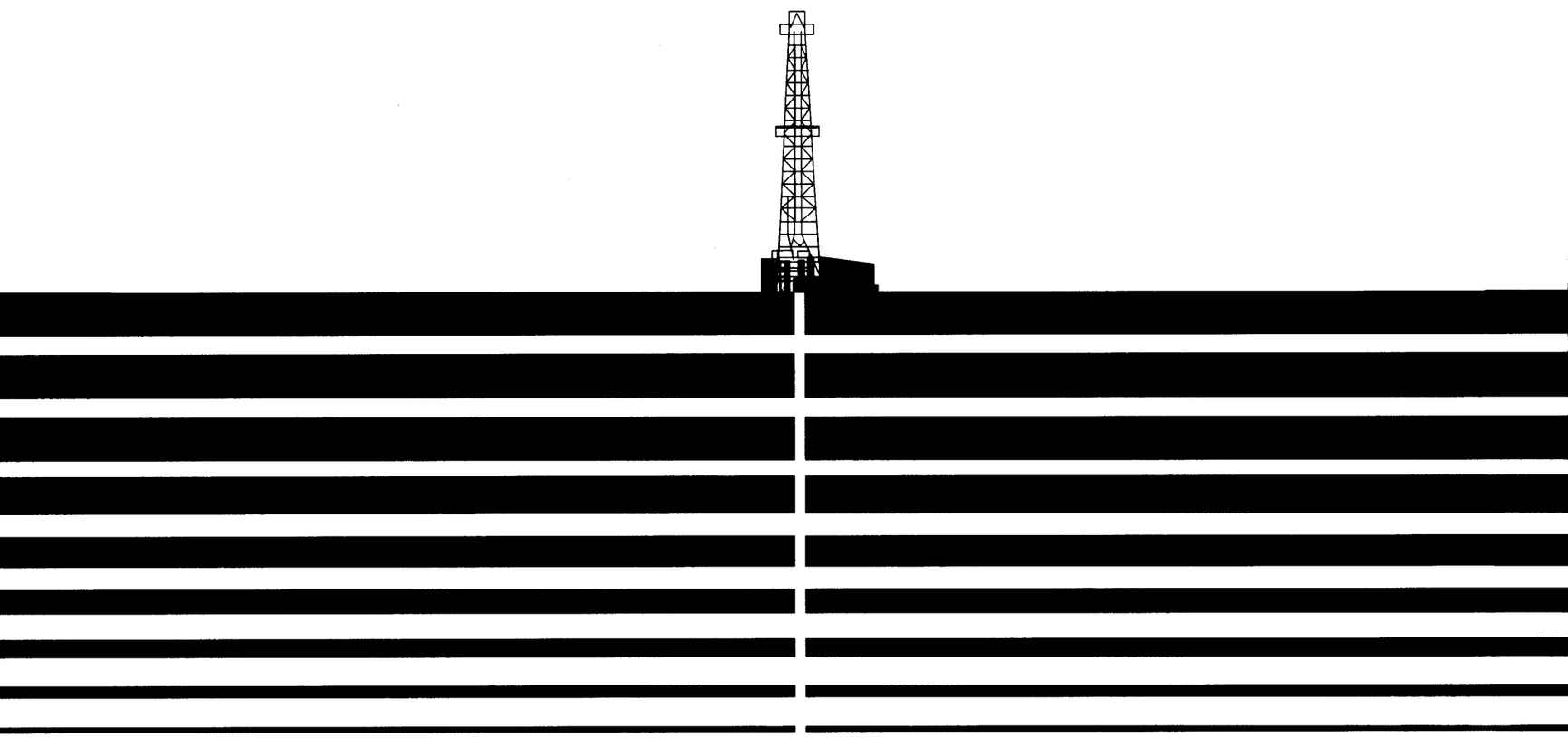
(PAGE 1 OF 116)

908031 001

LAVERS 1

Well Completion Report



Santos

PEP 154, OTWAY BASIN
VICTORIA

A.B.N. 80 007 550 923

SANTOS – BEACH

COMPILED FOR

SANTOS LIMITED

ACN 007 550 923

LAVERS 1

WELL COMPLETION REPORT

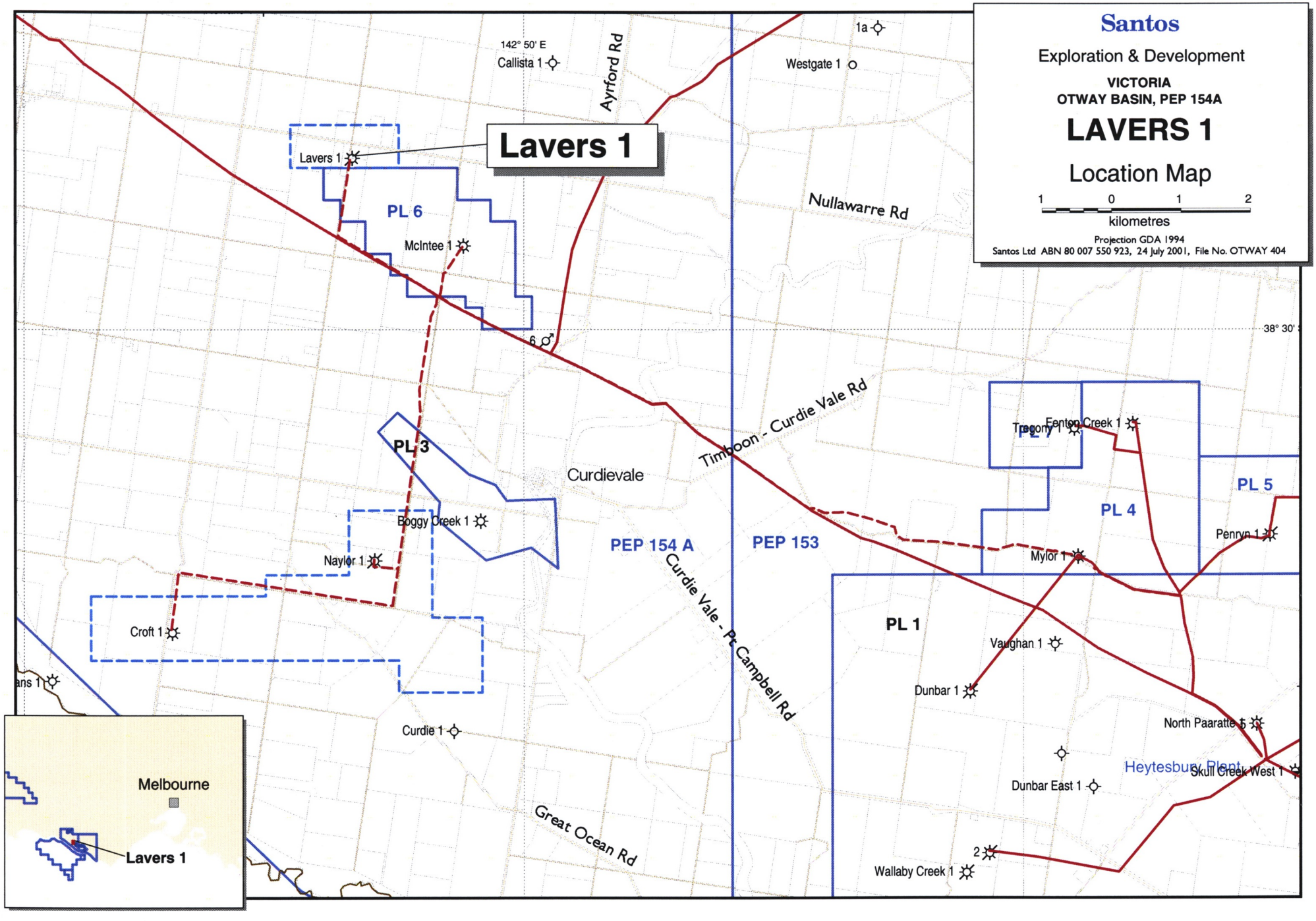
Prepared by:
D.ADDERLEY
July 2001

LAVERS 1 WCR

TABLE OF CONTENTS

Note: Strikethrough of an Appendix name in Table of Contents (ie. ~~III Log Evaluation~~) denotes data not acquired.

LOCATION MAP


Santos
Exploration & Development
VICTORIA
OTWAY BASIN, PEP 154A
LAVERS 1
Location Map
1 0 1 2
kilometres
Projection GDA 1994
Santos Ltd ABN 80 007 550 923, 24 July 2001, File No. OTWAY 404
Lavers 1
142° 50' E
Callista 1
Ayrford Rd
1a
Westgate 1
Nullawarre Rd
PL 6
McIntee 1
6
38° 30'
Timboon - Curdie Vale Rd
PL 3
Curdievale
Boggy Creek 1
Naylor 1
Croft 1
PEP 154 A
PEP 153
Curdie Vale - Pt Campbell Rd
Curdie 1
Great Ocean Rd
PL 7
Tregony 1
Fenton Creek 1
PL 5
PL 4
Penryn 1
Mylor 1
PL 1
Vaughan 1
Dunbar 1
North Paaratte 5
Heytesbury Plant
Skull Creek West 1
Dunbar East 1
2
Wallaby Creek 1
Melbourne
Lavers 1

9080031 005

908031 006

WELL DATA CARD

WELL HISTORY

1. GENERAL DATA

Well Name:	Lavers 1
Well Classification:	Gas Exploration (Wildcat)
Interest Holders:	Santos Ltd (90%) Beach Petroleum (10%)
Participating Interests:	Santos Ltd (90%) Beach Petroleum (10%)
Operator	Santos
Block/Licence	PEP 154, Onshore Otway Basin, Victoria
Surface Location	Latitude: 38° 28' 39.45" South Longitude: 142° 48' 17.46" East
Surveyed Elevation	Ground Level: 63.86m Rotary Table: 68.55m
Seismic Survey	CURDIEVALE 3D
Seismic Location	CDP 10163, LINE 2490
Total Depth	Driller: 1627.0m Logger Ext: 1608.0m
Completion	6 joints of 3.5" 9.3 ppf L80 New NK3SB and 162 joints of 3.5" 9.3 ppf J55 New NK3SB Tubing, set at 1623m
Status	Completed Gas Well.

2. DRILLING DATA

Date Drilling Commenced	1100 hours, 26th April 2001
Date Drilling Completed	2030 hours, 1st May 2001
Date Rig Released	1500 hours, 5th May 2001
Contractor	Oil Drilling & Exploration Pty Ltd (OD&E)
Rig	OD&E 30
Rig Specifications	Refer to Appendix XIII

3. DRILLING SUMMARY

(a) Drilling Summary:

Lavers 1 was spudded at 1100 hours on the 26th April 2001. Tables I and II summarise the casing, cementing and mud systems used in this well. A more comprehensive summary is appended to this report (Appendix XII: (Drilling - Final Well Report).

TABLE I: CASING, HOLE, AND CEMENT DETAILS

BIT SIZE	DEPTH	CSG SIZE	CSG DEPTH	JNTS	CSG TYPE	CEMENT
9.875"	428m	7 5/8"	424.4m	36	26.4ppf L80 BT&C	156sx, 80 bbls Class 'G' Plus 94sx, 20bbls "G" tail
6.75"	1627m	3 1/2"	1623m	6	9.3ppf L80 New NK3SB	285sx, 145 bbls Class 'G' Plus 120sx, 25bbls Class 'G' tail
				162	9.3ppf J55 New NK3SB	

TABLE II: SUMMARY OF MUD SYSTEMS

MUD TYPE	INTERVAL (m)
Spud Mud (Gel/Water)	Surface – 428
KCL/PHPA	428 - 1627

(b) Lost Time:

Lost time at Lavers 1 – Please refer to Appendix XII (Drilling - Final Well Report,: Time Breakdown Data).

(c) Water Supply:

Rig water for Lavers 1 was supplied from Heatley's Camp Bore.

(d) Mudlogging:

Mudlogging services were provided by Geoservices Ltd. Samples were collected, washed, and described at 15m intervals from the surface to 975m and at 3m intervals from 978m to total depth at 1627m. All samples were checked for oil shows using ultraviolet fluorescence. Gas levels were monitored from the surface casing shoe to TD using a total gas detector and other parameters monitored include rate of penetration, weight on hook and mud pit levels.

(e) Testing:

No DST's were conducted in Lavers 1.

(f) Coring:

No cores were cut in Lavers 1.

