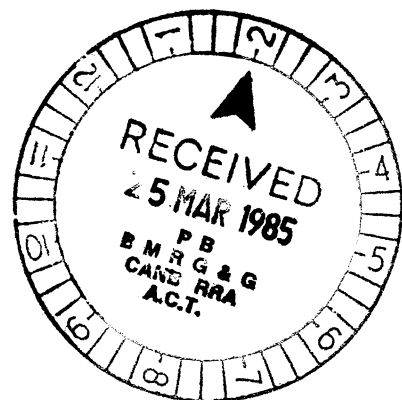


84/551

WEAVER OIL AND GAS CORPORATION, AUSTRALIA

TASMANIAN DEVIL NO. 1

WELL COMPLETION REPORT



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1. SUMMARY

1.1 Drilling

The Tasmanian Devil No. 1 exploratory well was drilled in the southern part of the Bass Basin off the northern coast of Tasmania in permit T-16-P.

The well was spudded on August 27, 1984 using the Diamond M Epoch, semisubmersible drilling rig. A 26-inch hole was drilled to 265m and 20 inch casing set at 251m. Then a 17-1/2 inch hole was drilled to 564m and a DIL-SLS-CAL-GR-SP log was run over the interval 561.0m to 251.5m with GR run to the sea bottom.

A string of 13-3/8 inch casing was run and set at 552m. A 12-1/4 inch hole was drilled to 864m Total Depth, and the interval evaluated by a DIL-SLS-CAL-GR-SP log and LDL-CNL-GR log.

No significant hydrocarbons were encountered and no indications of hydrocarbons were noted on the logs. The well was plugged and abandoned as a dry hole and the rig released on September 3, 1984.

1.2 Geology

Tasmanian Devil No. 1 was planned as an exploratory well to test the hydrocarbon potential of the Tertiary Eastern View Coal Measures, specifically the lower member, below the M. diversus horizon.

The well penetrated a sequence of sedimentary and volcanic rocks. The well was similar to prognosis down to the near base of the Torquay Group Claystones. The seismic horizon originally thought to correspond to the top Eastern View Coal Measures was found to be Tertiary basalt.

No significant indications of hydrocarbons were noted during drilling, and this was confirmed by wireline electric logs. Only a very limited amount of sandstone and siltstones were encountered near the base of the Torquay Group.

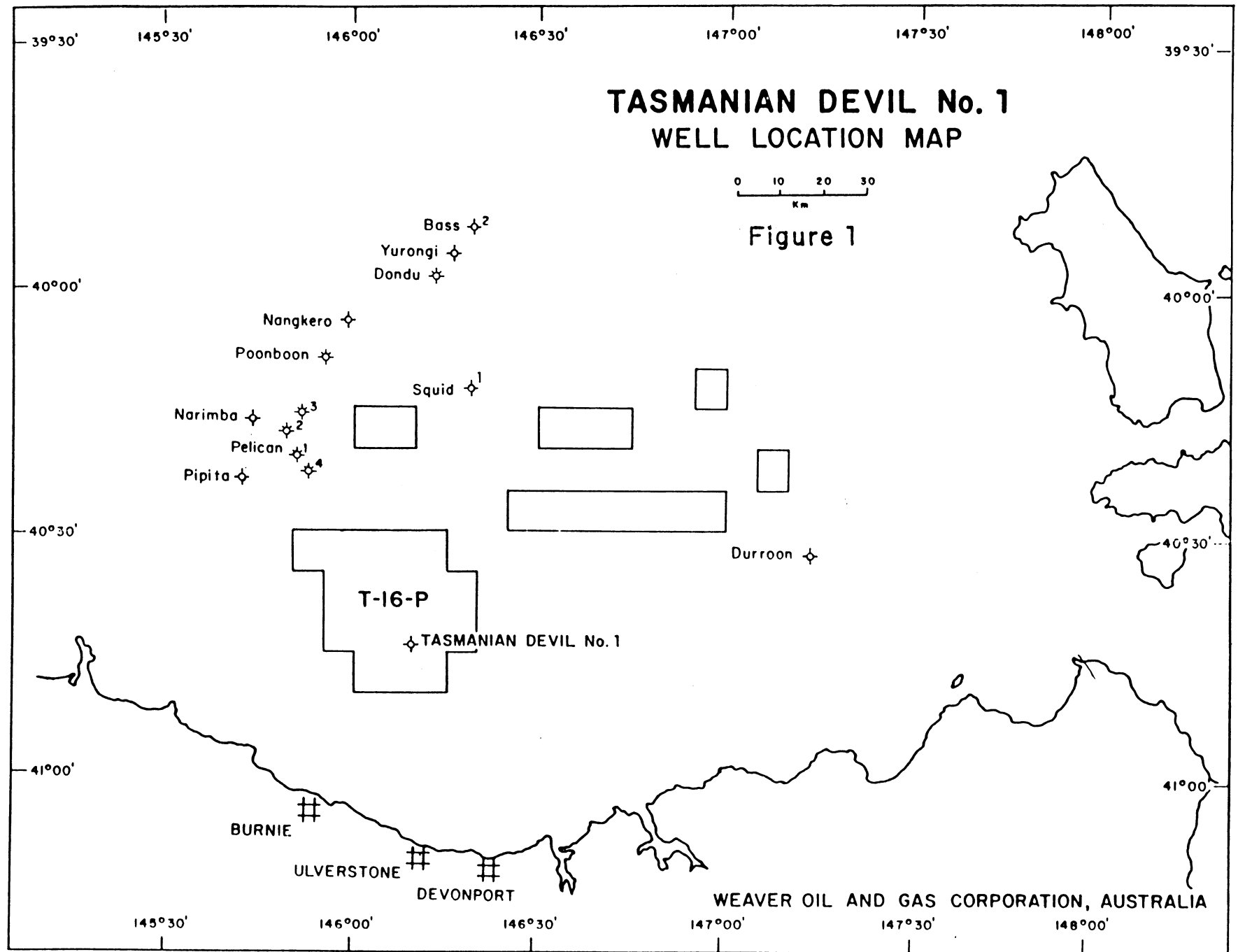
2. INTRODUCTION

Exploration Permit T-16-P consists of 32 graticular blocks with a total area of 2430 square kilometers. The permit is located in the southern part of the Bass Basin. (Figure 1.)

The Tasmanian Devil No. 1 well is located on an tilted fault block which was interpreted to be Eastern View Coal Measures on basement overlain by the Demons Bluff Formation.

Tasmanian Devil No. 1 was drilled at Shot Point No. 700 on Line WB-82-51. Stratigraphic control was provided by the Pelican No. 1 located 53km to the northwest and tied to the prospect by seismic line WB-81-11.

The well was drilled under a farmout agreement from Weaver Oil and Gas Corporation, Australia, to Bridge Oil Limited, Cluff Oil (Pacific) Ltd, Sunland Petroleum Corporation N.L., Kimberley Oil & Gas N.L., Australian Hydrocarbons N.L., Oakwood International Petroleum N.L., Weeks Australia Limited and Belco Petroleum Australia, Inc.



WELL HISTORY

3. WELL HISTORY

3.1 General Data

- | | |
|---|--|
| (a) Well name and number: | Tasmanian Devil No. 1 |
| (b) Name and address of operator: | Weaver Oil and Gas Corporation Australia,
109 St. George's Terrace,
PERTH WA 6000
and
14141 Southwest Freeway
Sugarland, Texas 77478
USA |
| (c) Tenement Holder:
(at time of drilling) | Weaver Oil and Gas Corporation, Australia |
| (d) Petroleum Title: | T-16-P |
| (e) District: | Bass Basin |
| (f) Location - latitude:
- longitude: | 40°44' 16."209 S
146°09' 44."958 E |
| (g) Elevation, rotary kelly
bushing:
drill floor:
sea floor: | 21.9m AMSL
21.4m AMSL
73.8m BMSL |
| (h) Total Depth: | 863.7m - Driller
862m - Schlumberger |
| (i) Date Drilling Commenced: | August 27, 1984 |
| (j) Date Total Depth Reached: | September 1, 1984 |
| (k) Date Rig Released: | September 3, 1984 |
| (l) Drilling Time to Total
Depth: | 6 days |
| (m) Status: | Plugged and Abandoned |
| (n) Total Cost: | US \$2,500,000. |

Diamond M Epoch

EQUIPMENT, TOOLS, MATERIALS, SUPPLIES AND SERVICES

(Contractor is to provide the Drilling Unit as described in this Appendix A)

1. Drilling Vessel Description and Specifications

The drilling vessel will be as described in Appendix A, Part 2 attached hereto.

- a. Moorings - Eight (8) 2-3/4" dia. chains, 4800 ft. long
- b. Anchors - Eight (8) 30,000 lb. Baldt Moorfast
Eight (8) 30,000 lb. Baldt Moorfast (spares)
- c. Mooring windlasses - Four (4) Skagit double drum type
wildcat type for 2-3/4" chain; 450,000 lb. stall
- d. Anchor buoys - Eight (8) designed for 1200 ft. water depth
- e. Pendant wires, shackles and associated jewelry for primary anchors only
- f. One (1) mooring line tension sensing and indicating system
- g. Vessel position reference system - Honeywell RS-505
Acoustic indicator and riser angle indicator.

2. Drilling Equipment

- a. Drawworks - Oilwell E-3000 driven by two (2) GE 752
DC motors, with Baylor 7838 electric brake and Crown-O-Matic
- b. Drill line - 1½" dia., 7,500 ft. long IWRC wire rope
- c. Wireline anchor - National, designed for 1½" wire rope
- d. Sandline - 9/16" dia. 15,000 ft. long galvanized
wire rope
- e. Derrick and substructure - 160 ft. derrick with 1,000,000 lb.
hook load capacity, 50 ft. x 50 ft. welded substructure

- f. Motion Compensator - Vetco Model 400-20D with 400,000 capacity and 20 ft. stroke
- g. Mud Pumps - Two (2) Oilwell 1700 PT Triplex pumps with pulsation dampeners. Each driven by two (2) GE-752 DC motors. Mud pumps to be charged by two (2) 6 x 8 centrifugal pumps.
- h. Rotary Table - Oilwell 37½" table driven by GE-752 motor
- i. Crown Block - Oilwell seven (7) sheave type; 600 ton
- j. Hook Block - Oilwell 650 ton capacity with BJ 5500 Dynaplex hook
- k. Traveling Block Guide System - Two-rail system design
- l. Swivel - Oilwell PC-650
- m. Rotary Hose - Two (2) each, installed in derrick, 3" x 75' wire braid, 10,000 psi test
- n. Weight Indicator - Martin Decker Type E AW-11 with E-80 sensor.
- o. Electric Power Supply - described in Part 2 of Appendix "A"
- p. Kelly Spinner - Varco Model 6500.
- q. Drilling Recorder - One (1) six channel recorder for penetration, weight, pump pressure, torque (electric) rotary RPM and pump rate from two (2) pumps alternately.
- r. Iron Roughneck - Varco Model 2000

3. Drill String

a. Drill Pipe:

- (1) 10,000 ft. - 5" O.D., Grade E, 19.5 lb/ft. Range 2 drill pipe, quench and temper, with 4½" IF x 6-3/8" O. D. 18-degree taper, ultrasonically inspected tool joints and internally plastic coated.
- (2) 5,000 ft. - 5" O.D. Grade S-135 19.5 lb/ft. Range 2 drill pipe, quench and temper, with 4½" IF x 6-3/8" O.D. 18-degree taper, ultrasonically inspected tool joints and internally plastic coated.
- (3) Forty (40) joints 5" O.D. 50 lbs./ft. Range 2 Hevi Wate Drill Pipe w/4½" I.F. Tool Joints

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b. Drill Collars:

- (1) Six (6) 9½" O.D. x 30" long spiral drill collars
- (2) Thirty (30) 7-3/4" O.D. x 2-13/16" I.D. x 30' long spiral collars.
- (3) Thirty (30) 6-1/2" O.D. x 2-13/16" I.D. x 30' long spiral collars.

(Note: Drill collars recessed for elevator and slip handling, have API connection and stress relieved grooves on pins and bore back in boxes. Threads and stress relief grooves cold worked and treated for anti-galling.

c. Bumper Subs

- (1) Two (2) 6½" O.D. with 5 ft. stroke.
- (2) Two (2) 8" O.D. with 5 ft. stroke.

d. Kelly- Two (2) 5-1/4" Hex type

e. Subs and Bit Subs- As required for contractors drill string

f. Sufficient box and pin thread protectors for all Contractor's equipment

g. Bit Breakers for 26", 17½", 12½" and 8½".

h. Pipe Wipers for 5" drill pipe

4. Blowout Preventers, Subsea Equipment and Control Equipment

a. Diverter System - Regan Model KFDH-3.

b. One (1) 30" Cameron Pin Connector

c. 18-3/4"-10,000 psi W.P BOP stack consisting of the following major components (H₂S trim):

- (1) Flex Joint - Cameron 18-3/4" with RCK connector
- (2) Riser Connector - C.I.W. 18-3/4"-10,000 psi W.P Collet connector
- (3) Annular Preventers - Two (2) Cameron 18-3/4", 5000 psi.
- (4) Ram preventer - Two (2) double type "U" II Cameron 18-3/4" - 10,000 psi W.P BOP's
- (5) Wellhead connector - Cameron, 18-3/4"-10,000 psi W.P. Collet connector.

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d. BOP Kill and Choke Line System:

- (1) Master valves - Two (2) Cameron 10,000 psi W.P. 3-1/16" right angle failsafe valves hydraulic open, spring close.
- (2) Operating valves - Two (2) Cameron 10,000 psi W.P. 3-1/16" straight through valves, hydraulic open, spring close.
- (3) Flex Joint Jumper Connection - Two (2) 3-1/8" 10,000 psi W.P. choke and kill lines.

e. BOP Guidance System:

- (1) Four post and funnel lower section BOP frame on 6' radius centers complete with reinforcement and guide funnels as required. Funnels and posts slotted for guide wire installation, internally ground and complete with retaining doors. Frame attachment at top Preventer and Wellhead connector.
- (2) Four-funnel upper section BOP frame on 6' radius centers complete with reinforcement as required. Funnels slotted for guide wire installation, internally ground and complete with retaining doors. Frame attachment at Riser connector.

f. Miscellaneous Equipment Items:

- (1) Installed in BOP:
 - (a). Three (3) sets 5" rams complete with long life ram rubbers.
 - (b). One (1) set shear rams complete.
 - (c). Two (2) annular bag elements.

g. Marine Riser - 1200 Ft. of Cameron 21" X 1/2" Wall X-52 Riser with RCK connections and integral choke and kill lines. Riser pup joints 5 Ft., 10 Ft., 15 Ft., 20 Ft., 30 Ft. and 40 Ft. long.

h. Slip joint - Two (2) Cameron telescoping joints, 45' stroke with dual packer with split inserts. Material of slip joint X-52 inner and outer barrel with RCK pin riser connection and type "R" top connection.

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i. Choke and Kill Hoses:

Two (2) each 3" I.D. 10,000 psi W/P rotary hose.

j. Marine Riser Tensioning System:

(1). Six (6) Western Gear tensioning units designed for 50' line travel and maximum line load capacity of 80,000 lb. tension.

(2). Six (6) idler sheaves.

(3). Control Panel

k. Guideline Tensioning System:

(1). Four (4) Western Gear tensioning units, each with 40 ft. line travel and maximum line load capacity of 16,000 lb. tension.

(2). Four (4) idler sheaves.

l. Pod Line Tensioning System:

Two (2) each Ingersoll Rand K6UAL hoists with constant tensioners.

m. BOP Accumulator Unit - Koomey air-electric powered 660 gal. accumulator unit, 3000 psi.

n. Blowout Preventer Control Panels:

(1). Master control panel located on rig floor adjacent to driller's console.

(2). Remote control panel located in toolpusher's office.

(3). Complete manual control at accumulator unit.

(4). All control panels to be graphically illustrated.

o. Hydraulic Control Hoses - Two (2) hoses designed for 1200 ft. water depth.

p. Hydraulic Control Pods- Two (2) Koomey type, fully redundant.

q. Choke Manifold - 10,000 psi with Cameron Type F gate valves, two adjustable chokes and one remotely operated Swaco Super Choke.

r. Surface BOP test manifold

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5. Downhole Tools and Equipment

- a. Casing Protectors: 100 each with installation tool.
- b. Control Valves:
 - (1). One (1) inside Gray BOP, with 4-1/2" I.F. connections.
 - (2). One (1) Safety valve with 4-1/2" I.F. connections
 - (3). Two (2) lower kelly valves, 5000 psi W.P.
 - (4). Two (2) upper kelly valves, 5000 psi W.P.

6. Fishing Tools.

- a. Overshots
 - (1). One (1) 11 1/4" O.D. series 150 Type FS Bowen Overshot, with grapples to catch 9 1/2" D.C. and 7-3/4" D.C.
 - (2). One (1) 8-1/8" O.D. Series 150 Type FS Bowen overshot, with grapples to catch 6 1/2" D.C. and 5" D.P.
- b. Junk Subs
 - (1). One (1) Bowen 12-7/8" O.D. for 17 1/2" hole with 7-5/8" API Reg Connection
 - (2). One (1) Bowen 9-5/8" O.D. for 12 1/4" hole with 6-5/8" API Reg Connections.
 - (3). One (1) Bowen 6-5/8" OD for 8 1/2" hole with 4 1/2" I.F. Connection.
- c. Junk Basket
 - (1). One (1) Bowen 11" OD Reverse Circ. Type with 6-5/8" API Reg. Box Connection.
 - (2). One (1) Bowen 7-7/8" O.D. Reverse Circ. Type with 4 1/2" IF Box Connector.
- d. Taper Taps for contractor drill string.

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7. Drill String Handling Tools

- a. Tongs, slips, elevators, links for 5" O.D. drill pipe, 9½", 7-3/4" and 6-1/2" O.D. drill collars as listed below:
- (1). Tongs - Two (2) sets of tongs with jaws for 5" D.P., 9½", 7-3/4" and 6½" D.C.
 - (2). Slips - Two (2) sets slips for 5" D.P.
One (1) set slips for 9½" D.C.
One (1) set slips for 7-3/4" D.C.
One (1) set slips for 6-1/2" D.C.
 - (3). Elevators- Two (2) sets for 5" D.P.
One (1) set for 7-3/4" DC
One (1) set for 6-1/2" DC
 - (4). Safety Clamps - One (1) Varco type MP-R
 - (5). Links - One (1) set B.J. 500 Ton 3-1/2" x 144" Links
One (1) set B.J. 350 Ton 2-3/4" x 132" Links
- b. Air Tuggers- Located on drill floor

8. Mud Facilities and Equipment

- a. Mud Tanks
- | | | | |
|-----|--------------------------------|----------------|-----------|
| (1) | Two (2) Active Mud Tanks | Total capacity | 666 bbls. |
| (2) | Two (2) Reserve Mud Tanks | Total capacity | 681 bbls. |
| (3) | One (1) Slugging Pit w/Jet Gun | Total Capacity | 50 bbls. |
| (4) | One (1) Sand Trap | Total capacity | 167 bbls. |
| (5) | One (1) Trip Tank | Total capacity | 30 bbls. |
- b. Mud Mixing Pumps - Three (3) Mission 5 x 6 centrifugal pumps with 75 HP electric motors.
- c. Shaleshaker - Hutchison-Hayes "Rhumba" 102 dual high speed
- d. Desander - Demco 86V with six (6) 8" cones
- e. Desander Pump - 5 x 6 centrifugal with 50 HP electric motor
- f. Desilter - Sweco PO-4C16 with 16 x 4" cones
- g. Desilter Pump - 5 x 6 centrifugal with 50 HP electric motor.

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- h. Degasser - Wellco Model 5200
- i. Mud Agitators - Four (4) Lightnin Mixers
- j. Pit Level Indicator - Martin Decker PVT system
- k. Gas Detection System - Baroid 7471 combustible gas detector.
- l. Mud Cleaner - Baroid with eight (8) 2" cones

9. Casing and Related Tools

- a. Casing tools for 20", 13-3/8", 9-5/8" and 7" casing as listed below:
 - (1). Elevators - three (3) 500 ton slip type Spider/Elevators with inserts for 13-3/8", 9-5/8", and 7" casing.
One (1) set side door elevators for 20", 13-3/8", 9-5/8" and 7" casing
 - (2). Single joint elevators - One (1) set for 20", 13-5/8", 9-5/8" and 7" casing.
 - (3). Casing Slips - One (1) set for 20" casing.
- b. Hydraulic Casing Tongs - Lamb Model 20,000, with jaws for 20", 13-3/8", 9-5/8" and 7" casing.

10. Special Equipment

- a. Totco non directional drift indicator, 0-8 degrees and 0-16 degrees.
- b. One (1) set Vetco 18-3/4" wellhead running and testing tools.
- c. One (1) fork lift 5000 lb capacity
- d. One (1) Subsea system underwater television.
- e. One (1) electric driven measuring line assembly with 15,000 ft of .092" line.
- f. One (1) each CIW Cup Tester for: 13-3/8", 9-5/8" and 7".

11. Special Services

- a. COMPANY TO FURNISH:
 - (1). Drill sites, location surveying, marker buoys and permits (except as provided by Contractor);
 - (2). Drill bits, reamers, hole openers, stabilizers, under reamers, and cutter heads;

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- (3). Production test equipment, including piping, separator and tanks;
- (4). All permanent well equipment, such as guide bases, casing, casinghead, drive shoes, tubing, packers, Christmas trees, wellheads, wear bushings;
- (5). Cement, Cement equipment and services including rental if applicable;
- (6). Mud logging services, supervision, drilling mud and chemicals;
- (7). Electric logging unit tools, and logging services;
- (8). All support vessels and diesel fuel for drilling unit and all support vessels;
- (9). Drilling water;
- (10). Potable water when applicable;
- (11). Casing crews, tubing tools and tongs;
- (12). Special tools and services, fishing tools and services, other than those specified in Item 6 of Appendix "A", Part 1;
- (13). Shore base facilities; crane and labor for loading and unloading equipment, material and supplies furnished by both parties;
- (14). Drill pipe and drill collars and accessories other than those specified in Item 3 of Appendix "A", Part 1;
- (15). Acidizing and perforating services;
- (16). Drill stem testing materials and services;
- (17). Coring equipment, supplies and services;
- (18). Wire line surveying services, other than single shot instrument;
- (19). Communication for Company's requirements;
- (20). Directional drilling service and tools;
- (21). Casing Cutting Tools;
- (22). Land transportation for handling Company supplies, materials, and equipment;
- (23). Weather reporting services;
- (24). Well completion equipment and services and swabbing equipment other than sand line;

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- (25). Replacement drill pipe rubbers;
- (26). If stack is pulled and passes testing procedures and company desires to break stack down, then Company must furnish replacement rubber goods and gaskets as required;
- (27). Storage facilities at the designated shorebase.
- (28). Port, harbor, pilotage and similar fees if applicable.
- (29). Helicopter Services.
- (30). Workboat loading hoses and tie up lines.
- (31). Transportation for Company, Contractor and third party personnel, equipment, materials and supplies between Company's Operation Base or heliport and the Drilling Unit offshore. Transportation for Contractor and Contractor's third party personnel between and Melbourne and Company's Operation Base.
- (32). Accommodation for Company's personnel onshore.
- (33). Diving equipment and services as required.
- (34). Lubricants for Company furnished equipment and material.
- (35). Running and handling tools for Operator's subsea and wellhead equipment.
- (36). Furnished office facilities for Contractor shorebase personnel.

b. CONTRACTOR TO FURNISH:

- (1). Drawings as required to enable Company to obtain necessary drilling permits.
- (2). Storage facilities aboard the drilling unit.
- (3). Loading and offloading Company and Contractor equipment aboard the drilling unit.
- (4). Daily lodging and meals aboard drilling unit for Contractor and Five (5) Company designated personnel.
 - (a) Cost of daily lodging and meals for Company designated personnel in excess of five (5) will be billed to Company at \$50.00 per man per day, \$12.50 per casual meal, or \$12.50 for casual lodging.

- (5). Transportation of Contractor personnel, equipment, materials and supplies to and from Melbourne except as provided in 11.a (31) above.
- (6). Accommodation for Contractor's personnel onshore.
- (7). Lubricants including pipe dope for Contractor furnished equipment and material.
- (8). BOP hydraulic fluid.

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APPENDIX A, PART 2

DRILLING VESSEL DESCRIPTION AND SPECIFICATIONS

NAME: Diamond M Epoch
YEAR BUILT: 1977
CLASSIFICATION: ABS Maltese Cross A1 Drilling Unit

1. Operating Capabilities

A. Water Depth Capacity -	1,200 Ft.
B. Drilling Depth Capacity -	30,000 Ft.

2. Principal Characteristics

A. Platform	
1) Length	195 Ft.
2) Beam	166 Ft.
B. Hulls (2)	
1) Beam	35 Ft.
2) Depth	25 Ft.
C. Baseline to Main Deck	95 Ft.
D. Baseline to Pipe Rack	108 Ft.
E. Baseline to Rig Floor	128.25 Ft.
F. Displacement	
1) Lightship (15.5 Ft. draft)	7,754 long tons
2) Ocean Tow (23 Ft. draft)	11,642 long tons
3) Field Move (23 Ft. draft)	11,642 long tons
4) Drilling (55 Ft. draft)	16,404 long tons
G. Variable Deck Load	
1) Ocean Move	1300 short tons
2) Field Move	2512 short tons
3) Drilling	2512 short tons
H. Natural Period	
1) Heave	20.7 sec.
2) Roll	40.6 sec.
3) Pitch	31.5 sec.

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3. Capacities

A.	Bulk Tanks	9,200	cu.ft.
B.	Sack Storage	5,100	sacks
C.	Fuel	6,400	Bbls.
D.	Potable Water	755	Bbls.
E.	Drill Water	15,842	Bbls.
F.	Mud Tanks	1,548	Bbls.
G.	Quarters	80 man + 4 man hospital	

4. Ships Equipment

A. Power System

- 1) Main Diesel Generators - Two (2) EMD 16E-9 Diesel Engines, 3070 HP. Each driving EMD 2000 KW AC Generators. One (1) EMD 16E-8 Diesel Engine, 2200 HP, driving EMD 1500 KW AC generator
- 2) Emergency Diesel Generators - One (1) Detroit Diesel 8V-71N engine driving 250 KW AC Generator
- 3) Power Distribution- Baylor Model 2000, 5 bay SCR System 750 V, 1000/1600 amps

B. Air System

- 1) Main Air System - Two (2) Ingersoll Rand air compressor, 504 CFM each at 125 psi
- 2) Emergency Air Compressor Diesel driven cold start compressor
- 3) Bulk System - One (1) Bulk air compressor 40 psi

C. Cranes -

Two (2) Link Belt ABS 238 35 ton

D. Welding Machines -

Three (3) Lincoln DC rectifier type

E. Safety Equipment

- 1) Fire Fighting Equipment - One (1) Lot portable fire extinguishers as per U.S.C.G., CO₂ Flooding System and 1500 lb dry chemical system
- 2) Life Jackets - As per U.S.C.G
- 3) Liferafts - Six (6) 25-man U.S.C.G. approved
- 4) Lifeboats - Two (2) 50-man covered, powered U.S.C.G. approved

ATS

F. Helicopter Deck -

Heliport designed to accommodate
a Sikorsky S-61N Helicopter

G. Communication -

AM Marine Radio Stations
telephone and complete intercom
system w/loud speaker, Marisat
Satellite Communications System.
Two (2) Single Side Band
transceivers.

H. Distillation Unit

One (1) 7200 GPD Aquachem, One
(1) 10,000 GPD Koomey R/O Unit.

I. Sewage Treatment System

Red Foxx design.

J. Helicopter Radio Beacon

NDB Radio Beacon Model SS250B
25 watt, 400 KHZ

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APPENDIX B
CONTRACTOR PERSONNEL

<u>DESCRIPTION</u>	<u>ON BOARD</u>	<u>TOTAL</u>
<u>SHOREBASE</u>		
Rig Manager	-	1
Administrator	-	1
Materialsman	-	1
<u>EXPATRIATES (28/28)</u>		
Rig Superintendent	1	2
Toolpusher	1	2
Barge Captain	1	2
Driller	2	4
Electrician	1	2
Mechanic	1	2
Sub Sea Engineer	1	2
Control Room Operator	2	4
Medic	1	2
<u>Nationals (7/7)</u>		
Derrickman	4	8
Motorman	2	4
Welder	1	2
Storekeeper	1	2
Crane Operator	2	4
Radio Operator	2	4
Floorman	6	12
Roustabouts	8	16
<u>Catering Crew</u>	As Required	

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APPENDIX C
INSURANCE

Contractor shall at all times during the term of this Agreement, provide, pay for and maintain the following insurance:

- (a) Workmens Compensation Insurance or similar insurance required by any country's laws which are applicable to any employee of Contractor used in the performance of this Agreement.
- (b) Employers Liability Insurance with limits as required by law but in no event less than \$1,000,000 per occurrence.
- (c) General Public Liability Insurance covering liabilities for bodily injury, including death, to persons and liabilities for damage to property with combined single limit of not less than \$5,000,000 per occurrence. This insurance must cover contractual liability and all operations of Contractor required to fulfill its obligations under this Agreement.
- (d) All Risks Physical Damage insurance to the full reinstatement value of all Contractor's Equipment utilized in the work performed under this Agreement. The deductible on such insurance shall not exceed \$250,000.
- (e) Full Conditions Hull and Machinery Insurance, including collision, to the stated value of the Drilling Unit and any other vessel employed by Contractor in the performance of the work hereunder.
- (f) Amended Conditions Protection and Indemnity Insurance in an amount of not less than the stated value of the Drilling Unit. Removal of Wreck Insurance for up to the stated value of the Drilling Unit.
- (g) War Risk Insurance including confiscation, nationalization, expropriation and deprivation to the stated value of the Drilling Unit.

AS



- (h) Automobile Public Liability Insurance covering owned, non-owned and hired automobiles used in the performance of the work hereunder, with bodily injury limits of not less than \$100,000 per person, \$300,000 per accident and property damage limit of not less than \$100,000 per accident or as required by local law.

"The stated value" as referred to in items (e) and (f) above is agreed to be \$58,000,000.

Any deductibles payable on any of the above insurances shall be borne by Contractor, except that Company shall be liable for Contractor's deductible up to \$50,000 in any case where Company is liable under Clause 1001 (a) and (b).

The term "employed" referred to in items (e) and (f) above shall mean "those vessels owned or directly chartered or hired by Contractor".

Contractor shall name Company and the Weaver Group and its Farmees (members of the operating group) as additional insureds and waive its rights of subrogation against the Company and the Weaver Group and its Farmees, their affiliates, employees and agents.

AS



APPENDIX D

DEPRECIATION - SCHEDULE

Drillpipe	-	3% per month
Drillcollars	-	1½% per month
Other equipment	-	1% per month

Depreciation commences from the first date such lost or damaged items were first placed in service following purchase. In no event will items be depreciated below fifty percent (50%) of landed replacement cost.

ASS

RF

3.3 Drilling Data

A summary of the daily operations is presented in the Drilling Data Analysis Chart and the Time-Depth Chart (Appendix Nos. 2.1 and 2.2). Principal details are presented as follows:

a) Hole Size, Casing Data and Drilling Fluid

Hole		Casing		
Size (in)	Depth (m)	Size (in)	Depth (m)	Weight (lb/ft)
26	265	20	251	133
17-1/2	564	13-3/8	552	68
12-1/4	864			

b) Leak off tests

L.O.T. at 270m, equivalent mud weight = 12.5 lbs.
L.O.T. at 575m, equivalent mud weight = 14.6 lbs.

c) Drilling fluid

Hole Size (in)	Fluid Type
26	Sea water
17-1/2	Lig-CMC-Gel
12-1/4	Lig-Dex Gel

3.4 Formation Sampling

(a) Ditch Cuttings:

All samples were lagged, the lag being calculated and checked every 100m or less by the use of carbide. The type and interval of the samples were as follows:

(i) Five, 100 gram, washed and dried samples representative of each 10m were caught from surface casing to 564m. The sample interval was 5m between 564m and 864m TD. A set of cuttings have been lodged with the Tasmanian Department of Mines and the BMR.

(ii) One, 250 gram, unwashed sample, composite of every 15m, was taken for palaeontological analysis.

