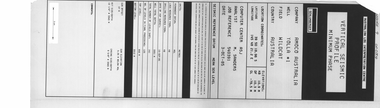
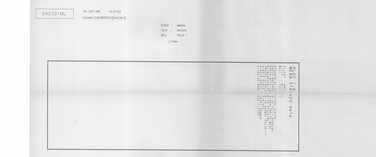
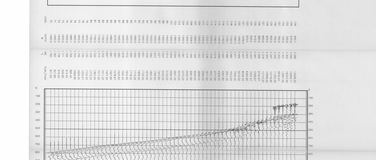


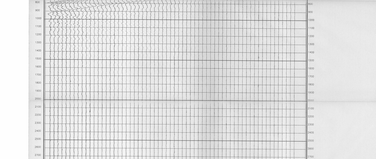
Schlumberger

COMPANY AMOCO AUSTRALIA PETROLEUM CO.
FIELD WILDCAT
WELL YOLLA #1
COUNTRY AUSTRALIA

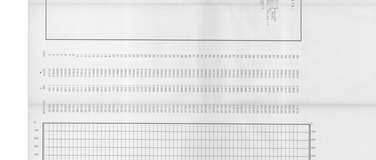

VERTICAL SEISMIC PROFILING
SURVEY
WEST KOOTENAY
WELL
VSP-1
LOCATION
KOOTENAY
COMPANY
WESTCOAST ENERGY INC.
DATE RECORDED
JUNE 30, 1990
DATE PROCESSED
JULY 30, 1990
COMPUTER CENTRE
CALGARY
PROCESSING
STANDARD
DATUM
GROUND LEVEL
ELEVATION
1000 m
REFERENCE
GROUND LEVEL
RECEIVER DEPTH
1000 m
SOURCE DEPTH
1 m
SOURCE OFFSET
0 m
RECEIVER INTERVAL
20m
NO. OF LEVELS
50
SOURCE
VIBROSEIS
SWEEP
10-60 Hz
SWEEP LENGTH
12 s
RECORD LENGTH
2 s
SAMPLE RATE
2 ms
FILTER
OFF
GAIN
OFF
NOTES
1. ALL DEPTHS ARE MEASURED FROM GROUND LEVEL
2. VELOCITY SURVEY DATA FROM WESTCOAST ENERGY INC. WELL 10-36-1-1W6
3. SEISMIC DATA ACQUIRED BY GEOPHYSICAL SERVICE INTERNATIONAL
4. PROCESSING PERFORMED BY GEOPHYSICAL SERVICE INTERNATIONAL
5. SEISMIC DATUM 1000 m ABOVE SEA LEVEL
6. VELOCITY SURVEY DATUM 1000 m ABOVE SEA LEVEL

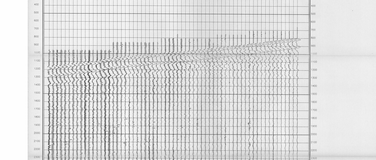




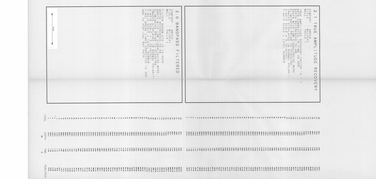


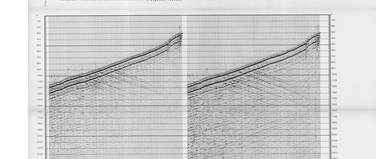


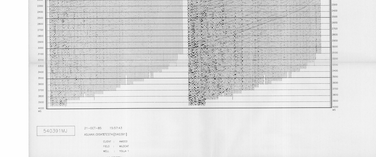




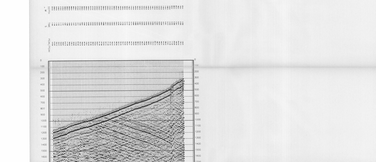


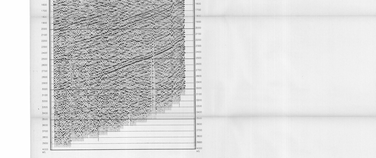




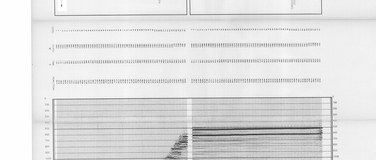


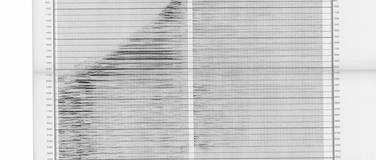






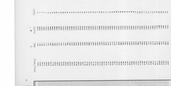






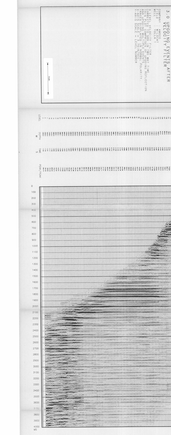




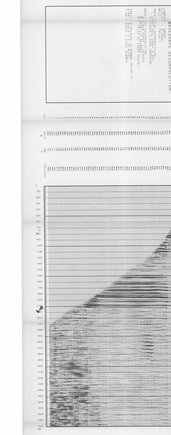




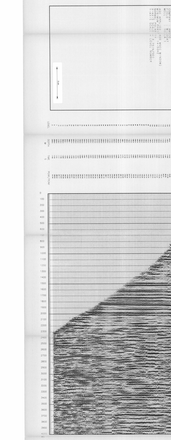




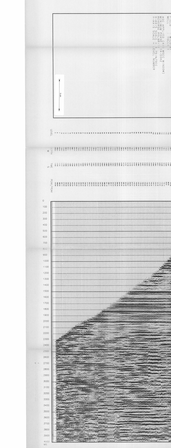
















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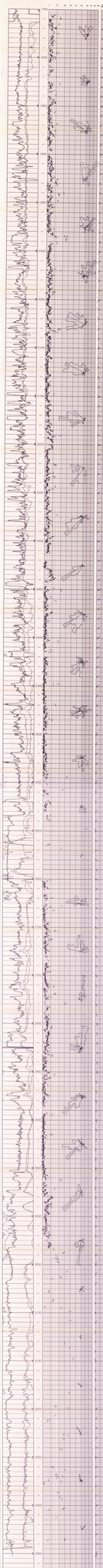


ARROW QUALITY RANGES	TOTAL	OPEN	DARK
PARTICIPATION:	0-8	1-8	7-8
LIMENESS:	0.-100.	10.-39.9	40.-100.
CLUSTER-EXPANSION:	0.-10-100	10-100	10-100
COMBINED QUALITY:	9.4-1	4-1	4-1

NO POSTING

MAXIMUM DIP MAGNITUDE = 70 DEGREES

CORRELATION LENGTH = 1 METER

PERCENTAGE STEP = 50

SEARCH ANGLE = 35 DEGREES

SEARCH ANGLE INCREASE = 2

BASE PLANE FOR SEARCH ANGLE IS PERPENDICULAR TO THE BOREHOLE

SCALE = 1/200

CORRELATION CURVE DIP ANGLE AND DIRECTION

MINIMUM DIP MAGNITUDE = 10 DEGREES

MAXIMUM DIP MAGNITUDE = 70 DEGREES

CORRELATION LENGTH = 4 METER

PERCENTAGE STEP = 50

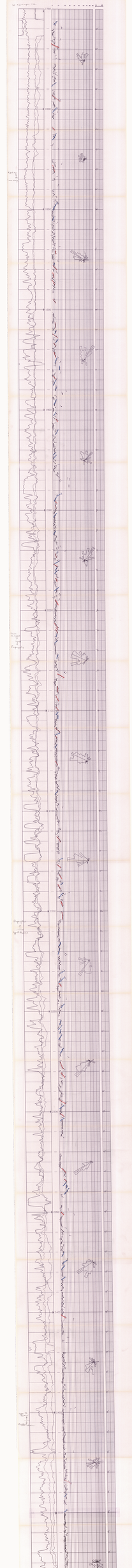
SEARCH ANGLE = 30 DEGREES

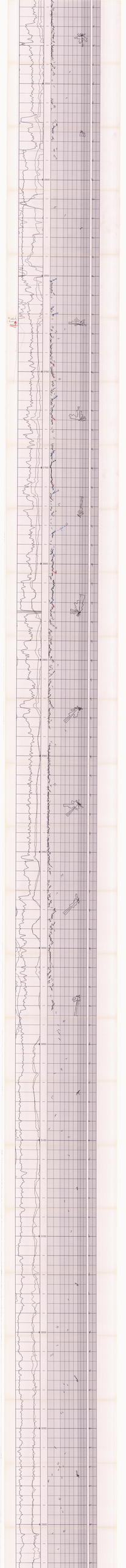
SEARCH ANGLE INCREASE = 2

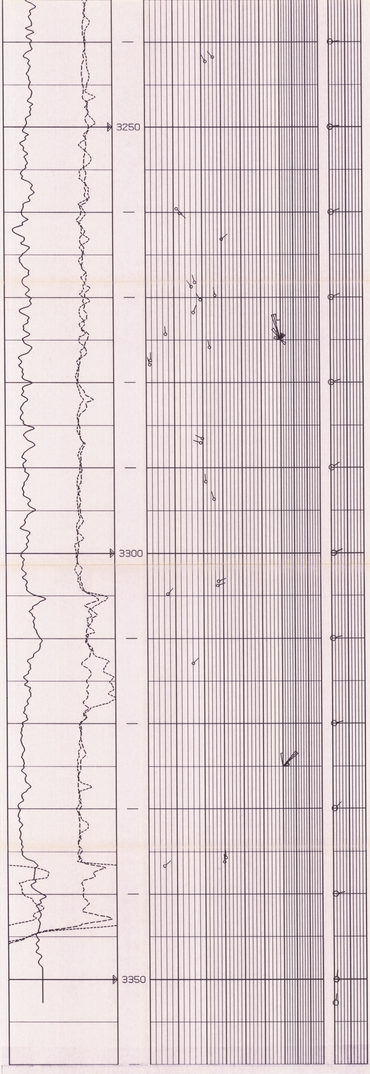
BASE PLANE FOR SEARCH ANGLE IS PERPENDICULAR TO THE BOREHOLE

SCALE = 1:200

CORRELATION CURVE — DIP ANGLE AND DIRECTION



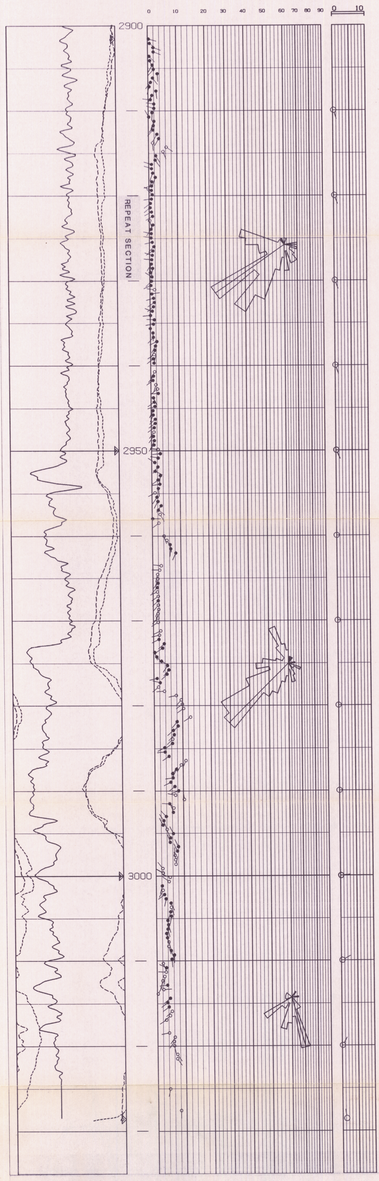




SCALE : 1/200 5 cm

ZONE FROM 2899 M TO 3030 M

CORRELATION CURVE DEPTHS DIP ANGLE AND DIRECTION BOREHOLE DRIFT



Schlumberger

HDT

304231

FINAL WELL REPORT

YOLLA NO 1

JANUARY, 1986

C.D. CORNELL

G.A. COWAN

J.G. RANKIN

R.J. WALLA

C.A. WAGNER

304232

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ATTACHMENTS

1. Form 46
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4. Location Map
5. Short Hook-Up Anchor Pattern Diagram
6. Long Hook-Up Anchor Pattern Diagram
7. Wind Directional Diagram
8. Sheared Pipe Fishing Assembly
9. Solids Removal Schematic
10. Significant Features of the Robert F. Bauer Drillship

I INTRODUCTION

Yolla No. 1 was an exploratory well drilled in the T/14P Permit in the Bass Strait of Australia. The primary objectives of this well were to evaluate the early Eocene through late Cretaceous sands of the Eastern View Coal Measures expected below approximately 5900'. The total depth was projected to be 14,000' MSL.

The Early Eocene was encountered at 7251', and the Late Cretaceous was not reached by total depth which was 10981'. Two sands within the Eastern View Coal Measures formation were tested and found to contain hydrocarbons. These sands were tested from 9216' - 9267', and 5948' - 6016'. They produced 15.1 MMCFD gas (11% CO2) and 580 BCPD (30/64" Choke), and 11.8 MMCFD gas, 891.9 BCPD, and 300 BWPD, respectively.

Yolla No. 1 was temporarily plugged and abandoned after 129 days of continuous operations for a total estimated well cost of $14.8 MM.

II FINAL WELL REPORT DATA SHEET

COUNTRY:	Bass Strait, Australia
WELL NAME:	Yolla No. 1
LOCATION:	Lat.: 39° 50' 18.89" South Long.: 145° 48' 20.55" East
SP LOCATION:	S.P. 197 on line HB73A-169
WATER DEPTH:	Approximately 259 ft.
ROTARY KELLY BUSHING:	Approximately 36.5 ft. above MSL
TOTAL DEPTH:	10,981 ft. RKB
TOTAL OPERATING TIME:	129 Days
DRILLING CONTRACTOR/RIG:	Global Marine / Glomar "Robert F. Bauer" (Drillship)
ARRIVE ON LOCATION:	4 June, 1985 at 0400 hours
SPUD DATE:	8 June, 1985 at 0800 hours
RIG RELEASE DATE:	11 October, 1985 at 0400 hours
DAYS ON WELL:	130 days
TOTAL WELL COST:	US $14,784,668
STATUS OF WELL:	Temporarily Plug and Abandon
WELLHEAD SYSTEM:	Cameron 18-3/4" WS-I, 10,000 psi
CASING SETTING DEPTHS:	30" - 619.41' RKB 20" - 1,309.47' RKB 13-3/8" - 5,748.10' RKB 9-5/8" - 10,957.24' RKB

WELLHEAD RECALL BOUY SYSTEM

DATE SET:	9 October, 1985
FREQUENCY:	12 Hertz

"Helle Recall Beacon" CODE 054

Set 9 Meters at 320° from wellhead

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III CONCLUSIONS

1. When required to operate drillships in harsh enviroments the method of use needs to be totally engineered with respect to weather window selection, vessel reaction simulation and mooring analysis simulation.

2. The combination chain/wire mooring system proved to be too "Stiff" in terms of anchor tension during moderate sea conditions when only short lengths (500') of wire were deployed.

3. The holding power of piggy-back anchors is too strong for a stiff mooring system. Excessive tensions are not allowed to dissipate through anchor slippage.

4. A manned diving bell without ROV support resulted in delays when reconnecting the LMRP since the risk to crew when entering the water in moderate sea conditions was judged to be excessive.

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IV RECOMMENDATIONS

1. Maximize drilling time with a drillship during summer months in the Bass Strait to minimize weather down time.

2. Anchor the vessel with a "Long Hook-up" of at least 5000' of wire out to allow for vessel movement inside an elastic mooring system.

3. Do not run piggy-back anchors until the vessel and mooring system demonstrate a need for the extra holding power.

4. Rig up a camera guideline system to allow a subsea camera to monitor BOP/LMRP landing operations and casing stab in procedures. The guidelines can also assist in providing a manipulator holding area for the ARMS-5 Bell to minimize battery usage due to using positioning thrusters while on bottom.

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V

SUMMARY SECTION

WELL SUMMARY BY INTERVAL

36" HOLE AND 30" CASING

Yolla No. 1 was spudded 8 June 1985, at 0800 hours. The 36" hole was drilled in 5-1/2 hours to 645' RKB without incident. Seawater with gel sweeps were used as the drilling fluid, and cuttings were circulated to the ocean floor.

Six joints of 30", 1" wall, X-56, Range 3 casing with NS-60 connectors, were run with a sting-in float shoe. The string was landed with a 30" low pressure Cameron guidelineless wellhead the shoe was landed at 621' RKB.

The 30" string was cemented with 2000 sx 'G' neat cement. The slurry volume was 2300 cuft, yield-1.15 cuft/sx, 15.9 ppg, and 5 gal/sx seawater. Cement returns were not monitored due to bad weather. Cement was noted on subsequent seabed inspection.

26" HOLE AND 20" CASING

The 26" hole was drilled from 621' to 1350'.

After running the pin connector, riser, slip joint, function testing the diverter, WOW, and repairing anchors for 174 hours, the 26" hole was drilled in 30 hours, with an additional 27 hours spent waiting on weather, or weather related repairs/incidences. A 17-1/2" pilot hole was drilled to 1350', then opened with a 26" bit to the same depth.

Twenty four joints of 20" casing were run and landed at 1309' with an 18-3/4" Cameron guidelineless wellhead housing. The shoe and bottom two joints were 94 ppf, X-56, followed by ten joints of 129 ppf, X-56 casing. The remaining fourteen joints consisted of 94 ppf, X-56 casing (94 ppf casing from surplus stock). The joints were connected with Drill-Quip S-60 connectors, and were all Range 3.

The 20" string was cemented by the inner string method with a lead slurry of 1400 sx 'G' with 2.5% Bentonite BWOC, and 1% CaCl2 BWOW with 10.8 gal/sx freshwater. The 2720 cuft lead slurry weighed 12.8 ppg, with a 1.94 cuft/sx yield. The lead slurry was followed with a 500 sx tail slurry of 'G ' neat at 15.8 ppg, 5.0 gal/sx freshwater, at 1.15 cuft/sx. Cement returns were observed at the seafloor by the OMB-4 (Arms-5) diving bell. The wellhead was washed following cementing.

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17-1/2" HOLE AND 13-3/8" CASING

The 17-1/2" hole was drilled from the 20" casing shoe at 1309' to 5769', after successfully performing a CCCT to 12.1 ppg EMW, and an FCCT to 12.5 ppg EMW (not taken to leak off). Actual drilling time consisted of 149 hours, whereas 156 hours were spent waiting on weather.

The mud consisted of a seawater/gel, lightly dispersed system with solids control equipment run continuously. No hole problems were encountered while drilling the 17-1/2" hole.

At TD, a multishot survey was run, and the hole logged with a DLL-GR-SP-Cal.

Twenty-three joints of 13-3/8", 72 lb/ft N-80 buttress casing, followed by 117 joints 68 lb/ft N-80 buttress casing were run and landed at 5748.5' with no difficulities. The 13-3/8" casing was landed using a Cameron WS-I 13-3/8" casing hanger. The 13-3/8" string was then cemented with a SSR single stage job consisting of a 2200 sx 'G' lead slurry with 2.5% Bentonite BWOC. Slurry weight was 12.8 ppg, yield - 1.94 cuft/sx, 10.8 gal/sx freshwater, with 3.8 gals HR-6L per 10 bbls mix water. This was followed by 500 sx 'G' at 15.8 ppg, 1.15 cuft/sx, 5.0 gal/sx freshwater with 5.5 gals HR-6L per 10 bbls mix water. The slurry was displaced with mud using the rig pumps and full returns were observed throughout. The cement top is estimated at ± 1109'.

12-1/4" HOLE AND 9-5/8" CASING

The 12-1/4" hole was drilled from 5749' to 10,981'. After successfully performing a CCCT to 13.6 ppg EMW, and an FCCT to 13.6 ppg EMW (leakoff was not reached) at the 13-3/8" shoe, TD was reached in 41 days. Actual drilling time consisted of 285.5 hours, while 604.5 hours were spent WOW. No hole problems were encountered due to prolonged exposure while WOW other than light fill.

The mud consisted of a freshwater/gel lightly dispersed system, with solids control equipment run continuously. While drilling the 12-1/4" hole a tight spot/ledge existed at approximately 8526', and remained for the duration of the hole. Beginning at approximately 9000', carbonate contamination of the mud was encountered. This was a result of formation CO2. This condition was remedied with lime treatments.

At 10,974', a multishot survey was run, and a 7' core was taken. The 12-1/4" hole had previously been cored from 6030'-6063'.

The 12-1/4" hole was logged due to oil stained cuttings and also due to core samples taken from 6513' to 5749'. The logs ran were: ISF/BHC/GR/SP/MSFL/CAL and LDT-NT-GR-Cal.

At TD, the hole was logged with the following logging suite: (1) ISF/BHC/MSFL/GR/SP, (2) EPT/LDL/CNL/NGT/CAL, (3) HDT-GR, (4) RFT-GR.

Two hundred and sixteen joints of 9-5/8", 47 ppf, N-80 buttress casing were run, prior to hanging off and waiting on weather. After the weather subsided, fifty-six more joints were run, bringing the total to 272 joints. Eight additional joints made up the landing string. The shoe was landed at 10,957' with no difficulties using a Cameron WS-I 9-5/8" casing hanger.

The 9-5/8" string was cemented using a full bore Halliburton Multiple Stage Cementer (DV). The first stage slurry consisted of a 10 bbl SAM-5 spacer followed by 1975 sx 'G' w/0.5% Halad-22A BWOC. Density was 15.8 ppg, yield - 1.15 cuft/sx, 5.0 gal/sx freshwater with 9.6 gal/10 bbl CFR-2, and 6.9 gal/10 bbl HR-13L. A total of 235 barrels of mix water were used, and the slurry volume was 2271 cuft. The first stage was displaced with 15 barrels freshwater, and 780 barrels of mud, using the rig pumps. The second stage consisted of 10 bbl SAM-5 spacer, 436 sx 'G' w/ 0.5% Halad 22-A BWOC, density was 15.8 ppg, yield - 1.15 cuft/sx, 5.0 gal/sx freshwater with 9.6 gal/10 bbl CFR-2, and 6.9 gal/10 bbl HR-13L. A total of 52 barrels of mix water were used and the slurry volume was 501 CuFt. The second stage was displaced with 15 bbls freshwater followed by 470 bbls mud using the rig pumps.

After casing and cementing the 12-1/4" hole, the seal assembly would not test successfully. It was discovered that the 9-5/8" casing hanger was 40" high. After pulling the seal assembly, the casing, wellhead, BOP, and riser connection were tested to 4000 psi successfully, and final logging and DST operations commenced. Two CBL logs were run, one with 700 psi applied to 9-5/8" casing annulus, indicating that an overall satisfactory cement job had been performed.

The 9-5/8" casing hanger was high due to picking up hanger when returns were lost during cementing and packing off at the casing hanger was suspected as the cause. The 4000 psi pressure test gave an EMW of 23 ppg at the 13-3/8" shoe which indicated good cement in the 13-3/8" x 9-5/8" annulus.

TESTING

In preparation for DST No. 1, the interval 9222'-9267' was perforated in 3 runs using 4" casing guns (BH charges at 4 spf and 90° phasing). The interval 9216'-9233' missfired resulting in one extra run. The test tools and string were run in the hole. After making up the SSTT, the crossover 4-1/2" LTC thread between the fluted hanger and test tree body parted, and the test string was lost downhole.

Several fishing runs were made using an 8-1/8" overshot and grapple, a spear with a 3" grapple, a die collar, and a taper tap in succession, with no success the riser was then displaced with seawater to view the fish using a subsea TV. A 10' drill pipe pup joint was bent, and a spear and grapple run. The die collar which had been modified was then run to retrieve the fish. All DST tools were subsequently retrieved and laid down and new tools picked up. Both hydraulic by-pass cases were split and all clocks and gauges were damaged.

A scraper trip and then a dummy run with the SSTT were made. The first string of HOWCO tools were broken down for parts, and a new string of tools dressed for DST No 1A.

The tool string was run in the hole, and surface equipment rigged up. After pressure testing, a cushion of 149 bbls of diesel was pumped, yielding an 1050 psi underbalance. The lubricator and SRO gauges were rigged up. DST No. 1A established that test interval #1, 9222'-9267' would flow a maximum of 15.1 MMCFD gas with a minimum of 11% C02 and 580 BCPD (50.3° API) through a 30/64" choke.

After pulling the test string, a gauge ring and junk basket were run prior to setting an EZSV at 9206'. An injection rate was established, and 100 sxs of cement with 25 gal/10 bbl CFR-2L, 0.8% Halad - 22A, and 7.5 gal / 10 bbl HR-13L were mixed and pumped to squeeze the perforations.

A 4" casing gun set at 4 spf and 360° phasing was run and shot, 6054' - 6056', followed by an EZSV set at 6037'. A block squeeze of 100 sxs of cement, blended as before, was performed. After WOC, the cement and EZSV were drilled out. A gauge ring and junk basket were run to ensure that the hole was prepared for the next DST.

The DST # 2 test string was run, and a 91 bbl diesel cushion placed in the string for an underbalance condition of 725 psi. This test indicated maximum flowrates of 2.42 MMCFD and 1565 BWPD through a 32/64" choke.

A CBL was run, and two dry tests of the squeeze perfs were attempted. The isolated perforations were observed to flow. An EZSV was set at 5965', and 100 sx of cement, blended as before was mixed and squeezed into the perfs. After drilling cement and the EZSV, a dry test using 800 psi drawdown was performed. The cement held for 15 minutes before flow commenced. An EZSV was set at 6334', and a balanced plug of 215 sx of cement, blended as before was set above the packer, and a bradenhead squeeze performed. After drilling cement to 6223', an injection rate was again established. A balanced plug of 200 sx of cement with 1% CFR-2, 20 gal FDP-C351, and 8.5 gal/10 bbl HR-13L was set above the previous cement plug, and a bradenhead squeeze performed. The cement was the drilled to 6192' and a dry test successfully performed.

After running the DST # 2A test string in the hole, a leak in the upper slip joint was discovered. While out of the hole, a positive test of 2000 psi was performed on the squeezed perfs. The string was run with a water cushion (800 psi draw down).

The interval 6014.4' - 6016.4' (DST # 2A) was perforated with 2-1/8" Enerjets, 4 SPF, 0°. A stabilized flowrate of 1.00 MMCFD gas and 300 BOPD (45.5° API) through a 16/64" choke resulted. The test continued with additional perforations being fired from 5948' to 6014'. A maximum flowrate of 11.8 MMCFD gas and 891.9 BCPD of (50.6° API) was produced through an 80/64" choke.

ABANDONMENT

An EZSV was set at 5923', and 200 sx of cement with 1% CFR-2, 20 gal/10 bbl Halad-22AL, and 0.3% HR-12 were mixed and squeezed into the DST # 2A perforations. After circulating at 5850', a balanced plug of 100 sxs of neat cement was placed above the cement on the packer.

A 1-11/16" scallop gun set at 4 spf and 0° phase was run and the interval perforated from 4009'- 4001'. An EZSV was set at 3954', and circulation of the 9-5/8" x 13-3/8" annulus was attempted to test for a cement bond.

A 1-11/16" scallop gun set at 4 spf and 0° phase was then run and the interval perforated from 2985' - 2987'. After setting an EZSV at 2930', circulation of the 9-5/8" x 13-3/8" annulus was established. A tracer pumped during clean-up indicated an annular volume 85 bbl less than expected. After repairing the RCM, 265 sxs of neat cement were mixed and pumped, placing 40 bbl of cement in the annulus.

The hole was then displaced with seawater, and the 9-5/8" casing cut at 329'. After verifing the 13-3/8" seal assembly was properly set, the riser and BOP stack were pulled. A total of 4 bbls of corrosion inhibitor (COAT B-1400) was pumped, and a corrosion cap placed on the wellhead. A location pinger and buoy were then placed at the wellhead.

A final survey of the wellhead and seabed was conducted by the divers. Anchors were pulled and the ship prepared for sailing.

The 'Robert F. Bauer' was released at 0400 hours, 11 October, 1985. (see attachment No 1)

NOTE

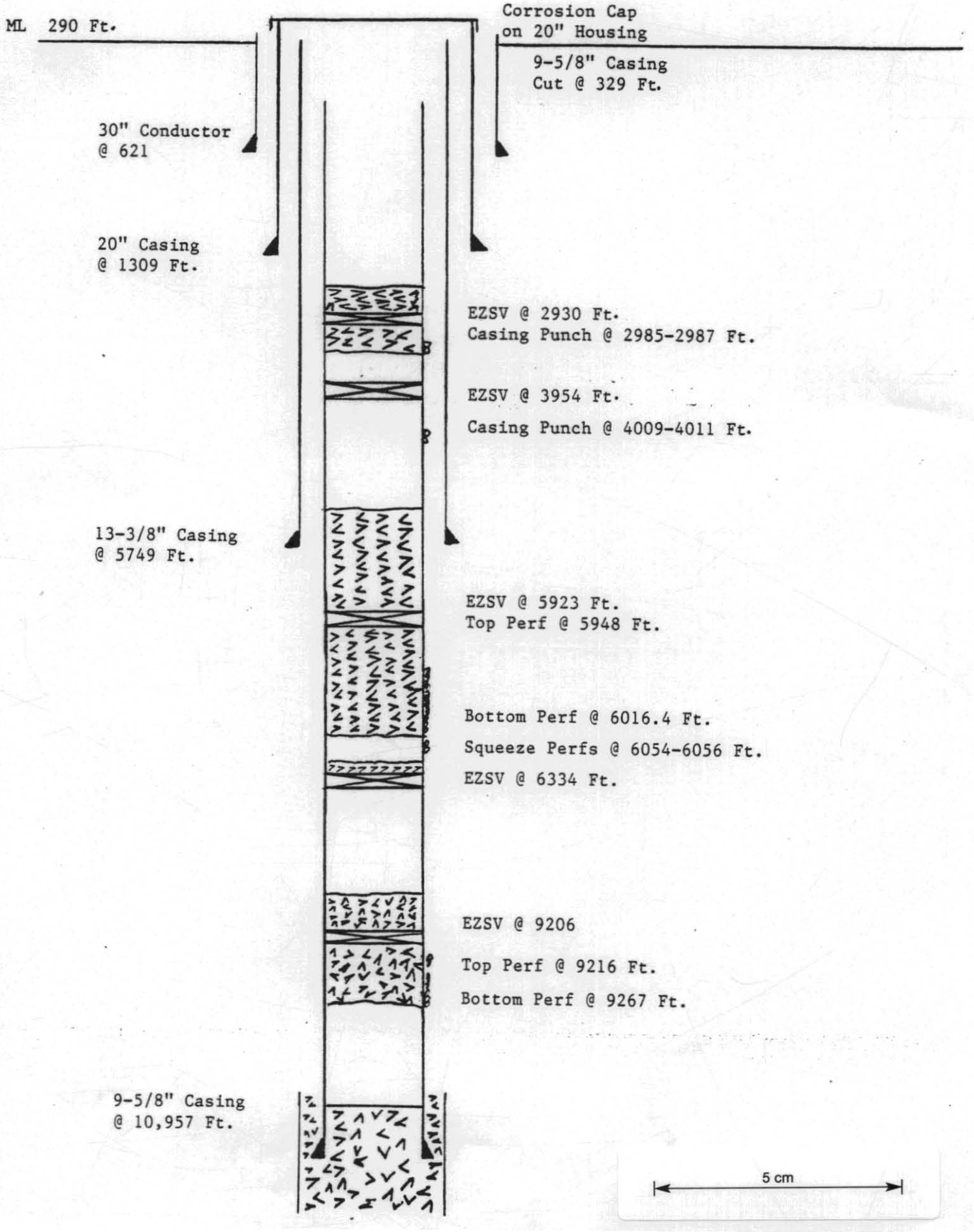
All EZSV'S run had a mild steel guide attached to the junk pusher with steel banding material.

YOLLA NO. 1.

ABANDONMENT DIAGRAM

304243

All Depths
RKB



304244

Estimated Well Cost 18-Oct-85

Well: Yolla #1 Exchange Rate: 0.7000

	INTANGIBLES	Daily US $	Cost A$	Post & Pre-well US$	Fixed Cost US$	Est. US$ 130 Day Well
1	Rig	50,000		191,979		5,165,312
2	Work Boats		15,270	135,340		1,524,910
3	Standby Boat		3,166	86,925		375,031
4	Helicopter Base Charge		4,521	6,060		417,471
5	E-Log Base Charge	4,650		61,800		666,300
6	Mud Logging Base Charge	1,505	94			204,204
7	Mud Laboratory	100				12,800
8	Centrifuge	275				35,750
9	DST - Otis	1,038		26,821		161,761
10	DST - Halliburton	134		519		17,939
11	Diving	1,000	3,062	64,302		472,944
12	Rental Tools	1,285	2,276	120,294		494,460
13	Mud Engineer	283	33			39,793
14	Mud Consultant	315				40,950
15	Cementer & Pressure testing	477				62,010
16	Weather Forecast		220			20,020
17	Secondary Anchors	739		14,780		110,850
18	Communications	1,000	250			152,750
19	Well Site Supervision	1,450	80			195,780
20	Wharfage, Labour & Assoc.	150	555	8,455		78,460
21	Directional Surveys				20,000	20,000
22	Rig Mob/Demob			600,000		600,000
23	Miscellaneous Mob/Demob			113,256		113,256
24	Location Survey		1,035	73,460		155,329
25	Rig Positioning Survey			64,240		64,240
26	Helicopter Hourly Charges		1,384		10,000	135,944
27	E-Log Services				400,000	400,000
28	DST Services				275,000	275,000
29	Diving Depth Charge		200			18,200
30	Rig Fuel		4,550			414,050
31	Heli Fuel		349	1,792		33,551
32	Work Boat Fuel		1,082	22,038		120,500
33	Drill Water				2,000	2,000
34	Bits				200,000	200,000
35	Mud Material				183,866	183,866
36	Cement & Additives				75,000	75,000
37	Cementing Services				20,000	20,000
38	Coring				45,000	45,000
39	Casing Accessories				53,064	53,064
40	Miscellaneous	5,000				650,000
	TOTAL INTANGIBLES	69,401	38,127	1,592,061	1,283,930	14,128,495
	TANGIBLES					
41	Wellhead				200,000	200,000
42	Casing				456,173	456,173
	TOTAL TANGIBLES				656,173	656,173
	ESTIMATED TOTAL WELL COST			1,592,061	1,940,103	14,784,668

304245

VI DISCUSSION

NON SCHEDULED EVENTS

RUNNING ANCHORS

Upon the recommendation from Global Marine (Houston), a "Short Hook-up" of 300'-500' of wire out was selected for the R. F. Bauer as the optimum length. This was to minimise transition failures between the 1800' of chain and 300'-500' of wire. The R.F.Bauer approached the location, which was marked with a Geomex bouy spread and positioning was done with transponders and satellite passes, at 0400 hours on 4 June 1985, and dropped No. 8 Anchor as the ships anchor. The workboats were then prepared to run anchors by receiving anchors and buoys from the rig.

Anchor No. 1 was the first to be run @ 0950 hours on 4th June, 1985.

After No. 8 was recovered numbers 5, 4, and 8, were subsequently run @ 1418 hrs, 1045 hrs, and 2148 hrs, respectively, before the mandatory Union 8-hour rest period was enforced.

The next 25-1/2 hours were spent W.O.W., before the boats could resume anchor handling. The following anchor Nos. 8, 2, 4, 6, 7, and 3 were run @ 0900, 1137, 1214, 1622, 2135, and 2345 hours, respectively. Anchors No. 8 and No. 4 were reset due to improper wire out once the ship was positioned. All anchors were subsequently piggy-backed by 0007 hours on 7th June 1985, except for Nos. 2 and 6.

Due to improper wire out figures, Anchors Nos. 8, 2, and 4 were reset and piggy-backed @ 1147, 1525, and 1540 hours, respectively, on 7th June 1985. No. 8 anchor was still set with the improper amount of wire out and the decision was made to spud the well and reset the anchor later. Maximum heading change @ 15° with anchor spread. (see attachment No 3)

RECOMMENDATIONS

Upon reviewing the anchoring procedures on the R.F. Bauer, some serious shortcomings were pointed out that were the result of poor understanding of the Captain. It is recommended that detail anchoring procedures be prepared by rig personnel to ensure a satisfactory procedure is followed.

An Amoco computer simulated anchoring program should be employed to recommend proper anchor chain/wire out measurements. This would alleviate dependence on Contractors to supply such data to Amoco.

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MOORING LINE/CHAIN FAILURES

On 11 June 1985, @ 1440 hours, anchor Nos. 1 and 2 parted the mooring line and anchor chain, respectively. After W.O.W. for 79-1/2 hours, both anchors were grappled for and run with their piggy-backs and subsequently re-run due to slipping in 56-1/2 hours. A total of 10 hours was spent flaking out the chain on the workboat after it was grappled for and retrieved.

Anchor No. 8 was re-set due to an improper line out figure on 21 June 1985. No time was lost to the operation due to re-setting the anchor.

Anchor No. 3. parted in the mooring wire @ 0810 hours on 14 July 1985. A total of 82-1/2 hours was spent W.O.W. and 18 hours recovering the anchor and chain and the subsequent re-running of the primary anchor and piggy-back.

Anchor No. 2. parted the anchor chain @ 2220 hours on 20 July, 1985.
A total of 57-1/2 hours was spent W.O.W. and 9 hours to recover the anchors and remaining chain and to reset the primary and piggy-back anchors.

