

Natural Resources and Environment



AGRICULTURE • RESOURCES • CONSERVATION • LAND MANAGEMENT

WELL SUMMARY SNAPPER-2 (W550)							
1 Folio No	2 Referred to	3 Date	4 Clearing Officer's Initials	1 Folio No.	2 Referred to	3 Date	4 Clearing Officer's Initials

			LATER FILES	RECORDS D	ISPOSITION]
AB Suc	ANDONED:		Econte A State	1 9 .	8 1	10
-	SNAPPE		ESSU VIC F/1 T	9 D. 10, 010 ¹ <u>550</u>	W D. /	
				550	GLOM	
	1.E.S.	Run 1	2464 - 5397	SEPAKATE .		
		2.	5364 - 8466	1	· 2 ·	
	<i>l</i> x	·· 3	8966 - 10,012	<i>((</i>		
	$\sim R$	UNS 1,243	2464 - 10,012	10	·· 2	
plater	BH.SC.	RUN 1	24(4 - 5314		· 2 ·	
	ς.	1 2	5364 - 9996		1. 2 ^{.5}	
	. •	·· 172	2464 - 9996	د ر	·· 2 ``	
an a	FDC/GR	/	2464 - 5395	i .	L'L	
	en en		5364 - 7980		+ L ·	
	t i		7980 - 8964		e La col	
		4	8964 - 10010		- 2 -	
	n	" 1,2,344	2464 - 10010		. 2 .	
	LATERCLOG	· · · · · · · · · · · · · · · · · · ·	3900 - 5392		DAME.	
and sources and the second	C.D.M.	1				
n an	٤.	· 2 5	5369-99	94		
y pink-sa n	F1.T.	· / .	TESTS Nº 1-5			
Secretary	<i>i</i> 1	2.	142			
Deputy Bas ar Exec utora Car	61	142	··· 1-5,	1 + 2		
Exec idade (Exec idade () Exec idade ()	CORE LAB.	AUDLOG	2500'-10011	+7440	- 8050' .	
Exec ute Exec ute Exec ute	te se	COMPLETION	CORE GRAPH		+16	A. J. W.
Exec itive Exec itive	TIME DE	PTM CURVI	LTS 1-10. B.M.R. 1-10 ESSO		<u>م</u> بر ه	
	CLAE DESC	RIPTIONS 1	-10 ESSO		دی ا ا ا	
General Mar	S. W.C.	(Ť	UN1- 1-45. 243	5-5320'.	10 17 17	
	ι,	:1	1- 1 45. 2435	5 - 53 20'		
Direc ia: Ba Direc ia: Ba Direc ia: Ba	i'		2. GUN-1. 1-30	5506-89	sc'by AP.W	
Direc ia: 114 Direc ia: 114	ж.	L ()	. 2 2. 31-60	5490'-8	910	
Mana na k Mana na k Mana na k	WELL S	UMMARY	INCLUDING CORE A	HIVAL YSIS		
Manana Manana Manana Manana Manana Manana Mana	CERES 1	- 10		0 x Se	ENT Z S	
Mana gar	CUTTING	, 2500 -	10,007.	÷ < ,	1. 1.	
MINE Man	PALAEON	TOLCGY	REPORT BY PR	EVANS		
Man apar G r. Man apar G r.	MICROPALA	ECNITOLUGY	STUSSRY PARTRIDGE	lor.		
Man agar M Man agar S ati	MAP. STA	GY KEPORT BY RUCTURE	TOP OF LATRIDGE	PLUS REVISION	\sim .	
Manager Mats			•			1

¢

. 1442 e

SNAPPER-2 (W550)

Well Summary Report

Table of Contents

Completion Report

Well Summary

Core Descriptions

Side-wall Core Descriptions

Biostratigraphy

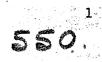
Core Analysis

Enclosures Well Completion Log Mud Log (Grapholog) Completion Coregraph Log Time-Depth Curve FIT Data

Attachments Core Photographs Report - Refer to report PE905020 Attachment 1 to Snapper 1 CONFLETION REPORT

CONFIDENTIAL

ESSO STANDARD OIL (AUSTRALIA) LTD.



Date June 1, 1970

COMPLETION REPORT

I WELL DATA RECORD

. P.

i ,

	I WELL DATA RECORD					Date June 1, 197
			LOCAT	TON		
			LUCAI	ION .		
i da Marana Kabutan Kabutan Kabutan Kabutan Kabutan						
	WELL NAME	STATE	PERMIT or LICE	NCE	GEOLOGICAL BA	SIN FIELD
	SNAPPER-2	Victoria	Vic. P-1		Gippsland	Snapper
我是什么?""你不是"。 我妈妈把这个子我还不知道	CO-ORDINATES	_		MAP	GEOGRAPHI	
	Lat.	Long.	X Y	PROJECT		and the second secon
	Surface 38°11'16"S	148°02'37''E	595,827 289,678			23 miles south Entrance; 1.9
	Bottom Hole Straigh	nt Hole	· · · · · · · · ·	Transve Mercato		ithwest of Snappe:
est in linker.					-].	
			ELEVATIONS	& DEPTHS		
		•	•		,	
	ELEVATIONS	WATER DEP	TH	TOTAL DI	EPTH	Avg.Angle
	Ground			M.D.		
		183	ft	T.V.D.	10,010 f	t.
an a						
	RT	PLUG BACK	DEPTH	REASONS	FOR P.B.	
	Braden Head	350	ft.		Abandonm	ent
	Top Deck Platform					
An is interestion	and the second			• .		
			DATE	S		
a	MOVE IN	RIG			SPUDDED	
	12.6.69		15.6.69		•	.6.69
leta na tina si	RIG DOWN COMPLETE	RIG	RELEASED	1	PROD.UNIT - St.	art Rigging Up
al de la calencia. El sa calencia de la calencia	2.8.69		2.8.69		ана стала са селото на селото н Селото на селото на с	
	PROD.UNIT - Rig Dow	n Complete	Í	.P. ESTABI	LISHED	
				•		
		<u> </u>				
			MISCELL	ANEOUS		
	ODED AMOD	DEDATEMEN	- I TOPNOPP	b aco :		
	OPERATOR		or LICENCEE			THER INTEREST
ye min wa ujina sini	Esso	Hema	atite .	Well Permi	IUU% Lt Nil	
						2010 - 2010 - 2010 - 2010 2010 - 2010 - 2010 - 2010 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010 - 2010
	CONTRACTOR		NAME		EQUIPMENT TYP	
Constante e	Global Marine		Glomar III		Ship-Shape D:	cilling Vessel
		·	100		<u> </u>	
		DRILLING AFE	NU. COMP	LETION NO.	TYPE (COMPLETION
	50.3	239106				
			<u> </u>			
	LAHEE WELL	Before	Drilling Ou	itpost	• 1 * 1 * 1 * 1 * 1 * 1 * 1 * 1 * 1 * 1	
	CLASSIFICATION	After	Drilling At	bandoned s	successful out	post
Dali yeza	and the second second second				1	
alan ber der bann der ber Matter ber der ber	이 가지 있었다. 이 가지 않는 것은 가지 않는 것을 가지 않는 것이 있다. 가지 않는 것이 있다. 같이 같은 것은 것은 것은 것은 것은 것은 것은 것이 같은 것은 것이 있다. 것은 것은 것은 것은 것이 같은 것이 있다. 것은 것은 것은 것은 것이 있다. 것은 것은 것은 것은 것은 것은 것은 것이 있	an an tha an Tha an tha an	n general de la constante. La constante de la constante d			

WELL SNAPPER -2

INITIAL PRODUCTION TEST II WELL COMPLETION AS: Date Gas Well _____ Dry Hole _____ Oil Well Calculated P.I. Choke size, inch ۰. QU. 1 Length of Test Calculated A.O.F \$ Oil, BPD Perforations . Water, BPD Shut-In BHP Gas, MCFD Flowing BHP Ľ, Shut-In Tubing Gas Liquids, BPD Press Mont Gas-Oil Ratio Flowing-Tubing Press Sector Sector Gravity, API Flowing Tempers" 👌 ature III CARA PERFORATING RECORD (Proditest, Completion, DST, FIT) I H TOTAL PERFORATION DIFF. 10.0 SIZE AND INTERVAL SHOTS SERV. CO. TYPE GUN HPF PRESS. FLUID

2

Engineer

	110
SNAPPER	46 /

÷

4

1

a,

ą

-

j

1

4

13

WELL	SNAF	PPER #2	X					3	
IV			CASI	NG - LINER	- TUI	BING REC	ORD		
Туре	Size	Weigh	t	Grade	Tł	nread	No. Joints	Amount	Depth
Conductor	30"	196 & 3	310	н-40	Ve	tco	4	165.6	370
		•							
Surface	13-3/8"	72	• .	N-80	Bu	tt.	2	91.35	
	13-3/8"	54.5	5	J-55	Bu	tt.	54	2171.17	2465
			·.						
Inter- mediate	9-5/8"	43.5	5	N-80	Bu	tt.	62	2549.97	
	9-5/8"	40.0)	N-80	Bu	tt.	65	2617.20	5367
a se		an a						and a start of the	
			···.						
						н н. 19			
					1				e an the straight Maria agus anns a An straight
V				CEMENT R	ECORI)	- <u> </u>		
String				30"		1	3-3/8"	9-5/8"	
Type of	Cement		550	'sx w/2% CaC	¹ 2		w/2% Gel 0 sx Neat	500 sx w/2% .4% HR-4	Gel and
Number	of FT ³			650	ļ	3	130	200 sx w/.6% 1040	HR-4
	weight of	slurry	 	15.3 ppg	·	13.6	ppg/ 15.5 ppg	13.6 ppg/ ₁₅	.6 ppg
Cement '	Тор		Sea	Floor	;	Sea Flo		3620 ft (C	
Casing '	Tested wit	h		0		1500	psi	2000 psi	
Number	of Central	izers		0		5		17	
Number	of Scratch	ers		0	· · ·	. 0		0	
Stage C	ollar etc.			0		0		0	
Remarks					1	Gel Pr	ehydrated	Gel Prehydra Caliper off	
						. B		Above 3890'. 20" Hole.	

R.L. WOOD

1.1

Engineer

	WELL SNAPPER -2			4
	VI	SUBSURFACE COMPLETION EQUIPMEN	FE COMPLETED	
	Schematic	Equipment Description	Length	Depth
an a				
		(Carlier and Carl		
		SU-		
		and the second of the second		
	- 「「「「「「「」」」」「「」」」」」」」」」」」」」」」」」」」」」」」」			
		NISTERS		
		1/20/		
		101	•	
		/ e.s/		
		145/		
				an a
		和하는 사람은 이 물건물건을 들었다. 좋아 있는 것 같아요. 이 물건이 많은 것이 같아요. 이 나는 것	Engine	er

	<u>WEIL</u> SNAPPER -2					5
	/11	SA	MPLES, CONVENTION	NAL CORES, SW COP	(ES	
	INTERVAL	TYPE	RECOVERED	INTERVAL	TYPE	RECOVERED
	2500-10010	Cuttings	Every 10'	5320-2935	SWC	Shot 45 Recovered 43
		Conventional Cores 1-10	Recovered 8'			Kecovered 45
	4362-92 (30')		Recovered 7'	8950-5490	SWC	Shot 60 Recovered 56
	4550-99 (49')		Recovered 29'	9960-9075	SWC	Shot 30 Recovered 25
	4599-4614 (15') 7373-7402 (29') 7641-7700 (59') 7700-27 (27') 8148-71 (23')		Recovered 13' Recovered 0' Recovered 59' Recovered 24' Recovered 20'		•	
	8171-8211 (40') 8211-54 (43')		Recovered 31' Recovered 43'			
	VIII	V V	IRELINE LOGS AND S	URVEYS (Incl. FIT))	
and a start of the				• 1	· · · · · · · · · · · · · · · · · · ·	and Andrew Constants Andrew Constants and Andrew Constants Andrew Constants and Andrew Constants
	Type & Scale		From To	Type & So	cale	From To.
	IES 2") 5")	1001	2-2464	FIT 1 FIT 2		7372 7372
	BHCS 2") 5")	999	6-2464	FIT 3 FIT 4		8172 6616
	FDC-GR 2") 5") CDM 2")		0-2464	FIT 5 FIT 6	5	5992 7560
	5")	999	4-2464	FIT 7		6024
	HDT 2")	1001	2-8966	TTo I and the Con	ruou	
	5")		n an MCCE and An Angela	Velocity Su	Ivey	
	5") LL 2") 5")		2–3900 ^{VCI}	Velocity Su		
	LL 2")		2–3900	Velocity Su		
	LL 2")		2-3900 VC: VC:	Velocity Su		
	LL 2") 5")	539	2-3900 VC: VC:		B.G	• McKay plogist

WELL SNAPPER-2

 13	IX		FORMAT	ION TOPS/Zones	; .	· · · ·	
		Тор	s	Gross	Net	Pay (ft).	REMARKS
	NAME	M.D.	Sub-sea	Interval (ft)	Gas	Oil	
	GIPPSLAND FM. GURNARD FM. LATROBE N-1 N-1.1 N-1.2 N-1.3 N-1.4 N-1.5 N-1.6 N-1.7 Gas-water conta <u>M. diversus</u> <u>L. balmei</u>	Sea 3938 3971 3971 3990 4150 4241 4317 4396 4516 ct4600 4412 5400	Floor -3907 -3940 -3959 -4119 -4210 -4286 -4365 -4485 -4569 -4381 -5369	3727 33 19 160 91 .76 79 120 174 988 2960	7' 12' 108' 62' 44' 67' 96' 63'	241	
	<u>T. <u>lilliei</u></u>	8360	-8329	1650+	57'		

X

and the second s

GEOLOGIC ANALYSIS (Pre Drilling prognosis Vs actual results)

The Snapper-2 location was chosen for the first outpost because it is close to the highest point of the structure both on top and within the Latrobe and is in a different fault block to Snapper-1. It was designed to test the Paleocene section in an updip position from where shows were encountered in Snapper-1.