(b) Cores:

No conventional cores were cut.

(c) Sidewall Sampling:

No sidewall cores were attempted.

3.5 Logging and surveys

(a) Two runs of wire line electric logs were made as follows:

(i) Run 1 at 565m: (driller depth)

DIL-SLS-CAL-GR-SP, interval 561m - 251.5m with GR to sea bottom.

(ii) Run 2 at 863.7m: (driller depth)

DIL-SLS-CAL-GR-SP, interval 861m - 552m
LDL-CNL-GR

(b) Wellsite Lithology Log: 265 - 864M

(c) Geoservices Geological Evaluation - Hydrocarbon Mudlog: 260-864.8m.

(d) Deviation Surveys:

Hole deviation was measured at regular intervals. The results are shown in Table 1.

(e) Temperature Survey:

A temperature survey was not run. The maximum BHT recorded was 54.7°C prior to Run 2 of the wire line electric logs.

(f) Velocity Survey:

A velocity survey was not run. A two-way time-depth was computed from the sonic log and is included as Table 2. A synthetic seismogram was also prepared and is included as Enclosure 4.

The velocity data obtained from the well indicates that the top Oligocene was encountered close to prognosis, however the reflection mapped as top Eastern View Coal Measures is actually the top of the basalt encountered at -720 meters. The Eastern View Coal Measures were not encountered in this well and are most probably replaced by the time equivalent basalt.

The synthetic seismogram shows good correlation to the seismic data at Top Oligocene and Top Basalt. The strong reflection observed at .730 seconds is generated by the contrast in acoustic impedance between the basalt and the overlying Oligocene clastic section.

TABLE 1

DEVIATION SURVEY
OF
TASMANIAN DEVIL NO. 1

<u>Depth (m)</u>	<u>Angle (deg.)</u>
265	1/2
564	1
798	1/2
864	1/2

TABLE 2

EXPL.ASSOC.INTERNATIONAL WEAVER, D&G, #1 T. DEVIL TASMANIA, AUSTRALIA

TIME(2-WAY) - DEPTH BELOW SEA LEVEL

	0.000	0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009
0.000	0.	1.	2.	2.	3.	4.	5.	6.	7.	7.
0.010	8.	9.	10.	11.	11.	12.	13.	14.	15.	16.
0.020	16.	17.	18.	19.	20.	21.	21.	22.	23.	24.
0.030	25.	25.	26.	27.	28.	29.	30.	30.	31.	32.
0.040	33.	34.	34.	35.	36.	37.	38.	39.	39.	40.
0.050	41.	42.	43.	44.	44.	45.	46.	47.	48.	48.
0.060	49.	50.	51.	52.	53.	53.	54.	55.	56.	57.
0.070	57.	58.	59.	60.	61.	62.	62.	63.	64.	65.
0.080	66.	66.	67.	68.	69.	70.	71.	71.	72.	73.
0.090	74.	75.	76.	76.	77.	78.	79.	80.	80.	81.
0.100	82.	83.	84.	85.	85.	86.	87.	88.	89.	89.
0.110	90.	91.	92.	93.	94.	94.	95.	96.	97.	98.
0.120	98.	99.	100.	101.	102.	103.	103.	104.	105.	106.
0.130	107.	108.	108.	109.	110.	111.	112.	112.	113.	114.
0.140	115.	116.	117.	117.	118.	119.	120.	121.	121.	122.
0.150	123.	124.	125.	126.	126.	127.	128.	129.	130.	131.
0.160	131.	132.	133.	134.	135.	135.	136.	137.	138.	139.
0.170	140.	140.	141.	142.	143.	144.	144.	145.	146.	147.
0.180	148.	149.	149.	150.	151.	152.	153.	153.	154.	155.
0.190	156.	157.	158.	158.	159.	160.	161.	162.	163.	163.
0.200	164.	165.	166.	167.	167.	168.	169.	170.	171.	172.
0.210	172.	173.	174.	175.	176.	176.	177.	178.	179.	180.
0.220	181.	181.	182.	183.	184.	185.	185.	186.	187.	188.
0.230	189.	190.	190.	191.	192.	193.	194.	195.	195.	196.
0.240	197.	198.	199.	199.	200.	201.	202.	203.	204.	204.
0.250	205.	206.	207.	208.	208.	209.	210.	211.	212.	213.
0.260	213.	214.	215.	216.	217.	218.	218.	219.	220.	221.
0.270	222.	222.	223.	224.	225.	226.	227.	227.	228.	229.
0.280	230.	231.	231.	232.	233.	234.	235.	236.	237.	238.
0.290	239.	240.	242.	243.	244.	245.	246.	247.	248.	249.
0.300	250.	251.	252.	253.	254.	256.	257.	258.	259.	260.
0.310	261.	262.	263.	264.	266.	267.	268.	269.	270.	271.
0.320	272.	273.	274.	276.	277.	278.	279.	280.	281.	282.
0.330	283.	284.	285.	286.	287.	289.	290.	291.	292.	293.
0.340	294.	295.	296.	298.	299.	300.	301.	302.	303.	304.
0.350	305.	306.	308.	309.	310.	311.	312.	313.	314.	316.
0.360	317.	318.	319.	320.	321.	322.	324.	325.	326.	327.
0.370	328.	329.	330.	332.	333.	334.	335.	336.	337.	338.
0.380	340.	341.	342.	343.	344.	345.	347.	348.	349.	350.
0.390	351.	352.	353.	355.	356.	357.	358.	359.	361.	362.
0.400	363.	363.	365.	366.	367.	369.	370.	371.	372.	373.
0.410	374.	376.	377.	378.	379.	380.	382.	383.	384.	385.
0.420	386.	387.	389.	390.	391.	392.	394.	395.	396.	397.
0.430	399.	400.	401.	403.	404.	405.	407.	408.	409.	410.
0.440	412.	413.	414.	415.	417.	418.	419.	420.	422.	423.
0.450	425.	426.	427.	428.	430.	431.	432.	434.	435.	436.
0.460	437.	439.	440.	441.	442.	444.	445.	446.	447.	449.
0.470	450.	451.	452.	453.	455.	456.	457.	458.	459.	460.
0.480	462.	463.	464.	465.	467.	468.	469.	470.	472.	473.
0.490	474.	475.	476.	478.	479.	480.	481.	482.	483.	485.
0.500	486.	487.	488.	489.	491.	492.	493.	494.	495.	496.
0.510	497.	498.	500.	501.	502.	503.	504.	505.	506.	507.
0.520	508.	509.	510.	512.	513.	514.	515.	516.	517.	518.
0.530	520.	521.	522.	523.	524.	525.	526.	527.	528.	529.
0.540	531.	532.	533.	534.	535.	536.	538.	539.	540.	541.
0.550	542.	543.	544.	545.	546.	548.	549.	550.	551.	552.
0.560	553.	554.	555.	556.	558.	559.	560.	561.	562.	563.
0.570	564.	565.	566.	567.	568.	569.	570.	571.	572.	573.
0.580	574.	575.	576.	577.	578.	579.	580.	581.	582.	583.
0.590	584.	585.	586.	586.	587.	589.	590.	591.	592.	593.
0.600	594.	595.	596.	597.	598.	599.	600.	601.	602.	603.
0.610	604.	605.	606.	607.	608.	610.	611.	612.	613.	614.
0.620	615.	616.	617.	618.	619.	620.	621.	622.	623.	624.
0.630	625.	626.	627.	628.	629.	630.	632.	633.	634.	635.
0.640	636.	637.	638.	639.	640.	641.	642.	643.	644.	645.
0.650	646.	647.	648.	649.	650.	652.	653.	654.	655.	656.
0.660	657.	658.	659.	660.	661.	662.	663.	664.	665.	666.
0.670	667.	668.	669.	670.	671.	672.	673.	674.	675.	676.
0.680	677.	678.	679.	681.	682.	683.	684.	685.	686.	687.
0.690	688.	690.	691.	693.	693.	694.	696.	697.	698.	699.
0.700	700.	701.	702.	703.	704.	706.	707.	708.	709.	710.
0.710	711.	712.	714.	715.	716.	717.	718.	719.	720.	721.
0.720	722.	723.	724.	726.	727.	728.	729.	731.	732.	734.
0.730	736.	738.	741.	743.	746.	748.	751.	754.	757.	759.
0.740	762.	765.	767.	770.	773.	776.	779.	782.	785.	788.
0.750	790.	793.	796.	799.	802.	805.	808.	811.	814.	817.
0.760	820.	823.	826.	829.	832.	835.	838.	841.	844.	847.

PETROPHYSICS, INC. 2141 W. GOVERNOR CIRCLE SUITE A

/HOUSTON TEXAS/77063

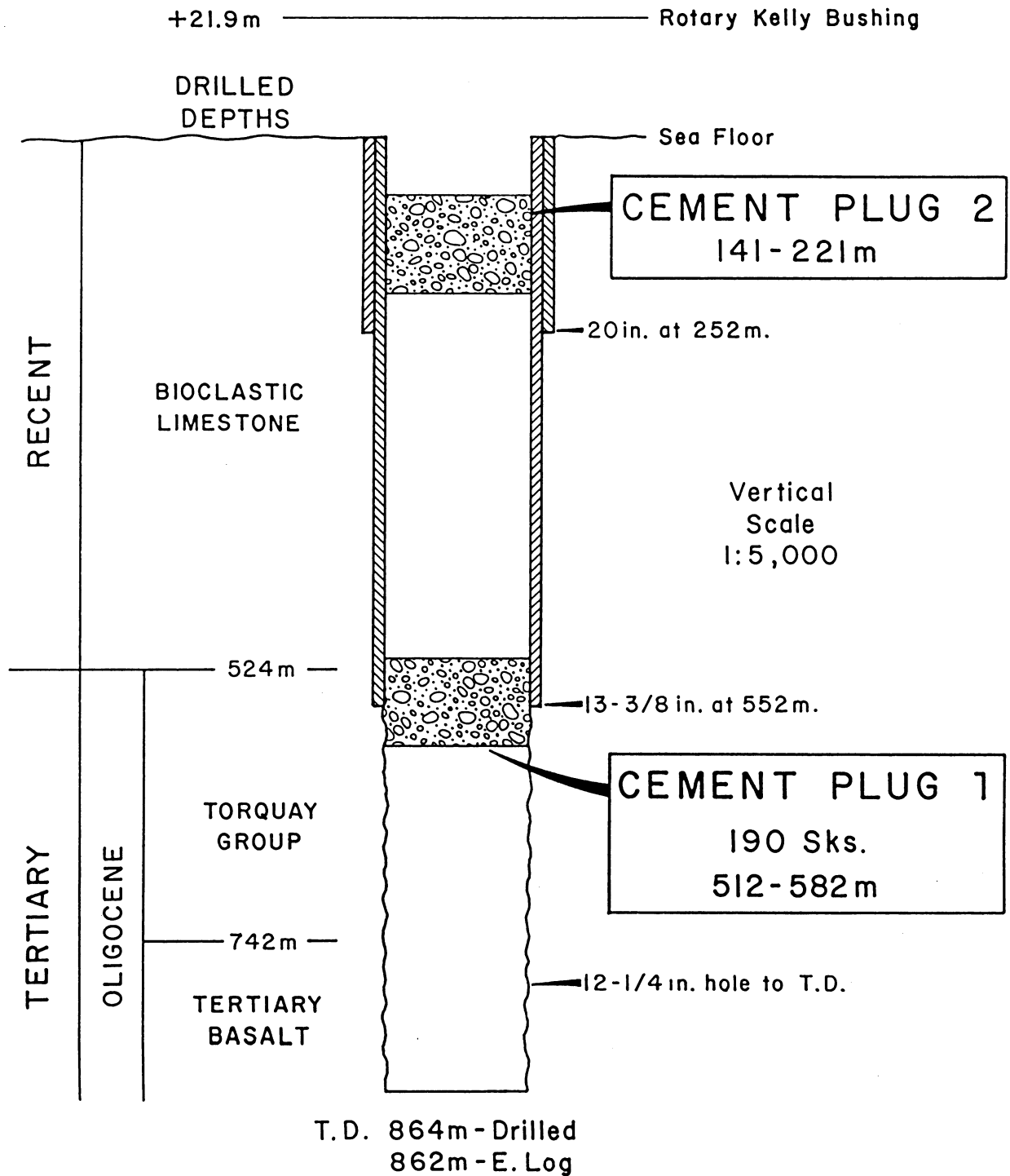
(713)956-1266

3.6 Abandonment

Cement plugs were set between 141 - 221m and 512 - 582m (Figure 2), and the well abandoned in a suitable manner as prescribed by the Tasmanian Department of Mines.

Figure 2

ABANDONMENT DIAGRAM TASMANIAN DEVIL No.1



4. GEOLOGY

4.1 Summary Of Previous Work

In 1960, Broken Hill Proprietary Ltd. (BHP) was granted an exploration license covering the whole of the Bass Basin. The permits were later held by Hematite Petroleum a wholly owned subsidiary of BHP.

Lewis G. Weeks designed the initial exploration programme which consisted of an aeromagnetic survey flown in 1961 to define the suspected sedimentary basin. This was followed by a regional seismic survey in 1962-63. In 1965, Esso farmed into the Hematite permits.

By mid-1970 six wells had been drilled and oil and gas shows were recorded in Bass 3, Pelican 1, Pelican 2 and Cormorant 1. Major regional seismic surveys in 1971 and 1972 were followed by the drilling of ten wells, all dry. The last well drilled was Pipita 1 by Hematite in 1982. (Figure 3)

In 1980-81, various permits covering areas previously relinquished by Hematite were granted to Weaver Oil and Gas and groups headed by Bass Strait Oil and Gas. Amoco was awarded a permit in 1984. Seismic surveys were subsequently carried out in 1981 and 1982 by Weaver Oil and Gas which resulted in the selection of the Tasmanian Devil No. 1 well location.

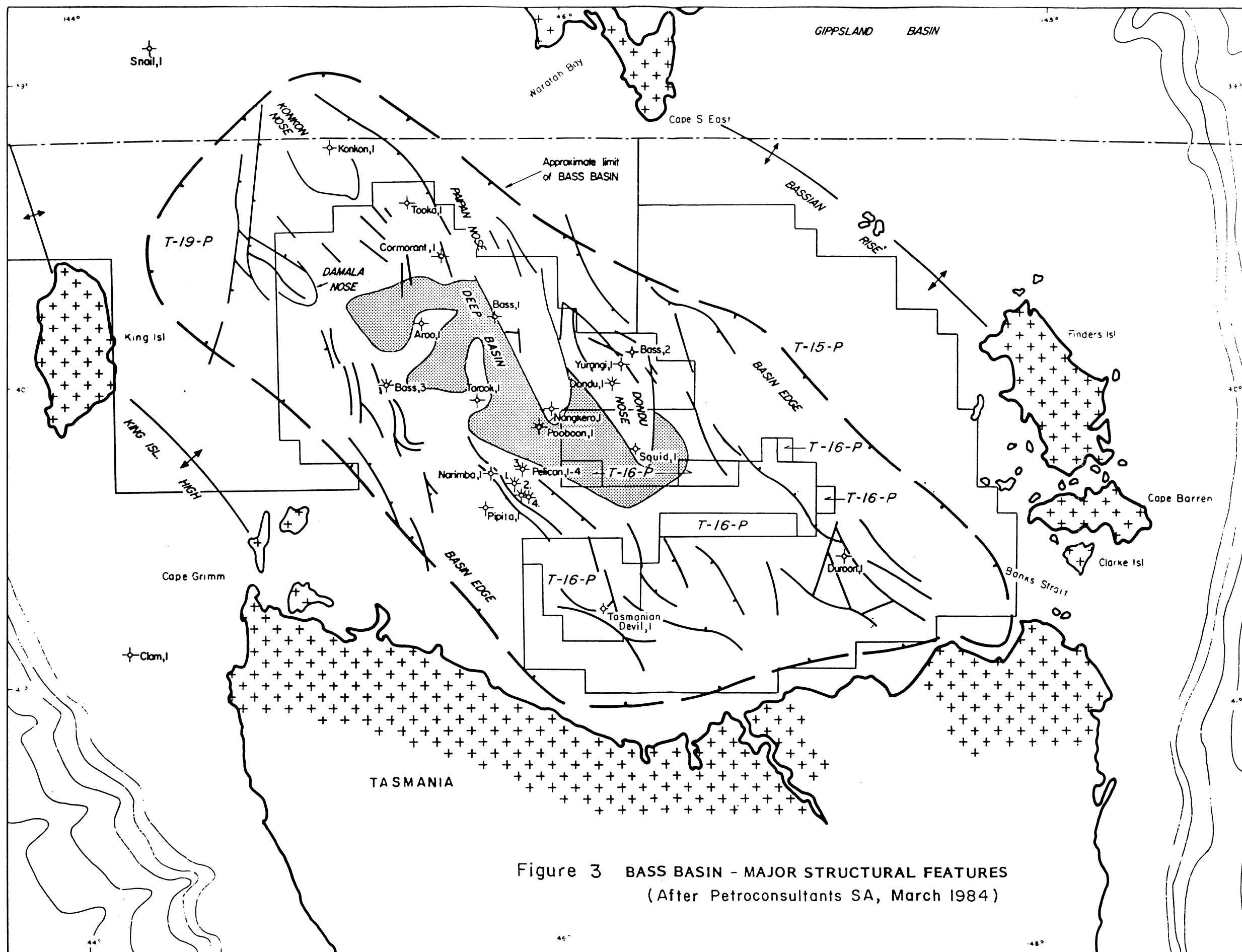


Figure 3 BASS BASIN - MAJOR STRUCTURAL FEATURES
(After Petroconsultants SA, March 1984)

4.2 Summary Of Regional Geology

The Bass Basin is an elliptic northwest-southeast trending depositional trough produced by a NE-SW oriented tensional stress. It covers 62,000 sq. km in the Bass Strait between Tasmania and the Australian mainland. (Figure 3).

The Bass Basin appears to have initially developed in Late Jurassic time as the result of northeast-southwest tensional stress caused by the initial break-up of the Australian and Antarctic plates.

The Bass Basin is an excellent example of aborted, or failed rifts. Crustal extension during the Cretaceous developed a high relief, rifted terrane of graben and half-graben depocenters filled during the Early Cretaceous with volcanogenic detritus under fluvial and alluvial conditions. In the northwest half of the Bass Basin most rift faults are downthrown to the southwest, forming a series of half-grabens with similar polarity. In the southeast half, rifting was more complex with two rift sequences of different trends.

Major structural features are a deep basin, basin edges, and a number of fault controlled structural noses: Dondu, Paipan, Konkon and Damala noses. (Figure 3).

The predominant structural style is that of faulted blocks with onlap and compaction of sediments over upthrown blocks. Other characteristics are faulted anticlines and arches or folds generated by intrusive or extrusive rocks.

Predominantly vertical movements seem to have controlled structural growth throughout the basin's history.

The earliest major tectonic event (Mid Cretaceous) is seen in the southern area, while the late activity (Upper Cretaceous and Late Tertiary) are observed in the northwestern area.

Worldwide rifts and aborted rifts are ideal environments for occurrences of hydrocarbons. The combination of high quality source rocks and optimum thermal history allow for above average productivity on a volumetric basis. Good examples of prolific rifts include the Gippsland basin and the Dampier basin of Australia, Vulcan graben and the Viking graben of the North Sea. All of these examples developed through a two-stage evolution. The stages are:

1. Crustal upwarp and extensional faulting, the rift stage
2. Post-rift sag

Large reserves in rifts are generally found in sediments of the first stage. The boundary between the rift and sag stage in the Bass Basin is not clearly understood and is tentatively placed at the base Tertiary. (Inter-Upper Cretaceous unconformity).

Exploration to date in the Bass Basin has concentrated on sediments of the second stage (Tertiary sag stage). Results, so far, have been disappointing. Continued exploration will be directed towards understanding the early Tertiary and Cretaceous section.

The Bass Basin developed in the Early Cretaceous and the environment of deposition for this section is interpreted from the Duroon No. 1 well to be upper alluvial plain including lacustrine. The distribution of late Cretaceous sediments in the Bass Basin is interpreted to be much more widespread than during Early Cretaceous times as individual trough broadened and merged into a more continuous basin.

During the Paleocene, the basin was structurally quiescent but continued sag along the old major fault systems resulted in over 70 meters of coarse sediments being deposited near the basin margin and possibly over 900 meters of fine sediments in the basin center. Coal deposition throughout the section was limited. The basin appears to have been landlocked with braided streams flowing from the edge of the highlands to the southwest and eastward merging basinward into a broad meandering stream pattern building out into a lacustrine delta plain towards the northwest.

Increased tectonic activity during the Lower Eocene resulted in renewed movement which gave rise to a slightly smaller basin configuration than that which existed during the Paleocene. The structural movements were intensified towards the end of the Early Eocene and were accompanied by faulting, folding and local igneous activity. Local erosion of the early part of the section produced the unconformity which is seen at the Lower M. diversus palynological zone level.

During the Middle Eocene, stream activity increased. A pattern of braided streams flowed out from the edge of the rugged basin margin, merging into a cut-and-fill secondary stream channel system which built out over extensively developed coal swamps. This section is characterized as having both the highest sand content and the highest coal percentage within the Eastern View Coal Measures sequence. Provenance areas were located on the Tasmanian mainland in the south, the "Bassian Rise" in the northeast and for the first time, along the basin margin in the north and northwest.

The Late Eocene is dominated by the widespread deposition of the Upper Eocene Shale. This shale unit was deposited as a result of a marine transgression which started in the northwest and moved very rapid to the southeast.

4.3 Stratigraphy

The Tasmanian Devil #1 exploratory well penetrated a sedimentary and volcanic sequence which, based on palynology, lithology, petrology, and wire line log correlations ranges from Tertiary to Recent.

Formation tops and their thicknesses are shown in the stratigraphic column (Figure 4) and graphically presented on the Composite Log (Enclosure 1). The well was quite different to prognosis. (Figure 5). The seismic horizon thought to correspond to the top Eastern View Coal Measures was found to be an olivine basalt. The Tasmanian Devil No. 1 well was abandoned after drilling 122m of basalt.

The stratigraphy encountered in Tasmanian Devil No. 1 is summarised below. Depths are below the rotary table kelly bushing which was 21.9m above mean sea level.

(a) Recent:

Bioclastic Limestone (seafloor - 524m)

Samples were not available for examination until 265m. Between 265 - 524m this interval consists of bioclastic limestones, undifferentiated limestones and calcarenite.

(b) Tertiary:

(i) Torquay Group: (524m - 742m)

This interval consists of 218m of massive claystone. Within this interval some sand stringers were noted. A marginal marine environment of deposition is envisaged.

(ii) Olivine Basalt: (742m - 864m TD)

This interval consists of 122m of olivine basalt. It is interpreted to be of Oligocene and pre-Oligocene age.

4.4 Structure

The Tasmanian Devil No. 1 well was drilled on a structural closure and is mapped as a tilted fault block bounded to the southwest by a down-to-the-south normal fault accompanied by a northwest trending low. (Figure 6). A representative seismic profile through the well location showing the current structural interpretation is shown by Figure 7.

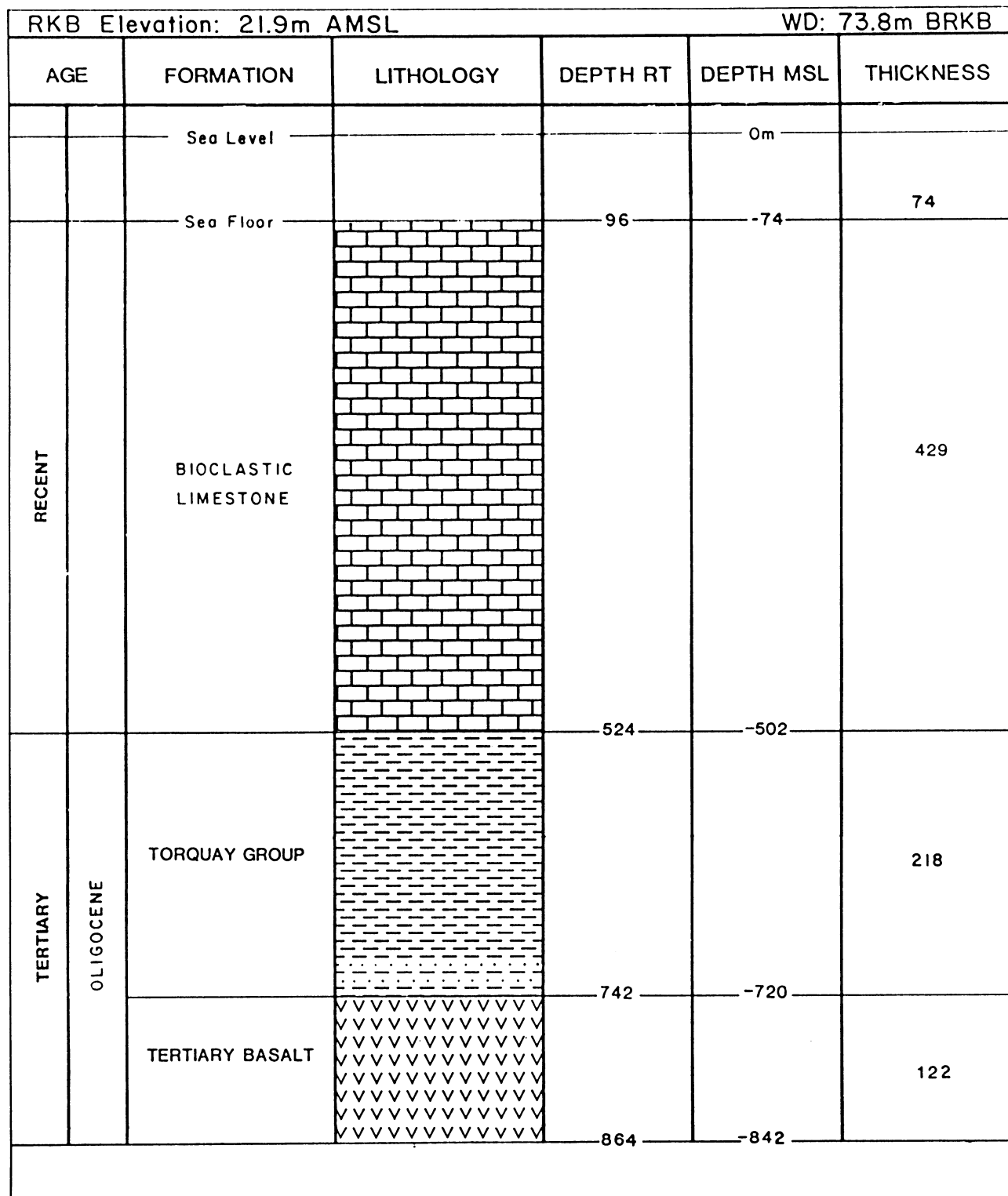


Figure 4

Vertical Scale : 1:5 000

WEAVER OIL & GAS CORP. AUSTRALIA

DATE
Feb. 1985

GEOLOGY
P. J. Lawry

APPROVED

DRAWING No.

REVISION No.

TASMANIAN DEVIL
No.1

STRATIGRAPHIC TABLE

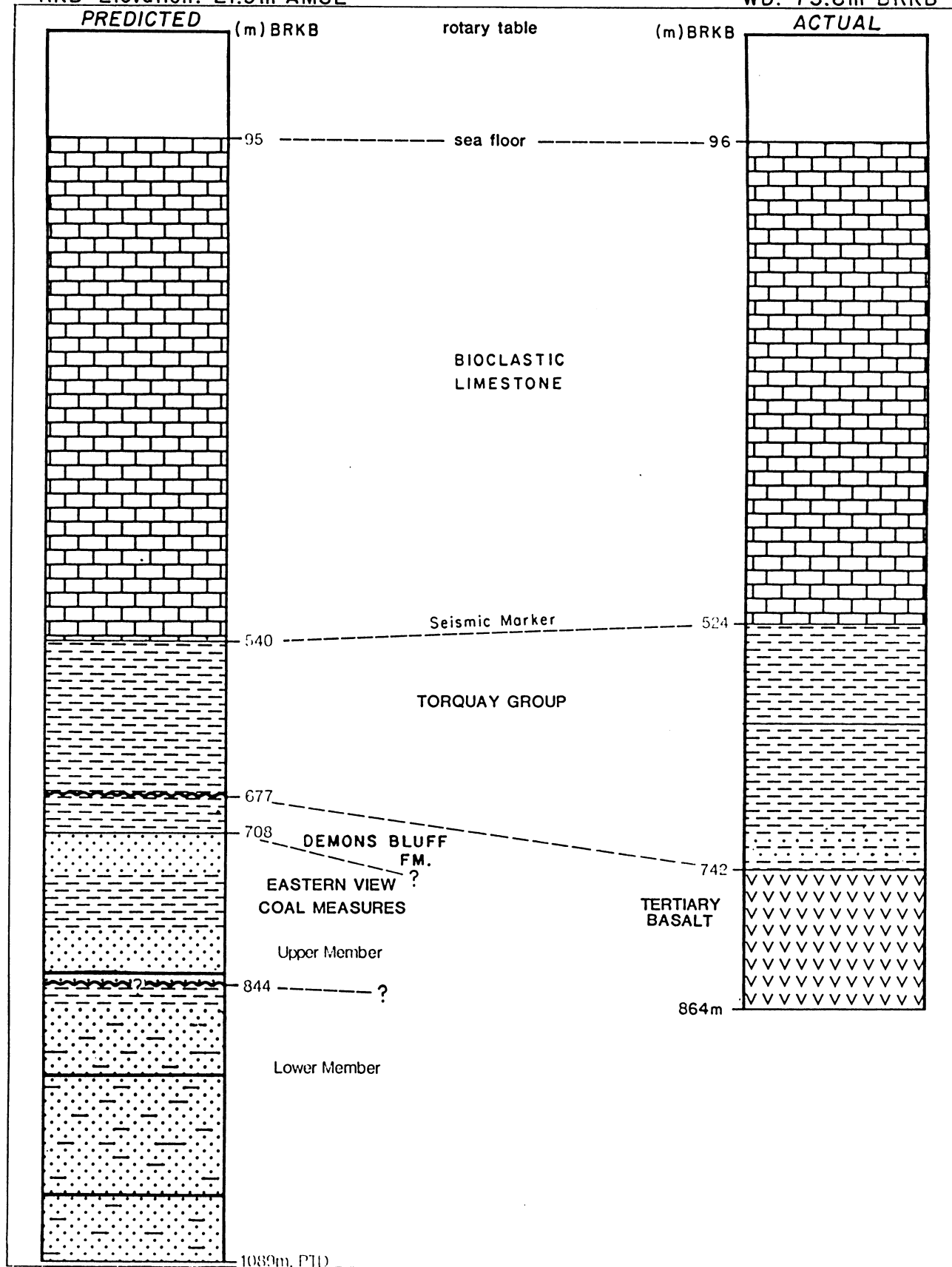


Figure 5

Vertical Scale : 1:5000

WEAVER OIL & GAS CORP. AUSTRALIA

DATE

Feb. 1985

GEOLOGY

P. J. Lawry

APPROVED

DRAWING No.

REVISION No.