Anchor No. 7 parted the master link between the mooring wire and anchor chain @ 2250 hours on 16 August 1985 forcing an emergency disconnect. A total of 51-1/2 hours was spent W.O.W. and 14-1/2 hours to recover the anchor and chain and to reset the primary anchor. At this time, all piggy-backs had been recovered to reduce the holding power exhibited by the piggy-back anchors. (See detailed report Page 16)

FAILURE OF # 7 ANCHOR AND EMERGENCY DISCONNECT

On August 16, 1985 at 0730 hours, operations were undertaken to POOH to hang off due to weather. The rig waited on weather for 5-1/2 hours. The worst was forecast at 1400 hours, 16 August 1985. This consisted of 30/42 knt winds at 120°, with 7 ft swells from 090°. Vessel heading was 238°.

Actual weather at 1400 hours was 5/10 knts @ 100°, 7 ft swells from 120°, Roll-3-1/2° Pitch-3° Heave-4 ft.

The worst conditions occurred from 0200-1200 hrs 17 August 1985, with winds ranging from 28 knts to 35 knts, at 124° to 110°, respectively. Swells were from 090° to 120° at heights ranging from 4' and building to 7-8'. Roll-4°, Pitch-3°, Heave-4ft.

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In light of both the improving weather conditions and forecast, the decision was made to resume operations. This occurred at 1700 hours. It should be noted that at 1630 hours, because the weather was rougher than forecast, Oceanroutes was contacted. They indicated mild weather to continue - a few southerly gusts, but tending to subside.

After retrieving the "hang"-off tool and beginning to RIH, the weather began to deteriorate. With the bit at 9137', the decision was made to POH and hang off. This occurred at 2230 hours.

The weather continued to deteriorate. At 2200 hours, the wind was 36/40 knts @ 162°, swells 6 ft @ 180°. Roll-5°, Pitch-5°, Heave-3-1/2 ft. It should be noted that the weather was blowing out of the South and Southeast, (ie., directly on the port beam). This was approximately 180° opposite than predominant weather for June and July. Waves were breaking over the port side of the vessel, with occasional crests sweeping the deck. The ships' crew were monitoring mooring tensions. At this time (2155 hours) Oceanroutes was contacted a second time. They now indicated a low pressure system building over Wilson's Promontory moving off to the ESE, however, they indicated the weather should not worsen and would probably moderate soon. The highest mooring tensions observed at this time were 272 kips on digital readout and 150 kips at the winch for the #7 anchor. Thirty minutes later, at 2230 hours, the decision was made to POOH and hang off. At 2238 hours, the #7 anchor line failed (it failed with approximately 250 kips tension).

At 2252 hours, with the bit at 8973', the drill string was hung off on the middle pipe rams and sheared. The LMRP was disconnected at 2259 hours, 16 August 1985.

A total of 25' of sheared drillpipe was recovered. The recovery of the #7 mooring line indicated the kinter link had failed. The recovered half of the kinter link showed signs of cracking (old rust) along the cross sectional area that failed.

The fish was recovered and operations resumed @ 1530 hours on 20 August 1985. A total of 88-1/2 hours were lost.

RE-ANCHORING

The decision was made on 5 September, 1985 to re-anchor the rig with a less rigid anchor pattern as recommended by Hoffman Maritime. At 2200 hours the LMRP was unlatched and the anchors were re-run with 1800' of chain and 5200' of wire out. The LMRP was relatched and diverter and flowlines installed @ 1700 hours on 7 September, 1985. The total time for re-anchoring was 43 hours. A maximum heading change of 30° was possible with the revised anchor spread. (see attachment No 4)

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CONCLUSIONS & RECOMMENDATIONS

1. The failure of the kinter link was gradual, ie, it had been cracked for a period of time, as indicated by the old rust along the wall of the failure. Under the given conditions, the crack grew until failure occurred. This is also borne out by the fact that the link failed at only 250 kips, whereas past mooring line failures occurred at much higher tensions.

2. A special sheared drillpipe overshot/mill should be available for any future operations associated with a drillship and heavy weather.

FISHING OPERATIONS

1. An emergency disconnect, due to a broken anchor chain from heavy weather, forced a fishing operation for the sheared drillpipe which was hung off on the pipe rams. A total of 88-1/2 hours were lost from a combination of WOW, re-running the No. 7 anchor, and milling over and retrieving the fish in the BOP. (See attachment No 2)

2. While running the DST No. 1 test string, the fluted hanger 4-1/2" LTC threaded crossover stripped out of the subsea tree lower body and landed in the wellhead. The subsequent fishing operation required 105-1/2 hours to retrieve and test the string, scrape casing, and re-run the test string.

   Probable cause of failure is due to improper subsea tree inspection.

SUMMARY DAILY DRILLING REPORTS

DAY	JUNE	DESCRIPTION
0	4	Drop No. 8 Anchor.
0	5	W.O.W., secure TGB, preparing to finish anchoring, tested stack.
0	6	W.O.W. to work anchors.
0	7	Work and run anchors.
0	8	P/U BHA.
1	9	Spud well at 0800 hrs June 8, 1985. Drlg to 654'. Survey. Short trip to ML. POH. Run 30". Cmt 30" w/2000 sx 'G'. Shoe depth - 621'.
2	10	POH w/stinger. WOW to jump divers.
3	11	WOW,jumped divers. 30" wellhead landed O.K. R/U to run riser.
4	12	Running pin conn, P/U slip jt, R/U to run subsea camera, WOW. No. 1 Anchor wire parted along with No. 2 Anchor chain.L/D riser, pin conn, and secure rig, WOW.
5	13	WOW to reset No. 1 and No. 2 anchor. Grappling for chain.
6	14	Repairing No. 1 wire and No. 2 chain. WOW to reset No. 1 and No. 2 anchors.
7	15	WOW, Run No. 2 anchor.
8	16	No. 1 anchor on bottom, tensioning Anchors 1 and 2. No. 2 slipping. WOW.
9	17	WOW. Re-run anchors 1 and 2.
10	18	Test anchors 1 and 2 to 300 kips. Run pin conn, dress slip jnt N/U diverter, R/U floor and RIH. Function test diverter. Tag cmt @ 600' drill out shoe at 621'. Clean out rat hole to 645'. Drlg 17-1/2" hole to 953'.
11	19	Drlg to 1350. Pump pill. Survey and POH. Recover survey. Losing ± 120 bbls/hr to hole or riser. N/D diverter and slip jt, pull pin connector. WOW. Continue pulling pin connector.

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DAY	JUNE	DESCRIPTION
12	20	Cont. pulling pin connector. M/U Guide Funnel Retrieval Tool. RIH, retrieve guide funnel. RIH W/26" Bit, Drill cmt inside 30" From 559' - 621'. Open 17-1/2" hole from 621' - 985'.
13	21	Open 17-1/2" hole from 985' - 1350' Survey, POOH. R/U and run 20" csg. Run shoe, 10 jnts of 129 lb/ft and 14 jnts of 94 lb/ft w/18-3/4" wellhead assembly. Run stinger assembly and land csg in 30" wellhead. Cmt w/ 1400 sxs class G cmt w/ 2.5% BWOC Gel and 1% BWOW CaC12 w/ 10.8 gal/sx freshwater yield of 1.94 cuft/sx @ 12.9 ppg. Tailed in 500 sx neat CL "G" cmt, 1.15 cuft/sx; @ 15.8 ppg Release from wellhead and POOH. Wash wellhead area, R/U to run BOP.
14	22	Run BOP. 18-3/4" wellhead @ 289' RKB.
15	23	R/U slip jnt. land BOP, test stack, RIH w/ 17-1/2" drilling assembly. Drill cmt from 1284' - 1311'. Perform CCCT to 12.1 ppg EMW and drill from 1311' - 1355'. Displace hole to mud.
16	24	Perform FCCT to 12.5 ppg EMW. Note: CCCT of 12.1 ppg EMW was due to a leak in the CMT valve. Drill 17-1/2" hole from 1355' - 2364' with surveys. POOH to 1026', hang off drill string and unlatch LMRP, WOW.
17	25	WOW. Land LMRP. Retrieve hung off drill string. Test connectors on stack. RIH and drill 17-1/2" hole from 2364' - 2593'.
18	26	Drill and survey 17-1/2" hole from 2593' - 3651'.
19	27	Drill and survey 17-1/2" hole from 3651' - 4101'. POOH. Unlatch LMRP. WOW.
20	28	WOW. Land LMRP. Test connectors. RIH w/ 17-1/2" drilling assembly and drill from 4101' - 4231' (59' of fill).

304252

DAY	JUNE	DESCRIPTION
21	29	Drill 17-1/2" hole from 4231' - 4566'.
22	30	Drill and survey 17-1/2" hole from 4566' - 4764' POOH. Unlatch LMRP and L/D Riser, W.O.W.
DAY	**JULY**	**DESCRIPTION**
23	1	L/D Riser, W.O.W.
24	2	WOW. Run LMRP, position rig, WOW.
25	3	WOW.
26	4	WOW. Position rig, land LMRP, test BOP connectors.
27	5	Test BOP connectors, RIH and break circulation every 1000'. Wash + ream bridge from 4041' - 4122'. Wash 30' fill on bottom. Drill 17-1/2" hole from 4764' - 4913'.
28	6	Drill 17-1/2" hole from 4913'-5175'.
29	7	Drill and survey 17-1/2" hole from 5175' - 5220'. POOH for new bit. RIH, 39' fill. Drill 17-1/2" hole from 5220' - 5342'.
30	8	Drill and circulate samples in 17-1/2" hole from 5342' - 5735'.
31	9	Drill 17-1/2" hole from 5735' - 5769'. Circulate and condition hole for logging. Drop multi-shot, and POOH. Rig up and run Schlumberger ISF-BHC-MSFL-GR-CAL log. Rig for cleanout trip.
32	10	RIH and circulate and condition hole. POOH for short trip. RIH, 17' fill. Displace hole w/10.5 ppg mud. POOH to run 13-3/8" casing.

304253

DAY	JULY	DESCRIPTION
33	11	Retrieve wear bushing. Rig up to run 13-3/8" casing. Run 23 jts of 72 ppf N-80 buttress, and 117 jts of 68 ppf N-80 buttress 13-3/8" casing. Land casing hanger in wellhead with shoe @ 5748.5'. Mix and pump 2200 sxs class G cement w/ 2.5% BWOC Gel and 10.8 gal/sx Freshwater w/ 3.8 gals HR-6L per 10 bbls mix water. Yield @ 12.8 ppg is 1.94 cuft/sx. Tail in with 500 sxs Class G neat cement @ 15.8 ppg and 1.15 cuft/sx with mix water @ 5 gal/sx w/ 5.5 gals HR-6L per 10 bbls mix water. POOH with running string and wash wellhead.
34	12	Wash wellhead area. M/U seal assembly and set same. Test BOP. RIH and tag top plug and float collar @ 5670'. No cement. Tag cement @ 5728'. Clean out casing to 5738'. Perform casing test, O.K. Drill shoe and clean out rat hole to 5750'. Perform CCCT to 13.6 ppg EMW. Drill to 5774' and perform FCCT to 13.6 ppg EMW, no leak off. Drill 12-1/4" hole from 5774' - 5871'. Circulate samples.
35	13	Drill 12-1/4" hole and circulate samples from 5871' - 6030'. POOH, RIH w/ core barrel and cut core # 1 from 6030' - 6063', POOH.
36	14	POOH w/ core barrel. Recover 9' of core. RIH w/ 12-1/4" bit and ream core hole from 6030' - 6060'. Drill 12-1/4" hole from 6060' - - 6513'. POOH to 13-3/8" shoe for weather. Hang off. Release LMRP.
37	15	WOW.
38	16	WOW.
39	17	WOW.

304254

DAY	JULY	DESCRIPTION
40	18	WOW.
41	19	Run # 3 anchor. Re-latch LMRP. Recover drill pipe RIH to bottom 85' fill. Circulate bottoms up thru choke. 4-1/2% max gas. Run Intermediate logs. Run Schlumberger ISF-BHC-GR-SP-MSFL-CAL.
42	20	Run LDT-CNL-GR log. Test stack. RIH and drill 12-1/4" hole from 6509' - 6760' and circulate samples.
43	21	Drill 12-1/4" hole from 6760' - 7142'. Drop survey. Circulate bottoms up and POOH to shoe for weather. Hole tight from 6610' - 6579'. 60k max overpull. WOW.
44	22	WOW.
45	23	WOW
46	24	WOW. Relatch LMRP. Recover drill string, RIH to 7131', 11' of fill. Wash to 7142', circulate bottoms up. Max gas 15%. Drill 12-1/4" hole from 7142' - 7277'.
47	25	Drill and survey 12-1/4" hole from 7277' - 7726'. Circulate bottoms up and POOH to shoe for weather. WOW.
48	26	WOW.
49	27	WOW. Relatch LMRP, retrieve drill string. RIH to 7718', 8' fill. Circulate bottoms up, max gas 21.5%. Drill 12-1/4" hole from 7726' - 7752'.
50	28	Drill 12-1/4" hole from 7752' - 8003'. Circulate bottoms up and POOH to shoe for weather. Hang off. Release LMRP WOW.
51	29	WOW.
52	30	WOW.
53	31	WOW.

304255

DAY	AUGUST	DESCRIPTION
54	1	WOW.
55	2	WOW. Relatch LMRP. Retrieve drillstring, RIH to 8003', 2' fill. Circulate bottoms up, max gas = 52.6%. Circulate thru choke. Drill 12-1/4" hole from 8003' - 8229'.
56	3	Drill and survey 12-1/4" hole from 8229' - 8595'.
57	4	Drill 12-1/4" hole from 8595' - 8902'. POOH for a bit change.
58	5	POOH, RIH w/ new bit. Hangoff w/bit @ 5370'. WOW.
59	6	WOW. Relatch LMRP, and recover drillstring. RIH and tag bridge @ 8526'. Wash and ream from 8526' - 8602'. RIH, no fill. Circulate bottoms up, max gas 2.3% Drill 12-1/4" hole from 8902' - 9000'.
60	7	Drlg 9000' - 9176'. Survey POH to WOW based on forecast. RIH wash to bottom. Drlg 9176' -9348'.
61	8	Drlg 9348' - 9515'. Circ BU. POH, tight spot @ 8632', 100k overpull. Test BOP.
62	9	Test BOP. RIH. Ream and wash 8530'-8610', 9400' - 9515'. Drlg 9515' - 9667'.
63	10	Drill 12-1/4" hole from 9667'- 10,015'.
64	11	Drlg 10,015' - 10,097'. Work junk-sub, drop survey. POH, tight spot @ 8663'-100k overpull for ± 5'. RIH.
65	12	RIH. Cut and slip drill line. 9965' - 10,097'. Work junk-sub. Drlg 10,097' - 10,271'.

304256

DAY	AUGUST	DESCRIPTION
66	13	Drlg 10,271' - 10,412'. Work junk-sub survey. POH. Tight spot at 8630' - 8640', 60k overpull. RIH. Wash and ream 10,362' - 10,412'. Drlg 10,412' - 10,422'.
67	14	Drlg. 10,422' - 10,643'.
68	15	Drill 12-1/4" hole from 10,643'- 10,879'. Circulate bottoms up, drop survey, POOH for new bit.
69	16	Continue POOH, test BOP, RIH. Drill 12-1/4" hole from 10,879'- 10,960'.
70	17	Drill 12-1/4" hole from 10,960'- 10,972'. POOH to casing shoe to WOW. RIH to 9137'. POOH to 8973' due to weather. Anchor No. 7 broke in the master link, activate emergency shear/disconnect, WOW.
71	18	WOW. Retrieve anchor No. 7 and chain, WOW.
72	19	WOW.
73	20	WOW. Re-run anchor No. 7, pre-tension anchor slipping. Re-run anchor No. 7 with piggy-back. Pre-tension to 310 kips. Re-latch LMRP, RIH to fish for sheared drillpipe in BOP.
74	21	RIH, mill fish, engage and pull 110,000 lbs overpull. Fishing string parted @ overshot. RIH with overshot, engage fish, POOH with 130,000 lbs overpull. Lay out fishing string, circulate bottoms up @ 8690'. RIH, wash and ream from 8720' - 9262'. Circulate bottoms up @ 9846'. RIH to 10,972', circulate bottoms up, 2.5% Max gas. Drill from 10,972' - 10,974'. Circulate sample and condition mud.

304257

DAY	AUGUST	DESCRIPTION
75	22	POOH to core. Make up and RIH with core barrel. Cut core # 1 from 10,974' - 10,981'. POOH, 64% recovery of core. Lay down core barrel. Rig up Schlumberger to log.
76	23	Log Run #1 - ISF-BHC-MSFL-GR-SP from 10,981' - 5749'. Transmit logs to Sydney. Run #2 - EPT-LDL-CNL-NGT-CAL from 10,981' - 5749'. Transmit logs to Sydney. Run #3 - HDT-GR from 10,981' - 5749'.
77	24	Continue Run #3 - HDT-GR from 10,981' - 5749'. Make up bit and RIH to 5653'. Circulate and condition mud. Max gas = 9.2%. RIH, wash and ream 8414', 8472'-8539', 9198'-9230'. Ream 8-1/2" core hole from 10974'-10981'. Circulate and condition mud, drop multi-shot, POOH.
78	25	Continue POOH, rig up and run R.F.T. #1. POOH, replace packer element, RIH with R.F.T. #2. POOH, replace packer element, RIH with R.F.T. #3.
79	26	Continue with R.F.T. #3, POOH. RIH with cleanout assembly. Circulate bottoms up @ 5749', max gas = 1.5%. RIH to 8306' and circulate. POOH to W.O.W. Unlatch LMRP.
80	27	W.O.W.
81	28	W.O.W
82	29	Wash and ream 8550' - 8624'. Circulate and condition mud. Max gas = 9%. RIH, circulate bottoms up, POOH to 5749' and W.O.W. Unlatch LMRP.
83	30	W.O.W, circulate and condition mud at 5749'. POOH, RIH with R.F.T.
84	31	Run R.F.T. # 4, could not pass 6563'. POOH. RIH for cleanout trip to 10,200'. POOH to run R.F.T. # 5.

DAY	SEPTEMBER	DESCRIPTION
85	1	POOH with R.F.T. #5. RIH with C.S.T. Sidewall core guns. Shoot 49 out of 57 cores. RIH for cleanout trip. Wash and ream from 10,200' - 10,981'. Circulate and condition mud.
86	2	Short trip 10 stands, POOH. Rig up and run 216 jnts, N-80, 47 ppf 9-5/8" casing. Hang off casing in wellhead, circulate hole, W.O.W.
87	3	Retrieve hungoff casing. Run 56 jnts, N-80,47 ppf 9-5/8" casing. Run 9-5/8" casing landing string. Land casing in wellhead. Shoe @ 10,957'. Top of shut off baffle @ 10,837', top of D.V. collar @ 6477'. Mix and pump 1975 sxs of Class G cement with 0.5% BWOC Halad - 22A, 9.6 gal /10 bbl CFR-2L, 6.9 gal/10 bbl. HR-13L @ 15.8 ppg with a yield of 1.15 cuft/sx with 5 gal/sx drill water. Drop D.V. bomb, open D.V. collar with 1300 psi. Circ x W.O.C.
88	4	Mix and pump 2nd stage slurry of 435 sxs Class G cement with 0.5% BWOC Halad - 22A, 9.6 gal/10 bbl CFR-2L, 6.9 gal/10 bbl HR-13L @ 15.8 ppg with a yield of 1.15 cuft/sx with 5 gal/sx drill water. Drop D.V. close plug, close D.V. collar, bump plug with 3000 psi. Release from casing hanger, RIH and wash wellhead, no go past BOP. POOH, install wash tool centralizer. RIH and wash well-head. POOH. RIH with seal assembly, no test, POOH. RIH and wash wellhead, RIH with seal assembly, test against RTTS, no test. POOH with seal assembly.

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DAY	SEPTEMBER	DESCRIPTION
89	5	RIH with wash tool, wash wellhead, POOH. RIH with seal assembly, no test, POOH. Set wear bushing. Lay down 8" drill collars. RIH with an 8-1/2" bit, drill D.V. collar @ 6476'. RIH to 10,550'. Drill cement and shut off baffle from 10,550' - 10,875'. Circulate and displace casing to seawater, POOH.
90	6	L/D riser and LMRP, running anchors and re-positioning vessel.
91	7	Run LMRP, position ship over hole, latch LMRP, R/U diverter and flow-lines. RIH w/ bollweevil tester and painted pup jt. Close rams to mark. Open rams, POH. 9-5/8" hanger 40" high. RIH w/RTTS. Pressure test above and below RTTS to 4000 psi-OK. Test LMRP connector to 3500 psi-OK.
92	8	POH w/ RTTS, RIH w/ 9-5/8" csg scraper work scraper @ 5897', 5953', and 9164'. Circulate hole w/seawater, displace w/completion fluid. POH, Gatorhawk DP connections, R/U and run 7 jts of 7" csg w/modified BRX hanger on bottom of string.
93	9	R/U Schlum. Run CBL w/700 psi. Two runs. R/D Schlum and 7" shooting nipple. R/U Schlum. and run VSP.
94	10	Run VSP, made dummy run with Otis SSTT. R/U Schlum. and wait on daylight to perforate.
95	11	Wait on daylight to perforate. Perf 9245'-9267', 9222'-9233', 9216-9233'. Re-run misfire on 9216'-9233'. Make up test tools and RIH.
96	12	RIH w/ DST string. Crossover on subsea test tree parted. Fished for DST string in 9-5/8" hanger of wellhead.

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DAY	SEPTEMBER	DESCRIPTION
97	13	Fished DST string, POH with same.
98	14	POH, make up bit for scraper run. RIH, circ and condition mud.
99	15	M/U SSTT, RIH w/ DST string. Pressure test to 500 psi.
100	16	Spot diesel cushion, RIH w/ SRO gauge. DST # 1-A - open and flow well.
101	17	Shut-in well for build-up. Open well. Flow well, establish rates, took samples, kill well.
102	18	POH w/ DST # 1-A. R/U Schlum, run gauge ring and junk basket. Set EZSV @ 9206', test to 1000 psi - OK. RIH w/ stinger and squeeze perfs w/ 100 sxs cmt.
103	19	POH. Test casing to 2000 psi - OK. R/U Schlum, RIH w/ casing punch and perf 6054'-6056'. POH, RIH w/ EZSV and set @ 6037'. Pressure test EZSV to 2000 psi - 10 min - OK. M/U stinger and RIH. Squeeze punch holes w/ 100 sx cmt. POH.
104	20	WOC. RIH w/ bit and BHA. Tag cmt @ 6030'. Drill cmt 6030'-6037'. Drill EZSV, clean out to 6088'. RIH to 6600'. Circ B/U to clear out gas, POH to 6050'. Test perfs to 1500 psi - OK. POH.
105	21	RIH w/ Schlum gauge ring and junk basket. POH. M/U DST # 2. Test tools, RIH, set packer @ 5822'. Test lines, spot diesel cushion. Test lubricator 5000 psi - OK. M/U perf guns.
106	22	RIH, wait on daylight to perf. Perf 6004'-6021'. Open well.
107	23	DST # 2. Flowing well, kill well, POH. Run CBL w/ Schlum, run EZSV, POH w/ EZSV.

304961

DAY	SEPTEMBER	DESCRIPTION
108	24	RIH w/ RTTS. Dry test packer did not seat, POH. RIH w/ test tools. Run CCL on Schlum to correlate.
109	25	Set packer @ 6035'. Commence flow test, annulus dropping. Reverse out, POH. R/U Schlum, set EZSV @ 5965'. Pressure test to 2000 psi - OK. RIH w/ stinger, sting in and squeeze perfs. POH, WOC. M/U bit RIH.
110	26	RIH, hang off on middle rams. WOW while WOC. Retrieve hung-off pipe, RIH. Tag cmt @ 5856'. Drill cmt 5856'-5965'. Drill EZSV. Drill cmt 5965'-6025'. Clean out to 6101'. RIH to 6709'. Circ and Cond. POH.
111	27	POH. R/U Schlum, run gauge ring and junk basket. M/U test tools, RIH for dry test. No flow for 15 min, then flow for 15 min. Reverse out. Establish injection rate, POH. R/U Schlum, set EZSV @ 6334'. R/D Schlum RIH w/ open ended DP.
112	28	Mix and pump 215 sx cmt balanced plug. WOC. POH. M/U bit and BHA. RIH, tag cmt @ 5910'. Wash from 5910' - 5916'. Drill cmt from 5916' - 5927'. Circ B/U, WOC.
113	29	WOC. Drill cmt from 5927'-5972'. Circ B/U, WOC. Drill cmt from 5972'-6223'. Circ B/U. POH to 5765'. Establish injection rate of 1/2-1 BPM. RIH w/ open ended DP, squeeze 200 sx cmt.
114	30	Continue to squeeze 200 sx cmt, WOC. POH. M/U bit and BHA, RIH. Tag cmt @ 5843'. Wash to 5941'. Circ & WOC. Drill cmt from 5941'-5944'. Circ B/U, WOC.

304262

DAY	OCTOBER	DESCRIPTION
115	1	Drill cmt from 5944'-6192'. Circ B/U. POH to 5859'. Test squeeze to 2000 psi - OK. POH. M/U Howco tools and RIH. Set RTTS @ 5795'. Dry test - ok. Reverse out, POH.
116	2	P/U Otis and SSTT, RIH for DST # 2A. Pressure test Howco tools - no test. POH, L/D slip jt. Pressure test perfs to 2000 psi - OK. RIH, pressure test tools - OK. Could not close pipe rams. POH w/ landing string and SSTT.
117	3	RIH w/ SSTT and landing string. Pressure test equipment, R/U Schlum lubricator, pressure test. RIH w/ perf guns and perf from 6014.4'-6016.4', POH. RIH w/ Schlum PLT/PST. Open well and flow.
118	4	Flowing well, establish flow, shut in well, POH w/ PLT/PST. RIH and perf from 5948'-6014'. Open well, flow 20 min, close well. POH, and RIH w/ PLT.
119	5	Flow well and stabilize flow. Shut in for build up, POH w/ PLT. Kill well, POH.
120	6	Set EZSV w/ Schlum @ 5929'. POH, test packer to 2000 psi - OK. RIH w/ star guide and stinger. Tag EZSV @ 5929'. Circ and Condition. Sting in and establish injection rate. Mix and pump 200 sx "G" w/ 1% CFR-2, 20 gal/10bbl HAL-22-AL, .3% HR-12, 15.8 ppg, 1.15 cuft/sx. Spot slurry. Sting in and squeeze same. Final squeeze pressure - 1900 psi. POH to 5850'. Mix x pmp 100 sx "G" neat, cmt. Balanced plug. POH to 5336'. Circ B/U. POH and L/D DP. R/U CSG punch. Punch casing 4009'-4011'. POH. Set EZSV @ 3954'. R/D WL. RIH and star guide and stinger.

304263

DAY	OCTOBER	DESCRIPTION
121	7	Sting in EZSV and attempt to circ 9 5/8" x 13 3/8" annulus, and reverse circ same - annulus holding. POH. RIH w/ Schlum and punch casing from 2985'-2987'. Pressure test to 1500 psi-OK. POH. RIH and set EZSV @ 2930'. POH w/ Schlum. RIH w/ stinger. Sting-in and pump 265 sxs cmt. Unsting and dump 10 bbl cmt on top of EZSV. POH to 2045'.
122	8	Circ, POH, L/D DP, PU 9 5/8" casing cutter and RIH. Cut csg @ 329'. POH and L/D. M/U spear, RIH, recover 35' csg. M/U wash tool, wash BOP, POH. N/D diverter and unlatch.
123	9	Pull riser and BOP. RIH, pump corrosion inhibitor, set corrosion cap. L/D DC & DP, run pinger and buoy. Survey seabed. Position ship for seabed search. Pulling anchors.
124	10	Pulling anchors, offload mooring equipment.
125	11	Backload Amoco equipment and prepare rig for transit. Release rig @ 0400 hrs.

304264

Casing – Cementing Report

Form 20 (6-79)

Company: Amoco Aust Pet Co | Attach Form 19

Well	Area	Field
Yolla No 1	Bass Strait	Tasmania

Rig	Casing Size	Date
R. F. Bauer	(30 ")	June 8, 1985

Cement Data

Job Type (Check one)	Well Depth	Bit Size	Mud Weight (Prior to cementing) In	Mud Weight (Prior to cementing) Out
☐ (1) Single Stage ☐ (1) and (2) Two Stage	645 Ft	26/36"	Seawater	Seawater

Cement Interval	From	To	Total	Remarks
1.	297' ML	645 FT	348 FT	
2.				

	Cement Type	Sacks	Yield (Cu. Ft./Sx)	Slurry Volume (Cu. Ft.)	Lbs./Gal.	Additives and amount (Pre blend)
1 Lead	Class G	2000	1.15 FT^3/SX	2300 FT^3	15.9	5 gal/SX Seawater
1 Tail						
2 Lead						
2 Tail						

	Mixed Water Used: Type	Amount	Additives and amount (Pre mixed in water)
1 Lead	Seawater	5 gal/SX	
1 Tail			
2 Lead			
2 Tail			

(a) Total Slurry Volume (cu. ft.)		(b) Gauge Hole Volume (cu. ft.)		(c) Caliper Volume (cu. ft.)		Average Hole Size		% Excess	
1	2	1	2	1	2	1	2	1	2
2300		713		N/A		N/A		223	

Note: % Excess is calculated on basis of (a-b) + b with no caliper survey or by (a-c) + c with caliper survey (within the cement interval)

No. of Bbl's to Displace Plug	Calculated	Actual
☐ Rig Pump or ☐ CMT Unit	1 23 bbls for stinger	1 23 bbls
	2 Stinger 282 FT below running tool	2

* Casing Data

Last Casing Set (measured from RKB)	Size "	Weight	Grade

Final Casing String – Top to Bottom
(RKB to top of CSG string 30 Well head)

Joints	Description	Length	Set @ RKB
1	30" x 1" wall c/w shoe	43.40	619.41
6	30" x 1" wall	244.10	331.91
1	30" x 1" wall c/w Wellhead	41.91	290.00

Total Joints in string	Total Joint length
8	(329.41)

Centralizers: Quantity	Make	Type
None		

Total Section Covered	Spacing

Shoe Jt Vol = 202 FT^3

Overall Job Remarks:
Casing landed and cemented without observing with diving bell due to weather

*Casing measurements in ☒ feet ☐ meters

Operational Times

Start CSG in @	1830	Hrs.		
Running CSG	3	Hrs.	0	Min's.
Circulating 1	2	Hrs.	0	Min's.
2		Hrs.		Min's.
Mixing CMT 1	2	Hrs.	0	Min's.
2		Hrs.		Min's.
Displacing 1	–	Hrs.	–	Min's.
2		Hrs.		Min's.

Plug Bumped @ _____
w/1 _____ Psi
w/2 _____ Psi

Total Time 7 Hrs. 0 Min's.

Surveys Run
CBL _____ Temp. _____ None ___
Top of CMT @ Seabed
Based upon Calculations

Toolpusher R. Rowe
Cementer G. Sisely
Co. Rep. L. Transier

Company Representative: L. Transier/ Jack Rankin

504265

Casing — Cementing Report

Form 20 (6-79)

Company	Attach Form 19
Amoco Aust Pet. Co	

Well	Area	Field
Yolla No 1	Bass Strait	Offshore Tas
Rig	**Casing Size**	**Date**
R. F. Bauer	(20" ")	20 June 1985

Cement Data

Job Type (Check one)	Well Depth	Bit Size	Mud Weight (Prior to cementing) In	Mud Weight (Prior to cementing) Out
☒ (1) Single Stage ☐ (1) and (2) Two Stage	1350'	26"	8.9	-

Cement Interval		From	To	Total	Remarks
	1.	1350'	ML (297)	1053'	
	2.				

	Cement Type	Sacks	Yield (Cu. Ft./Sx)	Slurry Volume (Cu. Ft.)	Lbs./Gal.	Additives and amount (Pre blend)
1 Lead	Class G	1400	1.94	2720	12.8	
1 Tail	Class G	500	1.15	575	15.8	
2 Lead						
2 Tail						

	Mixed Water Used: Type	Amount	Additives and amount (Pre mixed in water)
1 Lead	Freshwater	360bbls	2.5% BWOC Gel + 1% BWOW $CaCl_2$
1 Tail	Seawater	60bbls	
2 Lead			
2 Tail			

(a) Total Slurry Volume (cu. ft.)		(b) Gauge Hole Volume (cu. ft.)		(c) Caliper Volume (cu. ft.)		Average Hole Size		% Excess	
1	2	1	2	1	2	1	2	1	2
3295		1712						92	-0-

Note: % Excess is calculated on basis of (a-b) ÷ b with no caliper survey or by (a-c) ÷ c with caliper survey (within the cement interval)

No. of Bbl's to Displace Plug		Calculated		Actual	
☐ Rig Pump or ☒ CMT Unit	1	30 bbls/seawater	1	30 bbls	
	2		2		

* Casing Data

Last Casing Set (measured from RKB)	Size	Weight	Grade
621'	30 "	1" wall	X-56/R-III

Final Casing String — Top to Bottom
(RKB to top of CSG string 296')

Joints	Description	Length	Set @ RKB
1	18-3/4" Cameron WS-I W/HD	27.42	296'
24	20"=X-56 129 # w/94 #	990.05	1309.47'

Total Joints in string	Total Joint length
25	(1017.47)

Centralizer(s): Quantity	Make	Type
None		

Total Section Covered	Spacing

Overall Job Remarks:
Good CMT Job, Float held ok
CMT returns observed by OMB-4 bell

Operational Times

Start CSG in @	1500	Hrs.		
Running CSG	8	Hrs.	30	Min's.
Circulating 1	1	Hrs.	0	Min's.
2		Hrs.		Min's.
Mixing CMT 1	2	Hrs.	0	Min's.
2		Hrs.		Min's.
Displacing 1	-	Hrs.	-	Min's.
2		Hrs.		Min's.

Plug Bumped @ N/A
w/1 _____ Psi
w/2 _____ Psi

Total Time 11 Hrs. 30 Min's.

Surveys Run
CBL _____ Temp. _____ None ____
Top of CMT @ M.T.
Based upon OMB-4 Bell obs.

Toolpusher M. Brockman

Cementer G. Sisely

Co. Rep. C. Blackburn

*Casing measurements in ☒ feet ☐ meters

Company Representative
C. Blackburn/J. G. Rankin

Casing – Cementing Report

Form 20 (6-79)

33

Company: AMOCO AUST. PET. CO. | Attach Form 19

304266

Well	Area	Field
YOLLA NO. 1	BASS STRAIT	

Rig	Casing Size	Date
GLOMAR ROBERT F. BAUER	(13-3/8 ")	11 JULY 1985

Cement Data

Job Type (Check one)	Well Depth	Bit Size	Mud Weight (Prior to cementing) In	Mud Weight (Prior to cementing) Out
☒ (1) Single Stage ☐ (1) and (2) Two Stage	5769	17/1-2	9.1	9.1

Cement Interval	From	To	Total	Remarks
1.	5748	1109	4639	
2.				

	Cement Type	Sacks	Yield (Cu. Ft./Sx)	Slurry Volume (Cu. Ft.)	Lbs./Gal.	Additives and amount (Pre blend)
1 Lead	G	2200	1.94	4268	12.8	
1 Tail	G	500	1.15	575	15.8	
2 Lead						
2 Tail						

	Mixed Water Used: Type	Amount	Additives and amount (Pre mixed in water)
1 Lead	FRESHWATER	566 bbls	2.5% BENTONITE BWOC, 3.8 gal/10 bbl HR-6L
1 Tail	FRESHWATER	60 bbls	5.5 gal/10 bbl HR-6L
2 Lead			
2 Tail			

(a) Total Slurry Volume (cu. ft.)		(b) Gauge Hole Volume (cu. ft.)		(c) Caliper Volume (cu. ft.)		Average Hole Size		% Excess	
1	2	1	2	1	2	1	2	1	2
4843		3273		4850					

Note: % Excess is calculated on basis of (a-b) + b with no caliper survey or by (a-c) + c with caliper survey (within the cement interval)

No. of Bbl's to Displace Plug		Calculated		Actual
☒ Rig Pump or ☐ CMT Unit	1	806	1	
	2		2	

* Casing Data

Last Casing Set (measured from RKB)	Size	Weight	Grade
1309	20 "	129 ppf, 94 ppf	

Final Casing String – Top to Bottom
(RKB to top of CSG string 292 ft.)

Joints	Description	Length	Set @ RKB
	RKB to 13-3/8" csg hanger	292	292
1(143)	Hanger joint	13.44	305.44
117 (142-26)	13-3/8", 68 ppf, N-80 csg	4547.45	4852.89
21 (25-5)	13-3/8", 72 ppf, N-80 csg	815.12	5668.01
1 (4)	13-3/8" Howco Float collar	1.46	5669.47
2 (3-2)	13-3/8", 74 ppf, N-80 csg	76.67	5746.14
1 (1)	13-3/8", Howco Float Shoe	1.96	5748.10

Total Joints in string	Total Joint length
143	(5456.50)

Centralizers: Quantity	Make	Type

Total Section Covered	Spacing

Overall Job Remarks:

Operational Times

Start CSG in @	0930	Hrs.		
Running CSG	10	Hrs.	30	Min's.
Circulating 1	1	Hrs.	00	Min's.
2		Hrs.		Min's.
Mixing CMT 1	2	Hrs.	30	Min's.
2		Hrs.		Min's.
Displacing 1	1	Hrs.	30	Min's.
2		Hrs.		Min's.

