIPPSLAND ~~BASIN~~ OTWAY

FOR

SHELL DEVELOPMENT (AUSTRALIA) PTY LTD

J.P. REXILIUS
S.L. POWELL

AUGUST, 1993

INTERNATIONAL STRATIGRAPHIC CONSULTANTS PTY LTD
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CONTENTS

I. INTRODUCTION

A total of 3 sidewall core samples from the interval 784m to 860m have been examined for foraminifera and calcareous nannoplankton in Wild Dog–1.

Fossil assemblages identified in the well section have been plotted on the distribution chart (Appendix No. 2).

II. REFERENCES

MARTINI, E., 1971. Standard Tertiary and Quaternary calcareous nannoplankton zonation. In: FARINACCI, A., (Ed). *Proc. 2nd Plank. Conf., Roma.* : 739–785.

TAYLOR, D.J., (in prep.). Observed Gippsland biostratigraphic sequences of planktonic foraminiferal assemblages.

APPENDIX NO. 1 : SUMMARY OF MICROPALAEONTOLOGICAL DATA, WILD DOG-1

DEPTH (m)	FORAM YIELD	FORAM PRESERV.	FORAM DIVERSITY	NANNO YIELD	NANNO PRESERV.	NANNO DIVERSITY
SWC22, 784	high	moderate	high	high	moderate	moderate–high
SWC21, 790	high	moderate	high	high	moderate	moderate–high
SWC19, 860	moderate	moderate	high	mod–low	poor	moderate

APPENDIX NO. 2: DISTRIBUTION FORAMINIFERA AND NANNOPLANKTON, WILD DOG-1

SPECIES /SAMPLES	SWC, 784m	SWC, 790m	SWC, 860m
BENTHONIC FORAMI NIFERA			
Globocassidulina subglobosa	c	c	c
Guttelina aff. yabei	s		
Quinqueloculina spp.	c	f	
Massilina spp.	s		
Bueningia creeki	f		
Cibicides semiperforatus	s		
Dorothia spp.	r		
Gyroidina zealandica	r	s	
Textularia spp.	r		
Cibicides mediocris	c	r	
Haplophragmoides spp.	s		c
Cibicides perforatus	c	c	
Eponides subhaidingeri	f	f	f
Guttelina problema	r	s	r
Epistominella spp.	r		
Trifarina parva	s	r	
Anomalinoides macroglabra	f	f	r
Fissurina spp.	r	r	f
Cibicides vortex	f	f	r
Sphaeroidina bulloides	r	r	
Favulina spp.	s		
Cibicides spp.	f	c	f
Sigmoilina spp.	s		
Ceratobulimina aff. pacificus	s		
Trifarina bradyi	f	f	f
Hanzawaia spp.	r	s	s
Hoeglundina elegans	s	r	r
Anomalinoides pinguiglabra	s		
Pullenia bulloides	s	s	
Nodosaria spp.	s	s	
Triloculina spp.	s	s	
Siphouvigerina canariensis	s	r	f
Rosalina ponticulus	s		
Brizalina spp.	r	r	
Astrononion spp.	r		r
Lagena spp.	s	s	r
Cibicides inflatus	s		
Cibicides thiara		r	
Cassidulina bradyi		s	
Heronallenia lingulata		s	
Cibicides lobulatus		r	
Pullenia quinqueloba		s	s
Cassidulina laevigata		f	
Lenticulina spp.		r	s
Anomalina spp.		r	
Baggina ampla		s	
Discorbinella spp.		s	
Bolivina spp.		s	r
Angulogenerina angulosa		r	r
?Eggerella spp.			s

s = single, r = rare, f = frequent, c = common, a = abundant.

APPENDIX NO. 2: DISTRIBUTION FORAMINIFERA AND NANNOPLANKTON, WILD DOG-1

Sigmoidella elegantissima			r
Nodosaria longiscata			f
Hyperammina spp.			s
Quadrimorphina laevigata			r
Baggina spp.			r
Biloculina spp.			s
Trochammina spp.			s
Reussella spp.			s
Rotamorphina spp.			s
PLANKTONIC FORAMINIFERA			
Subbotina linaperta	r	r	s
Globigerina spp.	s	r	
Small planktonics	f	c	f
Subbotina angiporoides angiporoides		s	
Chiloguembelina cubensis			f
Turborotalia spp.			s
CALCAREOUS NANNOPLANKTON			
Reticulofenestra umbilica	f	f	f
Cyclicargolithus floridanus	a	a	f
Coccolithus pelagicus	f	r	f
Dictyococcites productus	r	r	
Neococcolithus dubius	r		s
Braarudosphaera bigelowii	s	r	
Dictyococcites bisectus	f	f	f
Zygrhablithus bijugatus	r	f	f
Rhabdosphaera spp.	r	r	f
Sphenolithus moriformis	r	s	
Cribrocentrum reticulatus	r	r	s
Transversopontis spp.	s	s	
Chiasmolithus spp.	s		
Pontosphaera multipora	r	s	
Cyclococcolithina spp.		s	
Isthmolithus recurvus		r	
Pontosphaera spp.		s	r
Helicosphaera spp.		s	r
Chiasmolithus grandis			s
OTHER SKELETAL MATERIAL			
Bivalve fragments	c	f	
Gastropods	f	f	s
Echinoid debris	c	f	c
Bryozoan debris	c	c	
Otoliths	s		
Ostracods	s	s	s
Sponge spicules			s

s = single, r = rare, f = frequent, c = common, a = abundant.

ENCLOSURES

1 Formation evaluation log

2 Pressure evaluation log

PE600129

This is an enclosure indicator page.
The enclosure PE600129 is enclosed within the container PE900191 at this location in this document.

The enclosure PE600129 has the following characteristics:

ITEM_BARCODE	= PE600129
CONTAINER_BARCODE	= PE900191
NAME	= Wild Dog 1 Formation Evaluation Log
BASIN	= Otway
PERMIT	= VIC/P28
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Wild Dog 1 Formation Evaluation Log
REMARKS	=
DATE_CREATED	= *
DATE_RECEIVED	= 4/11/93
W_NO	= W1074
WELL_NAME	= Wild Dog 1
CONTRACTOR	= Halliburton
CLIENT_OP_CO	= SHELL DEVELOPMENT (AUSTRALIA) PTY LTD

(Inserted by DNRE - Vic Govt Mines Dept)

PE600130

This is an enclosure indicator page.
The enclosure PE600130 is enclosed within the container PE900191 at this location in this document.

The enclosure PE600130 has the following characteristics:

ITEM_BARCODE	= PE600130
CONTAINER_BARCODE	= PE900191
NAME	= Wild Dog 1 Pressure Evaluation Log
BASIN	= Otway
PERMIT	= VIC/P28
TYPE	= WELL
SUBTYPE	= WELL_LOG
DESCRIPTION	= Wild Dog 1 Pressure Evaluation Log
REMARKS	=
DATE_CREATED	= *
DATE_RECEIVED	= 4/11/93
W_NO	= W1074
WELL_NAME	= Wild Dog 1
CONTRACTOR	= SHELL DEVELOPMENT (AUSTRALIA) PTY LTD
CLIENT_OP_CO	= SHELL DEVELOPMENT (AUSTRALIA) PTY LTD

(Inserted by DNRE - Vic Govt Mines Dept)