19/

**TASMANIAN DEVIL
No. 1**COMPARISON PREDICTED AND
ACTUAL SECTION

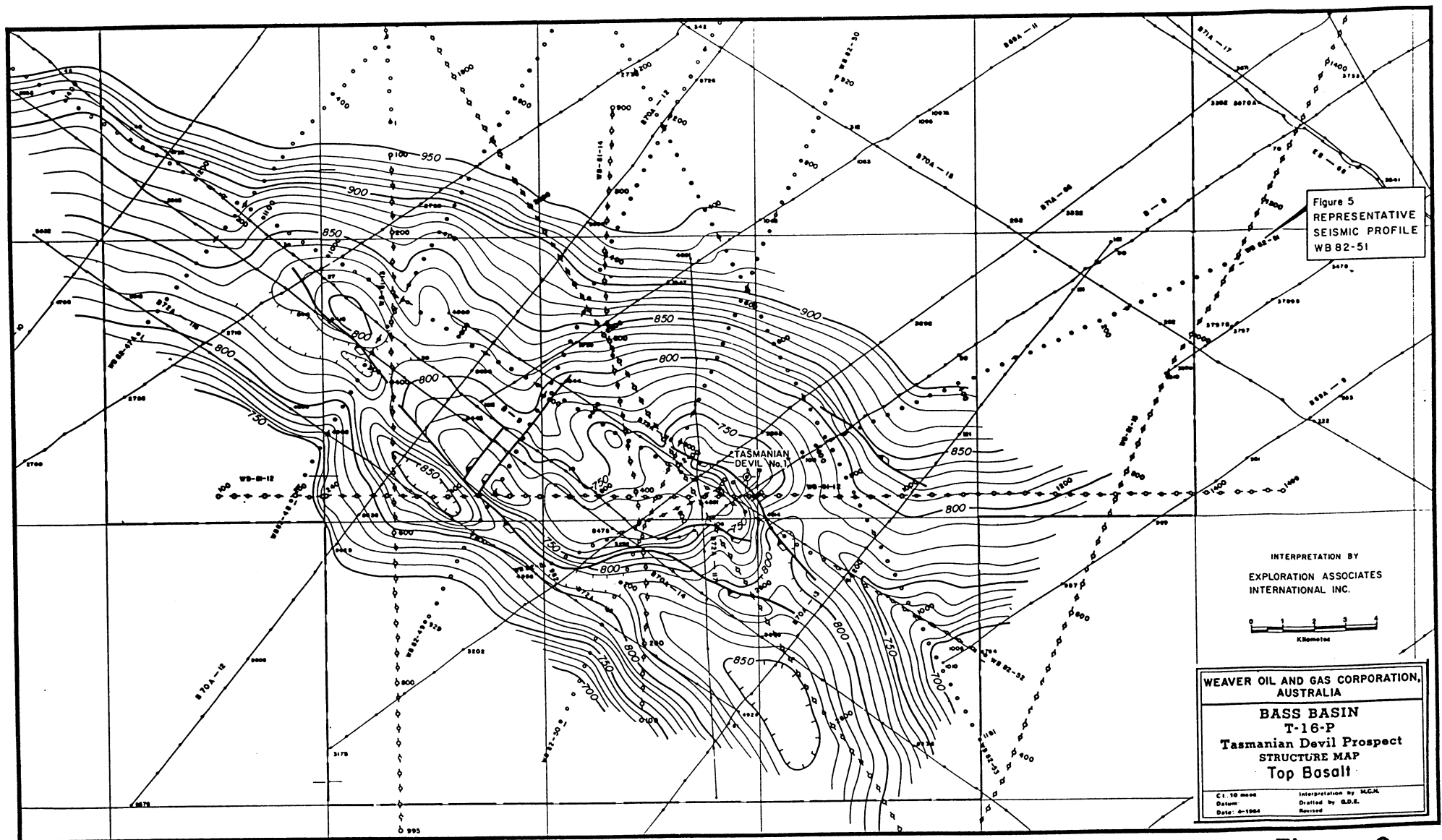


Figure 6

FIGURE 7
LINE WB82-51
S.P. 1-982

S.W.
DIRECTION OF SHOOTING

AGC-STACK

WEAVER OIL & GAS
BASS BASIN
PERMIT T-16-P

SP 889
TIME VRMS
0 1490
120 1490
350 1670
760 2020
1260 2660
1930 3060
2670 3860
4000 4980

SP 809
TIME VRMS
0 1490
130 1490
420 1780
760 2100
1120 2420
1460 2740
1860 3380
2450 4180
4000 4980

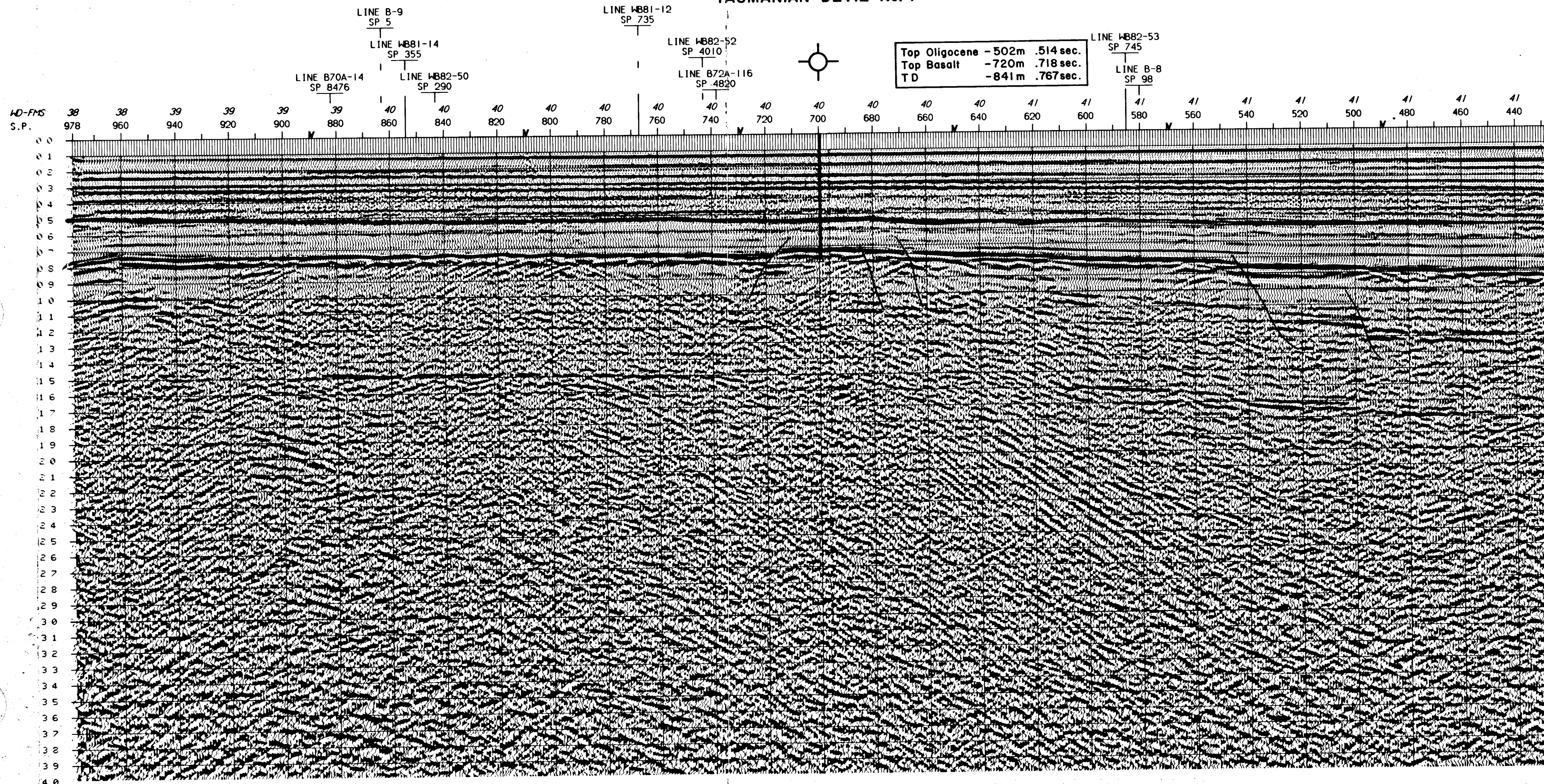
SP 729
TIME VRMS
0 1490
120 1490
330 1640
780 2020
1150 2500
1560 2820
2200 3700
4000 4820

SP 649
TIME VRMS
0 1490
120 1490
300 1640
780 2020
1100 2500
1520 2900
2030 3700
4000 4980

SP 569
TIME VRMS
0 1490
120 1490
350 1670
760 2020
1110 2340
1650 3060
2260 3860
3080 4660
4000 4980

SP 489
TIME VRMS
0 1490
120 1490
400 1670
920 2020
1300 2500
1750 2900
2350 3860
4000 4980

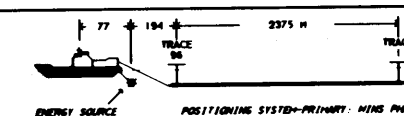
TASMANIAN DEVIL No. 1



DATE PROCESSED MAY 1982
REEL NUMBER 6408
CONTRACT NUMBER 4805

FIELD RECORDING

RECORDED BY WESTERN GEOPHYSICAL
DATE FEBRUARY 1982 SYSTEM DFSV
FORMAT SEG B GAIN 36 DB
ENERGY SOURCE
TYPE AIR GUNS 760 CU. INS. 4500 PSI.
ARRAY 10 GUNS DEPTH 6 METERS
STREAMER
LENGTH 2375 METERS NO. TRACES 96
DEPTH 40 FT GROUP INTERVAL 25 METERS
ARRAY 20 GEOPH/VR OVER 25 METERS
PARAMETERS
RECORDING FOLD 4800% S.P. SPACING 25 METERS
SAMPLE INTERVAL 2 MS RECORD LENGTH 5 SECONDS
RECORDING FILTER OUT - 120HZ @ 70DB/OCTAVE



DIGITAL PROCESSING

SEQ	PROCESS	PARAMETERS
1	DEMULTIPLEX	BINARY GAIN RECOVERY OUTPUT 4 MS
2	GAIN	AMPLITUDE RECOVERY
3	CDP TRACE GATHER	4800%/ADJACENT TRACE SUM
4	PRE-FILTER	SEE BELOW
5	DECONVOLUTION	SEE BELOW
6	VELOCITY ANALYSIS	CONSTANT VELOCITY STACK OVER 8 COPS
7	NO-MUTE	NO-MUTE
8	CDP STACK	NO-MUTE
9	FILTER	SEE BELOW
10	EQUALIZATION	DATA DEPENDENT

DECON	OPERATOR LENGTH	PREDICTIVE GAP	DERIVATION WINDOWS	APPLICATION WINDOWS
5	180	22	8 TO 3500	RECORD LENGTH

FILTER	CUT OFF POINT	6 DB POINT	6 DB POINT	CUT OFF POINT	APPLICATION TIMES FOR SHOTPOINTS SPECIFIED
9	12	15	56	66	0-1000
	4	8	32	40	3500-6000
4	4	8	56	66	RECORD LENGTH

ALL TIMES IN HILLISSECONDS ALL FREQUENCIES IN HERTZ
FILTERS INTERPOLATED LINEARLY BETWEEN APPLICATION TIMES
APPLICATION TIMES INTERPOLATED LINEARLY BETWEEN SHOTPOINTS
*OPERATOR LENGTH GIVEN IS ACTIVE LENGTH AND GAP FOR TOTAL LENGTH

SAMPLE RATE: 4MS; DATUM CORRECTION: 13 MS
SCALES: HORIZONTAL 24 TR/IN VERTICAL 2.5 IN/SEC
RECORDING POLARITY: NEG. VALUE EQUALS PRESSURE INCREASE
PROCESSING POLARITY: POSITIVE NO. GIVES BLACK PEAK

4.5 Hydrocarbon Indications

Hydrocarbon indications were continually monitored by Geoservices geological evaluation mudlogging and the wellsite geologist during drilling. The results are shown on the mudlog and the wellsite lithology log. (Enclosures 2 and 3).

Low levels of background gas were encountered through most of the section drilled, but none of the readings were interpreted to be of any significance. No fluorescence was noted anywhere in the section, and generally hydrocarbon indications were very low.

Wireline electric logs confirmed the mudlog and showed no significant indication of hydrocarbons.

4.6 Formation Evaluation

Two runs of wireline electric logs were conducted. Run 1 at 564m prior to setting 13 3/8" casing, and Run 2 at 862m TD. Both runs of logs were interpreted manually and used in conjunction with the mudlog and sample log to evaluate the well.

A summary of these results is given in Section 5 of the Appendix.

After interpretation it was decided no intervals warranted testing, and the well was plugged and abandoned as a dry hole.

4.7 Conclusions And Contributions To Geological Knowledge

The Tasmanian Devil No.1 exploratory well provided valuable structural and stratigraphic information towards the evaluation of the hydrocarbon potential of Exploration Permit T-16-P as well as the whole of the Bass Basin.

The Tasmanian Devil anomaly was originally recognized on seismic lines acquired in the 1960's and 1970's, by the previous permit holders, as a tilted fault block at the Oligocene seismic marker level.

Additional seismic, magnetic and gravity data was acquired by Weaver Oil and Gas Corporation, Australia in 1981 and 1982. A designed long regional seismic line was tied to the Pelican No 1 well for purposes of structural and stratigraphic control.

The magnetic, gravity, aeromagnetic and seismic reflection data were modeled. Seismic time structure maps and isochron maps were constructed at various key reflector levels.

The Tasmanian Devil No.1 reached total depth after drilling 122m of olivine basalt. This well did not encounter sediments older than the Torquay Group claystone of Oligocene age. With the palynology and petrographic data obtained from this well it is apparent the equivalent of the basal Oligocene sandstones and the Eastern View Coal Measures were not tested with this well. No significant reservoir rocks were observed within the Tertiary Oligocene sediments. The strong reflection mapped as top Eastern View Coal Measures prior to drilling is actually the top of the basalt.

A Geoseismic profile has been constructed between Pelican No.1 and Tasmanian Devil No.1 along seismic line 81-11 and is included as Figure 8. The profile illustrates the relationship between the top Eastern View Coal Measures horizon in the deep basinal area and the Top Basalt horizon in the Tasmanian Devil area. Between shot points 1600 and 1800 an apparent volcanic anomaly exists just below the top Eastern View Coal Measures horizon. It resembles a laccolith in geometry. It's position in the section implies emplacement along bedding planes near the boundary between the top Eastern View Coal Measures and the overlying Eocene-Oligocene shale section. Alternatively the volcanics may have been extruded onto the surface near the end of Eastern View deposition and prior to the Eocene/Oligocene transgression.

Whatever the mode of occurrence of the volcanics it is apparent that the top Eastern View horizon either terminates against or slightly overlaps onto the top basalt horizon near the volcanic anomaly between shotpoints 1600-1800.

Other occurrences of volcanics exist in the nearby area. These occurrences seem to be related to deep-seated faulting along basement involved faults of the type that bound the Tasmanian Devil structure. These faults may be "leaky" faults which may have acted as conduits to aid in the local emplacement of the basalt drilled in Tasmanian Devil No.1.

Computer modeling of the seismic, gravity and magnetic data done before and reviewed after the drilling of the Tasmanian Devil No.1 exploratory well indicate that this well penetrated the upper 122 meters of a major basalt on dolerite sill which most probably rests on an equally non-prospective basement complex of unknown age and composition.

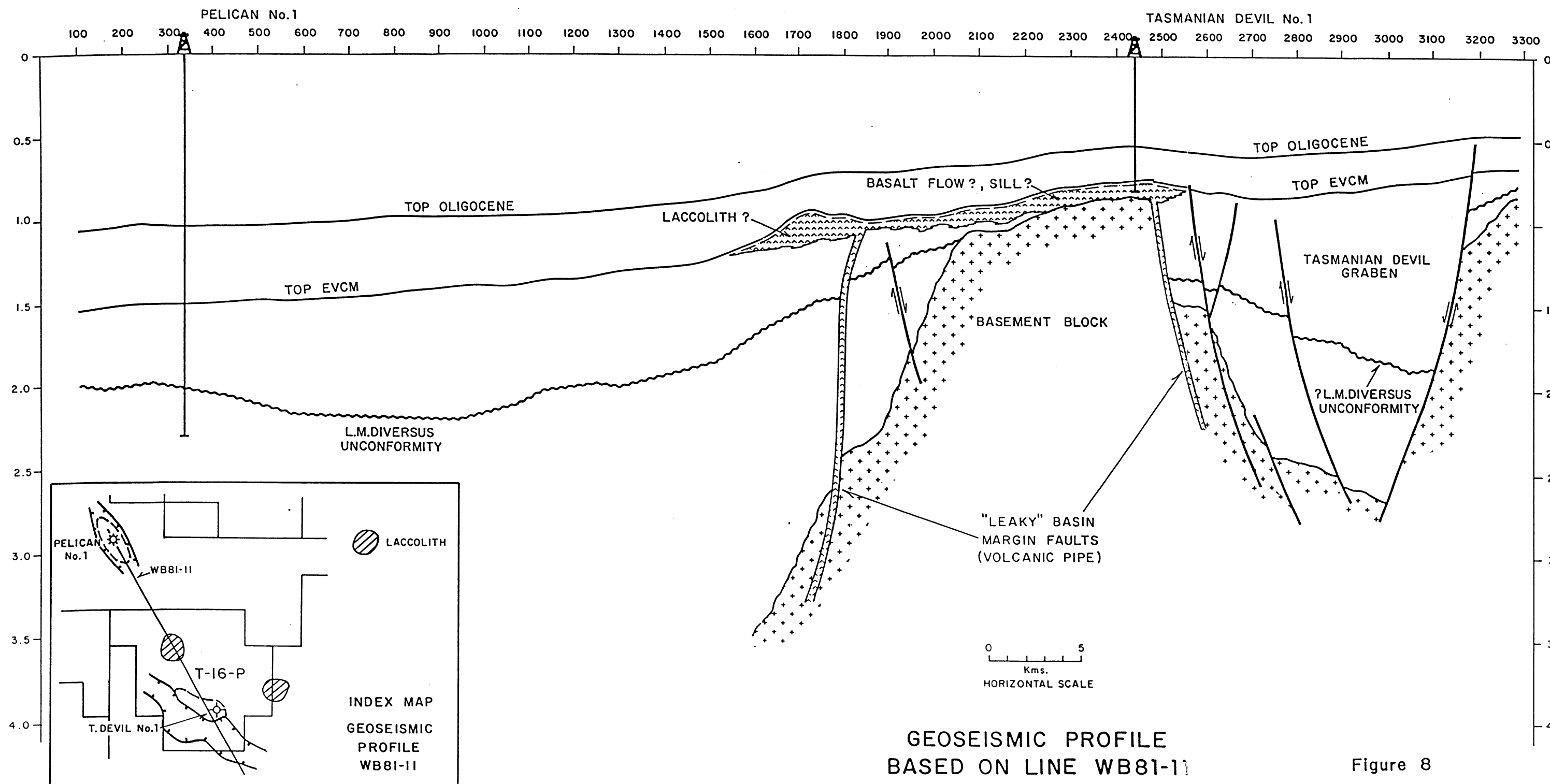


Figure 8

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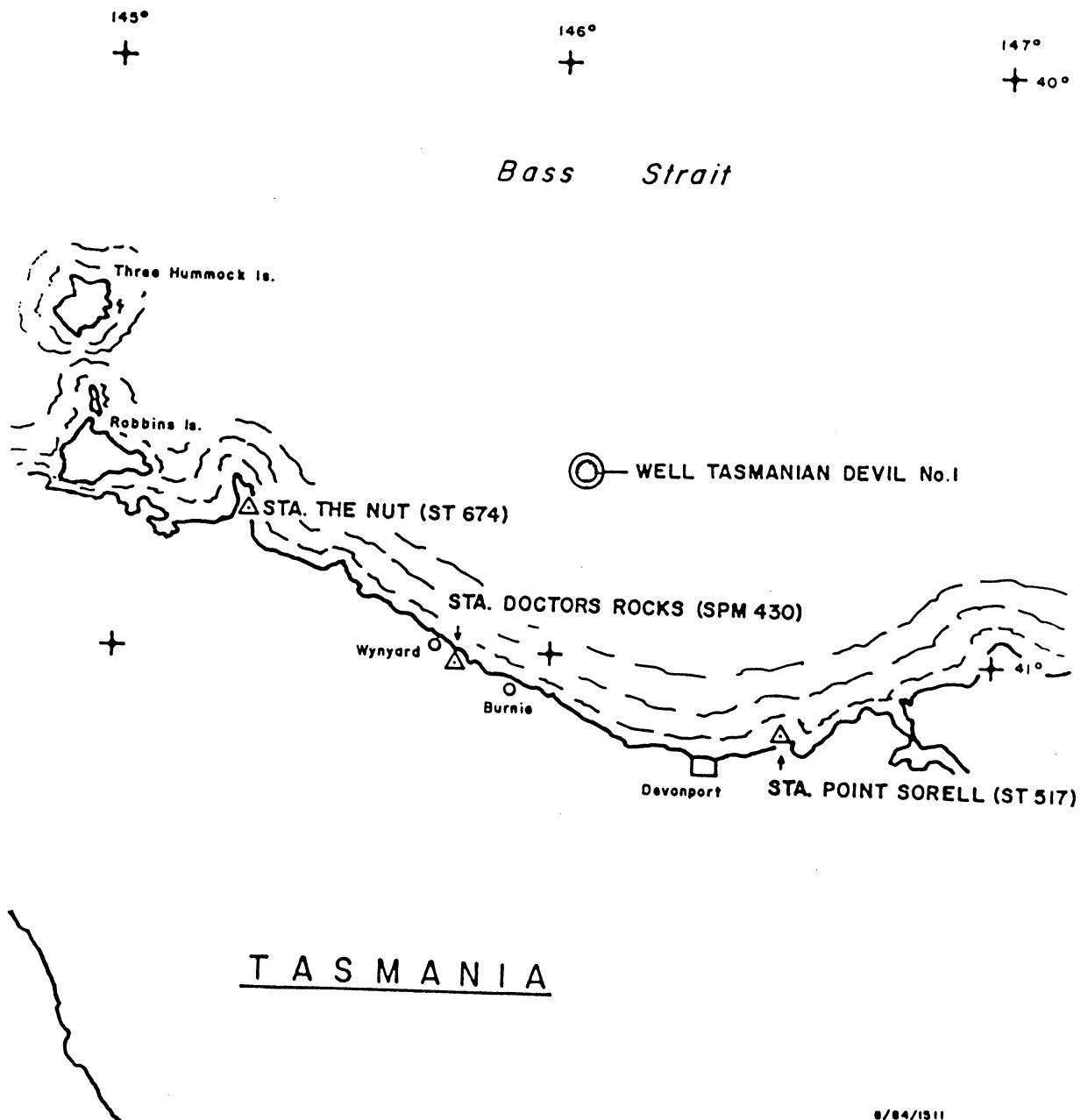
RIG LOCATION

WELL TASMANIAN DEVIL No.1—AUSTRALIA

LAT. $40^{\circ}44'16''209$ S
 LONG. $146^{\circ}09'44''958$ E

N 5,489,992 meters
 E 429,285 meters

UTM PROJ. ——— AUST. NAT. SPHEROID
 ZONE 55, C.M. 147° E ——— A.G.D.



8/84/1511

OFFSHORE NAVIGATION
 (AUSTRALIA) PTY. LTD.

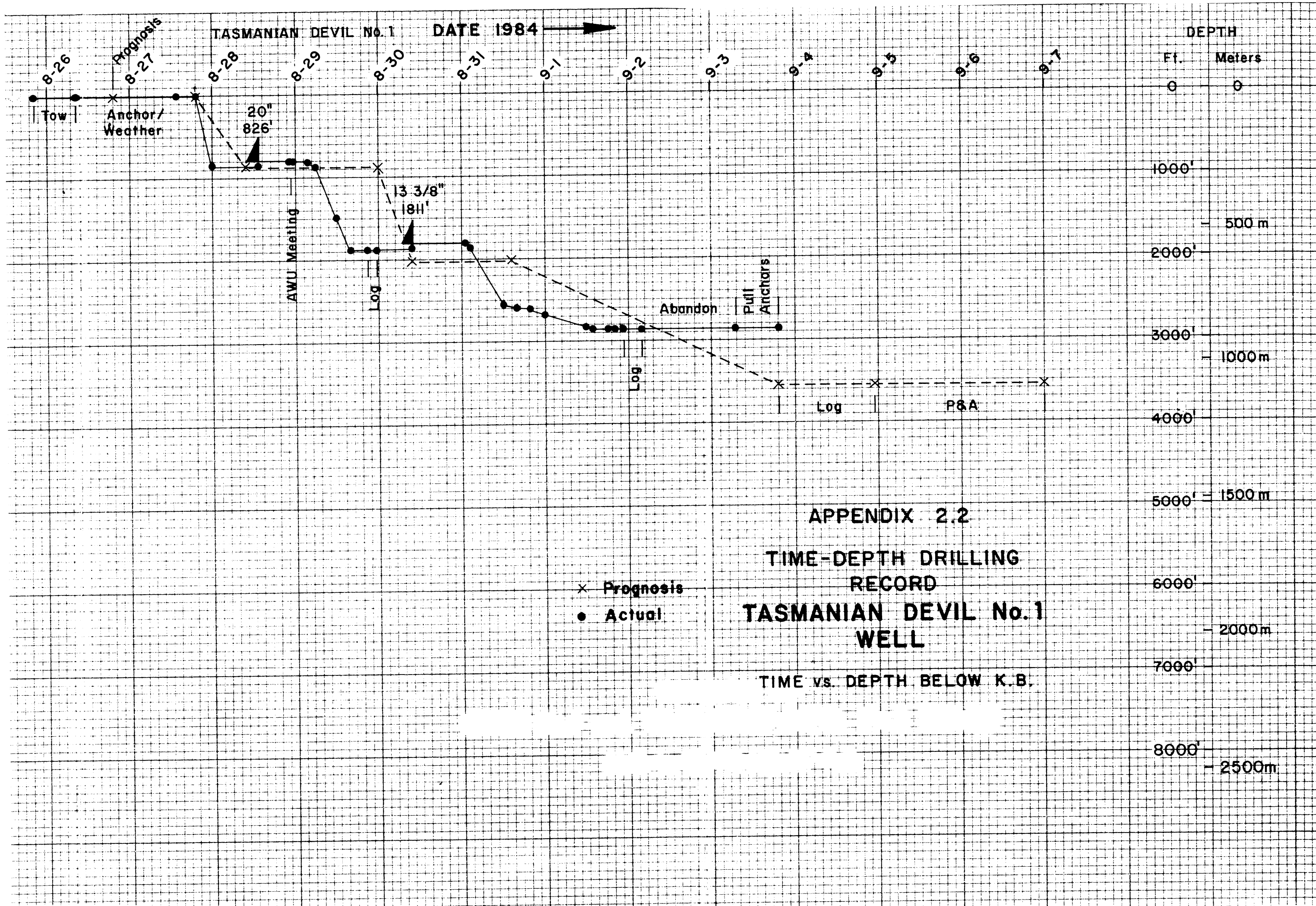
DRILLING

TASMANIAN DEVIL # 1

DRILLING ANALYSIS CHART

APPENDIX 2.1

[illegible]



APPENDIX 2.2
TIME-DEPTH DRILLING
RECORD
**TASMANIAN DEVIL No. 1
WELL**
TIME vs. DEPTH BELOW K.B.

APPENDIX 3

Lithological Description

The following lithological units have been compiled from ditch cuttings descriptions, wireline log interpretation and palynological analysis.

All depths quoted are below the rotary table kelly bushing.

Depth: Seafloor to 265m: (Thickness, 265m)

No samples. Returns to seafloor.

Depth: 265 - 524m (Thickness, 259m)

Bioclastic Limestone: White to very light yellow to light yellow grey, very fine to very coarse, dominantly coarse grained skeletal fragments, 5% argillaceous matrix, 5% calcareous cement, fossils include bryozoans, bivalves, mollusks, shell fragments, echinoid spines and forams, trace glauconite, trace mica, firm to friable, good intraskeletal porosity.

with gradations to

Limestone: As above

and

Calcareenite: As above.

Depth: 524 - 611m (Thickness, 87m)

Claystone: Light olive grey to olive grey, trace to 10% silt, 5% calcareous, 5% skeletal fragments, trace coal, soft.

Depth: 611 - 702m (Thickness, 91m)

Claystone: Medium grey brown to olive brown, trace silt, trace calcareous, trace micromica, trace carbonaceous matter, trace skeletal fragments, trace glauconite, soft and dispersive.

Depth: 702 - 724m (Thickness, 22m)

Claystone: As above, with gradations to and interbeds of

Sandstone: Translucent to very light brown grey, very fine to coarse dominantly fine to medium grained, poor to well dominantly moderately sorted, subangular to subrounded trace to 20% argillaceous matrix, trace to 20% dolomitic, trace to 5% calcareous and trace pyrite cements, trace lithic fragments, trace mica, trace skeletal fragments, firm to friable, poor visual porosity.

Depth: 742 - 864m (Thickness, 122m)

Olivine Basalt: Moderate green to medium brown to black, medium grained porphyritic texture, consists olivine, plagioclase, augite and opaques, very hard.

THE STRATIGRAPHIC PALYNOLOGY

OF

TASMANIAN DEVIL # 1

for: KIMBERLEY OIL & GAS N.L.

10th January, 1985.

Helene A. Martin,
School of Botany,
University of New South Wales,
Box 1, Post Office,
Kensington, NSW 2033,
AUSTRALIA.
(02) 697-2075.

SUMMARY OF STRATHIGRAPHIC PALYNOLOGY

Depth (m)	Spore pollen Zone	Confidence	Dinoflagellate Zone	Confidence	Age	Palaeoenvironmen
		TASMANIAN DEVIL				
600-750	<i>P. tuberculatus</i>	Moderate	?	—	Early Oligocene Early Miocene	Marginal marine

Introduction

All of the assemblages are poorly preserved. The grains are frequently broken or corroded and the finer morphological details may be obliterated. This poor preservation often prevents a reliable specific identification although the objects may be referable to a genus.

All of the samples are cuttings so the assemblages must be interpreted with extra care. The top of the range of diagnostic species is probably more reliable than the first appearance for the former will be unaffected by cavings or carry down. The top of the range is not fool-proof, however, for spores and pollen may be re-worked into younger sediments.

Diagnostic species may be limited or absent from an assemblage. Under these circumstances, the nature of the assemblage as a whole may indicate the zone, although with less confidence than if the determination is based on diagnostic species. Confidence is further reduced if this approach must be used for cuttings.

SPORE POLLEN ZONATION.

Spore pollen zonation follows Stover & Partridge (1973). Partridge (1976) modified the ages of the zones somewhat and subdivided some of the zones. The Lower *N. asperus* Zone of Stover & Partridge (1973) is subdivided into an older Lower and a younger Middle *N. asperus* Zone, without diagnosis or description (Partridge 1976). A discussion of the Middle *N. asperus* Zone in Stover & Partridge (1982) shows that it is based on the species which first appear in the upper part of the Lower *N. asperus* Zone (in Stover & Partridge, 1973), e.g. *Triorites magnificus*. This discussion in Stover & Partridge (1982) is used as a diagnosis of the Middle *N. asperus* Zone.

Partridge (1976) and Stover *et. al.* (1979) list subdivisions to the *M. diversus* Zone without diagnosis or description. Under these circumstances, subdivision of the *M. diversus* Zone is not possible.

Spores and pollen identified are listed in Table 1 and the ranges of diagnostic species shown in Fig. 1.

DINOFLAGELLATES.

Dinoflagellate zonation follows Stover, Helby & Partridge (1979). The zones in this reference are much the same as those in Partridge (1976), with some minor amendments in the former. Neither of these references describe or diagnose the zones. In this report, zone determination relies upon the ranges of a few selected species (see Fig. 2). Dinoflagellates associated with the Early Oligocene - Early Miocene *P. tuberculatus* zone have not been defined. The literature on dinoflagellates of this time range is old and scanty.

For dinoflagellates identified, see Table 1.

TASMANIAN DEVIL

Preservation is much better here and there is an abundance of spores, pollen and dinoflagellates.

SPORE POLLEN ZONATION

600 - 750 m. *P. Tuberculatus* Zone, Early Oligocene - Early Miocene.

None of the diagnostic species which first appear at the base of the *P. tuberculatus* Zone are present but they are not common and are frequently lacking. None of the distinctive species whose ranges terminate at the top of the Mid *N. asperus* Zone are present either. There is no evidence of the Upper *N. asperus* Zone. The general characteristics of the assemblages fit the *P. tuberculatus* Zone and this seems the most likely.

DINOFLAGELLATE ZONATION

600 - 750 m. ?

Operculodinium centrocarpum and *Spiniferites ramosus* are the most common species here. All the other species identified are consistent with the spore-pollen determination.

PALAEOENVIRONMENT

TASMANIAN DEVIL

All of the assemblages contain diverse dinoflagellates and the environment was marginal marine.