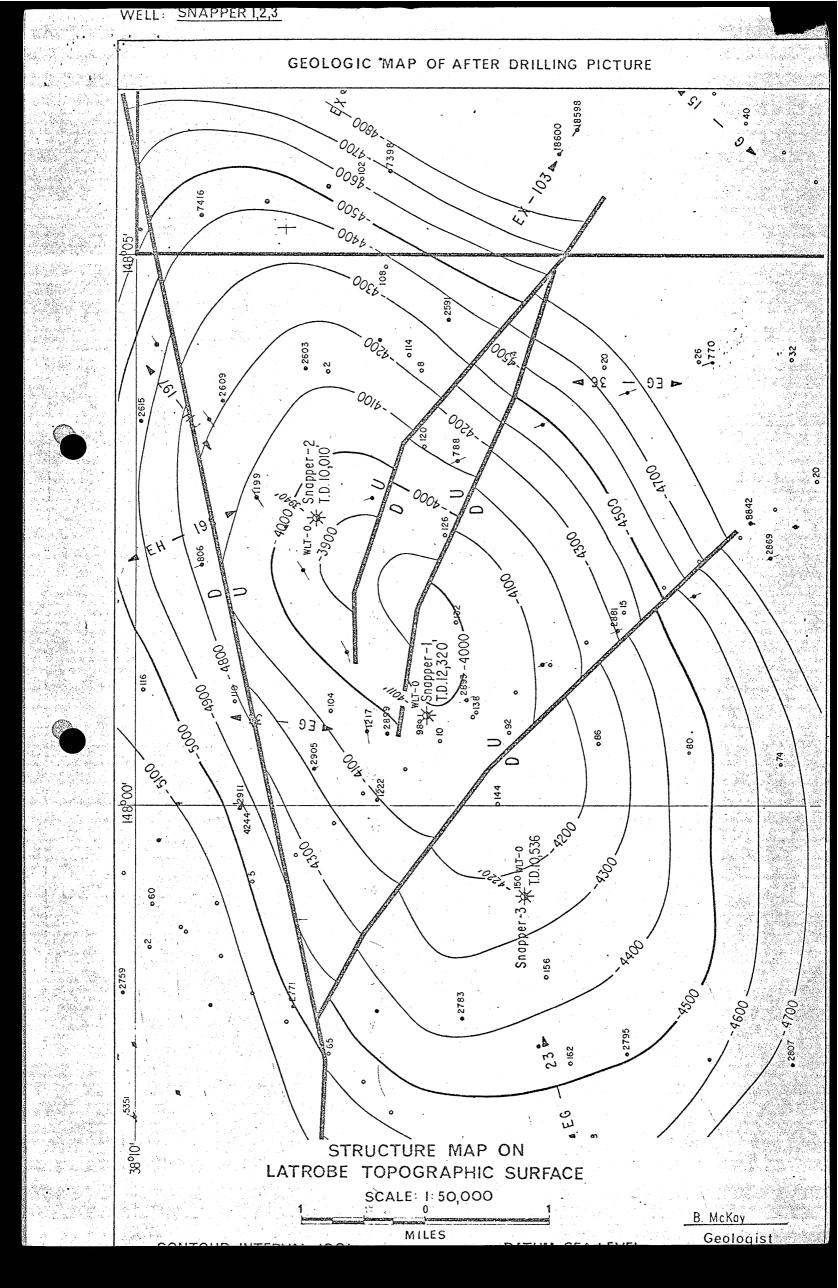
The well confirmed the N-1 reservoir with a similar gas-water contact to that found in Snapper-1. The Paleocene, however, was disappointing with only rare shows, which generally do not appear to correlate with shows in the first well. It is interpreted that the faults between the wells therefore act as barriers, and that any thin hydrocarbon reservoirs are of only restricted areal extent. Snapper-2 correlates between 100-200' updip from Snapper-1.

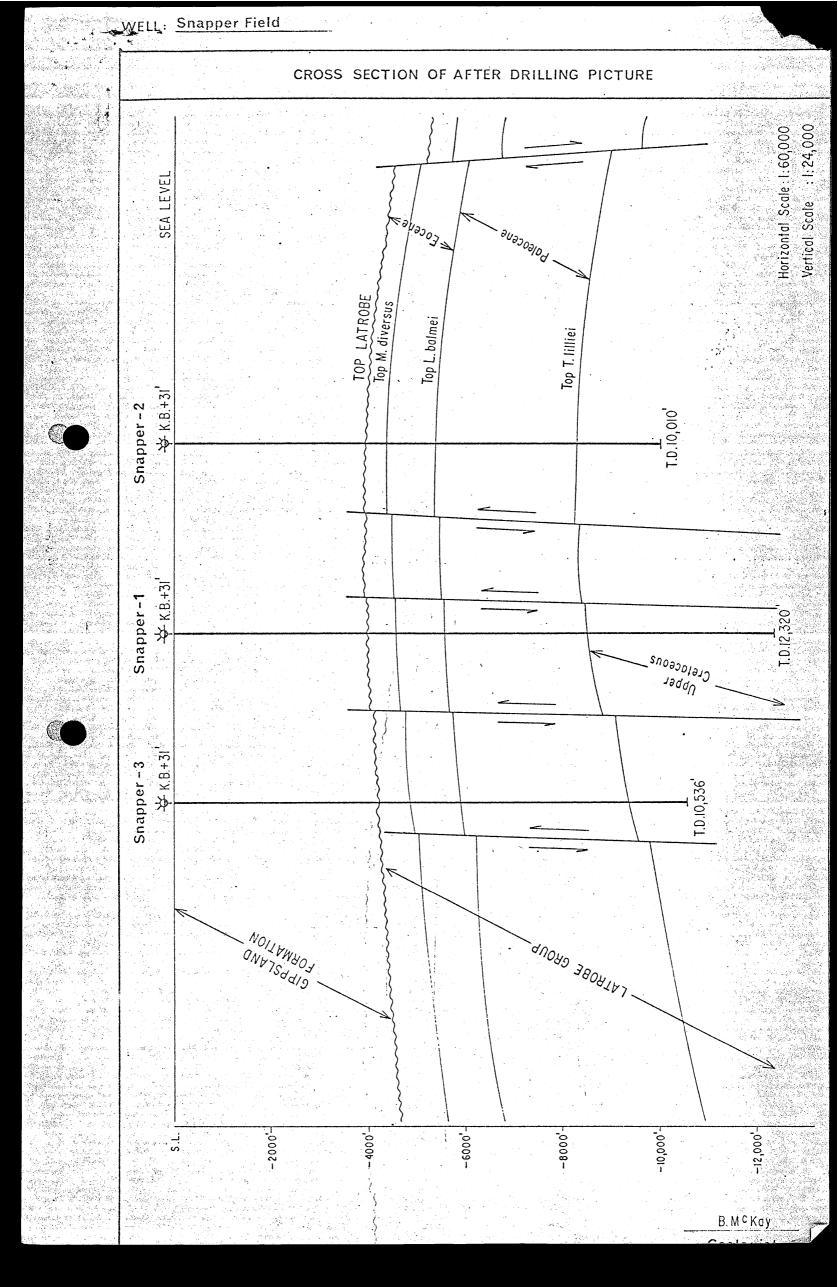
211.14

14

i r Got

- 14 - I





WELL Survary

CONFIDENTIAL

,

550

SNAPPER 2 - WELL SUMMARY

Type of Well:	Deep-pool Wildcat.			
<u>Purpose of Well</u> :	The Snapper 2 location was selected primarily to test the potential of stacked sands beneath the intra - <u>M. diversus</u> reflector within the Latrobe Valley formation and against west-northwest trending faults located northeast of Snapper 1; it was planned at the same time to check the upper hydrocarbon pay zone.			
<u>Status</u> :	Plugged & abandoned.			
Location:	Latitude : 38 ⁰ 11' 16" South Longitude : 148 ⁰ 02' 37" East. Shot-point 798 on line EH-198.			
Lease:	Vic/P2. p			
<u>Rig</u> :	"Glomar III".			
<u>Elevation</u> :	Rotary table 31 feet above mean sea level.			
<u>Water Depth</u> :	,175 feet.			
Spudded:	June 16th, 1969. On location June 13th, 1969, waited on weather before spudding.			
Abandoned:	0300 hours, August 2nd, 1969.			
Drilling Time:	48 days.			
Total Depth:	10,010 feet (T.D.)			
<u>Casing</u> :	30 inch shoe set at 389 feet 13 ³ /8 inch shoe set at 2465 feet 9 ⁵ /8 inch sho e set at 5367 feet			

<u>Cement Plugs</u>:

<u>Pluq No</u>	<u>Interval (ft</u>)	<u>Cement (bags</u>)	
1	9650 - 9328	180	Tagged
2	9300-8950	180	Not tagged
3	8600-8076	325	Tagged
4	7650 - 7273	200	Tagged
5	7250-6773	220	Tagged
6	6773-6373	175	Not Tagged
7	5425-2000	100	Tagged
8	500-350	50	Not Tagged

- 2 -

Cores:

Ten conventional cores were cut, with an aggregate footage of 329 feet, and recovery of 234 feet. (71%).

<u>Core No</u>	<u>Interval (ft</u>)	<u>Recovery (ft</u>)
1	4348-4362	8
2	4362-4392	7
3	4550-4599	29
4	4599-4614	14
5	7373-7402	nil
6	7641 - 7700	59
7	7000-7727	24
8	8148-8171	20
9	8171-8211	30
10	8211-8254	43

45 S.W. cores were attempted, and 39 recovered.

<u>Mudlogs</u>:

A continuous mudlog, record was maintained by, Core Laboratories Australia Ltd., in the interval 2500-10,010 feet (T.D.)

Electric Logging:

Loq	Run	<u>Interval (ft</u>)
IES	1	2464-5397
	2	5364 - 8966
	3	8966-10,012
FDC	1	2464 - 5395
	2	5364 - 7980
	3	7980 - 8964
	4	8964-10,010
BHCS	1	2464 - 5394
	2	5364 - 9996
Continuous Dipmeter	1	2464 - 5396
	2	5364-10,010
Laterolog	1	3900-5392

Hydrocarbons:

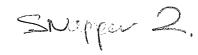
Top of Gas Column	3938	feet
Gas-Oil Contact	4568	feet
Oil-Water contact	4600	feet

Several shows of bydrocarbons were encountered from 4600 feet to Total Depth, but were either in thin sands in thick siltstone-shale sequences, or were too tight to produce. Successful formation interval tests generally gave water, although a scum of oil with pour point of 75°F was obtained at 7372 feet. The hydrocarbon shows obtained in the sands were oil and gas, and other high gas readings were obtained opposite coal seams.

6				Drill:	ing Mua			•
<u>Snapper 2</u>					Gas Chr	omatograph		*
Interval (ft)	Hot Wire	Cl	C2	C3	C4	C5	C02	Hot Wire Cuttings
2500 - 2625	2-20	700-5000	-	-	_	-	0-5	-
2625 - 2925	15 - 43	2400 - 7600	0-600	-	_	-	0-10	
2925-3075	15 - 60	3700-15,000	150-600	-	-	-	3-9	
3075 - 3550	2-60	350-14,000	0-550	-	~	-	0-10	
3550 - 3900	3-14	360-3500	0-150	-	-	_		
3900 - 3995	6-260	700-70,000	350 - 7800	0-700	0-500	_	-	7-25
3995 - 4050	60-400	15,000-100,000	1600-9000	350-2100	150-650	0-150	-	3-55
4050-4255	25 - 480	6500-12,000	500-9000	0-800	0-550	_	-	4-18
4255-4335	36 - 1200	6000-340,000	2000-280,000	350-25,000	0-2800	0-2500	-	0-25
4335-5325	0-100	2500-60,000	100-4000	0-800	-	_	-	3-250
5325-6005	7-210	750-120,000	150-17,000	0-650	0-350	-	-	3-120
6005 - 6755	20-210	1900-34,000	250 - 2800	0-650	-	-	-	38-130
6775 - 7560	8-180	350-19,000	0-2800	0-350	-	_	-	3-130
7560-8695	5-150	500-22,000	150-3000	0-1300	0-250			3-30
8695-9600	3-120	500-16,000	50-1300	0-750	0-50	-	-	50-100
9600-10011	4-110	750-23,000	50 - 2500	0-650	-350	_		0-6



- 4 -



Core Analysis

The following results were obtained.

