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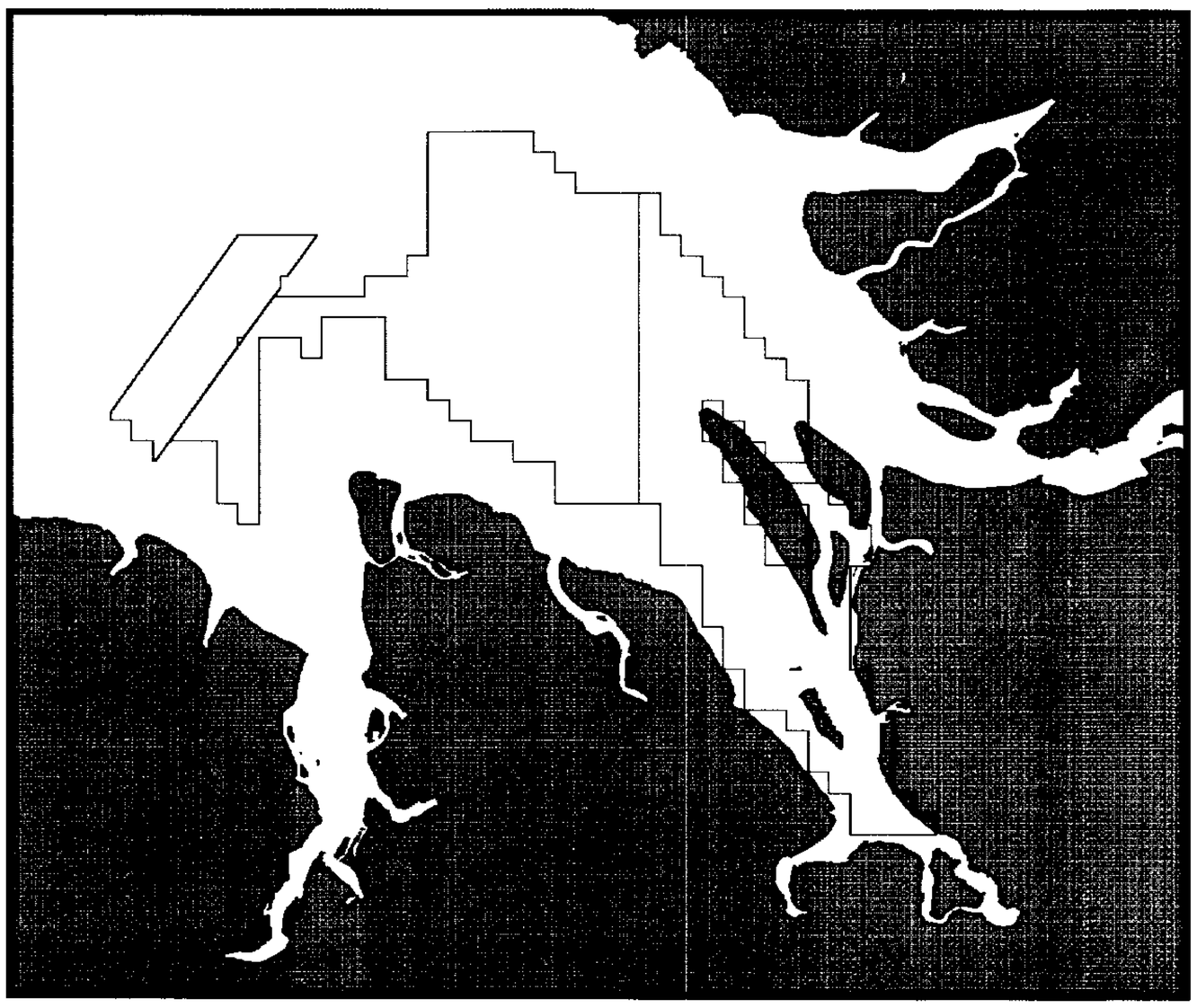
CAMBRIDGE CONSOLIDATED NL

Combined Mineral Exploration Report

Exploration Licences 8118, 8119 and 8166
for the period 12 May 1997 to 11 May 1998

Confidential Report Lodged under Section 33 (d) of the
Northern Territory Mining Act



Tenements	1:100 000 Map Ref	Tenement Holder
EL8118	Auvergne (SD52-15) and Port Keats (SD52-11)	Cambridge Consolidated NL ACN 059 458 374 Level 4, Southshore Piazza 81-83 The Esplanade P.O. Box 740 South Perth WA 6951
EL8119	Port Keats (SD52-11)	
EL8166	Port Keats (SD52-11)	

Report compiled by:
Darren Skene, Senior Geologist

Report Date: 12 June 1998

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1. SUMMARY

A surficial sediment sampling and vibrocoring programme was undertaken in a number of Cambridge Consolidated NL's (Cambridge) Joseph Bonaparte Gulf tenements including the shallow regions of ELs 8118, 8119 and 8166 offshore and in the mouths of the Keep and Victoria rivers. Tidal shoals and possible lag deposits between the shoals were targeted to determine their composition and potential to host diamonds. In conjunction with this exploration programme, and as part of the Company's ongoing environmental monitoring programme, water quality measurements and benthic samples were also collected.

Interpretation and analysis of the dredge samples and vibrocores from the tidal shoals and adjacent seabed offshore of the Keep and Victoria Rivers found that sediments were too fine and not of the right composition to host diamonds. No diamonds or kimberlite indicator minerals were recovered.

1.1 Expenditure Statement for EL8118

In the twelve months from 12 May 1997 to 11 May 1998 the following expenditure was incurred in EL8118:

1.	Balance of costs for Phase III 1996/97 drilling programme	$4,870.90
2.	Surface sediment sampling and vibrocoring programme	$4,657.11
3.	Laboratory analyses	$676.98
4.	General expenses (computer, printing, maps, publications, postage etc)	$228.97
5.	Technical staff salaries	$5,863.25
	Subtotal	**$16,297.21**
6.	Office Overheads (20%)	$3,259.44
	Total Expenditure (12-5-97 to 11-5-98)	**$19,556.65**

1.2 Expenditure Statement for EL8119

In the twelve months from 12 May 1997 to 11 May 1998 the following expenditure was incurred in EL8119:

1.	Balance of costs for Phase III 1996/97 drilling programme	$4,666.71
2.	Surface sediment sampling and vibrocoring programme	$2,651.45
3.	Laboratory analyses	$636.75
4.	General expenses (computer, printing, maps, publications, postage etc)	$379.29
5.	Technical staff salaries	$7,978.56
	Subtotal	**$16,312.76**
6.	Office Overheads (20%)	$3,262.55
	Total Expenditure (12-5-97 to 11-5-98)	**$19,575.31**

1.3 Expenditure Statement for EL8166

In the twelve months from 12 May 1997 to 11 May 1998 the following expenditure was incurred in EL8166:

1.	Balance of costs for Phase III 1996/97 drilling programme	$4,641.84
2.	Surface sediment sampling and vibrocoring programme	$3,480.96
3.	Laboratory analyses	$417.71
4.	General expenses (computer, printing, maps, publications, postage etc)	$98.75
5.	Technical staff salaries	$2,346.66
	Subtotal	**$10,985.92**
6.	Office Overheads (20%)	$2,197.18
	Total Expenditure (12-5-97 to 11-5-98)	**$13,183.10**

2. INTRODUCTION

Mineral Exploration Licences 8118, 8119 and 8166 cover part of the offshore palaeo drainage system of the Victoria and Keep rivers. The licence areas extend out to the three nautical mile territorial limit and are administered by the Northern Territory under the Northern Territory Mining Act. ELs 8118, 8119 and 8166 together form the Victoria River Prospect (Figure 3-1 Cambridge).