(g) Electric Logging:

One suite of wireline logs was run in Lavers 1, as detailed below:

TABLE III: ELECTRIC LOG SUMMARY

LOG	SUITE/ RUN	INTERVAL (m)	BHT/TIME/ REMARKS	LOG	SUITE/ RUN	INTERVAL (m)	BHT/TIME/ REMARKS
GR	1/1	1597-Surface	59°C/9.0hrs	PDS (RHOB)	1/2	1605-1450	64°C/16.45hrs
LCS (comp-ensated sonic)	1/1	1597-425	59°C/9.0hrs	CNS (NPHI)	1/2	1602-1450	64°C/16.45hrs
LCS (wave-Form sonic)	1/1	1608-1450	59°C/9.0hrs	RFS (MDT)	1/3	20 points (1590m-1543m)	63.5°C/6.0hrs
DLS	1/1	1602-425	59°C/9.0hrs	SCG (SWC)	1/4	24/24 recovered (1600m-1535m)	-
MLL	1/1	1607-425	59°C/9.0hrs				

*Logger Contractor - REEVES

(h) Geothermal Gradient:

A measured static bottom hole temperature of 70°C at 1608m is calculated. This gives a geothermal gradient of 3.10°C/100m. An ambient temperature of 20°C was employed. Data used for calculations is as follows:

59°C at 1608m after 9.0 hours from Logging Run 1, Suite 1.
64.0°C at 1608m after 16.75 hours from Logging Run 2, Suite 1.
63.5°C at 1589m after 6.0 hours from Logging Run 3, Suite 1.

(i) Hole Deviation

The Lavers 1 well is a vertical hole. Directional surveys indicate a maximum deviation from vertical of 2.2° inclination 180°T at 1610m, with a maximum off set of 9.3m @ 170° (true).

(j) Velocity Survey:

No velocity survey was run in Lavers 1.

(k) Completion Summary:

Lavers 1 was cased and suspended.

GEOLOGY

5. REFERENCES

Abele, C., Pettifer, G., Tabassi, A. 1995 The Stratigraphy, Structure, Geophysics, and Hydrocarbon Potential of the Eastern Otway Basin. Department of Agriculture, Energy and Minerals of Victoria. Geological Survey of Victoria, Geological Survey Report 103.

Bain, 1961 Flaxmans 1 Well Completion Report. Frome Broken Hill Company.

Buffin, A., 1989 Waarre Sandstone Development Within The Port Campbell Embayment. APEA Journal 29(1), pp 299-311.

Finlayson, D. M. (compiler), 1994 NGMA/PESA Otway Basin Symposium, Melbourne, 20 April 1994: extended abstracts. AGSO, Record 1994/14.

Foster, J.D. and Hodgson, A.J., 1995 Port Campbell Reviewed: Methane and Champagne. APEA Journal 35(1), pp. 418-435.

Partridge, A., 1997 New Upper Cretaceous Palynology of the Sherbrook Group Otway Basin. Biostrata Pty. Ltd. In PESA News, April/May, p.9.

SANTOS Ltd., 2001 Lavers 1 Raw Data Report. SANTOS Ltd. (Unpublished), prepared by Operations Geology.

APPENDIX I: LITHOLOGICAL DESCRIPTIONS

APPENDIX I (a): CUTTINGS

APPENDIX I (b): SIDE WALL CORES

APPENDIX II: HYDROCARBON SHOW REPORTS

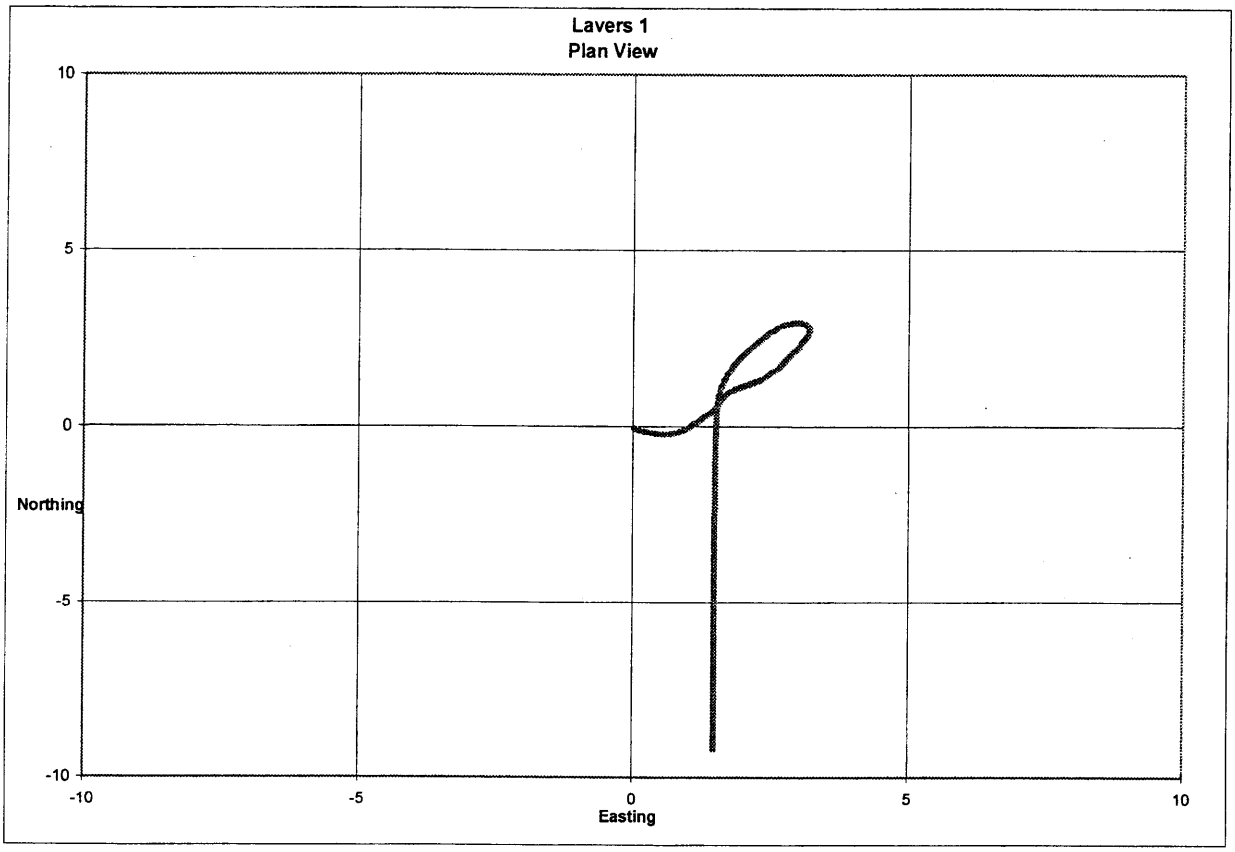
APPENDIX III: LOG EVALUATION

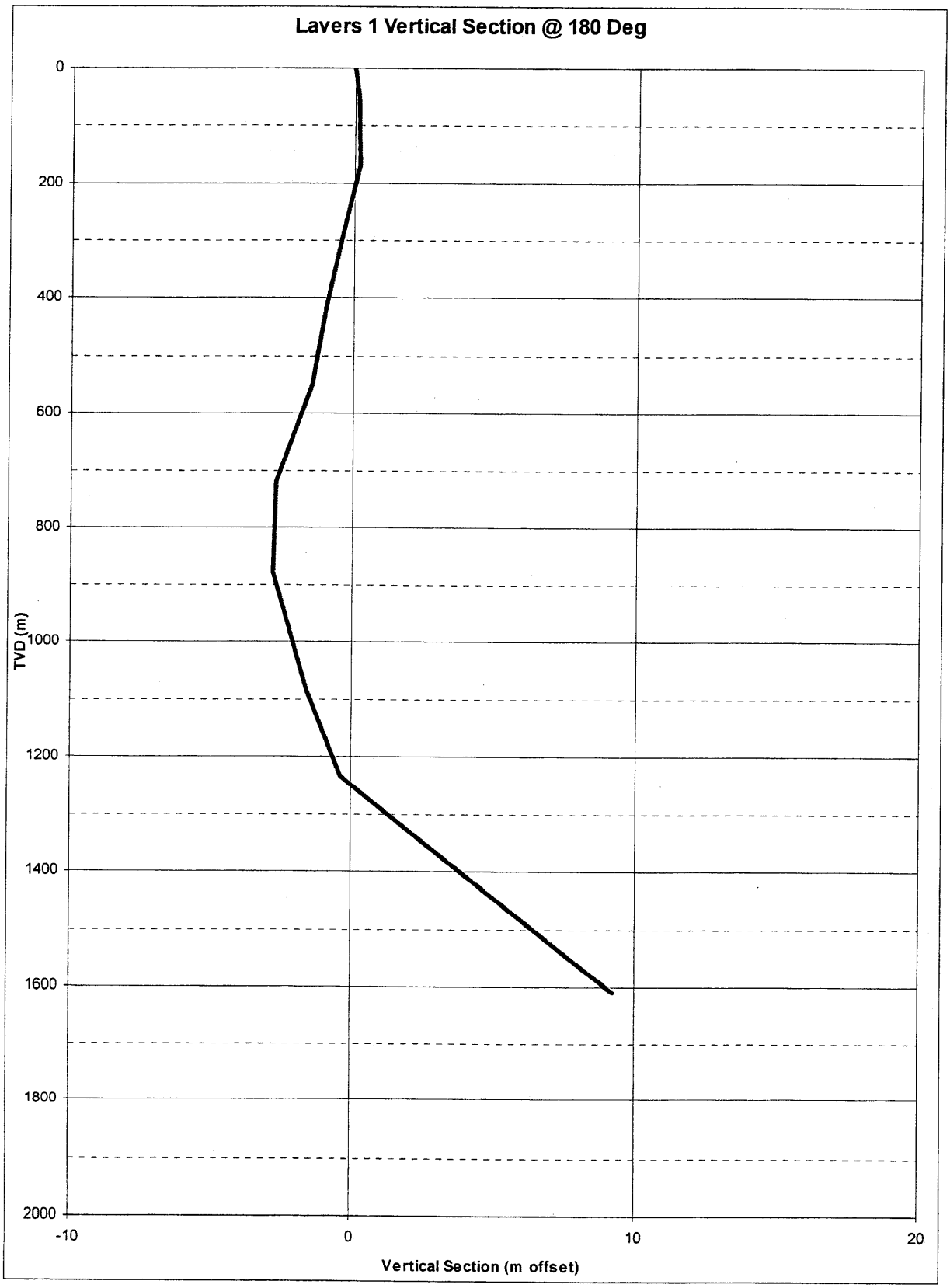
APPENDIX IV: DEVIATION DATA

Lavers 1 **Rt=** 68.2 m **Minimum Curvature Method**

Enter Azimuth 180

DEPTH m	INCLIN DEG	Azimuth DEG	TVD m	TVD S/S m	Northing north	Easting east	Q DEG	Vert Sect	Vert Plane	Displ (offset)	Direction True
0.00	0.00	0.00	0.00	-68.20	0.00	0.00	0.00000	0.00	0	0.00	0.00
49.00	0.38	132.00	49.00	-19.20	-0.11	0.12	0.00661	0.11	-0.1087	0.16	0.00
169.00	0.38	62.00	169.00	100.80	-0.19	0.77	0.00760	0.19	-0.1882	0.79	103.77
285.00	0.50	37.00	284.99	216.79	0.40	1.41	0.00389	-0.40	0.39663	1.47	74.31
413.00	0.13	5.00	412.99	344.79	0.98	1.76	0.00699	-0.98	0.98177	2.02	60.85
552.00	0.63	65.00	551.99	483.79	1.46	2.47	0.01007	-1.46	1.45578	2.86	59.45
720.00	0.60	354.00	719.98	651.78	2.72	3.21	0.01246	-2.72	-2.7209	4.21	49.73
878.00	0.60	212.00	877.98	809.78	2.84	2.69	0.01979	-2.84	2.84211	3.91	43.39
1082.00	0.25	228.00	1081.97	1013.77	1.64	1.79	0.00641	-1.64	1.63849	2.43	47.52
1234.00	0.75	181.00	1233.97	1165.77	0.42	1.53	0.01059	-0.42	0.42193	1.58	74.54
1610.00	2.20	180.00	1609.83	1541.63	-9.26	1.48	0.02529	9.26	-9.256	9.37	170.90




Lavers 1 Vertical Section @ 180 Deg
TVD (m)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
-10
0
10
20
Vertical Section (m offset)

APPENDIX V: PRESSURE SURVEY

APPENDIX VI: DRILL STEM TEST DATA

No Drill Stem Tests were conducted in Lavers 1

APPENDIX VII: HYDROCARBON ANALYSIS

RFS sample gas analysis

Amdel Limited
A.C.N. 008 127 802

Petroleum Services
PO Box 338
Torrensville Plaza SA 5031

Telephone: (08) 8416 5240
Fax: (08) 8234 2933

29 May 2001

Santos Ltd
GPO Box 1010
BRISBANE QLD 4001

Attention: Andy Pietsch

REPORT LQ10404

CLIENT REFERENCE: 539489-68

WELL NAME/RE: Lavers-1

MATERIAL: RFT sample

WORK REQUIRED: Pressurised gas and liquid

AUTHOR'S NAME: Diane Cass

Please direct technical enquiries regarding this work, to the signatory below, under whose supervision the work was carried out. This report relates specifically to the sample or samples submitted for testing.