The following results were obtained.								
		Permeability		Porosity	Water	Oil		
Sample No.	Depth (ft.)	√ Hor.	Vert.	Percent	Saturation	Saturation		
1	4349	1818	2425	10.3	63.1	0		
2	4350	t.f.	t.f.	12.6	71.4	0		
3	4351	t.f.	t.f.	12.8	66.4	0		
4	4352	74	96	15.5	60.7	0		
5	4353	878	22	23.1	47.6	0		
6	4354	333	256	21.6	52.3	0		
7	4355	256	1161	19.2	50.5	0		
8	4356	408	1620	14.7	48.3	0		
9	4363	646	417	11.9	40.3	0		
10	4365	201	98	13.5	43.7	0		
11	4366	322	905	10.1	49.5	0		
12	4367	t.f.	t.f.	24.0	53.8	0		
13	4368	322	865	21.0	52.9	0		
14	4369	1530	461	23.9	43.9	0		
15	4551	904	878	21	54.3	10		
16	4552	272	248	24.3	36.1	14		
17	4553	2025	2025	21.6	40.3	12.5		
18	4554	2340	2025	21.6	44.3	12.7		
19	4555	4930	3260	30.1	44.9	12.6		
20	4556	3260	2840	27.1	47.8	12.2		
21	4557	∠0.1	<0.1	1.4	38.0	0		
22	4559	∠0.1	<0.1	2.7	19.6	0		
23	4561	123	98	15.2	59.8	7.2		
24	4563	<0.1	20.1	3.6	36.1	0		
25	4568	<0.1	20.1	7.2	28.3	0		
26	4569	2425	2425	25.4	56.0	11.6		
27	4570	2590	2425	27.2	55.2	7.7		
28	4571	3260	2590	29.8	60.4	8.2		
29	4573	0.6	1.7	6.9	37.7	8.7		
30	4575	40.1	20.1	3.6	20.4	0		
31	4577	84	84	15.9	37.7	3.8		

			- 5	-		
•			5			
	<u></u>	an a				alan dara kan din dan dari dari yang mangan dan di Protesse
32	4578		287	24.8	86.3	0
33	4579		1170	24.5	85.4	0
34	4601	4.2	0.3	13.3	60.9	0
35	4603	3090	2110	35.4	68.0	0
36	4604	1460	795	27.2	88.9	0
37	4605	1520	1250	27.8	88.4	0
38	4607	1380	950	24.9	88.3	0
39	4608	1640	1640	24.6	85.6	0
40	4609	1120	1160	25.8	89.6	0
41	4620	1330	710	26.8	96.2	0
42	4611	t.f.	t.f.	26.0	93.2	0
43	4612	1650	1410	25.0	94.8	0
44	7642	72	60	15.8	55.1	0
45	7643	148	100	18.8	43.1	0
46	7644	138	144	20.1	59.7	0
47	7645	95	29	16.1	69.6	0
48	7646	1.8	0.6	13.1	70.0	0
49	7693	0.45	0.29	0.3	48.4	11.0
50	7694	0.29	∠ 0.1	9.7	60.9	0.0
51	7695	0.14	40. 1	7.2	41.1	12.5
52	7696	1.9	1.3	13.0	60.0	1.5
53	7697	4.4	0.8	14.5	62.8	0
54	7698	11.0	1.1	10.6	62.3	0
55	7699	0.45	0.14	13.0	66.9	0
56	7700	0.6	0.29	14.6	67.8	0
57	7718	75	43	18.5	68.2	0
58	7719	230	146	21.3	70.0	0
59	7720	193	260	21.4	78.5	0
60	7721	360	70	22.8	79.4	0
61	7722	93	61	19.8	77.3	0
62	7724	225	140	23.2	86.3	0
63	8154	2.6	0.29	11.4	50.8	9.4
64	8164	70	87	12.5	48.8	8.6
65	8165	134	105	14.6	48.7	9.6
66	8166	0.45	0.29	9.1	70.4	1.0
67	8168	11	3.2	14.1	60.3	0
68	8172	313	61	17.4	49.4	5.7
00	$\bigcirc \pm i \mathcal{L}$	0-0	2-			

			-			
69	8173	81	21	17.5	52.0	5.7
70	8174	4.3	0.45	14.6	65.0	1.6
71	8175	156	3.3	17.4	56.9	4.6
72	8176	171	82	18.7	55.1	4.3
73	8177	555	173	18.6	62.3	4.3

<u>Testing</u>:

. .

A total of 5 formation interval tests were run, three of which were successful. Details are as follows:-

F.I.T. No	1 7372	feet -	Failed.
F.I.T. No	2 7375	feet -	Scum oil, 18,750 ccs filtrate, 2300 ccs mud.
F.I.T. No	3 8172	feet -	18,500 ccs filtrate, 3500 ccs mud.
F.I.T. No 4	4 6616	feet -	18,350 ccs filtrate, 2400 ccs mud.
F.I.T. No	5 5990	feet -	Failed.

Stratigraphy:

Formation	<u>Aqe</u>	<u>Top (RT</u>)	<u>Sub Sea</u>	Thickness
Gippsland Limestone	Miocene	206	175	3732 +
Latrobe Valley Formation	Upper Cretaceou to Eocene		3907	6072 +

T.D. 10,010

Lithology:

Interval

Gippsland Formation

2500-3580 feet	<u>Marl</u> , light grey, soft, pyritic,
	fossiliferous, <u>calcarenite</u> , white, light grey, hard, fossiliferous, with abundant forams.
3580-3855 feet	Marl, as above, with mudstone; grey-green, soft, calcareous, silty, fossiliferous,

- 7 -Lithology (continued) Marl, as above, mudstone as above with 3855-3938 feet siltstone, brown, hard, micaceous, glauconitic, pyritic. Latrobe Delta Complex Formation Sandstone, unconsolidated, medium to 3938-4348 feet coarse grained, dolomitic, quartzose. Core No 1 Sandstone, medium to coarse grained, 4348-4362 feet firm, hard, dolomitic, fair porosity and permeability. No shows. Core No 2 Sandstone, as for Core No 1. 4362-4392 feet Sandstone, unconsolidated, medium to 4392-4550 feet coarse grained, quartzose, dolomitic, mudstone, siltstone, light to dark brown, micaceous, carbonaceous, softhard, coal, black brown, silty, shaly.

<u>Core No 3</u> 4550-4599 feet

<u>Sandstone</u>, no shows. <u>Mudstone</u>.

Core No 4 Sandstone, dolomitic 4599-4614 feet Sandstone, unconsolidated, medium to 4614-4880 feet coarse grained mineral fluorescence. No shows. Siltstone, coal. 80-100% Mudstone, trace sandstone, 4880-5200 feet <u>coal</u>. No shows. Massive section of siltstone, 5200-6570 feet 20-30% coal and shale with few 40-50% sandstone bands. No shows. Predominately siltstone, mudstone and 6570-7010 feet coal, with very minor sandstone. Mineral fluorescence, no shows, more

dolomitic cement at depth.

..8/

<u>Core No 4</u> (continued) 7010-7373 feet <u>Sandstone</u>, dolomitic , fine to medium grained, trace blue fluorescence, no cut., <u>siltstone</u>, <u>coal</u> and <u>shale</u> interbeds.

- 8 -

Core No 5

7373-7402 feet No recovery.

7402-7641 feet Mainly <u>siltstone</u>, <u>shale</u> with <u>coal</u> and <u>sandstone</u> beds with trace fluorescence and fair cut below 7600.

Core No 6

7641-7646 feet	Sandstone, pin-point fluorescence.
7646-7692 feet	<u>Coal, siltstone, & shale</u> .
7692-7700 feet	<u>Sandstone</u> , w. 10-15% porosity but tight up to 12% oil.

<u>Core No 7</u>

7702-7717 feet

7717-7724 feet

7727-8148 feet

	7700-7702	feet	Sandstone,	as	above.
--	-----------	------	------------	----	--------

Shale and coal.

<u>Sandstone</u>, porous and permeable, fine grained, no fluorescen**ce**. No shows.

7724-7727 feet No recovery.

Mainly <u>siltstone</u> and <u>shale</u> with minor <u>sandstone</u> and no shows until 8140 feet where sandstone with fluorescence was noted.

<u>Core No 8</u>

8148-8171 feet <u>Siltstone</u>, <u>sandstone</u> with fluorescence and cut. Oil saturation up to 9.4%. Permeability 11-134 m.d.

<u>Core No 9</u>

8171-8211 feet 6 feet <u>Sandstone</u>, porous, permeable, good fluorescence, cut, and stain., 24 feet <u>siltstone</u>, showing some fluorescene, with <u>shale</u> interbeds. Core No 10

8211-8254 feet

8254-8700 feet

<u>Siltstone, shale</u>, no fluorescence

Interbedded <u>sandstone</u>, <u>siltstone</u>, <u>shale</u> and some <u>coal</u>; some <u>sands</u> with yellow fluorescence and weak cut; high gas readings usually opposite coal beds.

8700-10,010 feet (TD) <u>Silt</u>

TD) <u>Siltstone</u> and shale, with some <u>sandstone</u> bands and rare <u>coal</u>. <u>Sand</u> fine to medium grained, partly dolomitic, partly clay choked. Very occasional poor yellow fluorescence and cut.

CORE DESCRIPTIONS

ESSO STANDARD OIL (AUSTRALIA) LTD.

13

- 18" soft bra lignitic day lenses

? Dolic cement snowing good cleavage faces when broken Gives parchy

Good gaseous maour NO CUT.

bright yelling Marchan Simonescence

Porosity and formeability visibly good (intercrystalline porosity) Very rare pyric aggregates

No bedaing fraisses of dip apparent

CORE DESCRIPTION

Core No.

-	Interval Cored			c	WELL: SNAPPER -2. 8 ft., (57 %) Fm. LATROBE
	Bit Type C22-2	598 CA	, Bit Siz	e 8-16 in., Desc. by	Andy Winittle Date 25/6/69
	Depth & Coring Rate (min./ft.)	Graphic (1" 5')	Shows	e Interval (ft.)	Descriptive Lithology
	O 4 8 12 16		ধ	4348 - 4356 100% <u>SANOSTONE</u>	light grey m-cg medium sorting firm hard sa-R dom milky quariz grains rare dk lithic grains (chert?) Argillaceous matri brn, in top 1' of arc with thin

ম

Barre

REMARKS

4356 4362 - NO RECOVERT.

ESSO STANDARD OIL (AUSTRALIA) LTD. $\frac{2}{13}$

••

CORE DESCRIPTION

Core No. 2

		WELL: SNAPPER -2
Interval Cored 4362 - 4392 ft., Cut	ЗО _в ft., Recovered	7 ft., (23 %) Fm. LATROBE.
Bit Type C 20 - 2105 , Bit Size	$8\frac{5}{76}$ in., Desc. by	Andy Whiltle Date 26/6/69

Depth & Coring Rate (min./ft.)	Graphic (1" 5')	Shows	Interval (ft.) Descriptive Lithology
0 2 4 6		4	4362 - 4369 100% SANDSTONE quartzose lt grey f-cy dom fing medium sorting friable to
	· <u> </u>		hard Sub rounded to rounded dom milky quarts tr dk rounded
	· · · · · · · · · · · · · · · · · · ·	4	lithic grains rare diss pyrix. Muscouire.
			Doinc cement in tight sections giving spatted patchy bright yellows/white
			mineral in-oresience Where Frable (30% of core) very good P&P and
			Core saturated with mina filtrate. Where have as ement PEP tair
			ts good
			No bedding or dip apparent $Rare$ thin $(< \frac{4}{4})$ softdkbrn lignific
			6000 GASEONS ODONR - NO CUT
		- 	4369-4392 - NO RECOVERY
	4392		
REMARKS:		Footag	es markea on core samples are nor representative as
		core	spilled out on drill floor Emptied core from barrel
	inin a an an a	during	heavy seas
lennes term term a	м т н.		

ESSO STANDARD OIL (AUSTRALIA) LTD. $\frac{3}{73}$

CORE DESCRIPTION

Page Nº 1 of 2.

Core No. 3

					N N	ELL:	SNAPPER -2
Interval Cored	4550	- 4 599 ft., Cut	49	ft., Recovered	29 ft., (57 %}	Fm. LATROBE.
Bit Type	220	, Bit Size	8 16	in., Desc. by	Andy Whittle	Date	28/6/69

Depth & Graphic Coring Rate (1" 5') (min./ft.)		Shows	Interval (ft.)	Descriptive Lithology	
.4	0714	4550			
			豪	4550'-4554'	SANDSTONE wh - It gy mg, very ws, consolidated,
		· ·			friable, Sa-R, non calc, dom milky
		, — , — . , ,			
				· · · · · · · · · · · · · · · · · · ·	quartz, with common dk lithe grains
		• • •		· · · · · · · · · · · · · · · · · · ·	SR-R
		۲ ۲		a subsection of the	No bedding or div apparent Excellent
÷.,				• • · · · · · · ·	intercrystalline PEP
		× • <u>*</u> • *		n de la companya de l La companya de la comp	Strong petroliferous odour It yellow
		· · · · · · · ·			brown oil staming . Good It yellow
		· · ·			fluorescence strong instantaneous
			*		Streaming cut
		<u>M</u>			Occasional. 3" pands of sand AA with
					dolomitic cement giving mineral
		<u> </u>			Enoresience PEP poor - fair
		• • •	*	4554' - 4556'	SANUSTONE AS ABOVE but unconsolidated to
					loosely consolidated
		1. 2.		4556' - 4563'	
		<u> </u>	_	· · · · · ·	doiomitized & very hard rare diss
					pyrite aggregates
		· ~ · _		·	Vugular in part P's P poor - fair
		4· 4·4	•		Patchy pin point fluorescence odour
9		2. 2.2	æ	• •	and cut as above
		<u> </u>		0/w	(4561.5 - 4505 = - " wide dark streaks
		4579			dre to darker grey cement dipping
					15.30°. Three of these spaced roughing
					4" apart)
				4563' 4567'3	" MUDSIONE dk. brown, firm, nomogeneous,
					millaceous, w' carbonaleous streaks in
		$\cdot \wedge$			part, non calc. Disseminated
					pyrie aggregates up to z' diameter
					Approx nonzontal bedding where
	REMARKS:	<u>4590</u>			present May be i-2° d.p. pro.
	REFERRIO!	1		- Ra inst	
	•	L051	Torc	UE - BIT WORN	
		San an a		•	
		· · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	



ESSO STANDARD OIL (AUSTRALIA) LTD. CORE DESCRIPTION

Page Nº 2 of 2

Core No. 3

WELL: SNAPPER -2

Interval Cored 4550 - 4599 ft., Cut	4 9	ft., Recovered	29 ft., (57	%) Fm. LATROBE	
Bit Type C 20 , Bit Size	8 16	in., Desc. by	Andy Whittle	Date 28/6/69	

Depth & Coring Rate (min./ft.)	Graphic 1" - 5') Sho	ws Interval (ft.)	Descriptive Lithology
07 14	- 4590 -	4563 [′] - 4567′3″	Mudstone (cont) Discontinuous wary laminae in pt occasional more
			silty laminae
			SANDSTONE AS PER 4550' - 4554'
	Ň I	4570'6" - 4577'6"	SANDSTONE AS PER 4556'-4563' with occ.
			• 3" M-cg streaks
		4577'6" - 4579'	SANDSTONE ASPER 4554-4556 WITH two 3"
	4599		intervals hard dolomitized sandstone
			Bottom 1' of core appears wer
			NO FLUORESCENICE OR ODOUR
		4579 - 459 9	
			O/W contact at 45772
			but possibly lower by as much as 20 as
			610 contact not apparent at top of core
			0/w between 4578 = 4599 - suspect
			close to 4592 in continuity with SNAPPER-1
			a se a companya da anti-a da an A da anti-a
• — • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • •	
			de envenien en envenien en Envenien envenien env
DEFEA DAS			
REMARKS:	•		
			and a second second Second second second Second second
· · · · · · · · · · · · · · · · · · ·	•		

ESSO	STANDARD	OIL	(AUSTRALIA)	LTD.