Plug Bumped @ _____
w/1 _____ Psi
w/2 _____ Psi

Total Time 15 Hrs. 30 Min's.

Surveys Run
CBL _____ Temp. _____ None ____
Top of CMT @ _____
Based upon _____

Toolpusher LAWSON
Cementer D. HOOVER
Co. Rep. C.L. BLACKBURN

*Casing measurements in ☒ feet ☐ meters

Company Representative: C. L. Blackburn/G. A. Cowan

304267

Casing — Cementing Report

Form 28 (6-79)

34

Company	Attach Form 19
AMOCO AUSTRALIA	

Well	Area	Field
YOLLA NO. 1	T14P	BASS STRAIT
Rig	**Casing Size**	**Date**
GLOMAR "ROBERT F. BAUER"	(9-5/8" ")	4 SEPTEMBER ' 85

Cement Data

Job Type (Check one)	Well Depth	Bit Size	Mud Weight (Prior to cementing) In	Out
☐ (1) Single Stage ☒ (1) and (2) Two Stage	10,981'	12-1/4"	9.8	9.8

Cement Interval		From	To	Total	Remarks
	1.	10,957	7000	3957	
	2.	6,477	5000	1477	

Cement Type		Sacks	Yield (Cu. Ft./Sx)	Slurry Volume (Cu. Ft.)	Lbs./Gal.	Additives and amount (Pre blend)
1 Lead	'G'	1975	1.15	2271.3	15.8	
1 Tail						
2 Lead	'G'	436	1.15	501.4	15.8	
2 Tail						

Mixed Water Used: Type		Amount	Additives and amount (Pre mixed in water)
1 Lead	FRESH	235 bbls	9.6 gal/10bbl CFR-2, 6.9gal/10bbl HR-13L
1 Tail			Halad-22A (½% BWOC)
2 Lead	FRESH	52 bbls	9.6 gal/10bbl CFR-2, 6.9gal/10bbl HR-13L
2 Tail			Halad-22A (½% BWOC)

(a) Total Slurry Volume (cu. ft.)		(b) Gauge Hole Volume (cu. ft.)		(c) Caliper Volume (cu. ft.)		Average Hole Size		% Excess	
1	2	1	2	1	2	1	2	1	2
2271.3	501.4	1239.8	472.4	2200	478.1	13.1"	13.1"	3.2%	4.9%

Note: % Excess is calculated on basis of (a-b) + b with no caliper survey or by (a-c) + c with caliper survey (within the cement interval)

No. of Bbl's to Displace Plug ☒ Rig Pump or ☐ CMT Unit		Calculated		Actual
	1	794.6 bbls	1	775.5 bbls
	2	475.5 bbls	2	470.7 bbls

* Casing Data

Last Casing Set (measured from RKB)	Size	Weight	Grade
5749'	13-3/8"	68 & 72 LB/FT	N-80

Final Casing String — Top to Bottom (RKB to top of CSG string 292 FT.)

Joints	Description	Length	Set @ RKB
1	9-5/8" Howco Float Shoe	1.85	10,957.24
2-3	9-5/8" Buttress, 47ppf, N-80 csg	78.25	10,878.99
4	9-5/8" Howco Float Collar	1.45	10,877.54
5-117	9-5/8" Buttress, 47ppf, N-80 csg	4395.09	6,482.45
118	9-5/8" Howco Multiple Stage Cmtr.	3.28	6,479.17
119-276	9-5/8" Buttress, 47ppf N-80csg	6183.02	296.15
277	9-5/8" Casing Hanger for Cameron	2.30	293.85
	WS-1, 18-3/4", 10,000 psi wp		
278-285	9-5/8" Buttress, 47ppf, N-80	313.7	-19.52
	Running String		

Total Joints in string: 273 Jts. 9-5/8" Casing — Total Joint length: (10,665.24')

Centralizers: Quantity — Make — Type

Total Section Covered: ML-10,957.24' — Spacing

Overall Job Remarks:

Operational Times

Start CSG in @	1415	Hrs.		
Running CSG	14	Hrs.	30	Min's.
Circulating 1	2	Hrs.	30	Min's.
2	2	Hrs.	30	Min's.
Mixing CMT 1	1	Hrs.	35	Min's.
2	1	Hrs.	10	Min's.
Displacing 1	1	Hrs.	40	Min's.
2	1	Hrs.	20	Min's.

Plug Bumped @
w/1 3400 Psi
w/2 3000 Psi

Total Time 25 Hrs. 15 Min's.

Surveys Run
CBL ____ Temp. ____ None ____
Top of CMT @ ____
Based upon ____

Toolpusher: Goss/Lawson

Cementer: Cashman/Baker

Co. Rep.: C. Blackburn

*Casing measurements in ☒ feet ☐ meters

Company Representative: C. L. Blackburn/G. A. Cowan

Pipe and Auxiliary Equipment Tally
(Permanent Detailed Record)
Form 19 (6.79)

Attach to Form 20

Field	Well No.	Article	Size	Date
Bass Strait/Tasmania	Tolla 1		30"	8 June, 1985

Note: For casing and tubing with Hydril, Extremeline, or similiar joints, record shoulder to shoulder measurements; for other tubulars, record measurement from outer edge of mill coupling to last engaged thread on field end.

Measurements made with
☐ Decimal Footage Tape
☐ Meters Centimeters Tape

Note: Denote Centralizers on or Between Joints With (X)

No.	Feet or Meters		No.	Feet or Meters		No.	Feet or Meters		No.	Feet or Meters		No.	Feet or Meters	
1	43	40	51	shoe	JT	101			151			201		
2	38	35	52			102			152			202		
3	41	25	53			103			153			203		
4	40	60	54			104			154			204		
5	43	35	55			105			155			205		
6	40	75	56			106			156			206		
7	39	80	57			107			157			207		
8	41	91	58	Wellhead		108			158			208		
9			59			109			159			209		
10			60			110			160			210		
11			61			111			161			211		
12			62			112			162			212		
13			63			113			163			213		
14			64			114			164			214		
15			65			115			165			215		
16			66			116			166			216		
17			67			117			167			217		
18			68			118			168			218		
19			69			119			169			219		
20			70			120			170			220		
21			71			121			171			221		
22			72			122			172			222		
23			73			123			173			223		
24			74			124			174			224		
25			75			125			175			225		
26			76			126			176			226		
27			77			127			177			227		
28			78			128			178			228		
29			79			129			179			229		
30			80			130			180			230		
31			81			131			181					
32			82			132			182					
33			83			133			183					
34			84			134			184					
35			85			135			185					
36			86			136			186					
37			87			137			187					
38			88			138			188					
39			89			139			189					
40			90			140			190					
41			91			141			191					
42			92			142			192					
43			93			143			193					
44			94			144			194					
45			95			145			195					
46			96			146			196					
47			97			147			197					
48			98			148			198					
49			99			149			199					
50			100			150			200					

Tally of Joints Not Run

No.	Feet or Meters	
1		
2		
3		
4		
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No. Joints Delivered: 8
No. Joints Run: 8

Total Run -- Overall: 329.41 FT

Top Pipe Below:
☒ Rotary Drive Bushing
☐ Derrick Floor

Depth Landed: 297 FT (ML)

Operational Data
Casing Makeup Torque ..... ft.-lbs.
Hanging Weight @ Setting Depth ..... lbs.
Pick Up Weight-Drag Setting Depth ..... lbs.
Set Down Weight-Drag Setting Depth .....
Casing Hung in Tension w/ ..... lbs. on hanger

Item(s) No.	Size	Weight	Grade	Type Joint	Range	Qty.
Pipe Run						
1	30"	1" Wall	X56	Drill Quip NS-60 w/D-L 501 DVT Shoe	III	1
2-7	30"	1" Wall	X56	Drill Quip NS-60	III	6
8	30"	1" Wall		30" Cameron Guidelineless Wellhead w/EXT w/DQ NS-60	III	1

Approved - Company Representative L. Transier/J. G. Rankin

Pipe and Auxiliary Equipment Tally
(Permanent Detailed Record)
Form 19 (6-79)

Attach to Form 20

Field	Well No.	Article	Size	Date
Bass Strait	Yolla 1		20"	20 June, 1985

Note: For casing and tubing with Hydril, Extremeline, or similiar joints, record shoulder to shoulder measurements; for other tubulars, record measurement from outer edge of mill coupling to last engaged thread on field end.

Measurements made with
☑ Decimal Footage Tape
☐ Meters Centimeters Tape

Note: Denote Centralizers on or Between Joints With (X)

No.	Feet or Meters	No.	Feet or Meters	No.	Feet or Meters	No.	Feet or Meters	No.	Feet or Meters
1	41 89 Shoe	51		101		151		201	
2	41 37	52		102		152		202	
3	41 38	53		103		153		203	
4	41 32	54		104		154		204	
5	41 33	55		105		155		205	
6	41 35	56		106		156		206	
7	41 35	57		107		157		207	
8	41 35	58		108		158		208	
9	41 32	59		109		159		209	
10	41 35	60		110		160		210	
11	41 33	61		111		161		211	
12	41 40	62		112		162		212	
13	41 40	63		113		163		213	
14	41 35	64		114		164		214	
15	41 40	65		115		165		215	
16	41 38	66		116		166		216	
17	41 38	67		117		167		217	
18	41 36	68		118		168		218	
19	39 92	69		119		169		219	
20	41 37	70		120		170		220	
21	41 40	71		121		171		221	
22	41 40	72		122		172		222	
23	39 10	73		123		173		223	
24	41 85	74		124		174		224	
25	27 42 Housing	75		125		175		225	
26		76		126		176		226	
27		77		127		177		227	
28		78		128		178		228	
29		79		129		179		229	
30		80		130		180		230	
31		81		131		181			
32		82		132		182			
33		83		133		183			
34		84		134		184			
35		85		135		185			
36		86		136		186			
37		87		137		187			
38		88		138		188			
39		89		139		189			
40		90		140		190			
41		91		141		191			
42		92		142		192			
43		93		143		193			
44		94		144		194			
45		95		145		195			
46		96		146		196			
47		97		147		197			
48		98		148		198			
49		99		149		199			
50		100		150		200			

Tally of Joints Not Run

No.	Feet or Meters
1	
2	
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No. Joints Delivered: 25

No. Joints Run: 25

Total Run – Overall: 1017.47'

Top Pipe Below:
☒ Rotary Drive Bushing
☐ Derrick Floor

Depth Landed: 1309.47'

Operational Data

Casing Makeup Torque 10-12,000 ft.-lbs.

Hanging Weight @ Setting Depth 175 lbs.

Pick Up Weight-Drag Setting Depth 180 lbs.

Set Down Weight-Drag Setting Depth 170

Casing Hung in Tension w/ .....lbs. on hanger

Item(s) No.						Pipe Run		
1	Size 20"	Weight 94	Grade X-56	Type Joint	Dril-Quip S-60 Box X D-L 501 DVT Float Shoe	Range 3	Qty. 1
2-3	Size 20"	Weight 94	Grade X-56	Type Joint	Dril-Quip S-60	Range 3	Qty. 2
4-12	Size 20"	Weight 129	Grade X-56	Type Joint	Dril-Quip S-60	Range 3	Qty. 9
13-28	Size 20"	Weight 94	Grade X-56	Type Joint	Dril-Quip S-60	Range 3	Qty. 11

Approved - Company Representative

Continued Page 2

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Pipe and Auxiliary Equipment Tally
(Pernianent Detailed Record)
Form 19 (6-79)

Attach to Form 20

Field	Well No.	Article	Size	Date

Note: For casing and tubing with Hydril, Extremeline, or similiar joints, record shoulder to shoulder measurements; for other tubulars, record measurement from outer edge of mill coupling to last engaged thread on field end.

Measurements made with
☐ Decimal Footage Tape
☐ Meters Centimeters Tape

Note: Denote Centralizers on or Between Joints With (X)

No.	Feet or Meters	No.	Feet or Meters	No.	Feet or Meters	No.	Feet or Meters	No.	Feet or Meters
1		51		101		151		201	
2		52		102		152		202	
3		53		103		153		203	
4		54		104		154		204	
5		55		105		155		205	
6		56		106		156		206	
7		57		107		157		207	
8		58		108		158		208	
9		59		109		159		209	
10		60		110		160		210	
11		61		111		161		211	
12		62		112		162		212	
13		63		113		163		213	
14		64		114		164		214	
15		65		115		165		215	
16		66		116		166		216	
17		67		117		167		217	
18		68		118		168		218	
19		69		119		169		219	
20		70		120		170		220	
21		71		121		171		221	
22		72		122		172		222	
23		73		123		173		223	
24		74		124		174		224	
25		75		125		175		225	
26		76		126		176		226	
27		77		127		177		227	
28		78		128		178		228	
29		79		129		179		229	
30		80		130		180		230	
31		81		131		181			
32		82		132		182			
33		83		133		183			
34		84		134		184			
35		85		135		185			
36		86		136		186			
37		87		137		187			
38		88		138		188			
39		89		139		189			
40		90		140		190			
41		91		141		191			
42		92		142		192			
43		93		143		193			
44		94		144		194			
45		95		145		195			
46		96		146		196			
47		97		147		197			
48		98		148		198			
49		99		149		199			
50		100		150		200			

Tally of Joints Not Run

No.	Feet or Meters
1	
2	
3	
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28	
29	

No. Joints Delivered:

No. Joints Run:

Total Run — Overall:

Top Pipe Below:
☐ Rotary Drive Bushing
☐ Derrick Floor

Depth Landed:

Operational Data

Casing Makeup Torque ..... ft.-lbs.

Hanging Weight @ Setting Depth ..... lbs.

Pick Up Weight-Drag Setting Depth ..... lbs.

Set Down Weight-Drag Setting Depth .....

Casing Hung in Tension w/ ..... lbs. on hanger

Item(s) No. — Pipe Run

24 Size 20" Weight 94 Grade X-56 Type Joint Dril-Quip NS-60 Pin Range 3 Qty. 1

25 Size 20" Weight 94 Grade X-56 Type Joint Dril-Quip S-60 Pin Range Qty.

Size Weight Grade Type Joint Cameron 18-3/4" WH w/ Extension & Dril-Quip NS-60 Box Range Qty.

Size Weight Grade Type Joint Range Qty.

Approved - Company Representative C. L. Blackburn/J. G. Rankin

Pipe and Auxiliary Equipment Tally
(Permanent Detailed Record)
Form 19 (6-79)

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504871

Attach to Form 20

Field	Well No.	Article	Size	Date
YOLLA	1	INTERMEDIATE CASING	13-3/8	10 JULY 1985

Note: For casing and tubing with Hydril, Extremeline, or similiar joints, record shoulder to shoulder measurements; for other tubulars, record measurement from outer edge of mill coupling to last engaged thread on field end.

Measurements made with
☒ Decimal Footage Tape
☐ Meters Centimeters Tape

Note: Denote Centralizers on or Between Joints With (X)

No.	Feet or Meters		No.	Feet or Meters		No.	Feet or Meters		No.	Feet or Meters		No.	Feet or Meters	
1	1	96	51	39	18	101	39	25	151			201		
2	37	49	52	39	67	102	38	23	152			202		
3	39	18	53	37	21	103	38	78	153			203		
4	1	46	54	38	08	104	38	97	154			204		
5	38	69	55	38	03	105	37	26	155			205		
6	39	30	56	38	38	106	36	31	156			206		
7	39	60	57	39	02	107	39	41	157			207		
8	38	88	58	39	28	108	39	60	158			208		
9	39	47	59	39	33	109	39	75	159			209		
10	38	34	60	38	01	110	39	76	160			210		
11	39	76	61	39	77	111	39	41	161			211		
12	39	26	62	38	71	112	39	07	162			212		
13	38	88	63	39	39	113	39	24	163			213		
14	39	65	64	39	05	114	39	15	164			214		
15	37	52	65	39	13	115	38	28	165			215		
16	39	55	66	39	77	116	37	23	166			216		
17	38	53	67	38	24	117	39	75	167			217		
18	39	52	68	33	80	118	38	83	168			218		
19	38	50	69	33	89	119	38	45	169			219		
20	39	29	70	39	77	120	38	81	170			220		
21	39	20	71	39	79	121	39	56	171			221		
22	38	97	72	39	77	122	39	65	172			222		
23	39	44	73	39	34	123	39	54	173			223		
24	38	08	74	38	86	124	39	40	174			224		
25	34	69	75	39	69	125	39	75	175			225		
26	39	36	76	39	47	126	38	81	176			226		
27	39	30	77	37	85	127	38	43	177			227		
28	39	52	78	24	58	128	38	77	178			228		
29	37	81	79	39	82	129	39	33	179			229		
30	39	04	80	38	90	130	39	68	180			230		
31	38	94	81	39	76	131	39	13	181					
32	39	32	82	39	48	132	39	53	182					
33	38	18	83	39	20	133	38	42	183					
34	36	72	84	39	00	134	38	52	184					
35	39	09	85	38	34	135	39	69	185					
36	38	27	86	39	43	136	38	03	186					
37	39	47	87	39	73	137	37	62	187					
38	38	80	38	39	93	138	39	12	188					
39	38	77	89	39	75	139	39	47	189					
40	39	29	90	39	71	140	39	40	190					
41	39	68	91	39	55	141	39	46	191					
42	37	92	92	39	77	142	39	15	192					
43	39	10	93	39	77	143	HGR 13	44	193					
44	39	72	94	38	29	144			194					
45	39	77	95	39	49	145			195					
46	38	53	96	39	14	146			196					
47	39	52	97	38	49	147			197					
48	38	20	98	38	38	148			198					
49	37	90	99	39	70	149			199					
50	38	03	100	39	.52	150			200					

Tally of Joints Not Run

No.	Feet or Meters	
1	39	35
2	39	35
3	39	35
4	37	95
5	36	22
6	39	55
7	39	25
8	38	00
9	39	35
10	38	84
11	39	15
12	38	53
13	39	65
14	39	12
15	39	05
16	39	34
17	39	15
18	38	98
19	39	54
20	38	83
21	39	18
22	39	64
23	10	18
24	15	28
25		
26		
27		
28		
29		

No. Joints Delivered: 164

No. Joints Run: 140

Total Run – Overall: 5456.50 (INCLUDES SHOE, FC & HANGER)

Top Pipe Below:
☒ Rotary Drive Bushing
☐ Derrick Floor

Depth Landed: 5748.50

Operational Data

Casing Makeup Torque .....(10,000) ft.-lbs.

Hanging Weight @ Setting Depth 390,000 lbs.

Pick Up Weight-Drag Setting Depth 400,000 lbs.

Set Down Weight-Drag Setting Depth 370,000

Casing Hung in Tension w/321000 lbs. on hanger

Item(s) No. — Pipe Run

1 & 4	Size 13-3/8	Weight	Grade	Type Joint BUTTRESS	Range	Qty. SHOE & FC (3.42')
2-25	Size 13-3/8	Weight 72	Grade N-80	Type Joint BUTTRESS	Range	Qty. 891.79', 23 jts.
26-142	Size 13-3/8	Weight 68	Grade N-80	Type Joint BUTTRESS	Range	Qty. 4547.45', 117 jts.
143	Size 13-3/8	Weight	Grade	Type Joint BUTTRESS	Range	Qty. 13.44', 1 jt.

Approved - Company Representative C. L. Blackburn/G. A. Cowan

Pipe and Auxiliary Equipment Tally
(Permanent Detailed Record)
Form 19 (6-79)

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Attach to Form 20

Field	Well No.	Article	Size	Date
YOLLA	1	CASING	9-5/8"	2ND SEPTEMBER'85

Note: For casing and tubing with Hydril, Extremeline, or similiar joints, record shoulder to shoulder measurements; for other tubulars, record measurement from outer edge of mill coupling to last engaged thread on field end.

Measurements made with
☒ Decimal Footage Tape
☐ Meters Centimeters Tape

Note: Denote Centralizers on or Between Joints With (X)

No.	Feet or Meters		No.	Feet or Meters		No.	Feet or Meters		No.	Feet or Meters		No.	Feet or Meters		No.	Feet or Meters	
1	Shoe 1	85	51	39	54	101	38	22	151	39	08	201	39	35			
2	38	60	52	39	12	102	39	21	152	39	50	202	39	67	1	39	29
3	39	65	53	38	99	103	38	86	153	38	87	203	39	33	2	37	41
4	F.C. 1	45	54	39	16	104	38	92	154	39	52	204	39	13	3	39	47
5	39	19	55	39	50	105	39	02	155	39	32	205	39	50	4	39	30
6	39	60	56	39	50	106	39	66	156	38	93	206	39	44	5	39	49
7	39	57	57	39	68	107	35	09	157	39	51	207	39	49	6	39	36
8	39	26	58	39	50	108	39	50	158	37	88	208	39	20	7	39	58
9	39	45	59	39	09	109	39	10	159	39	51	209	39	49	8	38	74
10	39	47	60	39	50	110	39	50	160	39	51	210	39	49	9	39	65
11	39	69	61	39	53	111	39	50	161	39	38	211	39	36	10	39	43
12	39	33	62	39	25	112	39	51	162	39	50	212	38	11	11	39	49
13	39	33	63	39	50	113	39	32	163	39	32	213	39	27	12	39	50
14	38	89	64	39	67	114	39	39	164	39	40	214	39	50	13		
15	39	49	65	36	83	115	39	50	165	39	50	215	39	51	14	Running String	
16	39	32	66	38	70	116	39	23	166	39	46	216	39	50	15		
17	39	40	67	39	52	117	38	52	167	39	49	217	39	48	16	37	72
18	36	95	68	38	94	118	DV 3	28	168	39	50	218	39	48	17	39	39
19	38	38	69	39	68	119	39	65	169	36	76	219	39	25	18	39	49
20	36	62	70	36	44	120	39	50	170	38	37	220	39	64	19	39	41
21	38	25	71	39	05	121	39	51	171	39	50	221	39	51	20	39	50
22	36	80	72	39	64	122	39	64	172	39	54	222	39	49	21	39	24
23	36	88	73	39	51	123	39	53	173	39	51	223	39	49	22	39	13
24	39	17	74	38	01	124	39	50	174	39	50	224	38	64	23	39	49
25	39	42	75	38	63	125	39	22	175	39	50	225	39	45	24		
26	38	80	76	39	31	126	36	74	176	39	40	226	39	32	25		
27	39	35	77	39	40	127	39	43	177	39	40	227	38	65	26		
28	38	90	78	39	53	128	39	39	178	39	47	228	39	13	27		
29	37	40	79	39	50	129	39	67	179	39	22	229	39	60	28		
30	34	75	80	39	32	130	39	22	180	39	50	230	39	44	29		
31	38	29	81	39	35	131	39	03	181	38	89						
32	38	12	82	39	50	132	39	66	182	39	50						
33	38	29	83	37	76	133	39	53	183	39	43						
34	39	19	84	39	32	134	38	04	184	39	49						
35	39	27	85	36	40	135	38	25	185	39	50						
36	38	85	86	38	35	136	39	09	186	39	51						
37	36	23	87	39	50	137	38	80	187	39	03						
38	39	38	88	38	59	138	39	49	188	39	32						
39	39	32	89	39	49	139	39	04	189	39	49						
40	38	85	90	39	17	140	39	49	190	39	50						
41	37	10	91	39	69	141	39	69	191	39	36						
42	39	15	92	39	58	142	39	45	192	39	52						
43	39	53	93	39	50	143	39	49	193	39	35						
44	38	05	94	37	18	144	39	49	194	39	53						
45	39	19	95	39	34	145	39	38	195	39	53						
46	39	31	96	39	29	146	39	62	196	39	09						
47	39	05	97	39	65	147	39	06	197	39	24						
48	39	10	98	39	50	148	39	08	198	39	36						
49	39	50	99	39	65	149	39	25	199	39	50						
50	38	41	100	38	82	150	39	53	200	39	50						

No. Joints Delivered: 293
No. Joints Run: 273

Total Run — Overall: 10,978.61'
10,665.24'

Top Pipe Below:
☒ Rotary Drive Bushing
☐ Derrick Floor

Depth Landed: 10,957.24

Operational Data
Casing Makeup Torque (9900) Triangle ft.-lbs.
Hanging Weight @ Setting Depth 490,000 lbs.
Pick Up Weight-Drag Setting Depth 510,000 lbs.
Set Down Weight-Drag Setting Depth 450,000
Casing Hung in Tension w/ 426,000 lbs. on hanger

Tally of Joints Not Run

No.	Feet or Meters	
1	39	29
2	37	41
3	39	47
4	39	30
5	39	49
6	39	36
7	39	58
8	38	74
9	39	65
10	39	43
11	39	49
12	39	50
13		
14		
15		
16	37	72
17	39	39
18	39	49
19	39	41
20	39	50
21	39	24
22	39	13
23	39	49
24		
25		
26		
27		
28		
29		

Item(s) No. — Pipe Run

1,4,118 Size 9-5/8" Weight ____ Grade ____ Type Joint Buttress Range ____ Qty. Shoe, F.C., DV

277 Size 9-5/8" Weight ____ Grade ____ Type Joint Buttress Range ____ Qty. Casing Hanger

2-3,5-117 119-276 Size 9-5/8" Weight 47 Grade N-80 Type Joint Buttress Range 3 Qty. 273

Rng Stng Size 9-5/8" Weight 47 Grade N-80 Type Joint Buttress Range 3 Qty. 8

Approved - Corr. Representative C. L. Blackburn/G. A. Cowan

Pipe and Auxiliary Equipment Tally
(Permanent Detailed Record)
Form 19 (6-79)

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Attach to Form 20

Field	Well No.	Article	Size	Date
YOLLA # 1	1	Casing	9-5/8"	2nd September, 1985

Note: For casing and tubing with Hydril, Extremeline, or similiar joints, record shoulder to shoulder measurements; for other tubulars, record measurement from outer edge of mill coupling to last engaged thread on field end.

Measurements made with
☐ Decimal Footage Tape
☐ Meters Centimeters Tape

Note: Denote Centralizers on or Between Joints With (X)

No.	Feet or Meters	No.	Feet or Meters	No.	Feet or Meters	No.	Feet or Meters	No.	Feet or Meters
1	36 85	51		101		151		201	
2	39 16	52		102		152		202	
3	39 28	53		103		153		203	
4	39 68	54		104		154		204	
5	39 50	55		105		155		205	
6	39 51	56		106		156		206	
7	39 20	57		107		157		207	
8	39 00	58		108		158		208	
9	39 40	59		109		159		209	
10	39 55	60		110		160		210	
11	39 66	61		111		161		211	
12	39 48	62		112		162		212	
13	39 05	63		113		163		213	
14	39 28	64		114		164		214	
15	38 79	65		115		165		215	
16	39 28	66		116		166		216	
17	39 52	67		117		167		217	
18	39 52	68		118		168		218	
19	39 38	69		119		169		219	
20	39 20	70		120		170		220	
21	38 98	71		121		171		221	
22	39 28	72		122		172		222	
23	39 65	73		123		173		223	
24	39 45	74		124		174		224	
25	39 12	75		125		175		225	
26	39 67	76		126		176		226	
27	39 03	77		127		177		227	
28	39 04	78		128		178		228	
29	39 69	79		129		179		229	
30	39 48	80		130		180		230	
31	39 45	81		131		181			
32	39 66	82		132		182			
33	39 28	83		133		183			
34	39 49	84		134		184			
35	39 30	85		135		185			
36	39 50	86		136		186			
37	39 28	87		137		187			
38	39 02	88		138		188			
39	39 50	89		139		189			
40	39 31	90		140		190			
41	39 12	91		141		191			
42	39 51	92		142		192			
43	39 21	93		143		193			
44	38 66	94		144		194			
45	39 29	95		145		195			
46	pup 15 94	96		146		196			
47	hgr 2 30	97		147		197			
48		98		148		198			
49		99		149		199			
50		100		150		200			

Tally of Joints Not Run

No.	Feet or Meters
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	

No. Joints Delivered:

No. Joints Run:

Total Run — Overall:

Top Pipe Below:
☐ Rotary Drive Bushing
☐ Derrick Floor

Depth Landed:

Operational Data

Casing Makeup Torque ..... ft.-lbs.

Hanging Weight @ Setting Depth ..... lbs.

Pick Up Weight-Drag Setting Depth ..... lbs.

Set Down Weight-Drag Setting Depth .....

Casing Hung in Tension w/ .....lbs. on hanger

Item(s) No.

Pipe Run

_____ Size _____ Weight _____ Grade _____ Type Joint _____ Range _____ Qty. _____

_____ Size _____ Weight _____ Grade _____ Type Joint _____ Range _____ Qty. _____

_____ Size _____ Weight _____ Grade _____ Type Joint _____ Range _____ Qty. _____

_____ Size _____ Weight _____ Grade _____ Type Joint _____ Range _____ Qty. _____

Approved - Company Representative C. Blackburn/G. A. Cowan

5 cm

GRAPHICAL ANALYSIS

OPERATOR AMOCO AUSTRALIA PET. CO.

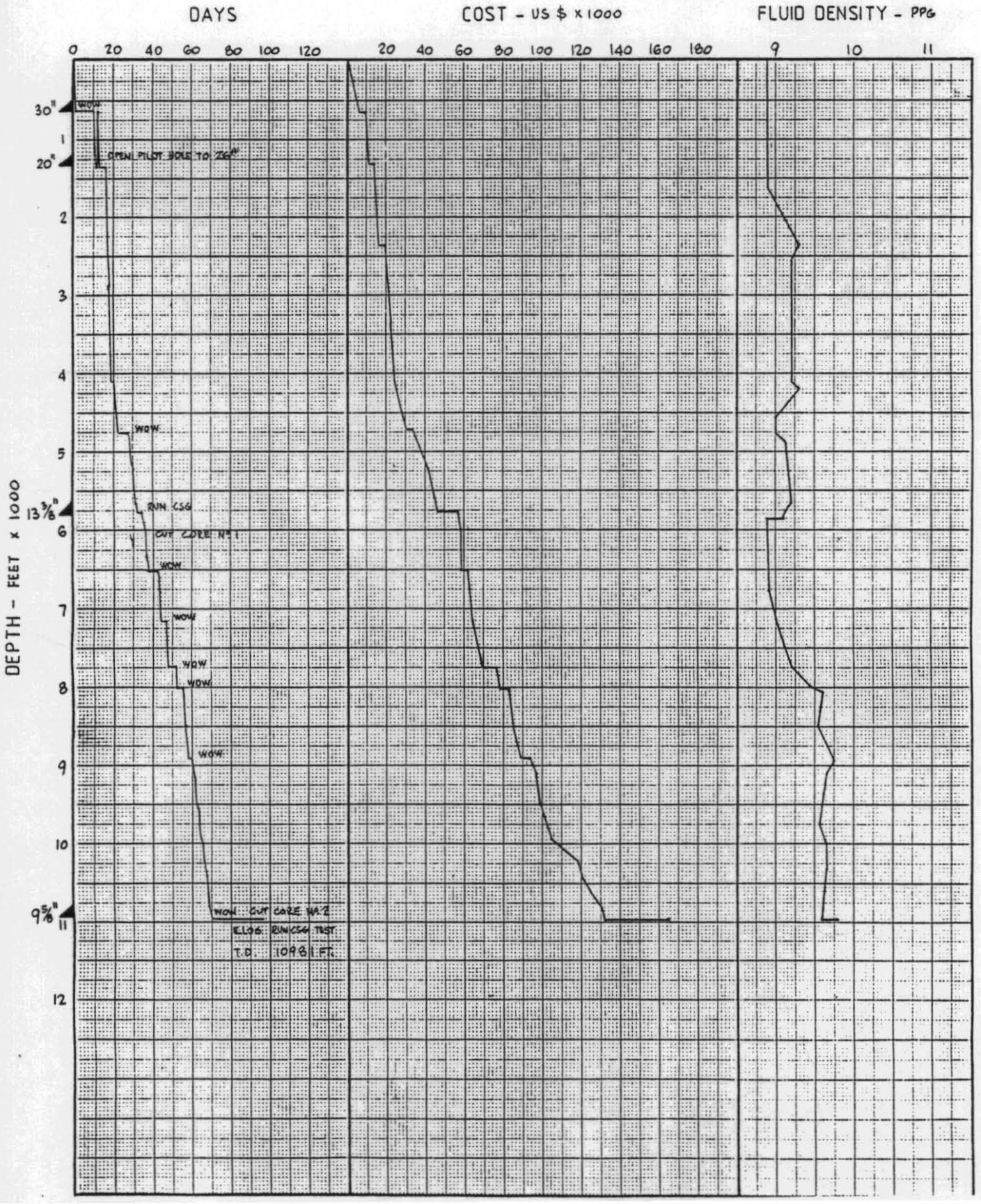
WELL YOLLA Nº 1

DRAWN BY S. ECKFELD

RIG D/S R.F. BAUER

SPUD DATE 8 JUNE 1985

DATE DRAWN SEPTEMBER 1985



MUD MATERIAL USAGE AND COST BY INTERVAL

MATERIAL	36" HOLE	26" HOLE	17 1/2" HOLE	12 1/4" HOLE	DST	TOTALS
GEL	654	628	1489	2800	749	6320
BARITE	107	0	1042	7100	2386	10635
CAUSTIC (50 KG)	15	5	109	165	27	321
CAUSTIC (70 KG)	0	0	33	52	3	88
Q-BROXIN	0	0	184	297	7	488
PAC-R	0	0	22	83	30	135
PAC-L	0	0	90	300	75	465
DEXTRID	0	0	285	80	219	584
SODA ASH	3	2	42	8	0	55
LIME	9	15	6	104	2	136
SUR-FLO W-300	0	0	1	0	0	1
ALUMINIUM STEARATE	0	0	9	1	0	10
POTASSIUM NITRATE	0	0	0	47	0	47
SODIUM BICARBONATE	0	0	0	6	1	7
CALCIUM CHLORIDE	0	28	0	0	0	28
CARBONOX	0	0	0	155	0	155
US DOLLARS	5932.92	5162.18	38,651.97	99,659.43	34,459.27	183,865.77

304275

Baroid Australia PTY. LTD./NL INDUSTRIES INC.

MATERIAL SUMMARY

COMPANY AMOCO
WELL YOLLA NO. 1
LOCATION T14P, BASS STRAIT
COST/DAY $4,339.92
COST/FT $ 20.71
COST/BBL $ 8.79
RECAPPED BY P. McNAUGHTON

MUD TYPE
SEAWATER-AQUAGEL

TOTAL ROTATING HRS
TOTAL DAYS ON HOLE
TOTAL DEPTH 10981 ft

MUD CONSUMPTION : WELL AVERAGE 2.35 BBL/FT

HOLE SIZE	FEET DRILLED	DRILLING DAYS
36"	353	1
26"	703	2
17½"	4424	15
12¼"	5209	33
TOTAL	10689 ft	

MATERIAL	UNIT	UNIT COST	ESTIMATED USED KG/M³	ACTUAL USED ppb	TOTAL COST ESTIMATED	TOTAL COST ACTUAL
AQUAGEL (BULK)	100 lb	13.21		5476		72,339.96
AQUAGEL (SACKS)	100 lb	13.21		68		898.28
ALUMINIUM STEARATE	10 kg	22.75		10		227.50
BICARB. SODA	50 kg	19.81		6		118.86
CARBONOX	50 lb	13.20		155		2,046.00
CAUSTIC SODA	50 kg	38.52		306		11,787.12
CAUSTIC SODA	70 kg	53.93		123		6,633.39
DEXTRID	50 lb	25.52		362		9,238.24
LIME	25 kg	5.38		134		720.92
PAC-L	50 lb	85.53		380		32,501.40
PAC-R	50 lb	85.53		105		8,980.65
POTASSIUM NITRATE	50 kg	45.01		47		2,115.47
Q-BROXIN	25 kg	15.11		473		7,147.03
SODA ASH	50 kg	17.52		13		227.76
SURFLO W300	200 lt	193.06		1		193.06
BARITE (BULK)	100 lb	8.66		7640		66,162.40

MATERIAL NOT USED FOR DRILLING (NOT INCLUDED IN TOTAL MUD COST)

1. BASE PLATE						
BARITE (SACKS)	100 lb	8.66		107		926.62
2. CEMENTING						
AQUAGEL (SACKS)	100 lb	13.21		40		528.40
CALCIUM CHLORIDE	25 kg	7.78		28		217.84

CHEMICAL VOLUME	890 BBL	
FRESH WATER	20,412 BBL	
SEA WATER	3,870 BBL	
TOTAL MUD MADE	25,172 BBL	
COST LESS BARYTES		US$155,173.64
COST WITH BARYTES		US$221,336.04

COMMENTS

COST/DAY AND DRILLING DAYS EXCLUDE DAYS LOST W.O.W.

Baroid Australia PTY. LTD./NL INDUSTRIES INC.