3. TENEMENT SITUATION

Mineral Exploration Licences 8118, 8119 and 8166 were granted on May 12 1993. The licences originally comprised 498 blocks (graticules), 425 blocks and 113 blocks respectively and collectively form the Victoria River Prospect (Figure 3-1 Cambridge).

In 1995 the three tenements were due for a fifty percent reduction. EL8118 was reduced by fifty percent to 249 blocks on 12 May 1995 and waivers were applied for over EL8119 and EL8166. These waivers were subsequently granted and no reduction in ground was made. In 1996 partial waivers from reduction were granted on all three tenements and EL8118, 8119 and 8166 were reduced to 234, 321 and 96 blocks respectively. In May 1997 the tenements were due for a further 50% reduction. EL8166 was reduced by the required amount to 48 blocks. Partial waiver of reduction was sought for EL8118 and EL8119. They were granted on December 10 1997 and the ELs were reduced to 162 and 198 blocks respectively.

In December 1997 Cambridge Gulf Exploration NL changed it's name to Cambridge Consolidated NL. ELs 8118, 8119 and 8166 are 100% owned by:

Cambridge Consolidated NL
ACN 059 458 374
Level 4, Southshore Piazza
81-83 The Esplanade
P.O. Box 740
South Perth WA 6951

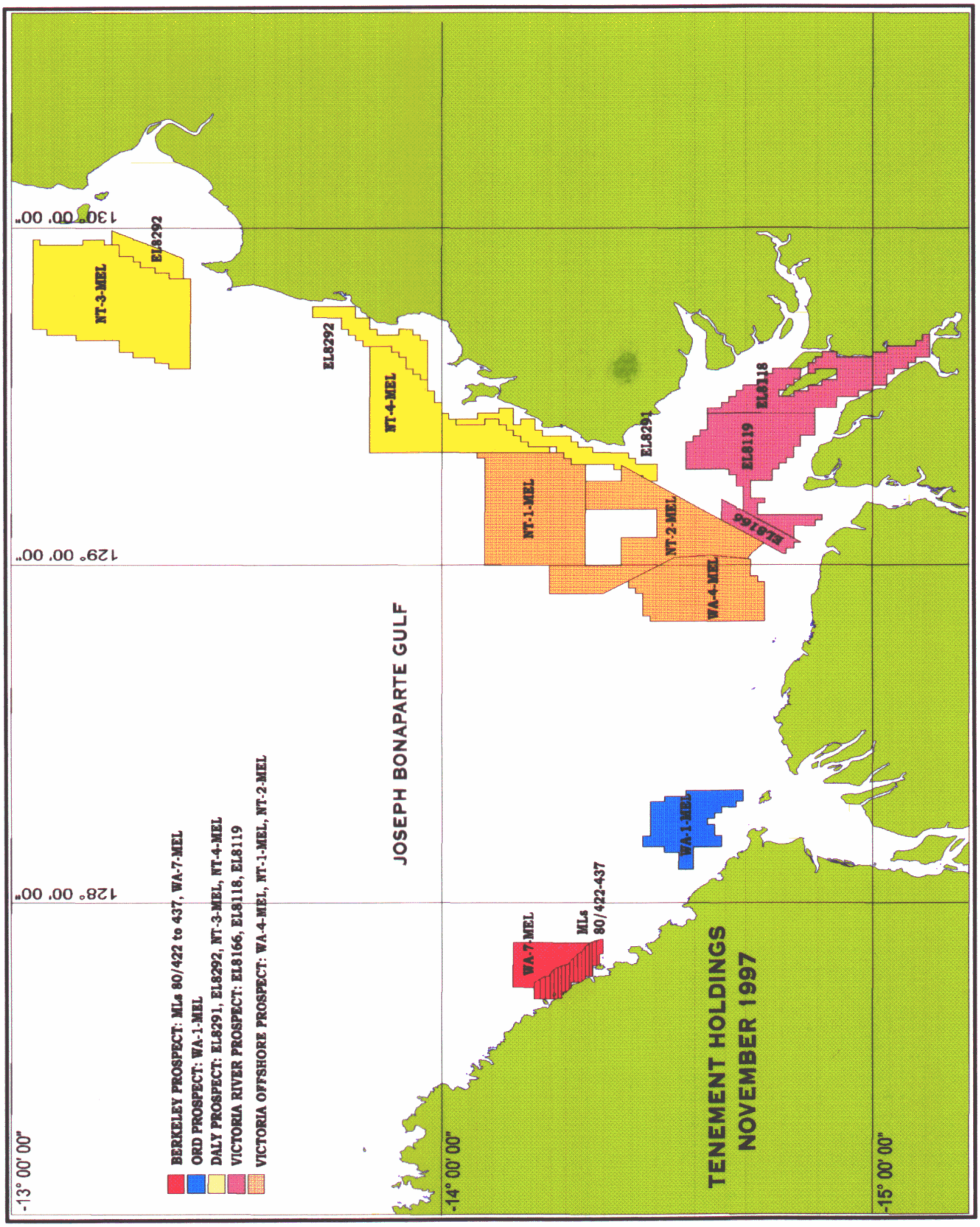


Figure 3-1 Cambridge Consolidated NL - Tenement Holdings (January 1997).

4. SURFICIAL AND SHALLOW SUBSURFACE SEDIMENT SAMPLING PROGRAMME

4.1 Introduction

As previously reported (*Combined Mineral Exploration Report 1997 - CG71*) a surface sediment sampling and vibrocoring programme was successfully undertaken in April/May 1997. In the following sections a detailed description of the equipment used and acquisition methodology is discussed along with the results of the sampling programme.

The programme targeted coarse terrigenous material that may exist either within the large tidal current shoals that occur immediately offshore of the mouths of the Keep and Victoria Rivers, or in erosional lag deposits on the seabed between the shoals. In conjunction with this exploration programme, and as part of the Company's ongoing environmental monitoring programme, water quality measurements and benthic samples were collected.

