



915471 001

(PAGE 1 OF 27)

Final Well Report**ESSO Australia Ltd.****Flounder A-11A (Tukari 1)****Bass Straight****June 1998**

by

Baker Hughes *INTEQ*

The information, interpretations, recommendations or opinions contained herein are advisory only and may be rejected. Consultant does not warrant their accuracy or correctness. Nothing contained herein shall be deemed to be inconsistent with, nor expand, modify or alter consultants obligation of performance as provided for in a written agreement between the parties, or, if none, in consultant's most recent price list.

Final Well Report
ESSO Australia Ltd.
Flounder A-11A (Tukari 1)
Bass Straight

June 1998

by

Baker Hughes *INTEQ*

The information, interpretations, recommendations or opinions contained herein are advisory only and may be rejected. Consultant does not warrant their accuracy or correctness. Nothing contained herein shall be deemed to be inconsistent with, nor expand, modify or alter consultants obligation of performance as provided for in a written agreement between the parties, or, if none, in consultant's most recent price list.

CONTENTS**SECTION 1 OPERATIONS SUMMARY**

- 1-1 Mud Logging Operations Summary
- 1-2 Rig / Well Data

SECTION 2 DRILLING ENGINEERING

- 2-1 Bit Run summaries
- 2-2 Casing and Cementing Summaries

SECTION 3 GEOLOGY, SHOWS AND SAMPLING

- 3-1 Geological summary
- 3-2 Sampling summary and record of distribution

SECTION 4 TESTING AND EVALUATION

- 4-1 Wireline logging

SECTION 5 DATA INVENTORY**APPENDICES**

A: FORMATION EVALUATION LOG	1:500 / 1:200
B: DRILLING DATA PLOT	1:2500
C: GAS RATIO PLOT	1:500
D: TEMPERATURE LOG	1:2500
E: BIT TABLE	
F: TIME DEPTH CURVE	



OPERATIONS SUMMARY

1.1. MUD LOGGING OPERATIONS SUMMARY

The Baker Hughes INTEQ Mudlogging crew provided formation evaluation and drilling parameter monitoring and services for the Flounder A-11 A (Tukari 1) exploration well from kick off until TD at 4621 m MD (2281.2 m TVD). Data was processed and stored using Drillbyte V.2.20 software.

The well was drilled from the existing A11 13 3/8" surface casing. The casing was section milled from 1000 - 1039 m MD. A cement plug was set at 939 m and the A-11A well was kicked off at 1003 m MD. The hole was displaced to "PETROFREE" Ester Based Mud (EBM) mud and the 12 1/4" hole was drilled to TD.

Formation evaluation began in the 12 1/4" section, cuttings samples were collected every 30 m from 1000 m to 4240 m, every 10 m from 4240 m to 4390 m and every 5 m to TD at 4621 m. Drilling parameters were closely watched and any abnormalities relayed to the rig floor and ESSO representatives.

All depths are given as measured depth unless otherwise stated.

OPERATIONS SUMMARY

1.2. RIG / WELL DATA

Company	ESSO Australia Ltd.	
Well	FLOUNDER A-11A (Tukari 1)	
Permit	Vic / L4	<i>THESE COORDS APPEAR INCORRECT SEE CORRESPONDENCE FILE PE 170439. 38 20 13.6299 } AG-084 148 2441.5509 }</i>
Region	Bass Strait	
Designation	Exploration	
Coordinates	38° 18' 45" S Lat 148° 26' 17" E Long	
Spud Date	3rd June 1998	
Reference Elevation	DF 40.8 m above Sea l	
Total Depth	4621 m MDRT	
Contractor	Atwood Oceanics Ltd.	
Rig	Rig 19	
Type	Platform	
Depth Interval	1003 m to 4621 m MDRT	
Date	3rd June - 19th June 1998	
Scale	1:500 / 1:200	
Loggers	B. Dumaoal, I.G. Hancock, J. McLeod, A. Tarif, R. Alonso, J. Balatbat.	