Brian L Watson
Manager
Petroleum Services

bw.cm

G:\Secretary\petroleum\Docs-01\10404.doc

APPENDIX VIII: WATER ANALYSIS

No water Analysis was conducted on Lavers 1

APPENDIX IX: PALYNOLOGICAL ANALYSIS

SANTOS PALYNOLOGY SECTION
EXPLORATION SERVICES DEPARTMENT

Palynology Report No. 2001/17

Author: J.GOODALL
Approved by: G.WOOD

PALYNOLOGICAL REPORT NO. 2001/17
PALYNOSTRATIGRAPHICAL ANALYSIS

LAVERS-1 WELL

Santos Ltd
A.C.N. 007 550 923

Circulation: Geology Operations, Team Leader, EIC, Palynology Files

Introduction

Eight sidewall core samples and from Lavers-1, located in the Otway Basin, PEP 154 were examined palynologically so as to assess their palynostratigraphic position. Total hydrocarbon yield, oil proneness and maturity analysis has not been performed.

Summaries of the results of this study are presented on Table 1. The palynostratigraphic results are presented in more detail on Table 2. The known relationships of the palynological zones to the lithostratigraphy are shown on Chart 1. Range charts of the palynomorphs identified in this study are presented in Appendix 1.

J.Goodall

908031 068

Well Name : LAVERS-1

Operator :
Well Code : LAVERS-1
Interval : 1500m - 1600m
Scale : 1:1500
Chart date : 24 October 2001

Palynology Range Chart

G.R. Wood

Santos Ltd
Adelaide, South Australia

Project : OTWAY
Chart : LAVERS-

Depth: 1500m – 1600m (1500m, 1525m, 1550m, 1575m, 1600m)

Samples (metres)

Barren

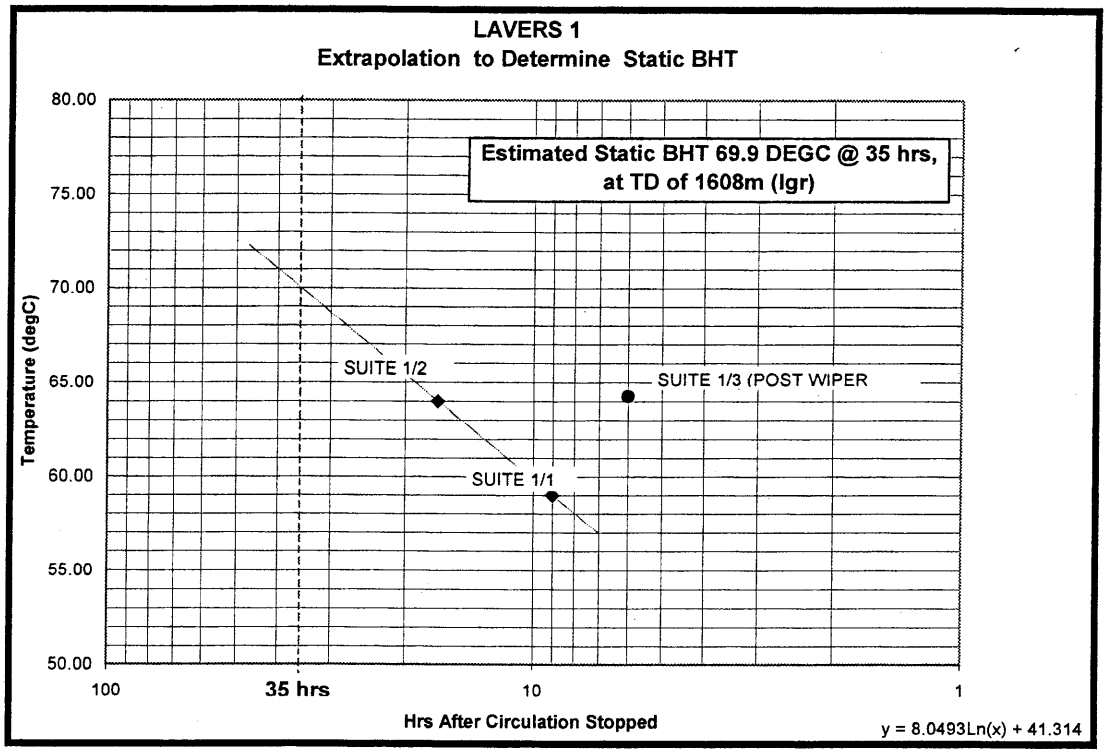
Group	Taxon	1520.0	1527.0	1536.0	1540.0	1564.0	1567.0	1577.0	1581.0
Spores And Pollen (Absolute abundance)	*Bisaccate pollen undiff.*	7	6	3	6	8	7	3	6
	Callialasporites spp								1
	Cicatricosisporites spp	4	2	5	9	2	2	1	2
	Corollina torosa	1	5	2			5	4	1
	Cupressacites spp	2	6		6	2	3	1	1
	Dilwynites granulatus		9	3	4		2	2	2
	Gleicheniidites senonicus	2		3	4	1	2	1	1
	Hoegisporis trinalis			6	1		2	1	1
	Laevigatosporites ovatus 1219		1	2		1	1		1
	Microcachryidites antarcticus 1222	1	3	1	2	1	1	1	1
	Osmundacidites wellmanii 1400	1	3				1		2
	Perotriletes jubatus	1	1	2	3	1			1
	Phyllocladidites mawsonii	3	4	2			1	1	3
	Retitricolpites spp.						1		2
	Retitriletes spp	1		1	1		3	2	3
	Aequitriradites spinulosus				1			1	
	Aratrisporites spp							1	
	Baculatisporites spp			1			3	1	
	Cyathidites minor	6		2	8	4	6	3	
	Dilwynites pusillus	5		7	3		3	5	
	Inaperturopollenites limbatus							2	
	Leptolepidites verrucatus	3	1				1	1	
	Neoraistrickia truncata 698							2	
	Retitriletes circolumenus 930	1					1	1	
	Rouseisporites reticulatus							1	
	Stereisporites antiquasporites 956	1		1			1	1	
	Amosopollis cruciformis	7	8	9	9		1		
	Dictyophyllidites spp 3660						1		
	Gleicheniidites circinidites						1		
	Podocarpidites spp						2		
	Stereisporites pocockii						1		
	Todisporites minor 1401	1					1		
	Uvaesporites verrucosus 144	1					1		
	Verrucosisporites spp						2		
	Vitreisporites pallidus		1	1	1		2		
	Appendicisporites distocarinatus		1	2	1	1			
	Araucariacites australis	6	1		1	2			
	Verrucosisporites admiralis	2	1	1		1			
	Cibotiumspora jurienensis 1406				1				
	Spackmanites spp				1				
	Camarozonosporites australiensis			1					
	Ceratosporites equalis 1243			1					
	Cyathidites australis			1					
	Densoisporites velatus			1					
	Retitriletes austroclavatidites 1063			1					
	Undulatisporites spp			1					
	Aratrisporites / acritarch		4						
	Cicatricosisporites australiensis 681		1						
	Clavifera triplex		2						
	Clavifera vultuosus	2	1						
	Gleicheniidites ancorus	1	1						
	Tricolpites apoxyexinus	3	2						
	Balmeisporites spp	1							
	Dictyotosporites complex 885	1							
	Dilwynites echinatus	1							
	Pilosisporites notensis	1							
	Polycingulatisporites clavus	1							
	Proteacidites spp	2							
	Retitriletes nodosus 830	1							
	Tricolpites spp	1							
Dinoflagellate Cysts (Absolute abundance)	*Circulodinium spp*		3	3	8	4	7	12	17
	Cribroperidinium SPP		9					1	2
	Escharisphaeridia 477	4	3				2	4	3
	Exochosphaeridium bifidum							8	11
	Exochosphaeridium spp	1	1				1	3	2
	Indet palynomorphs			1			2		3
	Oligosphaeridium complex	1	1	9	11	1	2	1	2
	Palaeoperidinium cretaceum				3			9	3
	Valensiella sp.							5	4
	Batiacasphaera spp.	1						1	
	Callaiosphaeridium asymmetricum							1	
	Chlamydophorella nyei			2	1			1	
	Cleistosphaeridium spp.						1	1	
	Dinocyst indet							2	
	Exochosphaeridium robustum		1					2	
	Heterosphaeridium heteracanthum	8	5	5	1			1	
	Odontochitina operculata					3	1	1	
	Palaeohystrichophora infusorioides	1	2					1	
	Spiniferites spp.	6	3	3	6		1	1	
	Cribroperidinium edwardsii	1	2	12	9	1	14		
	Horologinella sp.						1		
	Oligosphaeridium pulcherrimum			1			1		
	Coronifera oceanica				1				
	Hystrichodinium pulchrum				1				
	Trichodinium castanea			3	1				
	Chomotriletes minor			1					
	Isabelidinium evexus		4	4					
	Kiokansium polypes	1	1	3					
	Diconodinium spp.		1						
	Heterosphaeridium conjunctum		3						
	Kallosphaeridium sp.		1						
	Microdinium spp		1						
	Spinidinium sp a		1						
	Avellodinium sp. a	1							
	Isabelidinium balmei	1							
	Isabelidinium spp	3							
	Laciniadinium spp	2							
	Tanyosphaeridium salpinx	1							
Algae (*1)	*Inaperturate 'granulate'*			1	1	4	1	1	4
	Sigmopollis carbonis		1					1	
	Palambages sp.	1					1		
	Scenedesmus spp	1					1		
	Botryococcus spp	2		1					
AC (*1)	*Micrhystridium SPP*	1	1				1		1
	Nummus spp.	1	3	1	1		1	4	2
	Leiosphere (small)			1				1	
	Veryhachium spp.	1					1		

LAVERS-1

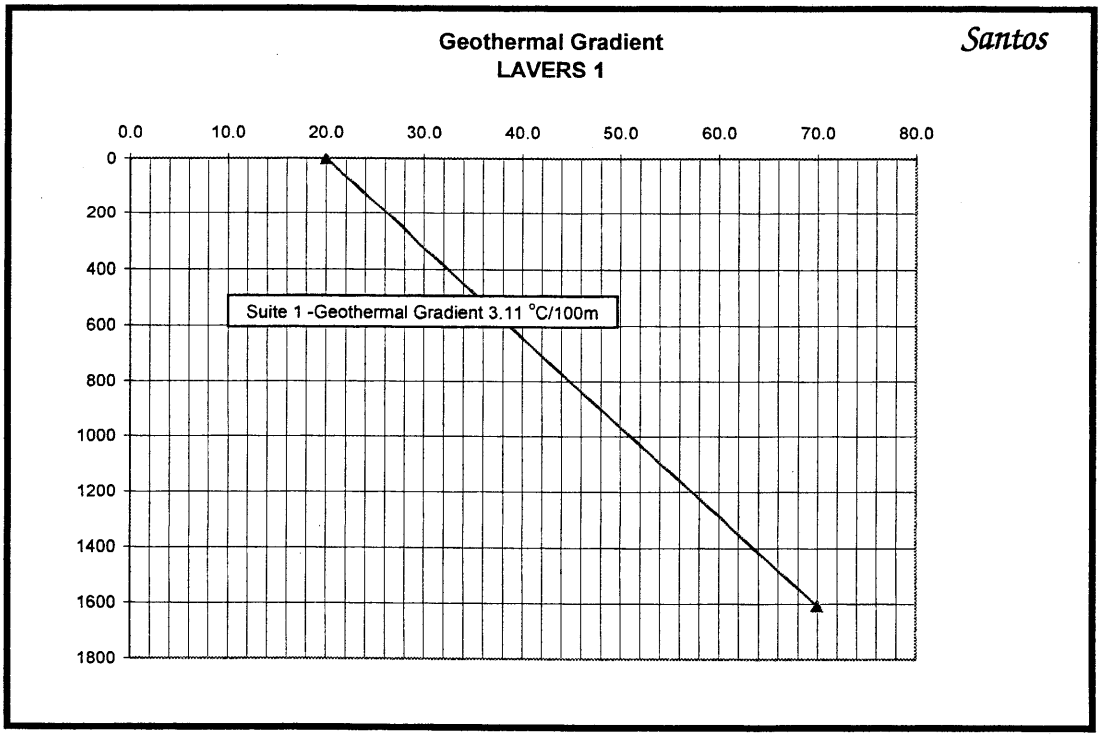
APPENDIX X: GEOTHERMAL GRADIENT

Assumed surface temperature = 20°C.
Calculated BHT @ 1608m = 70°C.
Geothermal Gradient = 3.10°C/100m.