513

CORE DESCRIPTION

Core No. 4

		•		W	ELL: 57	YAMPER -2
Interval Cored 4599	- 4614 ft., Cut	15	ft., Recovered	/3. ft., (.8	7%)	Fm. LATROBE
Bit Type (20	, Bit Size	8 5/16.	in., Desc. by	Andy Whittle	Date	28/6/69.

		Graphic (1" = 5')	Shows	Interval (ft.)	Descriptive Lithology			
•••	0 5 10 15							
I		4599						
		4		4599 - 4600 6	SANDSTONE It gy M-cg WS very hard			
					sa - R dom milky gtz with			
					Minor diss SR-R dk which			
		4		na ang na na na na na magana na				
					grains. Occ diss py aggs.			
				· · · · · · · · · · · · ·	Tight with dolic cement giving			
					patchy pin point white mineral			
		· · · · · · · ·			fluorescence			
		-		and the second of the second sec				
					No bedding or dip apparent			
		6			Vugular-intercrystalline porosity			
		v			PSP poor.			
					NO SHOWS , ODOUR OR CUT			
		4617		1/2016" - 1/201	SANDSTONE. Hgy f-cg dom mg medium			
				4600 6 - 4601	STRUSTURE TO JU TO THE			
					sorting triable - firm consolidated			
					dom milky gt 2 sail with			
					minor lichics As ADOVE diss			
					pyrite aggregates orgitaceous			
				n na star ann an Anna a	hotel in part PSP for			
			, s		matrix in part PSP fair			
					Finery inter animated with			
		- -			mubsions - It - dk brn soft			
					carb mic occurring in this			
					discontinuous subparaile lammae			
	•							
	***			460: - 4612	SANDSTONE It gy fing very us fruitie			
	•				anso dated dom miney sa ?			
					graves with minor ok lithic			
				•	grams AS ABOVE OCC Cq			
		•			parts & mare ok om sity			
				- · · · · · · · · · · · · · · · · · · ·	lenses < 1" long			
					poory cemented with doil giving			
	· · · · ·				patchy spotted mineral furrescence			
	· · · · · ·	•	· ·	· · · · · · · · · · · · · · · · · · ·	Tr white arginauoni matrix			
l		 			D's 2 good - very good (INTERCRYST.)			
	REMARKS:				No stows.			
	•		Barrel	Jammed	a da anti-anti-anti-anti-anti-anti-anti-anti-			

ESSO STANDARD OIL (AUSTRALIA) LTD.

6-13

CORE DESCRIPTION

Core No. 5

		WELL: SNAPPER Z Cut Z9 ft., Recovered O ft., (O%) Fm. LATROBE e $7\frac{3}{4}$ in., Desc. by J. BLACK Date $9/7/69$
Depth & Gray Coring Rate (min./ft.)	phic ci	Interval (ft.) Descriptive Lithology
6 12 18 24		
		DART BROKE OFF WHEN PUMPED DOWN
		ALLOWING CIRCULATION THROUGH INNE.
		BARREL AND -AUSING LOSS OF CORE
		n en state en
		n te de la companya de la companya Ante de la companya de
		la sense i se
		na an a
		사이가 하는 것은 것이 있는 것이 있다. 같이 같은 것이 같은 것이 같은 것이 있는 것이 없는 것이 없다. 것이 있는 것이 같은 것이 같은 것이 같은 것이 같은 것이 있는 것이 같은 것이 있는 것이 있는 것이 있는 것이 있는 것이 있는 것이 있는 것이 없다. 것이 있는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없다.
		an a
		n de la construcción de la constru En la construcción de la construcció
		and a second second A second secon
REMARKS:	<u></u>	
والمراجعة فالمتحمص والمستقا والم	المتاب أعجابهم المتراف السار وراري	the second se

ESSO STANDARD OIL (AUSTRALIA) LTD. $\frac{7}{13}$ CORE DESCRIPTION 4

and the web to get

Cropping the L

			C	Core No. 6	Page 1 of 2	WELL: SNAPP	ER - 2
Interval Cored	7641-77	00 ft.,	Cut 59	ft., Recovered	59 ft., ((100 %) Fm.44	TROBE
Bit Type 🧲	1	, Bit Siz	ue 8 ⁵ /10	in., Desc. by	, J. BLACK	Date 12/7	169
Depth & Coring Rate (min./ft.)	Graphic (1" - 5')	Shows	Interval (ft.)		De	scriptive Lithology	
03692	764 :		7641-7646	SANOSTONE -	Tan M/CRSH Ang /Sub Ang. V. spotty Pin-	some clay o	koking .

45					دا میده به به بر است. زیره اور	an data an		ر میکند. اوری
	İ.	X	With an and -			en andre generation mentales en antre br>antre antre	1 2. 전환자, 영국 프로마 1 2 2 2 2 2 2 2	
4			And the most	76	46 - 7652	SILTSTONE	- V. Thin Horiz Interbeds of 50 %	<u>ó</u>
			w w w			\$ COAL	Tan hard siltstone & 50% BLACK	
50			m mm				Lominated silty COAL becoming	이 같은 것
			the see Althe				Less Silty ut base	
					سرسر رسب المحر			
	-			162	52-7655	COAL	- BLACK, Silty, firm W/ thin Horiz	=
4						· · · · · · · · · · · · · · · · · · ·	pands tan, f.g., silty Sandst.	
55					•			
				76	55-7661	COAL	- Black, Clean, Vitreous Lustre,	
							concoldal frac.	
60							an ana ana ana ana ana ana ana ana ana	
						. · · · · ·		
				76	61-7664	•	- Thin interseds of COAL & Sand-	
				ļ		\$ SANd STONE	stone as abore, Horiz.	-
			we want					
65			m	. 766	4-7670/2	COAL	- BLACK, Silly, FIrm, LAMINAted	
							frac,	
			-			• •	가지 않는 것 같은 것 같	
				· · · · · · · · · · · · · · · · · · ·				
70								ę
10				76	10/2-7671/2	COAL	- AS Immed. above w/ Siltst Filled	Ζ.,
			m m		 	an a	Worm bores (?)	
			mmm	167	1/2 - 7673	Siltston	e - ton, indur. sli. carb.	•
ar i Sir a				76	73 - 7678		- As Above W Interbeds of thin	
-75		•					Laminaled sittstones & couls	
	t					· • • • • • • • • • • • • • • • • • • •		
							25 2601C	
			• • • • • • • •		· · · · · · · · · · ·			
80			····			•	e parte de la companya de la company El debende de la companya de la comp	
			Mi 7681				دی آماز بر در این در در در در این در	

7

REMARKS:

ESSO STANDARD OIL (AUSTRALIA) LTD. CORE DESCRIPTION

8/13

Core No. 6

antar dagi

			Page 2 952	WELL: 5,1/	PPER Z
		57 ft., Recovered			
Bit Type 5.9	, Bit Size	8 5/16 in., Desc. 1	by J. BLACK	Date /	2/7/69

		Depth & Coring Rate (min./ft.)	Graphic (1" 5')	Shows	Interval (ft.)	Descriptive Lithology
	0 3	1 6 7 12	7681		7: 78 - 7684 SANDS	TONE - TAN FIM. 9., SUTY W
			· · · · ·			HUMCYOUS HORIZ. THIN COAL
			···· ·			BANDS, MICAC, hard, t. tht
D 7		• • • • • • •			7684-7686 SANDS?	ONE - AS ABOVE W/ CRINILATEd
B 5		, , , , , , , , , , , , , , , , , , ,			·	sump structures (?)
			~ .		7680-7692 SANDS.	TONE - TAN F.q, SILTY N. FEW TAIN
				an wali		Horiz. bands Coal, hard, tight
90					· · · · · · · · · · · · · · · · · · ·	MICAC, V. SPOTTY FL. Fair Cut
			m		7692-7694 SANDS!	DNE - TAN-WA, FIM 9. clay CHOKED
			• • • • •			SlimicAC., hard poor por, Yellow
			• • • •			FL, 600D C4T.
95					7614-7695 SANDST	ONE - TAN WH. M/CRSE, 51: CALC. Clay
						Choked hard firm Good Yellow
						FL. W' 6000 CUT
an a			• • • • •		7695-7700 SANDS	TONE - AS IM MEY ABOVE BUT WI
	.		7700		· · · · · · · · · · · · · · · · · · ·	better Port Perm, Spotty FL.
		••••• ••••• ••••	Ne de la Color			FAIR C4T
						این با در از می مراد با در این
-						
				•		
				ŀ		
				•		
					6	
					······································	
· · · ·						and a second br>A second secon A second secon
					· · · · · · · · · · · · · · · · · · ·	
	L			L	<u></u>	
	KE	MAKKJ:		······		
	- -		•		<u> </u>	
			· · · · · · · · · · · · · · · · · · ·			
					· · · · · · · · · · · · · · · · · · ·	j var de 1975, Bargaro de Santa Antonio Bargaro de Santa de Sa Santa de Santa de Sant
					n an	
	-					
		a sector sector has	tige officies (officies), so for a	میں اور	and the second of the second secon	and the second se

ESSO STANDARD OIL (AUSTRALIA) LTD. 9 CORE DESCRIPTION

13

Core No. 7

	WELL: SNAPPER 2							
Interval Cored 7700 -772								
Bit Type	it Size in., Desc. by J. BLACK Date 12/7/69							
Depth & Graphic Coring Rate (min./ft.) (1" 5')	Shows Interval (ft.) Descriptive Lithology							
036912 7700	7730-2702 SANDSTONE - TAN WH flor g., Pyritic, Clay choked Tight shard Int'bd Wi Thin COAL SEAM 7702-1703 COAL - BLACK, LAMINATED FRAC.							
	7703-7104 COALS SUITST - Intois Tan Indur Suitst & COAL							
5	1101-770512 COAL - AS ABOVE 770512-7710 SHALE - DK. SRy., F. MULAL, SILTY, Well							
	10 dur							
	7710-7112 SHALE - DR GRY, f. MICAC. INT'B'D WI H. gr V.f.g. htird t.ght SS. 7712-7716 SHALE - DR LAN CARR MASS & MI	¥						
15	ZZ12-ZZ16 SHALE - DK. GRY. CARB., MASS., f. MicAc.							
	7716-7717 SHALE - AS ABOVE INT'S' I N/ It gry thin Sile 7717-7724 SANDSTONE - WH. M/CRSE, FRIABLE, SUBRA	1997 - 1997 - 19						
20	SUBANG, POORIY SORTED W Fe DK gry CHT(?) gs. GOOD POR	ц Ч						
	NO FL							
25								
1727		•						
DEMA DVC								
REMARKS:								
λ								

ESSO STANDARD OIL (AUSTRALIA) LTD.