DRILLING AND ENGINEERING

BIT RUN No.2 SUMMARY

BIT No.:	NB#2	DEPTH OUT:	1824 m
BIT SIZE:	12.25"	DRILLED:	538 m
BIT TYPE:	HCC BD536H (PDC)	HOURS:	13.6 hrs
S/N:	1901995	TBR:	119954
IADC:	-	ROT. HRS:	23.5 hrs
JETS:	4 x 14, 2 x 16	AVG ROP:	39.6 m/hr
DEPTH IN:	1286 m	GRADING:	1-1-NO-A-X-I-CT-BHA

BHA

12.25" Bit, 12.25" Stab, 7.75" Slick Pony DC, X/O, 12.25" TRACS NM Stab, 8" NMDC, 12" NM Stab, NM Float Sub, 8.125" MWD, NM X/O, 8.0" NMDC, X/O, 3 x 5" HWDP, X/O, 6.75" Jars, X/O, 14 x 5" HWDP

DRILLING PARAMETERS

WOB:	5 - 35 klbs
RPM:	114 - 175
TORQUE:	5.8 - 10.8 kft-lbs
PRESS:	2138 - 2753 psi
FLOW IN:	901 - 966 gpm

MUD:

EBM - PETROFREE
9.3 - 9.7 ppg

LITHOLOGY:

Limestone (Calcsiltite, Calcarenite)

DRILLING SUMMARY:

RIH with NB#2 on a rotary drilling assembly to 1195 m. Conduct roll test survey, reprogram the MWD tool and set the TRACS stabilizer. Continued to RIH to 1286 m. Drilled ahead, steered and surveyed to 1569 m. Drilling was halted at 1569 m to clear a blockage in the overboard drain from the shakers. Drilled ahead, steered and surveyed to 1824 m and circulated hole clean. Pumped slug, POOH to pick up the mud motor.

2.1. BIT RUN SUMMARIES**12.25" Hole Section****939 m - 4621 m MD. (801.2 m - 2281.2 m TVD)****3rd June - 20 June 1998****BIT RUN No.1 SUMMARY**

BIT No.:	NB#1	DEPTH OUT:	1286 m
BIT SIZE:	12.25"	DRILLED:	348 m
BIT TYPE:	SECURITY ERAMPSF	HOURS:	18.0 hrs
S/N:	693926	TBR:	233326
IADC:	1-1-7	ROT. HRS:	42.1 hrs
JETS:	3 x 22, 1 x 10 CJ.	AVG ROP:	19.3 m/hr
DEPTH IN:	1018 m	GRADING:	1-1-WT-A-E-I-NO-BHA

BHA

12.25": bit, Mud motor, X/O, 12" NM Stab, NM Float Sub, 8.125" MWD, NM X/O, 8.0" NMDC, X/O, 3 x 5" HWDP, X/O, 6.75" Jars, X/O, 14 x 5" HWDP

DRILLING PARAMETERS

WOB:	1 - 46 klbs
RPM:	75 - 350
TORQUE:	0 - 9.0 kft-lbs
PRESS:	932 - 2699 psi
FLOW IN:	815 - 967 gpm

MUD:

EBM - PETROFREE

9.0 - 9.2 ppg

LITHOLOGY:

Limestone (Calclutite - Calcarenite)

DRILLING SUMMARY:

RIH with NB#1 to the top of cement at 939 m. Drilled out cement plug to 1003 m using sea water and displaced hole with Petrofree mud. Oriented toolface and directional drilled to obtain kick-off from 1003 m to 1018 m. Circulated hole clean and performed FIT. A surface pressure of 520 psi was applied for a FIT of 13.0 ppg EMW. Drilled ahead. Steered and surveyed to 1279 m and circulated hole clean. POOH to 1262 m and conducted GYRO survey on wireline. Continued to directional drill ahead to 1286 m. Circulated hole clean and POOH for rotary assembly.