	Max Recorded Temp (degC)	Depth Recorded (m)	Time Since Circulation. (hrs)	Total Depth (m)	Estimated BHT (degC)	
Run 1	59	1608	9	1608	59.00	
Run 2	64	1608	16.75	1608	64.00	
Run 3	63.5	1589	6	1608	64.26	(post wiper trip)



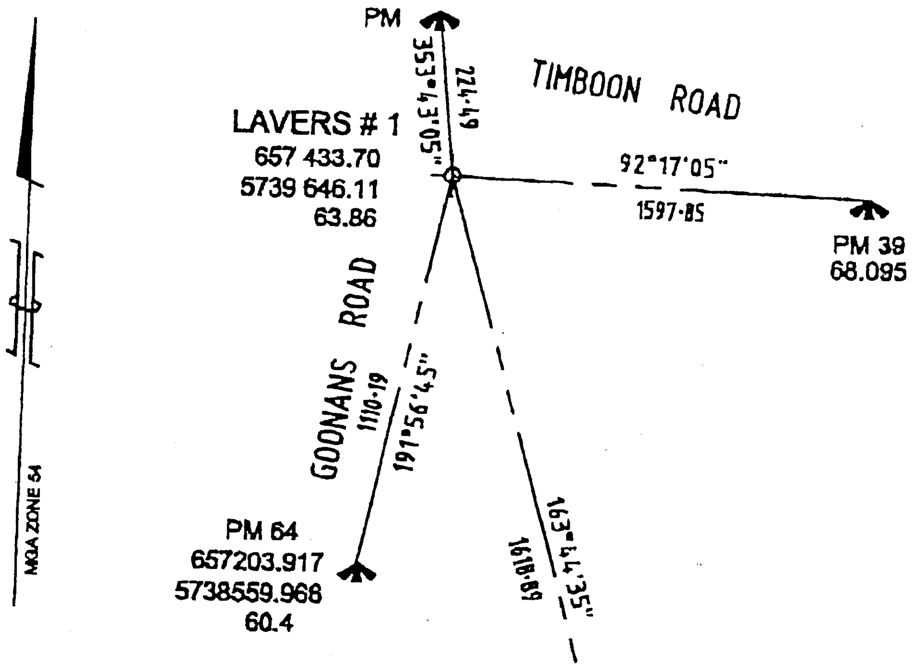
STATIC BHT @ 35 hrs	69.9	°C	@	1608	m
SURFACE TEMP.	20	°C	@	0	m
Geothermal Gradient for Suite 1		3.11	°C/100 m		



APPENDIX XI: WELL LOCATION SURVEY

VICTORIA
GAS WELL LOCATION
REFERENCE MARKS SKETCH PLAN
EXPLORATION LICENCE PEP 154

Well Name	LAVERS # 1		
Map			
Spheroid	GDA94	MGA 94	ZONE 54
Latitude	S 38°28'39.45"	Measurement units	(metres)
Longitude	E 142°48'17.46"	Easting	657 433.70
Convergence	1°07'24"	Northing	5739 646.11
Scale Factor	0.99989497	Elevation	63.86 (AHD)



NOTES : This sketch plan is not to scale.
Distances shown are computed grid distances.
Bearings shown are computed grid bearings.

DATUM : The origin of coordinates was Land Victoria's Survey Mark Enquiry Service (SMES) AGD66 (AMG Zone 54) then transformed to GDA94 (MGA Zone 54) using GDAit software.
Height datum is to AHD originating from SMES.

Estimated Horizontal error is less than +/- 0.15 metre.
Estimated Vertical error is less than +/- 0.2 metre.
Date of Survey : 15 / 2 / 2001

Paul Crowe Surveyor ABN 59521601183 "Ambleside" 192 Koroit Street Warrnambool 3280 Ph. (03) 5561 1500	REF 993

Date 16 / 7 / 2001

LICENSED SURVEYOR

APPENDIX XII: DRILLING – FINAL WELL REPORT

SANTOS

FINAL WELL REPORT

LAVERS #1

Drilling Supervisor(s)	: A. Chomley
Drilling Engineer(s)	: G. Coker
Report Author	: T. Robertson / D. New
Report Supervisor	: D. New
Date of Issue	: 3rd August 2001

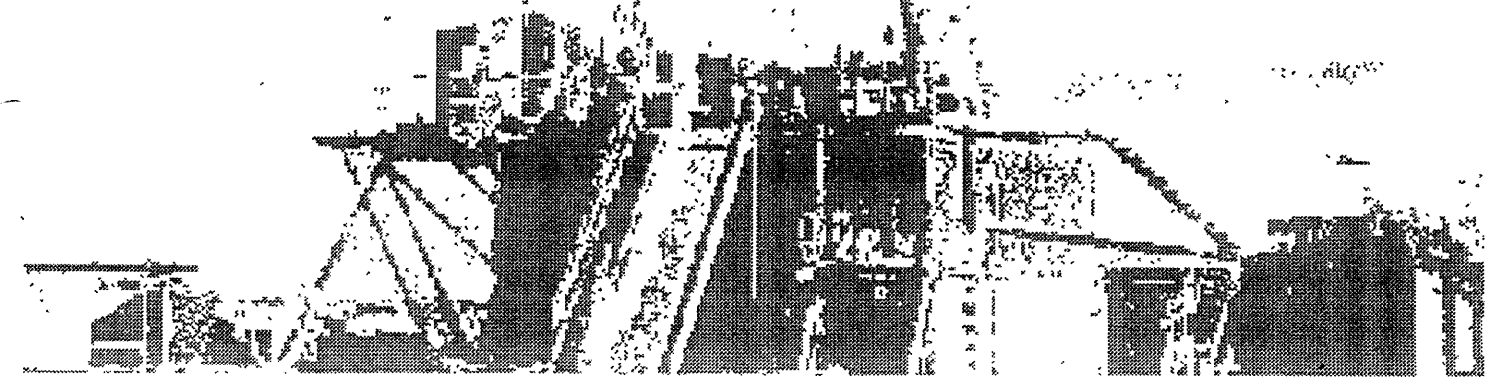


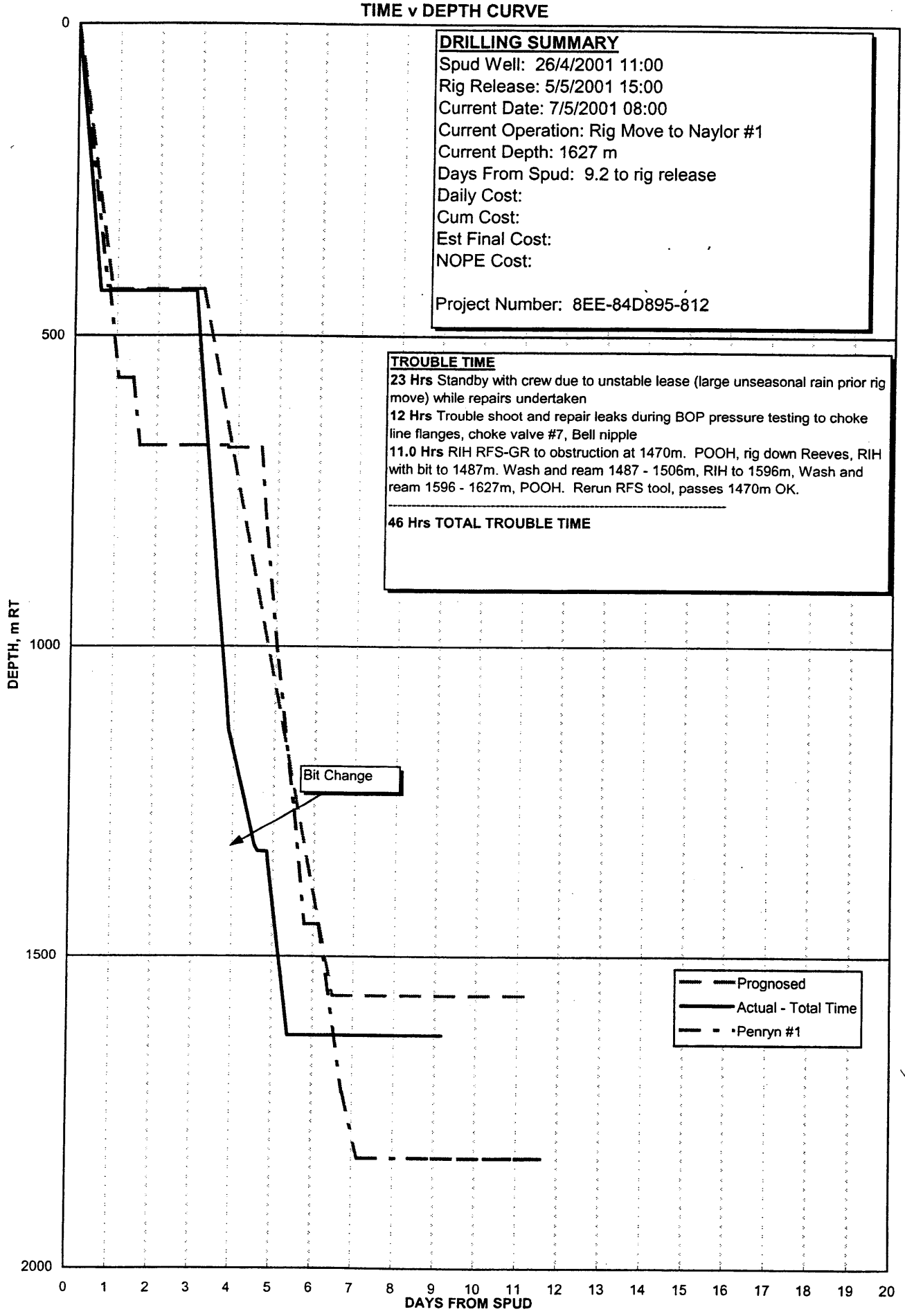
Table of Contents

Section 1.0

Well Summary

- Time vs Depth Curve
- Activity Annotations Report

LAVERS #1
TIME v DEPTH CURVE



LAVERS #1

Drilling Co.: OD&E **Rig:** OD&E #30

RT above GL: 4 m	Lat : 38 deg 28 min 44.75 sec	Spud Date: 26/04/2001	Release Date: 05/05/2001
GL above MSL : 0 m	Long : 142 deg 48 min 12.62 sec	Spud Time: 11:00:00	Release Time: 15:00:00

ACTIVITY ANNOTATIONS

DATE : 21 April, 2001 **REPORT NUMBER :2**

Comment	Solution
Rig Down 75% Rig Up 25% Rig Move 40% Camp 100% ***Overnight rain.	

DATE : 22 April, 2001 **REPORT NUMBER :3**

Comment	Solution
Rig Down 85% Rig Move 35% Rig Up 40% Camp 100% 1.Wet conditions resulted in lease break up and trucks / cranes bogging.	1. Leases at this time of year certainly need to be built to all weather standards, any cutting or shortfall in fill used can certainly risk time delays and remedial work required to rectify lease to working condition.

DATE : 23 April, 2001 **REPORT NUMBER :4**

Comment	Solution
Rig Down 100% Rig Move 95% Rig Up 70% Camp 100%	

DATE : 24 April, 2001 **REPORT NUMBER :5**

Comment	Solution
Rig Down 100% Rig Move 100% Rig Up 80% Camp 100% 1. Camp inspection and remedial actions agreed. Pest exterminator in for mouse/rat control. TV and video functioning. Leaking rooves not yet actioned to closure. Room heaters not actioned to closure.	1. Prior to spud of Lavers crews will attend to camp issues - mainly roof leak action. Electrician to action room heaters to function or replace.