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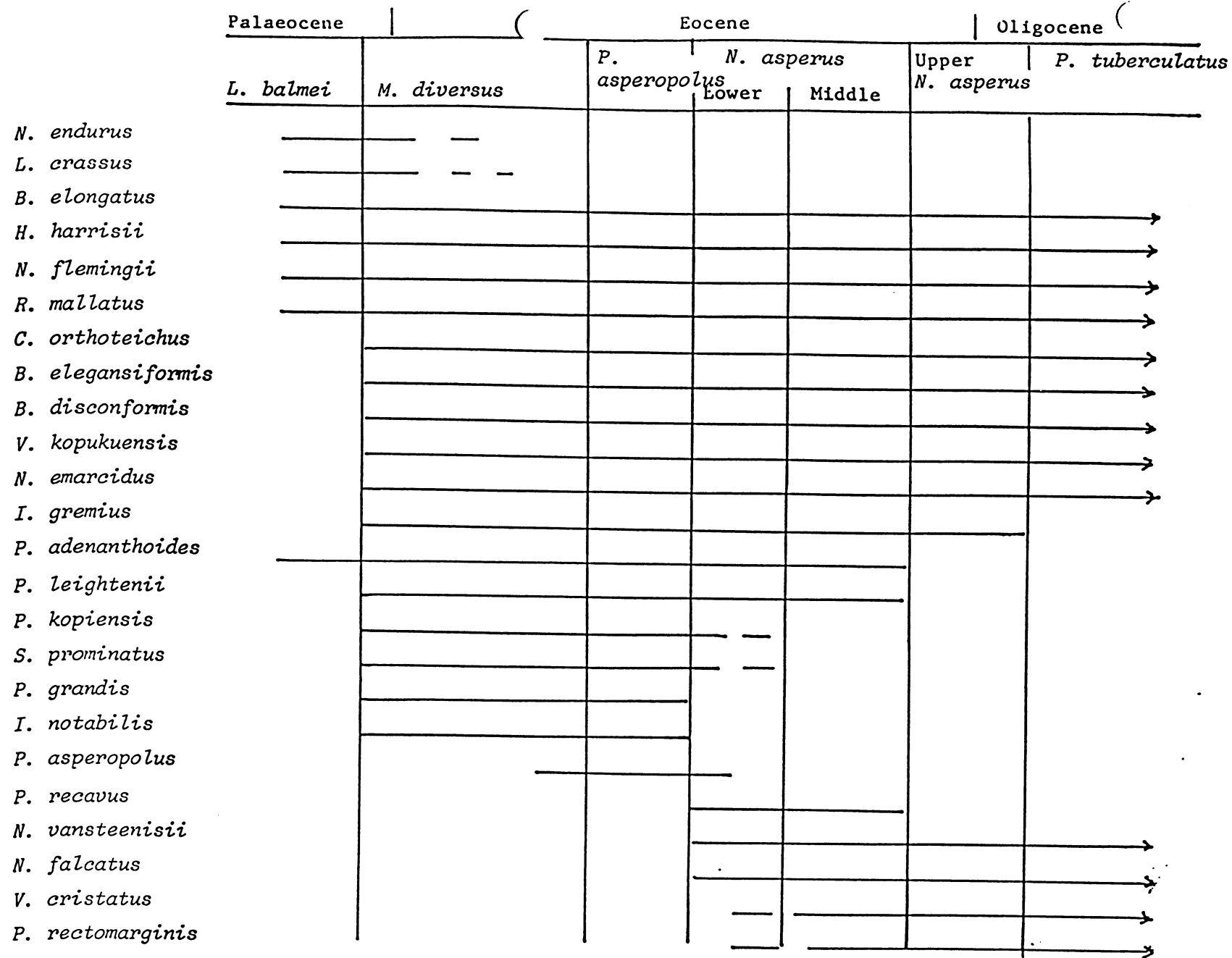


FIG. 1 - SPORE POLLEN RANGE CHART
 Ranges from Stover and Partridge, 1973
 Tasmanian Devil #1

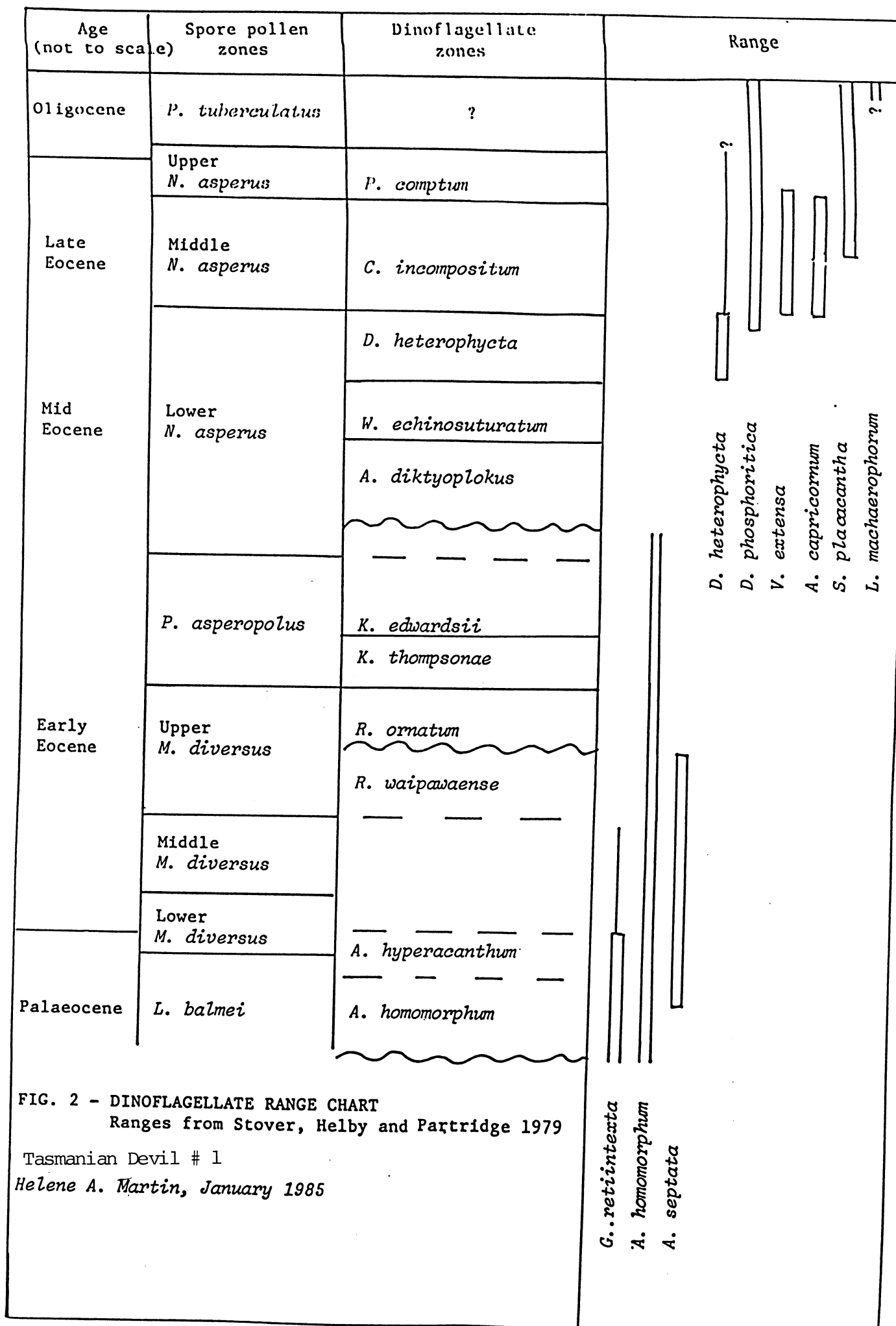


FIG. 2 - DINOFLAGELLATE RANGE CHART
 Ranges from Stover, Helby and Partridge 1979

Tasmanian Devil # 1

Helene A. Martin, January 1985

[illegible]

TASMANIAN DEVIL NO. 1

K.K. No.	Depth (m)	\bar{R}_V max	Range	N	Exinite Fluorescence (Remarks)
x1334	705- 720 ?Ctgs	0.39	0.38-0.40	2	Rare phytoplankton, greenish yellow, rare cutinite, sporinite and alginite A, yellow. (Carbonate>>sandstone> claystone. Dom rare to sparse, E>I>V. All macerals rare. Abundant pyrite. Vitrinite may be a contaminant, such as a mud additive.)

FIGURE : 1 VITRINITE REFLECTANCE AND COAL MACERAL IDENTIFICATION

CLIENT NAME : KIMBERLEY OIL& GAS DATE : NOVEMBER 1984 WELL NAME : TASMANIAN DEVIL #1
 DEPTH OR SAMPLE No : 705-720 Metres SAMPLE TYPE : CUTTINGS
 (Total No. of Readings = 5) 0.38 0.40 1.34 1.38 1.44

VITRINITE REFLECTANCE							MACERAL IDENTIFICATION				
POPULATION		No. of Readings	Mean	Min.	Max.	STD.	Comments	%	%	%	%
Number	%		Ro (%)	Ro (%)	Ro (%)	Dev. (%)		Alginite	Exinite	Vitrinite	Inertinite
1	40	2	0.39	0.38	0.40	0.01	INDIGENOUS (I)	25.00	25.00	25.00	25.00
2	60	3	1.39	1.34	1.44	0.05	INERTINITE (N)	No data	No data	No data	No data

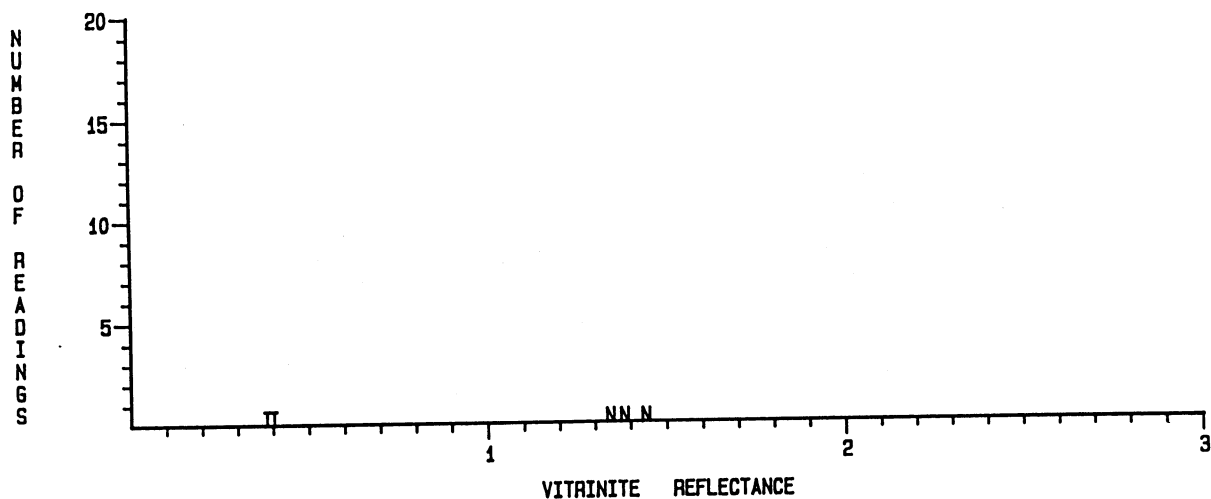


TABLE 1

ROCK-EVAL PYROLYSIS DATA (one run)

WELLNAME = TASMANIAN DEVIL #1

DATE OF JOB = OCTOBER 1984

DEPTH(m)	TMAX	S1	S2	S3	S1+S2	S2/S3	PI	PC	TOC	HI	OI
645.0- 660.0	389	0.14	0.38	3.76	0.52	0.10	0.27	0.04	0.59	64	637
705.0- 720.0	399	0.07	0.28	2.39	0.35	0.12	0.20	0.03	0.68	41	351

TMAX = Max. temperature

S1+S2 = Potential yield

PC = Pyrolysable carbon

OI = Oxygen Index

S1 = Volatile hydrocarbons (HC)

S3 = Organic carbon dioxide

TOC = Total organic carbon

nd = no data

S2 = HC generating potential

PI = Production index

HI = Hydrogen index



**The Australian
Mineral Development
Laboratories**

182 Wittenoom Street
East Perth
Western Australia 6000
Telephone 325 7311
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In reply quote:

amdel

3/0/0

13 November 1984

Kimberley Oil & Gas N.L.,
GPO Box W2099,
PERTH, W.A. 6001.

ATTENTION: Mr. Philip Lawry,
Senior Geologist.

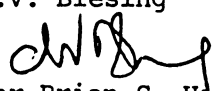
REPORT GS P656/85

YOUR REFERENCE:	Service Request No. 159
IDENTIFICATION:	865 m
MATERIAL:	Drill cutting
LOCALITY:	Tasmanian Devil No. 1
WORK REQUIRED:	Petrography

Investigation and Report by: Frank Radke

Manager - W.A. Division:

N.V. Blesing


for Brian S. Hickman,
Managing Director.

Head Office:

Flemington Street, Frewville
South Australia 5063
Telephone: (08) 79 1662
Telex: Amdel AA82520

Pilot Plant:

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Thebarton S.A.
Telephone (08) 43 5733

Branch Laboratories:

Melbourne, Vic.
Telephone (03) 645 3093
Townsville, Qld.
Telephone (077) 75 1377

PETROGRAPHY OF A DOLERITE

Sample: 865 m; TSC43692

Rock Name:
Dolerite

Hand Specimen:
This sample consists of small, medium to pale grey chips up to 3 mm wide.

Thin Section:
The thin section was cut from many chips embedded in an araldite block. Most of the chips consist of plagioclase feldspar laths which are intergrown with clinopyroxene. Olivine is also present in the rock as intergrowths with the plagioclase and as individual grains up to 0.5 mm wide. This rock is generally quite fresh with the plagioclase showing only incipient alteration to finely divided sericite/clay and the clinopyroxene showing localized alteration to a green chlorite. The olivine in particular tends to be quite fresh showing only slight alteration to reddish-brown, iddingsitic material.

In addition to the dolerite chips small amounts of calcite occur in chips up to 1.5 mm wide. Most of the calcite chips have a coarsely granular texture although some very finely granular calcite chips are present.

This sample consists mainly of small dolerite chips quite similar to the dolerites described in report G 6145/85.



**The Australian
Mineral Development
Laboratories**

182 Wittenoom Street
East Perth
Western Australia 6000
Telephone 325 7311
Telex AA94893
In reply quote:

amdel

3/0/0

13 November 1984

Kimberley Oil & Gas N.L.,
GPO Box W2099,
PERTH, W.A. 6001.

ATTENTION: Mr. Philip Lawry,
Senior Geologist.

REPORT GS P613/85

YOUR REFERENCE:	Service Request No. 155
LOCALITY:	Tasmanian Devil No. 1
IDENTIFICATION:	775 m and 865 m
WORK REQUIRED:	Petrography
DATE RECEIVED:	25 October 1984

Investigation and Report by: Frank Radke

Manager - W.A. Division: N.V. Blesing


for Brian S. Hickman,
Managing Director.

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Thebarton S.A.
Telephone (08) 43 5733
Branch Laboratories:
Melbourne, Vic.
Telephone (03) 645 3093
Townsville, Qld.

PETROGRAPHY OF TWO DOLERITES

Sample: 765-780 m; TS45676

Rock Name:
Dolerite

Hand Specimen:
This sample consists of medium grey coloured chips up to about 1 cm in size.

Thin Section:
The thin section was cut from several chips most of which are comprised of plagioclase intergrown with mafic minerals. The mafic minerals consist mainly of clinopyroxene which forms prismatic to anhedral grains generally located interstitially between the plagioclase laths. Most of the clinopyroxene has a relatively coarse grain size but some of the chips contain granular, interstitial clinopyroxene. Both the clinopyroxene and plagioclase are very fresh although some of the clinopyroxene shows localized alteration to a green chloritic phyllosilicate.

In addition to the clinopyroxene the rock also contains some completely altered mafic crystals believed to represent disseminated olivine. In most cases these crystals now consist of green to reddish-brown iron-stained phyllosilicates although in one chip they have been replaced by granular calcite.

This sample contains a very small number of chips considered to be of sedimentary origin which includes some fine-grained sandstones as well as some limestones comprised of granular calcite mosaics.

This sample consists mainly of dolerite chips which are considered to represent a shallow basic intrusive rock such as a dyke or sill.

Sample: 865-880 m; TS45677

Rock Name:
Dolerite

Hand Specimen:
This sample consists of small, angular chips up to 3 mm wide.

Thin Section:

The thin section was cut from numerous chips which consist mainly of plagioclase and clinopyroxene. The sample is texturally very similar to the previously described sample although the chips are much smaller and it is possible that the rock could have a slightly finer grain size. The chips consist mainly of randomly oriented plagioclase laths intergrown with clinopyroxene and minor olivine. The olivine is generally replaced by phyllosilicates which have a reddish-brown iron-stained colour although some relatively fresh olivine crystals with iddingsite rims and fracture linings are present. The clinopyroxene is generally quite fresh although it locally shows some alteration to a green chloritic phyllosilicate.

A few chips comprised mainly of calcite which tends to be intergrown with opaque to translucent iron oxides imparting a turbid character to it are present. The rock also contains some more coarsely granular calcite chips believed to represent fragments of limestone. A few fine-grained sedimentary rock fragments are also present.

This sample is very similar to the sample from 765-780 m and is comprised mainly of dolerite chips believed to represent a shallow basic intrusive rock such as a dyke or sill.



UNPUBLISHED REPORT 1984/74

Igneous rocks from Tasmanian Devil #1

by P.W. BAILLIE
A.V. BROWN

TASMANIA DEPARTMENT OF MINES

Abstract

Tasmanian Devil #1 bottomed in Tertiary alkali olivine basalt and not granite basement. Detailed petrological and petrographic information is presented.

INTRODUCTION

Tasmanian Devil #1, a hydrocarbon exploration well, was drilled in the Bass Basin on behalf of a consortium headed by Weaver Oil and Gas. The well was located at 40°44'16.209"S, 146°09'44.958"E and penetrated 863 m before being plugged and abandoned as a dry hole.

The Completion Report submitted by Triton Engineering Services Company Ltd indicates the following stratigraphy:

Pliocene/Miocene limestone	ML - 508 m
Pliocene/Miocene claystone	508 - 589 m
Eocene Shale (Demon's Bluff)	589 - 680 m
Sand	680 - 701 m
Claystone	701 - 720 m
Volcanic rocks	720 - 830 m
Granite basement	830 - 863 m

Preliminary examination of the wireline logs raised doubts as to whether granite basement had been penetrated, which resulted in a follow-up petrological analysis of ditch cuttings, these being the only material available to work with as no cores were cut nor side-wall cores shot.

LOGGING RESULTS

Volcanic rocks were first detected by the mud-loggers at 736 m where they record the presence of - "Diorite - medium brown-black, fine-grained, very hard, crystalline (rock with) feldspar, hornblende, opaques, minor quartz". The same rock was reported over the interval 736-855 m.

From 855-863 m the mud-loggers recorded the presence of - "Granite - white-grey, very hard, coarse-grained, crystalline (rock with) feldspar, quartz, biotite, opaques".

It will be noted that there is a difference of 25 m between the initial recording of "granite" by the mud-loggers, and the depth of inter-section quoted by Triton in the Completion Report.

The following wireline logs were run:

DIL - SLS - CAL - GR - SP	Run 1 (251-561 m)
DIL - SLS - CAL - GR - SP	Run 2 (552-861 m)
LDL - CNL - GR	Run 1 (552-862 m)

Of relevance to this report is the section 700-863 m. All the logs show a pronounced change of character below 750 m, but are best observed on the resistivity (DIL) and sonic (SLS) logs. The velocity gradually increases from 150 μ s/ft at 750 m to 60 μ s/ft at 765 m. Velocity then very slowly increases to 50 μ s/ft at 852 m. A similar gradual, then slow

increase is shown by the three resistivity curves. This pattern is interpreted as either a weathered zone (750-760 m), or a highly fractured upper igneous contact, above a massive igneous body.

The possibility of the presence of a weathered zone is increased by the density log which shows an increase in density from 1.90 g/cc (750 m) to 2.80 g/cc (765 m) and then constant at 2.80 g/cc to 863 metres.

Because of the lengths of the various sondes it is not possible to confirm if there is a change in lithology at 855 m, although there is no obvious change from basalt to granite at 830 m, as suggested in the Triton Completion Report.

PETROGRAPHIC DESCRIPTIONS

Thin sections were prepared of cuttings samples from 815 m, 835 m, 850 m, 855 m, 860 m, 865 m (sic.). The thin sections were made from 275 mm diameter grain mounts, each thin section containing approximately 250 grains.

In all six thin sections at least 95% of the grains present are olivine-bearing basalt, similar to the Tertiary alkali olivine basalts found onshore in north-western Tasmania in the Burnie-Waratah basalt field. At the Waratah end of this tract the basalts are interbedded with sediments which have yielded an earliest Oligocene microflora (Brown and Forsyth, 1984).

Thin section description

865 m (sic.): Texture ophitic to intergranular, with titanite and opaque mineral grains interlocked by plagioclase laths. Clinopyroxene is a purplish pink (titaniferous) augite which occurs as discrete grains or grains enclosing an opaque mineral.

Also present in the slide are four grains of recrystallised carbonate and one grain of vesicular basaltic glass.

860 m: Texture dominantly intergranular, with plagioclase laths interlocking and surrounding olivine and opaque mineral grains.

In this slide is one grain of fossiliferous calcarenite and one grain of a quartz phyllite similar to phyllites from the Precambrian of north-western and western Tasmania.

This sample contains the highest degree of alteration observed in the six slides.

855 m: Medium-grained olivine-phyric basalt. Olivine grains are surrounded by interlocking plagioclase laths with an intergranular texture. Interstices are filled by anhedral titaniferous augite and a black opaque mineral (Fe-Ti oxide). A minor percentage of grains consist of plagioclase microlites in a black glass and olive-green to brown fibrous material replacing devitrified glass.

850 m: Texture more ophitic than intergranular. Minor grains are devitrified glass, some with feldspar microlites. One to two grains of pyritised basalt are present.

835 m: Similar to above, some alteration is present. Percentage of devitrified glass is higher than 850-865 m and the texture is dominantly intergranular.

815 m: Similar to above. Texture is variable from ophitic to inter-granular. Two grains of phyllite have been largely replaced by carbonate.

MINERAL CHEMISTRY

Polished thin sections were prepared from the 275 mm grain mounts prepared from material taken from the 815, 835, 850 and 855 m samples. For each sample, five areas were chosen that contained all four (or most of the four) mineral components of the basalt. Analysis of the mineral grains was carried out using the Jeol JXA-50A Electron Probe Microanalyzer at the Central Science Laboratory of the University of Tasmania.

The four mineral phases present are olivine, feldspar, clinopyroxene and Ti-Fe oxide. Each of the phases shows a similar compositional range between and within each sample, indicating that each sample represents a homogenous grouping of grains from a very similar source rock.

Olivine

The variation in composition of the olivine crystals does not reflect any gradation or differentiation and, with the exception of large olivine phenocrysts in sample TD 855, all ranges were recorded in each sample.

The larger olivine phenocrysts have an average composition of Fo_{71.5} (4 grains) with the smaller olivine phenocrysts being Fo_{66.5} (4 grains). Groundmass olivine averages Fo_{60.5}.

These values are less magnesian than the lower-most alkali olivine basalts so far studied on the Tasmanian mainland, but only reflect a normal differentiation trend between alkali olivine basalt and olivine-bearing tholeiite.

Clinopyroxene

The clinopyroxene grains in all four samples are a titaniferous, high calcic augite [Ca; Mg; Fe; = 44.4; 42.6; 13.0] with an average of 1.36 wt% TiO₂ (20 grains). Some samples (3 grains) contained greater than 0.20 wt% Cr₂O₃ (up to 0.39 wt%). In comparison with clinopyroxene from other Tasmanian alkali olivine basalt the variation in composition in (Ca, Mg, Fe) is insignificant, but the grain analyses have slightly lower TiO₂ and Cr₂O₃ contents, again consistent with the olivine composition and due to a degree of differentiation of source magma.

Plagioclase

Although a range of feldspar compositions occur, the variations recorded occur in each of the four samples. The most calcic plagioclase is a calcic labradorite (An_{64.3} - average of 7 grains). A second labradorite has a composition of An_{56.2} (average of 7 grains), and a high-calcic andesine, An_{46.5} (5 grains) is also present. The variation in composition is more likely to be due to alteration than original composition variations.

A second feldspar present displays diffuse albite twinning and has a larger grain size than the labradorite-andesine laths. The composition suggests that it is an intergrowth of plagioclase and K feldspar. Two compositional variations were recorded; one having a composition of [Ca; Na; K; = 14.2, 62.8, 23.0] (2 grains) occurred in TD 815 and TD 835, whereas in TD 835, 850 and 855 a second intergrowth with a composition of [Ca, Na, K = 3.9; 46.6; 49.6] occurs.

Opaque minerals

Analyses of the majority of opaque mineral grains (15 grains) were uniform throughout the four samples, and showed the mineral to be ilmenite. The minor opaque phase (5 grains) is a titaniferous magnetite. In comparison with other Tasmanian alkali olivine basalts the opaque phase is higher in TiO_2 content, and forms ilmenite at a higher temperature than titaniferous magnetite. The presence of ilmenite could also explain the low TiO_2 content of the clinopyroxene in these samples, as in most cases the ilmenite appears to crystallise before clinopyroxene.

DISCUSSION

Each of the four samples contains mineral grains which display a small compositional range, consistent with all the grains having come from a similar source. The nature of sampling precludes easy recognition of individual flows. Within onshore Tertiary basalt fields flows range in thickness from approximately one metre to about 10 m (Brown and Forsyth, 1984). Flows of alkali olivine basalt in excess of 50 m thick are not considered to be likely, given the low viscosity of alkali olivine basalt lava, grain size observed in the samples, and lack of chemical variation.

A possible flow top occurs at 822 m and is indicated by a one inch increase in hole size and a decrease in density from 2.9 g/cc to 2.6 g/cc. A corresponding decrease in resistivity indicates the presence of water, consistent with the top of a ?weathered flow.

Other possible flow tops are present at 841 m and in the zone 750-780 m.

CONCLUSION

The mineral chemistry, petrographic observations and comparison with Tertiary basalts exposed onshore in north-western Tasmania all support the conclusion that the samples from Tasmanian Devil #1 are alkali olivine basalts, transitional to olivine-bearing tholeiites, and probably of Oligocene age.

No evidence to support the presence of granite basement was observed.

REFERENCE

- BROWN, A.V.; FORSYTH, S.M. 1984. Chemistry of Tertiary basalt, and palynology of interbedded sediments from B.H.P. drill holes, E.L. 33/79. *Unpubl.Rep.Dep.Mines Tasm.* 1984/39. (closed file report).

[6 November 1984]

TASMANIAN DEVIL NO. 1.

1. Summary

1.1 Logs Available

<u>Run No.</u>	<u>Date</u>	<u>Interval (m RT)</u>	<u>Tool</u>	<u>BHT (°C)</u>	<u>Log Scales</u>
1	29/8/84	562.5 - 251*	DIL-SLS-GR	43.3	1/200, 1/500
2	1/9/84	862.5 - 552	DIL-SLS-GR	54.5	1/200, 1/500
	2/9/84	863.0 - 552	LTL-CNL-GR	54.7	1/200, 1/500

*GR to seafloor

1.2 Hole Details

<u>Run No.</u>	<u>Casing</u> <u>Size</u>	<u>Shoe at (m)</u>	<u>Hole Size</u>	<u>Density</u>	<u>Mud</u> <u>Type</u>
1	20"	251	17 1/2"	9.3	Lig-CMC-Gel
2	13 3/8"	552	12 1/4"	9.1	Lig-Dex-Gel

1.3 Mud Resistivities

<u>Run No.</u>	<u>Rmf @ Temp</u> <u>m</u> <u>°C</u>	<u>Rm @ Temp</u> <u>m</u> <u>°C</u>	<u>Rmc @ Temp</u> <u>m</u> <u>°C</u>	<u>Rmf @ Temp</u> <u>m</u> <u>°C</u>
1	0.580 17	0.707 17.5	1.040 16.5	0.345 43.3
2	0.566 16	0.689 15.5	0.951 15	0.279 54.5

1.4 Interpretation Summary

<u>Formation</u>	<u>Net/Gross</u> <u>m sand/m total</u>	<u>Effective</u> <u>Ø</u>	<u>V Clay</u> <u>(%)</u>	<u>Rw(m)</u> <u>(m)</u>	<u>Sw</u> <u>(%)</u>
Torquay Group					
Sandy interval					
702-723m	21/21	35	45	0.21	100+

2. Interpretation

2.1 Run 1

Examination of Run 1 logs indicated no potential hydrocarbon zones, and a quantitative analysis was not undertaken.

2.2 Run 2

2.21 RW Calculations

RW was calculated using the SP curve for the one interval that showed a deflection (702-723m). Using an SSP deflection of -18mv, an RW of 0.21 ohm m @ 47 C was calculated. (18900 ppm NaCl equivalent).

2.22 Porosity Calculation

ϕ_s calculated using Whyllie Time Average equation together with a compaction factor of 1.6.

ϕ_{ND} calculated using the standard crossplot.

2.23 RT Calculation

RT calculated using a tornado chart to correct for invasion.

2.24 Vshale and Rshale

Vshale calculated using GR as an indicator, a Rshale of 0.6 ohm m was chosen.

2.25 Values of a, m & n

Standard values of a, m & n were used, 0.81, 2 and 2 respectively.

2.26 SW Calculation

SW was calculated using the Indonesian Equation.

2.3 Results

Only one interval (702 - 723m) had any reservoir potential.