DRILLING AND ENGINEERING

BIT RUN No.3 SUMMARY

BIT No.:	2RR1	DEPTH OUT:	3934 m
BIT SIZE:	12.25"	DRILLED:	2110 m
BIT TYPE:	HCC BD536H (PDC)	HOURS:	66.3 hrs
S/N:	1901995	TBR:	868619
IADC:	-	ROT. HRS:	122.6 hrs
JETS:	2 x 14, 4 x 16	AVG ROP:	31.8 m/hr
DEPTH IN:	1824 m	GRADED:	2-5-BT-G-X-1-WT-BHA

BHA

12.25": Bit, Mud motor, X/O, X/O, 12.25" TRACS NM Stab, 8" NMDC, NM Float Sub, 8.125" MWD, NM X/O, 8.0" NMDC, X/O, 3 x 5" HWDP, X/O, 6.75" Jars, X/O, 14 x 5" HWDP

DRILLING PARAMETERS

WOB:	2 - 82 klbs
RPM:	110 - 263
TORQUE:	0 - 17.6
PRESS:	2710 - 3681 psi
FLOW IN:	845 - 965 gpm

MUD:

EBM - PETROFREE
9.5 - 9.9 ppg

LITHOLOGY:

Limestone (Calcsiltite)

DRILLING SUMMARY:

Oriented tool face and function tested mud motor and MWD at the surface. RIH with 2RR1 to 1824 m, Washed down hole on last 2 stands. Programmed MWD and set TRACS at 11.5". Drilled ahead, steered and surveyed from 1824 m to 3934 m. Drilling interrupted at 2141 m and 3738 m to service mud pump #2. Circulate hole clean and POOH to pick up rotary assembly and PDC bit. Tight hole was encountered while tripping at 3652 m, 1298 m and 1183 m, with 30 klbs over pull. RIH from 1298 m to 1383 m circulated hole clean. POOH, tight hole at 1183 m, circulated to 927 m, then POOH.

DRILLING AND ENGINEERING

BIT RUN No. 4 SUMMARY

BIT No.:	NB#3	DEPTH OUT:	4484 m
BIT SIZE:	12.25"	DRILLED:	550 m
BIT TYPE:	DBS TD13L (PDC)	HOURS:	63.9 hrs
S/N:	7971341	TBR:	441968
IADC:	-	ROT. HRS:	101.1 hrs
JETS:	4 x 14, 2 x 16	AVG ROP:	8.6 m/hr
DEPTH IN:	3934 m	GRADED:	8-6-RO-C-X-1-BT-PR

BHA

12.25" Bit, 12" Stab, 7.75" Slick Pony DC, X/O, 12.25" TRACS NM Stab, 8" NMDC, 12" NM Stab, NM Float Sub, 8.125" MWD, NM X/O, 8.0" NMDC, X/O, 3 x 5" HWDP, X/O, 6.75" Jars, X/O, 14 x 5" HWDP

DRILLING PARAMETERS

WOB:	10 - 53 klbs
RPM:	670 - 928
TORQUE:	0 - 25 kft-lbs
PRESS:	2496 - 3746 psi
FLOW IN:	758 - 918 gpm

MUD:

EBM - PETROFREE
9.9 - 10.4 ppg

LITHOLOGY:

Limestone, Claystone and Siltstone.

DRILLING SUMMARY:

M/U NB#3 on rotary assembly. Function tested TRACS at surface. RIH to 3847 m. DP connections visually checked to drilling specifications. Hole found under gauge at 3847 m, Washed and Reamed to bottom. Drilled ahead and surveyed to 3966 m. Bit Balled up, circulated 10 bbls ESTER followed by additional 15 bbls ESTER and 30 bbls of LCM sweep. Drilled ahead to 3988 m. Circulated 15 bbls ESTER followed by 45 bbls LCM pill. Drilled ahead to 4484 m. Rotated, worked string and circulated bottoms up. POOH to 203 m, checked TRACS. Rack BHA, laid out jar and TRACS, broke bit. Tested BOP's.