MATERIAL RECAP

COMPANY AMOCO
WELL YOLLA NO. 1
LOCATION T-24P, BASS STRAIT
COST/DAY $9,318.12
COST/ FT $ 26.40
COST/ BBL $ 4.78
RECAPPED BY M. SEWELL
DATE JUNE 21, 1985

MUD TYPES
SEAWATER +
FRESHWATER-GEL SPUD MUD

CONTRACTOR GLOBAL MARINE
DRILLING DAYS/PHASE 1
ROTATING HRS/PHASE 6½

HOLE SIZE 36"
INTERVAL TO 645 ft
FROM 292 ft
FEET DRILLED 352 ft

MUD CONSUMPTION FACTOR 3.26 bbl/ft

MATERIAL	UNIT	UNIT COST	ESTIMATED USED KG/M³	ACTUAL USED ppb	TOTAL COST ESTIMATED	TOTAL COST ACTUAL
AQUAGEL (BULK)	100 lb	13.21		654		8,639.34
CAUSTIC SODA	50 kg	38.52		15		577.80
SODA ASH	50 kg	17.52		3		52.56
LIME	25 kg	5.38		9		48.92
MATERIAL NOT CHARGED TO DRILLING						
BARITE (FOR BASE PLATE)	100 lb	8.66		107		926.62

CHEMICAL VOLUME	73	BBL
FRESH WATER	1877	BBL
SEA WATER	-	
TOTAL MUD MADE	1950	BBL
COST LESS BARYTES		US$ 9,318.12
COST WITH BARYTES		US$ 9,318.12

COMMENTS

MUD CONSUMPTION CALCULATED ON 1,150 BBL ALLOWING FOR 800 BBL CARRIED OVER TO 36" HOLE INTERVAL.

Baroid Australia PTY. LTD./NL INDUSTRIES INC.

MATERIAL RECAP

COMPANY AMOCO
WELL YOLLA NO. 1
LOCATION T-14P, BASS STRAIT
COST/DAY $4,037.91
COST FT $ 11.49
COST BBL $ 6.46
RECAPPED BY M. SEWELL
DATE JUNE 21, 1985

MUD TYPES
SEAWATER +
FRESHWATER-GEL SPUD MUD

CONTRACTOR GLOBAL MARINE
DRILLING DAYS/PHASE 2 (EXCLUDING W.O.W.)
ROTATING HRS/PHASE

HOLE SIZE 26"
INTERVAL TO 1348 ft
FROM 645 ft
FEET DRILLED 703 ft

MUD CONSUMPTION FACTOR 2.91 bbl/ft

MATERIAL	UNIT	UNIT COST	ESTIMATED USED KG/M³	ACTUAL USED	TOTAL COST ESTIMATED	TOTAL COST ACTUAL
AQUAGEL (BULK)	100 lb	13.21		588		7,767.48
CAUSTIC SODA	50 kg	38.52		5		192.60
SODA ASH	50 kg	17.52		2		35.04
LIME	25 kg	5.38		15		80.70
CEMENTING MATERIALS NOT INCLUDED IN COST OF DRILLING MUD						
CALCIUM CHLORIDE	25 kg	7.78		28		217. 84
AQUAGEL (SACK)	100 lb	13.21		40		528.40
						$746.24

CHEMICAL VOLUME	65 BBL	
FRESH WATER	1185 BBL	
SEA WATER	-	
TOTAL MUD MADE	1250 BBL	
COST LESS BARYTES		US$ 8,075.82
COST WITH BARYTES		US$ 8,075.82

COMMENTS

MUD CONSUMPTION CALCULATED ON 2060 BBLS, INCLUDING 800 BBL RESERVE VOLUME CARRIED OVER FROM 26" INTERVAL. 2 DAYS DRILLING AND 1 DAY W.O.W.

Baroid Australia PTY. LTD./NL INDUSTRIES INC.

MATERIAL RECAP

COMPANY AMOCO
WELL YOLLA NO. 1
LOCATION T-14P, BASS STRAIT
COST/DAY $3,811.46
COST/FT $ 12.92
COST/BBL $ 6.21
RECAPPED BY M. SEWELL
DATE JULY 10, 1985

MUD TYPES
SEAWATER-AQUAGEL-POLYMER

CONTRACTOR GLOBAL MARINE
DRILLING DAYS/PHASE 15 (EXCLUDING W.O.W.)
ROTATING HRS/PHASE

HOLE SIZE 17½"
INTERVAL TO 5772 ft
FROM 1348 ft
FEET DRILLED 4424 ft

MUD CONSUMPTION FACTOR 2.08 bbl/ft

MATERIAL	UNIT	UNIT COST	ESTIMATED USED	ESTIMATED KG/M³	ACTUAL USED	TOTAL COST ESTIMATED	TOTAL COST ACTUAL
AQUAGEL (BULK)	100 lb	13.21			1434		18,943.14
AQUAGEL (SACK)	100 lb	13.21			68		898.28
ALUMINIUM STEARATE	10 kg	22.75			9		204.75
CAUSTIC SODA	50 kg	38.52			132		5,084.64
CAUSTIC SODA	70 kg	53.93			60		3,235.80
DEXTRID	50 lb	25.52			282		7,196.64
LIME	25 kg	5.38			6		32.28
PAC-L	50 lb	85.53			90		7,697.70
PAC-R	50 lb	85.53			22		1,881.66
Q-BROXIN	25 kg	15.11			184		2,780.24
SURFLO W300	200 lt	193.06			1		193.06
BARITE (BULK)	100 lb	8.66			1042		9,023.72

CHEMICAL VOLUME	320 BBL
FRESH WATER	5010 BBL
SEA WATER	3870 BBL
TOTAL MUD MADE	9200 BBL
COST LESS BARYTES	US$ 48,148.19
COST WITH BARYTES	US$ 57,171.91

COMMENTS

DISPERSIVE CLAY IN TORQUAY GROUP (2800 - 4200 ft) REQUIRED HEAVY DILUTION AND CHEMICAL TREATMENT.
350 BBL OF WEIGHTED (10.5 ppg) MUD PUMPED BEFORE RUNNING CASING.
15 DAYS DRILLING + 4 DAYS W.O.W.

Baroid Australia PTY. LTD./NL INDUSTRIES INC.

MATERIAL RECAP

COMPANY AMOCO
WELL YOLLA NO. 1
LOCATION T-14P, BASS STRAIT
COST/DAY $4,447.58
COST/FT $ 28.18
COST/BBL $ 11.49
RECAPPED BY S. BRACKER
DATE SEPTEMBER 5, 1985

MUD TYPES
FRESHWATER-GEL-POLYMER

CONTRACTOR GLOBAL MARINE
DRILLING DAYS/PHASE 33 (EXCLUDING W.O.W.)
ROTATING HRS/PHASE

HOLE SIZE 12¼"
INTERVAL TO 10981 ft
FROM 5772 ft
FEET DRILLED 5209 ft

MUD CONSUMPTION FACTOR 2.45 bbl/ft

MATERIAL	UNIT	UNIT COST	ESTIMATED USED KG/M³	ACTUAL USED	TOTAL COST ESTIMATED	TOTAL COST ACTUAL
AQUAGEL	100 lb	13.21		1800		36,988.00
ALUMINIUM STEARATE	10 kg	22.75		1		22.75
BICARB. SODA	50 kg	19.81		6		118.86
CARBONOX	50 lb	13.20		155		2,046.00
CAUSTIC SODA	50 kg	38.52		154		5,932.08
CAUSTIC SODA	70 kg	53.93		63		3,397.59
DEXTRID	50 lb	25.52		80		2,041.60
LIME	25 kg	5.38		104		559.52
PAC-L	50 lb	85.53		290		24,803.70
PAC-R	50 lb	85.53		83		7,098.99
POTASSIUM NITRATE	50 kg	45.01		47		2,115.47
Q-BROXIN	25 kg	15.11		289		4,366.79
SODA ASH	50 kg	17.52		8		140.16
BARITE	100 lb	8.66		6598		57,138.68

CHEMICAL VOLUME	432	BBL
FRESH WATER	12340	BBL
SEA WATER	-	
TOTAL MUD MADE	12772	BBL
COST LESS BARYTES		US$ 89,631.51
COST WITH BARYTES		US$146,770.19

COMMENTS

MUD WEIGHT INCREASED BELOW 8000 FT DUE TO INCREASED BACKGROUND/TRIP GAS.
LIME ADDED TO TREAT FOR CO_2/CARBONATE/BICARBONATE CONTAMINATION.

EXTRA TREATMENT FOR EXTENDED W.O.W. SHUTDOWN (33 DRILLING DAYS + 20 DAYS W.O.W.)

Baroid Australia PTY. LTD./NL INDUSTRIES INC.

DRILLING FLUID PROPERTY RECAP

COMPANY AMOCO AUSTRALIA PETROLEUM CO WELL YOLLA NO. 1

DATE 1985	DEPTH Ft	HOLE SIZE	TEMP °C	WEIGHT ppg	VIS SEC	PV	YP	GELS 10 sec	GELS 10 min	WATER LOSS A.P.I.	CAKE mm	pH	Pf	Mf	Cl mg/l	Ca mg/l	SAND %	SOLIDS %	WATER %	OIL %	MBC ppb	REMARKS TREATMENT FORMATION
JUNE																						
5-6	-			9.0	180	10	70	75	85													
6				9.0	180																	
7				9.0	180+																	
8	645	36	-	8.9	100+	22	154	70	100			11									40	SPUD DATE
9				-	-																	W.O.W.
10																						W.O.W.
11																						W.O.W.
12																						W.O.W.
13																						RUN ANCHORS
14																						W.O.W.
15																						W.O.W.
16																						W.O.W.
17																						W.O.W.
18	1345	17½		8.9	100+	22	154	70	100			11									40	RETURNS TO SURFACE SHELL,CORAL,SAND
19	1348	"		8.9	100+																	W.O.W.
20	1348	26"		8.9	100+	22	154	70	100			11									40	RETURNS TO SEABED
21	1348	"		8.9	100+																	RUN 20" CASING
22	1348	17½"		8.9	100+																	RUN BOP, TAG CEMENT
23	1580	"	27.8	8.9	37	8	17	10	14	29.4	4	8.5	.05	.15	10000	560	4	4	96	0	20	DRILL CMT & SHOE CLAYSTONE
24	2364	"	-	9.3	67	10	43	23	35	38.0	3	9.8	.3	.7	15000	100	.25	8	92	0	25	DRILLED 14½ HRS WOW 10½ HRS, TEST BOP
25	2539	"	36.1	9.2	69	7	48	25	30	13.4	3	9	.1	.25	13000	360	.25	6	94	0	22.5	DRILL 23 HRS CLAYSTONE
26	3528	"	50.6	9.2	63	7	40	26	31	21.1	4	9.4	.1	.23	17000	1120	.1	6	94	0	22.5	DRILL 18 HRS,BIT TRIP CLAYSTONE/SHALE
27	4101	"	-	9.2	65	10	35	23	-	16.0	3	9.8	.2	.5	19000	400	Tr	6	94	0	22.5	WOW, TEST BOP,DRILL 1HR "
28	4199	"	37.8	9.3	62	8	34	21	25	15.6	3	9.0	.1	.25	17000	760	Tr	7	93	0	25	DRILL 23½ HRS CLAYSTONE,SNDST
29	4546	"	48.9	9.0+	41	4	24	18	26	10.3	2	11	1.25	2.9	16500	80	Tr	5	95	0	25	DRILL 18 HRS CLAYST, SANDST
	4764	"	-	9.0	48	8	22	19	28	9.8	2	11	1.4	2.9	16500	100	Tr	6	94	0	25	POOH AT 4764 CLAYST, SANDST

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Baroid Australia PTY. LTD./NL INDUSTRIES INC.

DRILLING FLUID PROPERTY RECAP

COMPANY AMOCO AUSTRALIA PETROLEUM CO WELL YOLLA NO. 1

DATE 1985	DEPTH Ft	HOLE SIZE	TEMP °C	WEIGHT ppg	VIS SEC	PV	YP	GELS 10 sec	GELS 10 min	WATER LOSS A.P.I.	CAKE mm	pH	Pf	Mf	Cl mg/l	Ca mg/l	SAND %	SOLIDS %	WATER %	OIL %	MBC ppb	REMARKS TREATMENT	FORMATION
JUNE 30		17½	-																			W.O.W.	
JULY 1																						W.O.W.	
2																						W.O.W.	
3																						W.O.W.	
4	4764	"	-	9.1	84	15	48	33	48	12.8	2	9.5	.35	1.65	16500	160	Tr	6	94	0	25	TEST BOP's WASH & REAM TO BTM, DRILL	CLAYSTONE, SNDSTNE
5	4858	"	41.1	9.1+	46	10	20	13	39	9.2	2	11	1.3	2.7	12000	100	Tr	7	93	0	27.5	DRILL 24 HRS	CLAYSTONE "
6	5220	"	41.3	9.1	46	10	20	12	43	7.6	2	10.5	1.6	3.5	11000	100	Tr	7	93	0	28	DRILL 13½ HRS	" "
7	5659	"	50.7	9.2	48	14	20	8	28	5.8	2	11	1.7	2.9	11000	80	Tr	7	93	0	27.5	DRILL, CIRC 24 HRS	" "
8	5772	"	51	9.2	45	10	20	8	21	7	2	10.5	1.1	2.1	10000	100	Tr	7	93	0	27	DRILL 3 HRS	" "
9	5772	"	51	9.1	48	15	18	7	15	7	2	10.8	1.0	2.7	10000	80	Tr	7	93	0	27.5	REAM, CIRC	
10	5772	"	-	9.1	49	26	19	8	16	7	2	10.8	1.0	2.7	10000	80	Tr	7	93	0	27.5	RUN 13-3/8" CSG	
11	5772	12¼	-	8.9	52	19	16	2	15	6	1	11.0	1.7	3.1	3500	Tr	Tr	4	96	0	20	DRILL, LEAK-OFF TEST	CLAYSTONE
12	6030	"	-	8.9	45	17	15	2	12	5.8	1	11	1.6	3.1	4000	Tr	Tr	4	96	0	17.5	DRILL 6½HRS	SAND
13	6302	"	30	8.9	48	17	17	2	12	5.8	1	11	1.3	2.6	4000	Tr	Tr	4	96	0	17.5	CORE, RIH, CIRC	"
14	6504	"	-	8.9	48	17	17	2	12	5.8	1	11	1.3	2.6	4000	Tr	Tr	4	96	0	17.5	DRILL 5½ HRS, W.O.W.	
15																						W.O.W.	
16																						W.O.W.	
17																						W.O.W.	
18	6504	"	46.1	8.9	49	17	18	2	12	6.0	1	11	1.3	2.6	4000	Tr	Tr	4	96	0	19	W.O.W., RIH, CIRC	
19	6605	"	43.3	8.9	45	16	17	4	12	5.9	1	10.5	1.0	2.1	4000	Tr	Tr	4	96	0	19	LOGS, DRILL 3½ HRS	
20	6722	"	-	8.9	50	19	15	4	22	6.0	1	10.5	1.1	2.0	4000	Tr	Tr	4	96	0	20	DRILL 14½ HRS, W.O.W.	
21	7142	"	-	9.0	51	23	19	4	21	6.0	1	11.5	1.7	2.5	4000	Tr	Tr	3	97	0	20	W.O.W.	
22																						W.O.W.	
23																						W.O.W.	
24	7179	"	45.6	8.9	45	15	13	3	15	6.3	1	11.0	1.14	1.9	5000	20	Tr	3	97	0	20	DRILL 18½ HRS RAISE WT TO 9.2	SST, SILTST, CLAYST COAL

30498

Baroid Australia PTY. LTD./NL INDUSTRIES INC.

DRILLING FLUID PROPERTY RECAP

COMPANY

WELL

DATE 1985	DEPTH Ft	HOLE SIZE	TEMP °C	WEIGHT ppg	VIS SEC	PV	YP	GELS 10 sec	GELS 10 min	WATER LOSS A.P.I.	CAKE mm	pH	Pf	Mf	Cl mg/l	Ca mg/l	SAND %	SOLIDS %	WATER %	OIL %	MBC ppb	REMARKS TREATMENT FORMATION
JULY																						
25	7726	12¼	58.3	9.2	51	16	14	6	31	6.0	1	11.6	1.37	2.34	4200	Tr	Tr	5	95	0	22.5	W.O.W.
26																						W.O.W.
27	7726	"	32.2	9.2	49	19	14	3	14	5.6	1	11.5	.98	1.85	4300	Tr	Tr	5	95	0	22.5	DRILL 12¼ HRS SANDST,SHALE,COAL RAISE WT TO 9.4
28	8000	"	62.8	9.4+	56	20	20	5	29	5.8	1	10.9	1.15	2.04	3500	Tr	Tr	7	93	0	26	W.O.W.
29																						W.O.W.
30																						W.O.W.
31	"	"	15.6	9.4+	90	30	26	8	22	5.2	1	10.1	.81	1.8	4900	32	Tr	7	93	0	26	W.O.W.
AUGUST																						
1	8050	"	55.6	9.6	57	22	21	9	31	5.3	1	10.4	1.12	2.5	4000	20	Tr	7	93	0	26	DRILL 7 HRS SANDST,SHALE,COAL
2	8183	"	61.1	9.6	56	23	21	10	33	5.3	1	10.7	1.37	2.8	3600	Tr	.25	7	93	0	26	DRILL, 23 HRS SANDST,SILT,COAL
3	8544	"	68.9	9.5+	59	25	21	9	32	5.6	1	10.5	1.3	2.5	2750	Tr	.4	7	93	0	25	DRILL 24 HRS SHALE,VOLCANICS
4	8902	"	71.1	9.7+	53	23	16	8	25	5.2	1	10.8	1.66	3.25	2400	Tr	.25	8	92	0	27	BIT TRIP, W.O.W.
5	8902	"	-	9.7+	53	23	16	8	25	5.2	1	10.8	1.66	3.25	2400	Tr	.25	8	92	0	27	WASH TO BOTTOM
6	9176	"	70	9.6+	52	16	24	11	39	7.4	1	10.4	1.67	4.2	2700	20	0.25	7	93	0	23	CO_2 CONTAMINATION?
7	9460	"	72.2	9.6+	160	15	78	64	76	7.5	3	10.6	1.8	4.5	2600	40	0.25	7	92	0	23	" " TREAT WITH LIME
	9515	"	72.4	9.6	60	14	32	22	33	7.5	2	11.0	1.7	2.4	2500	200	0.2	8	92	0	22	" " " " "
8	9532	"	71.1	9.6+	66	16	35	20	36	7.8	2	10.7	1.8	3.9	2400	140	0.2	7	93	0	23	DRILL
9	9777	"	72.2	9.5+	51	15	10	5	18	8.6	2	11.4	2.2	3.9	2100	200	0.2	7	93	0	23	REDUCE SOLIDS/RHEOLOGY
10	10068	"	70.6	9.6+	50	19	14	7	25	6.2	2	10.7	1.6	3.4	1500	120	0.25	7	93	0	25	DRILL
11	10138	"	71.7	9.5+	49	14	12	5	15	6.3	2	10.8	1.7	3.2	1300	20	0.1	6	94	0	25	DRILL
12	10360	"	71.7	9.6	51	19	14	5	23	6.5	2	10.9	1.4	3.1	1200	20	0.25	7	93	0	25	DRILL
13	10500	"	73.9	9.6	57	20	16	5	22	7.7	2	10.6	1.2	2.5	1200	Tr	0.25	8	92	0	28	DRILL
14	10823	"	76.7	9.6	50	19	14	4	11	8.7	2	10.7	0.9	1.9	1200	40	0.1	7	93	0	25	DRILL
15	10930	"	75	9.6	59	17	18	5	14	8.6	2	11.0	1.1	2.3	1400	40	Tr	7	93	0	26	DRILL
16	10972	"	-	9.6	44	16	16	4	16	8.5	2	11.0	1.0	2.3	1300	40	Tr	7	93	0	25	W.O.W.
17	10972	"	-	9.6	44	16	16	4	16	8.5	2	11.0	1.0	2.2	1300	40	Tr	7	93	0	25	W.O.W.

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Baroid Australia PTY. LTD./NL INDUSTRIES INC.

DRILLING FLUID PROPERTY RECAP

COMPANY AMOCO AUSTRALIA PETROLEUM CO WELL YOLLA NO. 1

DATE 1985	DEPTH Ft	HOLE SIZE	TEMP °C	WEIGHT ppg	VIS SEC	PV	YP	GELS 10 sec	GELS 10 min	WATER LOSS A.P.I.	CAKE mm	pH	Pf	Mf	Cl mg/l	Ca mg/l	SAND %	SOLIDS %	WATER %	OIL %	MBC ppb	REMARKS TREATMENT FORMATION
AUGUST																						
18	10972	12¼	-	9.6	44	16	16	4	16	8.5	2	11.0	1.0	2.2	1300	40	Tr	7	93	0	25	W.O.W.
19	10972	"	-	9.6	44	16	16	4	16	8.5	2	11.0	1.0	2.3	1300	40	Tr	7	93	0	25	W.O.W.
20	-	-	20	9.6	48	18	15	5	16	5.8	2	12.2	2.8	5.1	1800	Tr	Tr	6	94	0	28	MILL FISH IN STACK
21	10974	"	78.3	9.8	56	19	16	4	23	8.8	2	11.0	1.95	3.5	1800	Tr	Tr	7	93	0	25	RAISE WT-HIGH BACKGROUND GAS & CO_2
22	10974	"	78.0	9.8	44	16	10	2	7	9.0	2	11.0	2.2	4.2	1200	Tr	Tr	8	92	0	25	E-LOG
23	10981	"	-	9.8	40	15	8	2	5	7.6	2	12.1	3.1	5.4	1400	40	Tr	8	92	0	25	TREAT SURFACE MUD WITH LIME, E-LOG
24	10981	"	-	9.6+	70	23	24	7	18	9.9	2	11.8	1.40	3.10	1500	Tr	Tr	7	93	0	27	E-LOG
25	10981	"	-	9.6	40	8	8	3	10	9.7	2	12.0	1.45	3.00	1400	Tr	Tr	7	93	0	28	E-LOG, W.O.W.
26	20981	"	-	9.6	40	8	8	3	9	9.7	2	12.0	1.45	3.00	1400	Tr	Tr	7	93	0	28	W.O.W.
27	10981	"	46	9.6	50	14	7	3	9	10.0	2	11.8	2.40	3.65	1700	Tr	0.3	9	91	0	28	W.O.W., WIPER TRIP
28	10981	"	-	9.7	42	7	8	2	9	9.2	2	10.2	0.14	0.64	7900	120	0.2	7	93	0	27	RAISE WT, CLEAN HOLE . W.O.W.
29	10981	"	-	9.8	41	9	7	2	7	8.4	2	10.2	0.60	1.10	8000	140	Tr	7	93	0	26	W.O.W., WIPER TRIP
30	"	"	-	9.8	40	9	7	2	6	8.4	2	10.3	0.80	2.60	7400	100	Tr	8	92	0	25	E-LOGS
31	"	"	62	9.8	52	19	10	3	10	9.6	2	10.8	.45	1.80	3600	80	0.2	8	92	0	29	E-LOGS, WIPER TRIP
SEPTEMBER																						
1	"	-	-	9.8	42	10	8	3	9	9.6	2	10.7	.40	1.60	3800	100	0.1	8	92	0	29	WIPER TRIP, RUN 9-5/8" CSG
2	"	9-5/8"	-	9.8	42	10	8	3	9	9.6	2	10.7	.40	1.60	3800	100	0.1	8	92	0	29	RUN CSG, W.O.W., CMT CSG
3	"	"	-	9.8	42	10	8	3	9	9.6	2	10.7	.40	1.60	3800	100	0.1	8	92	0	29	CMT CSG., TEST WELL HEAD
4	"	"	-	9.6	53	15	5	1	4	4.4	1	12.2	2.2	3.30	1500	Tr	0	4	96	0	10	MIX NEW MUD FOR TESTING
5	"	"	-	9.6	62	32	19	3	10	4.0	1	12.3	2.3	3.40	1500	Tr	0	4	96	0	10	
6	"	"	-	9.6	64	34	18	3	10	4.0	1	12.2	2.25	3.30	1500	Tr	0	4	96	0	10	
7	"	"	-	9.6	66	32	19	3	10	4.0	1	12.2	2.25	3.30	1500	Tr	0	4	96	0	10	
8	"	"	-	9.6	67	27	19	2	6	4.1	1	12.2	2.1	3.2	1800	Tr	0	4	96	0	10	DISPLACE SEAWATER IN CSG WITH TEST FLUID
9	"	"	-	9.6	67	28	18	2	6	4.1	1	12.1	2.1	3.2	1800	Tr	0	4	96	0	10	
10	"	"	-	9.6	67	29	20	2	6	4.1	1	12.1	2.1	3.2	1900	Tr	0	4	96	0	10	
11	"	"	-	9.6	67	27	19	2	6	4.2	1	12.1	2.0	3.1	1800	Tr	0	4	96	0	10	
12	"	"	-	9.5+	67	27	20	3	6	4.2	1	12.1	2.0	3.1	1800	Tr	0	4	96	0	10	

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Baroid Australia PTY. LTD./NL INDUSTRIES INC.

DRILLING FLUID PROPERTY RECAP

COMPANY AMOCO AUSTRALIA PETROLEUM WELL YOLLA NO. 1

DATE 1985	DEPTH Ft	HOLE SIZE	TEMP °C	WEIGHT ppg	VIS SEC	PV	YP	GELS 10 sec	GELS 10 min	WATER LOSS A.P.I.	CAKE mm	pH	Pf	Mf	Cl mg/l	Ca mg/l	SAND %	SOLIDS %	WATER %	OIL %	MBC ppb	REMARKS TREATMENT FORMATION
SEPTEMBER																						
13	10981	$9\frac{5}{8}$"	-	9.6	73	32	20	2	6	3.6	1	12.3	3.4	5.1	4100	Tr	0	4	96	0	10	SEAWATER CONTAM OF MUD, REBUILD LOST VOL
14	"	"	48	9.6	73	42	34	4	15	4.2	1	12.0	1.5	2.2	2700	Tr	0	5	95	0	17.5	RAISE MBT TO 17.5 TO IMPROVE SUSPENSION
15	"	"	-	9.6	73	42	34	4	15	4.2	1	12.0	1.5	2.2	2700	Tr	0	5	95	0	17.5	
16	"	"	-	9.6	73	36	25	4	14	4.2	1	12.1	1.8	2.4	3400	Tr	0	5	95	0	17.5	
17	"	"	-	9.6	69	40	24	5	16	4.4	1	11.9	1.6	2.3	3600	Tr	0	5	95	0	17.5	
18																						W.O.W.
19																						W.O.W.
20																						W.O.W.
21																						W.O.W.
22	"	"	-	9.6	70	42	30	8	15	4.2	1	12.5	1.7	2.6	1200	Tr	0	5	95	0	12.5	DST NO. 2, PERF @ 6000 FT
23	"	"	-	9.6	75	39	30	6	15	4.0	1	12.0	1.7	2.6	1200	Tr	0	5	95	0	12.0	DST NO. 2
24	"	"	-	9.6	75	40	31	6	16	4.0	1	12.0	1.6	2.5	1200	Tr	0	5	95	0	17.5	RAN CBL & EZ-SV
25	"	"	-	9.6	68	38	30	5	14	4.0	1	12.0	1.6	2.5	1200	Tr	0	5	95	0	17.5	DST NO.3, PACKER FAILURE
26	"	"	-	9.6	68	38	30	6	15	4.2	1	12.0	1.6	2.6	1200	Tr	0	5	95	0	17.5	DST NO. 3A, PACKER FAILURE
27	"	"	-	9.8	52	35	20	6	15	4.0	1	12.0	1.8	2.8	2800	Tr	0	5	95	0	17.5	CEMENT SQUEEZE NO. 1
28	"	"	-	9.6	50	33	19	5	14	4.0	1	12.0	1.7	2.8	3000	Tr	0	5	95	0	17.5	CEMENT SQUEEZE NO. 2
29	"	"	-	9.6	70	40	32	7	16	4.0	1	12.0	1.7	2.8	3200	Tr	0	5	95	0	17.5	CEMENT SQUEEZE NO. 3
30	"	"	-	9.7	62	32	23	5	15	4.0	1	12.0	2.8	3.6	3800	Tr	0	5	95	0	20.0	CEMENT SQUEEZE NO. 3
OCTOBER																						
1	"	$8\frac{1}{2}$"	-	9.6	74	40	32	5	17	4.0	1	12.0	2.4	3.2	3500	Tr	0	5	95	0	25	DRILL OUT CMT
2	"	"	-	9.6	70	43	32	6	17	4.0	1	12.0	2.4	3.2	3500	Tr	0	5	95	0	25	RIH WITH RTTS, DRY TEST
3	"	"	-	9.6	75	45	34	6	18	4.0	1	12.0	2.4	3.2	3500	Tr	0	5	95	0	25	RIH WITH DST NO.3
4	"	"	-	9.6	70	43	32	6	17	4.0	1	12.0	2.4	3.2	3500	Tr	0	5	95	0	25	FLOW WELL : 6012 - 6014 ft
5	"	"	-	9.6	62	38	27	5	16	4.0	1	12.0	2.4	3.2	3500	Tr	0	5	95	0	25	FLOW WELL

304285

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MUD DISCUSSION BY INTERVAL

36" Hole, RKB to 645 ft (RKB to Seabed 259 + 37 ft)

30" Casing Set at 621 ft

The 36" hole was drilled with seawater. Fluid returns were to the seabed. At 645 ft the hole was flushed with 75 bbls high viscosity mud and followed by seawater. The hole was again displaced with 800 bbls of high viscosity mud.

The high viscosity mud was prepared by prehydrating 40 ppb of Bentonite in Drill Water and then flocculating this mix with Lime just before pumping downhole.

No problems were experienced in running the 30" casing to 621 ft.

26" Hole 17-1/2" Pilot Hole, 645 ft to 1348 ft
20" Casing Set at 1309 ft

For the 17-1/2" Pilot hole the riser was run. Seawater with high viscosity Bentonite plus Lime was used, as in the previous hole phase, to assist in hole cleaning. The pilot hole was drilled in 6-1/2 hours.

Prior to pulling the riser and opening the pilot hole to 26", a 50 bbl high viscosity pill was spotted in the hole. A total of 280 bbls of high viscosity mud were consumed.

After pulling the riser, the hole was opened to 26" at a controlled drilling rate of 90 - 100 ft/hr. At 1348 ft, a 50 bbl high viscosity pill was circulated around and a wiper trip was made to the 30" casing shoe. No fill was evident on running back to bottom. The 26" hole was then displaced with 1000 bbls of high viscosity mud.

20" casing was run and cemented at 1309 ft with no problems.

17-1/2" Hole, 1348 ft to 5772 ft
13-3/8" Casing Set at 5748 ft

General

This hole interval was drilled with a lightly dispersed seawater Bentonite/Starch mud. Bentonite was prehydrated to be added to the seawater as a base mud. Additions of Dextrid, Pac-R and Pac-L were made to maintain desirable mud properties and lower the fluid loss. Q-Broxin was added to control Rheology.

304287

After drilling out the 20" shoe and 5 ft of new hole, the hole was displaced with mud. A FCCT was performed to a 12.5 ppg mud weight equivalent.

Drilling continued through claystones and shales. Due to lengthy periods of waiting on weather, the mud properties were adjusted to give maximum hole stability i.e. an M.B.T. of 25 ppb, a filtrate of 15-10 cc/30 min and a pH of greater than 11.0.

At 3358 ft, highly dispersive clays were drilled, necessitating heavy dilution to control mud weight and viscosity. No major hole problems developed other than some hole fill after periods of waiting on weather.

The hole was logged after making a wiper trip. After logging, further wiper trips were made and high viscosity pills were pumped around to assist hole cleaning due to 17 ft of fill. Prior to running casing, 350 bbl of 10.5 ppg mud was spotted on the bottom, and 13-3/8" casing was run and cemented at 5748 ft with no problems.

Solids Control Equipment

The available solids control equipment on the drillship R. F. Bauer consisted of 2 Brandt double deck shakers, a 2 x 12" cone desander, 2 Brandt 10 x 4" desilters/mud cleaners and a 24" x 38" Baroid high volume centrifuge.

While drilling, maximum use was made of all the available solids control equipment. The Baroid high volume centrifuge was run at 1800 rpm, processing 100 gpm of mud.

Below 5100 ft, the mud became badly aerated, consequently the use of the desander and desilter had to be discontinued temporarily as their operating pressures fell to only 12 psi instead of the 40-50 psi as required for efficient operation. Defoamers did not solve the aeration problem which was due to a CO2 influx.

The mud alkalinities were closely monitored for bicarbonate contamination and the pH raised to 11.0 to ensure the CO2 influx was kept in a carbonate form.

The high circulating rates of 20-23 bbl/min necessary to ensure good hole cleaning only allowed use of 40 over 60 Mesh shaker screens for most of this section. One shale shaker however, was fitted with a 60 over 80 set of screens below 5100 ft.

Mud Properties

Mud properties were run in accordance with Amoco's requirements as a Lightly Dispersed/Seawater/Bentonite/Starch mud.

304283

At 3358 ft, highly dispersive formation clays were drilled. These clays were found to have an M.B.T. in excess of 25 ppb. Heavy mud dilution and treatment were needed to maintain desirable properties despite continuous use of the solids control equipment.

As mentioned previously, mud properties were optimized as a precaution against lengthy periods of waiting on weather.

Slight carbonate alkalinity contamination was encountered at around 5600 ft. as the hole temperatures become high enough to react to bicarbonates. This was corrected by the addition of small quantities of lime.

The mud system used and the properties maintained were good for the zones drilled in this well. Generally good hole conditions were experienced despite lengthy periods when the hole was left standing open while waiting on weather.

Property	Programmed	Achieved
Density	8.9 - 12.5 ppg	8.9 - 9.2
Funnel Viscosity	40 - 50 sec/qt	65 - 45
Yield Point	8 - 20 lbs/100 ft2	35 - 20
10 Sec Gel	6 - 15 lbs/100 ft2	25 - 7
API Fluid Loss	< 15 cc/30 min	38 - 7
MBT	20 - 30 ppb	23 - 27.5
pH	10.5 - 11.0	9.5 - 11.0 +

Hole Conditions

Generally this hole section was in good condition despite dispersive formations and long periods of waiting on weather. The dispersive clays of the "Torquay Group" drilled from approximately 2800 ft to 4200 ft, required heavy dilution and mud treatments but did not cause any major hole problems.

After having waited on weather for 4 days at 4764 ft, the hole was re-entered with only 30 ft of fill after working through tight spots at 1309 ft, 2346 ft, 3381 - 3463 ft, 4041 - 4122 ft and 4734 - 4764 ft.

The "Demons Bluff" formation was encountered at 5250 ft. This was a relatively unreactive claystone with a low MBT of 6 ppb. However after logging at 5772 ft, the hole needed to be washed at 5461 - 5494 ft and 5710 - 5769 ft. Cuttings from the "Demons Bluff" were blocky with no overt signs of sloughing.

Conclusions

The mud system as used performed well at reasonable cost and is recommended again for future wells in this area.

If a faster overall drilling time is achieved in the future, i.e., less time is spent waiting on weather, the mud properties could probably be relaxed as the formations drilled did not appear to be so reactive that continual hole problems were experienced.

304239

Good solids control is necessary, paricularly in the "Torquay Group" of claystones.

Consideration should be given to maintaining an excess of at least 100 ppm Calcium, as distinct from total hardness (Calcium and Magnesium), in the filtrate. This will help prevent execessively high progressive gel strengths caused by carbonate/bicarbonate alkalinities. Generally, carbonates are more reactive to pressure and temperature. Foaming will be a slight problem but can be reduced with the use of aluminium stearate and diesel. Do not use liquid defoamers. Overtreatment from liquid defoamers cause "Foaming".

The total number days spent waiting on weather, were 34.6 days. Five additional days were spent handling anchors.

12-1/4" Hole, 5772 ft to 10981 ft
9-5/8" Casing Set at 10955 ft

General

While drilling out the 13-3/8" casing float collar and shoe, the seawater mud from the previous interval was displaced with a freshly prepared Freshwater/Bentonite/Starch mud which had been pretreated with Sodium Bicarbonate and Lignosulphonate to minimize the effects of cement contamination. The weight of this mud was initially maintained at 8.9 ppg with the use of all available solids control equipment. Mud properties were maintained by the addition of new premixed mud with polymers from the reserve system.

Below 6500 ft, the Bentonite content of the mud was gradually raised from 17.5 ppb to 20 to 25 ppb to reduce the HT-HP fluid loss and to provide increased mud stability during extended periods of waiting on weather.

Increasing background gas readings below 7500 ft suggested a mud weight increase. The weight was raised from 8.9 ppg to 9.2 ppg. After further gas (20%) on bottoms up at 7726 ft, the weight was again increased to 9.4 + ppg, and 9.6 ppg by 8000 ft after 50% bottoms up gas after waiting on weather.

Carbonate contamination from CO2 was encountered from 9000 ft - 10,000 ft. This was treated with lime to counteract the contamination.

The hole was logged at a T.D. of 10,981 ft. Estimated pore pressures from R.F.T. data suggest normal pressures throughout this interval:

9250'	8.66 ppg equivalent
9200'	8.67 " " "
9810'	8.60 " " "
6010'	8.67 " " "
5970'	8.67 " " "

9-5/8" casing was run and cemented at 10,955 ft.

304290

Solids Control Equipment

The available solids control equipment for this hole section was as used previously, with the exception that 200 mesh screens were placed on the mud cleaners below 9000 ft to retrieve Barite with the higher mud weight in use. Use of the high volume centrifuge was also reduced to save Barite.

In combination with good solids control equipment and dilution with premix, excessively high solids were not a problem. The total low gravity solids content of the mud was below 50 ppb and averaged around 40 ppb or less. No controlled drilling was necessary. The formations drilled were not highly dispersive.

Mud Properties

For this section a Freshwater/Bentonite/Polymer mud was used. With increasing depth and temperature, the use of starch was curtailed and replaced by PAC-R and PAC-L due to their greater temperature tolerance. Additions of Lignite and Lignosulphonate were also made to help control rheology and HT-HP filtrate.

Below 6500 ft, the Bentonite content of the mud was raised to 20-25 ppb and to 25-30 ppb by total depth to assist in HT-HP control and mud stability.

