

350001

**RAW DATA REPORT**

**POONBOON #1**

**OR\_342A**

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350003

Hematite Petroleum Proprietary Limited



440 COLLINS STREET, MELBOURNE • POSTAL ADDRESS: G.P.O. BOX 2752Y, MELBOURNE, VIC. 3001 • TELEPHONE: 60 0331 • TELEGRAPH: "HEMEX" MELBOURNE

The Designated Authority,  
c/o Director of Mines,  
Department of Mines,  
G.P.O. Box 124B,  
HOBART. TASMANIA. 7001

D of M	A.O.	CG	CC & M	D.S.M.E.
				Reg. strar
RECEIVED	28 AUG 1972			E & IL
ANSWERS	DEPT. OF MINES			
REF. No.				

25th August 1972

Dear Sir,

NOTICE OF INTENTION TO DRILL POONBOON - 1

We understand that you have not received the "Notice of Intention to Drill" relating to the Poonboon-1 well and assume that the package containing our written application, together with illustrations, has been delayed in the mail. We are therefore sending you one copy of the illustration together with our application for which we seek your approval. In the event that you do not receive our first letter we should be pleased to provide an additional set of illustrations.

Yours faithfully,

R.P. HARRISON  
MANAGER OPERATIONS

RPH:BRB:SW

Encl.

COMMONWEALTH OF AUSTRALIA.

STATE OF TASMANIA.

Petroleum (Submerged Lands)Petroleum (Submerged Lands)Act 1967 - 1968Act 1967NOTICE OF INTENTION TO DRILL

The Designated Authority, State of Tasmania.

Hematite Petroleum Proprietary Limited, being the holder of Petroleum Exploration Permit No. T/6P, hereby notifies its intention to drill a well and requests your permission to carry out the proposed operation.

(a)	Well name and number	ESSO POONBOON-1
(b)	Classification of Well	Wildcat
(c)	The exact location of the proposed well	Latitude 40 <sup>0</sup> 08' 17.296" South Longitude 145 <sup>0</sup> 55' 00.339" East
(d)	Distance from nearest tenement boundary	3.75 miles south from T/4P
(e)	Drilling datum	Rotary table 34 feet above sea level
(f)	Water depth	252 feet <sup>+</sup> <sub>-</sub>
(g)	Method of drilling proposed Type of rig Name of rig	Rotary Drilling Drilling Vessel - Glomar Conception
(h)	Drilling contractor	Global Marine, P. O. Box 531, Sale, Victoria, 3850 Telephone: 44.1300
(i)	Person in charge	Mr. J. Beall, Esso Australia Ltd., Sale, Victoria, 3850 Telephone : 44.3521
(j)	Geological supervisor	Mr. A. C. Pierce, Esso Australia Ltd., G. P. O. Box 4047, Sydney, N. S. W. 2001. Telephone : 2.0557

PROPOSED ENGINEERING AND GEOLOGICAL DETAILS : These may be varied according to conditions encountered during drilling operations.

(k) Formation Tops	<u>Drilling Depth*</u> (feet)
Torquay Group equivalent	284
Demon's Bluff	5612
Eastern View	6392
Upper <u>M. diversus</u>	7872
Lower <u>M. diversus</u>	8672
Palaeocene	9532

\*Assuming 32 feet K. B.

(l) Objective of Well	To test the hydrocarbon potential of the Eastern View Complex in the Poonboon anticlinal closure. The main objective is the Lower <u>M. diversus</u> zone.
(m) Proposed total depth	11,000 feet. Alternative total depth is 12,500 feet if well is still in reservoir rock with hydrocarbon shows at 11,000 feet.

(n) Proposed engineering details of well

<u>Hole Diameter</u>	<u>Casing Size</u>	<u>Weight and Grade</u>	<u>Setting Depth</u>	<u>Cementing Proposal</u>
36 inch	30 inch	Pile Joint	26 feet + penetration	60sx
26 inch	20 inch	(129.33, X-52) (91.51, X-52)	400 feet + penetration	785sx
18 inch	13 $\frac{3}{8}$ inch	54.5, J-55	3000 feet + K. B.	850 <sup>+</sup> -sx
12 $\frac{1}{4}$ inch	9 $\frac{5}{8}$ inch	47.0, N-80	9000 feet + K. B.	*

8 $\frac{1}{2}$  inch hole to total depth

\*As required to bring cement top 1000 feet above all hydrocarbon bearing zones, or 8000 feet, whichever is higher.

(o) Proposed logging details

After penetrating a hydrocarbon column or prior to setting 9 $\frac{5}{8}$  inch casing the following logs will be run : IES and BHCS-SP or ISF-S, FDC-CNL-GR-Caliper, HDT, GR-Caliper will be run to 13 $\frac{3}{8}$  inch casing shoe, FDC-CNL and HDT to the top of the Demon's Bluff.

(o) Proposed logging details (Cont'd.)	At total depth, IES, BHCS-SP, or ISF-S, FDC-CNL-GR-Caliper, HDT. FIT's and CST's as required. Velocity survey will be run prior to running $9\frac{5}{8}$ inch casing and/or at total depth.
(p) Mud logging	Continuously from the 20 inch casing shoe to total depth. Catch 5 sets of washed and dried samples and 1 sack of unwashed cuttings every 10 feet. Collect 1 can of 10 foot samples every 100 feet. If drilling conditions warrant, samples need be taken only every 30 feet.
(q) Coring	Core all significant hydrocarbon shows. In the absence of shows, cores in the Eastern View for stratigraphic analysis.
(r) Proposed date of commencement of operations	End of August 1972
(s) Notification date	21st August 1972

R. P. Harrison  
Manager Operations  
Hematite Petroleum Pty. Ltd.

DRILLING PROGRAMGENERAL:

Well Name: POONBOON-1

Water Depth: 252'±

Rig: Glomar Conception

Location: Seismic line B71A-73 shot point 1802  
 Latitude 40° 08' 17.296" South  
 Longitude 145° 55' 00.339" East  
 AMG Zone 55 Co-ordinates  
 407720E  
 5556333N

This location is 9 miles north-northeast of Pelican-3.

Programmed Total Depth: 11,000 feet. Alternative total depth is 12,500 feet if well is still in reservoir rock with hydrocarbon shows at 11,000 feet.

FORMATION EVALUATION:(a) Electric Logging:

DEPTH	LOGS
After penetrating hydrocarbon column or prior to setting 9-5/8" casing.	IES and BHCS-SP or ISF-S, FDC-CNL-GR-Caliper, HDT, possible FIT's and CST's. Run GR-Caliper to 13-3/8" casing shoe. Run FDC-CNL and HDT to top of Eocene.
Total Depth	IES, BHCS-SP or ISF-S, FDC-CNL-GR-Caliper, HDT, CST's, possible FIT's.
NOTE:	Velocity survey will be run prior to running 9-5/8" casing and/or at total depth.

(b) Mud Logging:

Mud logging will be continuous from the 20" casing shoe to total depth. Obtain 5 sets of washed and dried samples and 1 sack of un-washed cuttings every 10 feet. Also obtain 1 tin can of 10 foot samples every 100 feet. If drilling conditions warrant, samples need to taken only every 30 feet.

(c) Coring Program:

Core all significant hydrocarbon shows. In the absence of shows, anticipate at least 3 cores in the Eastern View for facies analysis.

CEMENTING PROGRAM:CasingCement System

30"/20" Pile Joint  
Annulus

60 sx of Aust. 'N' w/ 2% CaCl<sub>2</sub> mixed with  
fresh water.  
(113# CaCl<sub>2</sub> and 7.5 barrels fresh water)

Yield: 1.18 cu.ft./sk  
Water: 5.2 gal/sk  
Slurry Weight: 15.6 ppg

This volume gives 10% excess.