Zone (m)	GR (API)	RT (ohmm)	t (s/m)	ϕ_s (%)	ϕ_{ND} (%)	Vsh (%)	SW (%)
703-704	39	0.43	140	39	35	30	100+
712-714	55	0.32	130	35	38	58	98
720-722	47	0.47	140	39	39	42	92

3. Summary

3.1 No hydrocarbon bearing zones are indicated on the logs.

COMPANY: WEAVER OIL & GAS AUSTRALIA

SPUDDED: August 27, 1984

COMPLETED: 3/9/84

STATUS: P & A

SUBSIDY: YES/NO

T.D.: 864m BRKB

ELEV. XXXX: WD: 73.8m

K.B.: 21.9m ASL

1st FLANGE:

WELL TASMANIAN DEVIL

No. 1

BASIN: Bass

TENEMENT: T 16 P

LAT: 40 44'16 "209S LONG: 146 09' 44 "958E

NORTHING: - EASTING: -

APPROVED:

BY:

REVISED:

ISSUED:

WELL INDEX SHEET

WEAVER

FORMATION / MARKER	KEY	TOPS (m)		LITHOLOGIC SUMMARY / PALEO DATING	REMARKS / SHOWS
		DRILL	SUB SEA		
KB SL Bioclastic Limest(SB) Torquay Group		0 21.9 96 524	+21.9 0 - 74 -502	limestones claystone	
Olivine Basalt TD		742 864	-720 -842	basalt	

No	DEPTH (m)	REC	LITHOLOGY	No	DEPTH (m)	REC	LITHOLOGY

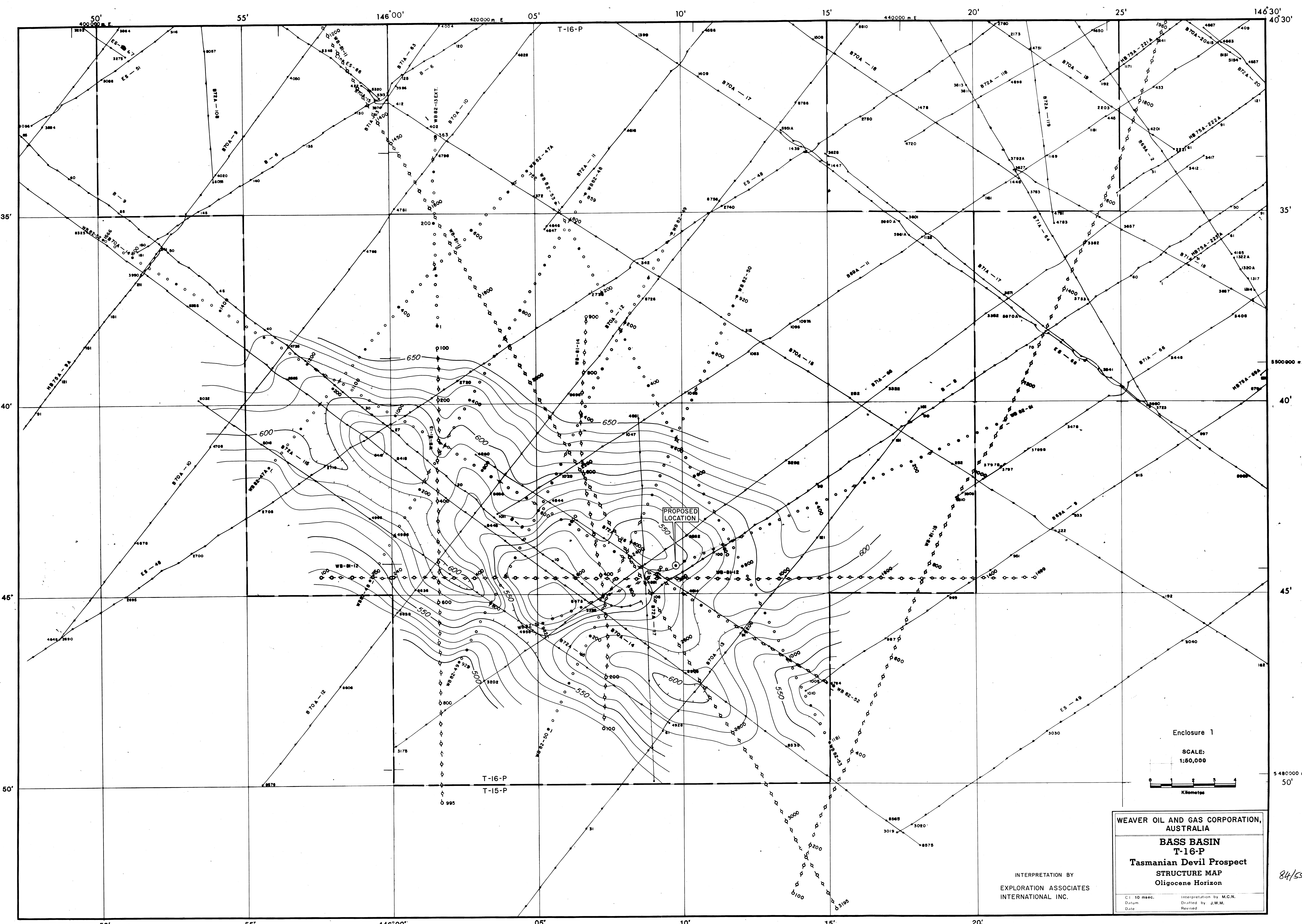
DIL	<input checked="" type="checkbox"/>	SLS	<input checked="" type="checkbox"/>	LDT	<input checked="" type="checkbox"/>	CNL	<input checked="" type="checkbox"/>	HDT	<input type="checkbox"/>	CDM	<input type="checkbox"/>	GRN	<input type="checkbox"/>	CBL	<input type="checkbox"/>	CCL	<input type="checkbox"/>
MUD	<input checked="" type="checkbox"/>	C GPH	<input type="checkbox"/>	PWL	<input type="checkbox"/>	REPORT	<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
SWC	NIL	DITCH SAMPLES: FROM 251				TO	863m	STORED BMR, TMD, UTS									

CASING	SIZE (" x lb/ft)	20/133	13 3/8	68					
TUBING	LANDED AT (m)	252	552						
	CEMENT (SACKS)								

TEST RESULTS; FLUID ANALYSES, LOST CIRCULATION (INTERVALS, CAUSES); PLUG TOPS; REMARKS

plug No. 1 512 - 582m
 No. 2 141 - 221m

No indications of hydrocarbons



Enclosure 1

SCALE:
1:50,000

0 1 2 3 4
Kilometers

WEAVER OIL AND GAS CORPORATION,
AUSTRALIA

BASS BASIN
T-16-P
Tasmanian Devil Prospect
STRUCTURE MAP
Oligocene Horizon

INTERPRETATION BY
EXPLORATION ASSOCIATES
INTERNATIONAL INC.

C.I. 10 msec.
Datum
Date

Interpretation by M.C.N.
Drafted by J.W.M.
Revised

84/551

84/551 (4.1)

PETROPHYSICS, INC.

HOUSTON, TEXAS

(713) 8681288

SEISMIC TIME CONVERSION

CLIENT: EXPL. ASSOC. INTERNATIONAL

WELL ID: HEAVER, O&G, #1 T. DEVIL

LOCATION: TASMANIA, AUSTRALIA

LOG TYPE: SONIC

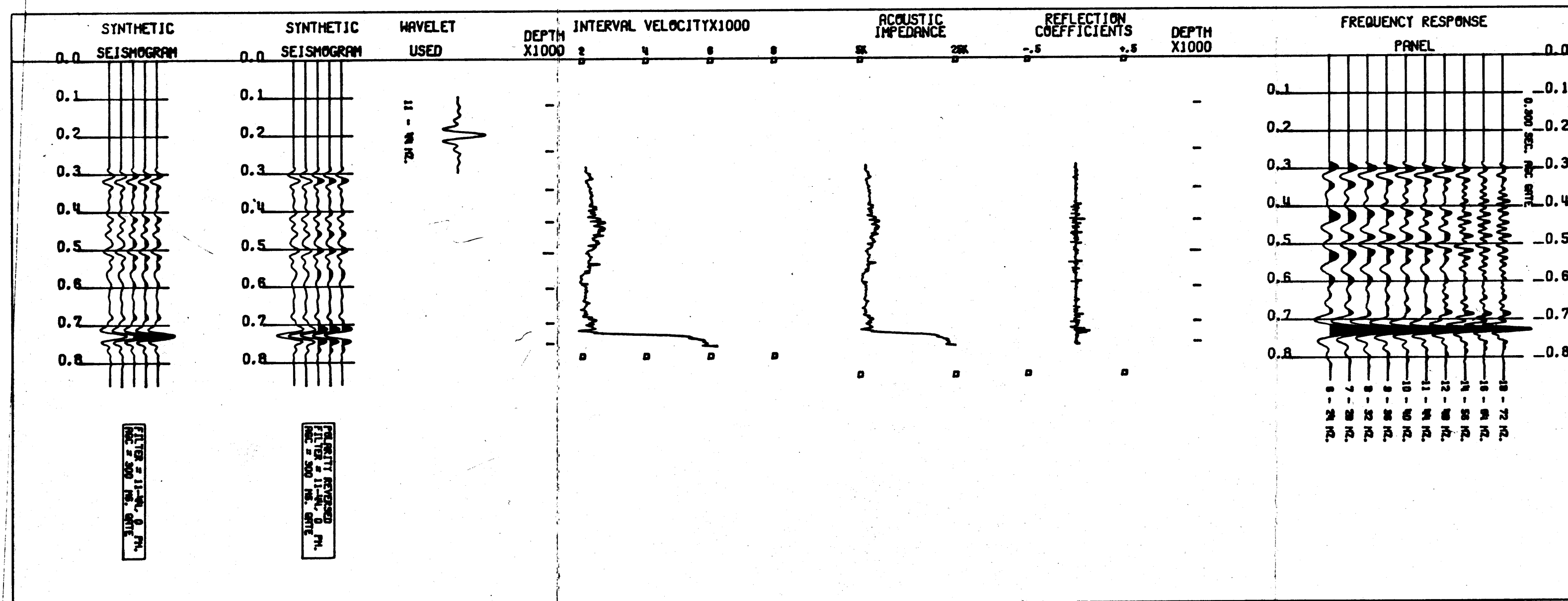
VELOCITY: 1650 M/S INTG SONIC

DATUM: SEA LEVEL

LOG REF (KB): +22

DATE: 24 SEP 84

ENCLOSURE 4



SP 889
TIME VRMS
0 1490
120 1490
350 1670
760 2020
1260 2660
1930 3060
2670 3860
4000 4980

SP 809
TIME VRMS
0 1490
130 1490
420 1780
760 2100
1120 2420
1460 2740
1860 3380
2450 4180
4000 4980

SP 729
TIME VRMS
0 1490
120 1490
330 1640
780 2020
1150 2500
1560 2820
2200 3700
4000 4820

SP 649
TIME VRMS
0 1490
120 1490
300 1640
780 2020
1100 2500
1520 2900
2030 3700
2820 4500
4000 4980

SP 569
TIME VRMS
0 1490
120 1490
350 1670
760 2020
1110 2340
1650 3060
2260 3860
3080 4660
4000 4980

SP 489
TIME VRMS
0 1490
120 1490
400 1670
920 2020
1300 2500
1750 2900
2350 3860
4000 4980

TASMANIAN DEVIL No. 1
T.D. - 3500' = 1.020 Sec.

LINE B-9
SP 5

LINE WB81-12
SP 735

LINE B70A-14
SP 8476

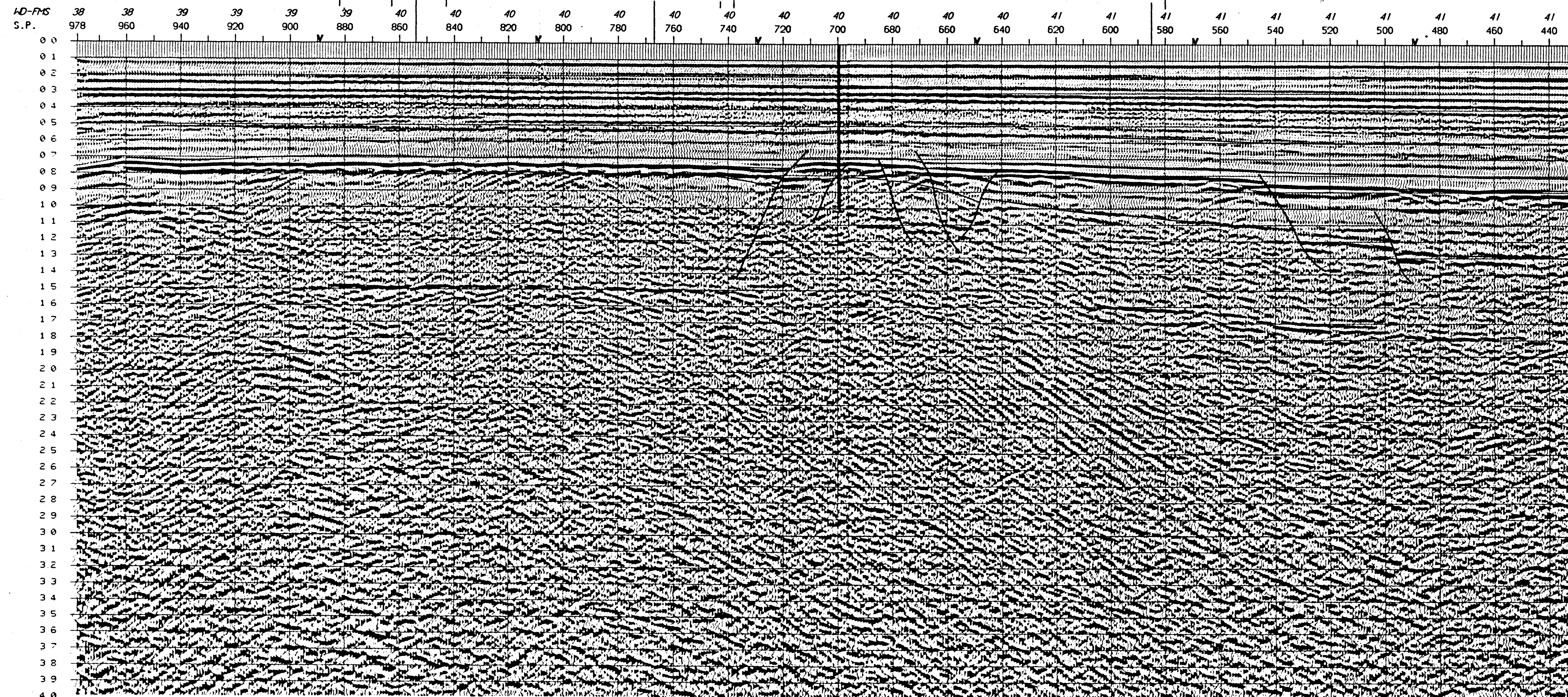
LINE WB82-50
SP 290

LINE WB82-52
SP 4010

LINE B72A-116
SP 4820

LINE WB82-53
SP 745

LINE B-8
SP 98



TOP OLIGOCENE
NEAR BASE OLIGOCENE
EVCM
L.M. DIVERSUS

Enclosure 4

LINE WB82-51
S.P. 1-982

S.W.
DIRECTION OF SHOOTING

AGC-STACK

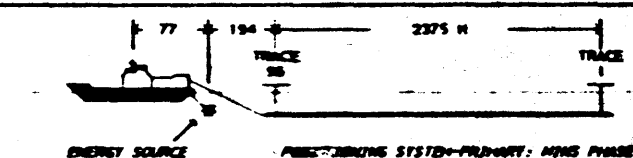
WEAVER OIL & GAS
BASS BASIN
PERMIT T-16-P



DATE PROCESSED MAY 1982
REEL NUMBER 6408
CONTRACT NUMBER 4805

FIELD RECORDING

RECORDED BY WESTERN GEOPHYSICAL
DATE FEBRUARY 1982 SYSTEM DFSV
FORMAT SEG B GAIN 36 DB
ENERGY SOURCE
TYPE AIR GUNS 760 CU. INS. 4500 PSI.
ARRAY 10 GUNS DEPTH 6 METERS
STREAMER
LENGTH 2375 METERS NO. TRACES 96
DEPTH 40 FT GROUP INTERVAL 25 METERS
ARRAY 20 GEOPH/IR OVER 25 METERS
PARAMETERS
RECORDING FOLD 4800 S.P. SPACING 25 METERS
SAMPLE INTERVAL 2 MS RECORD LENGTH 5 SECONDS
RECORDING FILTER CUT - 128HZ @ 700B/OCTAVE



DIGITAL PROCESSING

SEQ	PROCESS	PARAMETERS
1	DEMULTIPLEX	PRIMARY GAIN RECOVERY OUTPUT 4 MS
2	GAIN	AMPLITUDE RECOVERY
3	CDP TRACE GATHER	GROUP/ADJACENT TRACE SUM
4	PRE-FILTER	SEE BELOW
5	DECONVOLUTION	SEE BELOW
6	VELOCITY ANALYSIS	CONSTANT VELOCITY STACK OVER 6 COPS
7	NO. MUTE	NORMAL MOVEOUT MUTE APPLICATION
8	CDP STACK	SEE BELOW
9	FILTER	SEE BELOW
10	EQUALIZATION	DATA DEPOSITION

DECON	OPERATOR LENGTH	PREDICTOR LENGTH	DERIVATION NUMBER	APPLICATION NUMBER
5	100	32	0 TO 3500	RECORD LENGTH

FILTER	CUT OFF POINT	6 DB POINT	6 DB POINT	CUT OFF POINT	APPLICATION TIMES FOR SHOTPOINTS SPECIFIED
9	12	15	56	66	0-1000
4	4	6	22	26	3500-4000
4	4	6	56	66	RECORD LENGTH

ALL TIMES IN HOURS:SECONDS ALL FREQUENCIES IN HERTZ
FILTERS INTERPOLATED LINEARLY BETWEEN APPLICATION TIMES
APPLICATION TIMES INTERPOLATED LINEARLY BETWEEN SHOTPOINTS
OPERATOR LENGTH GIVEN IS ACTUAL LENGTH ADD GAP FOR TOTAL LENGTH

SAMPLE RATE: 4MS: DATA CORRECTION: 13 MS
SCALES: HORIZONTAL 24 IN/IN VERTICAL 2.5 IN/SEC
RECORDING POLARITY: NEG. VALUE EQUALS PRESSURE INCREASE
PROCESSING POLARITY: POSITIVE NO. GIVES BLACK PEAK

4

5.5

Schlumberger

DIL-SLS-CAL-GR-SP RUN 2 1:500

CSU

Field Log

COMPANY:WEAVER OIL & GAS AUSTRALIA

WELL:TASMANIAN DEVIL #1

FIELD:WILDCAT

STATE:TASMANIA

NATION:AUSTRALIA

LOCATION:7/16P

SEC:

TWP:

RGE:

LATITUDE:040 44 16.24 S

LONGITUDE:146 09 45.00 E

PERMANENT DATUM:M.SEA LEVEL

ELEVATIONS-

ELEV. OF PERM. DATUM:RKB

KB:21.9 M

LOG MEASURED FROM:RKB

DF:21.4 M

21.9 M ABOVE PERM. DATUM

GL:-73.80 M

DRLG. MEASURED FROM:RKB

DATE:1 SEP 1984

RUN NO:2

DEPTH-DRILLER:863.70 M

DEPTH-LOGGER:862.00 M

BTM. LOG INTERVAL:861.00 M

TOP LOG INTERVAL:552.00 M

CASING-DRILLER:251 M

CASING-LOGGER:251 M

CASING:20 "

WEIGHT:133.0 LB/F

BIT SIZE:17 1/2 "

DEPTH:564. M

552. M

552. M

13 3/8"

68.00 LB/F

12 1/4"

864. M

OTHER SERVICES-

PROGRAM TAPE NO:24.2

SERVICE ORDER NO:SEA840901

TYPE FLUID IN HOLE:LIGNITE-DEXTRIL-GEL.

DENSITY:9.1 LB/G

VISCOSITY:43.0 S

PH:10.5

FLUID LOSS:7.2 C3

SOURCE OF SAMPLE:FLOWLINE

RM:0.689 DHMM AT 15.5 DEGC

RMF:0.566 DHMM AT 16.0 DEGC

RMC:0.951 DHMM AT 15.0 DEGC

SOURCE RMF/RMC:PRESS /PRESS

RM AT BHT:0.336 DHMM AT 54.5 DEGC

RMF AT BHT:0.279 DHMM AT 54.5 DEGC

RMC AT BHT:0.457 DHMM AT 54.5 DEGC

TIME CIRC. STOPPED:20.30 1SEP.

TIME LOGGER ON BTM.:23.00 1SEP.

MAX. REC. TEMP:54.50 DEGC

LOGGING UNIT NO:33

LOGGING UNIT LOC:SEA (DIAMOND M.EPOCH)

RECORDED BY:THOMAS YANI.

WITNESSED BY:P. LAWRY.

REMARKS:

SUSPECT INTRUSIVE VOLCANIC FROM TD TO 753M.

EQUIPMENT NUMBERS-

DIS-EC 1519

DIC-DA 1465

SLS-SC 317

SLC-KB 1959

DRS-B 2701

SRE-CB 1811

SRA-A 1810

SGC-JC 3598

IRM-BD 995

SLM-DA 1709

MRM-AB 2876

NSM-A 2743

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FILE

102

BS (IN)

CALI (IN)

GR (GAPI)

SP (MV)

SFLU (DHMM)

ILM (DHMM)

ILD (DHMM)

ILM (DHMM)

SFLU (DHMM)

20.000

20.000

20.000

0.2000

0.2000

20.000

20.000

140.00

20.000

20.000

2000.0

2000.0

2000.0

20.000

20.000

40.000

40.000

FILE

101

550

600

650

700

750

800

850

10 MS

1M

FILE

101

BS (IN)

CALI (IN)

GR (GAPI)

SP (MV)

SFLU (DHMM)

ILM (DHMM)

ILD (DHMM)

ILM (DHMM)

SFLU (DHMM)

20.000

20.000

20.000

0.2000

0.2000

20.000

20.000

140.00

20.000

20.000

2000.0

2000.0

2000.0

20.000

20.000

40.000

40.000

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

CBL 11.5 METER

TT3 11.5 METER

TT1 11.8 METER

GR 23.5 METER

ILD 2.1 METER

ILM 1.0 METER

SPAR 1.0 METER

CHSF 17.9 METER

NOIS 8.0 METER

AMPL 11.5 METER

TT4 11.2 METER

TT2 11.5 METER

SRAT 13.0 METER

CALI 18.0 METER

SFL 1.2 METER

SP 1.0 METER

TENS 1.0 METER

IT 18.0 METER

PARAMETERS

NAME VALUE UNIT

DDEL 200 US

DWCD 512

SPS DT

DTM 56.0000 US/F

DSEC 7.90000 MMHD

MSEC 10.2000 MMHD

FPHI SPHI

DO 0.0 F

PP NORM

NAME VALUE UNIT

BS 12.2500 IN

DSIN 5 US

ITTS DT

CDTS 100.000

DTF 189.000 US/F

SBR 1.00000 DHMM

SPT STAN

BHS OPEN

COMPANY: WEAVER OIL & GAS AUSTRALIA
WELL: TASMANIAN DEVIL #1
FIELD: WILDCAT
STATE: TASMANIA
NATION: AUSTRALIA
LOCATION: T/16P

OTHER SERVICES-
DIL-SLS-CAL-
GR-SP.

```

SEC:                TWP:                RGE:
LATITUDE:  040 44 16.24 S
LONGITUDE:  146 09 45.00 E

PERMANENT DATUM:    M.SEA LEVEL    ELEVATIONS-
ELEV. OF PERM. DATUM:                KB:  21.9 M
LOG MEASURED FROM:    RKB           DF:  21.4 M
    21.9 M ABOVE PERM. DATUM        GL: -73.80 M
TRIG. MEASURED FROM:    RKB

```

PROGRAM
TAPE NO:
24.2
SERVICE
ORDER NO:
SF9840901

DATE: 2 SEP 1984
RUN NO: 1

```
DEPTH-DRILLER:      863.70 M
DEPTH-LOGGER:       863.00 M
BTM. LOG INTERVAL:  862.00 M
TOP LOG INTERVAL:   552.00 M
```

CASING-DRILLER:	251 M	552. M
CASING-LOGGER:	251 M	552. M
CASING:	20 "	13 3/8"
WEIGHT:	133.0 LB/F	68.00 LB/F
BIT SIZE:	17 1/2 "	12 1/4"
DEPTH:	564. M	864. M

TYPE FLUID IN HOLE:	LIGNITE-DEXTRIL-GEL.
DENSITY:	9.1 LB/G
VISCOSITY:	43.0 S
PH:	10.5
FLUID LOSS:	7.2 C3
SOURCE OF SAMPLE:	FLOWLINE
RM:	0.689 OHMM AT 15.5 DEGC
RMF:	0.566 OHMM AT 16.0 DEGC
RMC:	0.951 OHMM AT 15.0 DEGC
SOURCE RMF/RMC:	PRESS./PRESS
RM AT BHT:	0.335 OHMM AT 54.7 DEGC
RMF AT BHT:	0.279 OHMM AT 54.7 DEGC
RMC AT BHT:	0.456 OHMM AT 54.7 DEGC

TIME CIRC. STOPPED: 20.30 1SEP.
TIME LOGGER ON BTM.: 01.00 2SEP.

MAX. REC. TEMP: 54.70 DEGC

LOGGING UNIT NO: 33
LOGGING UNIT LOC: SEA (DIAMOND M.EPOCH)
RECORDED BY: THOMAS YANI.
WITNESSED BY: P. LAWRY.

REMARKS:

SUSPECT INTRUSIVE VOLCANIC FROM TD TO 757M.

EQUIPMENT NUMBERS-

PGD-G 1719	NSC-D 895	DRS-B 1831	CNC-HA 349
SGC-SA 367	CCC-B 1786	CIM-BA 805	SOM-BA 1724

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EMPLOYEES. THESE INTERPRETATIONS ARE ALSO SUBJECT TO OUR GENERAL TERMS
AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.

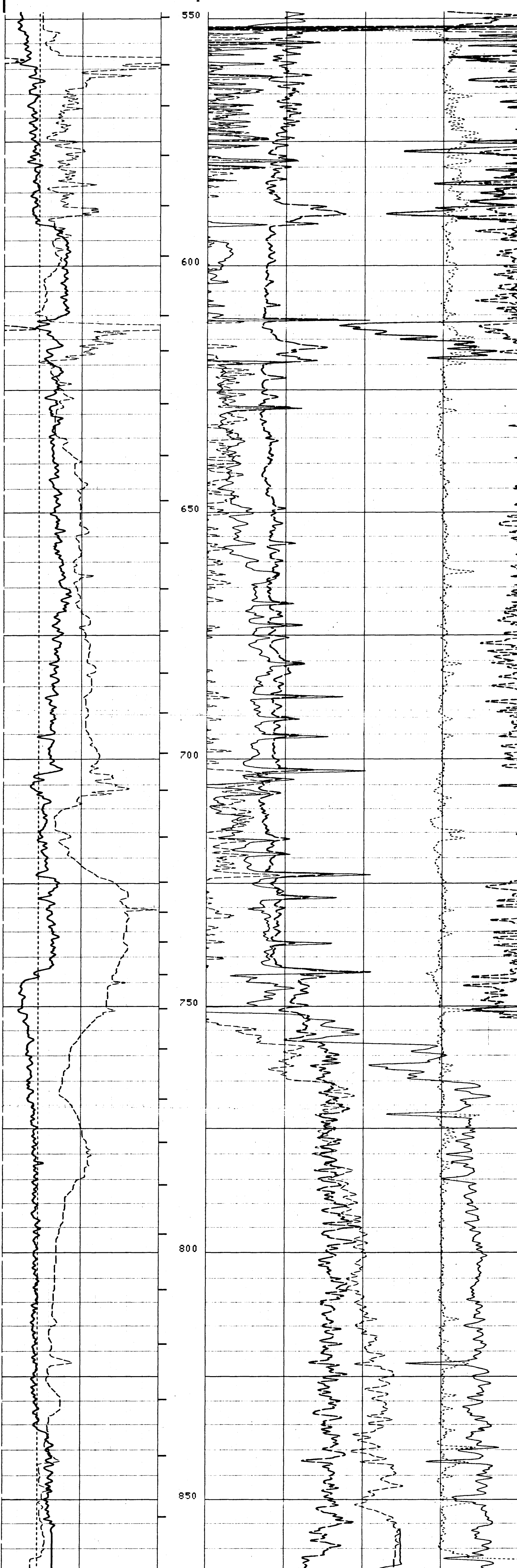
DOY
FILE

5

				DRHO(G/C3)	
				-0.250	0.2500
BS (IN)			PEF ()		
10.000	20.000	0.0			10.000
CALI(IN)			NPHI()		
10.000	20.000	0.4500			-0.1500
GR (GAPI)			RHO2(G/C3)		
0.0	200.00	1.9500			2.9500

FILE

1



E

		TENS(LB)	
		0.0	4000.0
		DRHD(G/C3)	
		-0.250	0.2500
BS (IN)		PEF ()	
10.000	20.000	0.0	10.000
CALI(IN)		NPHI()	
10.000	20.000	0.4500	-0.150
GR (GAPI)		PHDR(G/C3)	

17		RH05X07 007
200.00	1.9500	

SENSOR		MEASURE	POINT TO	TENSION	REFERENCE	POINT
SSGT	8.7	METER		GR	10.1	METER
NCNL	7.4	METER		SCNL	7.4	METER
SS2	.9	METER		FCNL	7.4	METER
LITH	1.1	METER		SS1	.9	METER
LU	1.1	METER		LS	1.1	METER
CALI	1.1	METER		LL	1.1	METER

PARAMETERS					
NAME	VALUE	UNIT	NAME	VALUE	UNIT
TD	862.000	M	BS	12.2500	IN
SHT	15.0000	DEGC	BHT	54.5000	DEGC
HC	CALI		PSNR	2.35500	
FD	1.00000	G/C3	MATR	LIME	
BAR1	DISA		MDEN	2.71000	G/C3

FINAL REPORT
OFFSHORE NAVIGATION (AUSTRALIA) PTY. LTD.
PROJECT 1511

FOR
TRITON ENGINEERING SERVICES
COMPANY LTD. (U.K.)

TASMANIA, AUSTRALIA
AUGUST 1984

WELL LOCATION TASMANIAN DEVIL #1

ONA

OFFSHORE NAVIGATION,
(AUSTRALIA) PTY. LTD.

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AUGUST 1984

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I. INTRODUCTION

Offshore Navigation (Australia) Pty. Ltd.(ONA), under contract to Triton Engineering Services Company Ltd. (U.K.), (TRITON), employed a Maxiran Radiopositioning System to position the Drilling Vessel (D/V) DIAMOND M EPOCH on a location that was designated by TRITON as:

WELL LOCATION TASMANIAN DEVIL #1

The survey was conducted in the Bass Strait, off the coast of Tasmania, Australia. The well was located approximately 35 kilometers north of Penguin, Tasmania.

The ONA base of operation was established at Station Doctors Rocks on 17 August 1984.

II. FIELD OPERATIONS RECAP

The Maxiran system required for this operation had been stored in the area at the completion of the Well Location SQUID #1 survey. The Maxiran base station equipment was stored in Devonport, and the Maxiran mobile equipment was stored at a TRITON warehouse in Welshpool, Victoria. The Maxiran towers and hardware had remained erected on board the M/V BASS TIDE.

At the request of TRITON representative, Mr. C. Thomasson, ONA personnel began mobilization activities in Perth, W.A. on 30 July 1984, and travelled to Melbourne, Victoria on 31 July. The ONA mobile operator travelled to Welshpool on 1 August 1984 and installed the stored Maxiran mobile equipment on board the M/V BASS TIDE that same date.

The ONA party chief/base operator and two base operators travelled from Melbourne to Devonport on 1 August 1984. Station Doctors Rocks and Point Sorell were installed and operational on 2 August, and Station The Nut was installed and operational on 3 August 1984.

II. FIELD OPERATIONS RECAP (continued)

The M/V BASS TIDE departed Port Welshpool on 1 August 1984 and proceeded to the D/V DIAMOND M EPOCH, which was still drilling at Well Location SQUID #1. The vessel arrived at the rig at 1330 hours 2 August and remained at the site until 0200 hours 7 August 1984, at which time the vessel returned to Port Welshpool.

Due to difficulties being experienced at Well Location SQUID #1, the rig move to Well Location TASMANIAN DEVIL #1 was delayed 8 to 10 days. The ONA party chief/base operator was advised by Mr. C. Thomasson at 1000 hours 7 August 1984 to dismantle the Maxiran system. The three base stations were dismantled and stored at Hertz Devonport on 8 August 1984, and the ONA base operating personnel were released and departed the area.

The M/V BASS TIDE arrived at Port Welshpool at 0900 hours 7 August 1984. At the request of TRITON, the Maxiran towers and hardware remained erected on board the vessel and the Maxiran mobile equipment was removed and stored at the TRITON warehouse in Welshpool. The ONA mobile operator was released 7 August 1984 and departed the area.

II. FIELD OPERATIONS RECAP (continued)

The ONA mobile operator returned to Welshpool on 15 August 1984 and installed the Maxiran mobile equipment on board the M/V BASS TIDE that same date. The ONA party chief/base operator and two base operators returned to Devonport on 16 August. Installation of the Maxiran base station equipment on the three sites required to control the survey began on 17 August. Installation was not completed until 19 August 1984 due to weather conditions grounding the helicopter.

The M/V BASS TIDE departed Port Welshpool at 1515 hours 15 August 1984 and proceeded to the D/V DIAMOND M EPOCH, arriving at 0110 hours 16 August. The vessel stood by the rig for completion of drilling operations at Well Location SQUID #1. On completion of drilling operations, weather conditions caused a delay in picking up of the rig anchors. An attempt to pick up anchors began at 0500 hours 22 August, but was discontinued at 1030 hours that same date due to rough weather conditions. The weather subsided, and anchor handling operations resumed at 1300 hours 25 August 1984.

II. FIELD OPERATIONS RECAP (continued)

The M/V BASS TIDE departed the rig at 2000 hours 25 August 1984 and proceeded to the Well Location TASMANIAN DEVIL #1, arriving in the location area at 2345 hours that date. The buoy pattern was set and checked between 2345 hours 25 August and 0120 hours 26 August 1984.

The M/V EASTERN TIDE was utilized to tow the D/V DIAMOND M EPOCH onto location and to handle anchors. The rig arrived at the well site, and anchoring operations began at 0748 hours 26 August 1984. The anchors were secured, and the final Maxiran reading was recorded at 1443 hours 27 July 1984. See Appendix A, Daily Operations Logs, of this report for details of operation.

Dismantling of the Maxiran base stations began on 28 August 1984 and was completed on 29 August. The M/V BASS TIDE returned to Port Welshpool at 0835 hours 28 August. The Maxiran mobile installation was removed from the vessel, and the ONA mobile operator and Maxiran mobile equipment required for post-calibration travel via air to Devonport. This mobile equipment was installed at

II. FIELD OPERATIONS RECAP (continued)

Station Doctors Rocks, and the Maxiran base station equipment was installed at Station Point Sorell. a post-calibration of the Maxiran system was conducted between 0930 and 1100 hours 29 August 1984. See "Maxiran Post-Calibration" of this report for details.