LAVERS #1

Drilling Co.: OD&E **Rig:** OD&E #30

RT above GL: 4 m	Lat : 38 deg 28 min 44.75 sec	Spud Date: 26/04/2001	Release Date: 05/05/2001
GL above MSL : 0 m	Long : 142 deg 48 min 12.62 sec	Spud Time: 11:00:00	Release Time: 15:00:00

ACTIVITY ANNOTATIONS

DATE : 25 April, 2001 **REPORT NUMBER :6**

Comment	Solution
Rig Down 100% Rig Move 100% Rig Up 90% Camp 100% 1. Rig site safety meeting held re PPE and standards/procedures. 2. Camp Issues - TV & Video operational, Roof leaks sealed, Mice infestation - contactor exterminator layed baits, Heaters functional in all rooms. Oven & Cooking facility faults - parts on order. All issues to be monitored on an ongoing basis.	

DATE : 28 April, 2001 **REPORT NUMBER :9**

Comment	Solution
*** Due to "Fix It" time during BOP test period, which, agreed with Steve Ford was due to lack of proffessional service by personnel, a 4 Hr period has been broken out as "Rig On Zero Rate", to cover all those activities that were deemed avoidable if the tasks had been completed initially in a proffessional manner.	

DATE : 30 April, 2001 **REPORT NUMBER :11**

Comment	Solution
Bit was rung out w/ major damage to nose. Reeves logging crew mobilized. ETA 12:00 1st May.	

DATE : 01 May, 2001 **REPORT NUMBER :12**

Comment	Solution
Dowell and Premium Casing mobilized. ETA 2/05/01 Reeves logging crew on site.	

Section 2.0

Well History

- IDS Well History Report

LAVERS #1

Drilling Co.: OD&E **Rig:** OD&E #30

RT above GL: 4 m
GL above MSL : 0 m

Lat : 38 deg 28 min 44.75 sec
Long : 142 deg 48 min 12.62 sec

Spud Date: 26/04/2001
Spud Time: 11:00:00

Release Date: 05/05/2001
Release Time: 15:00:00

Well History

#	DATE	DEPTH	WELL HISTORY (24 Hr Summary)
1	20/04/2001	0	Rig Down and prepare to lower Derrick.
2	21/04/2001	0	Rig Down ops, lay down derrick, Rig move equipment to Lavers #1.
3	22/04/2001	0	Rig move, Rig on Stand-by delay due to Lease breaking up from wet conditions, mobilize Molans and top dress lease.
4	23/04/2001	0	Redress lease, Continue rig move operations.
5	24/04/2001	0	WOD, Wait on Cranes to continue main equip. R/U, pin & string derrick. WOD.
6	25/04/2001	0	WOD, Prepare to and raise Derrick, Continue R/U over Lavers #1.
7	26/04/2001	382	Drill Rat & Mouse holes, final R/U over Lavers #1, Pre Spud meeting, Spud Lavers #1 @ 11:00 Hrs 26th April 2001. Drill & Survey 9 7/8" hole to 382m.
8	27/04/2001	428	Drill from 384m to Section TD 428m, Circ & wiper trip to surface, RIH, Circ, POOH, L/O DCs, Rig Up and Run 7 5/8" Csg, Circ & Cmt Casing, WOC, install "A" Sect., N/U BOPs.
9	28/04/2001	428	N/U & Test BOPs, Rig on Zero Rate, Test BOPs.
10	29/04/2001	896	Repair Bell Nipple, M/U & RIH BHA, Drill Shoe track, Drill 6 3/4" hole from 428m to 433m, LOT, Drill & Survey 6 3/4" hole from 433m to 896m.
11	30/04/2001	1,321	Drill ahead.
12	01/05/2001	1,321	Drill to TD. 1627m.
13	02/05/2001	1,627	Run open hole logs. Wiper trip.
14	03/05/2001	1,627	Complete logging programme. Tight hole conditions below 1575m hampered RFS.
15	04/05/2001	1,627	L/d drill string. Run casing and cement.

Section 3.0

Drilling Data

- Mud Record
- BHA Summary
- Bit Summary by Formation
- FIT/LOT Report

LAVERS #1

Drilling Co.: OD&E **Rig:** OD&E #30 **Mud Co.:**)roid

RT above GL : 4 m
GL above MSL : 0 m

Lat : 38 deg 28 min 44.75 sec
Long : 142 deg 48 min 12.62 sec

Spud Date: 26/04/2001
Spud Time: 11:00

Release Date: 05/05/2001
Release Time: 15:00

Total Cost: $ 23,594

MUD RECAP

R#	DATE	TYPE	DEPTH	TMP F	MW ppg	VIS secs /qt	PV cps	YP lbs/ 100ft2	Gel10s lbs/ 100ft2	Gel10m lbs/ 100ft2	F.L. API (cm3/ 30min)	F.L. hthp (cm3/ 30min)	Sols %	Sand %	MBT %	PH	Cl ppm	HARD /Ca ppm	KCl %	DAILY $
7	26/04/2001	GEL SPUD	310	70	9.0	39	9	10	6	10	15.0		5	.15	10.0	9.0	750	40	0	1,469
8	27/04/2001	GEL SPUD	310	70	9.0	39	9	10	6	10	15.0		5	.15	10.0	9.0	750	40	0	338
9	28/04/2001	GEL SPUD	428	0	9.0	40	8	15	10	13	15.5		4.9	TR	12.0	8.5	2,000	80	0	2,698
10	29/04/2001	KCl/PHPA	859	28	8.7	36	5	4	2	4	10.0		1.5	TR	1.0	9.3	22,000	240	5	1,541
11	30/04/2001	KCl/PHPA	1,313	33	9.1	39	9	7	4	6	7.6		4.3	.25	1.0	9.3	21,100	280	4	7,707
12	01/05/2001	KCl/PHPA	1,627	39	9.3	42	9	12	6	9	7.0		5.8	.20	4.0	9.5	21,000	240	4	6,473
13	02/05/2001	KCl/PHPA	1,627	39	9.3	43	8	11	5	8	6.8		5.9	.15	4.0	9.3	20,000	240	4	1,906
14	03/05/2001	KCl/PHPA	1,627	0	9.3	44	9	12	5	9	6.8		5.9	trc	3.5	9.0	20,000	240	4	0
15	04/05/2001	KCL/BRINE	1,627	0	8.4	28	0	0	0	0	0.0	0.0	0	0	0.0	0.0	0	0	2	1,463

LAVERS #1

Drilling Co.: OD&E **Rig:** OD&E #30

RT above GL 4 m
GL above MSL 0 m

Lat : 38 deg 28 min 44.75 sec
Long : 142 deg 48 min 12.62 sec

Spud Date: 26/04/2001
Spud Time: 11:00

Release Date: 05/05/2001
Release Time: 15:00

BHA SUMMARY

#	Length (m)	Weight (k-lbs)	Weight blw/Jars (k-lbs)	String Weight (k-lbs)	Pick-Up Weight (k-lbs)	Slack-Off Weight (k-lbs)	Torque Max (ft-lbs)	Torque on bottom (ft-lbs)	Torque off bottom (ft-lbs)	BHA DESCRIPTION
1	162	39		56	58	55	1,600	1,500	600	BIT, BIT SUB, X/O, X/O, MDC, X/O, DC, STB, 10 x DC, X/O, 5 x HWDP = 162.39m
2	248	34	25	60	65	56	9,200	7,500	2,200	BIT, NB STB, PONY DC, STB, MDC, STB, 16 x DCs, JARS, 4 x DCs, 5 x HWDP = 248.04m

908031 084

LAVERS #1

Drilling Co.: OD&E

Rig : OD&E #30

RT above GL : 4 mtrs
GL above MSL : 0 mtrs

Lat : 38 deg 28 min 44.75 sec
Long : 142 deg 48 min 12.62 sec

Spud Date: 26/04/2001
Spud Time: 11:00:00

Release Date: 05/05/2001
Release Time: 15:00:00

BIT RECORD

DATE	BIT#	SIZE "	IADC	SER	MFR	TYPE	JETS	D.IN mtrs	D.OUT mtrs	MTRG	HRS IADC	SPP psi	FLW gpm	WOB k-lbs	RPM	MW ppg	TFA sq.in	VEL mps	HHP /sq"	ROP m/hr	I	O1	D	L	B	G	O2	R
27/04/2001	RR1	9.88		LY9255	SMITH	FGSS+2C	1x0,2x22	0	428	428	11.8	1100	526	7.0	125	9.0	0.743	69	0.00	36.3	2	2	WT	A	E	I	WO	TD
01/05/2001	2	6.75		5008037	DBS	FS 2463	4x11	428	1,330	902	37.0	1350	275	8.0	105	8.9	0.371	72	2.10	24.4	8	7	RO	N	X	I	RO	PP
01/05/2001	3	6.75		5010844	DBS	FM 2465	4x11	1,330	1,627	297	11.5	1700	280	8.0	110	9.3	0.371	74	2.22	25.8	1	1	WT	T	X	I	WT	TD

9080031 085

908031 086

Santos

LEAK OFF TEST / FORMATION INTEGRITY TEST

WELL: LAVERS #1 **RIG:** ODE #30 **DATE:** 02-Aug-01

CASING SIZE: 7 5/8 (inch) SANTOS SUPERVISOR: ALISTAIR CHOMLEY

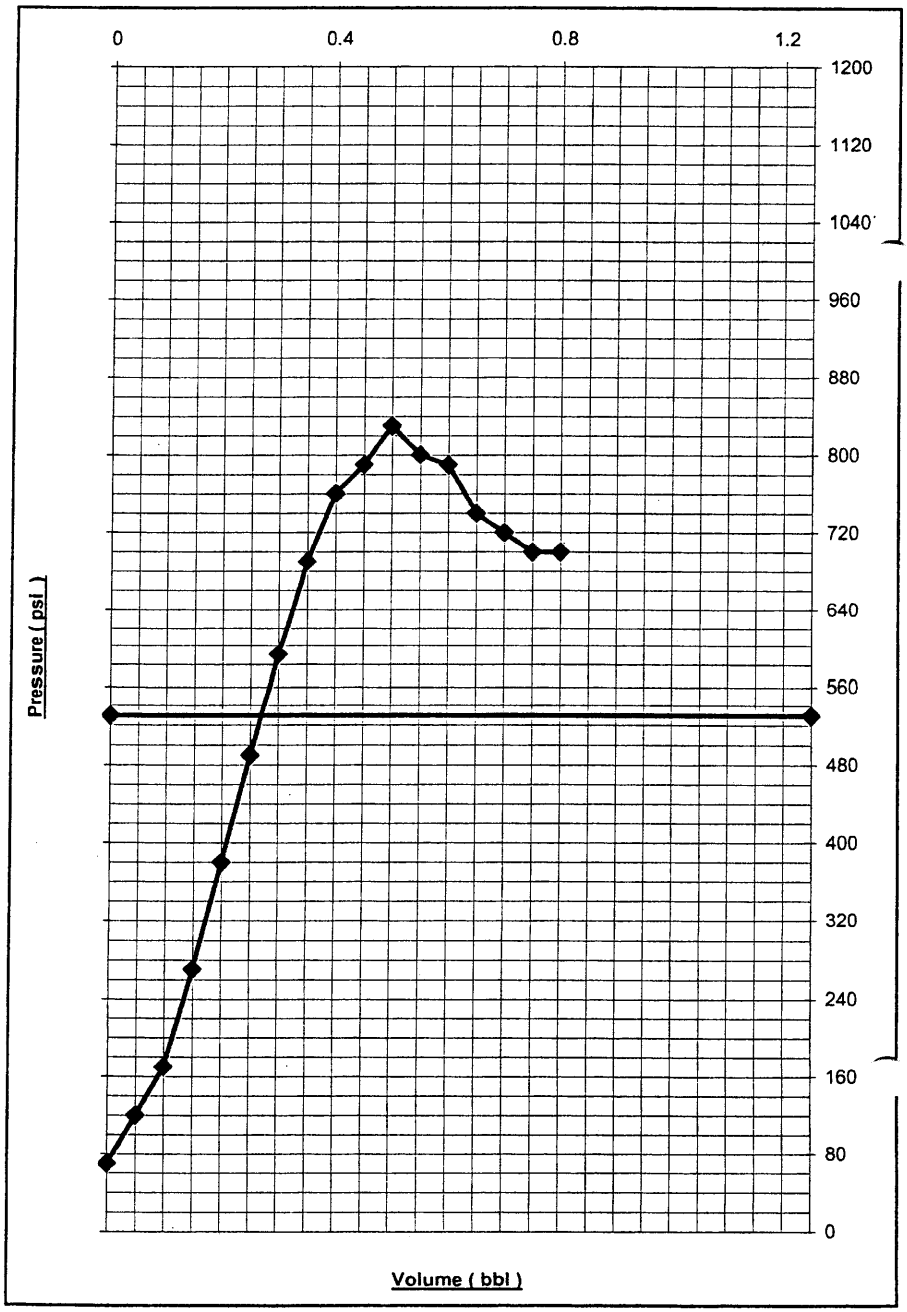
A. MUD DENSITY IN USE:	8.4	(ppg)
B. HOLE DEPTH:	431	(m)
C. SHOE DEPTH:	425	(m)
D. FIT PRESSURE (GRAPH):	760	(psi)
E. EQUIVALENT DENSITY: PRESSURE. (D) (psi) / SHOE DEPTH (C) m x 3.2808 x 0.052 + MUD DENSITY IN USE (A) (ppg)	18.9	(ppg) (EMW)
F. STABILIZED PRESSURE RECORDED:	700	(psi)
G. VOLUME PUMPED:	0.45	(bbl)
H. VOLUME REGAINED:	0.35	(bbl)