Pile Joint and  
20" Conductor

785 sx of Aust. 'N' preblended with 6% gel  
and mixed with fresh water (164 barrels).

Yield: 1.69 cu.ft./sk  
Water: 8.8 gal./sk  
Slurry Weight: 13.7 ppg  
Slurry Volume: 236 bbls

Tail in with 350 sx of Aust. 'N' with 2% CaCl<sub>2</sub>  
mixed with fresh water.  
(658# CaCl<sub>2</sub> and 44 barrels fresh water)

Yield: 1.18 cu.ft./sk  
Water: 5.2 gal./sk  
Slurry Weight: 15.6 ppg  
Slurry Volume: 74 bbls

This volume allows for twice gauge volume.

13-3/8" Surface

Bring cement top to 1550'± with Aust. 'N' neat  
mixed with fresh water. Tail in w/180 sx neat  
cement containing 1% CaCl<sub>2</sub> in 22 bbls mixing w  
On assumption of gauge hole, 850 sx of neat  
cement (105 barrels fresh water).

Yield: 1.18 cu.ft./sk  
Water: 5.20 gal./sk  
Slurry Weight: 15.6 ppg  
Slurry Volume: 178 bbls

9-5/8" Intermediate

Use caliper log to calculate cement required  
to bring cement top 1000 feet above all hydro-  
carbon bearing zones, or 8000 feet, whichever  
is higher.

Use neat cement with .7% HR-12 mixed to 15.6  
ppg. (4:08 TT @ 198°F).

CASING PROGRAM:

<u>Type</u>	<u>Size</u>	<u>Hole Size</u>	<u>Setting Depth</u>	<u>Running String</u>	<u>String Components</u>
Pile Joint	30"/20"	36"	26'± penetration	D.P.	File joint assembly consisting of: 30" CIW Conductor Housing, 30'-30" 391.52#/ft 1.275" WT LP 16-3/4" x 30" CIW Housing, 40'-20" 129.33#/ft 0.625" WT X-52 LP with CIW cc connector pin.
			Fill pile joint 30"/20" annulus with cement prior to running.		
Conductor	20"	26"	400'+ penetration	D.P.	Pile joint. 40'± 20" 129.33#/ft 0.625" WT X-52 LP with CIW cc connector box and CIW JV threaded connector pin. 280'± 20" 91.51#/ft 0.438" WT X-52 LP with CIW JV threaded connector pin and box. Make-up torque is 20,000 ft-lbs. 40'± 20" 91.51#/ft 0.438" WT X-52 LP with welded float shoe and CIW JV threaded connector box.
			Centralizers: 1 centralizer at bottom and top of 1st joint. Position stop rings for 5' of centralizer movement between collar and stop ring. 1 centralizer at top of 2nd joint with stop ring positioning as above. 1 centralizer free to move on 4th, 6th and 8th joints.		
Surface	13-3/8"	18"	2720'± penetration (3000'± KB)	HWDP	16-3/4" x 13-3/8" CIW Hanger and Seal Assembly. 2680'± 13-3/8" 54.5#/ft J-55 Buttress Casing. Make-up torque is 9000 ft-lbs. 13-3/8" Float Collar. 1 joint 13-3/8" 54.5#/ft J-55 Buttress Casing. 13-3/8" Float Shoe.
			Centralizers: 1 centralizer at bottom and top of 1st joint. Position stop rings for 5' of centralizer movement. 1 centralizer free to move on 3rd, 5th, 7th, 9th, 11th, 13th, 15th and 17th joints.		
Inter-mediate	9-5/8"	12 1/4"	9,000'± KB	HWDP	16-3/4" x 9-5/8" CIW Hanger and Seal Assembly. 8680'± 9-5/8" 47.0#/ft N-80 Buttress-Casing. Make-up torque is 11,000 ft-lbs. 9-5/8" Float Collar. 1 joint 9-5/8" 47.0#/ft N-80 Buttress Casing. 9-5/8" Float Shoe.
			Centralizers: 1 centralizer at bottom & top of 1st joint. Position stop rings for 5' of centralizer movement. 1 centralizer free to move on 3rd, 5th & 7th joints. 1 centralizer free to move per every 3rd joint from 8th joint to 500' above uppermost hydrocarbon bearing zone, or to 8000' - whichever is higher. 1 centralizer free to move per every 2nd joint from 3200±' to 2700±'.		

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ABANDONMENT PROCEDURE:

The following abandonment plugs should be set. Cement volumes given are calculated assuming a gauge 8 $\frac{1}{2}$ " hole and should be used only as a guide.

<u>Plug No.</u>	<u>Interval MD-KB</u>	<u>Cement</u>	<u>Remarks</u>
1.	9,100 $\pm$ '-8800 $\pm$ '	105 sx Aust. 'N' w/ .9% HR-12	Bottom of plug 100' $\pm$ below intermediate casing shoe.
2.	3000 $\pm$ '-2500 $\pm$ '	215 sx Aust. 'N'	Set horse collar plug thru perforations in 9-5/8" casing at 2700 $\pm$ '.
3.	550 $\pm$ '-350 $\pm$ '	70 sx Aust. 'N' w/ 2% CaCl <sub>2</sub>	Feel for top of plug after setting. Top of plug 65' $\pm$ below mud line.

Note: Cement plugs should be set across any critical zones encountered below intermediate casing.

Before final abandonment, recover wellhead by cutting casing 50 $\pm$ ' below mud line.

OTHER:

Pressure test the 20" casing to 500 psi, the 13-3/8" casing to 1500 psi, and the 9-5/8" casing to 3000 psi after the cement has set and prior to drilling out. After drilling out, pressure test the formation below the casings as follows:

<u>Casing</u>	<u>Pressure</u>	<u>Mud in Hole</u>	<u>Mud Wt. Equivalent</u>
20"	0 psi	Seawater (8.54 ppg)	Circulation only
13-3/8"	Leak off (1500# max.)	9.0 ppg	---
9-5/8"	2600 psi	10.0 ppg	15.0

Operating riser tension: 94 kips - suitable for up to 20 foot wave height and vessel offset of 3% of water depth. Apply 102 kips to compensate for line angle.

Non-operating riser tension: 103 kips - suitable for up to 20 foot wave height and vessel offset of 6% of water depth. Apply 112 kips to compensate for line angle.

Surge dampener precharge pressure:

Hydril -	Opening	100 psi
	Closing	480 psi
Shaffer -	Opening	100 psi
	Closing	650 psi

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Ball joint pressure:	<u>Mud Weight</u>	<u>Pressure</u>
	<u>PPG</u>	<u>psi</u>
	8.6	262
	9.0	267
	9.5	273
	10.0	279
	10.5	286
	11.0	292
	11.5	299
	12.0	305

Well data, particularly relating to production horizons, will be held strictly confidential.