The mud weight was increased, as mentioned previously, in accordance with background/trip gas indications, reaching 9.8 ppg by total depth, although in retrospect, R.F.T. data indicates normal pressure throughout this interval.

Below 9000 ft, carbonate contamination from CO2 was indicated. It was not possible to reduce high gel strengths and yield point with chemical treatment in the form of Lignite/Lignosulphonate additions. Fluid loss measurements were erratic and flowline viscosities were high and in excess of 3 times the suction viscosity.

P1/P2 alkalinities also indicate a carbonate/bicarbonate problem. After pilot testing, 1 ppb lime was added successfully to the system to counteract the problem. Following a initial viscosity hump during the lime additions, properties returned to normal. Further carbonate contamination occurred at 10,060 ft and at T.D. these problems were corrected with lime as above.

Apart from the carbonate/bicarbonate contamination, the mud proved easy to maintain and provided the desired properties both good hole cleaning, and relatively good hole stability despite long periods of waiting on weather.

304291

Property	Programmed	Achieved
Density	8.9 - 12.5 ppg	8.9 - 9.8
Funnel Viscosity	40 - 50 sec/qt	40 - 60
Yield Point	8 - 20 lbs/100 ft2	8 - 20
10 Sec Gel	6 - 15 lbs/100 ft2	2 - 10
10 Min Gel	15 - 30 lbs/100 ft2	15 - 35
API Fluid Loss	< 10 cc/30 min	5 - 10
HP - HT	10.5 - 11.0	10.5 - 12
MBT	20 - 30 ppb	17.5 - 30

Hole Conditions

Hole condition was good considering many days were lost while waiting on weather. Even with drill pipe and casing left in the open hole while waiting on weather, no cases of stuck pipe occured.

At 6504 ft there was 90 ft of fill after W.O.W., but after cleaning this out, no problems were experienced during logging.

There was tight hole on P.O.H. at 6610 ft - 6579 ft. After W.O.W., there was 11 ft of fill.

After W.O.W. at 7726 ft, there was 8 ft of fill and 20% gas. After W.O.W. at 8902 ft, there was a bridge at 8526 ft, and some washing at 8526 ft - 8628 ft. No fill.

Conclusions

The mud system performed well despite many days downtime for weather. It proved relatively trouble free to maintain, once the carbonate/bicarbonate contamination was recognized, and treated.

For future wells in this area, the presence of CO2 must be expected, and lime additions may be made as a preventative measure even before the effect of CO2 contamination is seen. A low lime mud below the 13-3/8" casing would prove a good alternative for CO2 problems.

Water/drilled, consumed by intervals

20"	hole section:	2,000 bbls
13-3/8"	hole section:	6,000 bbls
12-1/4"	hole section:	32,332 bbls

304292

BIT RECORD

COMPANY	CONTRACTOR	COUNTY	STATE
AMOCO AUSTRALIA PETROLEUM COMPANY	GLOBAL MARINE	AUSTRALIA	TASMANIA

LEASE	WELL NO	SEC	TOWNSHIP	RANGE	BLOCK	FIELD
T/14-P	YOLLA # 1			BASS STRAIT		

TOOL PUSHER WILLIAMS/WILSON/GOSS/LAWSON	DRILL PIPE 5" 19.50	DRAW WORKS NATIONAL 1625 U.E.	
DAY DRILLER DODD/BRONDEL/WACHTER/TRAUTH	TOOL JOINT MAKE — SIZE 4-1/2" — TYPE IF	POWER 3000 HP	UNDER SURF
EVENING DRILLER	DRILL COLLAR NO — O D 6.5 — I D 2 13/16 — LENGTH	PUMP NO 1 MAKE NATIONAL — MODEL 12P-160 — STROKE 12	INT DATE
MORNING DRILLER	DRILL COLLAR NO — O D 8 — I D 2 13/16 — LENGTH	PUMP NO 2 MAKE " — MODEL " — STROKE "	T D DATE

BIT NO	BIT SIZE	BIT MFGR	BIT TYPE	SERIAL NO OF BIT	JET SIZE 1	2	3	DEPTH OUT	FTGE	HOURS RUN	ACC HOURS	FT/HR	WEIGHT 1000 LBS	ROTARY R P M	VERT DEV.	PUMP PRESS	PUMPS No	Liner	SPM	MUD Wt	Vis	DULL CODE T	B	G	REMARKS FORMATION, CIRC. FLUID, ETC	DATE
1	26	S	DSJ	XR 6740	18	18	18	645	348	5 1/2	5.5	63.3	0-10	100	3/4	1200	2	7	100	9	100	2	2	I	26/36 H.O. ASSEM.	9/6
2	17-1/2	S	DSJ	XO 5484	18	18	18	1350	705	6 1/2	12	108.5	5-8	140	3/4	2900	2	7	180	9	100	1	1	I	PILOT HOLE	18/6
RR1 3	26	S	DSJ	XR 6740	20	20	20	1350	(705)	8	20	94	5-8	120	1 1/2	2300	2	7	198	9	100	2	2	I	OPEN PILOT HOLE	20/6
4	17 1/2	S	SDSC	XE 0162	16	14 16	16	2364	1014	13	33	78	5-10	60-120	1/2	2620	2	7	160	9.2	69	1	1	I	HUNG OFF WOW	24/6
RR4 5	17-1/2	S	SDSC	XE 0162	16	14 16	16	4101	2751	40 TOT 53	73	51.9	15-20	120-125	1	3000	2	7	164	9.2	65	3	6	I	SEAL EFFECTIVE	26/6
6	17-1/2	S	SDT-C	ER 4031	15	14 15	15	4763	663	43	116	15.4	25-30	120	1	2750	2	7	154	9.0	48	6	4	1/8	HEEL ROW SEVERELY WORN	30/6
7	17-1/2	S	SDGHC	XD 9464	15	12 15	15	5220	578	44-1/2	160.5	13	25-40	120	1/2	2800	2	7	140	9.2	43	7	5	I	SEAL EFFECTIVE	7/7
8	17-1/2	S	SDGH	XO 9378	16	16	18	5769	427	27	187.5	15.8	35	90	1/2	2850	2	7	142	9.2	45	3	3	I	PIN GALLED	9/7
9	17-1/2	S	SDTC	RR-6																					CLEAN-UP TRIP	10/7
10	12-1/4	S	SDGH	ER 8788	14	14	13	6030	261	6 1/2	194	40	25	80		2750	2	7	114	8.9	48	6	2	1/16		
11	8-1/2	DB	CB-303	1173				6063	33	1 1/2	195.5	22	8-18	80-110		2800	2	7	116	8.9	45				WEAR ON DIAMONDS NEGLIB	14/7
12	12-1/4	S	F-2	EV 9877	14	14	13	6503	439	12	207.5	36.1	25	70		2800	2	7	114	8.9	49	1	2	I	POH TO LOG	19/7
13	12-1/4	S	F-2	EW 1050	14	14	13	7726	1222	35-1/2	243	34.4	35-45	80-100	1-1/	2900	2	7	106	9.2	49	1	4	1/16		27/7
14	12-1/4	S	F-2	EX 0219	14	14	13	8902	1126	66-1/2	309.5	16.9	50-55	95	1/2	3000	2	7	100	9.1	53	2	6	1/16		4/8
15	12-1/4	S	F-2	EV 9360	14	14	13	9515	613	34-1/2	334	17.8	40-55	95	1	3000	2	7	100	9.6	55	3	8		BEARINGS FAILED, CONES LOCKED	8/8
16	12-1/4	S	F-2	EV 9500	14	14	13	10097	582	49.5	383.5	11.8	45-50	100	1/2	3000	2	7	102	9.7	45	8	8	1		8/11
17	12-1/4	S	F-3	XE 2971	14	14	14	10412	315	27	410.5	11.7	45	75	1	3000	2	7	101	9.6	44	1	5	1		8/13
18	12-1/4	S	F-3	XB 2688	14	14	14	10879	467	46	456.5	10.2	40-45	80	1	3000	2	7	104	9.6	40					8/15
19	12-1/4	S	F-3	XA 8997	14	14	14	10974	95	8 1/2	465	11.2	25-30	70		3000	2	7	102	9.8	43	1	4	1/8	OUT OF GAGE	8/21
20	8-1/2	DB	CB-303	(RR-11)				10981	7	2	467	3.5	10-18	80-100		800	1	7	40	9.8	44				NO VISIBLE WEAR	8/22
31	12 1/4	S	F-3	RR-18	14	14	14	10981	-	-	467	-	-	-											CLEANOUT TRIP	

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BIT RECORD

COMPANY	CONTRACTOR	COUNTY	STATE
AMOCO AUSTRALIA PETROLEUM COMPANY	GLOBAL MARINE	TASMANIA	AUSTRALIA

LEASE	WELL NO	SEC	TOWNSHIP	RANGE	BLOCK	FIELD
T14-P	YOLLA # 1					

TOOL PUSHER	DRILL PIPE 5" 19.50	DRAW WORKS NATIONAL 1625 UE	
DAY DRILLER	TOOL JOINT MAKE — SIZE 4-1/2 — TYPE IF	POWER 3000 H P	UNDER SURF
EVENING DRILLER	DRILL COLLAR NO — O D 6.5 — I D 2 13/14 — LENGTH	PUMP NO 1 MAKE NATIONAL — MODEL 12-P-160 — STROKE 12	INT DATE
MORNING DRILLER	DRILL COLLAR NO — O D 8 — I D 2 13/14 — LENGTH	PUMP NO 2 MAKE NATIONAL — MODEL 12-P-160 — STROKE 12	T.D DATE

BIT NO	BIT SIZE	BIT MFGR.	BIT TYPE	SERIAL NO OF BIT	JET SIZE 1	2	3	DEPTH OUT	FTGE	HOURS RUN	ACC HOURS	FT/HR	WEIGHT 1000 LBS	ROTARY R P M	VERT DEV	PUMP PRESS	PUMPS No	Liner	SPM	MUD Wt	Vis	DULL CODE T	B	G	REMARKS FORMATION CIRC FLUID, ETC	DATE
22	12 1/4	STC	SDGH	ER-8747	14	14	14											7		9.8	40	1	1	I	CLEANOUT TRIP	8/31
23	12 1/4	STC	SDGH	RR-22	14	14	14						10	120		3000	P	7	106	9.8	42	2	2	I	CLEANOUT TRIP	9/2
24	8 1/2	STC	SDGH	CF-4303	12	12	12						25/30	90		3000	S	7	80	9.6	53	4	8	I	SKIRT BROKEN BEARING EXPOSED DRILL D.V.,FC	9/5
25	8 1/2	STC	SDGH	CK-3744	12	12	12											7		9.6	64	1	1	I	CLEANOUT TRIP	9/8
26	8 1/2	STC	SDGH	RR-25	12	OPEN																			CLEANOUT & SCRAPER	9/15
27	8 1/2	STC	SDGH	CE-4722	OPEN								25/30	40/50		100	1/2	7	70	9.6	70	5	5	I	DRL CEMT & EZSV	9/21
28	8 1/2	STC	SDGH	CP-4691	OPEN																	8	8	I	DRL CMT	9/28
29	8 1/2	STC	FDT	CE-2611	OPEN																				DRL CMT	9/29
30	8 1/2	STC	FDT	RR-29	OPEN																	2	3	I	DRL CMT	10/1

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COMPANY	WELL NAME & No.	FIELD	COUNTRY	SPUD DATE	RIG RELEASE
AMOCO AUSTRALIA	YOLLA NO 1	BASS BASIN	TASMANIA		

BHA No.	BIT No.	BOTTOM HOLE ASSEMBLY	WOB	RPM	DEPTH IN	DEPTH OUT	ANGLE BELOW	ANGLE ABOVE
1	1	26" 36" FS 15-8" DC (462.13') .XO. 3-5" HWDP (90.45')	0-10	100	261'	645'		3/4°
2	2	17½" FS 9-8" DC (277.39') .XO. 9-5" HWDP (272.14')	5-8	120	645'	1350'		1½°
3	3	26" FS 9-8" DC (277.39') .XO. 9-5" HWDP (272.14')	5-8	120	645'	1350'		1½°
4	4-7	17½" FS 8" Mnl. 8" DC (29.78') 10-8"DC (339.70') .XO. 6-5" HWDP 6¼" Jars, 8-5" HWDP (459.00')	25-40	120	1350'	5220'		½°
5	8-9	17½" FS 8" Mnl. 8" DC (29.78') 16-8"DC (530.45') .XO. 6-5" HWDP 6¼" Jars, 8-5" HWDP (455.96')	35-40	90	5220'	5769'		½°
6	10	12¼" JS FS 8" Mnl 17-8" DC (525.18') .XO. 6-5" HWDP 6¼" Jars 8-5" HWDP (455.96')	25-30	80	5769'	6030'		
7	11	8½"C Core Bbl .XO. 8" Mnl 17-8"DC (554.96') .XO. 6-5" HWDP 6¼" Jars, 8-5" HWDP (456.13')	8-18	80-110	6030'	6063'		
8	12-13	12¼" FS 8" Mnl 8"DC 16-8"DC (560.20') .XO. 6-5" HWDP 6¼" Jars, 8-5" HWDP (456.13')	40-45	100	6063'	7726'		1½°
9	14-16	12¼" FS 8" Mnl SDC 8" DC 16-8"DC .XO. 6-5" HWDP, 6¼" Jars, 8-5 HWDP	50-55	95	7726'	10097'		1-3/4°
10	17-19	12¼" JS FS 8" Mnl SDC 8"DC 16-8"DC .XO. 6-5" HWDP 6¼" Jars, 8-5" HWDP	40-45	80	10097'	10974'		1°
11	20	8½"CH Core Bbl .XO. 8"SDC 17-8"DC .XO. 6-5" HWDP Jars, 8-5" HWDP	10-18	80-100	10974'	10981'		1°

30434

304295

Eastman Whipstock
A PETROLANE COMPANY

REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY

AMOCO (AUST) PETROLEUM
COMPANY

YOLLA NO.1.
WELL NAME

OFFSHORE, TASMANIA
LOCATION

JOB NUMBER	TYPE OF SURVEY	DATE
AS685 MM 006	MAGNETIC MULTISHOT 0-5750Ft	8th July, 1985.
AS885 MM 012	MAGNETIC MULTISHOT 5750-1096Ft	24 August, 1985.

SURVEY BY
MARK NEWTON

OFFICE
SALE, VICTORIA.

OPERATOR : AMOCO
STRUCTURE : YOLLA #1
LOCATION : BASS STRAIT
RIG NAME : GLOMAR,ROBERT F. BAUER
LEASE/AREA : BASS BASIN

==========

SLOT NAME : 1
WELL NAME : 1

DATE : 03-SEP-85

SURVEY FILE : S01278.4AM

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PLATFORM DATA :

LATITUDE :
LONGITUDE :

U.T.M. (GRID) NORTH : 0.00
U.T.M. (GRID) EAST : 0.00

==========

SLOT DATA :

LATITUDE :
LONGITUDE :

U.T.M. NORTH : 0.00
U.T.M. EAST : 0.00
LOCAL CO-ORDINATES (N/S) : 0.00 N
LOCAL CO-ORDINATES (E/W) : 0.00 E

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MAGNETIC DECLINATION : 13.00 E

TOTAL CORRECTION TO TRUE NORTH : 13.00 E

Eastman Whipstock
A PETROLANE COMPANY

304296

CO ... LOT . 1 ... GE . 2

YOLLA #1
BASS STRAIT

WELL : 1 REPORT UNITS : Feet
PBHL : 0.00 SURVEY REFERENCE : S01278.4AM

NO:	MEASURED DEPTH	DRIFT ANGLE	DRIFT DIRECTION	VERTICAL DEPTH	VERTICAL SECTION	RECTANGULAR COORDINATES	CLOSURE DISTANCE	CLOSURE AZIMUTH	DOGLEG DEG/100FT
1	0.00	0.00	0.00	0.00	0.00	0.00 N 0.00 E	0.00	90.00	0.00
2	1309.00	0.00	0.00	1309.00	0.00	0.00 N 0.00 E	0.00	90.00	0.00
3	1383.08	0.75	129.00	1383.08	-0.31	0.31 S 0.38 E	0.48	129.00	1.01
4	1477.20	0.75	125.00	1477.19	-1.05	1.05 S 1.36 E	1.72	127.57	0.06
5	1571.32	0.50	103.00	1571.30	-1.49	1.49 S 2.26 E	2.71	123.37	0.36
6	1665.44	0.50	112.00	1665.42	-1.74	1.74 S 3.05 E	3.51	119.71	0.08
7	1759.56	0.75	120.00	1759.54	-2.20	2.20 S 3.96 E	4.53	119.05	0.28
8	1853.68	0.50	118.00	1853.65	-2.70	2.70 S 4.86 E	5.56	119.08	0.27
9	1947.80	0.50	114.00	1947.77	-3.06	3.06 S 5.59 E	6.38	118.68	0.04
10	2041.92	0.25	72.00	2041.88	-3.16	3.16 S 6.16 E	6.93	117.17	0.38
11	2136.04	0.50	79.00	2136.00	-3.02	3.02 S 6.76 E	7.41	114.08	0.27
12	2230.16	0.50	83.00	2230.12	-2.89	2.89 S 7.57 E	8.11	110.91	0.04
13	2324.28	0.25	84.00	2324.24	-2.82	2.82 S 8.19 E	8.66	109.02	0.27
14	2512.52	0.00	84.00	2512.48	-2.78	2.78 S 8.59 E	9.03	107.92	0.13
15	2606.64	0.00	0.00	2606.59	-2.78	2.78 S 8.59 E	9.03	107.92	0.00
16	2700.76	0.25	108.00	2700.71	-2.84	2.84 S 8.79 E	9.24	107.92	0.27
17	2794.88	0.25	105.00	2794.83	-2.96	2.96 S 9.18 E	9.65	107.86	0.01
18	2889.00	0.00	105.00	2888.95	-3.01	3.01 S 9.38 E	9.85	107.80	0.27
19	2983.12	0.00	0.00	2983.07	-3.01	3.01 S 9.38 E	9.85	107.80	0.00
20	3077.24	0.25	85.00	3077.19	-2.99	2.99 S 9.59 E	10.04	107.35	0.27
21	3265.48	0.25	97.00	3265.43	-3.01	3.01 S 10.40 E	10.83	106.13	0.03
22	3359.60	0.25	90.00	3359.55	-3.03	3.03 S 10.81 E	11.23	105.68	0.03
23	3547.84	0.50	82.00	3547.79	-2.92	2.92 S 12.04 E	12.38	103.64	0.14
24	3736.08	0.50	7.00	3736.02	-1.99	1.99 S 12.95 E	13.10	98.74	0.32
25	3924.32	0.50	350.50	3924.25	-0.36	0.36 S 12.91 E	12.92	91.62	0.08
26	4018.44	0.50	18.00	4018.37	0.43	0.43 N 12.97 E	12.98	88.10	0.25
27	4112.56	0.75	18.00	4112.48	1.41	1.41 N 13.29 E	13.36	83.96	0.27
28	4206.68	1.00	18.00	4206.59	2.77	2.77 N 13.73 E	14.01	78.58	0.27
29	4300.80	0.75	6.00	4300.70	4.17	4.17 N 14.05 E	14.66	73.48	0.33
30	4394.92	1.25	25.50	4394.81	5.71	5.71 N 14.56 E	15.64	68.59	0.64
31	4489.04	1.00	18.00	4488.91	7.41	7.41 N 15.25 E	16.96	64.08	0.31
32	4583.16	0.75	24.00	4583.02	8.76	8.76 N 15.76 E	18.03	60.93	0.28
33	4677.28	0.75	33.00	4677.13	9.84	9.84 N 16.34 E	19.08	58.96	0.13
34	4771.40	0.75	43.00	4771.24	10.81	10.81 N 17.10 E	20.23	57.71	0.14
35	4865.52	0.75	18.00	4865.35	11.84	11.84 N 17.71 E	21.30	56.23	0.34
36	4959.64	0.75	58.00	4959.47	12.75	12.75 N 18.42 E	22.41	55.31	0.55
37	5053.76	0.75	33.00	5053.58	13.60	13.60 N 19.28 E	23.59	54.81	0.34

Esso Australia Ltd
A BASS STRAIT OIL COMPANY

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304297

TOLLA #1
BASS STRAIT

WELL : 1 REPORT UNITS : Feet
PBHL : 0.00 SURVEY REFERENCE : S01278.4AM

NO:	MEASURED DEPTH	DRIFT ANGLE	DRIFT DIRECTION	VERTICAL DEPTH	VERTICAL SECTION	RECTANGULAR COORDINATES	CLOSURE DISTANCE	CLOSURE AZIMUTH	DOGLEG DEG/100FT
38	5147.88	0.75	34.00	5147.69	14.62	14.62 N 19.96 E	24.75	53.77	0.01
39	5242.00	0.75	58.00	5241.80	15.46	15.46 N 20.83 E	25.94	53.41	0.33
40	5336.12	0.50	32.00	5335.92	16.14	16.14 N 21.57 E	26.94	53.20	0.40
41	5430.24	0.75	55.00	5430.03	16.84	16.84 N 22.29 E	27.94	52.93	0.37
42	5618.48	1.00	65.50	5618.25	18.23	18.23 N 24.79 E	30.77	53.68	0.16
43	5712.60	1.25	97.00	5712.35	18.44	18.44 N 26.56 E	32.33	55.23	0.70
44	5750.60	0.75	95.00	5750.35	18.37	18.37 N 27.22 E	32.84	55.99	1.32
45	5820.00	1.25	75.00	5819.74	18.53	18.53 N 28.40 E	33.91	56.89	0.87
46	6009.00	1.00	88.00	6008.70	19.12	19.12 N 32.04 E	37.31	59.18	0.19
47	6103.00	0.50	78.00	6102.69	19.23	19.23 N 33.26 E	38.42	59.97	0.55
48	6197.00	0.50	63.00	6196.69	19.50	19.50 N 34.03 E	39.22	60.18	0.14
49	6291.00	0.25	63.00	6290.69	19.78	19.78 N 34.58 E	39.84	60.23	0.27
50	6385.00	0.00	63.00	6384.69	19.87	19.87 N 34.76 E	40.04	60.24	0.27
51	6479.00	0.00	0.00	6478.69	19.87	19.87 N 34.76 E	40.04	60.24	0.00
52	6573.00	0.00	0.00	6572.69	19.87	19.87 N 34.76 E	40.04	60.24	0.00
53	6668.00	0.25	253.00	6667.68	19.81	19.81 N 34.56 E	39.84	60.18	0.26
54	6762.00	0.25	358.00	6761.68	19.96	19.96 N 34.36 E	39.74	59.85	0.42
55	6856.00	0.25	32.00	6855.68	20.34	20.34 N 34.46 E	40.01	59.45	0.16
56	6950.00	0.50	94.00	6949.68	20.48	20.48 N 34.98 E	40.54	59.65	0.47
57	7044.00	0.75	104.00	7043.68	20.31	20.31 N 35.99 E	41.32	60.57	0.29
58	7138.00	0.75	93.00	7137.67	20.12	20.12 N 37.20 E	42.29	61.59	0.15
59	7232.00	1.00	95.00	7231.66	20.02	20.02 N 38.63 E	43.51	62.60	0.27
60	7327.00	1.00	87.00	7326.64	19.99	19.99 N 40.28 E	44.97	63.61	0.15
61	7421.00	1.25	74.00	7420.62	20.32	20.32 N 42.09 E	46.73	64.23	0.38
62	7515.00	1.50	62.00	7514.60	21.18	21.18 N 44.16 E	48.97	64.38	0.40
63	7609.00	1.50	59.00	7608.56	22.39	22.39 N 46.30 E	51.43	64.19	0.08
64	7703.00	2.25	59.00	7702.51	23.97	23.97 N 48.94 E	54.49	63.90	0.80
65	7797.00	1.75	62.00	7796.46	25.60	25.60 N 51.78 E	57.77	63.70	0.54
66	7892.00	1.25	59.00	7891.42	26.81	26.81 N 53.95 E	60.25	63.58	0.53
67	8080.00	1.00	60.00	8079.39	28.69	28.69 N 57.13 E	63.93	63.34	0.13
68	8174.00	0.75	69.00	8173.38	29.32	29.32 N 58.42 E	65.36	63.35	0.30
69	8268.00	0.25	82.00	8267.37	29.57	29.57 N 59.19 E	66.17	63.46	0.54
70	8362.00	0.25	82.00	8361.37	29.62	29.62 N 59.60 E	66.56	63.57	0.00
71	8455.00	0.25	73.00	8454.37	29.71	29.71 N 60.00 E	66.95	63.65	0.04
72	8551.00	0.50	75.00	8550.37	29.88	29.88 N 60.60 E	67.57	63.75	0.26
73	8645.00	0.75	121.00	8644.36	29.67	29.67 N 61.52 E	68.30	64.25	0.57
74	8739.00	0.75	139.00	8738.36	28.89	28.89 N 62.45 E	68.81	65.18	0.25

NEXT PAGE

FOR PERSONAL USE ONLY

30498

TOLLA #1 WELL : 1 REPORT UNITS : Feet
BASS STRAIT PDHL : 0.00 SURVEY REFERENCE : S01278.4AM

MD:	MEASURED DEPTH	DRIFT ANGLE	DRIFT DIRECTION	VERTICAL DEPTH	VERTICAL SECTION	RECTANGULAR COORDINATES	CLOSURE DISTANCE	CLOSURE AZIMUTH	DOGLEG DEG/100FT
75	8833.00	1.00	147.00	8832.34	27.74	27.74 N 63.31 E	69.12	66.34	0.30
76	8927.00	0.75	161.00	8926.33	26.47	26.47 N 63.95 E	69.21	67.52	0.35
77	9021.00	1.25	157.00	9020.32	24.94	24.94 N 64.55 E	69.20	68.87	0.54
78	9116.00	1.50	168.00	9115.29	22.77	22.77 N 65.22 E	69.08	70.75	0.38
79	9210.00	2.00	175.00	9209.25	19.93	19.93 N 65.62 E	68.58	73.10	0.58
80	9304.00	2.00	177.00	9303.19	16.66	16.66 N 65.84 E	67.92	75.80	0.07
81	9398.00	1.50	178.00	9397.15	13.80	13.80 N 65.97 E	67.40	78.19	0.53
82	9492.00	1.00	173.00	9491.12	11.75	11.75 N 66.12 E	67.15	79.92	0.54
83	9586.00	0.75	177.00	9585.11	10.32	10.32 N 66.25 E	67.05	81.14	0.27
84	9680.00	0.50	166.00	9679.11	9.31	9.31 N 66.38 E	67.03	82.02	0.29
85	9775.00	0.50	158.00	9774.10	8.52	8.52 N 66.63 E	67.18	82.71	0.07
86	9869.00	0.50	133.00	9868.10	7.86	7.86 N 67.09 E	67.55	83.31	0.23
87	9963.00	0.50	84.00	9962.10	7.63	7.63 N 67.80 E	68.22	83.58	0.44
88	10057.00	0.75	49.00	10056.09	8.07	8.07 N 68.67 E	69.14	83.29	0.47
89	10151.00	0.50	79.00	10150.09	8.56	8.56 N 69.54 E	70.06	82.99	0.43
90	10245.00	0.25	75.00	10244.08	8.69	8.69 N 70.14 E	70.67	82.94	0.27
91	10433.00	0.75	33.00	10432.08	9.83	9.83 N 71.20 E	71.88	82.14	0.31
92	10527.00	1.00	48.00	10526.07	10.89	10.89 N 72.15 E	72.96	81.42	0.36
93	10622.00	1.00	77.00	10621.05	11.63	11.63 N 73.57 E	74.48	81.02	0.53
94	10810.00	1.00	88.00	10809.02	12.06	12.06 N 76.81 E	77.75	81.08	0.10
95	10904.00	1.00	69.00	10903.01	12.38	12.38 N 78.39 E	79.37	81.03	0.35
96	10967.00	1.00	54.00	10966.00	12.90	12.90 N 79.35 E	80.39	80.77	0.41

66

SURVEY RUN INFORMATION

MAGNETIC MULTIPLE SHOT SURVEY TIED TO SLOT SURFACE
CO-ORDINATES AT 1309 FT MD.
SURVEYED DEPTHS : 1383 TO 5750 FT MD.
SURVEYOR: M.NEWTON DATE:08-JUL-85

MAGNETIC MULTIPLE-SHOT SURVEY TIED TO M.M.S SURVEY AT
5750 FT MD.
SURVEYED DEPTHS : 5820 TO 10967 FT MD.
SURVEYOR : M.NEWTON DATE:24-AUG-85

Schlumberger Wireline

304299

304300

TIME DISTRIBUTION

YOLLA NO. 1 TIME DISTRIBUTION

Description	Hours	%
Drilling	459.0	14.8
Opening Hole	7.5	0.2
Washing and Reaming	27.0	0.9
Coring	3.5	0.1
Circulate/Condition	68.0	2.2
Tripping	499.5	16.1
Service Rig	6.0	0.2
Repair Rig	2.5	0.1
Survey	14.0	0.5
Logging/wireline	233.5	7.5
Running/Cementing Casing	81.5	2.6
W.O.C.	3.5	0.1
Run/Retrieve BOP/Riser	118.5	3.8
Test BOP/Casing/CCCT/FCCT	106.0	3.4
Squeeze Cement	76.0	2.5
Fishing	36.0	1.2
Pick Up/Lay Down Drill String	15.5	0.5
W.O.W.	928.5	30.0
Run/Retrieve Anchors	166.0	5.4
Ballast/Position Rig	9.5	0.3
Drill Stem Test	155.0	5.0
Drilling Cement	11.0	0.4
Plug and Abandon	64.5	2.1
Backload Workboats	4.0	0.1
TOTAL	3096.0	100.0

ANCHORING UP VESSEL

Time Breakdown

Description	Hours	%
Run Anchors	31.0	35.6
Run Piggy-Backs	4.5	5.2
Re-Position Anchors	5.5	6.3
Re-Position Piggy-Backs	2.5	2.9
Mandatory Shut Down Period	16.5	19.0
W.O.W.	25.5	29.3
Pre-Tension	1.5	1.7
TOTAL	87.0	100.0

36" HOLE SECTION - 30" CASING

Time Breakdown

Description	Hours	%
Drilling	5.5	7.2
Circulating/Conditioning	3.0	4.0
Tripping	1.5	2.0
Survey	1.0	1.3
Running/Cementing Casing	12.0	15.8
Pick Up/Lay Down Drill String	5.0	6.6
W.O.W.	39.0	51.3
T.G.B.	8.0	10.5
Divers	1.0	1.3
TOTAL	76.0	100.0

26" HOLE SECTION - 20" CASING

Time Breakdown

Description	Hours	%
Drilling	6.5	2.7
Opening Hole 17 1/2" - 26"	7.5	3.1
Wash & Ream	2.0	0.8
Circulate/Condition Mud	1.0	0.4
Tripping	8.0	3.3
Survey	3.5	1.4
Running/Cementing Casing	12.0	5.0
Running/Retrieve Pin Connector	28.0	11.6
Testing Diverter	0.5	0.2
Fish for Guide Skirt	17.0	7.0
W.O.W. (Pull/Run Riser)	100.0	41.2
Run/Retrieve Anchors	56.5	23.2
TOTAL	242.5	100.0

17 1/2" HOLE SECTION - 13 3/8" CASING

Time Breakdown

Description	Hours	%
Drilling	149.0	32.6
Wash & Ream	7.5	1.6
Circulate/Condition Mud	20.5	4.5
Tripping	50.0	10.9
Survey	7.0	1.5
Running/Cementing Casing	28.5	6.2
Run BOP	29.0	6.3
Test BOP/Casing/FCCT	9.0	2.0
W.O.W.	156.0	34.2
Rig Service	1.0	0.2
TOTAL	457.5	100.0

12-1/4" HOLE SECTION - 9-5/8" CASING

Time Breakdown

Description	Hours	%
Drilling	298.0	20.3
Wash & Ream	17.5	1.2
Coring	3.5	0.2
Circulate/Condition Mud	12.0	0.8
Tripping	165.0	11.3
Survey	6.0	0.4
Logging	117.5	8.1
Running/Cementing/Casing	29.0	2.0
W.O.C.	3.5	0.2
Run BOP	61.5	4.2
Test BOP/Casing/FCCT	96.5	6.6
Pick Up/Lay Down Drill String	10.5	0.7
W.O.W.	608.0	41.5
Run/Retrieve Anchors	20.0	1.4
Ballast/Position Rig	2.0	0.1
Drilling Cement	11.0	0.8
Rig Service	3.0	0.2
TOTAL	1464.5	100.0

DRILL STEM TEST

Time Breakdown

Description	Hours	%
Tripping	277	42.4
Squeeze Cement	76	11.6
Fishing	36	5.5
Evaluation/DST	155	23.8
Logging/wireline	109	16.7
TOTAL	653	100.0

PLUG AND ABANDONMENT

Time Breakdown

Description	Hours	%
Retrieve BOP	19.0	16.5
Retrieve Anchors	28.0	24.2
Plug & Abandon	64.5	55.8
Backload Work Boats	4.0	3.5
TOTAL	115.5	100.0

304304

LOST TIME SUMMARY

RIG - R. F. BAUER

Date	Time Lost	Cause of Lost Time
20 June 1985	11 Hours	Fabricate reterieving tool and retrieve guide funnel.
22 June 1985	2.5 Hours	Repair BOP Handling Hydraulics.
28 June 1985	0.5 Hours	Power failure in mud logging unit.
5 July 1985	1 Hour	Run wear bushing - first attempt failed.
20 August 1985	10.5 Hour	Fishing for sheared D.P. after No 7 anchor master link parted.
21 August 1985	9.5 Hour	Fish and retrieve sheared D.P. lay down tools.
22 August 1985	1 Hour	Break down fishing tools.
4 September 1985	16 Hour	Attempt to set and test seal assembly.
5 September 1985	6 Hours	Attempt to set and test seal assembly.
6 September 1985	14 Hours	Attempt to set and test seal assembly.
8 September 1985	13 Hours	Check 9 5/8 land out (40" to high) test 9 5/8 casing and 13 3/8 annules with RTTS.
11 September 1985	4.5 Hours	Retrieve seal assembly measure 9 5/8". Hanger to upper rams.
TOTAL	89.5 Hours	

304305

OTIS

Date	Time Lost	Cause of Lost Time
3 October 1985	8 Hours	After RIH with test string unable to close pipe rams on SSTT slick jt. Rig down surface equipment POH with landing string inspect and paint SSTT, RIH and mark POH, adjust hanger RIH, rig up surface equipment.
21 September 1985	0.5 Hour	Make up sub on Otis Subsea Tree, landing hanger.
16 September 1985	12 Hours	XO parted between.
15 September 1985	24 Hours	Fluted hanger.
14 September 1985	24 Hours	
13 September 1985	19 Hours	And SSTT body on the 13 September.
TOTAL	87.5 Hours	

WAITING ON DAYLIGHT

Date	Lost Time	Cause of Lost Time
11 September 1985	10.5 Hours	Waiting on daylight to perforate.
22 September 1985	4.5 Hours	Waiting on daylight to perforate.
TOTAL	15 Hours	

HALLIBURTON

Date	Lost Time	Cause of Lost Time
8 October 1985	1.5 Hours	Repair unit.
TOTAL	1.5 Hours	

ANCHORS BREAKING & RE-RUNNING

12 June 1985		No 1 Anchor wire parted.
13 June 1985	19.5 Hours	Recover No 1 Bouy and Piggy Back, Recover parted Anchor wire and chain.
14 June 1985	12.5 Hours	Recover No 1 chain and anchor, recover No 2 Piggy Back Anchor.

304306

Date	Lost Time	Cause of Lost Time
15 June 1985	13.5 Hours	Re-run No 1 & 2
16 June 1985	1 Hour	No 1, 2 socked No 1 & 2 slipping.
17 June 1985	7 Hours	Repair 1 & 2 and soaking.
15 July 1985		No 3 anchor parted at 8.10 hours.
18 July 1985	11.5 Hours	Retrieved No 3 anchor and chain.
19 July 1985	6.5 Hours	Re connect No 3 anchor wire and re run.
21 July 1985		No 2 anchor chain parted at 2200 hours.
24 July 1985	9 Hours	Recovered repaired and re run No 2 Anchor.
17 August 1985	0.5 Hours	No 7 anchor master link parted hung off on middle pipe rams, sheared D.P..
18 August 1985	7 Hours	Retrieve No 7 anchor and chain.
20 August 1985	10 Hours	Re run No 7 anchor.
6 September 1985	8 Hours	Release LMRP, rerun anchors to change rig heading.
7 September 1985	24 Hours	Continue pulling LMRP while re run anchors, inspect riser and slip jt. Run LMRP and riser.
8 September 1985	11 Hours	Completed heading changed land LMRP hooked up same.
TOTAL	141 Hours	

WORKBOAT REST PERIOD

Date	Lost Time	Cause of Lost Time
4 June 1985	2 Hours	
7 June 1985	6 Hours	
8 June 1985	2.5 Hours	
TOTAL	10.5 Hours	

304307

W.O.W.