MAX. PRESSURE AT PUMP UNIT CALCULATION

DESIRED EMW=	15.7
MUD WT. IN USE	8.4
SHOE DEPTH (m)	425

*** UNIT PRESSURE FOR DESIRED EMW: **529**

	Volume (BBLS)	Pressure (psi)	
CASING PRESS CHART	0.1		
	0.2		
	0.3		
	0.4		
	0.5		
	0.6		
	0.7		
	0.8		
	0.9		
	1		
	1.1		
	1.2		
	1.3		
	1.4		
	1.5		
	1.6		
	1.7		
	1.8		
OPEN HOLE LOT	0	70	
	0.05	120	
	0.1	170	
	0.15	270	
	0.2	380	
	0.25	490	
	0.3	590	
	0.35	690	
	0.4	760	
	0.45	790	
	0.5	830	I.S.I.P
	0.55	800	1 min
	0.6	790	2min
	0.65	740	3 min
	0.7	720	4 min
	0.75	700	5 min
	0.8	700	6 min
	0.85		
	0.9		
MAX PRESS	0	529	
	1.25	529	



Section 4.0

Casing and Cementing
- Casing and Cementing Reports
- Wellhead Installation Report or
- Plug and Abandonment Report

908031 088

Santos

Santos Ltd

A.C.N. 007 550 923

CASING AND CEMENTING REPORT

Well Name: LAVERS #1

FORM DQMS F-220 Rev.2

Casing type: X Surface casing | Intermediate Casing | Production Casing | Completion tubing

Originated by: ALISTAIR CHOMLEY **Checked by:** GEOFF COKER **Date:** 28-Apr-01

Hole Size: 9-7/8" **T.D.:** 428m MD **Date:** 27-Apr **Contractor:** Schlumberger

PRE-FLUSH 40 bbls. @ 8.4 ppg. **SPACER** 0 bbls@ 0 ppg.

Additives:

Water Source: LAVERS #1 Water Bore Water Source:

CEMENT Mixwater: 61.6 bbls

LEAD SLURRY:	156	sacks Class	G	
Slurry Yield:	2.87	cu.ft./sack		
Mixwater Req't:	17.442	gal./sack		
Actual Slurry Pumped:	80	bbls @	11.5	ppg
Planned TOC:	0	m RT @	55	% o/g hole
Actual est. TOC:	0	m RT @		% o/g hole
TAIL SLURRY:	94	sacks Class	G	
Slurry Yield:	1.19	cu.ft./sack		
Mixwater Req't:	5.299	gal./sack		
Actual Slurry Pumped:	20	bbls @	15.6	ppg
Planned top tail:	330	m RT @	20	% o/g hole
Actual est. top tail:	330	m RT @		% o/g hole

ADDITIVES

Product	% or gps	Product	% or gp
D 020	5% BWOC		
S001 CaCl	1.5% BWOC		
D047	.01 gal/sx		
D145A	.05 gal/sx		
S001 CaCl	0.50%		
D047	.01 gal/sx		

DISPLACEMENT Fluid: 10bbl Water 52bbl Mud @ 9 ppg

Theoretical Displ.: 62 bbl. Bumped plug with 500 psi

Actual Displ. 62.5 bbl @ 5.5 bpm Pressure Tested to: 3000 psi

isplaced via RIG PUMP Bleed back: 0.75 bbls

ACTIVITY	Date/Time	
Start Running csg.	27-Apr-01	10:30
Casing on Bottom	27-Apr-01	14:05
Start Circulation	27-Apr-01	14:10
Start Pressure Test	27-Apr-01	15:25
Pump Preflush	27-Apr-01	14:55
Start Mixing	27-Apr-01	15:36
Finish Mixing	27-Apr-01	16:00
Start Displacing	27-Apr-01	16:05
Stop Displ./Bump	27-Apr-01	16:15
Press. test	27-Apr-01	16:17

Returns to Surface: 154 bbls mud 8 bbls cmt.

Reciprocate / Rotate Casing: Reciprocate till plug bump.

Top Up Job run: Yes / No Yes 10 sx class G

Plug Set Make / Type: Weatherford Model-303 (FS), Model-402NP (FC)

Centraliser Placement, type/depth: Weatherford 423m,412m,400m,377m,353m, BSK & Cent 28m.

Remarks:

No. JOINTS	SIZE OD	WT lb/ft	GRADE	THREAD	METER	FROM	TO
Stick Up at RT			(Enter as negative number-do not include stretch,RT = 0)		-0.87	-0.87	0.0
Rotary table to top of Bradenhead				(Enter for surface casing only)	4.70	0.00	4.7
Bradenhead : WG-22-L, 7-5/8"BTC x 9-5/8"BTC x 11"5K				(Enter for surface casing only)	0.72	4.70	5.4
Rotary table to top of cut jt				(Enter for int. or production casing only)			
1 Cut Jt							
36 Jts	7-5/8"	26.4	L80	BTC	394.88	5.42	400.3
Jts					0.00	400.30	400.3
marker					0.00	400.30	400.3
Jts					0.00	400.30	400.3
marker					0.00	400.30	400.3
Jts					0.00	400.30	400.3
Float Collar	W'ford Model-402NP			BTC	0.40	400.30	400.7
2 Jts	7-5/8"	26.4	L80	BTC	23.25	400.70	423.9
Float Shoe	W'ford Model-303			BTC	0.44	423.95	424.3

Total Jts Run	36
al Jts On Location	42
Jts not run	6

Theoretical Bouyed wt of casing(klb):	31	Bradenhead Height above GL	0.00
Actual wt of casing (last joint run-block wt, klb)	31	Casing wt just prior to landing csg/	24
Landing WT (after cementing and pressure bleed off)	28	setting slips	(indicator wt - blocks = wt

908031 089

Santos

Santos Ltd

A.C.N. 007 550 923

CASING AND CEMENTING REPORT

Well Name: LAVERS #1

FORM DQMS F-220 Rev.2

Casing type: ☐ Surface casing ☐ Intermediate Casing ☒ Production Casing ☐ Completion tubing

Originated by: WJ WESTMAN **Checked by:** GEOFF COKER **Date:** 04/05/2001

Hole Size: 6¾" **T.D.:** 1627m **Date:** 04/05/2001 **Contractor:** Schlumberger

PRE-FLUSH 40 bbls. @ 8.6 ppg.

Additives: Sodium acid pyrophosphate @ 8ppb.

Water Source: Heatley's Camp Bore.

SPACE bbls@ ppg.

Water Source:

CEMENT Mixwater:

LEAD SLURRY:	285	sacks Class	G
Slurry Yield:	2.85 (2.84)	cu.ft./sack	
Mixwater Req't:	17.512	gal./sack	
Actual Slurry Pumped:	145	bbls @ 11.5	ppg
Planned TOC:	895	ft RT @ 20	% o/g hole
Actual est. TOC:	895	ft RT @ 20	% o/g hole
TAIL SLURRY:	120	sacks Class	G
Slurry Yield:	1.19	cu.ft./sack	
Mixwater Req't:	5.24	gal./sack	
Actual Slurry Pumped:	25	bbls @ 15.8	ppg
Planned top tail:	4662	ft RT @ 20	% o/g hole
Actual est. top tail:	4662	ft RT @ 20	% o/g hole

ADDITIVES

Product	% or gps	Product	% or gps
Gold Seal Bentonite	1340lbs		
SOO1	134lbs		
D047	3gals		
D080	0.05 gps		
D047	0.01 gps		

DISPLACEMENT Fluid: KCL brir @ 8.4 ppg

Theoretical Displ.:	71 bbl.	Bumped plug with	1100 psi
Actual Displ.	71 bbl @ 6 bpm	Pressure Tested to:	3200 psi
Displaced via	RIG / CEMENT PUMP	Bleed back:	3 bbls

ACTIVITY	Date/Time
Start Running csg.	11:30
Casing on Bottom	20:30
Start Circulation	21:30
Start Pressure Test	21:30
Pump Preflush	22:00
Start Mixing	22:30
Finish Mixing	23:00
Start Displacing	23:00
Stop Displ./Bump	23:15
Press. test	23:20

Returns to Surface: Full bbls mud 0 bbls cmt.

Reciprocate / Rotate Casing: No

Top Up Job run: Yes / No No sx class

Plug Set Make / Type: 3½ c/w Ball.

Centraliser Placement, type/depth: 1620, 1612, 1574, 1526, 1474, 1426, 1378, 1349, 1320, 1291, 1262, 1233, 1214, 1185, BOWSPRING.

Remarks:

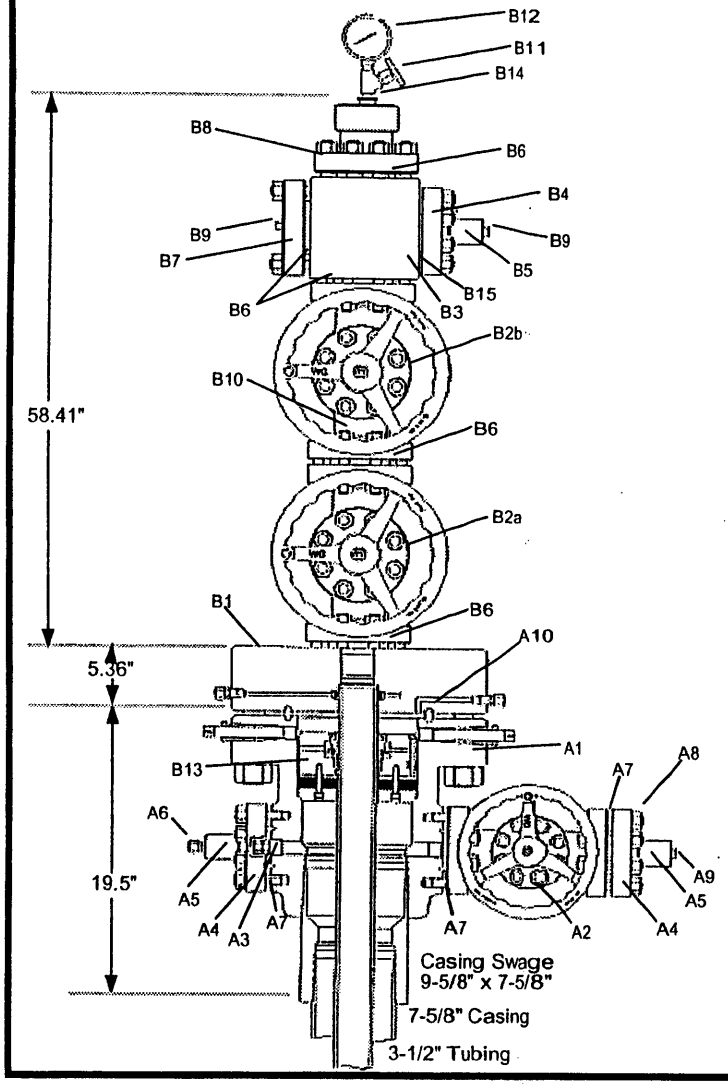
No. JOINTS	SIZE OD	WT lb/ft	GRADE	THREAD	FEET	FROM	TO
Stick Up at RT		(Enter as negative number-do not include stretch, RT = 0)			-2	-2.00	0.00
Rotary table to top of Bradenhead		(Enter for surface casing only)			0	0.00	0.00
Bradenhead (description and rating) / Tubing Hanger or slip and seal		(Enter for surface casing only)			0	0.00	0.00
Rotary table to top of cut jt		(Enter for int. or production casing only)			0	0.00	0.00
1 Cut Jt	3.5	9.3	L80	New NK3SB	15.4	0.00	15.40
6	3.5	9.3	L80	New NK3SB	198	15.40	213.40
150	3.5	9.3	J55	New NK3SB	4747.54	213.40	4960.94
1 marker	3.5	9.3	J55	New NK3SB	10.3	4960.94	4971.24
					0		
					0		
10	3.5	9.3			316.2	4971.24	5287.44
Float Collar	(Make/Type)	DAVIS			1.35	5287.44	5288.79
Joints	1	9.3	J55	New NK3SB	31.59	5288.79	5320.38
Float Shoe	(Make/Type)	DAVIS			1.18		1.18