4.2 Equipment and Logistics

4.2.1 Sampling Vessel

The 65' fishing vessel *F/V Arrana II* was chartered out of Darwin for the sampling and vibrocoring programme. A pothauling winch was used for the seafloor dredge sampling program. A hydraulic A-frame (2.5 metres and 3.6 metres clearance in the lowered and raised positions respectively), and an electrically driven hydraulic winch with side capstan were supplied by Oceanamics and welded onto the aft deck area for deployment and recovery of the vibrocorer.

4.2.2 Navigation, Positioning and Water Depth

Admiralty charts were used for general navigational purposes, while precise positioning at sample sites was accomplished using a Racal Landstar Differential Global Positioning System (DGPS) connected to a Garmin SRVY II GPS Unit. UTM Zone 52L was used for the sampling programme, with the survey datum of AMG (1984).

Sampling times were in Northern Territory Standard Time Zone with tidal tables based on Cape Domett and corrected to NT time. The tide tables were used to determine the appropriate time to commence coring as it was essential that this be undertaken at slack tide.

Depth soundings were obtained from a Furuno echosounder, colour video model FCV260. Depths recorded on data sheets were uncorrected depths; transducer depth and tidal corrections were not performed. Depths entered on the dredge sample Geographical Information System (GIS) data base and core log sheets were corrected for 2.2 metre transducer depth (water surface to transducer).

4.2.3 Vibrocorer

The vibrocore system (Figure 4-1) is owned and operated by Quaternary Resources P/L. The major component parts are:

- a seven metre high aluminium tower (assembled) with three collapsible legs
- an electrically driven vibrating head (3-phase, 415 volts), with 150 metres of marine electrical cable;
- a stub with a one-way valve attachment and barrel clamp;
- six metre aluminium barrel (irrigation pipe - 80 mm OD, 76 mm ID) with stainless steel bit/core catcher;
- coring consumables.

The vibrocorer was deployed and recovered off the stern of the vessel using a combination of the electrically driven main winch with side capstan, and the hydraulic A-frame. The vibrocorer was connected to the main winch via a 22 mm silver line used to lower and raise the vibrocorer to and from the seabed. For lifting and lowering the corer on and off the deck and over the stern, a removable bridal was used.

4.2.4 Pipe Dredge

A pipe dredge was used to obtain surficial sediment samples from the seabed. The bucket was constructed from steel pipe, approximately 50 cm long and 25 cm in diameter pipe. A heavy cloth base was attached to the base using hose clips. A length of chain was attached to each side of the mouth of the dredge and a second length of chain connected to the base of the dredge and to the centre point of

the first chain. The chain was then attached to a 12 mm diameter long polypropylene line. The *Arrana II*'s pothauling winch was used to deploy and recover the dredge bucket off the stern.

4.2.5 SeaCat Water Quality Probe

A Sea-Bird Electronics SeaCat SBE 19-03 conductivity/temperature/depth (CTD) recorder, with oxygen, pH and optical backscatter probes, was used to collect water quality data.

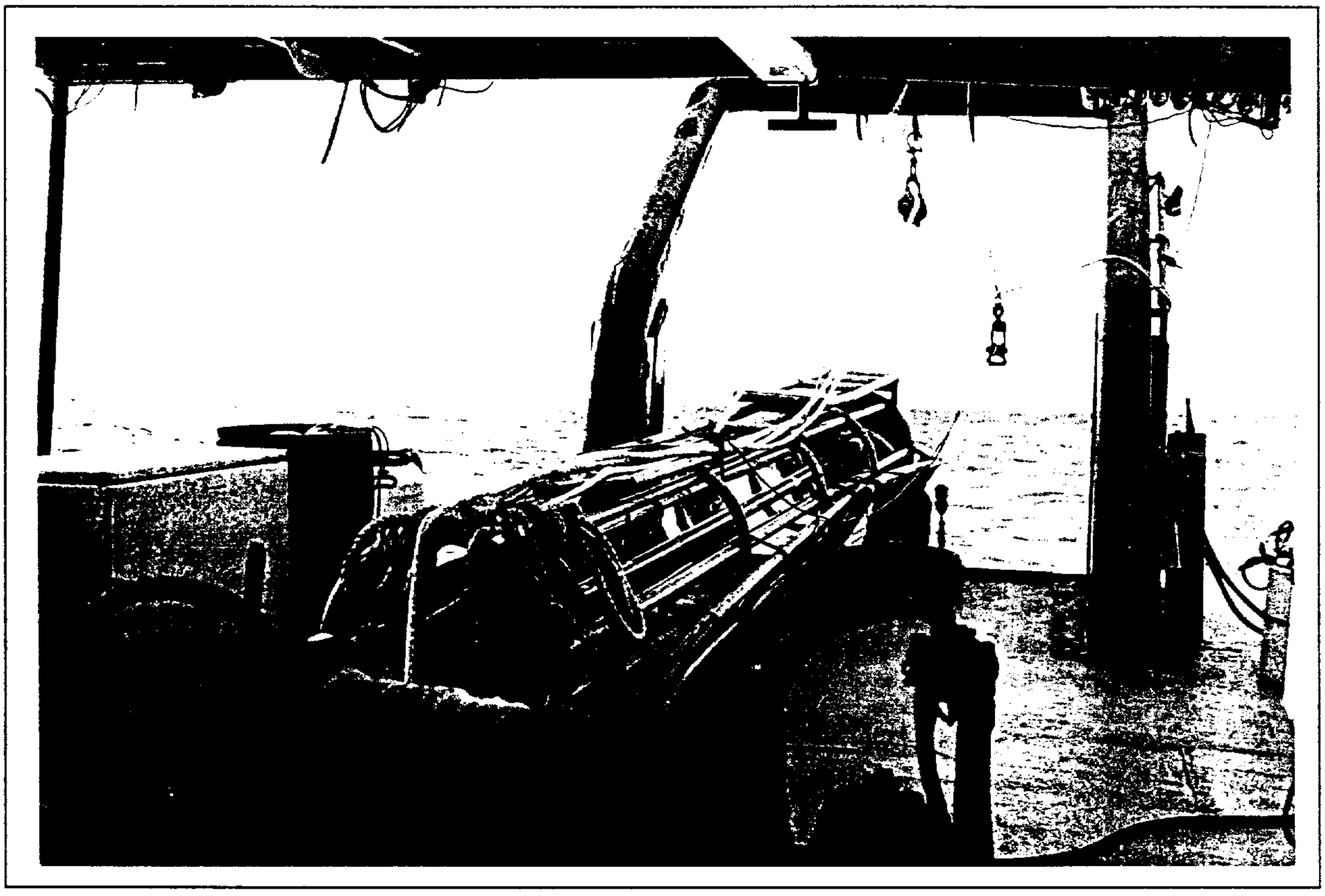


Figure 4-1 Quaternary Resources P/L's Vibrocorer aboard *Arrana II*.