\* \* \*

*Edmund S. Kennedy*  
Area Technical Manager

*Bozell*  
Area Operations Manager

*S. P. Kennedy* for W. H.  
Area Manager

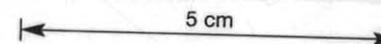
DRILLING PROGRAM - POONBOON-1MATERIAL LIST

<u>ITEM</u>	<u>QTY.</u>	<u>DESCRIPTION</u>
<u>Wellhead Equipment:</u>		
1.	1	30" Drilling Template - Alloycraft Part No. 562-48-061
2.	1	Guide Base 6 foot radius - CIW Part No. 672408-2
3.	1	Fabricated Pile Joint consisting of: 30" Conductor Housing - CIW Part No. 680560 16-3/4" - 5000# Casing Head Housing - CIW Part No. 680891-3 30' - 30" 391.52#/ft 1.275"WT LP 40' - 20" 129.33#/ft 0.625"WP X-52 LP with CIW cc connector pin.
4.	1	16-3/4" x 13-3/8" Flow Thru Hanger and Seal Assembly - CIW Part No. 674066-1-2
5.	1	16-3/4" x 9-5/8" Flow Thru Hanger and Seal Assembly - CIW Part No. 674066-31-2
<u>Conductor:</u>		
1.	40'	20" 129.33#/ft 0.625" WT X-52 LP with CIW cc connector box and CIW threaded connector pin.
2.	280'	20" 91.5#/ft 0.438" WT X-52 LP with CIW threaded connector pin and box.
3.	40'	20" 91.5#/ft 0.438" WT X-52 LP with Baker Float Shoe, Part No. 100-01, and CIW threaded connector box.
4.	6	20" Centralizer, Latch-on Baker Model M, Part No. 244-53
5.	3	20" Ciamp, Casing, Stop Ring, Baker Part No. 248-02

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<u>ITEM</u>	<u>QTY.</u>	<u>DESCRIPTION</u>
<u>Surface Casing:</u>		
1.	2680'	13-3/8" Casing 54.5#/ft J-55 Buttress
2.	1 jt.	13-3/8" Casing 54.5#/ft J-55 Buttress with float collar Baker Part No. 101-01 threadlocked on top and float shoe Baker Part No. 100-01 threadlocked on bottom
3.	10	13-3/8" Centralizer, Latch-on Baker Model M Part No. 244-53
4.	2	13-3/8" Clamp, Casing, Stop Ring, Baker Part No. 248-02
5.	1	13-3/8" Subsea Cementing Plug - bottom
6.	1	13-3/8" Subsea Cementing Plug - top
<u>Intermediate Casing:</u>		
1.	8680'	9-5/8" Casing 47.0#/ft N-80 Buttress
2.	1 jt.	9-5/8" Casing 47.0#/ft N-80 Buttress with float collar Baker Part No. 101-01 threadlocked on top and float shoe Baker Part No. 100-01 threadlocked on bottom.
3.	25	9-5/8" Centralizer, Latch-on Baker Model M Part No. 244-53
4.	2	9-5/8" Clamp, Casing, Stop Ring, Baker Part No. 248-02
5.	1	9-5/8" Subsea Cementing Plug - bottom
6.	1	9-5/8" Subsea Cementing Plug - top

ESSO AUSTRALIA LTD.  
DRILLING PROGRAM



FIELD: POONPOON WELL NUMBER: 1 DRILLING SLOT: PROJECTED TD: 12,500' PREPARED BY: G.L. ARGALL DATE: JULY 26, 1972

M D	DRILLING TIME ESTIMATE, DAYS						BIT PROGRAM			HYDRAULIC PROGRAM				REMARKS		
	10	20	30	40	50	60	SIZE & TYPE	JETS (1/32 IN)	WOB. RPM	LINER SIZE & OPERATION	PRESSURE	SPM	GPM		ANNULAR VELOCITY (FPM)	
1,000							36" HO 502 26" OSC-3A	reg. bit	20	200/ 250	6-3/4" 6-3/4"	600	65 65	1035	38	Drill 36" hole to 267', then drill 26" hole to 450' per- foration.
							15" OSC-3A with 17 1/2" underreamer	3-16	30	200/ 250		2300	65 65	1035	90	Drill 17 1/2" hole to 3050'. Hydraulics program calculated assuming 6 joints HWDP and 9 7-3/4" DC's.
2,000																
3,000							12 1/4" X3A	3-18	60	200/ 250	6-3/4" 6-3/4"	3000	65 65	1035	205	Hydraulics program calculated assuming 12 joints HWDP and 15 7-3/4" DC's. Run 3 addi- tional joints HWDP above bu- per subs. Run 12-1/8" stabilizer 60' above bit. Adjust SPM to maintain pressure.
4,000								2-16 1-18					55 55	870	170	
5,000								3-16		150/ 200			48 48	760	150	Pelican-1 and -3 bit records attached.
6,000							12 1/4" XDG	1-15 2-16					44 44	705	140	
7,000							6-20 12 1/4" XDC	-	20	50/80	6-3/4" Single	900	44	320	65	Run 60' core barrel. Circulate bottom up before dropping dart to core on second and subsequent consecu- tive cores.
								1-15 2-16 2-15 1-16	60	130/ 180	6-3/4" 6-3/4"	3000	44/44	705	140	Hydraulics calculated assuming 12 joints HWDP and 18 DC's.
8,000							12 1/4" XDV	3-15		120/ 150			41 41	650	130	
9,000							8 1/2" XDV	2-14 1-15	50	90/120			40 40	640	330	
10,000							8 1/2" J33						39 39	620	320	Hydraulics calculated assuming 12 joints HWDP and 15 6 1/2" DC's.
11,000																
12,000								3-14					37 37	590	305	

Drill 36" and 26" hole.  
Set 20" casing and 20"/30" pile joint.  
Run 16-3/4" BOP stack and 18-5/8" Marine Riser System.

Drill 17 1/2" hole.

Set 13-3/8" casing.

Drill 12 1/4" hole.

Core

Drill 12 1/4" hole.

Log & set 9-5/8" casing

Drill 8 1/2" hole

Log, JXA



WEEKLY DRILLING REPORT

· Tenement Number T6P  
· Operator Esso Australia  
· Drilling Unit Glomar Conception  
· Well Poonboon-1  
Date of Report 31st August 1972  
· Location Latitude 40° 08' 17.296" South  
Longitude 145° 55' 00.339 East  
· Water Depth 259 feet

## Progress

Current	3085
Previous	<u>0</u>
Progress	<u>3085 feet</u>

Operations

Arrived on location at 0215 hrs., 29th August, and spudded in at 1815 hrs. same day. 20 inch casing was run and cemented at 720 feet in 26 inch hole, to 785 feet, on 30th August. 17½ inch hole was carried to 3085 feet; at report date preparation for running 13-3/8 inch casing was being made.

Geology

785 - 2840 feet. Limestone abundant shell fragments  
2840 - 3085 feet. Limestone as above up to 30% Marl,  
light gray, very calcareous, very silty.

HEMATITE PETROLEUM PTY. LIMITEDWEEKLY DRILLING REPORT

Tenement Number	T6P
Operator	Esso Australia
Drilling Unit	Glomar Conception
Well	Poonboon-1
Date of Report	7th September 1972
Location	Latitude 40° 08' 17.296" South Longitude 145° 55' 00.339" East
Water Depth	259 feet
Progress	
Current	7841
Previous	3085
Progress	<u>4756 feet</u>

Operations

Ran and cemented 13-3/8 inch casing at 3032 feet on 2nd September. Drilled 12 $\frac{1}{4}$  inch hole to 6407 feet. Cored core 1 6407 feet to 6432 feet. Drilled 12 $\frac{1}{4}$  inch hole to 7841 feet. Current operation, drilling ahead.

Geology

3085 - 4000	<u>Marls</u> light grey to olive grey silty and shaley in part, shale increases below 3700 feet to 50%. Shale; olive grey to brown grey calcareous.
4000 - 5660	<u>Shale</u> olive grey to brown grey calcareous, with up to 30% <u>sandstone</u> grey to brown silty fine grained glauconitic in part 4550-4730 feet; <u>siltstones</u> brown slightly sandy glauconitic up to 70%, 4730-5660 feet.
5660 - 6385	<u>Siltstone</u> light brown to grey to dark brown, slightly calcareous, with sandstone beds more numerous towards base: in interval 5780 to 5870 thin limestones buff to tan slightly dolomitic.
6385 - 7841	<u>Siltstone, Coal and Sandstone</u> <u>Siltstones</u> light brown to grey to dark brown slightly calcareous. <u>Sandstones</u> at top are glauconitic and pyritic medium to coarse grained, lower in section sandstones are light grey to brown fine grained with thin coarse poorly consolidated sands at 7040-7120 feet 7560-7570 feet. <u>Coals</u> are interbedded with shales and siltstones

Geology (Cont'd.)

