FINAL WELL REPORT
HALLIDAY ENTERPRISES PTY. LTD.
WEST SEACOMBE NO. 1

27th March, 1972

WELL REPORT

COMPANY: HALLIDAY ENTERPRISES PTY. LTD.

WELL: WEST SEACOMBE NO. 1

LOCATION: Latitude: 38° 08' 8.4"S
Longitude: 147° 25' 18"E
P.E.P. 72 Gippsland Basin (onshore)
VICTORIA, AUSTRALIA.

TABLE OF CONTENTS

		PAGE
SUMMARY		2
WELL HISTORY		
General Data		2
Drilling Data		2
FORMATION EVALUATION		3
WELL EVALUATION		4
GEOLOGY		4
CONTRIBUTIONS TO GEOLOGIC KNOWLEDGE		6
APPENDIX: Sidewall Core Descriptions		7
ILLUSTRATIONS:		
Figure 1 Locality Map		pocket
Table 1 Stratigraphy		6
ATTACHMENTS:		
1. Core Lab Grapholog	PE905511	~~pocket~~ attachment.
2. Compcsite Well Log	PE601452	pocket

SUMMARY

The West Seacombe Number 1 well was drilled twenty-six road miles east of Sale, Victoria alongside the Loch Sport Road right-of-way. It was located in P.E.P. 72 and drilled under a farm-in arrangement with Woodside Oil N.L. and it's partners.

The objective of the well was to test the Latrobe Group and the top of the underlying Strzelecki Group on an interpeted structural closure of Oligocene age. This structural closure was postulated from reprocessed analog seismic data. It is probable that the structural fold is open to the north.

West Seacombe Number 1 was spudded on December 31, 1971 and abandoned as a dry hole on January 11, 1972. Total depth was measured by the driller as 5793 feet and by Schlumberger as 5798 feet. No lost circulation or fishing problems were encountered. No testing programs were conducted.

The well was drilled by Ricter Bawden Drilling Pty. Ltd. using their Rig M1, National 110 Deisel-electric. Drilling time to total depth was 10 days using a fresh water gel mud.

No commercial accumulations of hydrocarbons were encountered in the well.

WELL HISTORY

General Data

Well Name:	WEST SEACOMBE NUMBER 1
Location:	Latitude 38° 08' 8.4" S. Longitude 147° 25' 18" E.
Name and Address of Tenement Holder:	Woodside Oil N.L. 151 Flinders St. MELBOURNE, Victoria 3000
Petroleum Tenement:	P.E.P. 72 (onshore) Victoria
District:	Gippsland Basin
Total Depth:	Driller: 5793' (KB) Schlumberger: 5798' (KB)
Date Drilling Commenced:	December 31, 1971
Date Drilling Completed:	January 9, 1972
Date Rig Released:	January 11, 1972
Date Well Abandoned:	January 11, 1972
Drilling Time to Total Depth:	10 days
Elevations:	Ground Level: 20 feet Kelly Bushing: 36 feet
Status:	Plugged and abandoned, casing cut off and sealed with steel welded cap.

Drilling Data

Name and Address of Drilling Contractor:	Ricter Bawden Drilling Pty. Ltd. Princess Gate Building Flinders St. MELBOURNE, Victoria 3000

Drilling Plant:	Rig M1, National 110DE Capacity 16,000 feet Motors: 3, PTS-6 Superiors
Mast:	Lee C. Moore, Cantalever, 960,000 lb. capacity
Pumps:	1 National N1100, Duplex, $7\frac{1}{4}$" X 16", compound 1 Emsco D1000, Duplex, $7\frac{3}{4}$" X 18", compound driven
Blowout Preventors:	1 Cameron U 5000 lb. $13\frac{5}{8}$" 1 G.K. 5000 lb. $13\frac{5}{8}$" W.P. hydril
Hole Sizes:	$17\frac{1}{2}$" to 120' $12\frac{1}{4}$" to 1045' $8\frac{3}{4}$" to 5793'