Total Jts Run	168
Total Jts On Location	
Jts not run	

Theoretical Bouyed wt of casing(klb):	44.000	Bradenhead Height above GL	0.02
Actual wt of casing (last joint run-block wt, klb)	44.000	Casing wt just prior to landing csg/	37000.00
Landing WT (after cementing and pressure bleed off)	37.000	setting slips	(indicator wt - blocks = wt)

FORM DQMS F-130	WELLHEAD INSTALLATION REPORT 2 STRING MONOBORE (7-5/8" SURFACE CASING)	Santos

Well : LAVERS #1
Supervisor : W. Westman
Date : 5th May 2001



COMPONENT	DESCRIPTION	No USED
A1. Casing Head	11" 5k x 7-5/8" 5k c/w BTC Box (WG-22-L, PSL-1, PR-2, AA, U)	1
A2. Gate Valve	2-1/16" 5k Model 2200 (Type 'FE', PSL-1, PR-1, BB, U)	1
A3. Plug	1-1/2" line pipe c/w 1-1/4" hex	1
A4. Companion Flange	2-1/16" 5k x 2" line pipe, (AA, U)	2
A5. Bull Plug	2" line pipe tapped c/w 1/2" NPT, XX-H	2
A6. Test Fitting	1/2" NPT	1
A7. Ring Gasket	RX-24 Stainless Steel	3
A8. Studs	7/8" x 6-1/4" long c/w nuts	8
A9. Pipe Plug	1/2" NPT male	1
A10. Ring Gasket	RX-54 Stainless Steel	1
B13. Slip & Seal Assy	11" x 3-1/2" (WG-22, PSL-1, PR-2, AA, U)	1
B1. Adaptor Flange	11" x 3-1/8" 5k, 3.5" P seal, 3" H BPV (WG-A4-P, PSL-1, CC, U)	1
B2a. Gate Valve	3-1/8" 5k Model 2200 (6A, PSL-2, PR-1, CC, PU, 410/NITRO)	1
B2b. Gate Valve	3-1/8" 5k Model 2200 (6A, PSL-1, PR-2, BB, U, AS/NITRO)	1
B3. Flow Cross	3-1/8" x 3-1/8" x 3-1/8" x 2-1/16" 5k (PSL-1, PR-2, CC, U)	1
B4. Companion Flange	2-1/16" 5k x 2" line pipe, (AA, U)	1
B5. Bull Plug	2" line pipe tapped c/w 1/2" NPT, XX-H	1
B6. Ring Gasket	RX-35 Stainless Steel	5
B7. Blind Flange	3-1/8" 5k tapped 1/2" NPT (CC, U)	1
B8. Tree Cap	3-1/8" 5k c/w Bowen union, 3.5" lift thread, tapped 1" NPT	1
B9. Pipe Plug	1/2" NPT male	1
B10. Studs	7-1/4" x 1-1/8" w/ nuts	8
B11. Needle Valve	1/2" NPT 5k Stainless Steel	0
B12. Pressure Gauge	1/2" NPT 0-5000psi	0
B14. Reducer	1" male x 1/2" female NPT Reducer	1
B15. Ring Gasket	RX-24 Stainless Steel	1
Notes:	3-1/2" Tubing stub cut off 3" above top flange on bradenhead.	
	1/2" NPT male Pipe plug fitted in lieu of Items B11 & B12 at this time.	

908031 090

Section 5.0

Time Breakdown Data

- Overview
- Trouble Time Breakdown

Well : LAVERS #1 **Drilling Co : OD&E** **Rig : OD&E #30**

RT above GL: 4 m Lat : 38 deg 28 min 44.75 sec Spud Date: 26/04/2001 Release Date: 05/05/2001
GL above MSL : 0 m Long : 142 deg 48 min 12.62 sec Spud Time: 11:00:00 Release Time: 15:00:00

TIME BREAKDOWN DATABASE - single well overview

Spud date : 26/04/2001
TD Depth : 1,627.0
Final Depth : 1,627.0

Total Time (hrs) - Spud/Release : 211.00
Total Time (hrs) - Rig Move : 0.00
Total NPT (hrs) : 19.00

Time-Breakdown : Times by Class and Operation

Class	Hrs
PROGRAMMED EVENT	192.0
TROUBLE - DURING PROGRAM	19.0

Operation	Hrs
DRILLING AHEAD	60.8
LOGGING	33.0
TOT. CSG/CMT	29.8
N/U & TEST BOP's	25.0
TOT. TRIPPING	24.5
WIPER TRIP	7.5
LAY DOWN PIPE	7.0
CIRCULATE & CONDITION MUD	6.0
WELL-HEAD	5.5
SURVEY	5.0
RIG REPAIR	4.0
RIG SERVICE	1.0
LOT / FIT	1.0
BREAK CIRCULATION	.5
SLIP/CUT DRILL LINE	.5

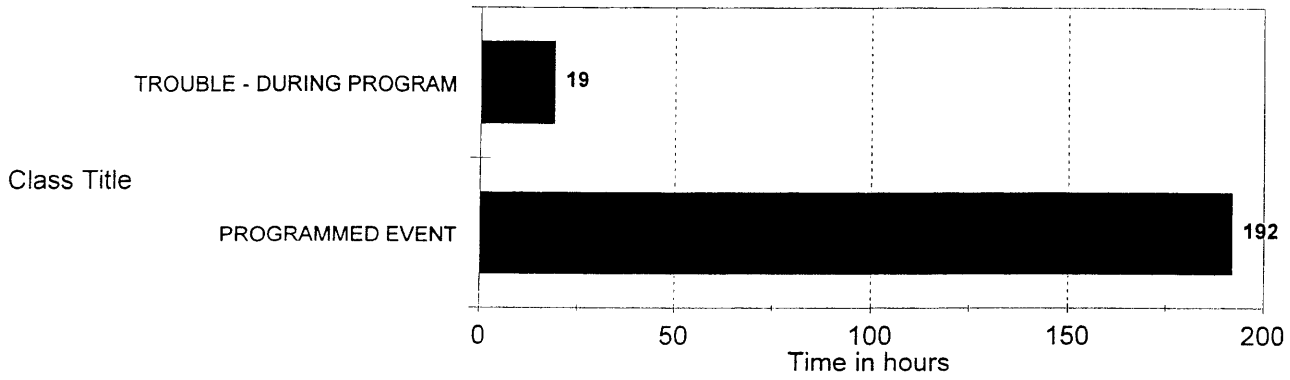
908031 093

TIME BREAKDOWN DATABASE - single well overview

WELL : LAVERS #1

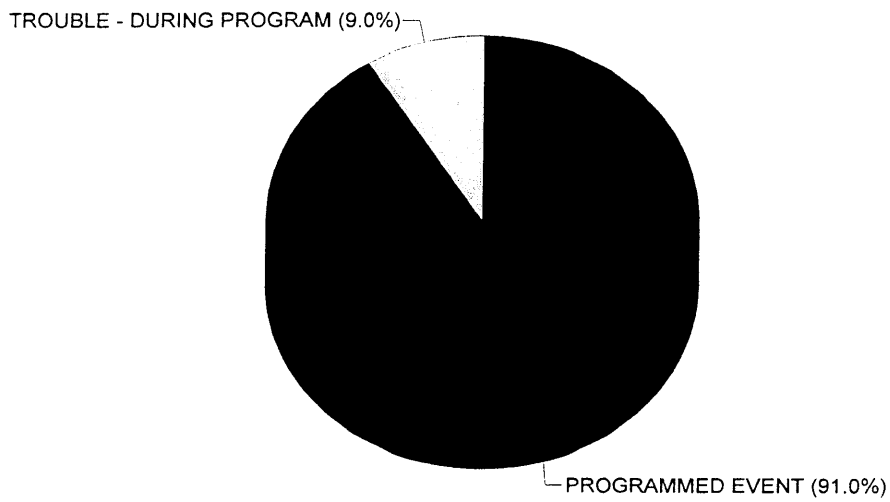
Pacesetter : none selected

Time Breakdown by Class Codes



Time Analysis by Class Codes

Class	Hrs
PROGRAMMED EVENT	192.0
TROUBLE - DURING PROG	19.0



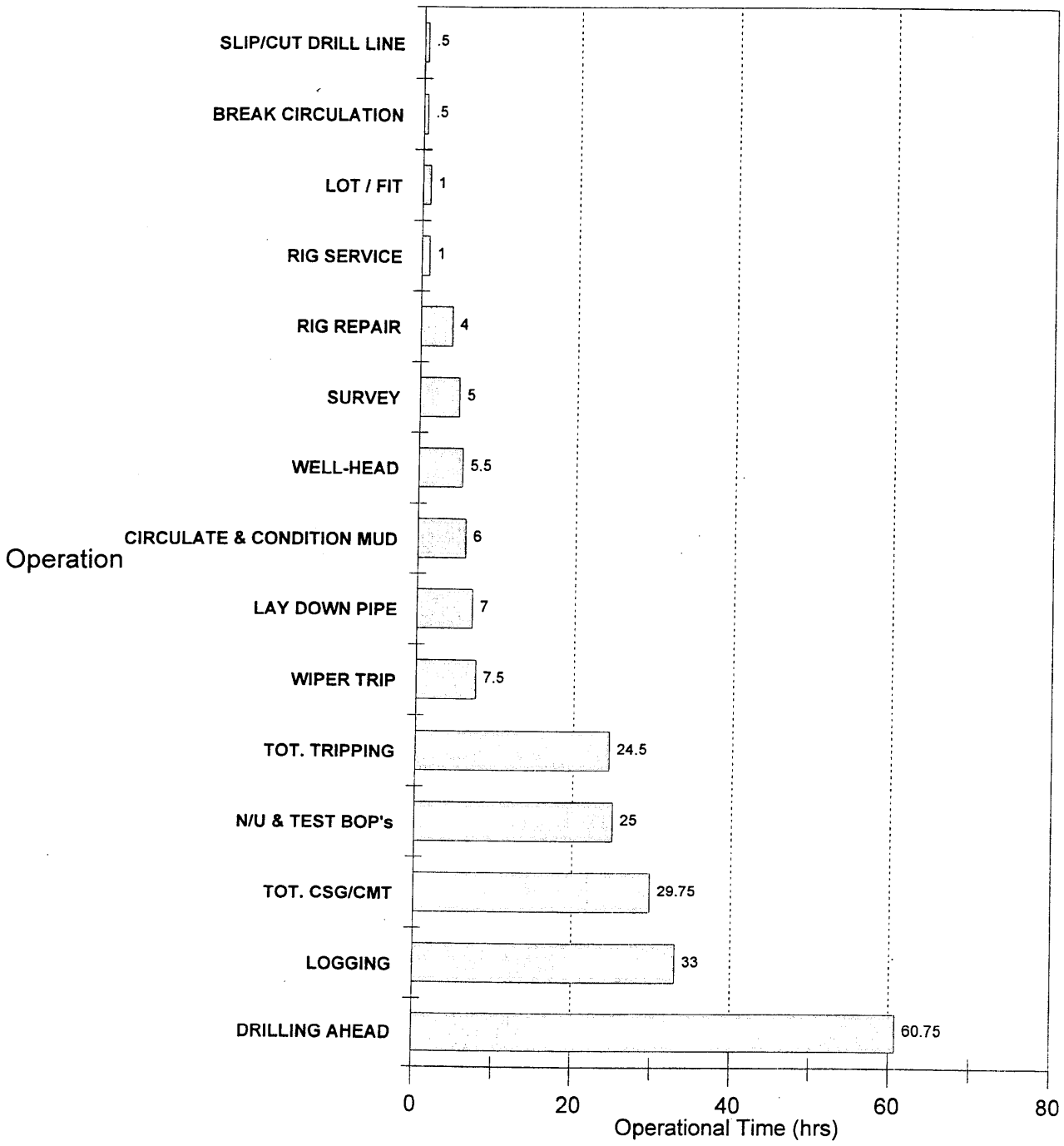
TIME BREAKDOWN DATABASE - single well overview