The SeaCat acquires accurate profiles of salinity, temperature, density, sound velocity, pH, dissolved oxygen and optical backscatter (turbidity) data in real time. The data can either be logged internally for subsequent up-loading, or the profiler can be connected, via an underwater cable, to a PC logging directly onto disk. Using the Seasoft acquisition software the raw data is then converted to engineering units using the algorithms in the UNESCO Technical Paper Number 44 which incorporate the 1978 International Practical Salinity Scale (IPSS 78) and the 1980 equations of state (EOS 80).

The basic system includes:

- a 600 metre depth rated plastic (acetal) housing with a nine cell battery pack;
- 128kB internal memory;
- 100psia (60m) strain-gauge pressure sensor with stainless steel diaphragm;
- in-built conductivity and temperature sensors;
- four single ended A/D input channels;
- a +10V/50mA power output for auxiliary sensors;
- stainless steel protective cage;
- kevlar reinforced underwater shielded data cable (100 metres);
- 2.5 metre data I/O cable.

The auxiliary sensors included:

- a Sea-Bird SBE 23 'YSI' dissolved oxygen sensor;
- 'Innovative' pH sensor;
- Seapoint turbidity sensor.

In-built Sensors

The SeaCat sensors consist of an internal field glass conductivity cell with platinum electrodes, an aged pressure protected thermistor temperature sensor and a mechanical strain gauge pressure sensor with stainless steel or titanium element (depending on sensor range). The conductivity range is 0-7 S/m with an accuracy of ±0.001 S/m and a resolution of ±0.0001. The temperature range is -5 to 35°C with an accuracy of ±0.01°C and a resolution of ±0.001°C. The depth range is up to 60 metres, with an accuracy of ±0.25% and a resolution of ±0.015%.

Dissolved Oxygen Sensor

The YSI dissolved oxygen sensor uses a polarographic type element with replaceable membranes to provide *in situ* measurements at depths up to 2000 metres. The SBE 23 interface electronics outputs voltages proportional to the dissolved oxygen sensor's membrane temperature (oxygen temperature),

used for internal temperature compensation and membrane current (oxygen current). The computation of dissolved oxygen in engineering units uses the equation described by Owens and Millard (1985, *Journal of Physical Oceanography*, v 15:5). The range is from 0 to 15 ml/l with an accuracy of ±0.1 ml/l and a resolution of 0.01 ml/l.

pH Sensor

The SBE 18 pH sensor uses a pressure balanced glass electrode Ag/AgCl-reference pH probe to provide *in situ* measurements at depths up to 600 metres. The replaceable probe is sealed and supplied with a soaker bottle which prevents the electrode from drying out while not in use. The probes interface circuits buffer and offset the differential glass electrode/reference potential to produce a high level pH-dependent output voltage. The measurement ranges is 0 to 14 pH, and accuracy is 0.1 pH.

Seapoint Turbidity Sensor

The Seapoint turbidity sensor measures turbidity by detecting scattered light from suspended particles in the water using dual 880 nm light sources and dual silicon photodiode detectors with visible light blocking filters. The design of the optical sensors confines the sensing volume to within five centimetres of the sensor windows.

A 1x gain was used giving the sensor a 2mV/FTU sensitivity and a range of up to 750 FTU. This gain was selected because of the known high turbidity in parts of the Joseph Bonaparte Gulf.

4.2.6 Niskin Bottle Water Sampler

Water samples were taken at various depths at one site in order to calibrate the turbidity sensor on the SeaCat. The samples were obtained using a Niskin water bottle suspended on a steel cable. The hollow tube that forms the sampler allows water to enter and flow through the tube as it descends to the required depth, thus ensuring that the water obtained is from the level to be sampled. A bronze messenger is sent down the cable and triggers two bungs which seal the tube. The sampler is then raised to the surface and the water released into a screw top container. The capacity of the sampler is 1.7 litres.

4.2.7 Personnel

The following personnel were involved in the sampling programme:

Darren Skene	Senior Geologist	Cambridge
Sue Warren	Senior Marine Geologist	Cambridge
Roberta Rice	Geologist	Geo-Ocean Horizons P/L, sub.QR P/L
Sim Hoogeward	Deck Hand, Rigger	Oceanamics
Michael Taylor	Skipper	

4.3 Survey Operations

The surficial and shallow subsurface sediment sampling programme commenced on 19 April and was completed on 8 May 1997. Sampling sites were pre-selected using existing bathymetric, seismic and sidescan sonar data.

4.3.1 Vibrocoring

Vibrocoring could only be carried out at slack tide because of the very strong tidal currents. Once the *Arrana II* was on location the vessel was anchored and the vibrocorer prepared for deployment. The barrel was clamped to the vibrocore head and three colour-coded styrofoam floats were tied at approximately 1.5, 3 and 4.5 metres below the head. The appearance of the floats at the water surface were used to indicate the depth and speed of penetration. When the current had slackened sufficiently the vibrocorer was deployed from the stern of the vessel using the following procedure:

1. From a horizontal position in the centre of the deck, and with the main winch rope threaded to the vibrocore head via a lower pulley block off the A-frame and a bridal rope extending from a capstan to the upper block on the A-frame and then onto the middle rung of the vibrocore tower, the vibrocorer was raised off the deck.
2. The A-frame was extended over the stern shifting the vibrocorer further off the deck. The tension on capstan-bridal was slowly released allowing the base of the vibrocorer to tilt into the water. Tension was maintained on the main winch rope.
3. The vibrocorer was secured to the vessel via a tag line. The rope securing the head was removed to allow the head to travel inside the tower. The collapsible legs were unfolded and clamped onto middle rung (legs out) by the (harnessed) operator standing on the middle rung of the tower as it hung off the stern of the vessel.

4. The system was then checked and the tag line and bridal rope removed. The vibrocorer was then lowered slowly to the seafloor by releasing the main winch rope from the drum. The electrical cable was lowered separately by the operator. Slackening of the winch rope indicated that the vibrocorer had reached the seabed.

5. The vibrocorer head was turned on and penetration commenced. Vibration time (usually 1 to 2.5 minutes) was dependent on hardness of the substrate and speed of penetration. The appearance of the styrofoam floats at the surface provided an indication of the speed of penetration while the vibrations of the electrical cable indicated the hardness of the substrate or the ease of penetration. When penetration was deemed to be sufficient the head was turned off.

6. The main winch was used to slowly raise the vibrocorer to the surface. The electrical cable was hauled in separately. When the top of the tower reached shoulder level of the operators on the deck the tag line was secured to the tower and the head locking rope re-attached. The legs were folded up and secured to the tower from the water (the reverse of the deployment procedure).

7. A bridal rope was attached to the tower and a further tag line re-positioned to prevent swinging of the tower while handling onto the deck. The A-frame was used to lift the tower while the bridal rope was used to take the weight of the vibrocorer, causing the vibrocorer to tilt inwards. The vibrocorer was slowly brought onto the deck using a combination of the capstan-bridal for lift and the main winch for inwards drag. The vibrocorer was pulled in manually for the last two metres and secured with ropes.