Casing and Cement:

Setting Depth (KB)	120'	1001'
Size	$13\frac{3}{8}$"	$9\frac{5}{8}$"
Weight	48 lb.	36 lb.
Grade	J. 55	J. 55
Range	2	2
Thread	8 rd stc	8 rd stc
Shoe	Baker float	Baker float
Centralizers	one	one
Cement	160 sxs 2% CaCl	350 sxs 2% CaCl
Cementing method	Dowell, cmt head	Dowell, cmt head

Drilling Mud:	Fresh water gel, surface to total depth	
Drilling Mud Additives:	Gel	150 sxs
	Qbroxin	8 sxs
	Caustic Soda	7 drums
	CC 16	4 sxs
	Dextid	11 sxs
Water Supply:	Hauled by tanker	
Perforating:	None	
Plugs:	Plug No. 1 2300-2850'(top tagged) 300 sx cmt w/ 2% CaCl	
	Plug No. 2 900-1100' 100 sxs neat cement	
	Plug No. 3 0-20' 10 sxs neat cement	
Fishing:	None	
Lost Circulation:	None	

FORMATION EVALUATION

Coring:	19 sidewall cores, taken by Schlumberger
Testing:	None
Mudlogging:	Hotwire and Chromatograph with Drill Rate by Core Laboratories Australia Ltd. Logger: D. Sisely

Wireline Logging: Laterolog - Spontaneous Potential and
Formation Density - Gamma Ray
by Schlumberger Seaco
Engineer: W. Chaffe
Intervals: Lat-SP 1001-5798'
FDC-GR 2500-5798'

Ditch Samples: 30 foot washed and dried, surface to 2500'
10 foot washed and dried, 2500' to 5793'(TD)
Distribution: 1 set each to Halliday Enterprises
Woodside Oil N.L.
Victorian Mines Dept.

Deviation Surveys:

DEPTH	VERTICAL DEVIATION
1359	0^{o}
2000	0^{o}
2600	0^{o}
2975	$\frac{1}{2}^{o}$
4383	1^{o}
5132	$2\frac{7}{8}^{o}$

Other Surveys None

WELL EVALUATION

The well was evaluated by cuttings samples, mudlog and wireline data. No significant shows of hydrocarbons were encountered. No flow tests were attempted.

GEOLOGY

Geology of the West Seacombe Number 1 well was obtained by wireline logs and ditch samples. Formation tops were taken from wireline data. Formation descriptions are of the cuttings derived from ditch samples. All measurements are from the kelly bushing, 16 feet above ground level.

From surface to 585 feet occurred Lower Pliocene sands, coquina and marl of Jemmy's Point Formation. The interval from surface to 310 feet was coarse grained pebbly sand, sub rounded to rounded, friable, sorted, predominately clean with occasional lignite and clay. At the base it became grey, dirty, marly, carbonaceous to lignitic and contained abundant shells.

From 310 to 460 feet were interbedded claystone, sand and some marl. The claystones were light grey to grey-brown, fossiliferious, sandy, carbonaceous to lignitic, glauconic in part, generally micaeous and occasionally pyritic. The sands were yellow, coarse to pebbly and slightly conglomeritic, well rounded and granitic in origin. The marls were light grey to grey-brown and resembled the claystones but were higher in calcareous content.

The interval 460 to 585 feet was composed of a coquina of various shell fragments with some interbedded clay and lignite.

The Upper Miocene Tambo River Formation was predominately a marl extending over the interval 585 to 1110 feet. At the top the calcareous content was lower and the lithology was claystone, grey, fossiliferous, glauconitic and grey-green in part. Below 700 feet this graded into a proper marl, grey to grey-green, very fossiliferous, stiff, glauconitic, rarely silty. The predominate fossils were bryzoans. Below 1150 feet the formation became more sandy with interbedded sand, marly shale and limestone to 1110 feet.