On completion of the Maxiran post-calibration, all equipment was packaged and loaded on a truck. The vehicle departed Tasmania on board the EMPRESS OF AUSTRALIA on 30 August 1984 and travelled to Melbourne. The truck proceeded to the TRITON Welshpool warehouse on 31 August, picked up the balance of the Maxiran mobile equipment, and proceeded to Perth, W.A.

The ONA party chief/base operator, mobile operator, and one base operator were released on 31 August 1984. The second ONA base operator drove the equipment truck to Perth, and was released on his arrival in Perth on 5 September 1984.

III. GENERAL INFORMATION

A. Maxiran frequencies used were:

Mobile Transmitter	429 MHz
Base Transmitter	429 MHz

B. Satisfactory radiotelephone communications were maintained between the Maxiran stations on the frequencies of 7840.0 and 4637.5 (SSB) kilocycles.

C. The Maxiran field data accumulated during this survey was turned over to Mr. P. Munday, the TRITON representative, on 27 August 1984. The final Maxiran ranges recorded were transmitted to the ONA office in Perth, W.A. for final computation.

D. Three Maxiran base station installations were provided by ONA for this survey.

E. Three Maxiran base station sites were occupied to control the survey. They were:

STATION DOCTORS ROCKS (SPM 430)

STATION POINT SORELL (ST 517)

STATION THE NUT (ST 674)

III. GENERAL INFORMATION (continued)

- F. The maximum range observed by the Maxiran system during this survey was 110 kilometers.

- G. The Maxiran mobile equipment was checked daily for proper delay setting, as was determined by a Maxiran Calibration that was conducted on 12 July 1984, prior to the commencement of the Well Location SQUID #1 survey. Results of this calibration were reported in the final report distributed for that survey.

IV. MAXIRAN POST-CALIBRATION

A post-calibration of the Maxiran system was conducted between 0930 and 1100 hours 29 August 1984. For this post-calibration, the Maxiran mobile equipment was installed at Station Doctors Rocks, and the base station equipment was installed at Station Point Sorell. The computed slope range of 63.753 kilometers between the two markers was used.

The following pages consist of the field report of this post-calibration.

OFFSHORE NAVIGATION, INC.

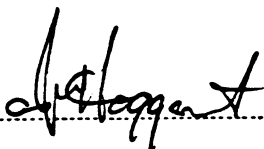
10

MAXIRAN CALIBRATION REPORT

DATE: AUG 29TH 84

MOBILE STATION			BASE STATION		
LOCATION:	DAS ROCKS		LOCATION:	PT SORELL	
OPERATOR:	A. HOGGART DRUSSELL		OPERATOR:	R. ROUNDS SNARD	
UNIT	MODEL	SERIAL No.	UNIT	MODEL	SERIAL No.
MONITOR	NMM 013	042	BEACON	NIL - 02	026 CODE 1
INTERROGATOR	NTM - 02	002	CONTROL BOX	NCL - 02	040
AMPLIFIER	NTU - 02	006	AMPLIFIER	NTU - 02	055
AMPLIFIER P/S	NPU - 01	006	AMPLIFIER P/S	NPU - 01	020
PREAMP	SAU - 12	148	PREAMP	SAU - 12	155
COAX	TYPE	LENGTH	COAX	TYPE	LENGTH
	AS PER MOBILE INSTILLATION		AS PER BASE INSTILLATION		
ANTENNA	TYPE	HEIGHT	ANTENNA	TYPE	HEIGHT
	VERT PAIRS L.P.Ls	20'		VERT PAIRS L.P.Ls	20'
OUTPUT VOLTAGE	117 V AC		INPUT VOLTAGE	117 V AC	
TX. FREQUENCY	429 MHZ		TX. FREQUENCY	429 MHZ	
RX. FREQUENCY	429 MHZ		RX. FREQUENCY	429 MHZ	
RX. GAIN SETTING	AGC		RX. GAIN SETTING	AGC	
WEATHER CONDITIONS	COLD		WEATHER CONDITIONS	COLD	
	CLEAR SKIES			CLEAR SKIES	

OBSERVED RANGE IN CALIBRATE: 72.971 KM
 COMPUTED SLANT RANGE: 63.753 KM
 MOBILE ZERO SETTING IS: 9.218 KM
 OBSERVED RANGE IN OPERATE: 63.753 KM TIME: 0930

SIGNED: 

NOTES REGARDING CALIBRATION PROCEDURES:

1. All equipment will be allowed to warm up for at least 30 minutes prior to calibrating.
2. All readings entered hereon will be final readings for the item in question, not preliminary or intermediate readings.
3. Each report will be complete in itself. Do not refer to other reports for information.
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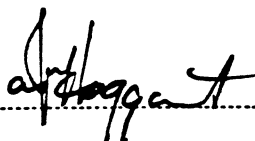
11

MAXIRAN CALIBRATION REPORT

DATE: AUG 29 84

MOBILE STATION			BASE STATION		
LOCATION: DRS Rocks			LOCATION: PT SORELL		
OPERATOR: A. HOGGART DRUSELL			OPERATOR: R. ROUNDS G. NARD		
UNIT	MODEL	SERIAL No.	UNIT	MODEL	SERIAL No.
MONITOR	NMM-01B	042	BEACON	NCL-02	020 CODE 1
INTERROGATOR	NTM-02	002	CONTROL BOX	NCL-02	040
AMPLIFIER	NTU-02	006	AMPLIFIER	NTU-02	055
AMPLIFIER P/S	NPU-01	006	AMPLIFIER P/S	NPU-01	020
PREAMP	SAU-12	148	PREAMP	SAU-12	155
COAX	TYPE	LENGTH	COAX	TYPE	LENGTH
	AS PER MOBILE	INSTALLATION		AS PER BASE	INSTALLATION
ANTENNA	TYPE	HEIGHT	ANTENNA	TYPE	HEIGHT
	VERT PAIRS L.P.L.s	20'		VERT PAIRS L.P.L.s	20'
INPUT VOLTAGE	117V AC		INPUT VOLTAGE	117V AC	
TX. FREQUENCY	429 MHz		TX. FREQUENCY	429 MHz	
RX. FREQUENCY	429 MHz		RX. FREQUENCY	429 MHz	
RX. GAIN SETTING	AGC		RX. GAIN SETTING	AGC	
WEATHER CONDITIONS	COLD		WEATHER CONDITIONS	COLD	
	CLEAR SKIES			CLEAR SKIES	

OBSERVED RANGE IN CALIBRATE: 72.971 KM
 COMPUTED SLANT RANGE: 63.753 KM
 MOBILE ZERO SETTING IS: 9.218 KM
 OBSERVED RANGE IN OPERATE: 63.753 KM TIME: 0945

SIGNED: 

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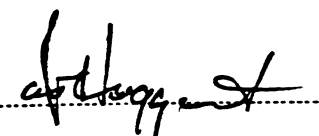
12

MAXIRAN CALIBRATION REPORT

DATE: AUG 29 84

MOBILE STATION			BASE STATION		
LOCATION: DRS. ROCKS			LOCATION: PT SORELL		
OPERATOR: A. HOGGART D. RUSSELL			OPERATOR: R. ROUNDS G. WARD		
UNIT	MODEL	SERIAL No.	UNIT	MODEL	SERIAL No.
MONITOR	NMM-01B	042	BEACON	NTL-02	009 CODE 3
INTERROGATOR	NTM-02	002	CONTROL BOX	NCL-02	040
AMPLIFIER	NTU-02	006	AMPLIFIER	NTU-02	055
AMPLIFIER P/S	NPU-01	006	AMPLIFIER P/S	NPU-01	020
PREAMP	SAU-12	148	PREAMP	SAU-12	155
COAX	TYPE	LENGTH	COAX	TYPE	LENGTH
	AS PER MOBILE	INSTALLATION		AS PER BASE	INSTALLATION
ANTENNA	TYPE	HEIGHT	ANTENNA	TYPE	HEIGHT
	VERT PAIRS L.P.L.s	20'		VERT PAIRS L.P.L.s	20'
INPUT VOLTAGE	117V AC		INPUT VOLTAGE	117V AC	
TX. FREQUENCY	429 MHZ		TX. FREQUENCY	429 MHZ	
RX. FREQUENCY	429 MHZ		RX. FREQUENCY	429 MHZ	
RX. GAIN SETTING	AGC		RX. GAIN SETTING	AGC	
WEATHER CONDITIONS	COLD		WEATHER CONDITIONS	COLD	
	CLEAR SKIES			CLEAR SKIES	

OBSERVED RANGE IN CALIBRATE: 72.971 KM
 COMPUTED SLANT RANGE: 63.753 KM
 MOBILE ZERO SETTING IS: 9.218 KM
 OBSERVED RANGE IN OPERATE: 63.753 KM TIME: 1000

SIGNED: 

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MAXIRAN CALIBRATION REPORT

DATE: AUG 29 84

MOBILE STATION			BASE STATION		
LOCATION: DRS ROCKS			LOCATION: PT SORELL		
OPERATOR: A. HOGGART DRUISELL			OPERATOR: R. ROUNDS GWARD		
UNIT	MODEL	SERIAL No.	UNIT	MODEL	SERIAL No.
MONITOR	NMM-01B	042	BEACON	NTL-02	024 CODE 3
INTERROGATOR	NTM-02	002	CONTROL BOX	NCL-02	040
AMPLIFIER	NTU-02	006	AMPLIFIER	NTU-02	055
AMPLIFIER P/S	NPU-01	006	AMPLIFIER P/S	NPU-01	020
PREAMP	SAU-12	148	PREAMP	SAU-12	155
COAX	TYPE	LENGTH	COAX	TYPE	LENGTH
	AS PER MOBILE	INSTALLATION		AS PER BASE	INSTALLATION
ANTENNA	TYPE	HEIGHT	ANTENNA	TYPE	HEIGHT
	VERT PAIRS L.P.L.s	20'		VERT PAIRS L.P.L.s	20'
INPUT VOLTAGE		117V AC	INPUT VOLTAGE		117V AC
TX. FREQUENCY		429 MHz	TX. FREQUENCY		429 MHz
RX. FREQUENCY		429 MHz	RX. FREQUENCY		429 MHz
RX. GAIN SETTING		AGC	RX. GAIN SETTING		AGC
WEATHER CONDITIONS		COLD	WEATHER CONDITIONS		COLD
		CLEAR SKIES			CLEAR SKIES

OBSERVED RANGE IN CALIBRATE: 72.971 KM

COMPUTED SLANT RANGE: 63.753 KM

MOBILE ZERO SETTING IS: 9.218 KM

OBSERVED RANGE IN OPERATE: 63.753 KM TIME: 1015

SIGNED: 

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14

MAXIRAN CALIBRATION REPORT

DATE: AUG 29 84

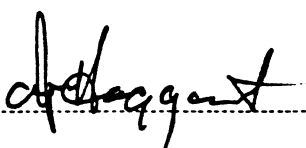
MOBILE STATION			BASE STATION		
LOCATION: DRS. ROCKS			LOCATION: PT. SORELL		
OPERATOR: A. HOLGART D. RUSSELL			OPERATOR: R. ROUNDS GWARD.		
UNIT	MODEL	SERIAL No.	UNIT	MODEL	SERIAL No.
MONITOR	NMM-01B	042	BEACON	NTL-02	028 CODE 5
INTERROGATOR	NTM-02	002	CONTROL BOX	NCL-02	040
AMPLIFIER	NTU-02	006	AMPLIFIER	NTU-02	055
AMPLIFIER P/S	NPU-01	006	AMPLIFIER P/S	NPU-01	020
PREAMP	SAU-12	148	PREAMP	SAU-12	155
COAX	TYPE	LENGTH	COAX	TYPE	LENGTH
	AS PER MOBILE INSTALLATION			AS PER BASE INSTALLATION	
ANTENNA	TYPE	HEIGHT	ANTENNA	TYPE	HEIGHT
	VERT PAIRS L.P.L.s	20'		VERT PAIRS L.P.L.s	20'
INPUT VOLTAGE	117 VAC		INPUT VOLTAGE	117 VAC	
TX. FREQUENCY	429 MHz		TX. FREQUENCY	429 MHz	
RX. FREQUENCY	429 MHz		RX. FREQUENCY	429 MHz	
RX. GAIN SETTING	AGC		RX. GAIN SETTING	AGC	
WEATHER CONDITIONS	COLD CLEAR SKIES		WEATHER CONDITIONS	COLD CLEAR SKIES	

OBSERVED RANGE IN CALIBRATE: 72.971 KM

COMPUTED SLANT RANGE: 63.753 KM

MOBILE ZERO SETTING IS: 9.218 KM

OBSERVED RANGE IN OPERATE: 63.753 KM TIME: 1030

SIGNED: 

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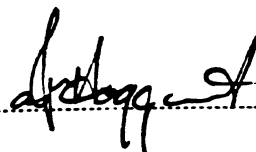
15

MAXIRAN CALIBRATION REPORT

DATE: **AUG 29 84**

MOBILE STATION			BASE STATION		
LOCATION:	DRS DOCKS		LOCATION:	PT. GORELL	
OPERATOR:	A HOGGART J RUSSELL		OPERATOR:	R. ROUNDS G. WARD	
UNIT	MODEL	SERIAL No.	UNIT	MODEL	SERIAL No.
MONITOR	NMM-01B	042	BEACON	NCL-02	029 CODE 5
INTERROGATOR	NTM-02	002	CONTROL BOX	NCL-02	040
AMPLIFIER	NTU-02	006	AMPLIFIER	NTU-02	055
AMPLIFIER P/S	NPU-01	006	AMPLIFIER P/S	NPU-01	020
PREAMP			PREAMP	SAU-12	155
COAX	TYPE	LENGTH	COAX	TYPE	LENGTH
	As Per MOBILE INSTALLATION			As Per BASE INSTALLATION	
ANTENNA	TYPE	HEIGHT	ANTENNA	TYPE	HEIGHT
	Vertical LPLS	20'		Vertical LPLS	20'
INPUT VOLTAGE	117 VAC		INPUT VOLTAGE	117 VAC	
TX. FREQUENCY	429 MHz		TX. FREQUENCY	429 MHz	
RX. FREQUENCY	429 MHz		RX. FREQUENCY	429 MHz	
RX. GAIN SETTING	AGC		RX. GAIN SETTING	AGC	
WEATHER CONDITIONS	Cold CLEAR SKIES		WEATHER CONDITIONS	Cold CLEAR SKIES	

OBSERVED RANGE IN CALIBRATE: **72.963** KM
 COMPUTED SLANT RANGE: **63.753** KM
 MOBILE ZERO SETTING IS: **9.218** KM
 OBSERVED RANGE IN OPERATE: **63.745** KM TIME: **1045**

SIGNED: 

NOTES REGARDING CALIBRATION PROCEDURES:

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16

MAXIRAN CALIBRATION REPORT

DATE: **Aug 29 84**

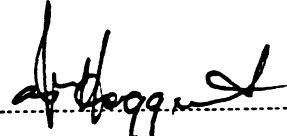
MOBILE STATION			BASE STATION		
LOCATION: DRI ROCKS			LOCATION: Pt Jorrell		
OPERATOR: A Haggart JR Russell			OPERATOR: R Rount G Haggart		
UNIT	MODEL	SERIAL No.	UNIT	MODEL	SERIAL No.
MONITOR	NTM-01B	042	BEACON	NTL-02	028 CODE 5
INTERROGATOR	NTM-02	018	CONTROL BOX	NCL-02	040
AMPLIFIER	NTU-02	006	AMPLIFIER	NPV-02	055
AMPLIFIER P/S	NPV-01	006	AMPLIFIER P/S	NPV-01	020
PREAMP			PREAMP	SAU-12	155
COAX	TYPE	LENGTH	COAX	TYPE	LENGTH
	As Per MOBILE INSTALLATION			As Per BASE INSTALLATION	
ANTENNA	TYPE	HEIGHT	ANTENNA	TYPE	HEIGHT
	VERT PAR LPL	20'		VERT PAR LPL	20'
INPUT VOLTAGE		117 VAC	INPUT VOLTAGE		117 VAC
TX. FREQUENCY		429 MHz	TX. FREQUENCY		429 MHz
RX. FREQUENCY		429 MHz	RX. FREQUENCY		429 MHz
RX. GAIN SETTING		AGC	RX. GAIN SETTING		AGC
WEATHER CONDITIONS		COLD	WEATHER CONDITIONS		COLD
		Clear Sky			Clear Sky

OBSERVED RANGE IN CALIBRATE: **72.971** KM

COMPUTED SLANT RANGE: **63.753** KM

MOBILE ZERO SETTING IS: **9.218** KM

OBSERVED RANGE IN OPERATE: **63.753** KM TIME: **1100**

SIGNED: 

NOTES REGARDING CALIBRATION PROCEDURES:

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V. WELL LOCATION INFORMATION

The following information pertains to the positioning of the D/V DIAMOND M EPOCH on Well Location TASMANIAN DEVIL #1.

Coordinates of the desired location were obtained from TRITON as:

Latitude 40°44'16"034 S
Longitude 146°09'44"745 E

The D/V DIAMOND M EPOCH was secured on location, and the following final Maxiran ranges were recorded at 1443 hours 27 August 1984, with the Maxiran mobile equipment installed on board the M/V BASS TIDE:

Sta. Point Sorell to mobile antenna	52.671 kilometers
Sta. The Nut to mobile antenna	72.606 kilometers
Sta. Doctors Rocks to mobile antenna	44.507 kilometers

At the time these final Maxiran ranges were recorded, the drill stem was 87 meters, at a bearing of 336° True, from the Maxiran mobile antenna.

V. WELL LOCATION INFORMATION (continued)

FINAL COMPUTED COORDINATES - WELL LOCATION TASMANIAN
DEVIL #1 -- (Drill stem)

Latitude	40°44'16."209 S	N = 5,489,992 meters
Longitude	146°09'44."958 E	E = 429,285 meters

RESIDUALS

Point Sorell = -4.99 meters
The Nut = -7.43 meters
Doctors Rocks = 6.29 meters
Least square adjusted tie = 10.941 meters
From desired drill stem position to the final drill stem
position = 7.35 m. @ 137.171° True

The final coordinates of the drill stem were derived by
applying the reported offset and bearing to the final
Maxiran ranges recorded.

Coordinates of the final position are expressed in the
Universal Transverse Mercator Projection, Australian
National Spheroid of Reference, Zone 55, Central Meridian
147° East, AUSTRALIAN GEODETIC DATUM.

VI. BASIC CONTROL

Coordinates of the three Maxiran base stations occupied to control this survey were obtained from a Lands Department, Tasmania, Division of National Mapping summary sheet.

Universal Transverse Mercator Projection
Australian National Spheroid
Zone 55
Central Meridian 147° East
AUSTRALIAN GEODETIC DATUM

STATION DOCTORS ROCKS (SPM 430):

MARKER COORDINATES

Latitude	41°01'00"50 S	N = 5,458,648 meters
Longitude	145°46'58"70 E	E = 397,671 meters
Elevation	22 meters	

The Maxiran tower was erected adjacent to the marker.

STATION POINT SORELL (ST 517):

MARKER COORDINATES

Latitude	41°07'24"69 S	N = 5,447,407 meters
Longitude	146°31'41"88 E	E = 460,403 meters
Elevation	30 meters	

The Maxiran tower was erected 1.0 meter, at a bearing of 270° Magnetic, from the station marker.

MAXIRAN TOWER OFFSET COORDINATES

Latitude	41°07'24"68 S	N = 5,447,408 meters
Longitude	146°31'41"84 E	E = 460,402 meters
Elevation	30 meters	

VI. BASIC CONTROL (continued)STATION THE NUT (ST 674):MARKER COORDINATES

Latitude	40°45'50"23 S	N = 5,486,046 meters
Longitude	145°18'13"45 E	E = 356,830 meters
Elevation	143 meters	

The Maxiran tower was erected 2.76 meters, at a bearing of 217° Magnetic, from the station marker.

MAXIRAN TOWER OFFSET COORDINATES

Latitude	40°45'50"29 S	N = 5,486,044 meters
Longitude	145°18'13"36 E	E = 356,828 meters
Elevation	143 meters	

VII. PERSONNEL

NAME	POSITION
Russell, D.	Party Chief/Base Operator
Hoggart, A.	Mobile Operator
Rounds, R.	Base Operator
Ward, G.	Base Operator

VIII. DISTRIBUTION

Triton Engineering Services Company, Ltd. (U.K.)
Post Office
Welshpool, Victoria 3961
AUSTRALIA

Attention: Mr. Chris Thomasson Four copies

Triton Engineering Services Company, Ltd. (U.K.)
1201 Dairy Ashford
Suite 100
Houston, Texas 77079

Attention: Mr. Lindsey Lipscomb Two copies

Offshore Navigation, Inc.
Post Office Box 23504
Harahan, Louisiana 70183
U.S.A.

Two copies

Offshore Navigation (Australia) Pty. Ltd.
Post Office Box 291
Cloverdale, W.A. 6105
AUSTRALIA

One copy

STATION: DOCTORS ROCKS (SPM 430)

LOCATED: Station Doctors Rocks is located on the north coast of Tasmania, Australia, approximately 6 kilometers southeast of the town of Wynyard, Tasmania, and approximately 12 kilometers northwest of Burnie. The station marker is in a pasture, atop a hillock of mostly rock. The terrain to the east, south and west of the station is hilly to mountainous rural country varying from sparsely wooded pasture land to fairly dense woods. A sparsely timbered rocky point, some 15 odd meters high, juts into Bass Strait approximately 150 meters to the northwest of the site. A railway line runs close and parallel to Bass Highway, some 20 meters below and 8 to 10 meters to seaward of the marker. The high water mark is within meters of the railway line. Bass Strait, which separates Tasmania from the Australian mainland, is clearly visible to the north of the station.

ACCESS: From Burnie, follow the Bass Highway through Cooeee and Somerset some 12 kilometers to a point where 2 gates (actually ramps) can be seen on the left side of the road. A large sign, saying "Wynyard A/2" is approximately 50 meters past these two gates. The second gate has an elevated wrought iron sign "Doctors Rock". Turn into the first gate and follow the track for approximately 100 meters up a short steep rise. At this point, a prominent rocky knob can be seen at a distance of approximately 100 meters across the paddock on the boundary fence. Drive towards the rocky knob and station marker.

During wet weather conditions, a four-wheel drive vehicle will be required to reach the station from the track. Care should be taken to avoid damage to the pasture.

To reach this station from the Shell Station in Wynyard, proceed east on the Old Bass Highway for approximately 4 kilometers to the intersection with the New Bass Highway. Turn left onto

STATION: DOCTORS ROCKS (SPM 430) (continued)

the New Bass Highway and drive on this highway for approximately 300 meters to two gates on the righthand side, and a small cape to the left.

Turn right and drive through the second gate. Drive on the track to the station site, as described above.

MARKER: The station marker is located 1.8 meters from the north boundary of the fence which surrounds the grazing paddock. (Exercise caution near this fence since an electrified wire is attached - look for insulators). The station marker consists of a small brass plaque embedded in an 20cm square concrete structure that sits at ground level. The 15cm high letters "SM" are inscribed in the concrete. A cross with the approximate diameter of 25mm is cut in the brass plaque.

A blue Lands & Surveys mark indicator, measuring approximately 125mm by 100mm, is affixed to the fence and is located approximately to the north of the station marker. This indicator shows the details of the marker (SPM 430). The top of a 50mm round galvanized fence post, located approximately 30cm to the right of the survey mark indicator, has been painted red.

GENERAL: Labor, food, and camping equipment can be obtained in Somerset, Burnie or Wynyard. Fuel, and oil can be obtained at the Wynyard Shell Station, whose address is 13 Bass Highway East, Wynyard, Tasmania 7325; telephone number is 004-422240, or the BP Station, 93 Bass Highway Somerset; telephone number is 004-351413.

A caravan with heater is essential at this site. A tent is difficult to erect due to difficulty in locating star stakes in the rocky ground and strong winds that prevail. The winter months, June to September, can be very wet and cold. Temperatures can range from several degrees below zero to a daily maximum of as low as 4°C.

STATION: DOCTORS ROCKS (SPM 430) (continued)

Caravans are available from Devon Coastavans, 116 Nicholls St., Devonport; telephone Ian Finch, 004-242829. Mr. Finch will deliver and pick up the vans to the station sites for a nominal fee (In August 1984, Point Sorrell was A\$20.00, Doctors Rocks was A\$40.00. This fee includes delivery and pickup.) The vans are well equipped, gas, approximately 60-litre water tank (full on delivery), crockery, cutlery, fridge, etc. Mattresses are supplied, but there are no blankets, pillows, or sheets. The vans can be locked. The caravans must be left clean when vacating.

Vehicles can be obtained from Hertz, Oldaker Street, Devonport; telephone 004-241013. Hertz representatives have been very helpful and can assist regarding fuel supplies from Mobil Devonport if required.

Four-wheel drive vehicles may also be obtained from Regent Filling Station, 57 Marine Terrace, South Burnie. This is the Shell Service Station past the paper mill on the Bass Highway, as you approach Burnie from Devonport. The contact at this place is Mr. Wayne Cross. The service station telephone number is 004-312131.

Nearby accommodations can be obtained at the Seabrook Hotel Motel, telephone 004-351209. This establishment is located on the Bass Highway Somerset, midway between Somerset and the station site.

The station site is on property owned by Mr. Busby. Mr. Busby's brother lives in a house near the station site (See Sketch). Permission to occupy the station must be obtained from the owner, telephone 004-422045, Burnie, Tasmania, or from his brother at the station site. No rent was paid for the use of the site. Drinking water can be obtained from the home of Mr. Busby's brother. He has also indicated that

STATION: DOCTORS ROCKS (SPM 430) (continued)

toilet and bath facilities at his home are available to the operator if required.

A 20-foot tower was erected at this station, the minimum height required to clear surrounding obstructions. Clear vista is from 330° to 130°. Star stakes were used to secure the tower. However, since the hillock on which the station site is located is almost solid rock, the star stakes were difficult to locate requiring additional time to secure the tower.

ELEVATION: 22 meters

SKETCH: See next page.

Coordinates of the station marker were obtained from a Lands Department, Tasmania, Division of National Mapping summary sheet.

UTM PROJECTION, AUSTRALIAN NATIONAL SPHEROID
ZONE 55, C.M. 147° EAST - - A.G.D.

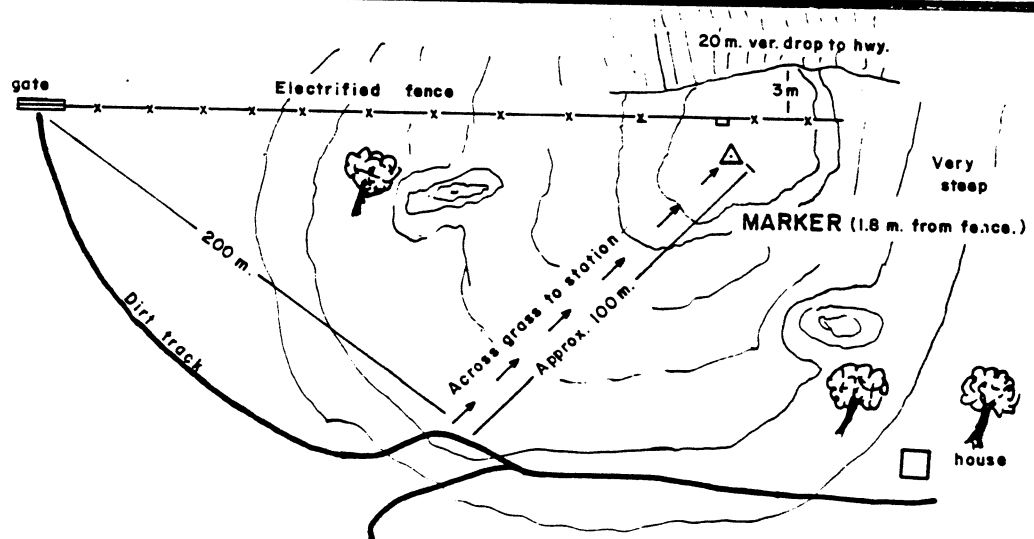
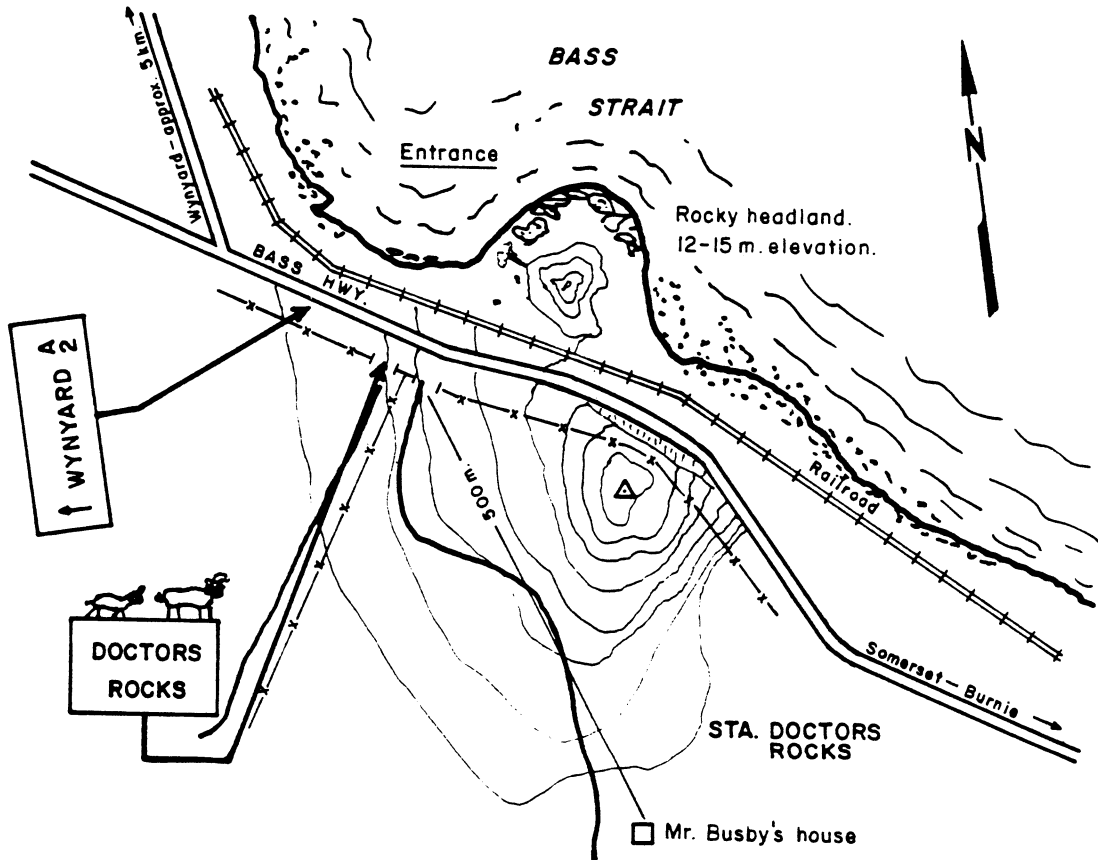
Lat.	41°01'00"50 S	N = 5,458,648 meters
Long.	145°46'58"70 E	E = 397,671 meters

STA. DOCTORS ROCKS (SPM 430)—AUSTRALIA

LAT. 41°01'00"50 S
 LONG. 145°46'58"70 E
 ELEV. 22 meters

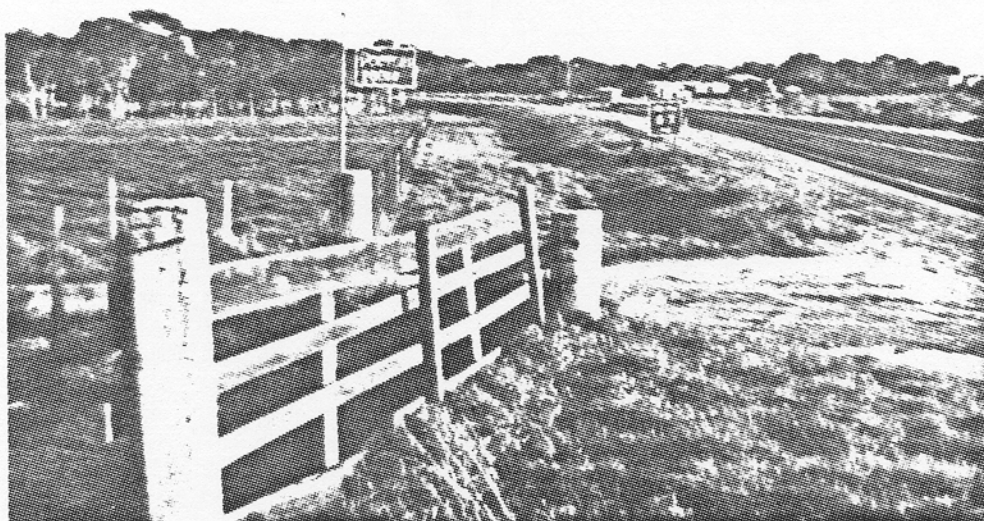
N 5,458,648 meters
 E 397,671 meters

UTM PROJ. ———— AUST. NAT. SPHEROID
 ZONE 55, C.M. 147° E ———— A.G.D.