6385 - 7841  
(Cont'd.)

above 7040 feet and are dark brown to grey black. Below 7540 coals are black and brittle. The first coal was identified in samples at 6530 feet and thick coaly sections seen at approximately 6590-6850 feet, 7540-7560 feet, 7630-7670.

Shows

Only background gas was seen on the gas detector and first minor gas kick associated with coals was seen at 7620 feet.

WEEKLY DRILLING REPORT

Tenement Number	T6P
Operator	Esso Australia
Drilling Unit	Glomar Conception
Well	Poonboon-1
Date of Report	14th September 1972
Location	Latitude 40° 08' 17.296" South Longitude 145° 55' 00.339 East
Water Depth	259 feet
Progress	
Current	8827
Previous	7841
Progress	<u>986 feet</u>

Operations

Drilled 12 $\frac{1}{4}$  inch hole to 8096 feet. Cut core 2 8096-8118 feet; drilled ahead 12 $\frac{1}{4}$  inch to 8802 feet, cut core 3 8802-8827 feet. Ran logs ISFS 8806-3028 feet GRFDCNL 8791-5700 HDT 8791-5700 feet.

Velocity survey. Sidewall cores 8788-5700 feet. 60 shots. FIT at 8760 feet. Preparing to run 9-5/8 inch casing at report date.

Geology

7841-8827

Interbedded Sandstone, Siltstone Coal and Shale  
Predominantly sandstone fine grained to very fine grained sandstones medium grained, moderately to well sorted, sub angular to sub rounded. Siltstone brown carbonaceous. Coal black shiny and brittle. Shale brown fissile and carbonaceous.  
Top of "Eastern View Coal Measures" is at 6207 feet and coals are well developed over the interval 6540-8285 feet.

Shows

Nil

WEEKLY DRILLING REPORT

Tenement Number	T6P
Operator	Esso Australia
Drilling Unit	Glomar Conception
Well	Poonboon-1
Date of Report	21st September 1972
Location	Latitude 40° 08' 17.296" South Longitude 145° 55' 00.339 East
Water Depth	259 feet
Progress	
Current	9636
Previous	8827
Progress	<u>809 feet</u>

Operations

Ran and cemented 9-5/8 inch casing at 8761 feet on 16th September after completing the logging operations; delayed by bad weather 17th and 18th September. Drilled ahead on 19th after testing casing shoe to equivalent of 15 ppg mud. Drilled 8½ inch hole to 9636 feet, drilling ahead at report date.

Geology

8827-9250 feet	<u>Shales and Siltstones</u> with interbedded sandstones silt grade to rarely coarse grained. 8940-9000, 9000-9040; and slightly calcareous. 7110-9160 feet siltstone and shales are tan to light grey slightly calcareous.
9250-9610 feet	<u>Sandstones</u> light grey to light brown slightly calcareous silt grade to medium grained with interbedded shales and siltstones and coals. Coal at 9310, 9350, 9440 and 9590 feet.

Shows

Nil  
Sandstones at 9000-9040 and 9580-9590 feet showed yellow fluorescence and cut after sample was crushed; and sandstones 8940-9000, 9110-9160, 9250-9310, 9350-9380 feet showed varying degrees of dull yellow fluorescence but gave no cut.

Tenement Number	T6P
Operator	Esso Australia
Drilling Unit	Glomar Conception
Well	Poonboon-1
Date of Report	28th September, 1972
Location	Latitude 40° 08' 17.296" South Longitude 145° 55' 00.339 East
Water Depth	259 feet
Progress	
Current	10691
Previous	9636
Progress	<u>1055 feet</u>

Operations

Drilled ahead 8½ inch hole to 9954 feet cut core 4 9954 to 9982 feet. Drilled ahead 8½ inch hole 10463 feet. Well flowed at this depth, killed well with 10.8 ppg mud and raised mud weight to 11.1 ppg and drilled to 10493 feet. Ran logs at this depth and drilled to 10691 feet with mud weighted to 12.2 ppg. At report date preparations were being made for logging.

Geology

9610-10435 feet	- <u>Interbedded Sandstone, Siltstone and Shale</u> <u>Sandstones</u> very fine grained to medium grained calcareous to non-calcareous, some are carbonaceous, clay matrix. <u>Siltstones</u> dark brown to grey brown carbonaceous, sometimes light green grey. <u>Shale</u> dark brown micaeous. <u>Coal</u> interbeds.
10435-10493	<u>Sands</u> medium grained to granule grade clear to white quartz angular to subrounded.
10493-10675	<u>Shale</u> dark grey slightly micaceous with thin interbedded, <u>siltstones</u> light grey to green grey slightly carbonaceous and non-calcareous and <u>sandstones</u> very fine grained to medium grained, clay matrix.
<u>Shows</u>	Spotty dull gold fluorescence in sands 9700 feet and 9960 feet (in core 4). Well flowed at 10463 feet and mud weight was cut from

10.2 ppg to 7.3 ppg on circulating bottoms up.

Gas readings in interval 10430-10460 feet indicated presence of C<sub>1</sub> to C<sub>4</sub> and up to 21000 units of C<sub>1</sub> were recorded. From tests at 10434 feet and 10427 feet low salinity water was recovered with up to 1.4 cu.ft. of gas.

WEEKLY DRILLING REPORT

Tenement Number	T6P
Operator	Esso Australia
Drilling Unit	Glomar Conception
Well	Poonboon-1
Date of Report	2nd October, 1972
Location	Latitude 40° 08' 17.296" South Longitude 145° 55' 00.339 East
Water Depth	259 feet
Progress	
Current	10715
Previous	10691
Progress	<u>24 feet</u>

Operations

Completed logging when hole at 10691 feet, ran FIT at 10680 feet FDCGR 10691 to 9050 feet, HDT 10691 to 8761 feet; cut core No. 5 10691 to 10715 feet and logged ISFS 10713 to 8761 feet SNP 10714 to 9600 feet. Ran two sidewall core runs shot 43 recovered 31 samples. Plugged and abandoned well moved off location at 1500 hours 2nd October, 1972.

Geology

10675 - 10715 feet Shale and Sandstone interbedded; shale predominates; sands are very fine grained to coarse grained.

Shows - NIL

*John*

29-8-72

Boadon I

On location 2.15 am

Due to spud in late afternoon

---

  
30-8-72

350025

~~20~~-8-72

Pondom I

Setted 20" casing at 720 ft  
Preparing to drill ahead.

D.O.M.

Pondoon I

10.30 am 1/9/72 (2nd day)

Depth 3085 feet.

Preparing to run  $13\frac{3}{8}$ " casing.  
(this was scheduled for 5th day.)

~~FD~~

D

Don

Poonboon I

11:30 am 5-9-72

Depth 6407'

basically shales and siltstones  
to 6385' with increasing sandstone  
content up to 30% to 6407'

Intention to core upper section of the  
Eastern View Coal measures probably  
early tomorrow morning to identify  
interpreted closure.

D

~~\_\_\_\_\_~~  
DPM

## Poonboom I

12.00 6/9/72

Depth 6432' preparing to drill ahead  
after coring 6407' - 6432'.

24' core recovered, interbedded siltstones  
& shales of Eastern New series. - within  
limits of prediction.

No indications of hydrocarbons but  
sediments tight and could form cap system

Poonboon I

9.45 am 7/9/72

Depth 7214'

No hydrocarbons although closure at this depth.

basically interbedded siltstone, coals and shales with sandstone;

Coally material first met 6470' continuing to about 6910'

from 7040' - 7120' encountered a good sub angular to sub rounded ~~and~~ apparently unconsolidated sand - grains only no chips.

from 7120' to 7214' sandstone very fine to fine grained with a lot of pyrite, and siltstone with carbonaceous streaks.

D

Q

Poonboon I

10.00 am 8/9/72

Depth 7841' drilling ahead.  
basically sandstones interbedded with  
coals and siltstones.