10/13

CORE DESCRIPTION

Core No. 8

	epth &	1	, Bit Si:	ze 851/6 in., Desc. by J. BLACK Date 1577/69
Cor	ing Rate in./ft.)	Graphic (1" 5')	Shows	Interval (ft.) Descriptive Lithology
Î	1 = 2	RI4F		8148-8151 SHALE - DK. GR., CARB., MAS., WOVR , f. MICAC.
				8157-8152 COAL - BLACK, CLEAN, CONC. FRAC. & SHALE AS ABOVE
7			*	852-853 SANDSTONE-TAN WH, 5/m. g., TR. LT GRN. GS., CLAY CHOKED, 5/1 CARB, GOOD ODOR, FL. & GUT.
-		and		853-857 SHALE - AS ABOVE WY THIN HORIZ. INTERBOS OF DK GR, V. H.
		-the war in		MKAL, SILTSTONES, SOME SHOWING SED, STRUCTS.
				8157-81602 SHALE - DK.GR. CARB. MASS., MDWR.
				81605-8163 SANDSTONE. WH M/CREEANG QTZ, PYNTIC, FEW SHALE PEBS. SOME
			*	CLAY CHOKING, GOOD ODOR, FLY CLOT
				8163-8164-2 SANDSTONE-AS ABOVE W/ FEW THIN HORD. LAMINAE OF CARISMA
				GOOD ODOR, FLYCUT 81642-8166 SHALE-AS ABOVE INT BD. W THIN BRO WH F./. TRGHT, HORIZ SS
			. *	8166-8168 SANDSTONE-WH MERSE QTZ, FRIABLE, CLAY CHOKED, GOOD
	ſ	8168		ODOR, FL & Cut.
		6171		
••				
				성 같은 것은 것은 것이 있는 것이 있다. 같은 것이 같은 것이 같은 것이 같은 것이 있는 것이 같은 것이 같은 것이 있는 것이 있는 것이 있는 것이 있는 것이 같은 것이 없는 것
	l son si Lint Trans d			
•			n a standard ann an Albana An Standard an Albana An Standard an Albana	
•				
•				
-	4 <u>1</u>			
•				

6

ESSO STANDARD OIL (AUSTRALIA) LTD. 1/1/13

Core No. 9



lit Type C8 , Bit S			e 8 ^{5/} 16	in., Desc. by Andy Whittle Date 15/1/69.
Depth & Graphic Coring Rate (min./ft.) (1" 5')		Shows	Interval (ft.)	Descriptive Lithology
5 10 15 20	817/	$\overline{1}$	8171 - 8177	SANDSTONE. White - gybrn. m - cg WS sa-sr
• • • • • • • •			•••	firm - friable sli dolic. carb patches 5
				occ coaly laminae approx 1 cm thick . wh.
				argill matrix occ. lithic grains
				No apparent bedding.
	· · ···			Good P = P.
				Strong wh / yell fluor strong streaming a
				petrol odour brown staining
			8177 - 8177 1	
	<u> </u>			coal lenses spaced if " apart
	m		8:77 1 - 81 81	SHALE blk massive hard carbonaceous.
			8,8, - 8,85	
				discontinuous irregulariy spaced shaly lamina
				patchy fluor cut potrolif odour where sondy
	w m	} *	8 185 - 8188	SHALE AA
			8188 - 8189	SILTSTONE AA
	AW CONTRACT		8189 - 8190	SHALC AA
	M		8/90 - 8/98 -	
	MM		8/98 - 8202	SHALY SILTSTOME - interbedded Shale & siltstore Ar
	I m m		8201 - 8211	NO RECOVERY
	M	•	0202 021	
	mining with			الم من المراجع br>مراجع المراجع ال
	m -	K		
	L - M	*		
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
	8202			
			· · · · · · · · · · · · · · · · · · ·	
	$  \rangle /$			
. <u> </u>			· · · · · · · · ·	
			•	
			•	
MARKS:	• •		BARKEL JAMMI	

## ESSO STANDARD OIL (AUSTRALIA) LTD. 12

## CORE DESCRIPTION

PAGE -1 0/2.