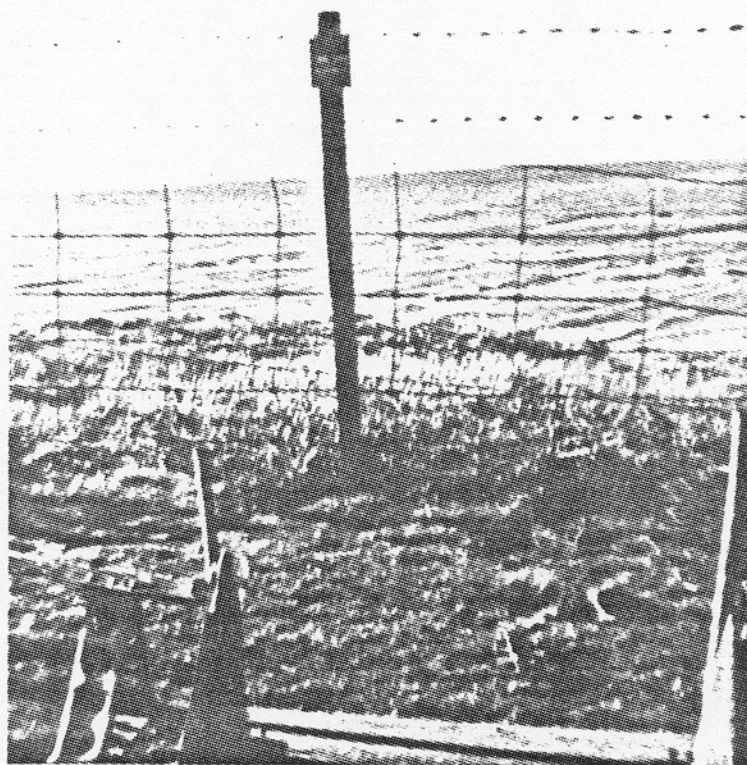
7/84/1511

STATION DOCTORS ROCKS



TAKEN FROM ENTRANCE TO STATION, LOOKING TOWARDS WYNYARD.
NOTE: SIGN AT NEXT ENTRANCE.

STATION DOCTORS ROCKS



SURVEY MARK INDICATOR ON FENCE AT STATION.

STATION: POINT SORELL (ST 517)

LOCATED: This station is located on the highest point of Point Sorell, Tasmania, Australia, which is 4.8 kilometers from Hawley Beach, 1 kilometer from Port Sorell, and approximately 26 kilometers by road east of the city of Devonport. On a clear day, Badger Head, on the eastern entrance of Port Sorell, is visible from the station.

The station marker is geographically located on a point, 150 meters from the water's edge (Bass Strait). Rocks lay about the station. Some of the rocks extend up to 1 foot above ground level. Vegetation in the area is mainly green grass and patches of tussock up to 1 meter high. On the landward side, the point slopes gradually with black soil pasture riddled with Mutton Bird burrows. Once on the flats, which are very wet during winter, vegetation ranges from scattered trees to patches of dense woods.

On a clear day, the city of Devonport can be seen 20 miles away, at a bearing of 260°. Beach areas, separated by rocks, are located 900 meters from the station, at a bearing of 200°. Small patches of trees are located 500 meters, at a bearing of 080° from the station. An 80-meter by 30-meter island is located offshore, approximately 800 meters, at a bearing of 060°, from the station.

ACCESS: In dry weather a regular two wheel drive vehicle may be used but the grassy slopes on the approaches to the station site may become very slippery when wet and there are numerous boggy patches after heavy rains and a four-wheel drive vehicle is necessary.

If four-wheel drive vehicles are unavailable or it turns wet after the station is set, Roger Moncrieff has a tractor which is available to tow the vehicle to and from the station site. The tractor may also be required to tow even a four-wheel drive vehicle if it is heavily laden in extreme wet conditions.

STATION: POINT SORELL (ST 517) (continued)

From Devonport, drive on the Bass Highway towards Launceston for 2 kilometers past the East Devonport turnoff, and turn left at the Exeter/Port Sorell turnoff (B19) near the top of the rise. Follow this road towards Port Sorell (The Exeter road turns off to the right) for approximately 12 kilometers to a road intersection, located approximately 2 kilometers before entering Port Sorell. A wooden sign showing "Hawley Caravan Park" is on the left side of this intersection. Turn left at this intersection, and follow the road to Hawley Beach. Turn left at a "T" junction, located 50 meters before the Hawley Beach Store and Post Office. Just after making this left turn, a prominent sign to the right reads "Heavy Vehicles Only" (see Sketch). Follow this sealed road to its end at a "T" junction with a chlorine station facing you on the other side of the road. Turn left at this junction. A right turn takes you on a foreshore track. Follow this road (it turns to gravel half-way along) for approximately 700 meters (passing a picnic spot and toilets on the right) to a white wooden gate. Immediately in front of the gate, the road veers to the right. A turn to the left is marked "LMC Private Road". Take this turn to the left (it is 3 kilometers to the station from this point). Follow the road for approximately 100 meters and turn to the right. Straight ahead at this point is the resident of Mr. Roger Moncrieff, the son of the station site land owner. Drive for approximately 300 meters to a locked gate. At this gate, a track leads to the right to the resident of Mr. Don Moncrieff, the station site land owner, located approximately 100 meters from this gate. Obtain a key for this gate, or if opened, follow the road straight ahead to double gates, near the council sewerage pond, which are usually opened. The station marker will be visible from the double gates at a distance of approximately 2 kilometers. There is no defined

STATION: POINT SORELL (ST 517) (continued)

road from this point to the marker. Seek the land owner's advice or follow the tracks shown on the Sketch.

MARKER: The station marker, located on a hill, consists of a brass mushroom S.P.M., which is not numbered. The marker is embedded in concrete at ground level, with stones surrounding the marker.

The Maxiran tower was erected 1 meter, at a bearing of 270° Magnetic, from the station marker. This offset was necessary due to a 3-meter high quadropod that is erected over the marker. The quadropod is painted white, and has a black disc, approximately 60cm in diameter, attached to the top. Rocks covers each leg of the quadropod. Coordinates are listed in this description for the station marker and the Maxiran tower offset.

GENERAL: Labor can be provided by Mr. Roger Moncrieff. Labor can also be obtained in Devonport, approximately 22 kilometers from the station, or Latrobe, approximately 19 kilometers away. Fuel, oil, camping equipment and supplies are available at Devonport. Bulk fuel can be obtained from several depots located in Devonport. There is a service station in Port Sorrel, and a reasonable selection of goods can be obtained at the Hawley Beach Store and Post Office. Drinking water can be obtained from the station property land owner or his son.

A caravan with heater is essential at this site. The winter months, June to September, can be very wet, windy and cold. Temperatures can range from several degrees below zero to a daily maximum of as low as 4°C. Extra rope and star stakes should be taken for tying down during this period.

STATION: POINT SORELL (ST 517) (continued)

Penguins are very frequent visitors to the station site, particularly at night.

Caravans are available from Devon Coastavans, 116 Nicholls St., Devonport; telephone Ian Finch, 004-242829. Mr. Finch will deliver and pick up the vans to the station sites for a nominal fee (In August 1984, Point Sorrell was A\$20.00, Doctors Rocks was A\$40.00. This fee includes delivery and pickup.) The vans are well equipped, gas, approximately 60-litre water tank (full on delivery), crockery, cutlery, fridge, etc. Mattresses are supplied, but there are no blankets, pillows, or sheets. The vans can be locked. The caravans must be left clean when vacating.

Vehicles may be obtained from Hertz, Oldaker Street, Devonport (telephone 004-241013). Hertz representatives have been very helpful and can assist regarding fuel supplies from Mobil Devonport if required.

Four-wheel drive vehicles may also be obtained from Regent Filling Station, 57 Marine Terrace, South Burnie. This is the Shell Service Station past the paper mill on the Bass Highway, as you approach Burnie from Devonport. The contact at this place is Mr. Wayne Cross. The service station telephone number is 004-312131.

A 20-foot tower was erected at this site, the minimum height required to clear surrounding obstructions. Clear vista is from 200° (through north) to 060°. Star stakes were used to secure the tower.

Permission to occupy the station must be obtained from the land owner, Mr. Don C. Moncrieff, Hawley Beach via Latrobe 7307, Tasmania. His phone number is 004-286193. Mr.

STATION: POINT SORELL (ST 517) (continued)

Moncrieff was paid a daily rental fee of A\$25.00 for the use of his land. If Mr. Don Moncrieff is absent, permission may be obtained from his son, Roger Moncrieff; telephone 004-286587. Roger lives approximately 1 kilometer from Don Moncrieff. See Sketch.

ELEVATION: 30 meters

SKETCH: See next page.

Coordinates of the station marker were obtained from a Lands Department, Tasmania, Division of National Mapping summary sheet.

UTM PROJECTION, AUSTRALIAN NATIONAL SPHEROID
ZONE 55, C.M. 147° EAST - - A.G.D.

MARKER COORDINATES:

Lat.	41°07'24"69 S	N = 5,447,407 meters
Long.	146°31'41"88 E	E = 460,403 meters

MAXIRAN TOWER OFFSET COORDINATES:

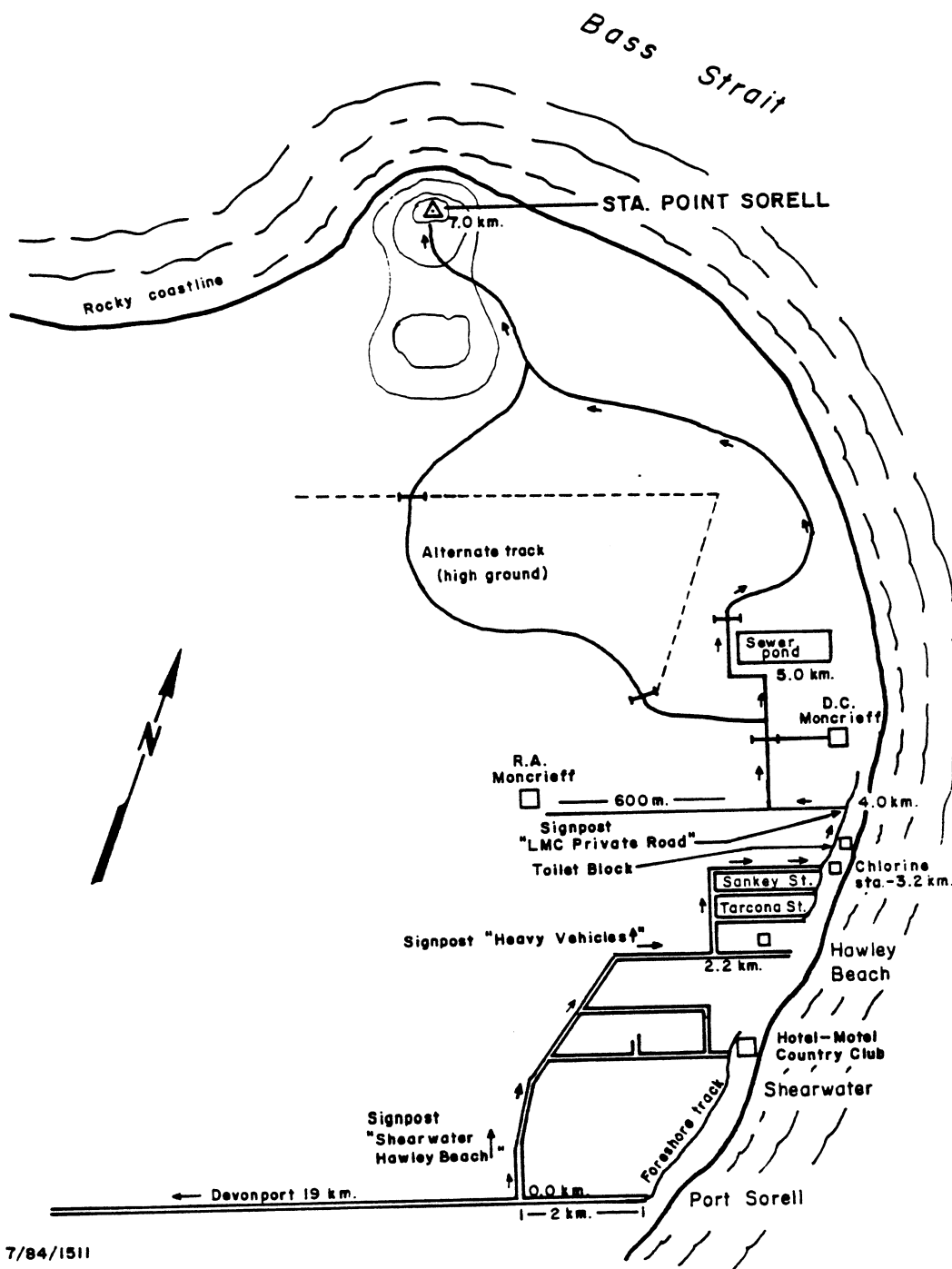
Lat.	41°07'24"68 S	N = 5,447,408 meters
Long.	146°31'41"84 E	E = 460,402 meters

STA. POINT SORELL (ST 517)——AUSTRALIA

LAT. 41° 07' 24." 69 S
 LONG. 146° 31' 41." 88 E
 ELEV. 30 meters

N 5,447,407 meters
 E 460,403 meters

UTM PROJ. ———— AUST. NAT. SPHEROID
 ZONE 55, C.M. 147° E ———— A. G. D.

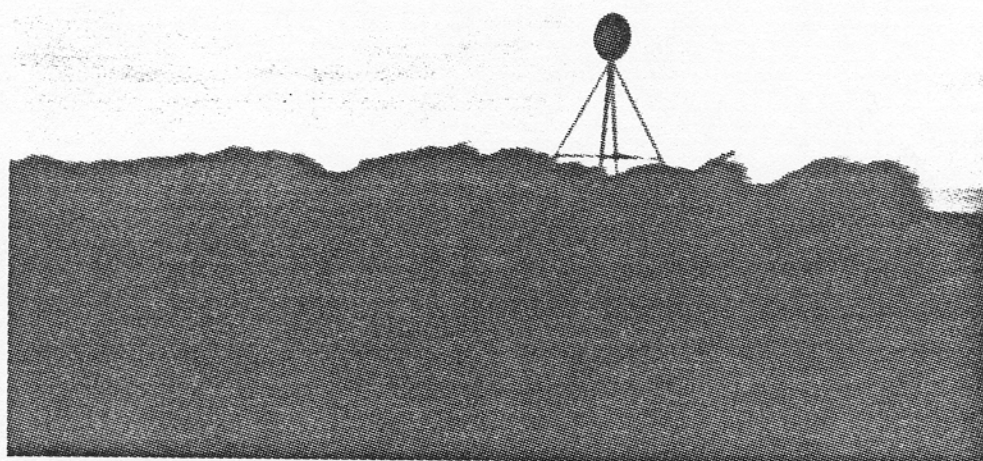


7/84/1511

STATION POINT SORELL



SIGN AT TURNOFF TO LEFT ENTERING ROAD TO DON MONCRIEFF PROPERTY. POINT IS ABOUT 3 KILOMETERS FROM STATION.



QUADROPOD OVER MARKER

STATION POINT SORELL



SIGN AT TURNOFF FROM PORT SORELL ROAD. TURN LEFT TO REACH STATION, A DISTANCE OF APPROXIMATELY 7 KILOMETERS FROM THIS POINT.

STATION: THE NUT (ST 674)

LOCATED: This station is located on a hill overlooking the town of Stanley, on the north coast of Tasmania, Australia. The hill is named "The Nut", and its summit is flat to slightly rolling. This hill, as well as the historical town of Stanley, are very popular tourist attractions. The vegetation on this hill consists of grass and low native bushes. There is a tourist walk track around the perimeter of the top which is some 4 kilometers around. There are many mutton bird burrows along this track. The surrounding district, Circular Head, derives its name from the distinctive shaped "Nut" which juts into Bass Strait. The station marker is on the northern side of The Nut.

ACCESS: Access to the town of Stanley can be made from Burnie or Devonport. It must be noted that minor towns may not appear on road signs. When leaving Devonport, read "Smithton" for "Stanley". At times, only route numbers appear in lieu of town names. It is approximately 120 kilometers from Devonport to Stanley.

Drive north on the Bass Highway to the intersection with the Stanley Highway (B21). This intersection is 64 kilometers past Wynyard. Turn onto Stanley Highway and drive 7 kilometers to the town of Stanley. The Nut will be easily seen to the northeast of Stanley, right beside the town. The road to the hill is signposted "Nut". A vehicle can be taken as far as the car park on the slopes of The Nut. A zig-zag 1-meter wide cement track with center hand rail leads from the car park to the summit. Take the left hand track at the fork on top of the hill. The station marker is from 400 to 500 meters along this track. It is a walk of about 20 to 30 minutes (unburdened) from the base of the hill to the station.

STATION: THE NUT (ST 674) (continued)

MARKER: The station marker consists of a brass mushroom S.P.M., which is not numbered. The marker is embedded in concrete which is at ground level, with a 1.26-meter high stone cairn built over it.

A 3.86-meter high quadropod has been erected over the marker. The quadropod has a 60cm diameter black disc attached to its top.

The Maxiran tower was erected 2.76 meters, at a bearing of 217° Magnetic from the marker. A star stake, that was left on site with the approval of the local ranger, marks the position of the Maxiran tower. Coordinates are listed in this description for the brass mushroom marker, and the Maxiran tower offset.

GENERAL: Food, fuel, oil, and water is available in Stanley. Fuel and oil can be obtained from W.T. House, Inc. BP Service Station. Mr. House can also assist in obtaining labor. Labor may also be obtained at the Union Hotel. Emergency water may be obtained from a tank near the old telecom hut, which is located alongside the lookout, approximately 700 meters from the station site.

Although limited camping equipment is available in Stanley, this should be purchased in larger centers, such as Burnie or Devonport.

Hotel accommodations are available at the Union Hotel in Stanley. The nearest airport to this station is in Smithton, approximately 20 miles away.

The station site is completely exposed to weather. This should be taken into consideration when erecting the station. Ample bedding, tent pegs, and spare rope should be taken. During the winter months (June through September), the

STATION: THE NUT (ST 674) (continued)

site is very cold and damp. A heater is essential as temperatures frequently drops below zero.

A 20-foot tower was erected at this site. Star stakes were sufficient to secure the tower. Clear vista with a 20-foot tower is from 300° (through north) to 090°.

The station site is on land owned by the National Parks and Wildlife Service. Permission to occupy the site was obtained from Mr. P. Murrell, Director, in Sandy Bay, Tasmania 7005. His office address in Sandy Bay is Magnet Court or P.O. Box 210, Sandy Bay, Tasmania 7005. Telegrams, addressed "TASPAWS", will be received by the director. No rent was paid for the use of this property. The local inspector is Mr. Rex Gatenby, Launceston telephone 003-415306.

The local ranger in charge is Mr. Brian Carson, telephone 004-581320. His resident is located near the rectory and old school in the old section of Stanley. Mr. Carson was very helpful in all matters. He can arrange for storage of empty equipment boxes at the car park house.

The site is to be kept clean and tidy during occupation. All rubbish is to be removed at the conclusion of a survey.

It will take two or three days with 4 or 5 laborers to carry the equipment to the station site. An average round-trip from the car park to the station site, walking up with a load and returning unburdened will take from 60 to 90 minutes, depending on the load. The cement track to the summit is very difficult to negotiate with heavy objects with the center hand rail. When possible, a helicopter should be use to mobilize and demobilize this station. The Stanley Football

STATION: THE NUT (ST 674) (continued)

Ground is used as a lift off and put-down point for the helicopter. Permission can be obtained to use the ground from the Football Club president, Mr. Graham Trenelly, Union Hotel, Stanley; telephone 004-581161. It is approximately a 5 minute flight from the football ground to the station site. It is approximately 50 kilometers from the Wynyard Airport to The Nut.

ELEVATION: 143 meters

SKETCH: See next page.

Coordinates of the station marker were obtained from a Lands Department, Tasmania, Division of National Mapping summary sheet.

UTM PROJECTION, AUSTRALIAN NATIONAL SPHEROID
ZONE 55, C.M. 147° EAST - - A.G.D.

MARKER COORDINATES:

Lat.	40°45'50"23 S	N = 5,486,046 meters
Long.	145°18'13"45 E	E = 356,830 meters

MAXIRAN TOWER OFFSET COORDINATES:

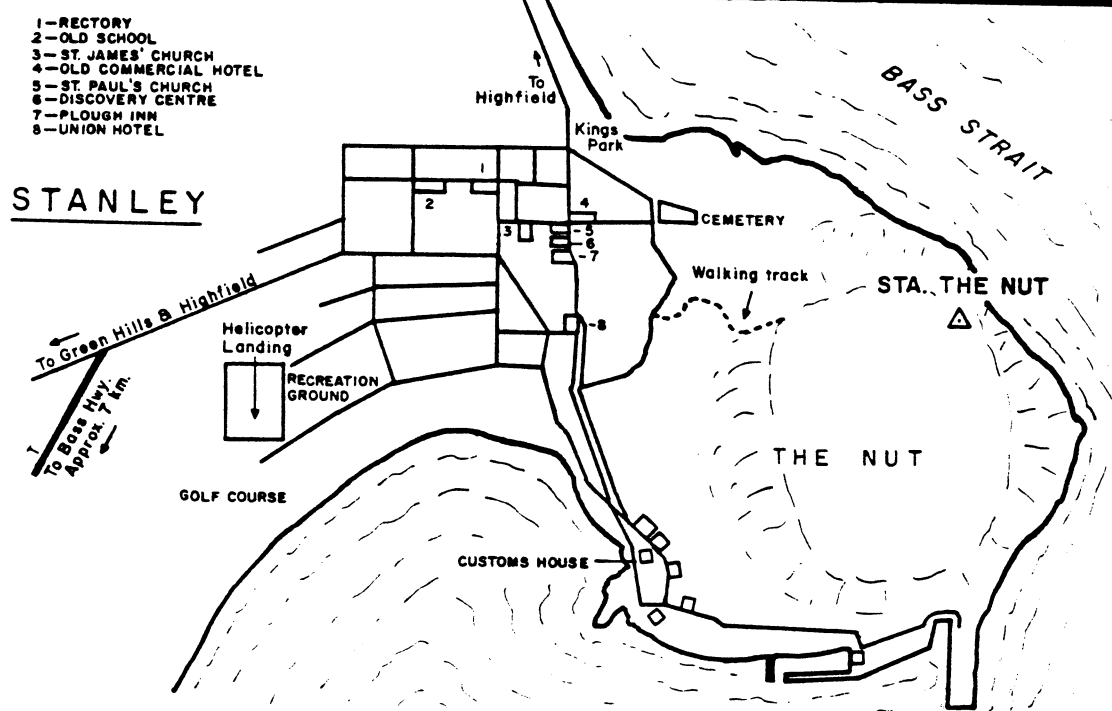
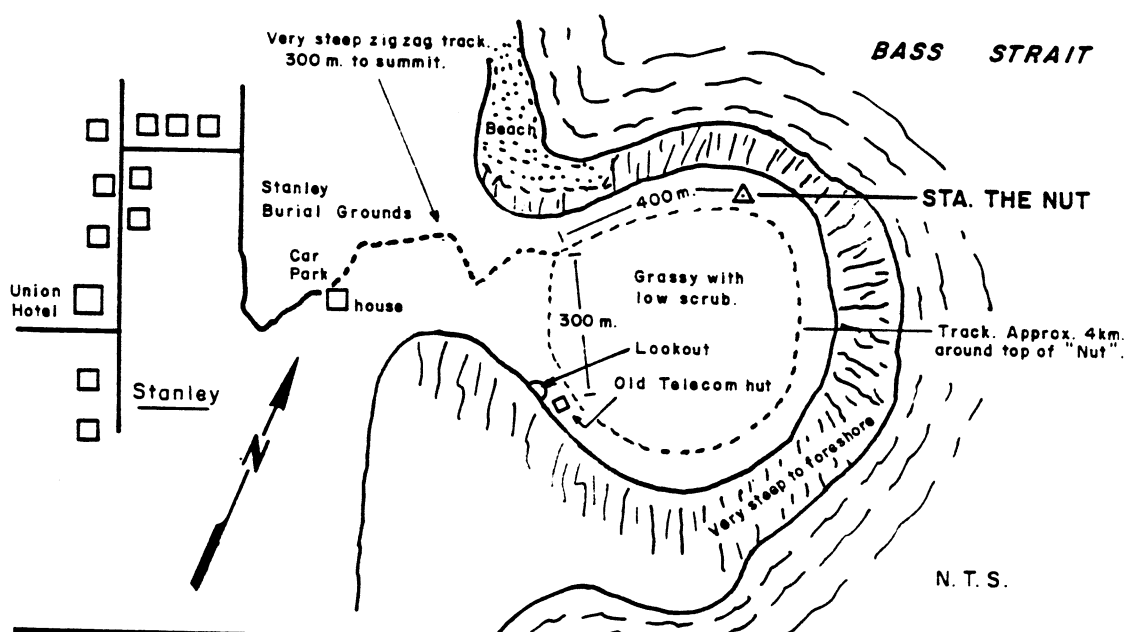
Lat.	40°45'50"29 S	N = 5,486,044 meters
Long.	145°18'13"36 E	E = 356,828 meters

STA. THE NUT (ST 674) ————— AUSTRALIA

LAT. 40°45'50".23 S
 LONG. 145°18'13".45 E
 ELEV. 143 meters

N 5,486,046 meters
 E 356,830 meters

UTM PROJ. ————— AUST. NAT. SPHEROID
 ZONE 55, C. M. 147° E ————— A. G. D.



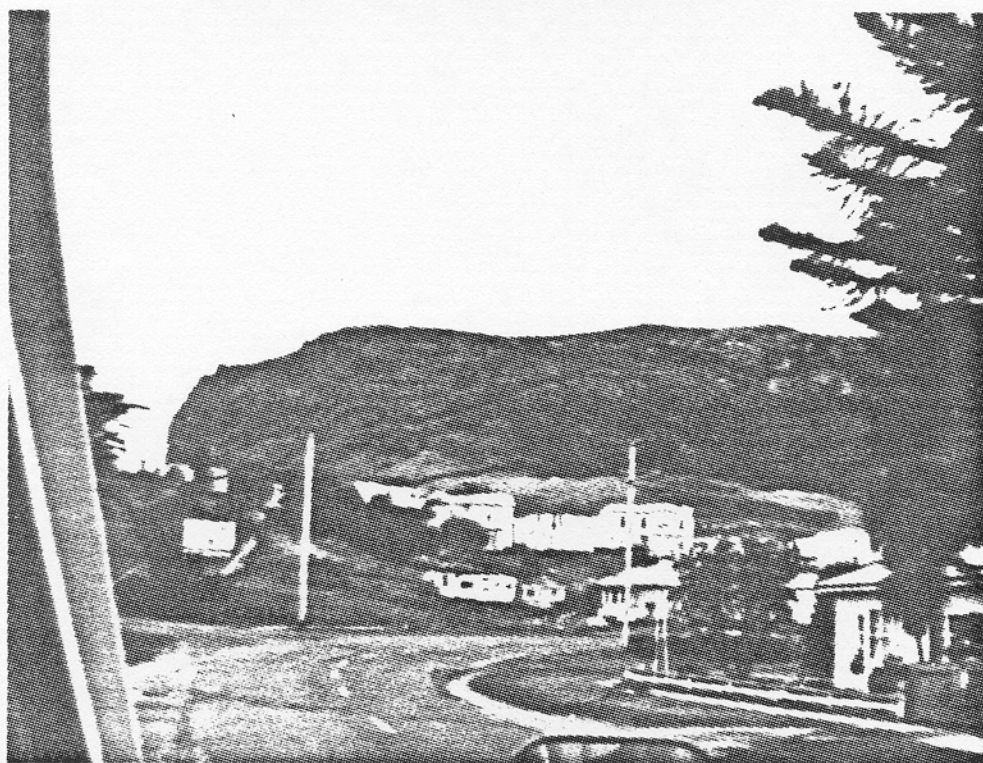
- 1-RECTORY
- 2-OLD SCHOOL
- 3-ST. JAMES' CHURCH
- 4-OLD COMMERCIAL HOTEL
- 5-ST. PAUL'S CHURCH
- 6-DISCOVERY CENTRE
- 7-PLOUGH INN
- 8-UNION HOTEL

STANLEY

STATION THE NUT



FROM TURNOFF AT STANLEY BURIAL GROUND



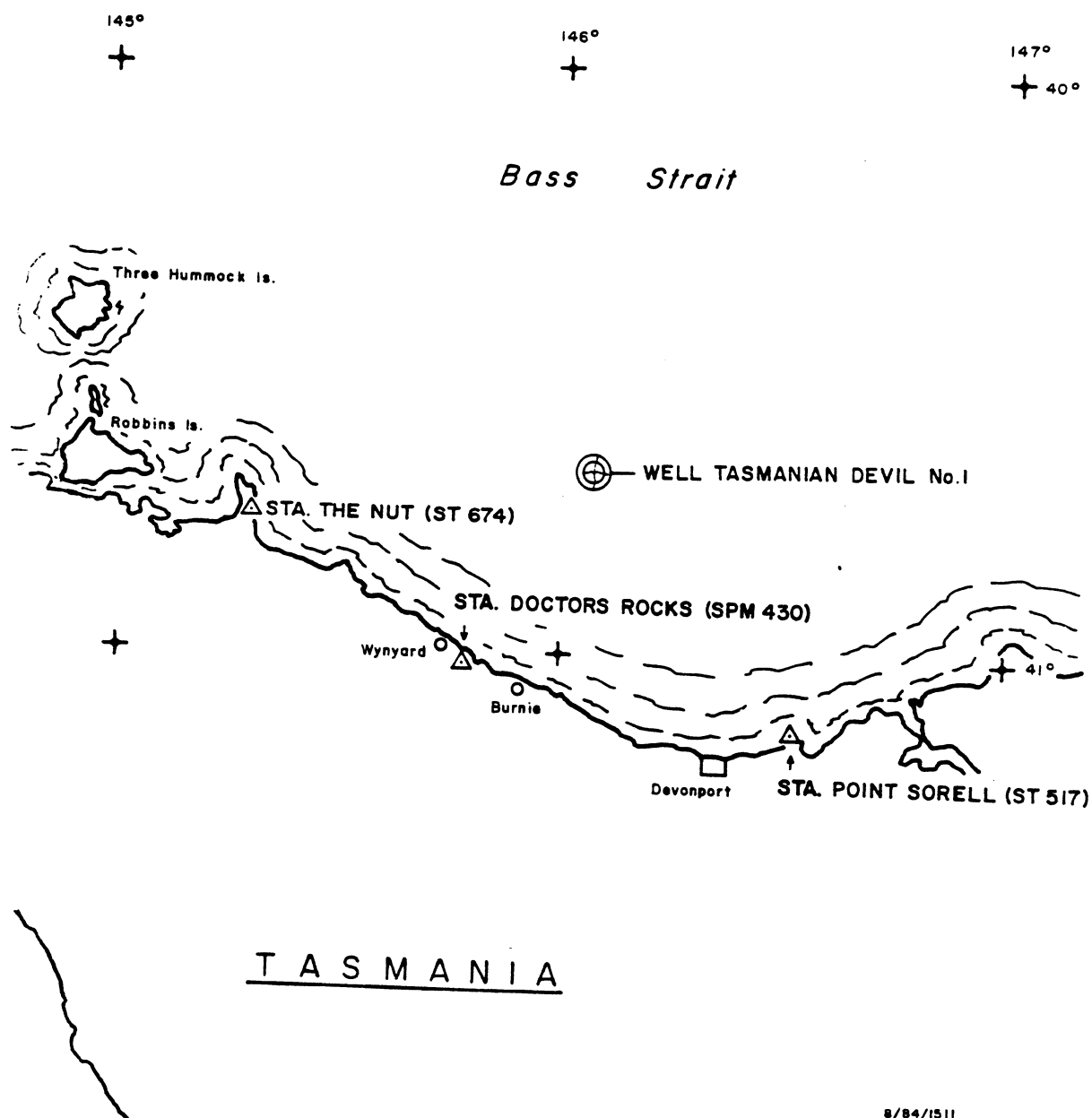
FROM THE OUTSKIRTS OF STANLEY. NOTE ZIG-ZAG TRACK UP MOUNTAIN. THIS IS THE ONLY ACCESS ROUTE BY FOOT.