DRILLING AND ENGINEERING

BIT RUN No. 5 SUMMARY

BIT No.:	NB#4	DEPTH OUT:	4621 m
BIT SIZE:	12.25"	DRILLED:	137 m
BIT TYPE:	GEODIAMOND M42VPX	HOURS:	22.05 hrs
S/N:	JR5817	TBR:	124 k
IADC:		ROT. HRS:	56.6 hrs
JETS:	3 x 13, 4 x 14	AVG ROP:	6.8 m/hr
DEPTH IN:	4484 m	GRADED:	2-5-WT-S-X-I-NO-TD

BHA

12 .25" Bit, 12" Stab, 7.75" Slick Pony DC, X/O, 12.25" TRACS NM Stab, 8" NMDC, 12" NM Stab, NM Float Sub, 8.125" MWD, NM X/O, 8.0" NMDC, X/O, 3 x 5" HWDP, X/O, 6.75" Jars, X/O, 14 x 5" HWDP

DRILLING PARAMETERS

WOB:	5-49 klbs
RPM:	37 - 123
TORQUE:	15 - 24 kft-lbs
PRESS:	3327 - 3663 psi
FLOW IN:	811 - 856 gpm

MUD:

EBM - PETROFREE
9.9 - 10.4 ppg

LITHOLOGY:

Dolomite, claystone, siltstone and sandstone.

DRILLING SUMMARY:

M/U NB#4, shallow tested MWD and TRACS. RIH to 971 m. Slipped and Cut 34.75 m of drilling line, serviced TDS. Continued RIH to 1295 m, hole tight, Washed and Reamed to 1333 m. Continued RIH to 4416 m, Washed and Reamed to 4484 m. Drilled ahead and surveyed to 4529 m, worked and rotated string and circulated bottoms up. Drilled ahead and surveyed to TD at 4621 m. Rotated, worked string and circulated. Backreamed to T.O.L. at 4388 m. POOH to 3220 m. M/U 8 1/2" string reamer, RIH to 4223 m. Washed and Reamed to 4621 m. Worked and rotated string and circulated 1.5 X Bottoms Up. POOH 4290 m. Worked and rotated string, circulated hole clean. POOH to 1250 m, laid out string reamer on trip out. RIH to 1427 m. POOH to 1070 m, tight hole. Backreamed to 1065 m, Pumped out of hole to 990 m, circulated bottoms up. Conducted Rig service. Continued to POOH with BHA to run E-Logs.

2.2. CASING AND CEMENTING SUMMARIES

The following tables summarize the casing and cementing programs utilized/undertaken on the Flounder A-11A (Tukari 1) well:

CASING:

Type	Size	Weight (lb/ft)	Grade	Thread Type	Set Depth (m)	Comments
Surface	13 3/8"	54.5	L55	Buttress	Window cut @ 1000 m	(RECLAIMED)

CEMENTING:

Casing	Slurry Vol. (bbls)	Additives	Type	Weight (ppg)	Comments
13 3/8"	67	SCR-100LHALAD413L	G	15.8	PBTD (See Sect.2.3)
13 3/8"	67	SCR-100LHALAD413L	G	15.8	Open Hole Cement Plug
13 3/8"	69	SCR-100LHALAD413L	G	15.8	Open Hole Cement Plug

A second OHCP was set to be used in the kick-off of the A-11B well.

2.3. ABANDONMENT SUMMARY

After completion of wireline Electric logging run, the Flounder A-11A (Tukari 1) exploration well was plugged back and abandoned from TD with the above cement program.

3.1. GEOLOGICAL SUMMARY

GIPPSLAND UNIT 1103 m to 4394 m MD (819 m - 2134.3 TVD):

MASSIVE LIMESTONE GRADING INTO CLAYSTONE TOWARDS BASE OF UNIT.

LIMESTONE: light gray to medium gray, occasionally dark grey in places, soft to hard, blocky to subblocky, becoming argillaceous with a waxy texture. Accessory components include common to abundant foraminifera, traces of black carbonaceous specks with trace to rare disseminated pyrite and rare traces of calcite and glauconite. Visible porosity is nil to poor and oil and gas shows were absent. Generally grades to calcarenite.

CLAYSTONE: very light to dark gray, moderately to very calcareous, becoming silty, contains trace to rare amounts of black carbonaceous material, fossil fragments, disseminated pyrite, earthy texture, occasionally smooth to waxy, soft to hard, becoming soft with depth, blocky to subblocky, amorphous and occasionally lumpy.