The Miocene Gippsland Formation occurred from 1110 to 1870 feet. The formation may extend to 2020 feet. From 1110 to 1870 feet it consisted of cream, light grey and light grey-green skeletal limestone, very fossiliferous, glauconitic with interbedded light grey marl and fossiliferous mudstone.

From 1870 to 2020 feet occurred a light brown and light grey, soft, skeletal limestone with interbedded marl. This formation strongly resembled the limestone above it but contained more agrillaceous material.

The Oligocene Lakes Entrance Formation is included in the interval 2020 to 2667 feet. It is possible that it extends upward to 1870 feet but this upper interval more resembled the Gippsland Formation. The Lakes Entrance consisted of calcareous mudstones and shales, light to medium grey-green, olive brown and grey-brown, very fossiliferous, occasionally sandy and very glauconitic. From 2445 to 2520 feet it contained some limestone streaks. Below 2520 feet it developed fissility gradually until by 2630 feet it had become a soft shale with some light pearl silty zones.

The unconformity at the top of the Latrobe Group occurred at 2667 feet and that formation extended to 4523 feet. The Latrobe was composed of thick porous sandstones with interbedded lignite, shale and siltstone. It was the principle petroleum target in the well. Very minor methane gas was encountered at 3330, 3360, 3380 and 4030 feet but no commercial accumulations of hydrocarbons were observed in the formation.

The Latrobe sands were 10 to 140 feet thick, fine grained and well sorted to medium-very coarse grained and moderately sorted; often pebbly and conglomeritic. They contained varying amounts of clay matrix, were generally very porous and permeable but with decreased permeability where containing increased amounts of clay. The grains were quartz, angular to well rounded and loose to friable.

The lignites of the Latrobe were dark brown, often dirty, soft and slightly pyritic. They commonily graded to black, brittle, sub-bituminous coal. The shales were grey-brown, buff, often silty, generally carbonaceous and soft. The gas at 4030 may have occurred in the base of a brown, silty shale overlying a thick sandstone. The other gas "kicks" in the well were from sandstones.

The oldest formation reached by the well was the Cretaceous Strzelecki Group. It occurred from 4523 feet to total depth. Only the top portion of the formation was penetrated. The lithology consisted of thick grey sandstone greywackes with interbedded siltstones and shales. The greywackes were light grey, generally fine grained and choked with koalin, micaceous, chloritic and tight but occasionally coarse grained and moderately porous. The sand grains were predominately quartz with common lithic and feldspar clasts. Sorting was usually poor and rounding was highly variable.

The Strzelecki shales were predominately light to medium grey, but often varicoloured and occasionally brown. They were generally silty, often sandy and usually carbonaceous and slightly chloritic. The siltstones were generally simular to the shales.

CONTRIBUTIONS TO GEOLOGIC KNOWLEDGE RESULTING FROM DRILLING WEST SEACOMBE NO. 1

1. The top of the Latrobe Group was about 450 feet higher than indicated by seismic data, probably due to there being no thick coals in the upper section of the formation.

2. The absence of hydrocarbons in a structure of Oligocene age probably indicates that there is no closure of the structure. Seismic control is not complete to the north and it is likely that the fold is open in that direction.