Coal seam 7540'-7560' described as  
black, shiny, brittle.

7560'-7570' medium to coarse grained  
sand - no hydrocarbons.

Balance of hole

7630'-7670' cuttings indicate 3 ten  
foot coal seams.

Balance of hole sandstones etc as  
above

~~for~~

D

Poonboom I

11.00 am. 11/9/92

Depth 8580'

Interbedded sandstone, siltstone and shale with some coal.

No hydrocarbons

D

2

350032

DOM

Poonboon I

11:00 am 12/9/72

Depth 8802  
currently coring for basic facies  
analyses.

Similar sequence as before - sandstones  
with minor siltstones & coals - quartz  
grains very fine to fine with some medium  
grain size. - well sorted and consolidated

gas readings negligible

Sft coring will run well logs  
& set casing

A

J

POONBOO a I

10.00 am 13/9/72

Depth 8827'

Core #3 cut from 8802'-8827'

recovery 100%

mainly sandstone very fine to med. grained

1' pebbly sandstone bed about midway

bottom 10' siltstone and shales

I.S.F.S. and Tomston Density logs run -  
others to be done

Top of Eastern View Coal series 6210'

DB

DOM

## Poonoon I

9.45 14/9/72

Depth still 8827'

Slip meter run from 8791' to 3088'

Velocity survey completed.

Side wall samples taken - shot and  
recovered 60 samples over interval  
8788' to 3088'Intended to carry out formation interval  
tests to check for pressures thru to  
run casing.

P

D

350035

DOM

Poonboon I

10.45 am 18/9/72

Depth no change at 8827'

9 5/8" casing set to 8762' ready  
to drill ahead subject to weather  
abating - testing surface equipment

Seismic programme also delayed  
due weather

JD

Q

350036

DOM

Poonboon I

10.00 am 19/9/72

Feb

No further development.

depth 8827'

presently running in with bit.  
- should commence drilling today.





Doo-boon I

20/9/72

Depth 9006'

Casing shoe tested at 15 ft / gal mud mix.

8827'-8940' 90% shale - light to med grey brown silty and carbonaceous with 10% coal.

8940'-9000' 60% sandstone light grey fine to coarse greenish - poorly sorted slightly calcareous 20% shale as above 20% coal.

Could be in same age formation as about 8000' in Section 3 - Lower M. Diversus or Bahme.

New bit being run.

Looks as though the Section 1 & 2 gas sands not present

D

D

POONBOON I

21/9/72

Depth 9288' drilling ahead.

9000'-9040' light grey f. grain sandstone.  
dull yellow fluorescence - slight cat. - no  
significant gas (similar to Lekian 3) some  
siltstone & shales

9040'-9110' tan to light grey shales &  
10% coals

9110-9160 v.f.g. sandstone grades to oil  
grade - very calcareous - dull fluorescence  
probably from calcareous cement - ~~no~~ no cat -  
no gas.

9160-9280 shales and siltstones similar  
to above - no coals

For Mr. J.G.Symons.

350009

P8/2

Thursday 21st. September, 1972.

Mr. Hopkins phoned at 10.20 a.m. with the following drilling report for B.H.P.

Poonboon No. ~~6~~<sup>1</sup> is presently at 9257 feet. During the past week 9 5/8" casing was cemented at 8762 ft.

Mr. Hopkins sends his regards.

W.M.



## Roanboon I

22/9/72

Depth 9626' drilling ahead  
basically sandstone section - silt size to  
sand size occasionally c.g.

Coals at 9310', 9350', 9440', 9590'

Interbedded sandstone shale and coals  
9380'-9460' & 9500'-9610'

~~The~~ Sand 9580'-9590' with  
fluorescence & gave cut - not thought  
significant

Intended to core at 10,000' but will  
core earlier if more fluorescence encountered  
to enable studies



Pookboom I

25/9/72

F  
do

Depth 10,296' drilling ahead.

mostly in interbedded sand, shale,  
siltstone & coals - variable thicknesses  
throughout

Core cut 9954'-9982' 100% recovery.

5' dk. brown carbonaceous shales etc.

15' very fine - med. grained sand - ~~sub~~  
subangular to sub-rounded, moderately  
sorted, non calcareous with trace of  
mica. apparent clay cement. as  
permeability very low zero to 18.

Porosity reasonable 15-42 but no  
shows.

Intended depth 11,000 unless  
shows encountered

AB

J

Poonboom 1

27/9/72

Depth 10493'

Logged and I.E.S. run 10499' (logged depth)  
- 8763'Formation Density combination neutron log 10494'-  
8758'Formation intensity tests run at 10434' (401),  
10181' (2), 9727' (3), 10470' (4)~~FIT~~ FIT (1) recovered 1.4 c/fb gas - suspected tool  
plugging - 21,000 cc water & some sand - chlorine  
content of 1400 ppm indicates fresh water.  
Final shut in pressure 5,612 = 10.5 lb mud.  
mud in hole 11.2 lb.

FIT (2) mud &amp; water F.S. in pressure 5,317 = 10.2 lb

FIT (3) F.S.P. 4,628 = 9.0 lb mud.

indicates gradient developing. - no result FIT (4)

FIT (5) being run.

Decision to be taken re further action  
in progress~~DOM~~  
H J M

350043

DOM

P8/2

POONSOON I  
Depth 10493'

basically interbedded shale, siltstone,  
sandstone and coal.

At 10435' drilling rate increased & logs  
picked up med. grained to granular sands  
angular to sub-rounded

At 10463' well started to flow under a  
mud weight of 10.2 lbs/gal (U.S.A.) in the hole  
flow controlled by 10.8 weight but 10.4  
may hold pressure.

Currently drilled to 10493' with 11.1 mud  
weight

Will run logs over next day or two to  
determine character of occurrence

Believed to be in an overpressured  
system generally - higher than normal  
hydrostatic expectations

JB

Q

DOM

## Bonboon I

Decided to drill ahead, using.

12.0 lb/gal mud - currently 12.2 lb - if any sand bed encountered over an interval of 10' or more will probably run top and/or take core.

Also Form. Int. Test for pressures if = 500 psi = 12.00 lb mud then will quit drilling.

Depth. 105211

30-70% shales with 20-70% sandstone very fine - med grain. with weak fluorescence in some sands

10520' - 10530' up to 80% siltstone

Fifth test taken indicates flow zone about 10463 basically contains fresh water with little gas.

recovered 1.0 cc. gas @ 2,500 water. as in test (1)

*[Signature]*

Poonboon FILE

350040

P8/2

Friday 29th. September, 1972

Mr. Noldart - Mr. Bunny Brown phoned at 9.35 a.m  
on Poonboon Drilling.

The depth this morning is 10,691'. We are  
preparing to log. Shale from the last depth was  
10,541, to 10,668 was shales, 10,668 was shales  
and sandstone and from there to 10,691 is sandstone.  
No shows. We are going to run a formal density  
gamma-ray log and a number of F.I.P. tests.

If there is anything of interest he will phone  
you over the week-end.

W.Murtagh.