LATROBE UNIT 4394 m to 4621 m MD TD (2134.3 m - 2281.2 m TVD TD):

4394 m to 4500 m: MASSIVE SILTSTONE

SILTSTONE : medium to dark brown, occasionally red brown to gray brown, very argillaceous, micromicaceous, accessories include a good trace of glauconite at top of section, trace amounts of lithic fragments, pyrite nodules, and rare amounts of biotite and argillized inclusions, soft to firm, occasionally plastic, massive to blocky. Grading to Claystone in places.

4500 to 4530 m: SANDSTONE INTERBEDDED WITH SILTSTONE, DOLOMITE STRINGERS

SANDSTONE: clear to translucent, frosted, occasionally light brown, consisting of medium to coarse, angular to subangular disaggregated grains. Silicic and dolomitic cements are apparent in addition to traces of common milky quartz overgrowths. Visible porosity is poor.

SILTSTONE: gray brown to dark gray brown, soft, moderate to very argillic, micromicaceous, massive. Accessories include trace amounts of carbonaceous material and disseminated pyrite.

TR.DOLOMITE: orange brown, tan, cryptocrystalline to microcrystalline, hard, flinty and blocky.

4530 m to 4615 m: SILTSTONE INTERBEDDED WITH MINOR CLAYSTONE / SANDSTONE, DOLOMITE STRINGERS

SILTSTONE: medium to dark gray brown, occasionally brown black to gray black, soft to moderately hard, moderately argillic, micromicaceous, blocky, occasionally subblocky to massive. Accessories consists of traces of carbonaceous material and lithic fragments and rarely pyrite disseminations.

CLAYSTONE: medium to dark gray, occasionally olive gray, moderately hard, micromicaceous, blocky to subfissile. Traces of carbonaceous fragments observed.

SANDSTONE: clear to translucent, frosted, disaggregated, consisting of subangular, occasionally subrounded, medium to coarse quartz grains. Predominantly loose with trace amounts of pyrite nodules and occasionally dolomitic/calcic cements. Visible porosity is moderate. Trace mineral fluorescence observed.

DOLOMITE: orange brown, tan, cryptocrystalline, slightly arenaceous, hard, flinty and blocky.

4615 to 4621 m TD: SANDSTONE INTERBEDDED WITH SILTSTONE

SANDSTONE: clear to translucent, frosted, disaggregated, consists of subangular to subrounded, medium to coarse quartz grains. Trace amounts of pyrite nodules observed. Moderate sorting. Visible porosity poor.

GEOLOGY, SHOWS AND SAMPLING

3.2. SAMPLE DISTRIBUTION

Formation evaluation services were provided from 1000 m (12.25" hole) to 4621 m TD.

Samples were collected and processed from the kickoff point to TD, at the following intervals:

1003 - 4240 m: @ 30 m intervals.

4240 - 4390 m: @ 10 m intervals.

4390 - 4621 m: @ 5 m intervals.

Three sets of washed / oven dried splits and one set of unwashed samples were taken and dispatched to the Following destination(s).

No of Sets	Sample ID	Sample Type	Quantity Target gm	Package Type	Destination
3	A - C	W&D	200	minigrip	Eso Core Store (Tullamarine)
1	--	Unwashed	500	rotproof	Eso Core Store (Tullamarine)

1. **ESSO CORE STORE**
Unit 10/11 Sperry Drive
Flightpath Business Centre
Tullamarine
Victoria

ATTN. : Mr. Eric Johnstone

915471 017

4.1 WIRELINE

The following Electric Logs were run:

Depth Interval Logged (m)	Log Suite	Comments
4208 - 4611	PEX - AIT - NGT	TLC

915471 019

5. DATA INVENTORY

ESSO has been provided with a complete Formation Evaluation Log and a complete DbArchive Text Backup on archive tape at the completion of the Flounder A-11A (Tukari 1) well. All hard copy i.e. The formation evaluation work sheets, the prints from the Integrator, Siemens chart recorders and On-line data prints for the well will be sent for the attention of Tony Kress to the Esso core store at Tullamarine.