	Core No. ¹⁰										
			WELL: SNAPPER -2								
Interval Cored	8211 - 825	⁴ ft.,	Cut 43 ft., Recovered 43 ft., ( 100 %) Fm. 4 Gref (?)								
		, Bit Siz	5/11 17 m helingent 11/7/69								
Bit Type		, DII JIA									
Depth & Coring Rate (min./ft.)	Graphic (1" 5')	Shows									
02468	- 8211 MV -		8211 - 8243 I SILTSTONE - Shaley It gy massive inducated hard mic carbonaceons w/ tr fine								
			diss py.								
	M		In places finely interlammated with								
	· m	· · · · .	shale dkgy hard as shown graphically								
	· _ ~		The lammations are thin & gonaicity								
	~~		discontinions Usually horizontal								
	· ~~		but may show up to 5° dip.								
	m -		82432 - 8246 SANDSTONE - Sity vig hard tight carbonaceour								
	w		Michaen - PSP poor Nostows. 8246 - 8251 SILTSTONE AS ABOVE								
	~~ -		8246 - 8251 SILTSTONE. AS ABOVE. 8251 - 8254 SHALE. dk gy massive indiverted carbonaces.								
			0 2 31 0 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2								
	. MV										
	- MV										
	V V	-									
	. M										
	~~~										
	/ v • v										
•	MV -										
	- MV										
	- MV										
	825,]									
REMARKS:											
	e										
	•										
		· · · · · · · · · · · · · · · · · · ·									
		-									

ESSO STANDARD OIL (AUSTRALIA) LTD.

PAGE -2 of 2

13-13-13



				Core	No. ID	•				
			•				WE	IL: SA	APPER -	2
Interval Cored	8211 - 825	54 ft.,	Cut	43 ft	., Recovered	43	ft., (/	00 %) Fm	. U Cre	+ (?).
		, Bit Siz		8 5/16	in., Desc. by	ANDY A	WHITTLE .	Date	16/7/6	,9
	T	r								
Depth & Coring Rate (min./ft.)	Graphic (1" 5')	Shows	Interval	(ft.)			Descri	ptiye Litho	logy	
0246	8251						· · · · · · ·	en de la composition br>Composition de la composition de la comp	د. محمد المسالية ال	
			·			 \$	• * • • • • •	· · · · · · · · · · · · ·		م با در می در می می مربع رو می می م
	-8254 ===		· · · · · · · · · ·				•	<u>.</u>	۵. د میرسد ۱۰۰ مرب	
				•				······	<u>م</u> مرکز این ا	
					-	_•				
						and a second				
								· · · · · · · · · · · · · · · · · · ·		
			- -			na.n	. <u>.</u>		s di Li s entre grande	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
					· 	•			•	
							· · ·			
					· · · · · · · · · · · · · · · · · · ·	••••••••••••••••••••••••••••••••••••••	·····			
			<u> </u>	· · ·			· · · · ·		•	
						· · · · · · · · · · · · · · · · · · ·		•		
			-		· · · · · · · · · · · · · · · · · · · ·	•	····		1	
		•	· · · · · · ·					• <u>-</u>	۰۰۰ ۲۰۰۰ مب ۲۰۰۰ -	·
¢				·····	· · · · · · · · · · · · · · · · · · ·	na y chainean a cui	• •		· · · · ·	
				· · · · · · · · · · · · · · · · · · ·		· · · ·	مستفاعيا والمت			1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -
		•					•		· · · · · · · · · · · · · · · · · · ·	an a
						•	· · · · ·	· · · · · · · · · · · · · · · · · · ·		
		•	••••	•	· · · · · · · · · · ·	•.' .= .	•			
	• •					• •		-		
						an an star an s				
				· · · · · ·		·	· · · · · · · · · · · · · · · · · · ·	i	•	
			•		• - • • •	·		· .		
					· · · · · · · · · · · · · · · · · · ·				یں اور	
						. <u></u>				
				· · · · ·	• 				· · · ·	
DEMARKE		Baa	na. 10							
REMARKS:	· · · · · · · · · · · · · · · · · · ·	<i>ארכו</i>	REL JA	rimeD.	· · · · · · · · · · · · · · · · · · ·			1 - 19 Mar (1999) 1		
	• • • • • • • • • • • • • • • • • • •			د معر باسته			·	· · · · · · · · · · · · · · · · · · ·		
· · · · · · · · · · · · · · · · · · ·		• · · · · · · · · · · · · · · · · · · ·	······································		· · · · · · · · · · · · · · · · · · ·			· · · · ·		
					• • • • • • • • • • • • • • • • • • •		-	•		

••

•

SIDE-WALL CORE RESCRIPTIONS

Run



C.S.T. DESCRIPTIONS

lage 1 of 8 S.W.C. DESCRIPTIONS

	Depth (ft.)	Recovery (inches)	Description
1	5320	11/2	Mudstone; medium grey, massive, slightly calcareous, with abundant plant remains, medium hard.
2	5176	रे.	Claystone; light-medium grey, massive, medium hard, slightly calcareous.
3	5104	12	Claystone; silty, light grey, massive, medium hard, slightly calcareous.
4	5016	2	Shale; carbonaceous, medium-grey to dark brown, with carbonaceous laminae, very thin, parallel and discontinuous; non-calcareous; medium hard.
5	4862	32	Shale; silty, medium grey, massive, firm, disintigrates readily in water.
6	4656	ł	Mar1; buff, massive, very soft.
7	4605	1	Sandstone; light grey, medium to coarse frosted quartz, predominantly medium grained, well sorted, angular to rounded, with occasional black chert grain; very friable; minor clay matrix; matrix does not reaction in water or acid; no fluorescence; no cut; no odour; good porosity and permeability.
8	4600	₹ *	<u>Sandstone</u> ; buff, very fine-pebble quartz, predominantly coarse grained; poorly sorted; angular to well rounded; with occasional black chert grain; very friable, minor clay in matrix; yellow-white fluorescence; strong blue-white cut strong petroliferous odor; good porosity and permeability.
9	4595	\$	Sandstone; buff, very fine-coarse quartz, poorly sorted, angular to sub angular, very hard, dolomitic matrix, patchy yellow-white fluorescene good blue-white cut; slight petroliferous odor; matrix does not react to water; tight.
10	4580	- .	No recovery.
11	4572	12	Sandstone; buff, very fine-very coarse quartz
			grain, predominantly coarse grained; poor to medium sorting, angular - rounded; very friable, slightly dolomitic, very clayey matrix, breaks down readily in water; even yellow-white fluorescence, strong blue-white cut; strong petroliferous odor; medium-good porosity and permeability.
12	4558	12	Sandstone; light grey, very fine-pebble quartz grain; with abundant smokey quartz; poorly sorted; angular to rounded, very friable, slight dolomitic and micaceous, clay choked, sample disintegrates in water; no fluorescence, no cut and no odour.
	4550		Sandstone; light grey; fine-very coarse frosted

SNAPPER-2 RUNI

quartz; predominantly medium grained; well sorted, angular - rounded; very friable, dolomitic; clay matrix; sample breaks down readily in water; no fluorescence, no cut, no odour.

Sandstone; light grey; medium-pebbly, frostedsmokey quartz; medium sorting; angular to rounded; friable; slightly dolomitic; clay choked; no fluorescence; no cut; no odour; fair porosity and permeability.

2.

Sandstone; light grey, very fine-very coarse, clear frosted quartz; medium sorting; angular; friable; clay choked; no fluorescence; no cut; no odour; good porosity and permeability.

Shale; very silty; medium brown, massive, medium hard; micaceous and carbonaceous.

Sandstone; light grey, fine to medium grained, clear quartz; well sorted; angular; very friable; slightly micaceous, pyritic; very slight _ clay matrix; no fluorescence, no cut, good porosity and permeability.

Sandstone; light grey, fine-medium grained, clear quartz; well sorted, angular; ve y friable; slightly micaceous and pyritic; very slight clay matrix; no fluorescence, no cut; good porosity and permeability.

Sandstone; light grey, fine to medium grained, clearsmokey quartz; moderate sorting; angular to rounded; slightly micaceous, clay choked, disintegrates in water; no fluorescence; no cut; good porosity and permeability.

Sandstone; light grey, fine to coarse grained; predominantly medium grained; moderate to well sorted; friable;pyritic coating on some grains, no fluorescence; no cut; slightly petroliferous odour; good porosity and permeability.

Sandstone; light to medium grey, medium-pebble smokey and clear quartz; poorly sorted; very friable; pyritic coating on some grains; slight clay matrix; slightly dolomitic; no fluorescence; no cut; good porosity and permeability; crumbles readily in water.

<u>Sandstone</u>; light grey, medium grey; well sorted; friable; clay matrix; no fluorescence; no cut; good porosity and permeability.

Shale; silty; massive, very carbonaceous, firm, micaceous.

<u>Sandstone</u>; light brown, fine-pebbly quartz grain; poorly sorted; angular to rounded; completely clay choked; no fluorescence; no cut; poor porosity and permeability.

<u>Shale</u>; very carbonaceous; dark brown; laminated; soft; thin interlaminated brown coal; pyritic.

<u>Shale;</u> very calcareous; dark grey; massive, firm. <u>Shale</u>; very calcareous; dark grey, massive, firm.

Shale; very calcareous; dark grey, massive, firm.

14 4540 불 15 4506 ³

4314

1

1/2

Ł

1

Ł

1<u>2</u>.

ł

쿺

16 4321

17

18 4310

19 4305

20 4294

21 4285

22 4275

23 4180 24 4020

	•	
N. 4. 4		•
2 5 -	39 88	1초
	• •	
26	3867	11/2
~-	0707	13.
27	3727	13
28	3593	1분

· · · · · · · · · · · · · · · · · · ·	нO				3- RUNI. SNAPPER-2
6	, , , , , , , , , , , , , , , , , , ,	29	3395	11/2	Shale; very calcareous; dark grey; massive, 3/8
		30	3000	12	<u>Shale;</u> very calcareous; dark grey, massive, firm; as above.
• • •		31	4603	0	No recovery
	• •	32	4580	}	<u>Sandstone</u> ; light grey; very fine-coarse quartz grain; poorly sorted; angular; very friable; slightly dolomitic, matrix; clay choked, dis- integrates in water; patchy blue yellow fluorescence; good cut; petroliferous odour moderate porosity and permeability.
		33	4568	11/2	Sandstone; light grey; fine-very coarse grain,
- - -		· · · ·	·	41.0 **	<pre>predominantly coarse grained; angular to rounded, very friable; clay matrix, patchy yellow white fluorescence; good blue-white cut; strong petroliferous odour, good porosity and permeability</pre>
•		34	4565	1	Sandstone; buff, fine-very coarse grain; poorly sorted; angular to rounded, very friable; no fluorescence, no cut, no odour, good porosity and permeability.
•		35	4562	1支	Sandstone; light grey; fine-coarse grain; medium to well sorted, angular to rounded, friable; clay matrix; no fluorescence, no cut, no odour, porous and permeable.
		36	4415	3/4	<u>Shale</u> ; medium grey, massive, very soft, slightly calcareous
•		37	4385	12	Sandstone; light grey, coarse pebble, medium to well rounded, medium sorted, friable, clay matrix, no fluorescence, no cut, porous and permeable.
		38	4321	1-22	Shale; medium grey-brown; very silty; laminated with fine interlaminated carbonaceous laminae, silt laminae and shale laminae; micaceous.
		39	. 4232	1 2	<u>Shale;</u> dark brown; with fine discontinuous silty laminae, micaceous; very carbonaceous
		40	4102	12	<pre>Siltstone; tan; massive; firm; very micaceous; very pyritic.</pre>
	· •	41	4060	1	Mudstone; massive, non calcareous; slightly micaceous; with occasional organic plant remains.
		42 .	4036	12	Shaly siltstone; grey to dark brown, laminated; with thin, parallel, continuous brown coal and shale laminae separating thin silty laminae; slightly calcareous; very micaceous.
	•	43	3965	15	<u>Siltstone-shalv;</u> dark grey; with occasional sand grains; laminated; very glauconitic; very micaceous, carbonaceous laminae, very calcareous.
-		44	3235	3/4	Marl; light brown-grey; massive, soft; very calcareous.
	•	45	2935	15	Marl; dark grey; massive, firm.
-		· .			
					· · · · ·
			•		· · · · ·

•

•.

-.

•

*	Run	2	•	13	
	Gun No.1	Side W	all Core Descrip	tions	Snapper-2 21.7.69 A.P.Whittle
					/ 0
	NO	DEPTH	RECOVERY	SHOW	DESCRIPTION
	30	5506'	15		<u>Sandstone</u> : white, clean, fine grained, well sorted, subangular to subrounded, carbonaceous, slightly micaceous, argillaceous matrix, friable, pyritic, no fluorescence.
	29	5510 '	1		Sandstone: as above, no show.
•	29	5702'	1	•	Sandstone: as above but fine to very
	20	••••	-	•	fine grained, i.e. grading to siltstone no show.
	27	5709'	ł		Sandstone: white, fine to very fine grained, well sorted, subangular to subrounded, argillaceous matrix, friable, no fluorescence, grading to siltstone, very thin silty and carbonaceous laminae.
	26	5774'	17		<u>Sandstone</u> : as above with silty laminae, no show.
	25	5990 '	12		Sandstone: white, fine to very fine grained, soft, friable, occasional dark lithic grains, slightly micaceous
			• • •		well sorted, with white argillaceous matrix, a ½ cm thick carbonaceous shaly lense or lamina which is micaceous. Porosity and permeability good. Strong patchy white fluorescence, good strong instant- aneous light yellow streaming cut.
	24	5994'	¥.		Sandstone: grading to siltstone, fine to very fine grained, white quartzose,
•	· .	•	•		with argillaceous matrix, numerous very thin sub parallel discontinuous carbonaceous laminae, slightly micaceous, no show.
	23	6020 '	1		Sandstone: white, fine to very fine grained, quartzose with argillaceous matrix, well sorted, occasional lithics? or carbonaceous flecks, good porosity and permeability, no fluorescence or shows.
	22	6252'	14	•	Sandstone: white, fine to very fine grained, well sorted, micaceous, carbonaceous flecks, argillaceous, matrix, lithics, no fluorescence or cut.
	21	6265'	1	•	Sandstone: as above with thin silty . carbonaceous laminae.
	20	6519	ł		Sandstone: as above with no shows or laminae, good porosity and permeability
• • •	•	•	•	•	
	· ·	• *			

		· 2 3		SNAPPER-Z RUN-Z GUN-I. 56
NO	DEPTH	RECOVERY	SHOW	DESCRIPTION
19	6533 '	ł		Sandstone: white to light grey, f grained, argillaceous matrix, micaceous, carbonaceous flecks, li good to fair porosity and permeab
18	6542'	3/4	- -	no shows. <u>Sandstone</u> : white, clean, quartzos friable, subangular to subrounded well sorted, rare lithics, and pi grains (garnet?), no fluorescence excellent porosity and permeabili
17	6624'	15		<u>Sandstone</u> : light grey, fine to me grained, soft friable, medium sort subangular to subrounded, rounded dark lithic fragments, carbonaceo micaceous, with white argflaceous matrix. Porosity and permeabilit very good, strong patchy white
16	6638'	1분		fluorescence, very strong instant aneous yellow white streaming cut <u>Sandstone</u> : white, fine grained, w sorted, non calcareous, friable, porosity and permeability, argill matrix. No shows or fluorescence.