350046

DOM

PE/2

Poonboon I

30/9/72

9/1

Depth 10715'

Cored 10691' - 10715' 100% recovery

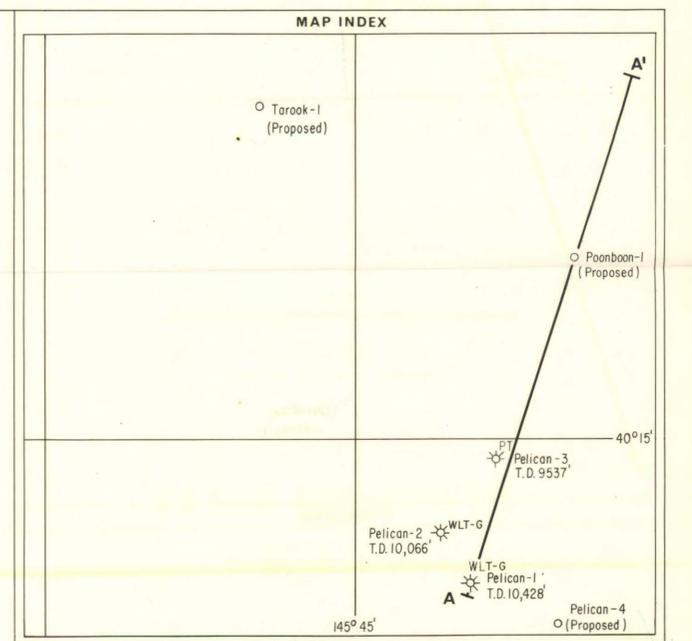
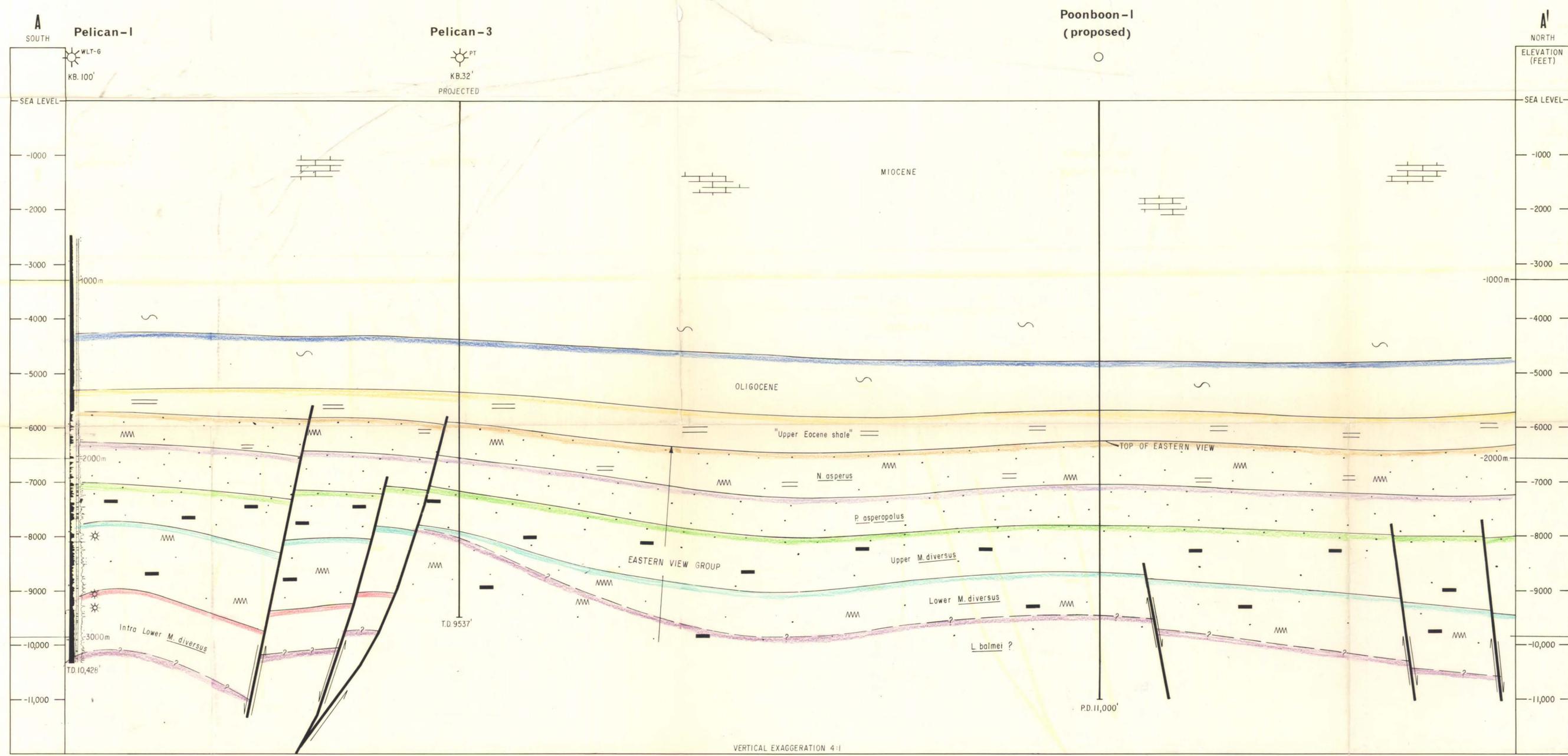
All shale

F.I.T. pressure test indicates  
pressures rising and now at previously  
determined safety limit (500 psi = 12 lb mud.)

Well abandoned.

→

9/1



**LEGEND**

	Limestone		Sand
	Marl		Coal
	Shale		Siltstone

ESSO EXPLORATION AND PRODUCTION AUSTRALIA INC.

**BASS BASIN**

VICTORIA-TASMANIA 350047

**INTERPRETATIVE**

**POONBOON PROSPECT**

**GEOLOGICAL CROSS SECTION A-A'**

5 cm

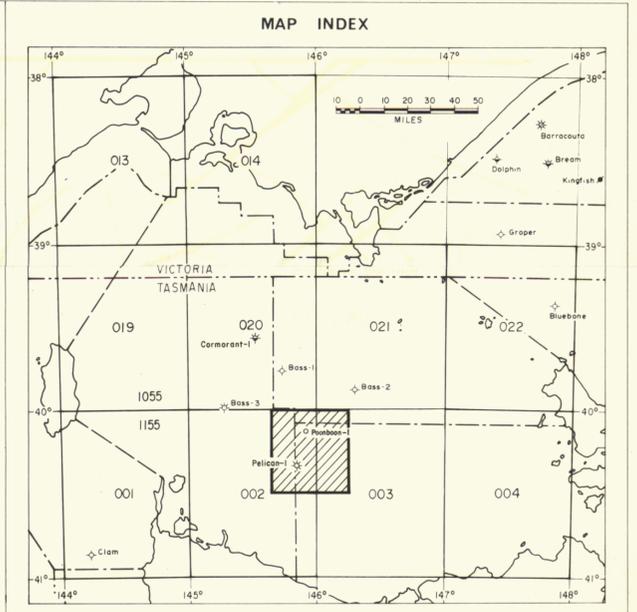
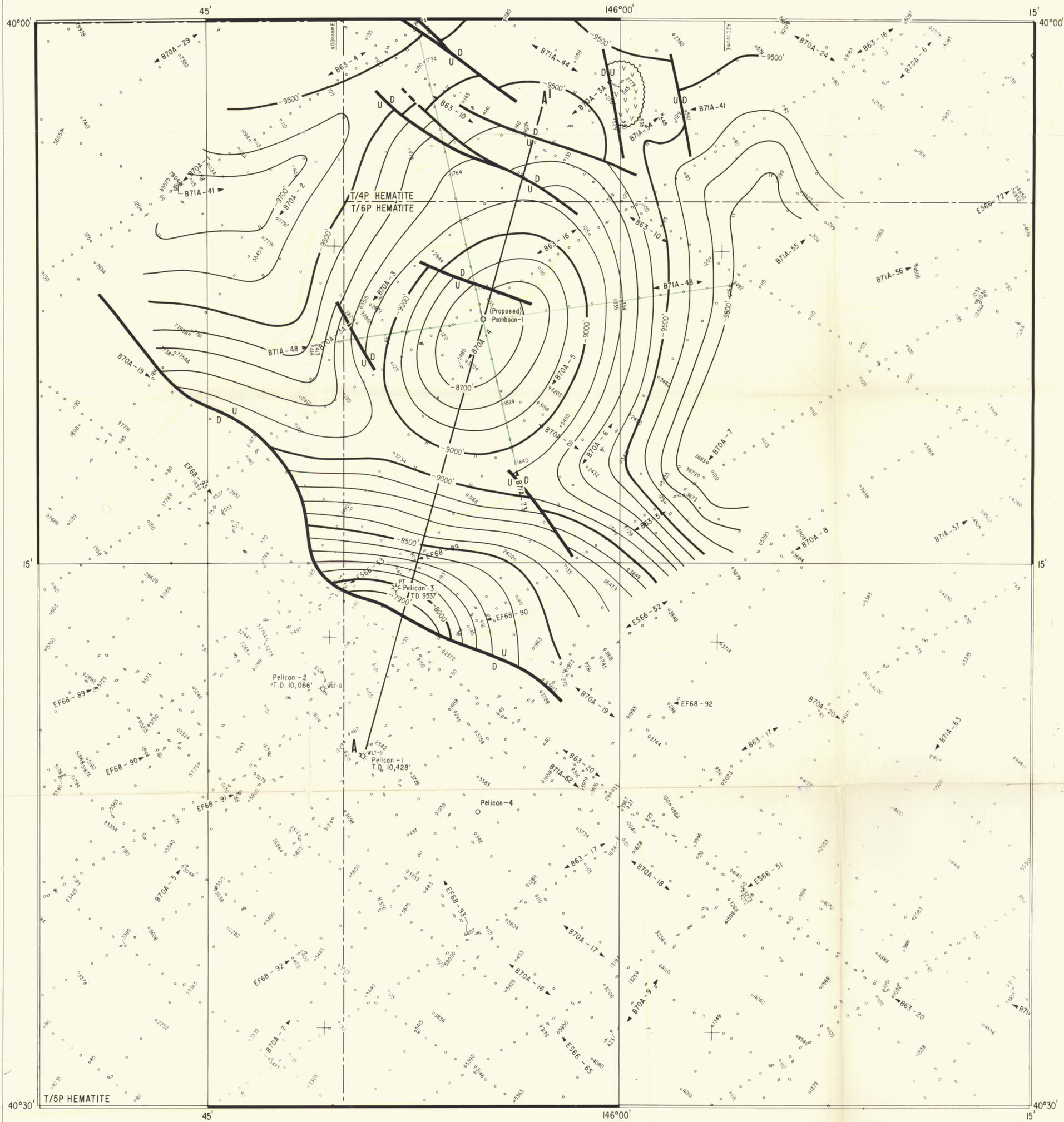
Vertical Scale 1 in. = 1000 Feet  
Horizontal Scale 1:50,000