T A B L E 1

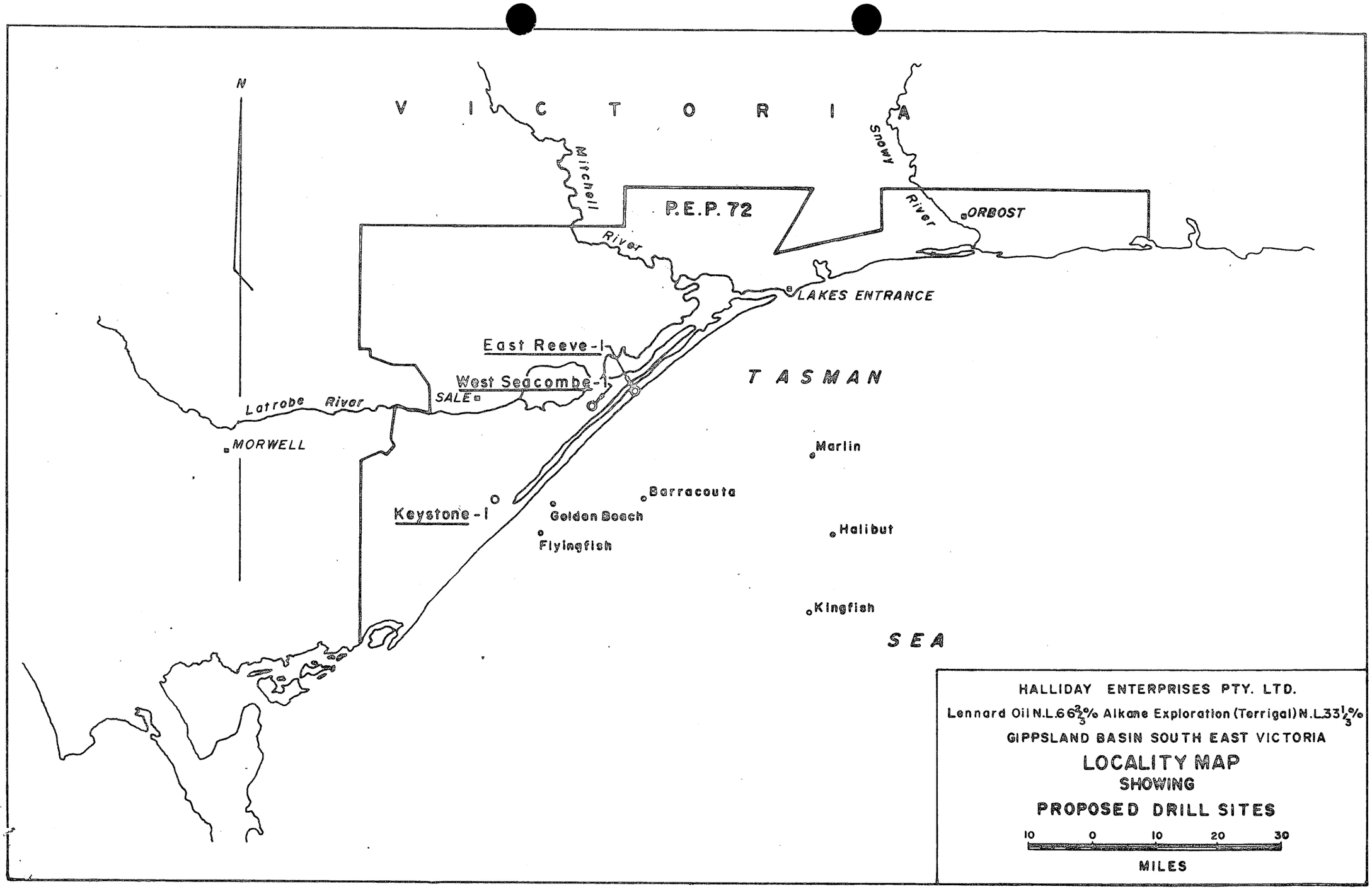
STRATIGRAPHY, WEST SEACOMBE NO. 1, Halliday Enterprises Pty. Ltd.

AGE	FORMATION	LITHOLOGY	DEPTH (of tops) kelly bushing	DEPTH (of tops) ground level	THICK.
L. PLIOCENE	Jemmy's Point	Sand, coquina, marl	16feet	surface	569+
U. MIOCENE	Tambo River	Marl	585	569feet	525
MIOCENE	Gippsland Ls.	Limestone	1110	1094	910
OLIGOCENE	Lakes Entrance	Shale and Marl	2020	2004	647
L. OLIGOCENE-U. CRETACEOUS?	Latrobe Group	Sand, coal, Shale, Silt	2667	2651	1856
CRETACEOUS	Strzelecki Gp.	Sandstone greywackes, Shale	4523	4507	n.a.