8. The core barrel was removed from the vibrocorer, and penetration and recovery measured. The core was cut into two metre sections and the visible sediment was described and logged. The ends of the core sections were capped, sealed and labelled. The contents of the core catcher were also described and logged.

Total time for deployment, coring and recovery was, on average, 20 minutes.

4.3.2 Dredge Sampling

Dredge sampling was undertaken without anchoring. The vessel would steam towards the waypoint (co-ordinates of the preselected sample site) and speed reduced as the site was neared. The final

distance would be covered under the forward momentum of the vessel. The dredge was positioned on the stern ready for manual deployment when the vessel reached the waypoint. A further position fix was taken when the dredge bucket was on the seabed, indicated by slack in the rope running up through a pulley attached to the A-frame. The dredge was allowed to drag on the seabed for approximately one minute before it was hauled back on board via the pothaul winch.

After each cast, the sediment sample was described and logged and a representative amount was stored in a labelled plastic bag. On the rare occasion that no sample was obtained, a second or third attempt was made. The samples were stored in large, date-labelled calico bag and stored in the vessel's spare compartment at ambient temperature.

4.3.3 Environmental Sampling

Benthic Samples

At designated sites, a biological sample was obtained from the dredged sediment sample. A representative sample (averaging approximately two litres) was placed on a one millimetre sieve and all particles under one millimetre were washed through with sea water. The contents of the sieve were then placed in a labelled calico bag and into a drum of formalin for preservation.

Water Quality Measurements

The SeaCat was used to obtain water quality profiles from sea surface to seabed. The SeaCat was programmed for internal logging for subsequent up-loading of data to a notebook PC. At each site the SeaCat was manually deployed over the side of the vessel on the end of a rope. A magnetic switch was slid into the "on" position immediately before the instrument was lowered into the water. The instrument was lowered at an even rate (approximately half a metre per second) until slackness in the rope indicated that the protective cage had come to rest on the seabed. The SeaCat was then hauled back to the surface and turned off. At some sites a profile was not attempted due to the strong tidal currents which made it difficult and dangerous to handle the instrument at depth. "Spot" measurements were taken with the instrument at approximately one to two metres below the sea surface.

Raw data files were up-loaded to the PC every two days.

4.4 Sample and Core Collection

A total of 195 surface sediment samples and 32 vibrocores were collected in all of the Company's Prospects. The following geological and environmental data and samples were acquired in ELs 8118, 8119 and 8166. :

- four vibrocores;
- 30 surface sediment samples;
- water quality data over a range of water depths at all 34 sites;
- five benthic samples.

Figure 4-2 provides a map of the sample sites.

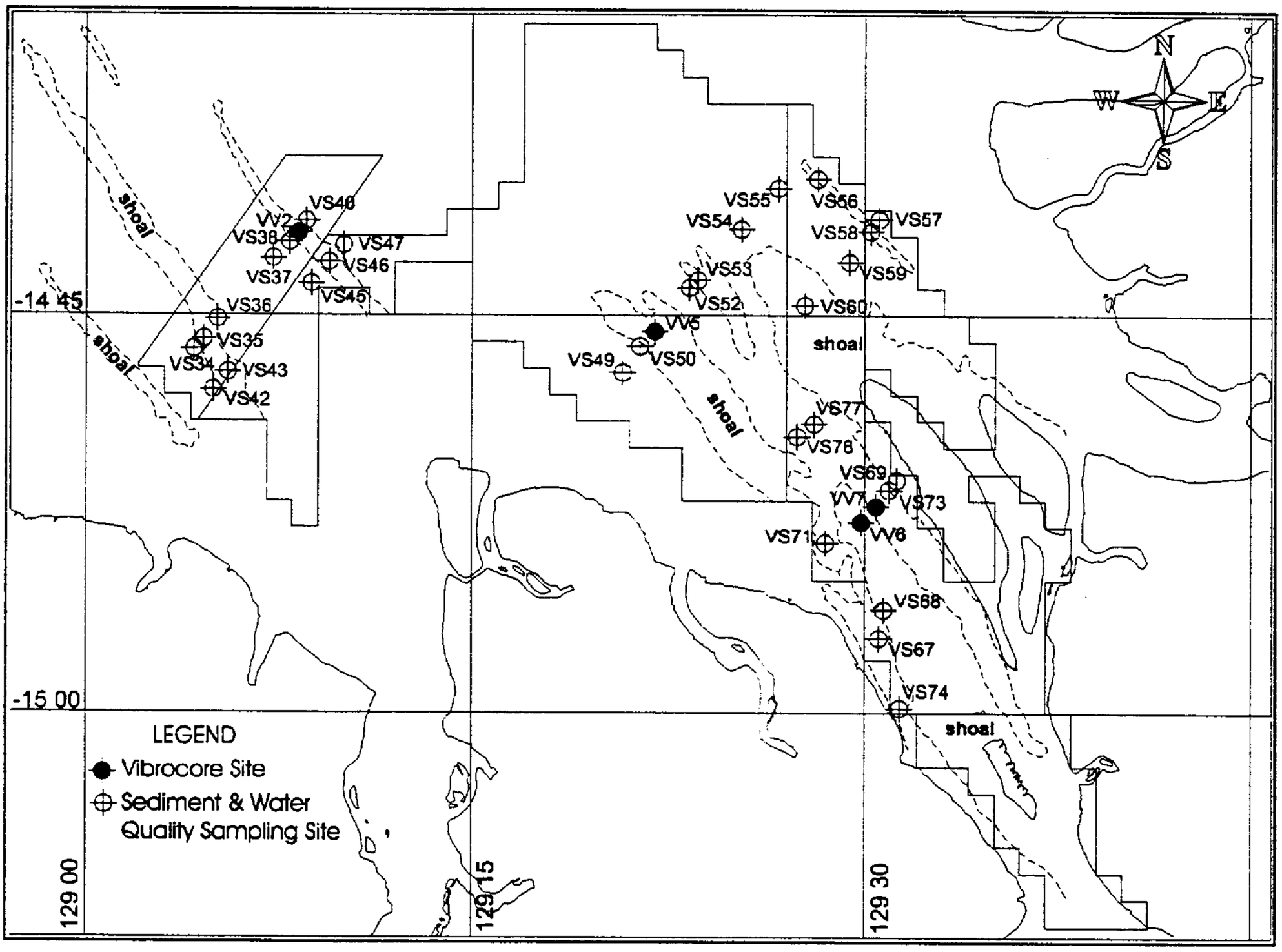


Figure 4-2 Vibrocore and sediment sampling sites in EL 8166, EL8118 and EL8119.