15	7109'	*		Sandstone: white to light grey, for to very fine grained, well sorted quartzose, with argillaceous math slightly micaceous, porosity and permeability poor to fair, no sho
14	7363'	0	•	No recovery.
13	7371	7		Sandstone: white to light grey, f grained, soft, friable, shattered micaceous, carbonaceous, porosity and permeability good, white argu aceous matrix. Patchy, strong ye white spotted fluorescence, stron yellow white streaming cut. (7375' was tested with FIT No.1)
12	7382'	Ł		Sandstone: white, fine grained, w sorted, argillaceous matrix, carb aceous fragments, micaceous, gree mineral (glauconite?), no show.
11	7393'	1-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2		Sandstone: white to light grey, f to medium grained, well sorted, w argillaceous matrix, micaceous, o asional lithics, friable, no show
10	7826'	12 1		Sandstone: white to light grey, f grained, tight argillaceous choki no fluorescence. carbonaceous, micaceous
•				

· ,*

.

•ور •ور •

به ∧ی ۱۰ م به ک) ⁰ 		mfrog		SNAPPER-2 RUN-2 GUN-1. 5/8
	NO.	DEPTH	RECOVERY	SHOW	DESCRIPTION
	9	8140'	ł		Sandstone: light grey, fine to
					medium grained, shattered soft and friable, medium sorting, subangular to subrounded, trace of disseminated pyrite, carbonaceous, micaceous, with white calcareous matrix, porosity and permeability fair to good, strong patchy spotted fluorescence, fair yellow white streaming cut.
	8	8170'	*		Sandstone: light grey to brown, fine grained, shattered, soft, friable, well sorted, carbonaceous, micaceous, traces of emerald green mineral (glauconitic?), porosity and perm- eability fair to good, strong patchy spotted yellow to white fluorescence, good strong instant streaming cut and fluorescent halo.
	2.	8318 '	₹.	•	Sandstone: white to light grey, fine grained, well sorted, subangular to subrounded, pyritic occasional lithics, slightly carbonaceous porosity and permeability fair to poor, weak patchy white fluorescence, no cut.
24	6.	8510 '	12	ул ⁴ . , ²	Sandstone: white, fine grained, well sorted, subangular to subrounded - thin carbonaceous streak, rounded black lithic fragments, argillaceous matrix, weak patchy white fluorescence, very weak streaming cut.
-	5	8568'	fragments did not buy		Siltstone: brown to grey, carbonaceous, sandy, micaceous, non calcareous, no show.
	4.	8574'	¥.		Sandstone: grey-buff, (brown stain- ing?) fine grained, subangular to subrounded, soft, friable, very well sorted, carbonaceous,micaceous, trace of green mineral (glaucontic?). Excellent porosity and permeability. Strong yellow patchy spotted fluores- cence. Strong instantaneous bright yellow streaming cut.
	3.	8750'	12	•	Sandstone: white to light grey, fine grained, well sorted, subangular to subrounded, micaceous with occas- ional lithic fragments, argillaceous, matrix, porosity and permeability fair, very poor spotted pin-point gold fluorescence, no cut.
•	2	8822' 8950'	0	-	No recovery
	1	•			No recovery

Gun No. 2 Side Wall Core Description Snapper-2 21.7.69 A.P.Whittle

1

NO.	DEPTH	RECOVERY	DESCRIPTION
31	8910 '	15	<u>Shale</u> : dark brown, soft carbonaceous, micaceous.
32	8800'	15	Sandstone: white, fine to medium grained, well sorted, subangular to subrounded, soft, friable, dark rounded lithic grains, scattered pin-point weak white fluorescence, weak streaming cut N.B. Shot here for shale but apparently hit thin sand at 8804.
33	8736'	frags	<u>Shale</u> : dark brown, soft carbonaceous, micaceous.
34	8620'	12	Shale: as above
35	8495'	*	<u>Shale</u> : as above
36	840 0'	ł	<u>Siltstone</u> : light grey, soft, very carbonaceous, shaly, micaceous.
37	8275'	1 3/4	Shale: dark brown, clayey, soft, carbonaceous, micaceous, silty.
38	8120'	12	<u>Shale</u> : as above
39	8010'	12	Shale: as above
40	7960'	12	Shale: black, firm, argillaceous
41	7860 '	1	Shale: dark brown soft, micaceous
42	7814'	1	Shale: firm with thin coal lenses, black
43	7572'	3/4	Shale: dark brown, firm, micaceous, rare silty lenses.
44	7426'	1	Shale: medium grey, firm, micaceous.
45	7340'	12	<u>Siltstone</u> : light grey, hard, carbonaceous, micaceous.
46	7253'	12	(100% coal) black, brittle - not payed for.
47	706 0'	1	Mudstone: firm, light grey, homogeneous
48	6924'	3/4	Shale: dark brown, firm, silty in part, carbonaceous, pyritic, micaceous.
49	6848 '	1≵	Mudstone: soft, light grey, homogeneous.
50	6732 '	1	Silty Shale: dark brown to grey black, firm, micaceous.
51	6608 '	1	Shale: dark brown as above with silty lenses that are light grey.

			2 SNAPPER-2. 2 RUN-2 8/8 GUN-2.
NO	DEPTH	RECOVERY	DESCRIPTION
	_		
52	6561'	2	<u>Shale</u> : dark brown, firm, carbonaceous, mic aceous.
53	6402 '	1눛	Siltstone: light grey, argillaceous, firm thin carbonaceous laminae and micaceous patchy white fluorescence,weak, streaming cut.
54	62861	1	Shale: dark brown, firm, micaceous, carbon- aceous.
55	6144'	1	Shaly Siltstone: interlaminated, dark brown shale and light grey siltstone.
56	6050'	1	Siltstone: light grey, firm, micaceous.
57	5886'	1눛	Shale: soft, light grey, carbonaceous.
58	5758!	1붗	Shale: as above
59	5603'	1	Siltstone Shaly: fawn, carbonaceous, micaceous
60	5490 '	1	<u>Shale</u> : firm dark brown, homogeneous, carbon- aceous, micaceous.

· ·

•

.

• 1.

,

•

.

.

·

BIOSTRATIC RAPILY

WELL NAME SNAPPER-2

ELEV.

Foram Zonules

			Top			Base			•	
А		• •						•		
B										
C					<u> </u>		<u> </u>		<u> </u>	
D ₁										an sharika sa Sharik
D ₂										
Ē										· · · · · · · · · · · · · · · · · · ·
F		•				3600	·	•		- <u></u>
G			3600			3900?				
Н			`?			?				
I ₁				N	Р					
I ₂	•			N	Р	······································	· · · · · · · · · · · · · · · · · · ·			
J ₁		-		N	Р					
J ₂	• .			N	P					an a
K			;				· · · · · · · · · · · · · · · · · · ·		· ·	
			·							

Spore/Pollen Zonules by P.R. Evans February 1970

WELL: SNAPPER

ZONE	SUB-ZONE	DEPTH	SAMPLE
N. goniatus	N. asperus P. asperopolus	4036 4232 4321 4415	SWC SWC SWC SWC
M. diversus		4862 5320	SWC SWC
L. balmei		5490 8253	SWC C.10
∀T. lilliei	•••••	8495 8910	SWC SWC
N. senectus			
P. pachyexinus			
C. triplex		•	
A. distocarinatus	an a		
** . pannosus			

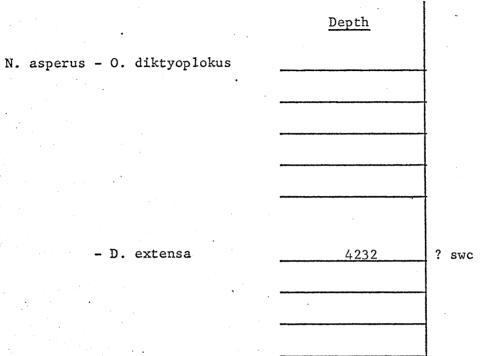
- Notholagidites Malvacipollis Lystigepollenites Tricolporites Proteacidites M -L -T1 -
- P ----

*

- A Appendicisporites ** T2 Tricolpites

WELL NAME SNAPPER -2

Dinoflagellate Zones



4321 (swc) Indeterminate

ELEV.

Sample.

BÂSIN	GIPPSLA	ND			DAT	`E				• •	
WELL	NAME SNAPP	PER-2			ELE	VATION	+31 f	èet	•	2 	a Activity
•		HI	GHEST	DATA		1999 - Handrid Andrew Brite Particula	LOW	EST	DATA		
AGE	PALYNOLOGIC ZONES	Preferred Depth	Rtg.	Alternate Depth	Rtg.	2 way time	Preferred Depth		Alternate	Rtg.	2 way time
0 -9I	P. tuberculatus										
(U. <u>N. asperus</u>										
	M. <u>N. asperus</u>										مسلمیت رو د
	L. <u>N</u> . <u>asperus</u>	40.36	/				4232	1			
NE	P. asperopolus	4321	1				4415	1			1 - Se
EOCENE	U. <u>M</u> . <u>diversus</u>										
	M. <u>M</u> . <u>diversus</u>										
	L. <u>M. diversus</u>	4862	1				5320	1			
	U. <u>L. balmei</u>	5490	1				6608	1			
PALEOCF	L. <u>L. balmei</u>	6732	2				6924	1			
IAI	T. longus	7702	1				8218	1			
	<u>T. lilliei</u>	8620	1	8495	2		8910	1			
A LEOUS	<u>N. senectus</u>										
L H L	<u>C. trip./T.pach</u>	•									
CRET	<u>C. distocarin</u> .										
	<u>T. pannosus</u>								•		
EA	RLY CRETACEOUS										
R	E-CRETACEOUS										
	T.D	10010									
COMM	ENTS: Deflai	ndrea <u>het</u>	eropi	hlurcta Di	nofla	zgellate	.Zone 4:	232	(2)		
	Marin	e inares:	sions	of the	Wet:	z. home	morpha 44' and	Din	oflagella	te Za	sne
	occurs	only in	the.	two sam,	ples	at 61	44' and	660	28!		\$}\$.[.]
				·							
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~									
RATI		CORE, EXCE			<u>E</u> , as	semblage	e with zone	spea	cies of sp	ores,	

				Lankeon.								
1;	SWC or	CORE,	GOOD	CONFIDENCE,	assemblage	with	zone	species	of	spores	and	
	pollen	or mid	cropla	ankton.								

- 2; SWC or CORE, POOR CONFIDENCE, assemblage with non-diagnostic spores, pollen and/or microplankton.
- 3; CUTTINGS, FAIR CONFIDENCE, assemblage with zone species of either spore and pollen or microplankton, or both.
- 4; CUTTINGS, <u>NO CONFIDENCE</u>, assemblage with non-diagnostic spores, pollen and/or microplankton.
- NOTE: If a sample cannot be assigned to one particular zone, then no entry should be made. Also, if an entry is given a 3 or 4 confidence rating, an alternate depth with a better confidence rating should be entered, if possible.

DATA RECORDED BY:	LES. / A.D.P.	
DATA REVISED BY:	ADP	
FORM No R 315 12/72		• •

DATE	June 1971; Dec. 1971.	_
DATE	Jan. 1975.	

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		WELL	NAME SNAPPER-2	DAT	TE <u>20</u>	<u>April 1971</u> ELI	SV.	+31'
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Fora	<u>m Zonules</u>					
$ \frac{A \text{ Alternate}}{B \text{ Alternate}} $ $ \frac{B \text{ Alternate}}{C \text{ Alternate}} $ $ \frac{C \text{ Alternate}}{C \text{ Alternate}} $ $ \frac{D_1 \text{ Alternate}}{D_2 \text{ Alternate}} $ $ \frac{B \text{ Alternate}}{D_2 \text{ Alternate}} $ $ \frac{B \text{ Alternate}}{F \text{ Alternate}} $				Quality	2 Way Time		Quality	2 Way Time
$ \frac{(\operatorname{Alternate})}{(\operatorname{Alternate})} = \frac{(\operatorname{Alternate})}{(Altern$	i andre see		A Alternate			νιαινι και μαν αγγαγικατική προγογιατική το ματιστική το ματιστική το ματιστική το ματιστική το ματιστική το μ Γεγγγαρική το μαγιατική το ματιστική το ματιστική το ματιστική το ματιστική το ματιστική το ματιστική το ματιστι Γεγγγαρική το ματιστική το ματιστ		
$H_{2} = \frac{C}{Alternate} = \frac{2935}{2935} / \frac{3/00}{200} / \frac{1}{100} = \frac{2935}{2935} / \frac{3593}{200} / \frac{1}{100} = \frac{3235}{200} / \frac{3593}{200} / \frac{3593}{200} / \frac{3593}{200} / \frac{3727}{200} / \frac{1}{200} = \frac{39657}{200} / \frac{39667}{200} / \frac{1}{200} = \frac{1}{100} = \frac$	n an thair a Tha thair an t		B Alternate			₩		
$ \frac{1}{2} \frac{1}{\text{Alternate}} = \frac{3235}{3593} / \frac{3593}{3593} / \frac{3593}{3727} / \frac{3650}{41 \text{ternate}} = \frac{3650}{3727} / \frac{3967}{3967} / \frac{3967}{3967} / \frac{3967}{41 \text{ternate}} = \frac{3727}{41 \text{ternate}} = \frac{1}{1 \text{ Alternate}} = \frac{1}{1  Alternate$			Alternate 2935			3/00		
$ \frac{E}{Alternate} = \frac{3650}{3727} / \frac{3727}{3067} / \frac{3727}{100} $ $ \frac{F}{Alternate} = \frac{3727}{100} / \frac{3067}{100} / \frac{100}{100} $ $ \frac{H_1}{Alternate} = \frac{H_2}{Alternate} = \frac{I_1}{Alternate} = \frac{I_1}{Alternate} = \frac{I_1}{Alternate} = \frac{I_1}{100} $			Alternate 3235	2		3593	1	10
$\frac{F}{Alternate}$ $\frac{F}{Alternate}$ $\frac{F}{Alternate}$ $\frac{H_{1}}{Alternate}$ $\frac{H_{2}}{Alternate}$ $\frac{I_{1}}{Alternate}$			- 3650			3.7.2.7		
Alternate H 1 Alternate H 2 Alternate I 1 Alternate I 1 Alternate I I I I I I I I I I I I I I I I I I I		CENE	3727			3967	/	
H2 Alternate I Álternate		MIC	G Alternate			а улаг фа мушими саласан арман мулуми улаган улаг улаг улаг алар улаг алар улаг улаг улаг улаг улаг улаг улаг Калаг улаг улаг улаг улаг улаг улаг улаг		10,002,002,00,000 (20,00)
I Alternate						α τη της δαθερή στη ταλαγγά του		
				a chian ann a charachar		9 1900 - Da Van Vall I La Stata Stata Da Van Stata Da Van Van Van Van Van Van Van Van Van Va		2) 13 "M.G.M. & 1" 30 Mart
		NE				**************************************		
B     J       J     J		IGOCENE				ለም የአመታ ማንገር በእንዲያ የመረግ መድረግ የአመታ መድረግ እንዲያ የመረግ እንዲያ የመረግ እንዲያ የመረግ እንዲያ የመረግ እንዲያ የመረግ እንዲያ የመረግ እንዲያ የመረግ የሚሰ ሰብ እንዲያ የመረግ እንዲያ የመረግ የመረስ እንዲያ የመረግ እ	21.042374.04144204475.04	
2 Alternate		1	J ₂ Alternate			مەر بەر بەر بەر بەر بەر بەر بەر بەر بەر ب	* 3******	
K     Alternate       Pre K		EOC.	Alternate			NA 194 A 794 A 194 A Manual Managara a sa	1939-20 2023 482,274 27	A TOTAL AND
						**************************************	19-224-201.201.271.201.0	

er Selen

44,437 1940 F

3 - 19 - 19 

COMMEN'TS:

1

10

Note: If highest or lowest data is a 3 or 4, then an alternate 0, 1, 2 highest or lowest data will be filled in if control is available.

If a sample cannot be interpreted to be one zonule, as apart from the other, no entry should be made.

0 SWC or Core - Complete assemblage (very high confidence). 1 SWC or Core - Almost complete assemblage (high confidence). 2 SWC or Core - Close to zonule change but able to interpret (low confidence).
3 Cuttings - Complete assemblage (low confidence). 4 Cuttings - Incomplete assemblage, next to uninterpretable or SWC with depth suspicion (very low confidence).

By

	the grade of the second second	and see to a second	5 15 Jan 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	an this
	이 가장에서 물건을 가지 않는다.		E C	
an a				
				· · · ·
BASIN	GTPPST A	ND	Ne strate	
, garn new min -	communite of the handless of the second	the hold of the second s	ana mpanony manghanta tanàna misina mpilana amin'ny fi	ACCURENTIAL AND ACCUMANT
TTALES				

DATE June 1971

• WELL NAME <u>SNAPPER 2</u>

# ELEVATION <u>+ 31 feet</u>

AGE	PALYNOLOGIC	۵۳۳-۱۹۵۵ (۱۹۵۵ - ۲۰۹۵) ۲۰۹۵ (۱۹۹۵ - ۲۰۹۵) ۲۰۹۵ - ۲۰۹۵ (۱۹۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲۰۹۵ - ۲		GHEST DATA	7			······	OWEST DAT		1.0
	ZONES	Preferred Depth	Rtg	Alternate Depth			Preferred Depth		Altornate Depth		2 w ti
<u>ي</u> ا	T. bellus						·				
NI OC.	<u>P. tuberculatus</u>	999 - A-C - T- 1992 - C - C - C - C - C - C - C - C - C -		aanginaara yawa ayaa langingingin di N € 600° 400 lag Cyr (h					nanga Program (nganga) Bindi atang kang kang kang kang kang kang kang k		1997 1997 - 1997 1997 - 1997
	U. <u>N. asperus</u>	۲۰۰۰ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ		**************************************					2.95 (1999) - 1999 - 1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 19		
Ē	<u>L. N. asperus</u>	4036 . 4230	1			1.028	4232	1			1.0