APPENDIX

SIDEWALL CORE DESCRIPTION, WEST SEACOMBE NO.1

CORE NO.	DEPTH	RECOVERY	DESCRIPTION
19	2808ft 855.88 m	1¾in	Sandstone: medium-coarse grained, sub angular-sub rounded, loose, friable, quartzose, very minor clay matrix, very porous and permeable, no show.
18	2834 863.80	1½	Sandstone: medium-very coarse grained, slightly pebbly, sub angular-rounded, loose, friable, quartzose, very minor clay matrix, very porous and permeable, no show.
17	2970 905.26	1½	Sandstone: fine-coarse grained, sub angular-sub rounded, loose, friable, quartzose, minor clay matrix, porous permeable, no show.
16	3078 938.17	1¾	Sandstone: medium grained, sub angular-sub rounded, friable, quartzose, moderate clay matrix, slightly chloritic, moderately porous and permeable, no show.
15	3120 950.98	1¾	Sandstone: fine grained, sub angular-sub rounded, friable, soft, quartzose, moderate clay matrix, slightly micaeous, moderately porous and permeable, no show.
14	3362 1024.74	1⅞	Sandstone: fine-medium grained, sub angular, slightly firm, quartzose, moderate clay matrix, moderately porous and permeable, no show.
13	3402 1036.93	1½	Sandstone: very fine-fine grained, sub angular-sub rounded, friable, slightly firm, quartzose, moderate clay matrix, moderately porous and permeable, no show.
12	3620 1103.38	2	Sandstone: medium grained, sub angular-sub rounded, friable, soft, quartzose, moderate clay matrix, good porosity, and permeability, no show.
11	3645 1110.00	1¾	Sandstone: medium-coarse grained, angular-sub angular, friable, loose, quartzose, slight clay matrix, good-excellent porosity and permeability, no show.
10	3810 1161.29	1¼	Sandstone: coarse-very coarse grained, angular-sub angular, friable, loose, quartzose, some clay matrix, moderately porous and permeable, no show.
9	3826 1166.16	1⅝	Sandstone: very coarse grained, angular-sub angular, rounded in part, friable, loose, quartzose, moderately clay choked, moderately porous and permeable, no show.
8	3858 1175.92	1⅞	Sandstone: fine-medium grained, angular-sub rounded, friable, slightly firm, quartzose, moderate clay matrix, moderately porous and permeable, no show.
7	4002 1219.81	1⅛	Sandstone: very fine-fine grained, friable, slightly firm, quartzose, minor lignite partings, clay matrix, moderate porosity and permeability, no show.
6	4050 1234.44	1¼	Sandstone: fine-very coarse grained, sub angular-rounded, friable, stiff, quartzose, clay choked with white koalin, poor porosity and permeability, no show.
5	4064 1238.71	1⅜	Sandstone: fine-very coarse grained, very poorly sorted, sub angular-rounded, friable, slightly stiff, quartzose, moderately clay choked, moderate-poor porosity and permeability, no show.
4	4110 1252.73	1⅛	Sandstone: fine-very coarse grained, angular-sub rounded, very poorly sorted, friable, soft, quartzose, moderate clay matrix, moderately porous and permeable, no show.
3	4254 1296.62	2⅛	Sandstone greywacke: fine grained, angular-sub rounded, firm, quartzose, lithic, very clay choked, slightly chloritic, slightly micaeous, poor porosity and permeability, no show.
2	4402 1341.73	1⅝	Sandstone greywacke: fine-medium grained, angular-sub rounded, firm, quartzose, lithic, clay choked, slightly chloritic, and micaeous, moderately poor porosity and permeability, no show.
1	4405 1342.64	1⅞	Sandstone: fine grained, sub angular-sub rounded, friable, quartzose, slightly stiff, slightly chloritic and lithic, clay matrix, moderate-poor porosity and permeability, no show.