4.5 Analysis and Results

Surface sediment samples were logged onboard and transported to Perth at the completion of the programme. The surface sediment samples were checked against the field log and a reference set retained. Surface sediment logs are in Appendix 1.

Four sediment types were recovered:

1. Sand: grey brown to browny orange, very fine to fine grained (coarser in places), well sorted, clean sands with a trace of heavy minerals. The coarser fraction is composed almost exclusively of shell fragments and calcarenite. Larger whole shell are rare. These sediments make up the tidal shoals and discontinuous sand wave patches on the seabed between the shoals. In some samples soft, brown grey or dark grey mud balls were recovered. These probably form or are trapped in the troughs of bedforms.
2. Gravel: lag deposits composed of orangey brown, rounded and platy, mainly calcarenite gravel with rare terrigenous rock fragments; with or without large shell fragments. The small samples recovered with the dredge sampler suggests that these deposits are thin (say <10cm). Their distribution on the seabed between the tidal shoals is patchy and does not appear extensive.
3. Mud: grey brown to dark grey, soft, fluffy, homogeneous mud. Rarely recovered and may occur in "quiet water" deposits or as a mobile layer transported by tidal currents across the shelf.
4. Clay: brick red to brown, dark brown and blue grey (with organics - leaves), stiff to hard, oxidised, clay with no shell. This unit forms a regional unconformity and either shallowly underlies or extensively crops out on the present day sea bed. It represents a pre-Holocene land surface that has been exposed to subaerial weathering at lower sea level.

The vibrocores were transported to Perth for processing. They were cut longitudinally, photographed and logged. One side of the core was sampled, while the other side was wrapped in plastic and stored as a reference set. Vibrocore logs are in Appendix 2.

The vibrocores were drilled in the tidal shoals offshore of the mouths of the Keep and Victoria Rivers in order to determine their stratigraphy. The are essentially the same as the surface dredge samples recovered from the area and are composed of uniform, very fine to fine grained sands and silty sands which, in some cores, coarsens with depth. The coarser component, is however dominated by bioclastic (carbonate) rather than terrigenous material. Coarse and gravel sized terrigenous material was rare. Thin lenses or balls of grey, soft, cohesive mud are interbedded with the sediments. Vibrocores VV2

and VV7 terminated in clay/sandy clay similar to that cropping out on the seabed between the shoals confirming the regional extent of this old land surface.

The shoals are Holocene depositional features that formed as a result of marine and tidal processes operating during the final stages and since the last major sea level rise (the Postglacial Marine Transgression) and up to the present day, a period of some 6,000 to 10,000 years. They are derived from sediments delivered to the continental shelf by the rivers as sandy bedload which are then subject to marine reworking over prolonged periods of time. The shoals, although subject to local reworking, are relatively stable and it appears that once they form, they maintain their positions and simply grow in size.

Examination of the dredge samples and vibrocores collected found that although some coarse grained sediments were recovered, they were not considered of the right composition to host diamonds. The coarse fraction was dominated by bioclastic (carbonate) rather than terrigenous material. The gravel lags were dominated by calcarenite.

Selected samples from the vibrocore and surface sediments were sent to a laboratory for heavy mineral separations and microscopic identification of the heavy mineral suite. The results are shown in Appendix 3. No diamonds or kimberlite indicator minerals were recovered, and it can be concluded that the original sources of the material comprising these depositional and erosional landforms did not host diamonds.

Although environmental data was collected at all sampling sites to increase the Company's environmental databases, no analysis of the data has to date been conducted.

5. PROPOSED ACTIVITIES AND ESTIMATE OF EXPENDITURE FOR THE TWELVE MONTHS TO 11 MAY 1999

5.1 Proposed Activities on EL8118

During the next twelve months it is expected that the exploration activities will include:

1. Review of all existing seismic, drill hole and sample data;
2. Design a geological drilling programme and source suitable drilling equipment and a vessel from which to operate;
3. Conduct geological drilling programme to determine the subsurface stratigraphy and sediment composition at selected sites.

5.2 Proposed Expenditure on EL8118

The proposed expenditure on EL8118 for the next twelve months is:

1.	Data review	$10,000
2.	Geological drilling programme	$40,000
3.	Tenement administration and report compilation	$5,000
4.	Technical personnel salaries	$20,000
	Sub-total	**$75,000**

5.3 Proposed Activities on EL8119

During the next twelve months it is expected that the exploration activities will include:

1. Review of all existing seismic, drill hole and sample data;
2. Design a geological drilling programme and source suitable drilling equipment and a vessel from which to operate;
3. Conduct geological drilling programme to determine the subsurface stratigraphy and sediment composition at selected sites.

5.4 Proposed Expenditure on EL8119

The proposed expenditure on EL8119 for the next twelve months is:

1.	Data review	$15,000
2.	Geological drilling programme	$50,000
3.	Tenement administration and report compilation	$5,000
4.	Technical personnel salaries	$20,000
	Sub-total	**$90,000**

5.5 Proposed Activities on EL8166

During the next twelve months it is expected that the exploration activities will include:

1. Review of all existing seismic, drill hole and sample data;
2. Design a geological drilling programme and source suitable drilling equipment and a vessel from which to operate;
3. Conduct geological drilling programme to determine the subsurface stratigraphy and sediment composition at selected sites.

5.6 Proposed Expenditure on EL8166

The proposed expenditure on EL8166 for the next twelve months is:

1.	Data review	$5,000
2.	Geological drilling programme	$15,000
3.	Tenement administration and report compilation	$2,000
4.	Technical personnel salaries	$10,000
	Sub-total	**$32,000**