Date	Lost Time	Cause of Lost Time
3 September 1985	10.5	
2 September 1985	5.5	
30 August 1985	15	
29 August 1985	19	
28 August 1985	24	
27 August 1985	24	
20 August 1985	3.5	
19 August 1985	24	
18 August 1985	17	
17 August 1985	22.5	
7 August 1985	5.5	
6 August 1985	17.5	
5 August 1985	18	
2 August 1985	8.5	
1 August 1985	24	
31 July 1985	24	
30 July 1985	24	
29 July 1985	24	
28 July 1985	11	
27 July 1985	7.5	
26 July 1985	24	
25 July 1985	6	
24 July 1985	10.5	
23 July 1985	24	
22 July 1985	24	
21 July 1985	13.5	

Date	Lost Time	Cause of Lost Time
19 July 1985	9.5	
18 July 1985	12.5	
17 July 1985	24	
16 July 1985	24	
15 July 1985	22	
14 July 1985	0.5	
4 July 1985	22.5	
3 July 1985	24	
2 July 1985	24	
1 July 1985	23	
30 June 1985	3.5	
28 June 1985	12	
27 June 1985	5.5	
25 June 1985	12.5	
24 June 1985	7.5	
20 June 1985	2	
17 June 1985	17	
16 June 1985	21	
15 June 1985	10.5	
14 June 1985	11.5	
13 June 1985	4.5	
12 June 1985	20	
11 June 1985	16	
10 June 1985	23	
7 June 1985	1.5	
5 June 1985	18	
TOTAL	803 Hours	

WAIT ON CEMENT, SQUEEZING AND DRY TESTING

Date	Lost Time	Cause of Lost Time
24 September 1985	15.5 Hours	RIH with CBL EZSV did not set EZSV because CBL did not indicate comenet at block squeeze perfs at 6054' - 6056' - 1845 m - 1846 m, POH.
25 September 1985	24 Hours	RIH to dry test block squeeze perf no seat, pull out re ran string no seat POH.
26 September 1985	24 Hours	Complete POH dry test tools, RIH set EZSV at 1818.1 m (5965 ft). RIH with stinger establish injection rate mix and pump cement squeeze cement, POH WOC.
27 September 1985	24 Hours	WOC RIH drill cement and EZSV run Schlumberger gauge run and junk basket. M/U test tools RIH to dry test.
28 September 1985	24 Hours	RIH with dry test string set RTTS, no flow for 15 min then flowed. POH, breakdown dry test tools, RIH with open ended D.P., mix and pump cement, squeeze, W.O.C.
29 September 1985	24 Hours	POH, M/U drill assembly RIH, wash soft cement, WOC drill soft cement WOC.
30 September 1985	24 Hours	WOC drill cement POH, to 5745 ft R/U Howco. Establish injection rate; POH, RIH open ended D.P. mix and pump cement, WOC.
1 October 1985	24 Hours	POH M/U drill assembly RIH, wash soft cement WOC drill soft cement WOC. Drill cement circulate bottoms up.

304310

Date	Lost Time	Cause of Lost Time
2 October 1985	17 Hours	POH. Test cement to 2000 PSI, M/U dry test tools, RIH dry test perfs no flow POH L/D Test Tools.
TOTAL	200.5 Hours	

SCHLUMBERGER

Date	Lost Time	Cause of Lost Time
8 October 1985	4 Hours	Attempt to RIH with casing punch, POH make up centralizers on punch.
19 September 1985	1 Hour	Run EZSV on wireline unable to pass well head POH, install guide on EZSV.
12 September 1985	3 Hours	Run Perforating Gun No 3 9216 ft to 9233 ft.
TOTAL	8 Hours	

304211

WAIT ON WEATHER SUMMARY

WOW hours less than Force 9	790.5	25.5%
WOW hours Force 9 and greater	61.0	2.0%
Repair hours	94.0	3.0%
Operating hours	2150.5	69.5%
TOTAL	3096.0	100.0%

This time breakdown was developed to help verify contractor invoices due to the weather stipulations in the contract.

Note:

The 928.5 hours W.O.W. in the Time Distribution included all procedures necessary to restore the operation to the point where W.O.W. commenced. These procedures include POH, hanging off, unlatching, retrieving hang off, RIH, etc.

304312

ARMS-5 BELL DISCUSSION

WAIT ON WEATHER

A total of two dives were pulled early due to bad weather approaching. Both dives were in June during the 30" and 20" cementing operations. Since there was not a rig camera available, the 30" and 20" casings were cemented "blind" with no attitude or altitude readings for the PGB or 18 3/4" housing. Both operations are considered critical for proper BOP/Wellhead alignment.

The ARMS-5 BELL contains a crew of two; one pilot and one technician. The human factor is a partial contributor to operational considerations for the Arms-5-Bell. The ROV un-manned sub has no human factor present, so it can be operated in sea states where the only consideration is loss of the ROV. In addition, the ROV can dive faster through the air-water interface due to its vertical thrusters, as opposed to the gravity lowered ARMS-5 BELL.

The ARMS-5 BELL did not perform any task that a suitably equiped ROV could not have performed. The ARMS-5 BELL recovered and replaced the AX ring gasket and secured the TGB to the PGB with slings. These tasks are routine with a suitable ROV as well.

For guidelineless deepwater drilling, the diving system employed would be the only "rig" camera available for critical drilling/cementing operations. With the ARMS-5 BELL unable to dive due to moderately rough weather, critical operations were done "blind". This factor could have caused a re-spud of the well, if the operation had failed.

With Global Marine's demonstrated reluctance to properly rig up a heave indicator so they could use the "Bomb-Shell" camera for re-latching the LMRP/BOP connections, the ARMS-5 BELL was employed to observe the operation. This method of operation places the ARMS-5 BELL in a situation where large storm generated waves prohibit launching. This situation was not a planned use for the ARMS-5 BELL.

The ARMS-5 BELL proved to be uneconomical when combined with the rig type, sea states, and job requirements necessary for Yolla No 1. Had the ARMS-5 BELL not been previously installed by Amoco Indonesia, a suitably equiped ROV would have been the proper choice for heavy weather, shallow water operation.

304313

The following is a cost comparison between the ARMS-5 BELL and the Scorpio ROV employed by Amoco on the Tilana 1 well.

ARMS-5		SCORPIO-ROV
$2810/day $ 105/dive depth pay		$2150/day
	over 130 days and 60 dives	
$365,300 $ 6,300		$279,500
$371,600	Total	$279,500

The cost savings of the ROV vs the ARMS-5 BELL for Yolla No 1 is: $92,100 or 24.8%

ATTACHMENT # 1

AMOCO AUSTRALIA COMPANY LIMITED
NAME OF COMPANY

304314

FORM 46 3-68

DRILLING AND COMPLETION PROGRAM

FILE No. 400
DATE May 21,

WELL NAME Yolla WELL NO. 1 FIELD

COUNTRY Australia PROVINCE Bass Strait - Tasmania AREA

LOCATION Seismic Line HB 73A-169 SP 197 (39° 50'18.96" south latitude, 145° 48'21.20" east longitude)

OBJECT Eastern View Group: Late Eocene to late Cretaceous (5636' - 14000' RKB)

METHOD OF DRILLING	
TYPE TOOLS	DEPTH INTERVAL
Rotary	Seabed to 14000' TD

SPECIAL SURVEYS	
TYPE	DEPTH INTERVAL, ETC.
ISF-BHC-GR-SP-CAL (GR to seabed)	1260'- 5600'SS
DLL-GR-SP-(MSFL/CAL)	5600'-13964'SS
LDT-CNT	5600'-13964'SS
LSS-GR	5600'-13964'SS
HDT (1260'-5600' if required)	5600'-13964'SS
VSP (at TD or earlier if required)	1260'-13964'SS
CST (1260'-5600' if required)	5600'-13964'SS

REMARKS
Single shot surveys on trips every 500'. Logs to be run at 13.3/8" csg depth, at TD and in the interim as required to evaluate formations being drilled.

SPECIAL TEST	
TYPE	DEPTH INTERVAL, ETC.
RFT'S	As required
DST'S	As required

REMARKS The decision to test the hole will be based on encouragement from mud log shows and wireline analysis. The rig will be equipped to conduct the RFT's and conventional DST's through casing.

APPROXIMATE DEPTHS OF GEOLOGICAL MARKERS
ESTIMATED ELEVATION

MARKER	DEPTH	ELEV.
TORQUAY GROUP (Sea Bottom)	300'RKB	264'SS
DEMONS BLUFF (Top Eocene)	5136'RKB	5100'SS
*EASTERN VIEW GROUP	5636'RKB	5600'SS
*Within Lower Eocene	6936'RKB	6900'SS
*Within Lower Paleocene	8536'RKB	8500'SS
*Near Top Cretaceous	10436'RKB	10400'SS
TOTAL DEPTH	14000'RKB	13964'SS

* POSSIBLE PAY # PROBABLE COMPLETION INTER

DRILL CUTTING SAMPLES	
FREQUENCY	DEPTH INTERVAL
16.4'(5m)	596'- 5600'SS (7 sets)
9.8'(3m)	5600'-13964'SS (7 sets)
32.8'(10m) composites	596'-5600'SS (2 sets)
29.5'(9m) composites	5600'-13964'SS (3 sets)

REMARKS
NOTE: The above conforms with requirements of t Petroleum (Submerged Lands) Act. 1967, Clause 14.

MUD PROGRAM

APPROXIMATE INTERVAL	TYPE MUD	WEIGHT # GAL	VISCOSITY SEC API	W. L. CC/30M	OTHER SPECIFICATI
M.L. -1296' RKB	Seawater	W/VISCOUS SWEEPS			YP 26
1296'-5636' RKB	SW/GEL/DISP	8.9 - 9.2	40 - 50	15 or less	PH 10.5 - 11.0 YP 8 - 20
5036' - 14,000' RKB	FW/GEL/DISP	8.9 - 12.5	40 - 50	10 or less	HTHP 18 or less YP 8 - 20

REMARKS
Properties of mud system are described in the detailed operations plan.

CASING PROGRAM

CASING STRING	EST DEPTH	CASING SIZE*	HOLE SIZE*	SX CEMENT	TYPE CEMENT	DESCRIPTION OF LANDING POINT.
CONDUCTOR	596' RKB	30"	26/36"	Determined	Class "G" + additives	
SURFACE	1296' RKB	20"	17½/26"	by	" " "	
INTERMEDIATE	5636' RKB	13.3/8"	17½"	Caliper	" " "	
OIL STRING	14000' RKB	9.5/8"	12¼"	Log	" " "	
LINER CASING						

REMARKS
1. All casing points are tentative and 9.5/8" casing setting depth will depend upon formation pore pressure
2. Cement compositions to be lab tested
3. 30" and 20" casing to be cemented by inner string method.

* NOMINAL THE TUBULAR GOODS ALLOCATION LETTER SPECIFIES CASING SIZES TO BE USED HOLE SIZES WILL BE GOVERNED BY CONTRACT.

CORING PROGRAM Conventional cores to more thoroughly investigate shows and potential reservoir rocks will be cut if drilling conditions permit upon the recommendation of the well site geologist with concurrence of Amoco' Sydney Office. Below 10,000 feet, three 32.8 foot cores will be cut in sandstones at approximate depths of 10171 feet, 11483 feet and 13124 feet; exact coring points to be determined by wellsite geologist. Sidewall core: will be taken in shales and other formations of interest below 5636 feet for palynology, geochemistry and lithological data. Note requirements of Petroleum (Submerged Lands) Act 1967, Clause 14.

COMPLETION PROGRAM

Authorised completion program will be furnished on decision to complete well.

GENERAL REMARKS

All values reported to Government must be in metric units.

PREPARED BY J. Rankin, R. Walla, J. Craig, C. Kjellgren

APPROVED: OPERATING AREA MANAGER

APPROVED: COMPANY MANAGER

ATTACHMENT # 2

Well Authorization

304315

Operator AMOCO AUSTRALIA PETROLEUM CO. Lease YOLLA Well No. 1

Producing Department

☐ Development ☐ Extension ☐ Service ☐ #1 Status Well
☐ Oil ☐ Gas ☐ Other ☐ Support Form 11
Target: Depth Formation
Total: Depth Formation
Budget Project

Exploration Department

☒ New Field ☐ New Pool ☐ Deep Pool ☐ Shallow Pool ☐ #1 Status Well
Play/Prospect Code ☐ Oil ☐ Gas EA Code
Target: Depth 10,000' Formation Cretaceous
Total: Depth 14,000' Formation
Budget Prov. Code

FLAC (Well) No.	Basic CD	H/Z Sub	Comb. CD	Regulatory Field Code	Horizon Code	FLAC (Lease/Unit)

(Controller's Dept. Use Only): Own Code | CD | Int

Op. Fld. Code | Tp. Loc. Code | Contract #
LPN | Appn. No.

Type of Job: ☒ Drill ☐ Recomplete ☐ Multiple Completion
Type Authorization: ☒ New ☐ Reauthorization ☐ Reentry ☐ Final # ☐ FLAC Input Only # ☐ Amended # ☐ Supplement # ☐ Cancel

Property Description and Land Data

Field YOLLA Country AUSTRALIA State TASMANIA District T-14P-1
Location BASS STRAITS Spacing Pattern-Acres/Well
Latitude 39° 50' 18.96" SOUTH Longitude 145° 48' 21.20" EAST
Lease Expiration Date 6TH YEAR JAN. 8, 1986 Must Commence ☐ Operations ☐ Spud By 19 Qtr To Start 3RD
Qtr To Complete 3RD Time Required To Meet Land Requirements Location Meets ☐ State Regs ☐ Field Rules ☐ Exception Required
Amoco Working Interest: Before Royalty 50% After Royalty Other Working Interests SAOGC, AND CUE GROUP 50
: Oil Outlet Gas Outlet
Estimated Allow/Cal. Day: BOD N/A MCFD N/A ☐ Prorated ☐ Nonprorated Executive Order 11246 ☐ Is ☐ Is Not Applicable
☐ Federal Lease/Unit Special Contractual Provisions NOTIFICATION OF INTENT TO RELINQUISH ACREAGE BY OCT. 8, 198

Offset or Nearby Well Data ☒ Not Appl. ☐ See Rev. Side of Form

Expected Impact on Booked Reserves or Net Expected Resources ☒ Not Appl. ☐ See Rev. Side of Form

Estimated Costs

	Producing Department Estimated		Exploration Department Estimated	
	Gross Dry Hole	Gross Producer	Gross Dry Hole	Gross Producer
Drilling Intangibles	$	$	$	$
Drilling Cost 14,000 Feet @ $ NA Per Foot				
Day Work 76 Days @ $ 50,000 Per Day			3,800,000	
Location $ 152,000 Surveys $ 760,000 Mud $ 213,000 Stimulation $ -0- Other $ 5,025,000			6,150,000	
Total Drilling Intangibles			9,950,000	
Well Equipment-Tangibles				
Casing and Tubing			675,000	
Wellhead, Etc.			303,000	
Total Well Equipment-Tangibles			978,000	
Total This Request			10,928,000	
Previous Estimate				
Total To-Date Estimate				

	Net Dry Hole	Net Producer
	$	$
Total This Request		
Previous Estimate		
Total To-Date Estimate		

Remarks

Notice To Nonoperator: Costs shown on this form are estimates only. Nonoperators should not consider these estimates as establishing any limit on the monies which will be required to perform the proposed operation.

Nonoperator
By Date

Recommended	Date	Division Approvals	Date
		Prod	
		Expl.	
		Land	

☐ Authorized ☐ Rejected
Date

Economics: PI ROI DROI$_{15}$ PW$_0$ $ PW$_{15}$ $ MAX CASH OUT $ PAYOUT MOS.
SALES DELAY MOS. MIN. PROB. SUCCESS @ PI-15:

Functional Category: COMMITTED X : DISCRETIONARY

Form 850 Feb-84

* From January 18, 1985 telex from SRK to WCC on mill prices and delivery.

304316

Offset or Nearby Well Data

Company Lease and Well				
Pay Formation, Thickness, and Prod. Interval				
Cumulative Prod. ☐ Oil-BBLS ☐ Gas-MMCF				
	Potential Test	Latest Test	Potential Test	Latest Test
Date				
Allow/Cal. Day ☐ BBLS ☐ MCF				
Prod-Oil-Water-Gas				
Hours-Choke-Gas/Oil Ratio				
Producing Method and Pressures				

Expected Impact On Net Reserves Or Net Expected Resources

Product	Proved	Proved Developed	Indicated Additional	Expected Resources
C&C, MB				
Gas, MMCF				
NGL, MB				
Sulfur, LT				
Percentage expected to be booked in current year	%	%	%	

Category Of Reserves Changes

Discovery				
Extension				
New/Exp. Impr. Rec.				
Revisions of Previous Estimates				

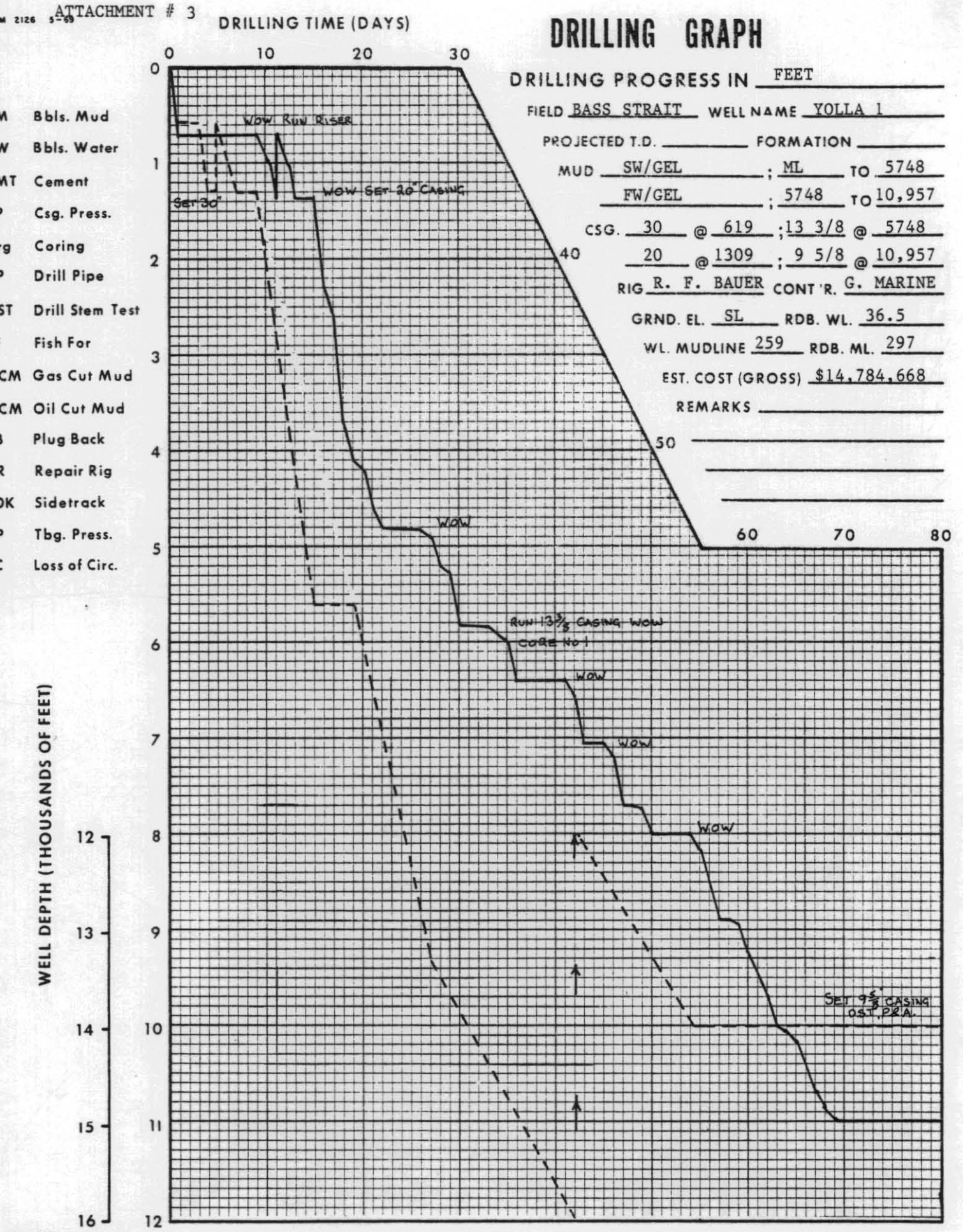
Remarks:

304317

FORM 2126 5-69

ATTACHMENT # 3

DRILLING GRAPH



BM Bbls. Mud
BW Bbls. Water
CMT Cement
CP Csg. Press.
Crg Coring
DP Drill Pipe
DST Drill Stem Test
FF Fish For
GCM Gas Cut Mud
OCM Oil Cut Mud
PB Plug Back
RR Repair Rig
SDK Sidetrack
TP Tbg. Press.
LC Loss of Circ.

DRILLING PROGRESS IN FEET

FIELD BASS STRAIT WELL NAME YOLLA 1

PROJECTED T.D. _____ FORMATION _____

MUD SW/GEL ; ML TO 5748

FW/GEL ; 5748 TO 10,957

CSG. 30 @ 619 ; 13 3/8 @ 5748

20 @ 1309 ; 9 5/8 @ 10,957

RIG R. F. BAUER CONT'R. G. MARINE

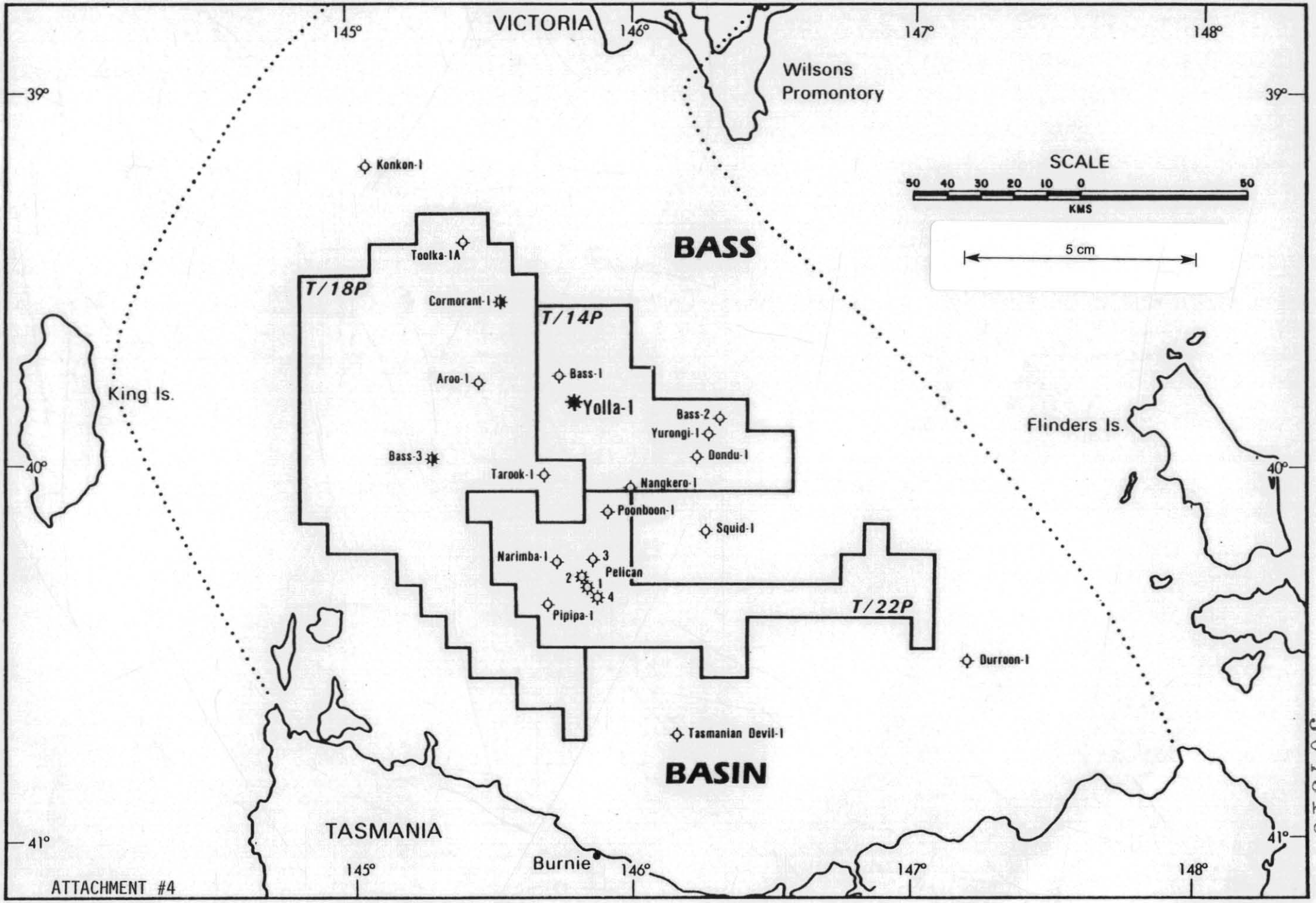
GRND. EL. SL RDB. WL. 36.5

WL. MUDLINE 259 RDB. ML. 297

EST. COST (GROSS) $14,784,668

REMARKS

WELL NAME YOLLA-1



ATTACHMENT #4

304318

ATTACHMENT # 5

304319

GLOMAR ROBERT F. BAUER

Short Hook-Up; Wire out Figures (W.O.)

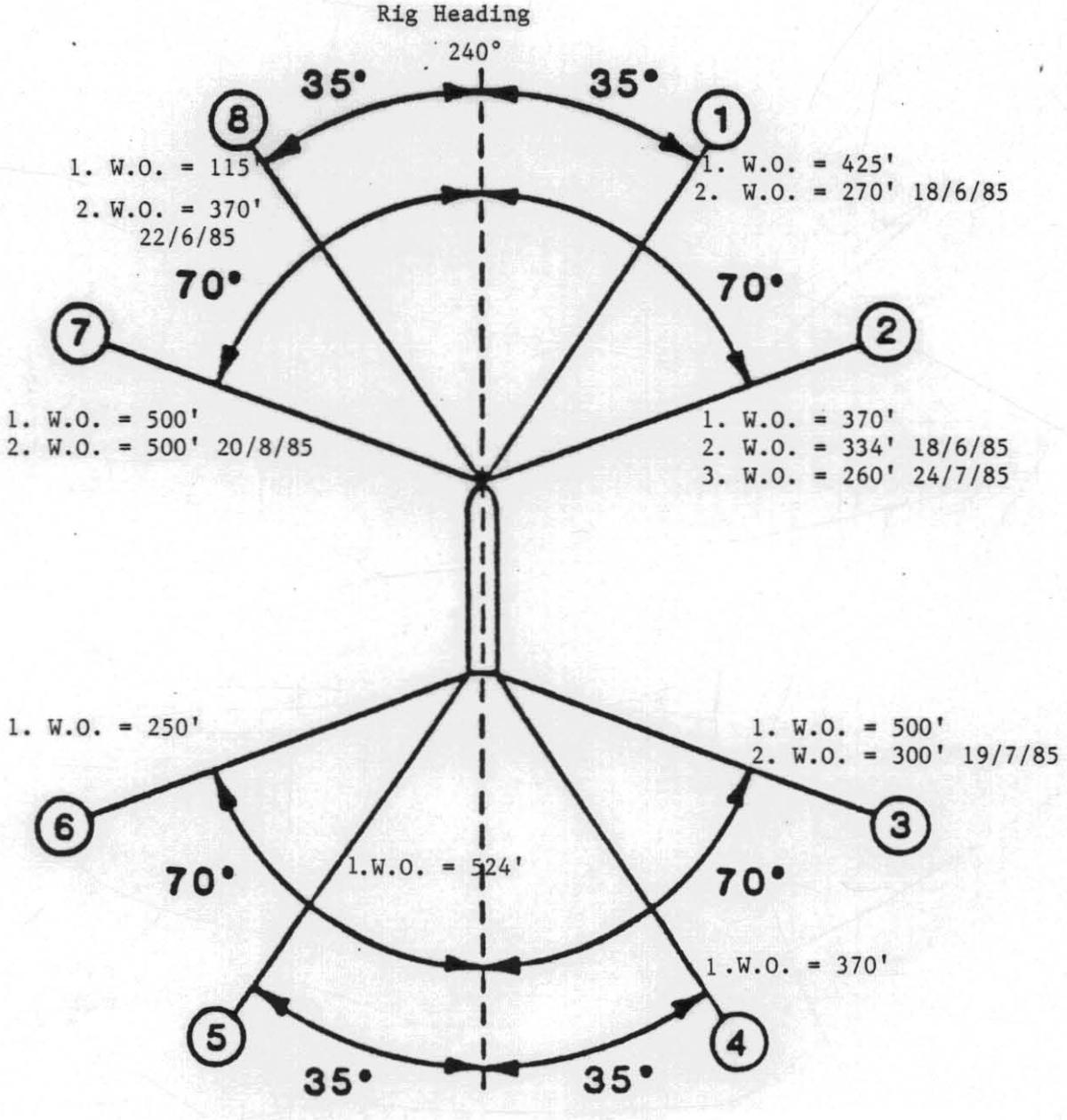
Note: 1 All anchors held 1800' of 2-3/4" chain

2 All anchors were piggy backed with 500' of 2 1/4" pennant wire.

3 Anchor wire is 3" OD

4 Anchors in place 8 June 1985

5 All piggy backs recovered by 24 August, 1985.



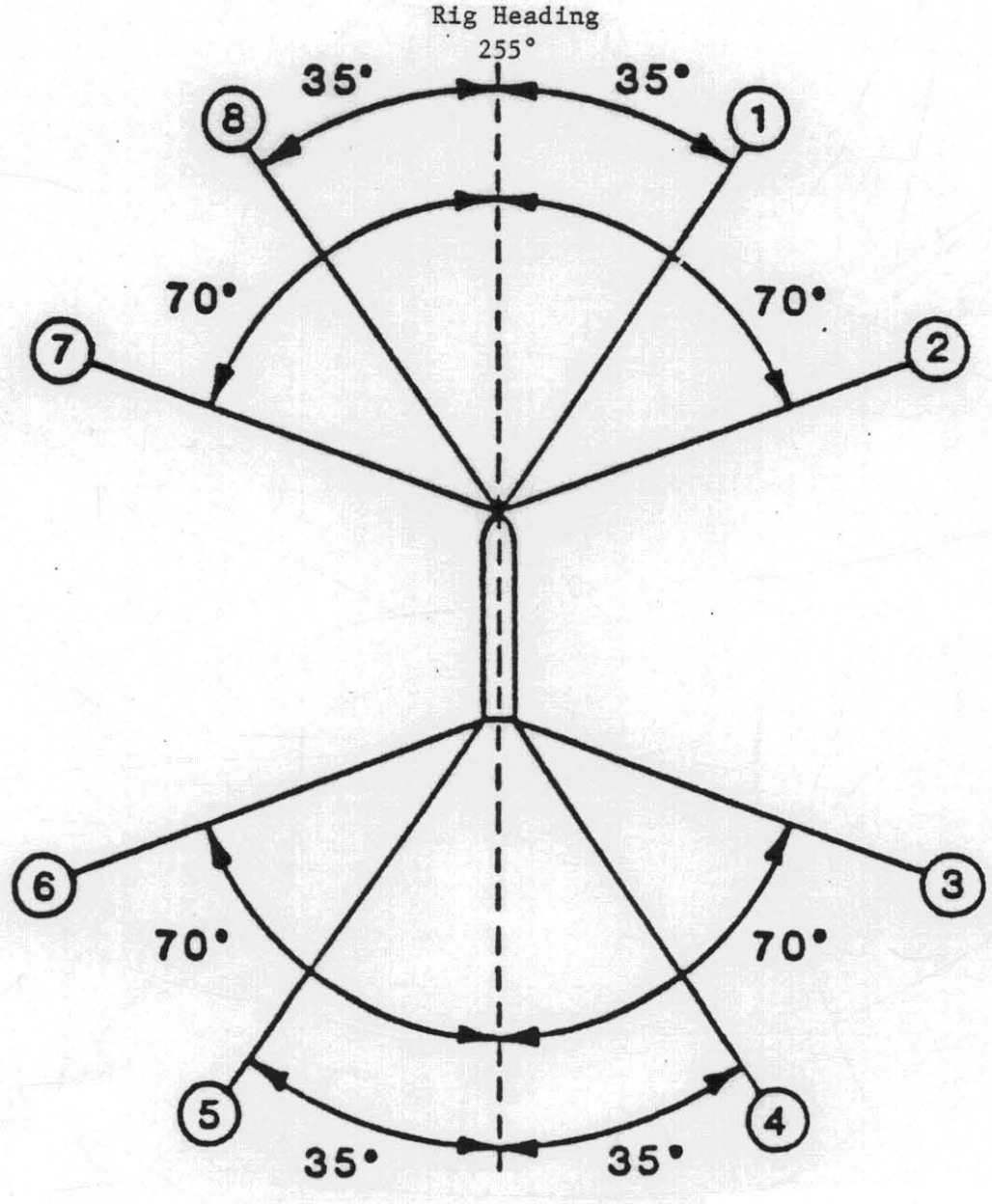
ATTACHMENT # 6

304320

GLOMAR ROBERT F. BAUER

Long Hook-up

Note: 1. All anchors held 1800' of 2-3/4" chain
2. Anchor wire is 3" OD.
3. All anchors set 7 September 1985.
4. All anchors held 5200' of wire out.