1 0 1 2  
MILES

AUTHOR: F. JEFFRIES and H.S. STEAD  
DRAFTED BY: J.R. SCHMIDT

TO ACCOMPANY: AUTHORIZATION TO DRILL POONBOON-1  
DATE: MAY, 1972

**PLATE I**



**LEGEND**

Igneous Intrusive

ESSO EXPLORATION AND PRODUCTION AUSTRALIA INC.

**THE BASS BASIN**  
VICTORIA - TASMANIA

5 cm

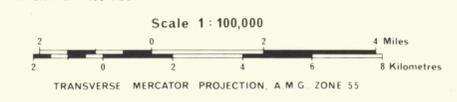
**POONBOON PROSPECT**

**STRUCTURE MAP**  
**TOP LOWER M. diversus**

35004S

**INTERPRETATIVE**

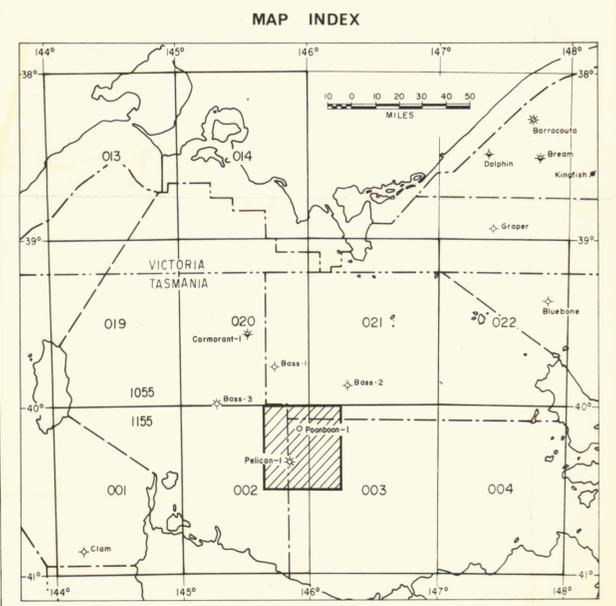
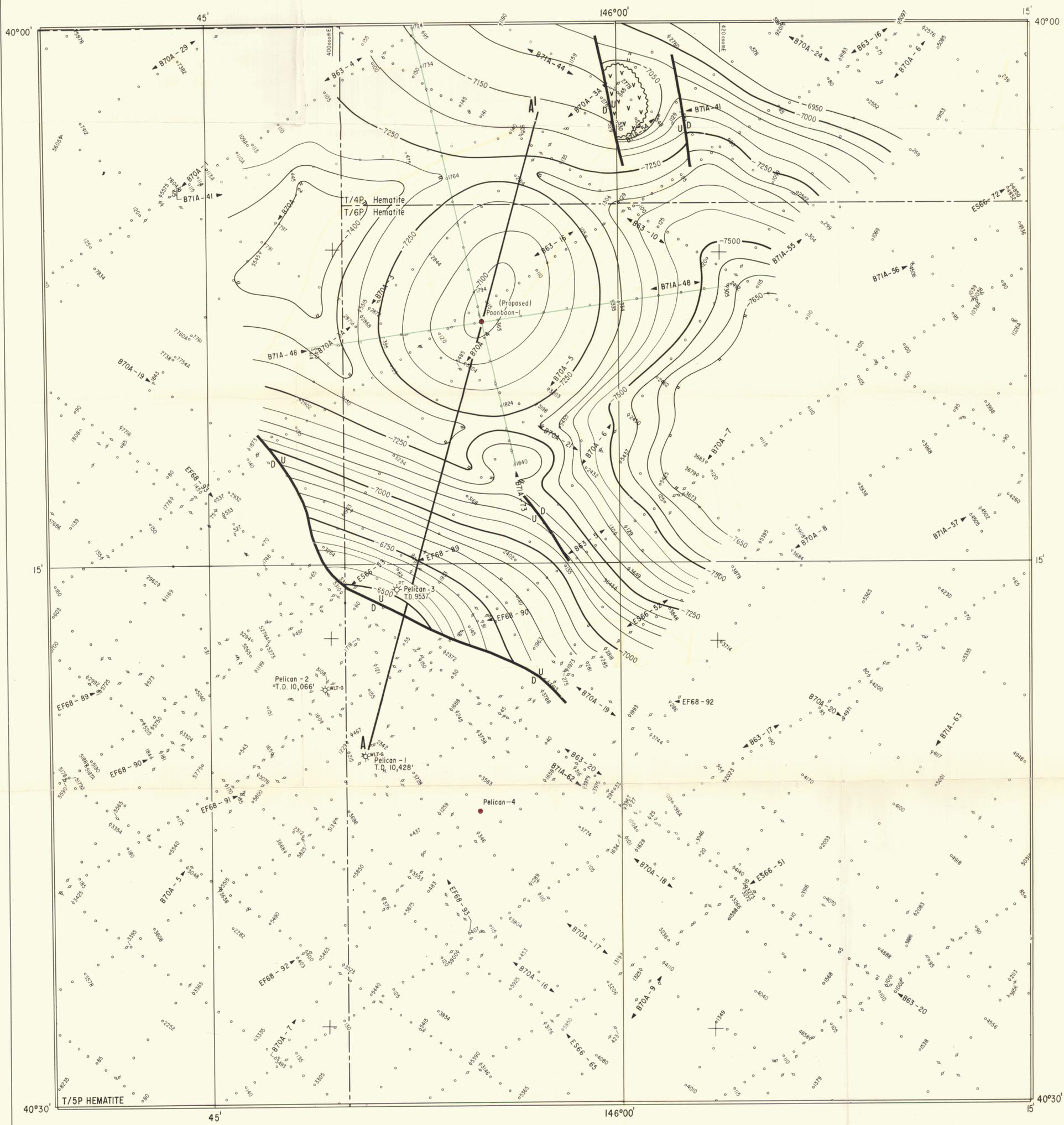
CONTOUR INTERVAL 100 FEET      DATUM SEA LEVEL



TRANSVERSE MERCATOR PROJECTION, A.M.G. ZONE 55

AUTHOR H.S. STEAD      DRAFTED BY S.R. SMITH  
TO ACCOMPANY AUTHORIZATION TO DRILL POONBOON-1      DATE JUNE, 1972  
REVISED

SHEET      **PLATE II**  
OR-0342A  
Dwg 1468/09/72



**LEGEND**



ESSO EXPLORATION AND PRODUCTION AUSTRALIA INC.