WELL TASMANIAN DEVIL No.1—AUSTRALIA

LAT. 40°44'16"209 S
LONG. 146°09'44"958 E

N 5,489,992 meters
E 429,285 meters

UTM PROJ. ——— AUST. NAT. SPHEROID
ZONE 55, C. M. 147° E ——— A. G. D.



APPENDIX A
DAILY OPERATIONS LOGS

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.Ls

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
O/T Requested By			Total System -Hours Operation For Client
			NIL

LOST TIME			
From	To	Hours Lost	Reason(s)
		14 1/2	

Grief Operations Log & Remarks MOB OFF - DRIVE TO WELSHPOOL
INSTALL EQUIPMENT ABOARD "BASS TIDE"

1830 DEPART WELSHPOOL

2050 ANCHOR DOWN AT SEALERS COVE

2400 AT ANCHOR AT SEALERS COVE

Mobile Operator(s) A. HOGGART

Party Chief D. Russell

Project Number 1511 Date AUG 1ST 84 Vessel BASS TIDE

Geophysical _____ Oil _____
Company _____ Company TRITON

Country AUSTRALIA Area/
Prospect BASS STRAIT Stepback

N-57

Client
Party
Number TASMANIAN DEVIL 1
Radio
Frequency 7840 KHZ
Shot Point
Interval

SEE INSTRUCTIONS ON REVERSE

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.Ls

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	R. ROUNDS	9.218	026	040	055	1	VERT PAIRS L.P.Ls
Pt. SORELL	G. WARD	9.218	009	122	016	3	" " "
DRS. ROCKS	D. RUSSELL	9.218	028		026	5	" " "

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
1200	1400	A. HOGGART	CHECKING SYSTEM
O/T Requested By			Total System - Hours Operation For Client
			2h 0m

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Brief Operations Log & Remarks

0001 STEAMING NEAR "DIAMOND M EPOCH"

1200-1400 EQUIPMENT ON CHECKING SIGNALS
GOOD SIGNALS FROM Pt SORELL & DRS ROCKS
THE NUT NOT YET ON

1800 RADIO CHECK

2400 STEAMING NEAR "DIAMOND M EPOCH"

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG 3RD 84 Vessel BASS TIDE Client Party Number TASMANIAN DEVIL 1
Geophysical Company _____ Oil Company _____ Radio Frequency 7840 KHZ
Country AUSTRALIA Area/Prospect BASS STRAIT Shot Point _____ Interval _____

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.Ls

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	R. ROUNDS	9.218	026	040	055	1	VERT PAIRS L.P.Ls
PT. SORRELL	G. WARD	9.218	009	122	016	3	" " "
DRS. ROCKS	D. RUSSELL	9.218	028		026	5	" " "

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
1200	1300	A. HOGGART	CHECKING SYSTEM
O/T Requested By			Total System - Hours Operation For Client
			1h 0m

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Brief Operations Log & Remarks

0001 STEAMING NEAR "DIAMOND M EPOCH"

1200-1300 EQUIPMENT ON CHECK OUT SIGNAL FROM THE NUT - OK

PERIODIC RADIO CHECKS

2400 STEAMING NEAR "DIAMOND M EPOCH"

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG 17th 84 Vessel BASS TIDE Client Party Number TASMANIAN DEVIL 1

Geophysical Company Oil Company Radio Frequency 7840 KHz

Country AUSTRALIA Area/Prospect BASS STRAIT Stepback Shot Point Interval

N-57

SEE INSTRUCTIONS ON REVERSE

IAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.L.s

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	R. ROUNDS	9.218	026	040	055	1	VERT PAIRS L.P.L.s
PT. SORELL	G. WARD	9.218	009	122	016	3	" " "
DRS ROCKS	D. RUSSELL	9.218	028		026	5	" " "

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
O/T Requested By			Total System - Hours Operation For Client
			NIL

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Brief Operations Log & Remarks

0001 STEAMING NEAR "DIAMOND M EPOCH"

PERIODIC RADIO CHECKS

2400 STEAMING NEAR "DIAMOND M EPOCH"

Mobile Operator(s) A. HOGGARTS

Party Chief D. RUSSELL

Project Number 1511 Date AUG 5TH 84 Vessel BASS TIDE

Geophysical Company Oil Company

Country AUSTRALIA Area/Prospect BASS STRAIT Stepback

Client Party Number TASMANIAN DEVIL 1

Radio Frequency 7840 KHZ

Shot Point Interval

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.Ls

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	R. ROUNDS	9.218	026	040	055	1	VERT PAIRS L.P.I.
PT. SORRELL	G. WARD	9.218	009	122	016	3	" " "
DRS ROCKS	D. RUSSELL	9.218	028		026	5	" " "

OPERATING TIME				
Time On	Time Off	Requested By	System Used For	
O/T Requested By			Total System - Hours Operation For Client	NIL

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Brief Operations Log & Remarks_____

0001 STEAMING NEAR "DIAMOND M EPOCH"

PERIODIC RADIO CHECKS

2600 STEAMING NEAR "DIAMOND M EPOCH"

Mobile Operator(s) A. HOGGART

Party Chief D. RUSSELL

Project Number 1511 Date AUG 6TH 84 Vessel BASS TIDE Client Party Number TASMANIAN DEVIL 1
Geophysical Company _____ Oil Company _____ Radio Frequency 7840 KHz

Client
Party
Number TASMANIAN DEVIL 1
Radio
Frequency 7840 KHZ
Shot Point
Interval

Country AUSTRALIA Area/Prospect BASS STRAIT Stepback _____ Frequency _____ Shot Point Interval _____

N-57

SEE INSTRUCTIONS ON REVERSE

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.Ls

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE HUT	R. ROUNDS	9.218	026	040	055	1	VERT PAIRS L.P.Ls
PT. SORRELL	G. WARD	9.218	009	122	016	3	" " "
DAS. ROCKS	D. RUSSELL	9.218	028		026	5	" " "

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
O/T Requested By			Total System - Hours Operation For Client
			NIL

LOST TIME			
From	To	Hours Lost	Reason(s)

Brief Operations Log & Remarks 0001 STEAMING NEAR "DIAMOND M EPOCH"
0200 ENROUTE FOR WELSHPOOL
0900 ALONGSIDE IN WELSHPOOL

DE MOB AND STORE MOBILE EQUIPMENT

DRIVE TO MELBOURNE

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG 7TH 84 Vessel BASS TIDE Client Party Number TASMANIAN DEVIL 1
 Geophysical Company Oil Company Radio Frequency 7840 KHZ
 Country AUSTRALIA Area/Prospect BASS STRAIT Stepback Shot Point Interval

MAXIRAN DAILY OPERATIONS LOG

mobile station	NAYCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM

BASE STATIONS

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type (s)

OPERATING TIME

Time On	Time Off	Requested By	System Used For
O/T Requested By			Total System - Hours Operation For Client

NIL

LOST TIME

LOSS TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Operations Log & Remarks MOBILE OPERATOR FLIES FROM AUCKLAND
TO MELBOURNE & DRIVES TO COAL CREEK

Operator(s) A. HOGGART Party Chief D. RUSSELL

Vessel Number 1511 Date AUG 14TH 84 Vessel IRITON
 Geophysical Company (WEAVER) Oil Company IRITON
 Country AUSTRALIA Area/Prospect BASS STRAIT Stepback _____
 Client Party Number TASMANIAN DEVIL 1.
 Radio Frequency 7840 KHZ
 Shot Point Interval _____

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.L.

BASE STATIONS

Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
	G. WARD						
	R. ROUNDS						
	D. RUSSELL						

OPERATING TIME

Time On	Time Off	Requested By	System Used For
O/T Requested By		Total System - Hours Operation For Client	NIL

LOST TIME

From	To	Hours Lost	Reason(s)
		NIL	

Daily Operations Log & Remarks DRIVE FROM COAL CREEK TO PORT JELSH POOL.
INSTALL EQUIPMENT ABOARD "BASS TIDE"
1515 LEFT PORT EN ROUTE FOR "DIAMOND M EPOCH"
2400 EN ROUTE FOR "DIAMOND M EPOCH"

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG 15TH 84 Vessel BASS TIDE Client Party Number TASMANIAN DEVIL I.
 Geophysical Company STRAT Oil Company (WEAVER) Radio Frequency 7840 KHz
 Country AUSTRALIA Area/Prospect BASS STRAIT Shot Point Interval

SEE INSTRUCTIONS ON REVERSE

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM		
		042	002	073	VERT PAIRS L.P.Ls		

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
	G. WARD						
	R. ROUNDS						
	D. RUSSELL						

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
O/T Requested By			Total System - Hours Operation For Client
			NIL

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Operations Log & Remarks 0001 EN ROUTE TO DIAMOND M EPOCH
2110 AT DIAMOND M EPOCH
STANDING BY DIAMOND M EPOCH WAITING FOR
COMPLETION OF HOLE
PERIODIC CHECKS ON RADIO TO SEE
IF BASE STATIONS ARE UP

2400 STANDING BY NEAR DIAMOND M EPOCH

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Vessel BASS TIDE
 Company WEAVER
 Country AUSTRALIA Area/Prospect BASS STRAIT

Client Party Number TASMANIAN DEVIL NO 1
 Radio Frequency 7840 KHZ
 Shot Point Interval

SEE INSTRUCTIONS ON REVERSE

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM		
		042	002	073	VERT PAIRS L.P.Ls		

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
	G. WARD						
	R. ROUNDS						
	D. RUSSELL						

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
O/T Requested By			Total System - Hours Operation For Client
			NIL

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Brief Operations Log & Remarks 0001 STANDING BY NEAR
DIAMOND M GPOCH

1200 WEATHER NOW TO ROUGH TO WORK

PERIODIC CHECKS ON RADIO FOR BASE STATION
PROGRESS

2400 WAITING ON WEATHER

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG 17TH 84 Vessel BASS TIDE Client Party Number TASMANIAN DEVIL NO. 1
Geophysical Company WEAVER Oil Company WEAVER Radio Frequency 7840 KHZ
Country AUSTRALIA Area/Prospect BASS STRAIT Stepback Shot Point Interval

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERTICAL PAIRS L.P.S.

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	G. WARD						
PT. SORELL	R. ROUNDS						
DRS. ROCKS	D. RUSSELL						

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
O/T Requested By			Total System - Hours Operation For Client
			NIL

LOST TIME			
From	To	Hours Lost	Reason (s)
		NIL	

Chief Operations Log & Remarks 0001 WAITING ON WEATHER

PERIODIC RADIO CHECKS WITH BASE STNS

2400 WAITING ON WEATHER

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG 18TH 1984 Vessel BASS TIDE Client Party TASMANIAN
Geophysical Company _____ Oil Company WEAVER Number DEVIL N°1
Country AUSTRALIA Area/Prospect BASS STRAIT Radio Frequency 7840 KHz
Stepback _____ Shot Point _____
Interval _____

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.Ls

BASE STATIONS

Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE HUT	G. WARD	9.218	009	122	016	3	VERT PAIRS L.P.Ls
PT. SORELL	R. ROUNDS	9.218	026	040	055	1	VERT PAIRS L.P.Ls
DRS ROCKS	D. RUSSELL	9.218	028	113	006	5	VERT PAIRS L.P.Ls

OPERATING TIME

Time On	Time Off	Requested By	System Used For
1200	1300	A. HOGGART	CHECKING SIGNALS
O/T Requested By			Total System - Hours Operation For Client
			1 hr

LOST TIME

From	To	Hours Lost	Reason(s)
		NIL	

Chief Operations Log & Remarks: 0001 WAITING ON WEATHER

PERIODIC RADIO CHECKS

1200 - 1300 ON IN OPERATE CHECKING SIGNALS FROM
DRS. ROCKS + PT SORELL - SIGNALS OK

PERIODIC RADIO CHECKS

2400 WAITING ON WEATHER

Mobile Operator(s): A. HOGGART
Party Chief: D. RUSSELL

Project Number: 1511 Date: AUG 19TH 84 Vessel: BASS TIDE
Geophysical Company: Oil Company: WEAVER
Country: AUSTRALIA Area/Prospect: BASS STRAIT Stepback:
Client Party Number: TASMANIAN DEVIL No. 1
Radio Frequency: 7840 KHz
Shot Point Interval:

SEE INSTRUCTIONS ON REVERSE

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.Ls

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	G. WARD	9.218	009	122	016	3	VERT PAIRS L.P.Ls
Pt SORELL	R. ROUNDS	9.218	026	040	055	1	VERT PAIRS L.P.Ls
DRs ROCKS	D. RUSSELL	9.218	028	113	006	5	VERT PAIRS L.P.Ls

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
1200	1230	A. HOGGART	CHECKING SIGNALS
O/T Requested By			Total System - Hours Operation For Client
			0h 30m

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Brief Operations Log & Remarks 0001 WAITING ON WEATHER

PERIODIC RADIO CHECKS

1200-1230 ON IN OPERATE CHECKING SIGNALS FROM THE NUT - SIGNALS OK

PERIODIC RADIO CHECKS

2400 WAITING ON WEATHER

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG 20TH 84 Vessel BASS TIDE Client Party Number TASMANIAN DEVIL N°1
 Geophysical Company WEAVER Radio Frequency 7840 KHz
 Country AUSTRALIA Area/Prospect BASS STRAIT Stepback Shot Point Interval

MAXIRAN DAILY OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.Ls

BASE STATIONS

Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	G. WARD	9.218	009	122	016	3	VERT PAIRS L.P.Ls
PT SORELL	R. ROUNDS	9.218	026	040	055	1	VERT PAIRS L.P.Ls
DAS ROCKS	D. RUSSELL	9.218	028	113	006	5	VERT PAIRS L.P.Ls

OPERATING TIME

Time On	Time Off	Requested By	System Used For
O/T Requested By			Total System -Hours Operation For Client
			NIL

LOST TIME

From	To	Hours Lost	Reason(s)
		NIL	

Brief Operations Log & Remarks 0001 WAITING ON WEATHER

PERIODIC RADIO CHECKS

2400 WAITING ON WEATHER

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG 21ST 84 Vessel BASS TIDE Client Party Number TASMANIAN DEVIL NO 1
 Geophysical Company WEAVER Oil Company WEAVER Radio Frequency 7840 KHZ
 Country AUSTRALIA Area/Prospect BASS STRAIT Stepback Shot Point Interval

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		062	002	073	VERT PAIRS L.P.Ls

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	G. WARD	9.218	009	122	016	3	VERT PAIRS L.P.Ls
PT. SORELL	R. ROUNDS	9.218	026	040	055	1	VERT PAIRS L.P.Ls
DRS ROCKS	D. RUSSELL	9.218	028	113	006	5	VERT PAIRS L.P.Ls

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
O/T Requested By			Total System -Hours Operation For Client
			NIL

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Brief Operations Log & Remarks 0001 WAITING ON WEATHER
 0500 WEATHER OK PICKING UP ANCHORS FOR THE
 RIG
 1030 STOP ANCHOR HANDLING - TOO ROUGH
 PERIODIC RADIO CHECKS
 2400 WAITING ON WEATHER

Mobile Operator(s) A. HOGGART
 Party Chief D. RUSSELL

Project Number 1511 Date AUG 22ND 84 Vessel BASS TIDE
 Physical Company OIL Company WEAVER
 Country AUSTRALIA Area/Prospect BASS STRAIT Stepback
 Client Party Number TASMANIAN DEVIL NO 1
 Radio Frequency 7840 KHZ
 Shot Point Interval

MAXIMAN BAIT OPERATIONS LOG

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.Ls

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	G. WARD	9.218	009	122	016	3	VERT PAIRS L.P.Ls
PT. SORELL	R. ROUNDS	9.218	026	040	055	1	VERT PAIRS L.P.Ls
DRS. ROCKS	D. RUSSELL	9.218	028	113	006	5	VERT PAIRS L.P.Ls

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
O/T Requested By		Total System - Hours Operation For Client	NIL

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Brief Operations Log & Remarks 0001 WAITING ON WEATHER

PERIODIC RADIO CHECKS

2100 WAITING ON WEATHER

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG. 23RD 84 Vessel BASS TIDE Client Party Number TASMANIAN DEVIL NO 1
 physical company WEAVER Oil Company WEAVER Radio Frequency 7840 KHZ
 Country AUSTRALIA Area/Prospect BASS STRAIT Stepback Shot Point Interval

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		062	002	073	VERT PAIRS L.P.Ls

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	G. WARD	9.218	009	122	016	3	VERT PAIRS (P)
PT. SORELL	R. ROUNDS	9.218	026	040	055	1	" " "
DRS. ROCKS	D. RUSSELL	9.218	028	113	006	5	" " "

OPERATING TIME				
Time On	Time Off	Requested By	System Used For	
O/T Requested By			Total System -Hours Operation For Client	N/L

LOST TIME			
From	To	Hours Lost	Reason (s)
		NIL	

Brief Operations Log & Remarks 0001 WAITING ON WEATHER

PERIODIC RADIO CHECKS

2400 WAITING ON WEATHER

Mobile
Operator(s) A. HOGGART

Party Chief D. RUSSELL

Project Number 1511 Date AUG 24TH 84 Vessel BASS TIDE Client Party TASMANIAN
Geophysical Company _____ Oil Company WEAVER Number DEVIL N° 1
Country AUSTRALIA Area/Prospect BASS STRAIT Radio Frequency 7860 KHZ
Stepback _____ Shot Point Interval _____

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.Ls

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	G. WARD	9.218	009	122	016	3	VERT PAIRS L.P.Ls
P. SORELL	R. ROUNDS	9.218	026	040	055	1	" " "
DRS ROCKS	D. RUSSELL	9.218	028	113	006	5	" " "

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
0700	0900	P. MUNDAY	RIG LOCATION
2000	2400	P. MUNDAY	RIG LOCATION
O/T Requested By			Total System - Hours Operation For Client
			6h

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Chief Operations Log & Remarks 0001 WAITING ON WEATHER

0700 ON IN OPERATE
0900 NET SECURED & ON 2 hourly RADIO CHECKS
1300 PULLING ANCHORS FOR DIAMOND M EPOCH
2000 ON IN OPERATE EN ROUTE FOR LOCATION

2345 OFFSET BUOY OVER
2355 READ OFFSET BUOY N=72.578 S=52.863 R=44.611 10m @ 320°
2400 LAYING BUOYS

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG 25TH 84 Vessel BASS TIDE Client TASMANIAN
 physical company WEAVER Oil Company WEAVER Party Number DEVIL N°1
 Country AUSTRALIA Area/Prospect BASS STRAIT Stepback Radio Frequency 7860 KHZ
 Shot Point Interval

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.L.

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE HUT	G. WARD	9.218	009	122	016	3	VERT PAIRS L.P.L.
PT. SORELL	R. ROUNDS	9.218	026	040	055	1	" " "
DRS ROCKS	D. RUSSELL	9.218	028	113	006	5	" " "

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
0001	2400	P. MUNDAY	RIG POSITIONING
O/T Requested By			Total System - Hours Operation For Client
			24 h

LOST TIME			
From	To	Hours Lost	Reason(s)
		Nil	

Brief Operations Log & Remarks		0001	Laying Buoys
0008	N ^o 6 Buoy OVER		
0112	READ 6	N = 73.221 S = 53.146 R = 45.580	7m @ 120°
0024	N ^o 2 Buoy OVER		
0029	READ 2	N = 72.050 S = 52.290 R = 43.519	10m @ 315°
0036	N ^o 7 Buoy OVER		
0040	READ 7	N = 73.656 S = 52.139 R = 45.320	12m @ 135°
0054	N ^o 3 OVER - ROPE TANGLED No GOOD		
0115	N ^o 3 Buoy OVER		
0120	READ 3	N = 71.546 S = 53.300 R = 43.752	15m @ 330°
0140	ANCHOR DOWN	WAITING ON DIAMOND M EPOCH	
0715	ANCHOR UP	PROCEEDING WITH RIG LOCATION	
0748	CHECK OFFSET Buoy	N = 72.554 S = 52.839 R = 44.568	10m @ 000°
0945	CK RIG	N = 72.596 S = 52.584 R = 44.416	92m @ 325°
1124	CK RIG	N = 72.629 S = 52.658 R = 44.505	87m @ 321°
1656	CK RIG	N = 72.631 S = 52.666 R = 44.525	87m @ 330°
1720	ANCHOR DOWN	WAITING ON WEATHER	
	2400	WAITING ON WEATHER	

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG 26TH 86 Vessel BASS TIDE Client Party Number TASMANIAN DEVIL N^o 1
 Company WEAVER Radio Frequency 7840 KHz
 Country AUSTRALIA Area/Prospect BASS STRAIT Stepback Shot Point Interval

N-57

SEE INSTRUCTIONS ON REVERSE

Mobile Station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM
		042	002	073	VERT PAIRS L.P.Ls

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
THE NUT	G. WARD	9.218	009	122	016	3	VERT PAIRS L.P.L.
PT SORELL	R. ROUNDS	9.218	026	040	055	1	" " "
DRS ROCKE	D. RUSSELL	9.218	028	113	006	5	" " "

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
0001	1530	P. MUNDAY	RIG LOCATION
O/T Requested By			Total System -Hours Operation For Client 15h 30m

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

Brief Operations Log & Remarks 0001 AT ANCHOR NEAR LOCATION WAITING ON WEATHER

0710 ANCHOR UP

1057 CLK RIG N = 72.592 S = 52.671 R = 44.490 82m @ 334° T

1423 CLK RIG N = 72.588 S = 52.679 R = 44.502 87m @ 336° T

1443 CLK RIG N = 72.606 S = 52.671 R = 44.507 87m @ 336° T

1513 ATTEMPT CHECK FIX FROM FRONT OF RIG

N = 72.471 S = 52.800 R = 44.418 APPROX 120M @ 66° T

1530 NET SECURED

2140 EN ROUTE FOR WELSHPOOL

2400 EN ROUTE FOR WELSHPOOL

Mobile Operator(s) A. HOGGART Party Chief D. RUSSELL

Project Number 1511 Date AUG 27TH 84 Vessel BASS TIDE Client Party Number TASMANIAN DEVIL N° 1

Geophysical company WEAVER Oil Company WEAVER Radio Frequency 7840 KHz

Country AUSTRALIA Area/Prospect BASS STRAIT Stepback Shot Point Interval

MAXIRAN DAILY OPERATIONS LOG

Mobile station	NAVCOMP	INDICATOR	INTERROGATOR	AMPLIFIER	ANTENNA SYSTEM		

BASE STATIONS							
Station Name/No.	Operator	Mob. Delay	Beacon	Control Box	Amplifier	Code	Antenna Type(s)
	G. WARD						
	R. ROUNDS						
	D. RUSSELL						

OPERATING TIME			
Time On	Time Off	Requested By	System Used For
O/T Requested By			Total System - Hours Operation For Client
			NIL

LOST TIME			
From	To	Hours Lost	Reason(s)
		NIL	

rief Operations Log & Remarks 0001 EN ROUTE FOR WELSHPOOL

0835 ALONGSIDE IN WELSHPOOL

DE RIG BASS TIDE

FLY TO TASMANIA WITH EQUIPMENT NEEDED FOR

CALIBRATION

Mobile
Operator(s) A. HOGGART Party Chief D. RUSSELL

ject
umber Date AUG 28TH 84 Vessel BASS TIDE Client
Geophysical
Company Oil
Company WEAVER Number TASMANIAN
Country AUSTRALIA Area/
Prospect BASS STRAIT Stepback Frequency 7840 KHZ
Shot Point
Interval

APPENDIX B

THE MAXIRAN RADIOPOSITIONING SYSTEM

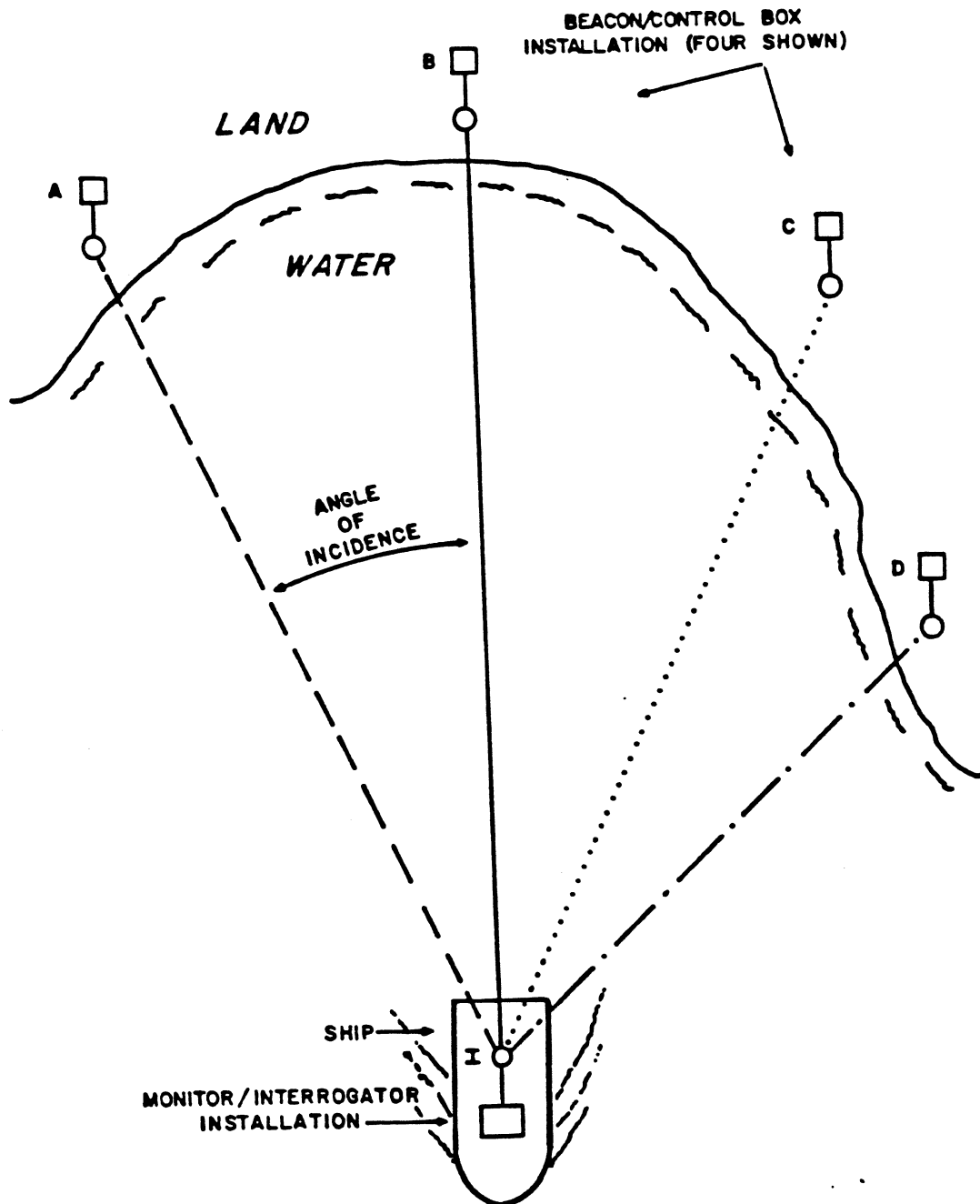
I. THE MAXIRAN RADIOPOSITIONING SYSTEM

The Maxiran Radiopositioning System is a precision electronic ranging system, capable of both manual and automatic tracking of range. It is especially useful for measuring distances across bodies of water.

The use of the Maxiran requires three or more electronic installations. For the purposes of this discussion, one of these installations is assumed to be aboard a ship (see Figure 1). This installation consists of the Maxiran Monitor and Interrogator. The other installations are located onshore. Each of these installations consist of a Maxiran Beacon and a Control Box. There are two or more of the Beacon Control Box installations situated at appropriate locations onshore.

In operation, the Monitor/Interrogator installation transmits a radio signal (containing a Beacon-Select code which addresses a selected Beacon) which is picked up by all of the Beacon/Control Box installations. Each Beacon decodes the received signal and decides whether the Beacon-Select code transmitted corresponds to that Beacon. If the Beacon-Select code is correct for a

FIGURE-1. TYPICAL MAXIRAN SYSTEM



I. THE MAXIRAN RADIOPOSITIONING SYSTEM (continued)

Beacon, it responds by transmitting a radio signal reply. The Monitor measures the amount of time elapsed between the Interrogator's transmission and the received reply sent by the Beacon. Since, for all practical purposes, radio signals travel at a known speed, the time elapsed between transmission and response is a measure of the distance the radio signal travelled. The elapsed time is converted by the Monitor into distance and then displayed. Knowing the location of the land stations and the current distance from the ship to each of them, the position of the ship can be readily calculated.

For the purposes of this discussion, let us first assume that only two Beacons are being utilized. They are the Beacons marked "A" and "B" in Figure 1. Since the distance from Beacon "A" to the Interrogator (call it distance A_1), and the distance from Beacon "B" to the Interrogator (call it distance B_1) are now known (these distances are the distances displayed on the Monitor front panel), we can use some geometry to calculate the position of the ship with reference to Beacons "A" and "B".

I. THE MAXIRAN RADIOPOSITIONING SYSTEM (continued)

As illustrated in Figure 2, the distances of A1 and B1 define two intersecting circles, one with a radius of length A1 centered about Beacon "A", the other with radius of length B1 centered about Beacon "B". The two circles intersect at two points (marked I and I' in Figure 2). Obviously, the ship can only be located at one of the points. Since point I' happens to be located on land, we can safely assume that the ship is located at Point I.

There is always some uncertainty associated with the exact measurements of the Beacons. This is illustrated in Figure 3. Figure 3 illustrates an enlarged view of the intersection of the circles shown in Figure 2. If the tolerance of the measurements of Beacon "B" is plus-or-minus 5 meters, then the two solid lines in Figure 3 are 10 meters apart. The tolerance of the measurements of Beacon "A" should be the same as that of Beacon "B", but this is not always the case due to differences in geographical location. Under the above conditions, we only know that the ship is located somewhere in the shaded area of Figure 3.

I. THE MAXIRAN RADIOPOSITIONING SYSTEM (continued)

For the purposes of the following discussion, it is assumed that there are now three Beacons utilized. Now three circles are defined, instead of the two from the discussion above. The third distance, from Beacon "C" to the Interrogator (call it distance C_1), defines a circle of radius length C_1 centered about Beacon "C". The new situation is illustrated in Figure 4. Notice that with the three circles, there is only one location where all three circles can intersect. This eliminates the ambiguity associated with using only two Beacons. Now there is no I' to worry about. An additional advantage of using three Beacons is illustrated in Figure 5. Now the area of uncertainty has been reduced even though the tolerance of Beacon "C"'s measurement isn't any better than that of the other Beacons.

As the ship moves along, one or more of the Beacons may become unusable for various reasons; out of range, too small or too great an operating angle, etc. If additional Beacons are situated on shore, they may be interrogated, as desired, to greatly expand the range and usability of the system.

I. THE MAXIRAN RADIOPOSITIONING SYSTEM (continued)

As many as three different Beacons may be selected at one time by the proper setting of the Monitor's Beacon-Select switches.