5 cm

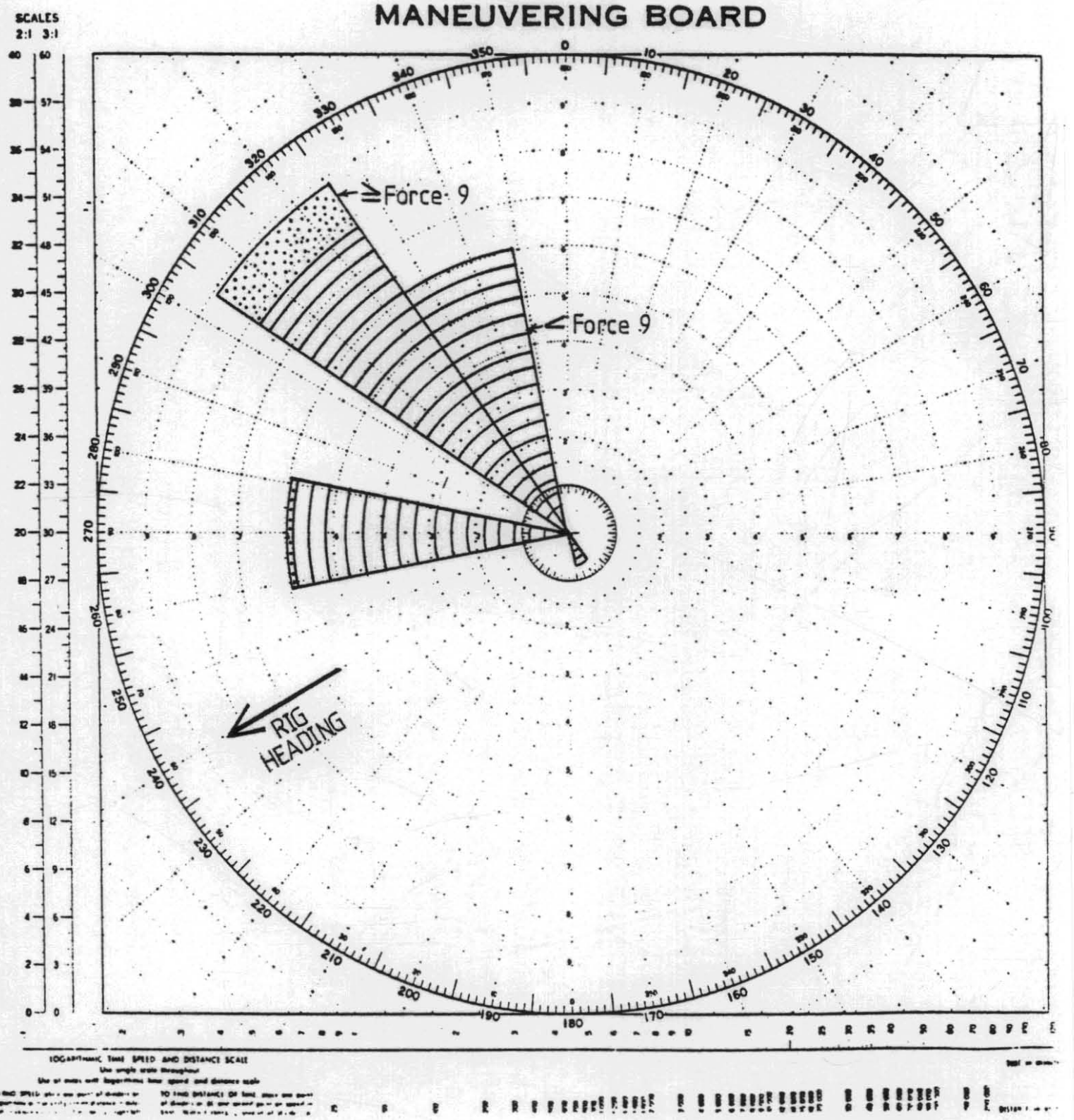
ATTACHMENT # 7

304321

W.O.W TIME(Days)/DIRECTION

JUNE 1985

MANEUVERING BOARD

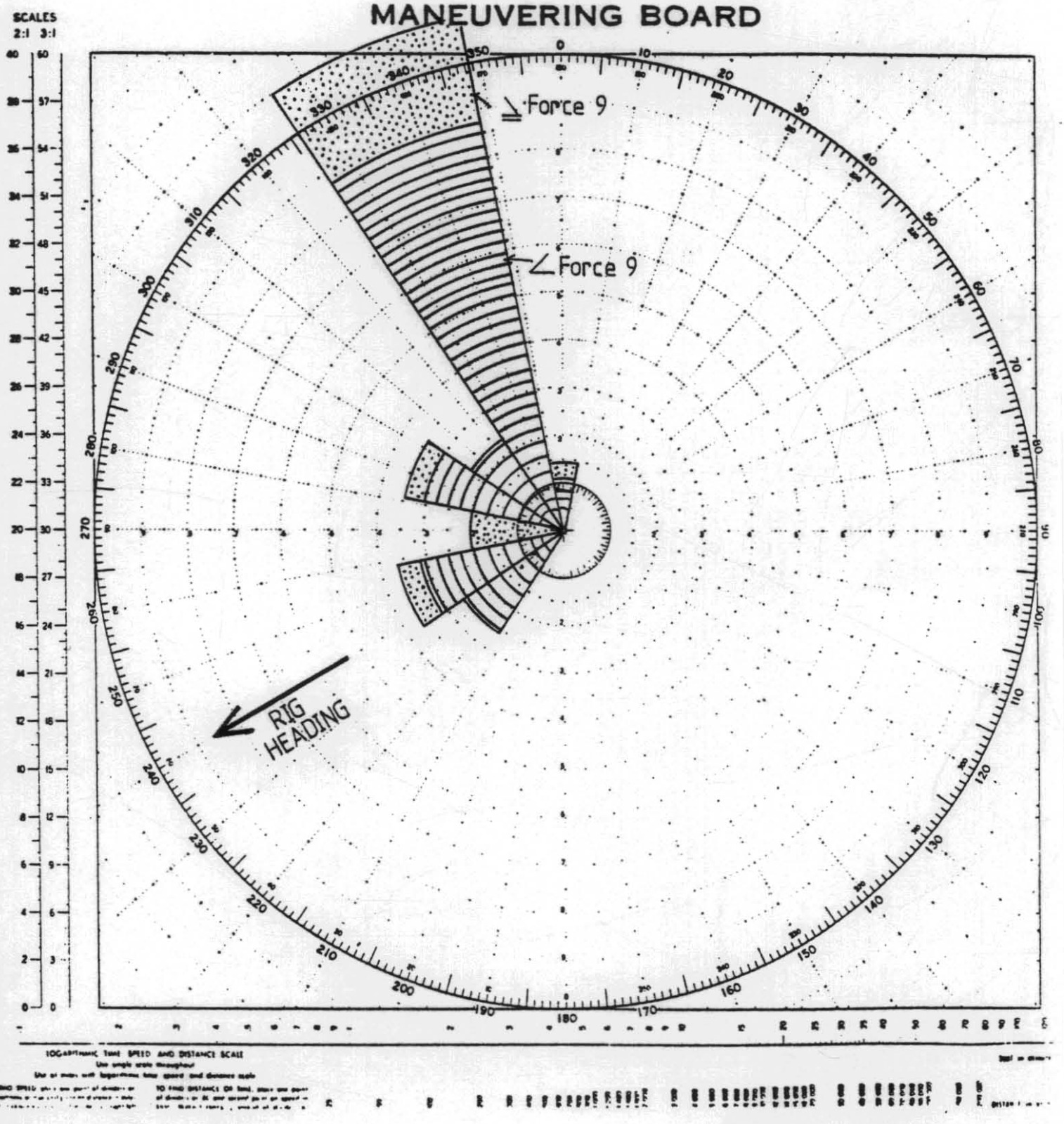


5 cm

304322

W.O.W TIME(Days) / DIRECTION

JULY 1985



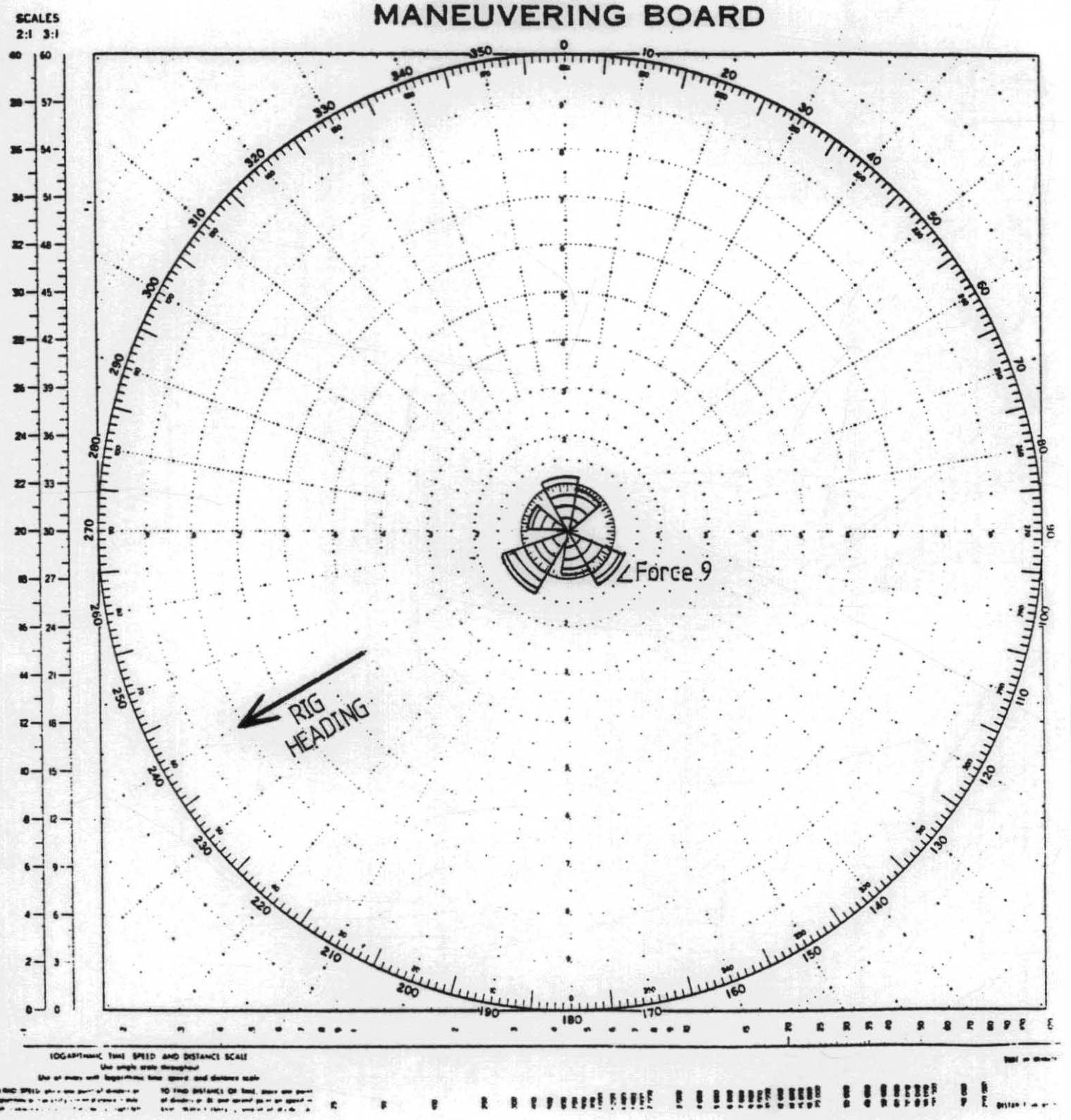
5 cm

304323

W.O.W TIME(Days) / DIRECTION

AUGUST 1985

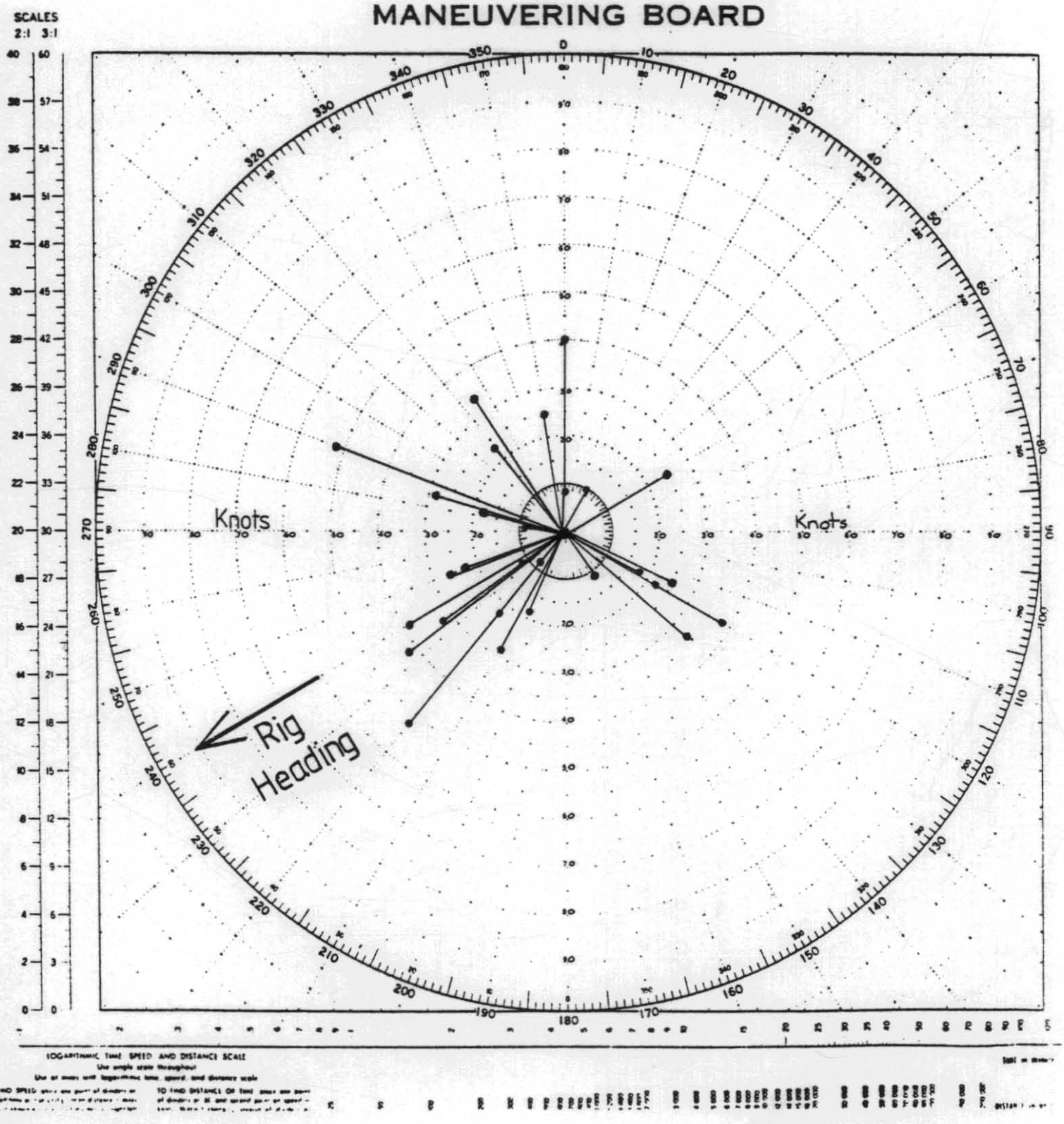
MANEUVERING BOARD



304324

WIND SPEED / DIRECTION
SEPTEMBER 1985

MANEUVERING BOARD

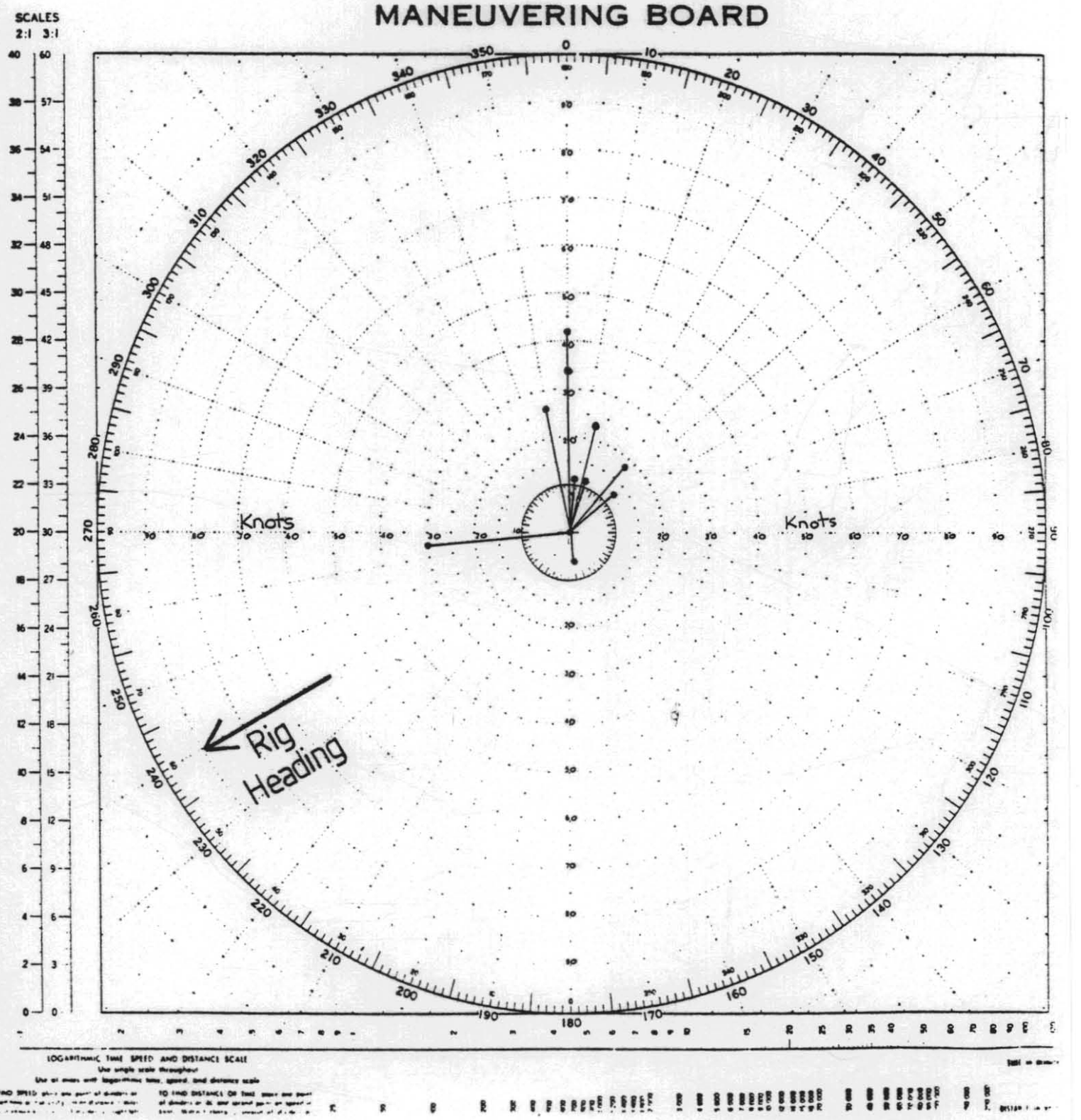


5 cm

304325

WIND SPEED / DIRECTION
OCTOBER 1st - 11th 1985

MANEUVERING BOARD

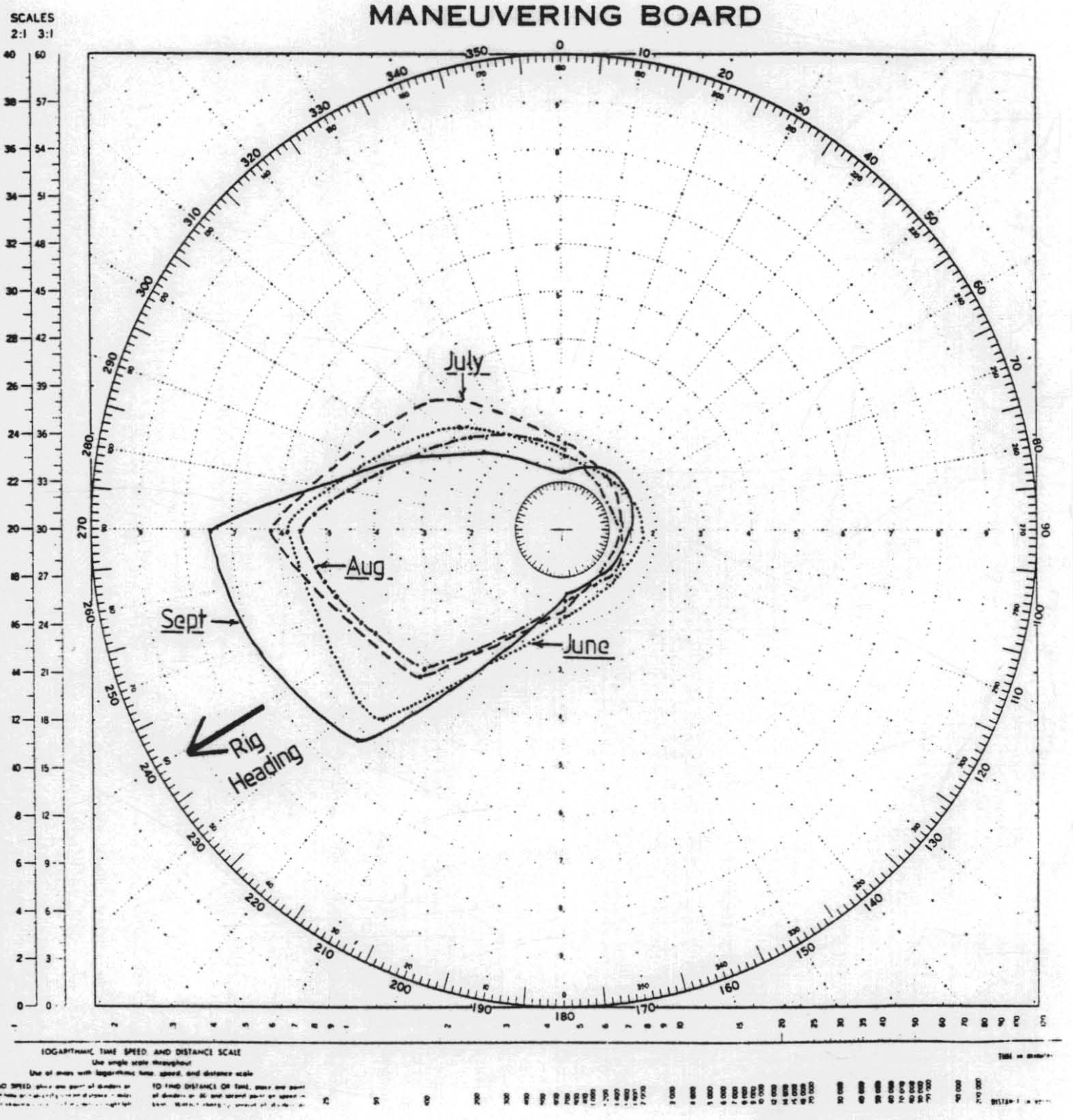


5 cm

304326

≤f of Wind Speed > 21 Knots

JUNE - AUGUST, 1985



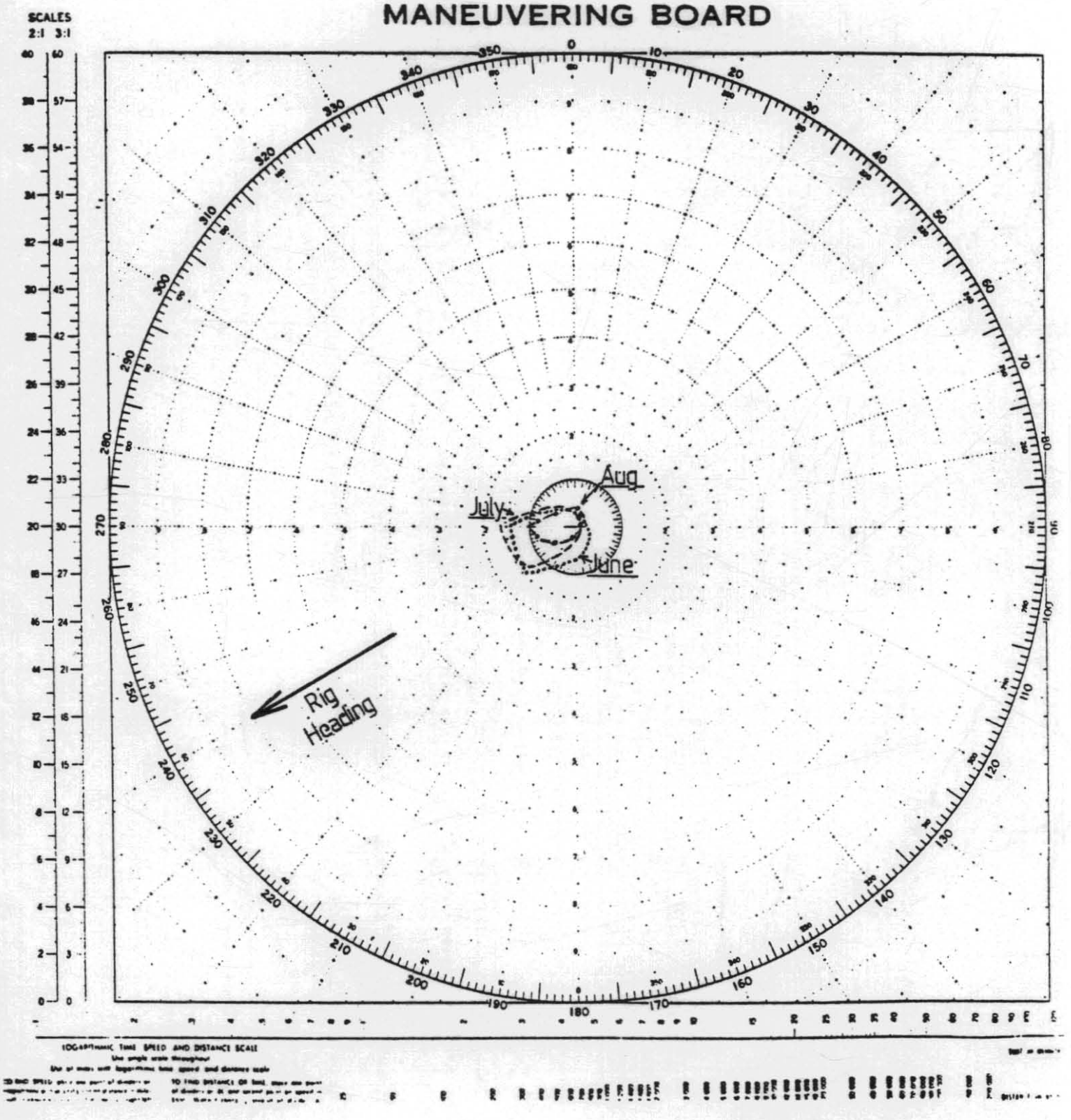
5 cm

304327

≤ of Wind Speed > 34 Knots

JUNE - AUGUST 1985

MANEUVERING BOARD

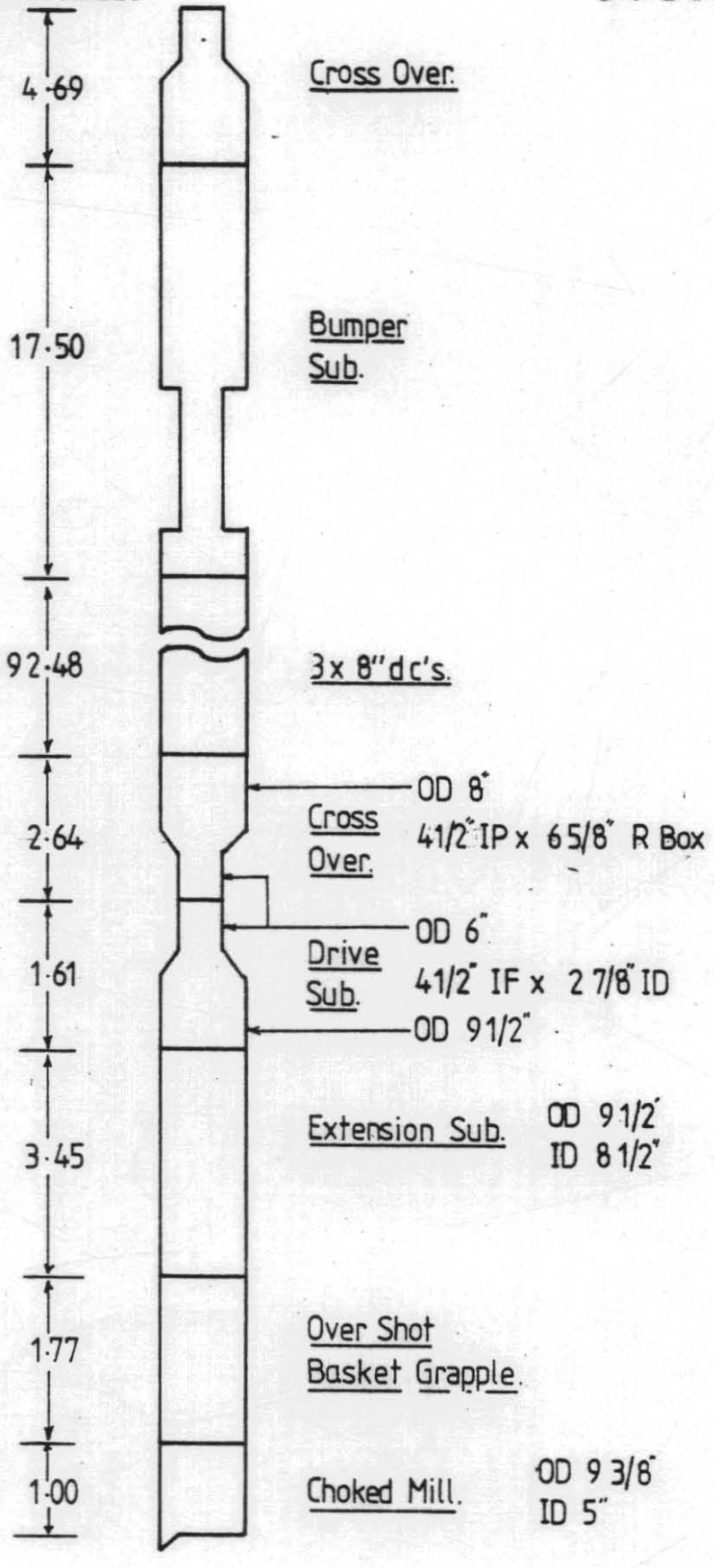


5 cm

ATTACHMENT # 8

SHEARED PIPE FISHING ASSEMBLY

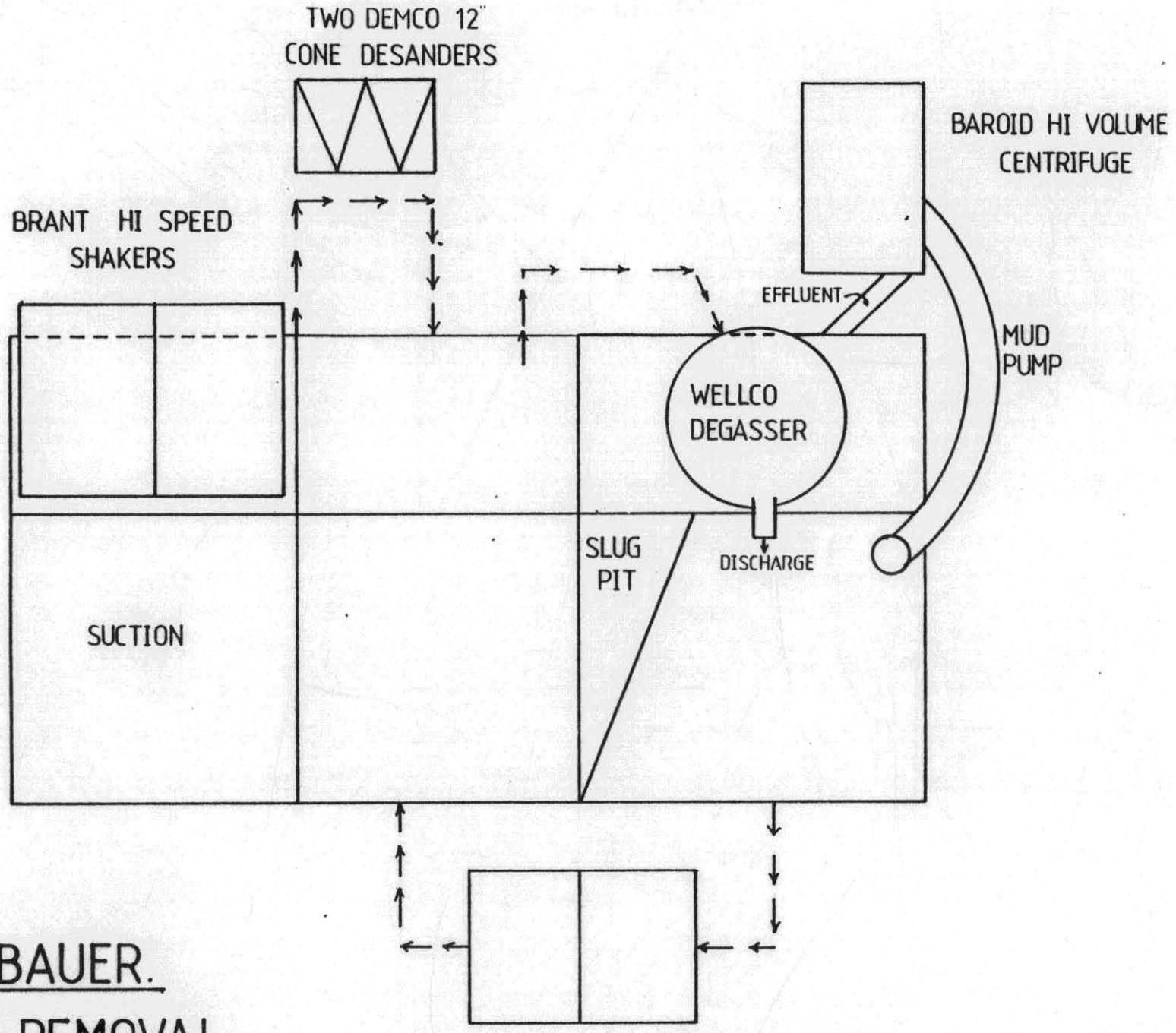
304328



3043329

ATTACHMENT # 9

SOLIDS REMOVAL SCHEMATIC



R.F. BAUER.

SOLIDS REMOVAL.

ATTACHMENT # 10

304330

SIGNIFICANT FEATURES OF THE ROBERT F. BAUER DRILLSHIP

- Constructed to fully meet the U.S. Coast Guard requirements.
- Designed to meet ABS classifications ✠ A1 ✠ AMS.
- Large variable load in excess of 7,000 short tons.
- Piping system arranged to permit multiple use of pumps wherever practical. Virtually all systems are redundant.
- Extensive use of pneumatic control in lieu of hydraulics, thereby reducing maintenance problems associated with hydraulics.
- Liberal use of stainless steel and zincless bronze in pumps and other applications subjected to corrosion.
- BOP handling system that allows moving the BOP from the transport position to the moonpool while fully unitized.
- Propulsion system of 9,600 total hp which permits transit speeds of approximately 14 knots.
- Modern air-conditioned accommodations for 99 men including a 4-man hospital.
- Self-contained deepwater 8-point conventional chain/wire mooring system, allowing for operation in water depths up to 2,500 feet. (Up to 3,000 feet under certain conditions).
- Cement recirculating/liquid additive system, allowing for controlled cementing operations.
- Three cranes located to optimize deck coverage.
- 18¾" 10,000 psi guidelineless BOP with 15,000 psi BOP control system. (Can be supplied with 15,000 psi BOP).
- Longitudinal framing requiring less steel while increasing the cargo capacity, allows for extended operations in remote areas.
- Large bilge keel extension providing better roll characteristics.
- Automated mud system providing for accurate control of mud weight.
- Fresh water cooling of all auxiliary equipment (eliminating problems associated with seawater cooling).
- Horizontal automatic pipe handling system, which allows for drill pipe storage in triples in excess of 23,000 feet.
- 2,100 kw low RPM diesel electric power plant with SCR system for propulsion and drilling operations.
- Large drilling package:
  3,000 hp drawworks
  650 traveling block and hook
  Derrick rated at 1,300,000 lbs.
  Two 1600 hp mud pumps

304331

INTRODUCTION

The GLOMAR ROBERT F. BAUER, first in a new class of drillships, is currently under construction at the Far East Levingston Shipyard in Singapore. Starting with Global Marine's proven basic drillship design, the GLOMAR ROBERT F. BAUER was developed to incorporate the latest in conventionally moored drillship technology. The water depth capability of 2,500 feet (3,000 feet under certain conditions) permits effective and economical operation in water depths normally requiring dynamic positioning. The GLOMAR ROBERT F. BAUER has a completely self-contained propulsion system, mooring system, and marine riser system and requires no support in transit or location moves; only minimal support while on location. The high transit speed (approximately 14 knots), large variable load (approximately 7,000 tons), wide water depth range (100 to 2,500 feet plus), and proven safety features (ability to move rapidly off location in an emergency) give this unit an over-all capability unsurpassed for self-sufficiency, versatility, economy of operations, and safety. The major design criteria for the GLOMAR ROBERT F. BAUER are as follows:

- A design permitting a high degree of mobility.
- A design permitting deepwater drilling while utilizing a fully self-contained mooring system.
- A design permitting effective operations in a wide range of environments.
- A proven evolutionary design rather than a radical new approach.
- A safe design with regard to strength, stability, and the ability to move rapidly off station.
- A design that facilitates high operational reliability coupled with low maintenance costs.
- A design that offers a large variable load capability to enhance self-sufficiency and reduce dependency on re-supply.
- A design that will facilitate efficient inspection and service.
- A simple but efficient design to allow optimization of storage and transfer of expendibles.

GENERAL DESCRIPTION

The GLOMAR ROBERT F. BAUER is a self-propelled diesel electric powered single-hull drillship designed to drill up to 25,000 feet in water depths up to 2,500 feet. In addition to the vessel meeting the latest requirements of the U.S.C.G. and ABS for safety, stability, and strength, it also bears the highest ABS classification for an offshore drilling unit.

The vessel is framed longitudinally, maximizing strength and cargo carrying capacity while minimizing the total steel weight. The principal dimensions are well-balanced, providing optimum freeboard to depth ratio and resulting in dryer working decks. The hull is divided into seven main cargo and service compartments with each compartment subdivided into a centerhold and port and starboard wing tanks. Center spaces are further subdivided to carry bulk materials. A double bottom is fitted throughout the length of the cargo and machinery spaces and allows for storage of fuel oil, ballast water, drill water, and wash water. The large storage and cargo capacity allows for storage and transportation of a sufficient amount of supplies to drill in remote locations with minimal re-supply.

The main deck is arranged to handle all the equipment necessary for drilling operations. A casing rack is located aft, while an automatic drill pipe racker is located forward of the drill well. Three pedestal mounted revolving cranes are located to optimize equipment and material handling.

Five 2100 kw, 60 Hz, 600 VAC, diesel-electric generators supply power to all propulsion, drilling and auxiliary machinery. The major drilling and propulsion machinery is powered through SCR converters for DC drive. Propulsion power is supplied to the vessel's twin screws by 1600 hp DC electric motors producing a total of 9600 hp and an estimated speed of 14 knots.

The vessel is equipped with a completely self-contained eight-point combination wire/chain deepwater mooring system, and is outfitted with eight 30,000 lb. Moorfast anchors, each with 2,000 feet of 2¾ in. anchor chain and 6,500 feet of 3 in. wire rope. The mooring system permits heading changes to minimize motion during drilling operations and to provide protective shelter for offloading supply boats or to reduce mooring loads during rough weather.

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304332

PRINCIPAL CHARACTERISTICS

Classification:
ABS✠A1✠AMS drilling unit
United States Coast Guard Certified

Water Depth Capability: 2,500 ft.

Vessel Dimensions:

Length Overall	444 ft. 5 in.
Beam Molded	76 ft.
Depth at Side	35 ft.
Draft at Load Line	24 ft. 6 in.
Centerwell	26 ft. x 26 ft.

Loading Data: (Approx.)

Lightship Displacement	10,080 s. tons
Maximum Loaded Displacement	17,920 s. tons
Maximum Variable Load	7,840 s. tons

Maximum Storage Capacities:

Tubular Goods	
Casing Rack	448 s. tons
Casing Hold	672 s. tons
Sack Storage	15,000 cu. ft.
Bulk Mud	16,890 cu. ft.
Liquid Mud	
Active	594 bbls (approx.)
Reserve	3,044 bbls.
Bulk Cement	7,415 cu. ft.
Potable Water	1,140 bbls.
Drilling Water	16,806 bbls.
Treated Water	1,740 bbls.
Wash Water	2,748 bbls.
Fuel	13,446 bbls.
Lube Oil	407 bbls.

Note: Any combination of the above can not exceed the maximum allowable variable load.

Propulsion System:
Two 11 foot, four bladed, fixed pitch propellers, each driven by three 1,600 hp DC electric motors, developing a total of 9,600 SHP, allowing an approximate speed of 14 knots.

Fully Self-Contained Mooring System:
Eight point conventional wire/chain system comprised of two double drum, double wildcat Skagit windlasses and four single drum, single wildcat Skagit windlasses, with fairleaders; eight 30,000 lb. anchors and associated lines and buoys; eight 6,500 ft. lengths of 3 in. wire rope and eight 2,000 ft. length of 2¾ in. Oil Rig Quality chain.

Living Quarters:
Air conditioned accommodations located aft for 77 persons including 4 hospital berths. Air conditioned forward accommodations for 22 persons.