N
V I C T O R I A
Mitchell River
Snowy River
P.E.P. 72
ORBOST
LAKES ENTRANCE
East Reeve-1
West Seacombe-1
SALE
Latrobe River
MORWELL
TASMAN
Marlin
Barracouta
Keystone-1
Golden Beach
Halibut
Flyingfish
Kingfish
SEA
HALLIDAY ENTERPRISES PTY. LTD.
Lennard Oil N.L 66⅔% Alkane Exploration (Terrigal) N.L 33⅓%
GIPPSLAND BASIN SOUTH EAST VICTORIA
LOCALITY MAP
SHOWING
PROPOSED DRILL SITES
10 0 10 20 30
MILES

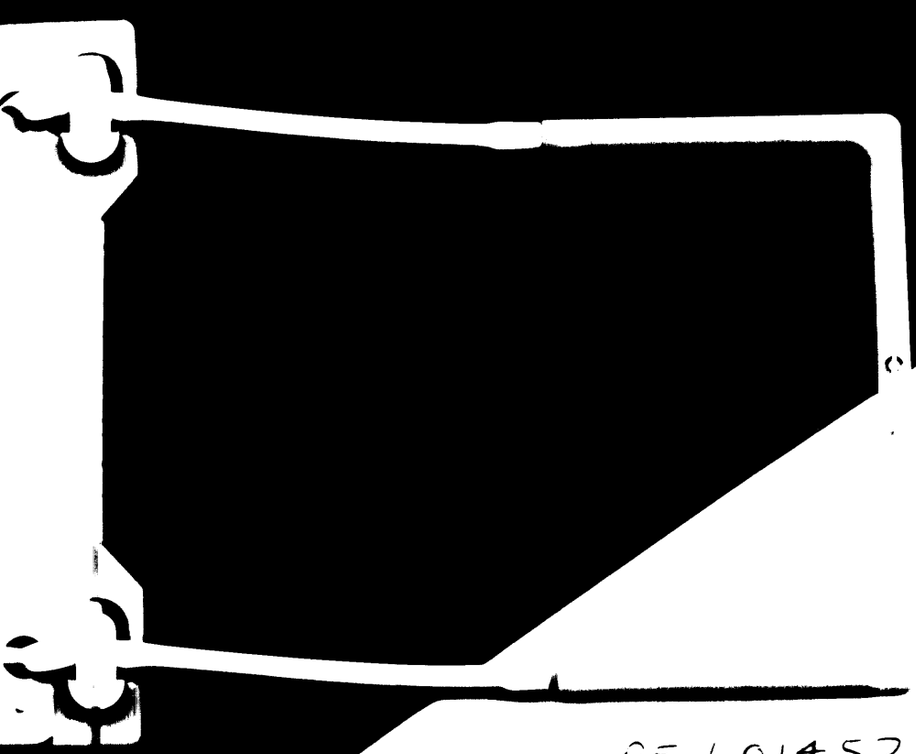
PE601452

This is an enclosure indicator page.
The enclosure PE601452 is enclosed within the container PE902791 at this location in this document.

The enclosure PE601452 has the following characteristics:

ITEM_BARCODE	= PE601452
CONTAINER_BARCODE	= PE902791
NAME	= Well Completion Log
BASIN	= GIPPSLAND
PERMIT	= PEP/72
TYPE	= WELL
SUBTYPE	= COMPLETION_LOG
DESCRIPTION	= Well Completion Log for West Seacombe-1
REMARKS	=
DATE_CREATED	= 31/12/71
DATE_RECEIVED	= 31/07/86
W_NO	= W641
WELL_NAME	= West Seacombe-1
CONTRACTOR	= Halliday Enterprises
CLIENT_OP_CO	= Halliday Enterprises

(Inserted by DNRE - Vic Govt Mines Dept)



PE 601452

Well Completion Log.