EOCENE	P. asperopolus	4321	1			1094	4415	1	ular a supervery reference width to speed		1.11
legi e V anto tras Anto tras	U. M. diversus	4731					ςz%ι				
n (n gin di sa 1 July - San (n gin di sa 1 July - San (n gin di sa (n gin di	L. <u>M. diversus</u> L. <u>balmei</u>	4731 4862	1	namen general de la constant de la c		1.205	5320 5893	1	ana ana ang ang ang ang ang ang ang ang		1.2
ENE	T. longus	5490 1541	1	7671		1.329	8127	1	1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -		1.6
	<u>T. lilliei</u>	7572 ⁷⁵⁴¹ 8495	2	7702	1	1.715	8218	1.	en se handel - e e este directo di Strain Miller (Strain		179
SU(	N senectus	8495	1			1.838	8910		ĨĸŦĸĊĸſĊĬŎŎĊŎŎŎĸĸŢĸĹŎĬĬĬĊŎĸĿĸŎĬĬĬĬĬĬŎŎŎŎĸĸĿĸŎĬĬĬĬĬĬĬŎĿĸ	-	1.9
LATE CRETACEOUS	<u>C. trip./T.pach</u> .										
CRE	<u>C. distocarin.</u>			- 12 19 29 20 20 20 20 20 20 20 20 20 20 20 20 20			ار ا				
	<u>T. pannosus</u>						a maganan in mangasia an mshaonese salmu ditar.		Larry Content and Sharper and The Content of the State of th		
cous	<u>C. paradoxa</u>	es, new part Planta contro concernant d'élevration							**************************************		
	<u>C. striatus</u>										
ARLY ETACEOUS	U. <u>C. hughesii</u>		·				a sevel a star of the second		ME AND THE WAY AND AND A STOLEN AND A STATEMENT		
	L. C. hughesii				ļ		and the formation of the second state of the s				
	<u>C. stylosus</u>	and an an and an	·						and delivering the period of the state of the delivery		
	Cretaceous						an a		ana, a naarahar is, an i kalan ni maadiya dan si kum		
COMM	ients: <u>T.D. loc</u>	<u>710 (2.C</u>	(-(-) ·	1847 YE OLD 1947 DAY 28-12 ALSO PORTO IN DAY OF A TO A		4. 5 mil - Carlos Mandalan, agre de St	<b>**</b> **********************************	₽₽\$\$\$ ^{\$} ₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽₽	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	notic narola potecti	and and a second
		<mark>danlar sey selen ability operations and a</mark> a total design of the selection of the selectio	2000 - 10 - 10 - 10 - 10 - 10 - 10 - 10	ana ang ang ang ang ang ang ang ang ang	*****	90227547,0049,004-96,004-96,07-9625988-960-	<u>ar yan ana an</u> an	***************************************			10.000 WC10000 WW 37000
	NGS: 0; SWC or pollen 1; SWC or pollen	CORE, <u>EXCEL</u> and micropl CORE, <u>GOOD</u> or micropla	ankt CONF nkto	on. <u>IDENCE</u> , ass n.	emb l	age wit	th zone sp	ecies	s of spore	s and	1 1
2	3; CUTTING pollen	microplankt S, <u>FAIR CON</u> or micropla S, <u>NO CONFI</u>	on. FIDE nkto	NCE, assemb n, or both.	lage	with :	zone speci	es of	either s	pore	s and
angt M Frida Ra Colla Ra	1: If a sample ca Also, if an en better confide	try is give nce rating	n a shou	3 or 4 conf 1d be enter	iden ed,	ce rat:	ing, an al sible.	terna	ite depth		
	RECORDED BY:		**************************************	.Partridge		D.	and rest of a second		1971.		a ang ing ang ang ang ang ang ang ang ang ang a
DATA	REVISED BY: CHEC	KFD; L.E.S.		and the second			ATE	ec. 1	1971 - 6	(1,2,2,2,2,2)	Sec. Sec.

CORE ANALYSIS

Petroleum Technology Laboratory, Bureau of Mineral Resources, Gearbay and Geophysics, Canberra

#### CORE ANALYSIS RESULTS

NOTE: (i) Unless otherwise stated, porosities and permeabilities were determined on two plugs (V&H) cut vertically and horizontally to the axis of the core. Ruska porosimeter and permeameter were used with air and dry nitrogen as the saturating and flowing media respectively. (ii) Oil and water saturations were determined using Soxhlet type apparatus. (iii) Acetone test precipitates are recorded as Neg., Trace, Fair, Strong or Very Strong.

WELL NAME AND NO. Snapper No.2

DATE ANALYSIS COMPLETED November 28, 1975

			•	/										
Core No.	Samp Dept			Average Effective Porosity	1	ite bility darcy)	(gm/d	ity cc.)	Fluid Saturat (% pore		Core Water Salinity		Fluorescence of freshly broken	Sample ^s cut ^s in tetrachlorethylene
	From	To		two plugs (% Bulk Vol.	V	н		Apparan Grain	Water	011	(p.p.m. NaCl)	Test	core	
1	4351 °0"	4351 <b>1</b> 6"	Sst; m. gr to v.c.gr.	14.7	616	1252	2.30	2.68	1.7	trace	N.D.	N11	irregular spotted yell	ow Nij
1	435518°	4356°0"	Sst; c. gr	20.9	N.D.	7200	2.13	2.69	1.0	trace	N.D.	NII	NIT	N1]
2	436310"	436314	Sst: c.gr. to v.c.gr	12,5	N.D.	1079	2.38	2.71	0.3	trace	N.D.	<u>N51</u>	Ni 1	NT ]
2	4368*9*	<u>4369°0"</u>	Sst; m.gr. to v.c.gr.	11.0	N.D.	258	2.42	2.70	0.8	trace	N.D.	N11	Nil .	Trace
3	4550'5"	4550'10*	Sst; f.gr. to m.gr.	22.0	966	1097	2.09	2.65	0.2	3.7	N.D.	strong	even yellow	Good
3	455410 ⁸	4555°0°	Sst; f.gr. to c.gr.	22.4	N.D.	1439	2.08	2.66	0.2	8.9	N.D.	strong	even yellow	Good
3	4563*5*	456318"	Sst; m.gr. to c. gr.	12.2	N.D.	256	2.37	2.69	0.8	2.4	N.D.	fair	trace yellow	Trace
3	4573°9"	4574°0°	Sst; m.gr. sl. calc.	15.3	79	189	2.29	2.70	0.2	3.1	N.S.	fair	as above	Trace

Remarks: - Core No.5 No recovery

***-** Fractured

General File No. 74/1070 Well File No.

1 0/3

Petroleum Tempology Laboratory, Bureau of Mineral Resources, Mogy and Geophysics, Canberra

### CORE ANALYSIS RESULTS

NOTE: (i) Unless otherwise stated, porosities and permeabilities were determined on two plugs (V&H) cut vertically and horizontally to the axis of the core. Ruska porosimeter and permeameter were used with air and dry nitrogen as the saturating and flowing media respectively. (ii) Oil and water saturations were determined using Soxhlet type apparatus. (iii) Acetone test precipitates are recorded as Neg., Irace, Fair, Strong or Very Strong.

WELL NAME AND NO. Snapper No.2

DATE ANALYSIS COMPLETED November 28, 1975

Core No.	Samp1 Dept1		Lithology	Effective Porosity	Absolu Permeal (Milli	bility	(gm/c	ty :c.)	Fluid Saturat (% pore	ion	Core Water Salinity	Acetone	Fluorescence of freshly broken	Sample ⁿ cut ^a in tetrachlorethylene
	From	To		two plugs (% Bulk Vol.	٧	H		Apparent Grain	Water	011	(p.p.m. NaCl)	Test	core	
3	4578 ¹ 6 ¹⁰	4579°0	Sst; c. gr. sl. calc.	14.2	79	5.6	2,32	2.68	1.0	Trace	N.D.	N9 1	Trace yellow	nil
4	4603°0"	4603 ¹ 8"	Sst; f. gr. to c.gr.	27.8	N.D.	1630	1.91	2.65	49	Trace	N.D.	<u>N1]</u>	dull spotted yellow	nil
4	4607*8 [®]	460810P	Sst; <b>n.</b> gr. to c.gr.	24,1	N _e D _e		2,02	2.65	73	Icase_	N.Q.		N11	nll
4	4611 ¹ 78	4612°0°	Sst; e.gr. to v.c.gr.	6	N.D.	2325	<u>1.96</u>	2.64	6.5	Iraco	N.D.	<u>_N11</u>	NI1	
6	7649°0*	764910°	sh. slty pyr。	4.1	< 0.1	17*	2.45	2,56	3.5	0.5	N.D.		good irregu- lar yellow	fair
6	7670°0°	7670°9®	Sst; v.f.( carb	10.9	0,13	0,12	2,39	2.67	24	1.8	N.D.	_N11	Ng]	
7	7720°6¤	7721 09	Sst; B.gr.	19.4	N.O.	258	2,15	2.66	_51	Trace	N.D.	<u>_N1]</u>	Trace Irrega ular yellov	N11

Remarks: - Core No. 5 No recovery

General File No. 74/1076 Well File No.

* - Fractured

243

Petroleum Technology Laboratory, Bureau of Mineral Resources, Geology and Geophysics, Canberra

## CORE ANALYSIS RESULTS

NOTE: (i) Unless otherwise stated, porosities and permeabilities were determined on two plugs (V&H) cut vertically and horizontally to the axis of the core. Ruska porosimeter and permeameter were used with air and dry nitrogen as the saturating and flowing media respectively. (ii) Oil and water saturations were determined using Soxhlet type apparatus. (iii) Acetone test precipitates are recorded as Neg., Trace, Fair, Strong or Very Strong.

WELL NAME AND NO. _Snapper_No.2_____

DATE ANALYSIS COMPLETED November 28, 1975

Core No.	Samp Dept		Lithology	Effective Porosity		te bility darcy)	(gm/0	ity cc.)		ion space)	Core Water Salinity	3	Fluorescence of freshly broken	Simple "cut" in totrachlorothylene
	From	To		two plugs (% Bulk Vol.	۷	Н		Apparent Grain	Water	011	(p.p.m. NaCl)	Test	core	· · · · · · · · · · · · · · · · · · ·
8	8160°0°	6160°6°	Sst; f.gr. carb.	10.0	0.18	0.42	2.40	2.66	0.4	1.3	N.D.	trace	spotted yellow	Fair
9	8174*7*	8175°0*	Sst; m.gr. to c.gr.	18.0	119	222	2.18	2.65	ŷ	10.9	N.D.	goed	even blue	 Good
10	824216"	8242°10°	Sst; v.f.g to f. gr.	10.6	0.33	0.18	2.39	2,67	2	NII	N.D.	nil	Trace spotte yellow	d N1]
			s1ty 											
				199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199 - 199			449 maarind							
		• • • • • • • • • • • • • • • • • •							• <b>•</b>			· ••• •• •• •• •• •• ••		

Remarks: -

General File No. Well File No.

343.

CORE LABORATORIES, INC. Petroleum Reservoir Engineering DALLAS, TEXAS October 1, 1969

Esso Standard Oil (Australia) Ltd. Box 4249, G. P. O. Sydney, New South Wales 2001

Attention: Mr. C. A. Pierce

Subject: Core, Mud and Cuttings Analysis Snapper 2 Well Snapper Field Victoria, Australia

#### Gentlemen:

c

A Core Laboratories Australia combination drill cuttings and core analysis unit was present at the site of the subject well during drilling operations from 2500 feet to the total of 10,011 feet. Using standard equipment plus a Programmed Hydrocarbon Detector and a Beckman G-C-1 chromatograph, the drilling fluid was monitored continuously for hydrocarbon content and the drill cuttings were checked at regular intervals for gas and oil content and lithology. Additionally, shale densities were determined periodically. All core analysis was performed by conventional procedures. The results of these operations are shown on the accompanying Grapholog and Coregraph.

Hydrocarbon Shows: Minor concentrations of methane and ethane gas were encountered from the start of logging at 2500 feet to 3900 feet. Major increases of petroliferous gas were noted from 3900 feet to total depth 10,011 feet. The full significance of this gas is somewhat confused by the high percentage of coal through this section. The zone 3900 to 4600 feet appears most significant in view of the higher concentrations of propane and butane and the traces of pentane. Other zones of particular interest are from 6590 to 6650 feet and the sands between 8490 and 9990 feet. No fluorescence was detected in any of the cuttings. Esso Standard Oil (Australia) Ltd. Snapper 2 Well

٦,

5 B P

<u>Core Analysis</u>: Core Analysis of the zone 4348 feet to 4612 feet indicated very good reservoir conditions with relatively low water saturations. Gas production is indicated from Cores 1 and 2. Oil production is indicated from the permeable part of Core 3 down to approximately 4571 where the oil-water contact appears to be. Water production is indicated from the intervals of Cores 4, 6 and 7. Probable oil production is indicated from 8163 to 8165 in Core 8. Probable water production is indicated from Core 9.

We sincerely appreciate this opportunity to have been of service, and trust that the information furnished in this report and during drilling operations has assisted in the evaluation of this well.

Yours very truly,

Core Laboratories Australia (QLD) Ltd.

Madams (8)

Joe B. McAdams Resident Manager

JBM:dl 12 cc. - Addressee Page Two

1

l

This is an enclosure indicator page. The enclosure PE601490 is enclosed within the container PE905072 at this location in this document.

The enclosure PE60	1490 has the following characteristics:
ITEM_BARCODE =	PE601490
CONTAINER_BARCODE =	PE905072
NAME =	Well Completion Log
BASIN =	GIPPSLAND
PERMIT =	VIC/P1
TYPE =	WELL
SUBTYPE =	COMPLETION_LOG
DESCRIPTION =	Well completion log (enclosure from
	WCR) for Snapper-2
REMARKS =	
DATE_CREATED =	2/08/69
$DATE_RECEIVED =$	
W_NO =	W550
WELL_NAME =	SNAPPER-2
CONTRACTOR =	
$CLIENT_OP_CO =$	ESSO EXPLORATION AND PRODUCTION
	AUSTRALIA INC
(Inserted by DNRE -	Vic Govt Mines Dept)

This is an enclosure indicator page. The enclosure PE603640 is enclosed within the container PE905072 at this location in this document.

The enclosure PE60	3640 has the following characteristics:
ITEM_BARCODE =	PE603640
CONTAINER_BARCODE =	PE905072
NAME =	Mud Log
BASIN =	GIPPSLAND
PERMIT =	VIC/P1
TYPE =	WELL
SUBTYPE =	MUD_LOG
DESCRIPTION =	Mud (Grapholog) Log for Snapper-2
REMARKS =	
$DATE_CREATED =$	22/06/69
DATE_RECEIVED =	
W_NO =	W550
WELL_NAME =	SNAPPER-2
CONTRACTOR =	CORE LABORATORIES AUSTRALIA LTD
CLIENT_OP_CO =	ESSO AUSTRALIA LIMITED

(Inserted by DNRE - Vic Govt Mines Dept)

This is an enclosure indicator page. The enclosure PE603641 is enclosed within the container PE905072 at this location in this document.

The enclosure PE603	3641 has the following characteristics:
ITEM_BARCODE =	PE603641
CONTAINER_BARCODE =	PE905072
NAME =	Completion Coregraph Log
BASIN =	GIPPSLAND
PERMIT =	VIC/P1
TYPE =	WELL
SUBTYPE =	WELL_LOG
DESCRIPTION =	Completion Coregraph Log for Snapper-2
REMARKS =	
$DATE_CREATED =$	31/07/69
$DATE_RECEIVED =$	
W_NO =	W550
WELL_NAME =	SNAPPER-2
CONTRACTOR =	CORE LABORATORIES AUSTRALIA LTD
CLIENT_OP_CO =	ESSO AUSTRALIA LIMITED
(Inserted by DNRE -	Vic Govt Mines Dept)

This is an enclosure indicator page. The enclosure PE902849 is enclosed within the container PE905072 at this location in this document.

The enclosure PE90	2849 has the following characteristics:
ITEM_BARCODE =	PE902849
CONTAINER_BARCODE =	PE905072
NAME =	Tome/Depth Curve
BASIN =	GIPPSLAND
PERMIT =	VIC/P1
TYPE =	WELL
SUBTYPE =	VELOCITY_CHART
DESCRIPTION =	Time/Depth Curve (enclosure from WCR)
	for Snapper-2
REMARKS =	
$DATE_CREATED =$	7/09/71
DATE_RECEIVED =	
W_NO =	W550
WELL_NAME =	SNAPPER-2
CONTRACTOR =	
CLIENT_OP_CO =	ESSO EXPLORATION AND PRODUCTION
	AUSTRALIA INC
(Inserted by DNRE -	Vic Govt Mines Dept)

This is an enclosure indicator page. The enclosure PE905073 is enclosed within the container PE905072 at this location in this document.

The enclosure DE9	0	5073 has the following characteristics:
		-
ITEM_BARCODE		
CONTAINER_BARCODE	=	PE905072
NAME	=	FIT Data
BASIN	=	GIPPSLAND
PERMIT	=	VIC/P1
TYPE	=	WELL
SUBTYPE	=	FIT
DESCRIPTION	=	Formation Interval Tester Recovery Data
		for Snapper-2
REMARKS	=	
DATE_CREATED	=	
DATE_RECEIVED	=	
W_NO	=	W550
WELL_NAME	=	SNAPPER-2
CONTRACTOR	=	SCHLUMBERGER
CLIENT_OP_CO	=	ESSO AUSTRALIA LIMITED
(Treasers and have DNDT		Min Grant Min or Devit)

(Inserted by DNRE - Vic Govt Mines Dept)