Power Generation:
Five skid mounted EMD 16 cylinder diesel engine/generator sets rated at 2,100 KW/600 volts each.

Power Conversion:
DC power is supplied by 6 SCR units rated at 1800 amps, 750 volts each.

Emergency Power:
One 600 KW/480 volt generator powered by a Detroit Diesel 12V-149 diesel engine.

Auxiliary Equipment:
Cranes: Two Liebherr BOS-30—300D cranes rated at 30 tons at a 20 ft. radius. One Liebherr BOS-65—550D crane rated at 65 tons at a 25 ft. radius.

Heliport: 72 ft. diameter with approved foam dry chemical and CO_2 fire fighting systems. Meets requirements for operation of Sikorsky S-61 helicopter.

Water Distillation System: Two Riley-Beaird model TCF 75 with 7,500 gallon per day capacity each and two raw water pumps.

Lifeboats: Two totally enclosed diesel powered 28 ft. lifeboats each equipped for 58 person capacity. Two totally enclosed diesel powered 26 ft. lifeboats each equipped for 44 person capacity. Sufficient life rafts and life jackets to meet U.S.C.G. requirements.

Compressed Air Systems:
General Service System (125 psi)
Engine Cold Start System (175 psi)
Bulk Air System (40 psi)
Motion Compensator and Riser Tensions System (2,400 psi)
Breathing Air System (3,500 psi)

Drilling Equipment:

Derrick: Global Marine design 160 ft. x 61 ft. x 38 ft. bolted galvanized steel derrick rated at 650 tons static hook load, with a two rail traveling block guide system.

Crown Block: Global Marine design 650 ton capacity.

Swivel: National P-650 rated at 650 tons with an International Tool A-6C kelly spinner.

Hook: National H-650 rated at 650 ton capacity.

Motion Compensator: NL Shaffer dual cylinder with integral traveling block with a rated locked capacity of 500 tons and a 200 ton live capacity and a 20 ft. stroke.

Drawworks: National 1625 DE rated at 3,000 hp with Elmagco electric brake, driven by three GE 752 electric motors.

Rotary Table: National 49½ in. driven by one GE 752 electric motor rated at 800 continuous horsepower.

Drill Pipe Racker: Global marine design pneumatically operated automatic horizontal drill pipe racker with a capacity of 24,759 ft. in triples.

Drill Pipe: 15,000 ft. of 5 in. grade G

Drill Collars: Thirty 8 in. OD x 2 13/16 ID x 30 ft. long; forty 6½ in. OD x 2 13/16 ID x 30 ft. long.

Automated Mud System: Complete automated mud system for automatic mud density control.

Mud Pumps: Two National 12-P-160 triplex pumps, each driven by two 800 hp DC electric motors.

Shale Shakers: Brandt Dual Tandem mounted on active tank.

Desander: Brandt desander rated at 1,000 gallons per minute at 40 psi.

Mud-Gas Separator: Wellco

Degasser: Wellco

Mud Mixing Pumps: Two Mission Magnum 8x6R pumps driven by 100 hp electric motor.

Subsea Equipment:

Diverter: Regan model KFDH diverter.

Slip Joint: Regan 21 in. x ½ in. wall with 50 ft. stroke, complete with integrated 3 in. ID 10,000 psi wp choke and kill lines.

Riser: Regan integral joint choke and kill riser, 21 in. OD x ½ wall for 2,500 ft. water depth. All riser equipped with syntactic foam buoyancy modules.

Blowout Preventer Handling System: Global Marine design skidding system.

Blowout Preventer: 18¾ in. 10,000 psi wp Cameron guidelineless blowout preventer system consiting of two double ram preventers; two 18¾ in. 5,000 psi wp Hydril annular preventers, with Cameron 18¾ in. 10,000 psi wp Wellhead and LMRP connectors.

BOP Choke and Kill Line System: Two choke and one kill line, each containing one 3 1/16 in. 10,000 psi wp 90° angle value and one 3 1/16 in. 10,000 psi wp straight valve. Valves are hydraulically-operated, failsafe close, with pressure assist close.

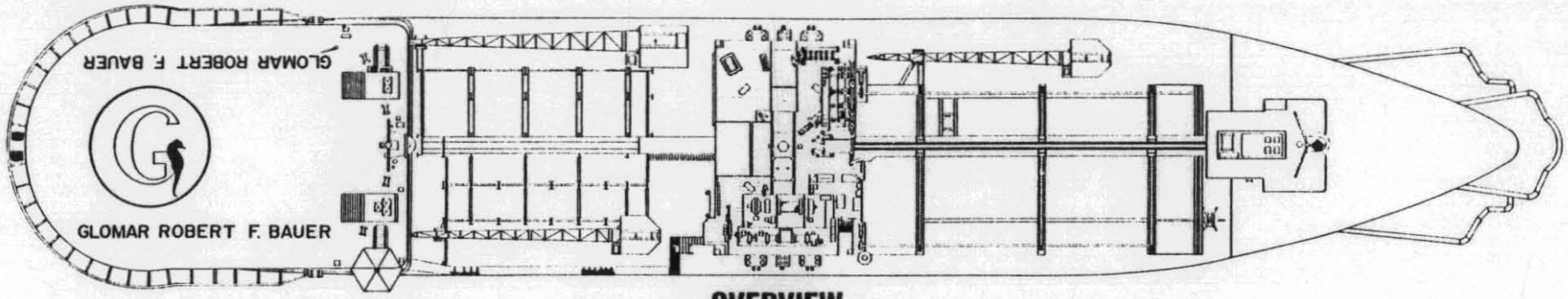
BOP Choke and Kill Manifold: Four station 3 1/16 in. 15,000 psi wp manifold, H_2S trimmed, with two hydraulically adjustable chokes and two manually adjustable chokes.

BOP Guidance System: Cameron Guidelineless System.

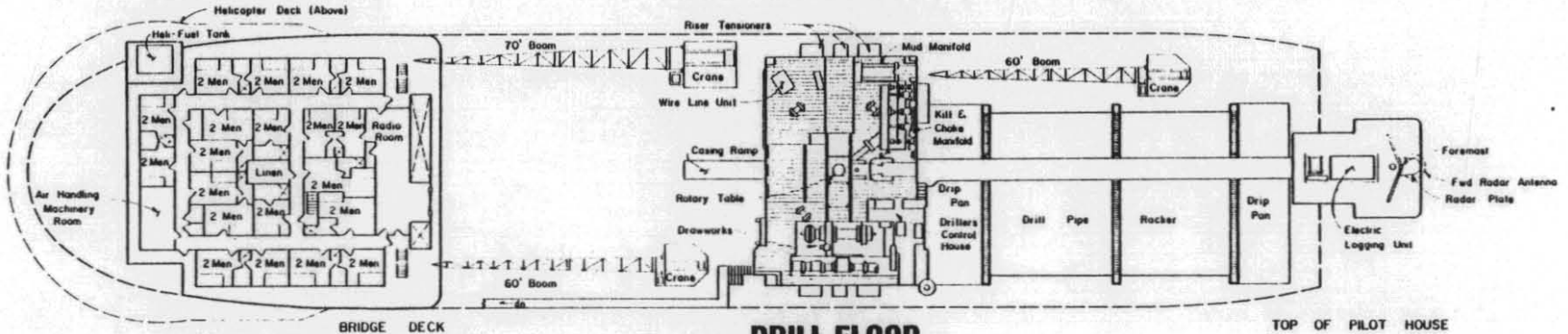
BOP Moonpool Guidance System: Global Marine design.

BOP Control System: Koomey dual pod, completely redundant hydraulic system including 1,000 gallon accumulator system, control manifold and hose reels.

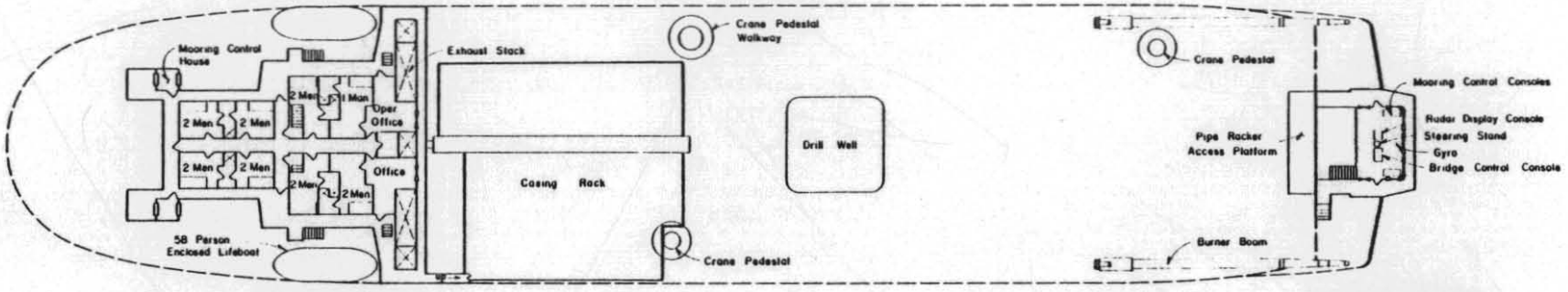
Riser Tensioners: Four N.L. Schaffer dual and two single units each with 80,000 lbs. maximum line pull and a 50 ft. line travel.



OVERVIEW

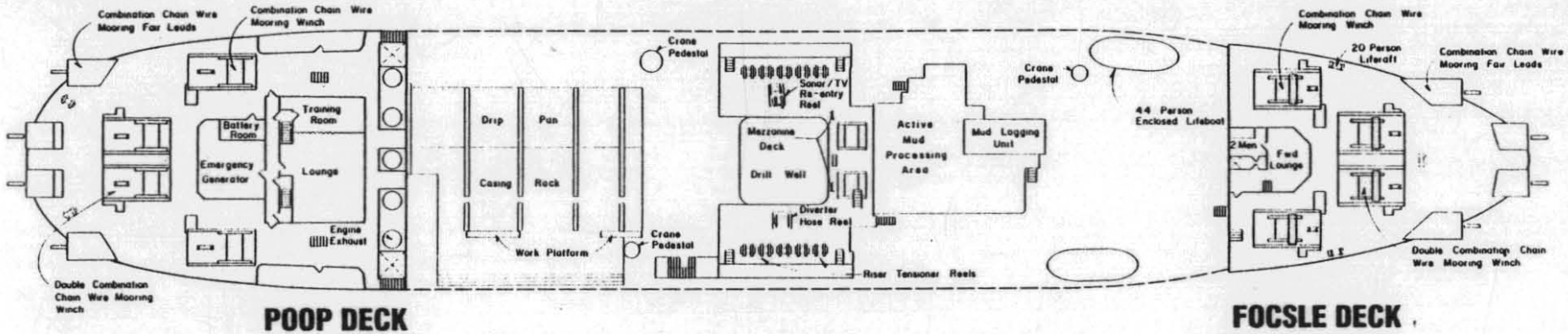


DRILL FLOOR



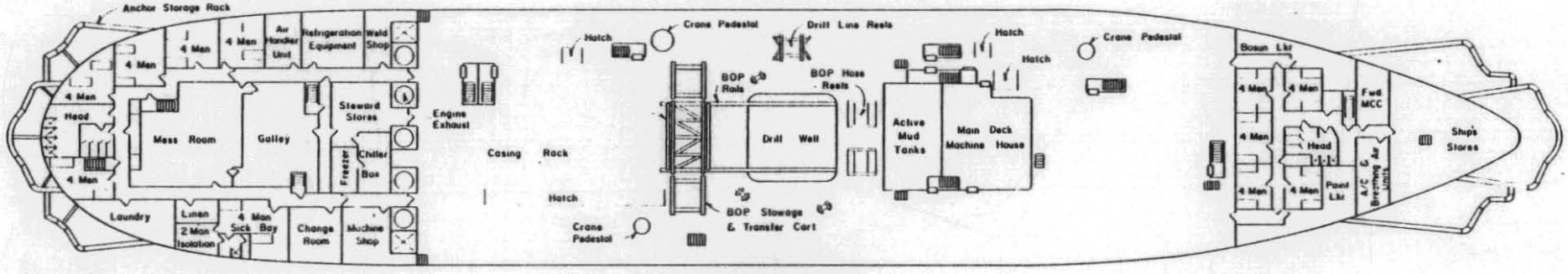
BOAT DECK **PILOT HOUSE**

304334

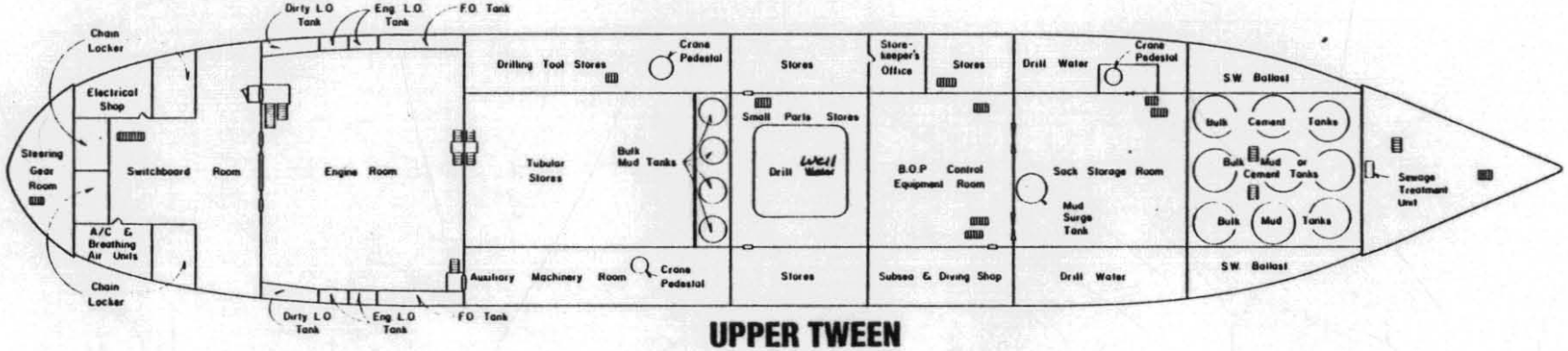


POOP DECK

FOCSLE DECK

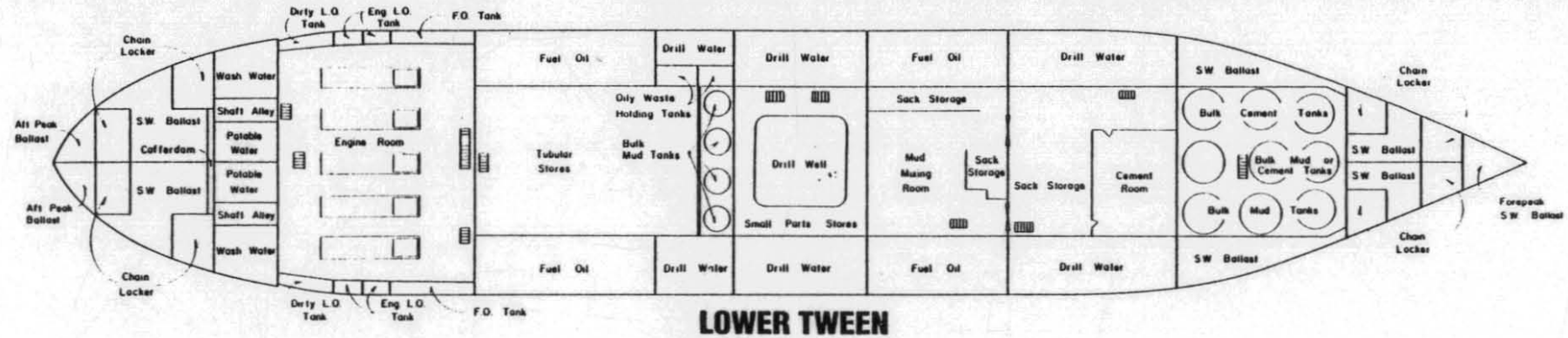


MAIN DECK

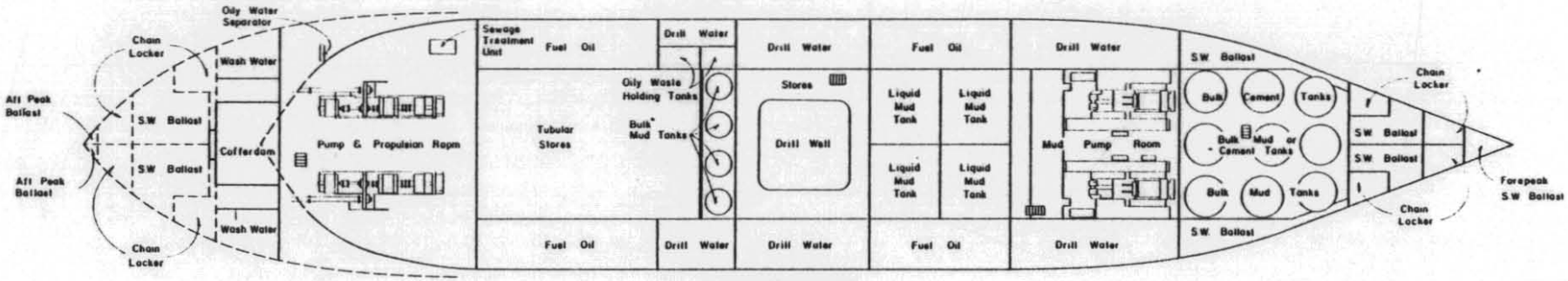


UPPER TWEEN

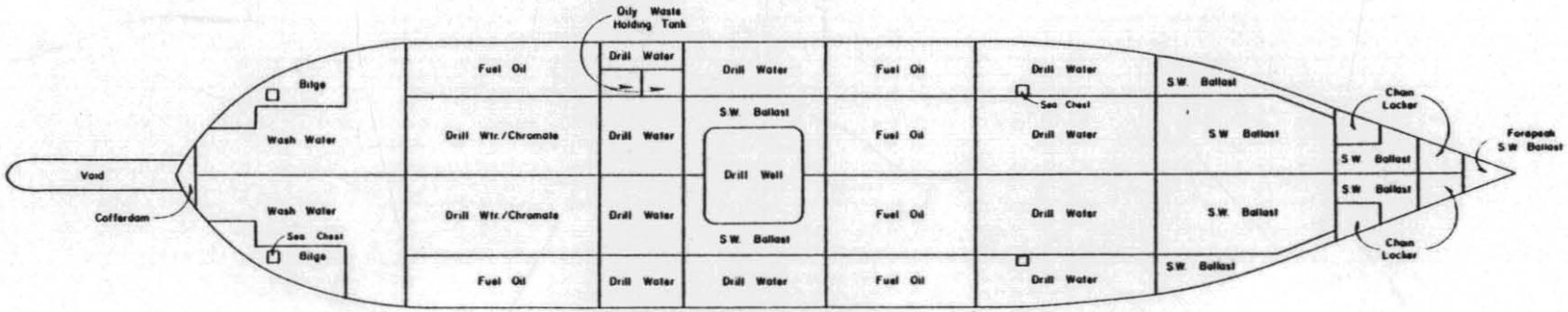
304335



LOWER TWEEN

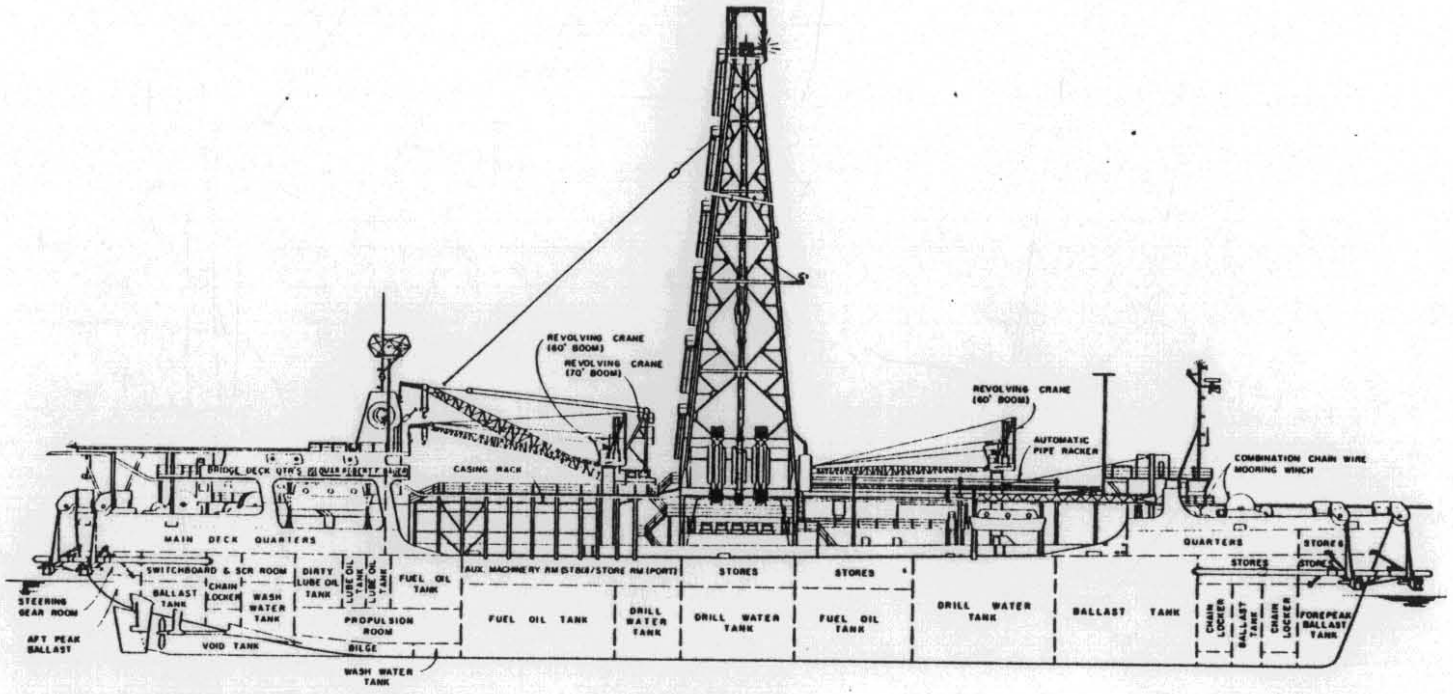


TANK TOP



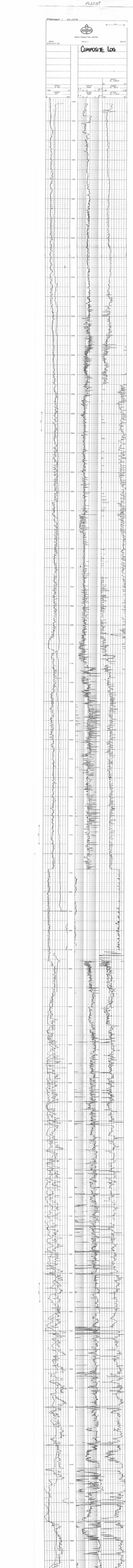
INNER TANK BOTTOM

304336



PROFILE

304337



COMPOSITE LOG

Attachment 2 of 2

Schlumberger

CBL

Field Log

BRIDGE PLUG @ 1930.5 m TOOLSTRING

COMPANY: ANADARKO PETROLEUM CORP.

WELL: PANTHER CREEK - CAPTAIN'S ROCK

FIELD: WILDCAT

PROVINCE: ALBERTA

LOCATION: 10-15-12-12 W5M

ELEVATION: KB: 1759.0 m
DF: 1757.0 m
GL: 1748.0 m

PERM. DATUM: GROUND LEVEL

LOG MEASURED FROM: KB 11.0 m ABOVE PERM. DATUM

DRILLING MEASURED FROM: KB

RUN: ONE

DATE: 12-SEP-2001

DEPTH-DRILLER: 1950.0 m

DEPTH-LOGGER: 1950.0 m

BTM. LOG INTERVAL: 1950.0 m

TOP LOG INTERVAL: 1700.0 m

CASING-DRILLER: 244.5 mm @ 0.0 m

CASING-LOGGER: 244.5 mm @ 0.0 m

BIT SIZE: 222.2 mm

TYPE FLUID IN HOLE: WATER-GEL-POLYMER
DENSITY: 9.8 LB/G

TIME CIRC. STOPPED: 1100/27
TIME LOGGER ON BTM.: 1700/27

MAX. REC. TEMP.: 79.0 DEGC

LOGGING UNIT NO.: 65
LOGGING UNIT LOC.: VEW
RECORDED BY: WINSLOE
WITNESSED BY: C.W.WAGNER

REMARKS:

BRIDGE PLUG SET AT 1930.5 M. (6333.7 FT)
CCL TO CENTRE OF PACKER = 3.6 M.

5 cm

EQUIPMENT NUMBERS-

CAL B 3934 IHM AA 404

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CP 26.4 FILE 0
DATA ACQUIRED 00- -00 00:00

MRE -17.00 3.0000
MLE -17.00 3.0000
MBL -17.00 3.0000
CCL -19.00 1.0000
GS2 -10.00 10.000
GS1 -10.00 10.000
TENS(LB) -10.00 10,000 9.0 2000.0

CCL
TENSION PICK UP

SENSOR MEASURE POINT TO TOOL ZERO
CCL 0.0 METER TENS 0.0 METER

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
BHS	CASE				
BS	16.2500	IN	CSIZ	9.62500	IN

9 5/8
EZSV BRIDGE PLUG
SQUEEZE#4

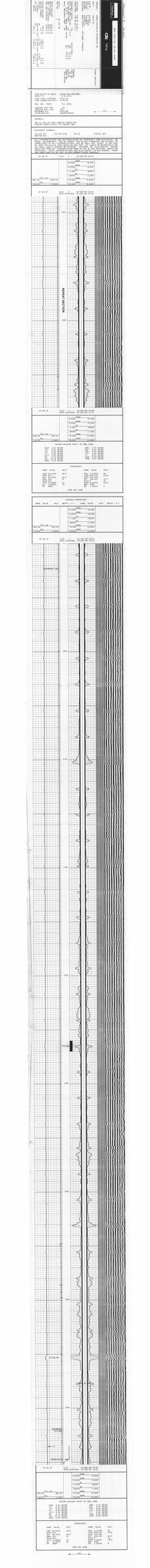
1927.4 CCL DEPTH
1930.5 TOP SMT

1950

CP 26.4 FILE 0
MRE -17.00 3.0000
MLE -17.00 3.0000
MBL -17.00 3.0000
CCL -19.00 1.0000
GS2 -10.00 10.000
GS1 -10.00 10.000
TENS(LB) -10.00 10,000 9.0 2000.0
SENSOR MEASURE POINT TO TOOL ZERO
CCL 0.0 METER TENS 0.0 METER
PARAMETERS
NAME VALUE UNIT NAME VALUE UNIT
BHS CASE
BS 16.2500 IN CSIZ 9.62500 IN

BY COLLAR

5 cm



Schlumberger

BOREHOLE GEOMETRY YOLLA#1 SUITE#3 1/200

CSU Field Log

5 cm

COMPANY:	AMOCO AUSTRALIA PETROLEUM CO.
WELL:	YOLLA #1
FIELD:	
DISTRICT:	
COUNTY:	
STATE:	
LOCATION:	3KB: 5.0 M ABOVE MSL GL: -75.5 M DF: 0.0 M
LATITUDE:	038 56 18.96 S
LONGITUDE:	148 48 21.2 E
RUN NUMBER:	ONE
DATE LOGGED:	24 AUG 85
DEPTH-DRILLER:	3354.0 M
DEPTH-LOGGER:	3356.0 M
CASING-DRILLER:	762.0 M @ 0.0 DEG F
CASING-LOGGER:	762.0 M @ 0.0 DEG F
BIT SIZE:	311.2 MM
TOP LOG INTERVAL:	1756.0 M
BOTTOM LOG INTERVAL:	3356.0 M
TYPE FLUID IN HOLE:	FRESH WATER-AQUAGEL-POLYMER
DENSITY:	9.80 LB/G
VISCOSITY:	44.0 S
PH:	11.0
FLUID LOSS:	9.0 C3
SOURCE OF SAMPLE:	FLOWLINE
RM @ MEAS TEMP:	1.970 OHMM AT 23.0 DEGC .938 OHMM AT 16.0 DEGC
RMF @ MEAS TEMP:	1.370 OHMM AT 16.0 DEGC
SOURCE RMF/RMC:	PRESS /PRESS
RM AT BHT:	.298 OHMM AT 130. DEGC
RMF AT BHT:	.197 OHMM AT 130. DEGC
RMC AT BHT:	.322 OHMM AT 130. DEGC
TIME CIRC. STOPPED:	22:30 21/08
TIME LOGGER ON BTM.:	05:45 23/08
MAX. REC. TEMP:	130.3 DEGC
LOGGING UNIT NO:	65
LOGGING UNIT LOC:	SEA
RECORDED BY:	OLIVIER BOUBE
WITNESSED BY:	G.M. K.ELLGREN

RUN NO.	ONE
SERVICE ORDER	71128
PERMANENT DATUM	MSL
ELEV. OF PERM. DATUM	0.0 M
LOG MEASURED FROM	KB
5.0 M ABOVE PERM. DATUM	
DRILLING MEASURED FROM	KB
ELEVATIONS: KB	-75.5 M
DF	-75.5 M
GL	-75.5 M

PROGRAM
SPEED 1800 F/HR
DEPTH CONTROL
MEAS FROM KB
TOOL STRING
TOP TO BOTTOM
HDS-F 2743
HDM-LB 856
HDE-F 763
SGC-JC 3599
DAM-AC 3969

REMARKS:

TOOL STRING RUN CENTRALIZED.
INV = PIPS ON LEFT-EDGE TRACK = 50 CU.FT.
ICV = PIPS ON RIGHT-EDGE TRACK = 50 CU.FT. (SLURRY VOLUME).

EQUIPMENT NUMBERS-

DAM-AC 3969 SGC-JC 3599 HDE-F 763 HDM-LB 856
HDS-F 2743

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CP 28.15 FILE 5 24-AUG-85 04:29
DATA ACQUIRED 23-AUG-85 07:53

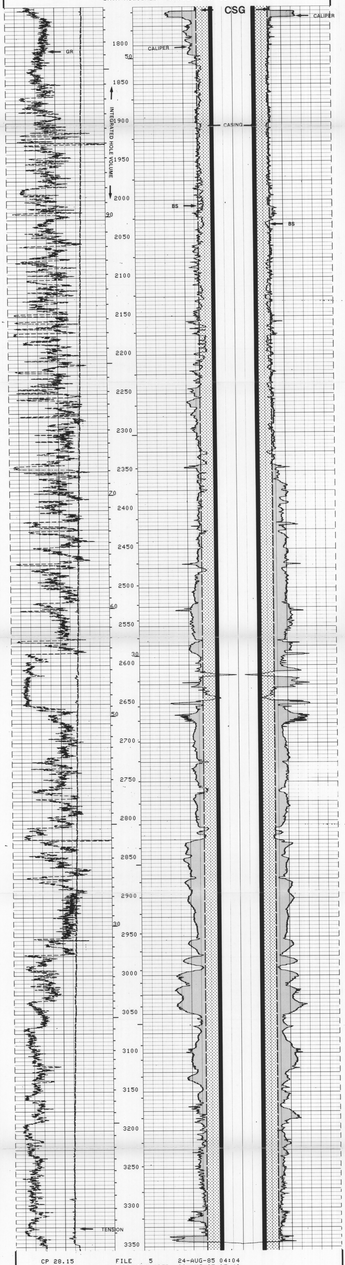
CEMENT VOLUME = 2614.86 F3
HOLE VOLUME = 5261.18 F3
FROM 3354.66 TO 1749.63 METE

EVENT MARK SUMMARY:

OUTPUT	INTERVAL BETWEEN PIPS	DEPTH TRACK EDGE
INV	50.0000 F3	LEFT EDGE
ICV	50.0000 F3	RIGHT EDGE

TENSCLB ( )		DUM2	DUMM
10000. 0.0		25.000 5.0000	5.0000 25.000
GR (GAPI)		DUMM	DUM2
0.0 150.00		25.000 5.0000	5.0000 25.000
		BS (IN)	BS (IN)
		25.000 5.0000	5.0000 25.000
		C1 (IN)	C2 (IN)
		25.000 5.0000	5.0000 25.000

CP 28.15 FILE 5 24-AUG-85 04:21
DATA ACQUIRED 23-AUG-85 07:53



CP 28.15 FILE 5 24-AUG-85 04:04
DATA ACQUIRED 23-AUG-85 05:49

TENSCLB ( )		DUM2	DUMM
10000. 0.0		25.000 5.0000	5.0000 25.000
GR (GAPI)		DUMM	DUM2
0.0 150.00		25.000 5.0000	5.0000 25.000
		BS (IN)	BS (IN)
		25.000 5.0000	5.0000 25.000
		C1 (IN)	C2 (IN)
		25.000 5.0000	5.0000 25.000

SENSOR MEASURE POINT TO TOOL ZERO

C2	0.0	METER	GR	6.58	METER
TEMP	0.0	METER	C1	0.0	METER
EMEX	0.0	METER	PP	0.0	METER
REFE	0.0	METER	RC	0.0	METER
FEP1	0.0	METER	FEP2	0.0	METER
RB	0.0	METER	SET1	0.0	METER
RCE	0.0	METER	RC2	0.0	METER
RCRS	0.0	METER	RC1	0.0	METER
FC4	0.0	METER	SHOT	0.0	METER
FC6	0.0	METER	FC3	0.0	METER
FC8	0.0	METER	FC1	0.0	METER

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
MCT	72		MDEC	0	DEG
BHS	OPEN		STYP	HDSF	
RD	0.0	M	BS	12.2500	IN
PP	NORM				

TAPE NOT MADE

Schlumberger

BOREHOLE GEOMETRY YOLLA#1 SUITE#3 1/200

CSU Field Log

5 cm

Schlumberger

DEPARTMENT: CASED HOLE/OPEN HOLE

CSU Set 4g

COMPANY: AMOCO AUSTRALIA PTY.LTD.
WELL: TELLA 1A
FIELD: WILDCAT
COUNTY: OFFSHORE
STATE: AUSTRALIA
LOCATION: 38°07'00"S, 147°39'00"E, OFFSHORE TASMANIA,

PERMANENT DATUM: MEAN SEA LEVEL
LOG MEASURED FROM: RT 25.0 M ABOVE PERM. DATUM
DRILLING MEASURED FROM: RT

ELEVATIONS:
KB: 25.0 M
DF: 25.0 M
GL: -153.0 M

API SERIAL NO:

RUN NO. ONE ONE ONE
DATE: 19-FEB-87
TYPE LOG: DLL-MSFL-BHC-GR
DEPTH-DRILLER: 1700.0 M
DEPTH-LOGGER: 1700.0 M
BTM LOG INTERVAL: 1700.0 M
TOP LOG INTERVAL: 1700.0 M
CASING-DRILLER: 762.0 M @ 1700.0 M @ @
CASING-LOGGER: 762.0 M @ 1700.0 M @ @
BIT SIZE: 311.1 MM 311.1 MM @ @
TYPE FLUID IN HOLE: SEAWATER/GEL/POLYMER SEAWATER/GEL/POLYMER
DENSITY: 8.70 LB/G 8.70 LB/G
VISCOSITY: 35 S/QT 35 S/QT
PH: 9.5 9.5
FLUID LOSS: 7.0 CC/30MIN 7.0 CC/30MIN
SOURCE OF SAMPLE: CIRC CIRC
RM @ MEAS TEMP: 0.220 OHMM @ 15.0 DEGC 0.220 OHMM @ 15.0 DEGC
RMF @ MEAS TEMP: 0.170 OHMM @ 15.0 DEGC 0.170 OHMM @ 15.0 DEGC
RMC @ MEAS TEMP: 0.220 OHMM @ 15.0 DEGC 0.220 OHMM @ 15.0 DEGC
RM @ BHT: 0.110 OHMM @ 15.0 DEGC 0.110 OHMM @ 15.0 DEGC
TIME CIRC. STOPPED: 09:00 20-FEB 09:00 20-FEB
TIME LOGGER ON BOTTOM: 13:00 20-FEB 13:00 20-FEB
MAX. REC. TEMP.: 15.0 DEGC 15.0 DEGC
EQUIPMENT NO.: 19 19
LOCATION: BASS STRAIT BASS STRAIT
RECORDED BY: DEVLIN DEVLIN
WITNESSED BY: MCCARTHY MCCARTHY

REMARKS:
ALL LOGGED DEPTHS WITH DRILL PIPE MEASURE.
RUN 1 DLL-MSFL-BHC-GR RUN THROUGH 5" DRILL PIPE.
RUN 2 DLL-MSFL-BHC-GR RUN WITH TOOLS + 3.5" DP'S.
TOOLS STUCK AT 1700 M. PIPE PARTED AT SURFACE.
RUN 1 LOGGED FROM 1700 M TO 762 M (CASING SHOE).
RUN 2 LOGGED FROM 1700 M TO 762 M (CASING SHOE).
TOOLS RECOVERED TO SURFACE OK.

EQUIPMENT MANNED:
DLL-MSFL-BHC-GR 5.0 HRS
DLL-MSFL-BHC-GR 5.0 HRS
DLL-MSFL-BHC-GR 5.0 HRS
DLL-MSFL-BHC-GR 5.0 HRS

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DLL-MSFL-BHC-GR

ENVIRONMENTAL CORRECTIONS

CALI + MSFL + GR
CALI + MSFL + GR

DLL-MSFL-BHC-GR

DLL-MSFL-BHC-GR

DLL-MSFL-BHC-

Depth (m)