Appendix 1

Surface Sediment Sample Logs

Victoria Prospect - Dredge Samples

Sample	Date	NT Time	Easting	Northing	Depth	Description
VS34	2/05/97	1651	507440	8366835	14.3	Bagged; full; mobile layer (?) of v soft, sl cohesive, fluffy, homogeneous CLAY (flocculation zone???)
VS35	2/05/97	1642	508137	8367551	12	Bagged; poor return; site: 1m high sand waves; clean, orange dk brown, well sorted, m-f SANDS, w/ rare shell fragmts & poss layer of brownish gray mudballs/lumps in trough of waves
VS36 +B	2/05/97	1628	509111	8368950	26.2	Bagged; 1/2 full; orange brown, well sorted, m-f Bioclastic/Detrital SANDS w/ minor shell fragmts & rare brown mudballs/lumps
VS37	3/05/97	1032	513005	8373195	15.4	Bagged; poor return; brown to black, rounded, encrusted GRAVELS-PEBBLES-SHELL FRAGMTS (calcarenite) w/ rare stiff-hard RED CLAY BITS
VS38 +B	3/05/97	1021	514152	8374305	12.2	Bagged; 1/2 full; clean, orange brown, well sorted, m SANDS w/ rare shell fragmts
VS40 +B	3/05/97	856	515336	8375796	15.2	Bagged; 2 attempts; full; 3 sed types: mobile, bwn, sl cohesive, v soft CLAY over encrusted GRAVEL_PEBBLE (calcarenite lag dep?) on top of stiff to hard, pliable, cohesive, gr-blgr CLAYS w/ organic patches (leaves)
VS42	2/05/97	1756	508776	8364014	12.5	Bagged; full; chocolate brown CLAY FILM (mobile?/flocculation/oxidized?) over v soft, fluffy, sl cohesive, gray, homogeneous CLAY (similar to VS34)
VS43	2/05/97	1812	509817	8365250	8.8	Bagged; poor return; clean, well sorted, orange dk brown, f-vf SANDS to SILTS (similar VS32)
VS45	3/05/97	806	515666	8371427	11.5	Bagged; poor return; stiff, cohesive, gray to blue gray , sl silty CLAYS
VS46	3/05/97	822	516930	8372914	5.3	Bagged; 1/2 full; 1m hi sand wave field: clean, well sorted brown, f SANDS w/ mudballs (trough layer?; brown outer oxidized?, gray inner reduced?)
VS47	3/05/97	839	517965	8374106	14.6	Bagged; 1/2 full; 1m hi sand wave field: mod-well sorted, brown m-f SANDS w/ minor mudballs (trough layer?; brown oxidized outer?; gray reduced inner?) & 1 small piece of RED CLAY
VS49	4/05/97	1513	537239	8365189	19.4	NO SAMPLE: some small gravel & f sands in extremely poor return: assume clay bottom
VS50 +B	4/05/97	1532	538384	8367024	10.2	Bagged; 1/2 full; clean, well sorted brown, f SANDS w/ dk grayish brown mudballs (trough layer in sand waves)
VS52	4/05/97	1656	541805	8371096	12.6	Bagged; 1/2 full; clean, well sorted brown f-vf SANDS to SILTS w/ trace heavy minerals
VS53	4/05/97	1708	542400	8371626	30.2	Bagged; 1/4 full; clean, well sorted brown f-vf SANDS w/ trace heavy minerals
VS54	4/05/97	1734	545408	8375176	19.9	NO SAMPLE: dredge bucket lost bottom - poss v hard bottom (feel)
VS55	4/05/97	1758	547932	8378036	28.2	Bagged; 2 attempts; poor return; orange brown, poorly sorted, sl sandy, flat & rounded, some encrusted calcarenite & stone GRAVELS-PEBBLES-SHELL FRAGMTS
VS56	4/05/97	1841	550641	8378688	13.3	Bagged; poor return; brown, well sorted, f-vf SANDS
VS57	5/05/97	755	554854	8375878	18.5	Bagged; poor return; 3 sed types T to B: lag(?) of round, encrusted calcarenite GRAVELS-SHELL FRAGMTS with poorly sorted SANDS in interlices over stiff to hard blue gray CLAY w/ organics (leaves)
VS58	5/05/97	805	554266	8375021	21.2	Bagged; poor return; well sorted, brown, f-vf SANDS w/ 1 brown mudball
VS59	5/05/97	823	552810	8372884	21	Bagged; v poor return; orange brown, rounded calcarenite GRAVELS w/ reddish brown to blue gray CLAYS smudged on gravel & dredge bucket
VS60	5/05/97	851	549740	8369864	6.5	Bagged; full; shoal area; clean, well sorted, brown, f-vf SANDS
VS67	6/05/97	1002	554760	8346700	19.6	Bagged; 2 attempts; poor return; 1 sandstone (?) PEBBLE & 1 GRAVEL PIECE
VS68	6/05/97	1030	555064	8348677	11.8	Bagged; 4 attempts; poor return; well sorted, brown vf SANDS to SILTS
VS69	6/05/97	818	555996	8357679	6.4	Bagged; poor return; well sorted, brown, f-vf SANDS w/ trace heavy minerals
VS71	6/05/97	857	551103	8353336	8.4	Bagged; poor return; well sorted, brown, f-vf SANDS; this side of channel no heavy minerals
VS73	6/05/97	812	555483	8357000	19.1	Bagged; poor return; well sorted, brown, f-vf SANDS w/ trace heavy minerals
VS74	6/05/97	1630	556149	8341854	19.5	Bagged; poor return; well sorted, brown f-vf SANDS to SILTS w/ rare sandstone(?) gravel-pebbles & heavy minerals
VS76	5/05/97	1700	549183	8360716	21.5	Bagged; 1/2 full; well sorted, brown f-vf SANDS w/ rare soft brown mudballs
VS77 +B	5/05/97	1646	550360	8361600	19.6	Bagged; 1/4 full; well sorted, brown f SANDS w/ rare mudballs & trace heavy minerals

+B = Benthic Sample

Appendix 2

Vibrocore Logs

CAMBRIDGE CONSOLIDATED NL

AREA: Victoria Prospect

VIBROCORE #: VV#2

LOCATION: EASTING: 514795
NORTHING: 8374985

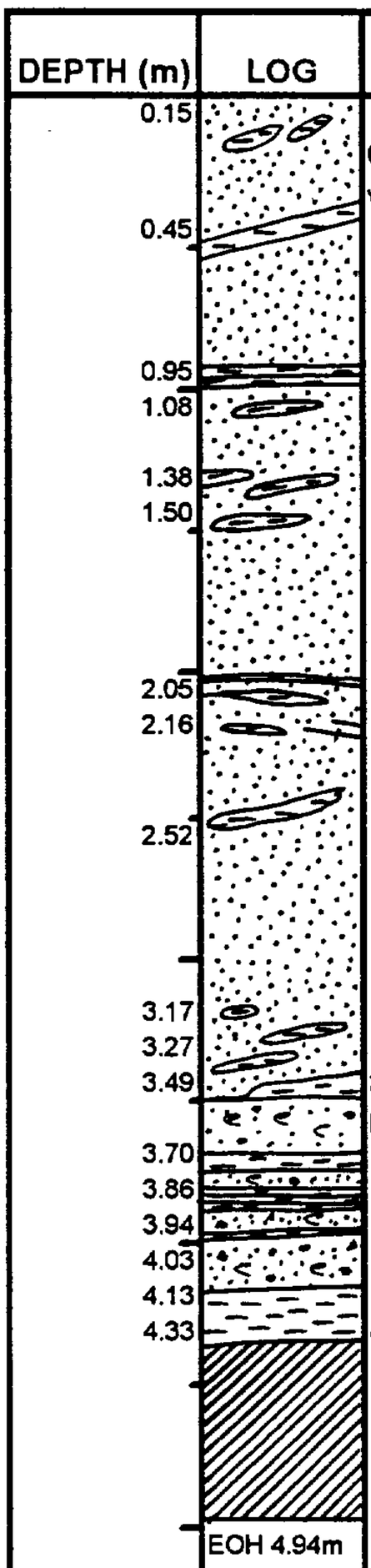
DRILLING DATE/TIME: 3/05/97 0930(NTST)