**THE BASS BASIN**

VICTORIA-TASMANIA

5 cm

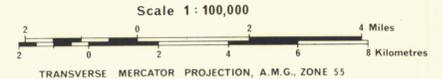
**POONBOON PROSPECT**

**STRUCTURE MAP**

*P. asperopolus*

**INTERPRETATIVE**

CONTOUR INTERVAL: 50 FEET DATUM: SEA LEVEL

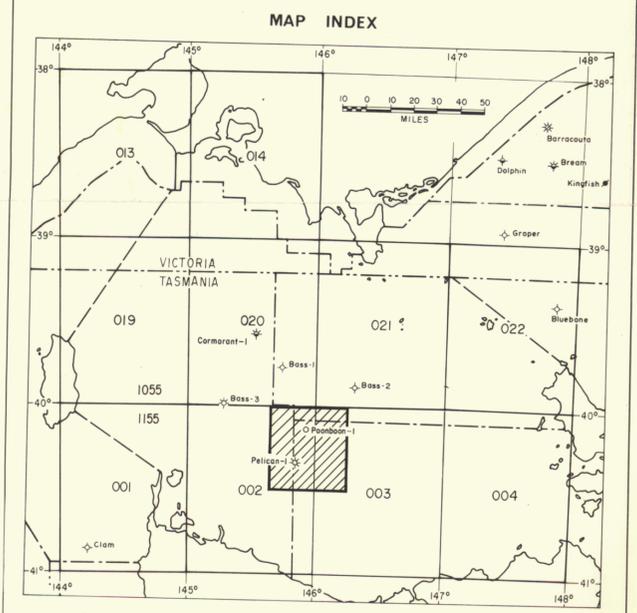
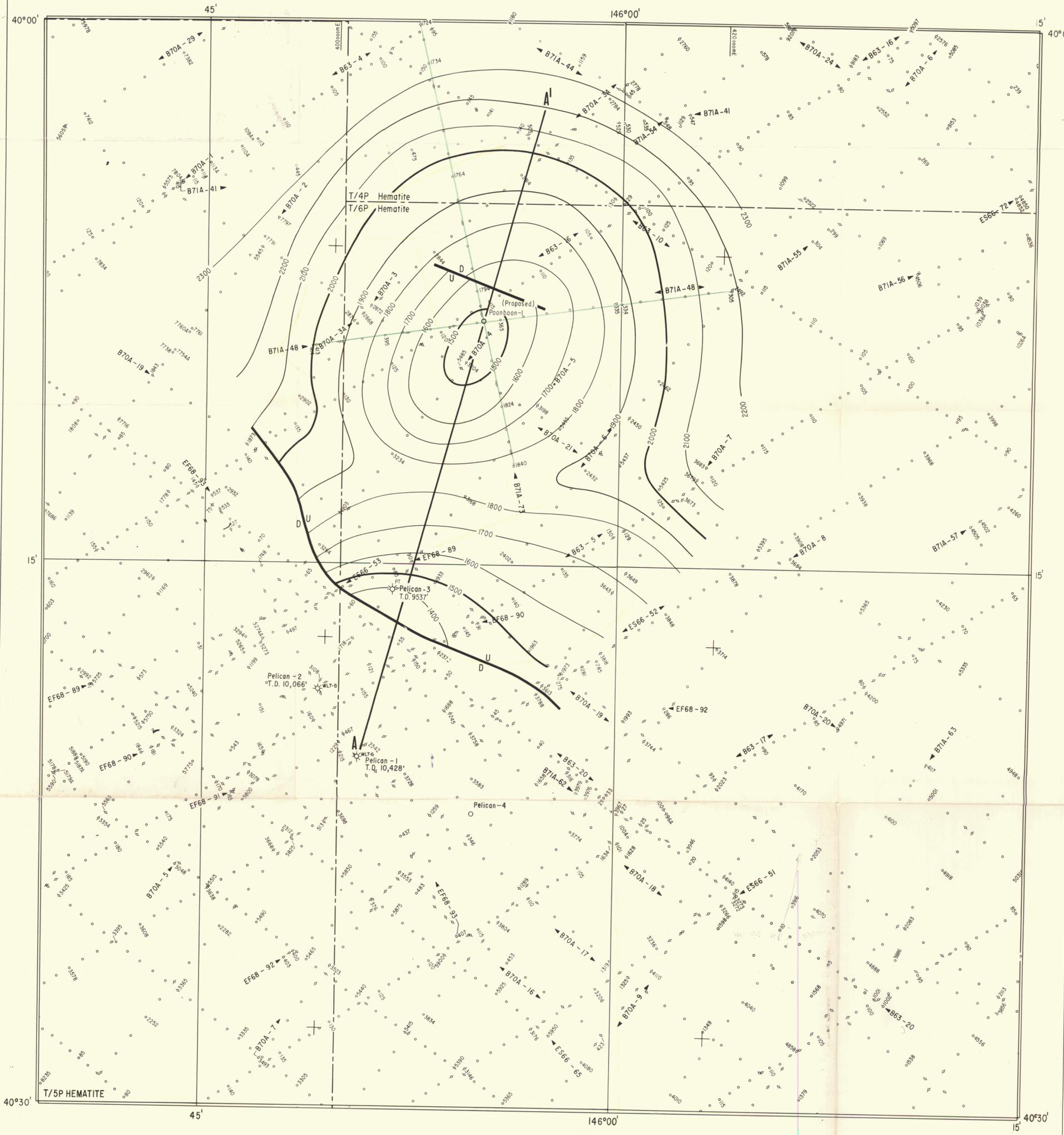


AUTHOR: H. S. STEAD DRAFTED BY: R.L. RYNSBERGEN  
TO ACCOMPANY: AUTHORIZATION TO DRILL DATE: MAY, 1972  
POONBOON-1 POONBOON-1 REVISED:

350049

PLATE III  
OR. 0342A

1468/OP/4



ESSO EXPLORATION AND PRODUCTION AUSTRALIA INC.

# THE BASS BASIN

VICTORIA-TASMANIA

POONBOON PROSPECT

ISOPACHOUS MAP  
*P. asperopolus* - LOWER *M. diversus*

350050

**INTERPRETATIVE**

CONTOUR INTERVAL: 100 FEET      DATUM: SEA LEVEL

Scale 1:100,000  
 0 2 4 Miles  
 0 2 4 Kilometers  
 TRANSVERSE MERCATOR PROJECTION, A.M.G. ZONE 55

AUTHOR: H.S. STEAD      DRAFTED BY: R.L. RYNSBERGEN  
 TO ACCOMPANY: AUTHORIZATION TO DRILL      DATE: MAY, 1972  
 POONBOON-1      REVISED:

PLATE IV  
 OR-0342A  
 Dwg. 1468/OP/5