The following items will be sent to BHI, Perth for the preparation of the Final Well Report:

1	copy	Formation Evaluation Log with gamma track
1	copy	Drilling Data Plot
1	copy	Gas Ratio Plot
1	copy	Temperature Plot
1	copy	Final Well Report Draft
1	copy	Full Text Backup ./backup (./plot, ./symb, ./plotdump, and ./FWR) - TAPE
1	copy	Full Versant Backup - TAPE

PE614141

This is an enclosure indicator page.
The enclosure PE614141 is enclosed within the
container PE915471 at this location in this
document.

The enclosure PE614141 has the following characteristics:

ITEM_BARCODE = PE614141
CONTAINER_BARCODE = PE915471
NAME = Mud Log for Flounder-A11A. 1:500
BASIN = GIPPSLAND
ONSHORE? = N
DATA_TYPE = WELL
DATA_SUB_TYPE = MUD_LOG
DESCRIPTION = Mud Log for Flounder-A11A (Tukari-1).
1:500. By Baker Hughes Inteq for Esso
Australia Ltd. June 1998
REMARKS =
DATE_WRITTEN = 19-JUN-1998
DATE_PROCESSED =
DATE_RECEIVED = 01-OCT-1998
RECEIVED_FROM = Esso Australia Ltd
WELL_NAME = Tukari-1
CONTRACTOR = Esso Australia Ltd
AUTHOR =
ORIGINATOR = Esso Australia Ltd
TOP_DEPTH = 1003
BOTTOM_DEPTH = 4621
ROW_CREATED_BY = DH00_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE614142

This is an enclosure indicator page.
The enclosure PE614142 is enclosed within the
container PE915471 at this location in this
document.

The enclosure PE614142 has the following characteristics:

ITEM_BARCODE = PE614142
CONTAINER_BARCODE = PE915471
NAME = Drilling Data Plot for Flounder-A11A
BASIN = GIPPSLAND
ONSHORE? = N
DATA_TYPE = WELL
DATA_SUB_TYPE = WELL_LOG
DESCRIPTION = Drilling Data Plot for Flounder-A11A).
1:2500. By Baker Hughes Inteq for Esso
Australia Ltd.
REMARKS =
DATE_WRITTEN =
DATE_PROCESSED =
DATE_RECEIVED = 01-OCT-1998
RECEIVED_FROM = Esso Australia Ltd
WELL_NAME = Flounder-A11A
CONTRACTOR = Esso Australia Ltd
AUTHOR =
ORIGINATOR = Esso Australia Ltd
TOP_DEPTH = 1000
BOTTOM_DEPTH = 4600
ROW_CREATED_BY = DH00_SW

(Inserted by DNRE - Vic Govt Mines Dept)

PE614143

This is an enclosure indicator page.
The enclosure PE614143 is enclosed within the
container PE915471 at this location in this
document.

The enclosure PE614143 has the following characteristics:

ITEM_BARCODE = PE614143
CONTAINER_BARCODE = PE915471
NAME = Flounder-A11A Gas Ratio Analysis Plot
BASIN = GIPPSLAND
ONSHORE? = N
DATA_TYPE = WELL
DATA_SUB_TYPE = WELL_LOG
DESCRIPTION = Flounder-A11A Gas Ratio Analysis Plot.
1:500. By Baker Hughes Inteq for Esso
Australia Ltd.
REMARKS =
DATE_WRITTEN =
DATE_PROCESSED =
DATE_RECEIVED = 01-OCT-1998
RECEIVED_FROM = Esso Australia Ltd
WELL_NAME = Flounder-A11A
CONTRACTOR = Esso Australia Ltd
AUTHOR =
ORIGINATOR = Esso Australia Ltd
TOP_DEPTH = 1000
BOTTOM_DEPTH = 4650
ROW_CREATED_BY = DH00_SW

(Inserted by DNRE - Vic Govt Mines Dept)


PE614144

This is an enclosure indicator page.
The enclosure PE614144 is enclosed within the
container PE915471 at this location in this
document.