WATER DEPTH (Uncorr'ed): 8.6m

PENETRATION: 5.27m

MEASURED RECOVERY: 4.90m

CORE CONDITION: Good



DEPTH (m)	DESCRIPTION: Colour, major components, grainsize and shape, sorting, minor components	SAMPLES
0.15	0-3.49m **Sand and Mud:** grey brown to grey, very fine grained, silty sands with interbedded grey, soft, cohesive mud lenses (0.5 to 3cm) and mud balls.	0.0-0.5m
0.45		0.5-1.0m
0.95		
1.08		1.0-1.5m*
1.38		
1.50		1.5-2.0m
2.05		
2.16		2.0-2.5m
2.52		2.5-3.0m
3.17		
3.27		3.0-3.49m
3.49	3.49-4.33m **Shelly Sand and Mud:** orange brown, fine to coarse grained, poorly sorted, shelly sand interbedded with grey, soft, cohesive mud.	
3.70		
3.86		3.49-4.0m*
3.94		
4.03		
4.13		4.0-4.33m
4.33	4.33-4.94m **Clay:** dark grey to grey brown, stiff, crumbly clay.	
		4.33-4.94m
EOH 4.94m		

* Samples analysed for heavy minerals

CAMBRIDGE CONSOLIDATED NL

AREA: Victoria Prospect

VIBROCORE #: VV#5

LOCATION: EASTING: 539377
NORTHING: 8368052

DRILLING DATE/TIME: 4/05/97 1555(NTST)

WATER DEPTH (Uncorr'ed): 9.6m

PENETRATION: 5.02m

MEASURED RECOVERY: 2.45m

CORE CONDITION: Good, but sediment lost out of catcher during recovery.

DEPTH (m)	LOG	DESCRIPTION: Colour, major components, grainsize and shape, sorting, minor components	SAMPLES
		0-2.45m **Sand:** brown-orange, uniform, very fine grained, very well sorted, shelly, lithic quartz silty sand. Shell <5%, lithics 10-20%. Quartz graines are subangular to subrounded.	0.0-0.5m 0.5-1.0m 1.0-1.5m 1.5-2.0m 2.0-2.45m
1.73		mud ball (2cm)	
2.09		mud ball (1cm)	
		EOH 2.45m	

* Samples analysed for heavy minerals

CAMBRIDGE CONSOLIDATED NL

A: Victoria Prospect
DRE #: VV#6
ATION: EASTING: 553560
NORTHING: 8354761
LL G DATE/TIME: 5/05/97 1830(NTST)
ER DEPTH (Uncorr'ed): 14.2m
ETRATION: 5.70m
GL ED RECOVERY: 3.62m
E CONDITION: Good, but sediment lost out of catcher during recovery.

TH m)	LOG	DESCRIPTION: Colour, major components, grainsize and shape, sorting, minor components	SAMPLES
		0-3.62m **Sand:** browny orange, uniform, very fine to fine grained, well sorted, shelly, lithic quartz sand. Slightly muddy in places with thin muddy sand lenses. Slightly coarser in places comprising shell fragments. Occasional med grained organic material (wood fragments).	0.0-0.5m 0.5-1.0m 1.0-1.5m 1.5-2.0m 2.0-2.5m 2.5-2.98m 2.98-3.5m 3.5-3.62m
55		Mud balls	
2.62		2.62-2.64m **Mud**: brown, soft, cohesive mud	
50		3.5-3.52m **Mud**: brown, soft, cohesive mud	
		EOH 3.62m	

* Samples analysed for heavy minerals

CAMBRIDGE CONSOLIDATED NL

AREA: Victoria Prospect

VIBROCORE #: VV#7

LOCATION: EASTING: 554590
NORTHING: 8355845

DRILLING DATE/TIME: 5/05/97 1920(NTST)

WATER DEPTH (Uncorr'ed): 9.6m

PENETRATION: 4.88m

MEASURED RECOVERY: 5.37m

CORE CONDITION: top of core very liquid (expanded) - recovery > penetration

DEPTH (m)	LOG	DESCRIPTION: Colour, major components, grainsize and shape, sorting, minor components	SAMPLES
		0-4.62m **Sand:** brown-orange, very fine to fine grained, well sorted, shelly, lithic quartz sand. Shell <10%, 10-20% lithics and scattered coarser shell fragments.	0.0-0.5m 0.5-1.0m 1.0-1.5m
1.50		From c1.5m to 4.34m scattered throughout are hard clay balls (<2cm) composed of pale browny white sandy clay.	1.5-2.0m 2.0-2.5m 2.5-3.0m 3.0-3.5m 3.5-4.0m
4.34		Frequency and size (to 5cm) of clay balls increases	4.0-4.3m
4.62		4.62-5.08m **Sandy Gravel:** pale browny white to grey gravel composed of hard clay balls, shell fragments and calcarenite with sandy clay cobbles in a slightly muddy sand matrix.	4.3-4.62m 4.62-5.08m* c^{14} 4.82-4.87m
5.08		Gradational contact 5.08-5.38m **Gravel:** light brown grey, calcarenite and lithic gravels to 5cm in a slightly muddy sand matrix.	5.08-5.37m*
	EOH 5.37m		

* Samples analysed for heavy minerals

Appendix 3

Heavy Mineral Analysis

SAMPLE #	VV#2 (3.49-4.0m)		VV#7 (4.62-5.38m)			VS36			VS38			VS47		VS52	VS60	VS74	VS76	
Size Fraction	+0.30	+0.25	+0.50	+0.30	+0.25	+0.50	+0.30	+0.25	+0.50	+0.30	+0.25	+0.30	+0.25	+0.25	+0.25	+0.25	+0.30	+0.25
MINERAL %																		
DIAMOND																		
PYROPE																		
CHROMITE																		
CR-DIOPSIDE																		
PICROILMENITE																		
Almandine	1	2	7	39	7	1	1	2	tr	1	3	2	2	v	v	v		
Amphibole	48	44	3	5	3	2	10	20	5	7	15			v	v	v		5
Epidote	3	4	3	6	2		1	3	1	1	2	3	3		v			1
Orthopyroxene	1	1		2	1		tr	2	tr	tr	tr	78	71					
Tourmaline		1		1	1				tr	1	1							
Limonite	7	10	81	30	20	5	5	5	2	5	5	5	7					
Zircon		1																
Ilmenite																		
Mag/Hem		2	1	15	64						1	tr	1			v		
Shells	40	35	5	2	2	90	78	65	90	82	72	10	15	v	v			5
Kyanite																		
Mica																		
Rutile																		
Spinel													tr					
Sulphide																		
Quartz						2	5	3	1	3	1	2	1	v	v	v	v	3
Iron Flakes																	v	86
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100					100

tr = trace

v = mineral presence confirmed but not estimated due to very small concentrate