The enclosure PE614144 has the following characteristics:

ITEM_BARCODE = PE614144
CONTAINER_BARCODE = PE915471
NAME = Flounder-A11A Temperature Data Plot
BASIN = GIPPSLAND
ONSHORE? = N
DATA_TYPE = WELL
DATA_SUB_TYPE = WELL_LOG
DESCRIPTION = Flounder-A11A Temperature Data Plot.
1:2500. By Baker Hughes Inteq for Esso
Australia Ltd.
REMARKS =
DATE_WRITTEN =
DATE_PROCESSED =
DATE_RECEIVED = 01-OCT-1998
RECEIVED_FROM = Esso Australia Ltd
WELL_NAME = Flounder-A11A
CONTRACTOR = Esso Australia Ltd
AUTHOR =
ORIGINATOR = Esso Australia Ltd
TOP_DEPTH = 1000
BOTTOM_DEPTH = 4600
ROW_CREATED_BY = DH00_SW

(Inserted by DNRE - Vic Govt Mines Dept)

	LOCATION / WELL NAME Bass Strait Flounder A-11 A		BHA Abbreviations RA - Rotary Assembly SA - Steerable Assembly COA - Clean Out Assembly		Geology Abbreviations Sd : Sand Ss : Sandstone Ls : Limestone Sl : Silt Siltst : Siltstone Cl : Clay Clys : Claystone Volc : Volcanics Sh : Shale Dol : Dolomite		Dull Grade & Reason Pulled Abbreviations A - All Rows BC - Broken Cone BHA - Bottom Hole Assembly BT - Broken Teeth BU - Balled Up Bit CM - Condition Mud CP - Core Point CT - Chipped Teeth DMF - Down Hole Motor Failure DP - Drill Plug		RG - Rounded Gauge RO - Ring Out SD - Shirtail Damage TD - Total / Csg Depth TQ - Torque TW - Twist Off WC - Weather Cond'n WT - Worn Teeth	
	OPERATOR Esso Petroleum Pty Ltd		Mud Type Abbreviations MMH - Mixed Metal Hydroxide (Milling Mud) EBM - Ester Based Mud							
	CONTRACTOR / RIG Atwood Oceanic Rig #19									

Run No.	Bit No.	Vendor	Type	Serial Number	Size (in)	Nozzles (x 1/32")	Depth		Drilled hrs	ROP (m/hr)	WOB (klb)	RPM (at bit)	TORQ. (kft-lb)	TBR	BHA	Pump Pr (psi)	Flow Rate (gpm)	Dev (deg)	Geology Formation	Mud		IADC Dull Grade (G in 1/16")								
							In	Out												Wsg	Type	IO	D	L	B	G	O	R		
1	NB1	SECTY	ERAMPSF	693926	12 1/4	3X22, 1X10	1018	1286	268	18.0	19.3	1-46	75-350	0-9	233 K	SA	932-2699	815-967	68.5	Ls	9.2	MMH/EBM	24/27	1 1	WT	A	E	I	NO	BHA
2	NB2	HCC	BD536H	1901995	12 1/4	4X14, 2X16	1286	1824	538	13.6	39.6	5-35	114-175	6-11	120 K	RA	2138-2753	901-966	67.9	Ls	9.5	EBM	28/35	1 1	NO	A	X	I	CT	BHA
3	2RR1	HCC	BD536H	1901995	12 1/4	2X14, 4X16	1824	3934	2110	66.3	31.8	2-82	110-263	0-18	869 K	SA	2710-3681	845-965	65.0	Ls	9.7	EBM	28/30	2 5	BT	G	X	1	WT	BHA
4	NB3	DBS	TDL13L	7971341	12 1/4	4X14, 2X16	3934	4484	550	63.9	8.6	10-53	670-828	0-25	442 K	RA	2496-3746	758-918	49.7	Ls, Clys, Siltst	10.2	EBM	32/32	8 6	RO	C	X	1	BT	PR
5	NB4	GEOD	M42VPXDS	JR5817	12 1/4	4X14, 3X16	4484	4621	137	20.1	6.8	5-49	37-123	15-24	124 K	RA	3327-3663	811-856	48.9	Dol, Clys, Siltst, Ss	10.3	EBM	35/35	2 5	WT	S	X	1	NO	TD

915471 026



Time vs Depth Curve



Flounder A-11A (Tukari 1)