908031 094

WELL : LAVERS #1

Pacesetter : none selected

Time Breakdown by Operational Code



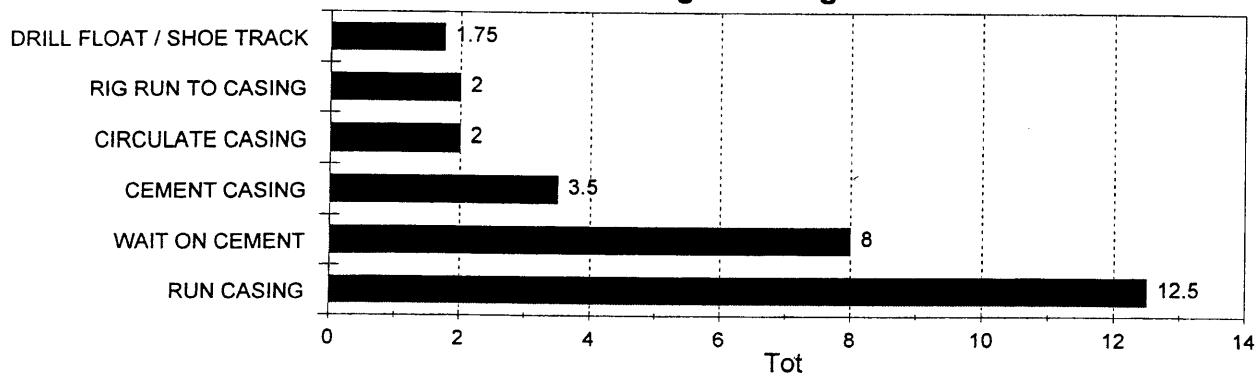
908031 095

TIME BREAKDOWN DATABASE - single well overview

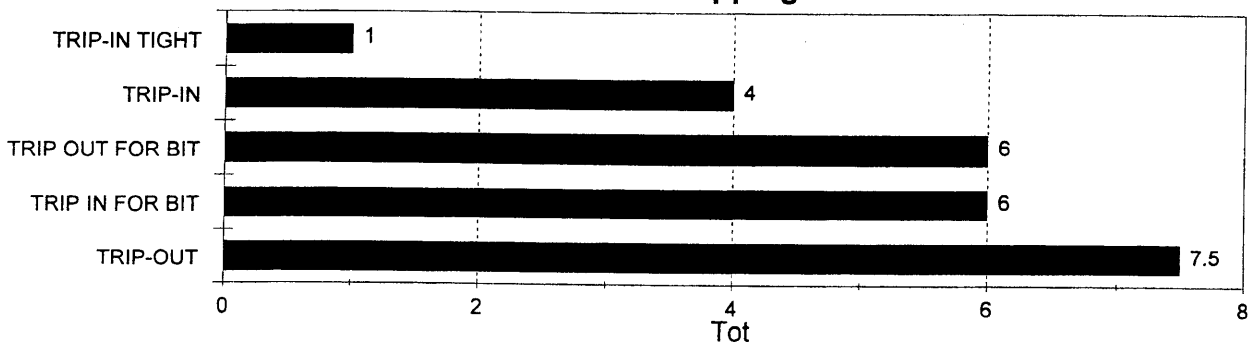
WELL : LAVERS #1

Pacesetter : none selected

Breakdown of Total Csg & Cmtng Time

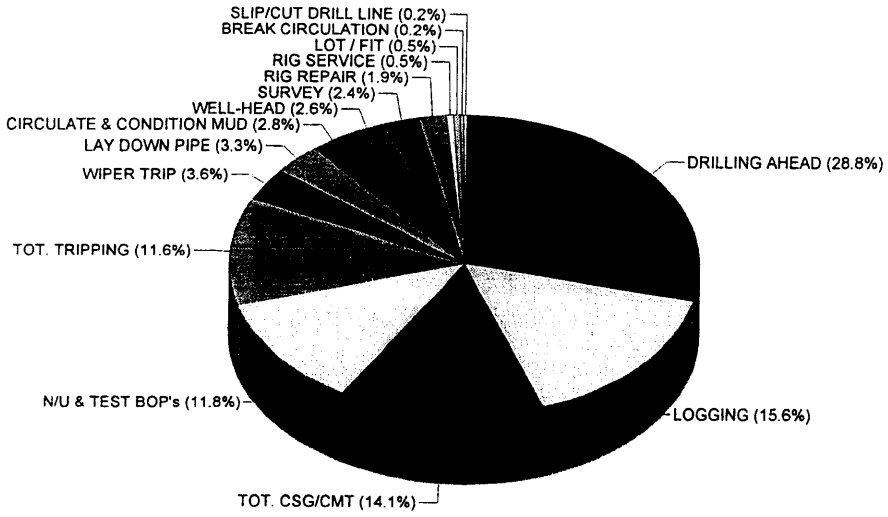


Breakdown of Total Tripping Time



Time Analysis by Operational Codes

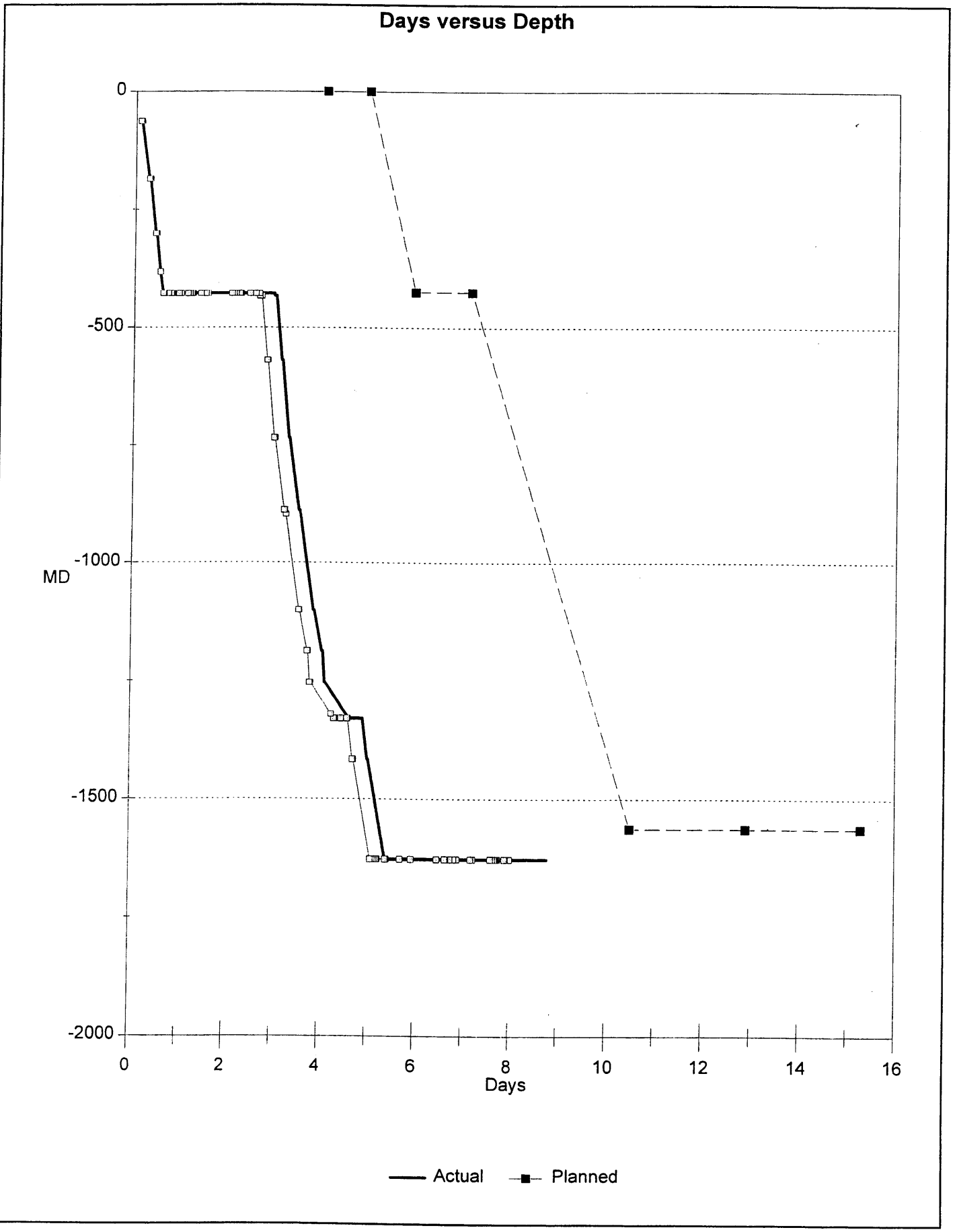
Operation	hrs
DRILLING AHEAD	60.8
LOGGING	33.0
TOT. CSG/CMT	29.8
N/U & TEST BOP's	25.0
TOT. TRIPPING	24.5
WIPER TRIP	7.5
LAY DOWN PIPE	7.0
CIRCULATE & CONDIT	6.0
WELL-HEAD	5.5
SURVEY	5.0
RIG REPAIR	4.0
RIG SERVICE	1.0
LOT / FIT	1.0
BREAK CIRCULATION	0.5
SLIP/CUT DRILL LINE	0.5



TIME BREAKDOWN DATABASE - single well overview

WELL : LAVERS #1

Pacesetter : none selected



LAVERS #1 908031 097

Drilling Co.: OD&E **Rig :** OD&E #30

RT above GL: 4 m
GL above MSL: 0 m

Lat : 38 deg 28 min 44.75 sec
Long : 142 deg 48 min 12.62 sec

Spud Date: 26/04/2001
Spud Time: 11:00:00

Release Date: 05/05/2001
Release Time: 15:00:00

TIME BREAKDOWN DATABASE Non-Productive Time Analysis (NPT)

(Pre-Spud time included)

Total Time on Well (hrs)	**346.0**	**(days)**	**14.42**	**Spud Date :**	**26/04/2001**
Total Trouble Time (hrs)	**31.5**	**(days)**	**1.31**	**Total Depth :**	**1,627**
Trouble Time (%)	**9.10**			**Final Depth :**	**1,627**

Total NPT Hours per Phase

PHASE	HOURS
PRESPUD	12.5
SURFACE CASING	7.5
EVALUATION PROD. HOLE	11.5

NPT during programmed time

DATE	PHS	OPERATION	NPT hrs	DEPTH m	DESCRIPTION OF PROGRAMMED TROUBLE TIME
22/04/2001	PS	WAIT ON	11.0	0	Rig On Stand-by with crews. Mobilize Molans Eath Moving and truck in rock topping and grade lease. Install and Pressure Test Well-Head on Croft #1. Back fill Rat/Mouse holes, Rebuild load cell, PMS Gens, Dig drains. Rig up pits.
23/04/2001	PS	WAIT ON	1.5	0	Rig on Stand-by. Load mud chemicals and derrick sections at Croft #1. Continue grade and dress Lavers #1 lease damaged due to rain. Spikins inspect lease and clear for operations.
28/04/2001	SC	N/U & TEST BOP's	3.0	428	Pressure test BOPs & Choke manifold to 300/2000 psi. Failures, repairs and retests to Choke Line, Choke V/V #7, Choke V/V #7 again, HCR flange, "A" Sect dog packing, Ram flange, Outer choke V/V, HCR non-function.
28/04/2001	SC	RIG REPAIR	4.0	428	Rig On Zero Rate (As agreed by Steve Ford) due to avoidable non-productive time on BOP test period.
28/04/2001	SC	N/U & TEST BOP's	0.5	428	Attempt to seal leaking Bell-Nipple - NoGo.
02/05/2001	EP	LOGGING	2.0	1,627	R/u and RIH w/ RFS-GR. Obstruction at 1470m. POOH.
02/05/2001	EP	LOGGING	0.5	1,627	R/d Reeves.
02/05/2001	EP	WIPER TRIP	1.0	1,627	P/u BHA and RIH for wiper trip.
02/05/2001	EP	SLIP/CUT DRILL LINE	0.5	1,627	Slip 33ft Drlg line.
02/05/2001	EP	TRIP-IN	1.5	1,627	RIH to 1487m.
02/05/2001	EP	TRIP-IN TIGHT	0.5	1,627	Wash and ream 1487m to 1506m.
02/05/2001	EP	TRIP-IN	0.5	1,627	RIH to 1596m.
02/05/2001	EP	TRIP-IN TIGHT	0.5	1,627	Wash and ream f/ 1596m 1627m.
03/05/2001	EP	CIRCULATE & CONDITION MUD	1.0	1,627	Circulate and condition mud. Trip gas 1300units.
03/05/2001	EP	TRIP-OUT	3.5	1,627	Flow check. Slug pipe. POOH. Flow check at 5 stds, 10stds, csg shoe.

NPT during unprogrammed time

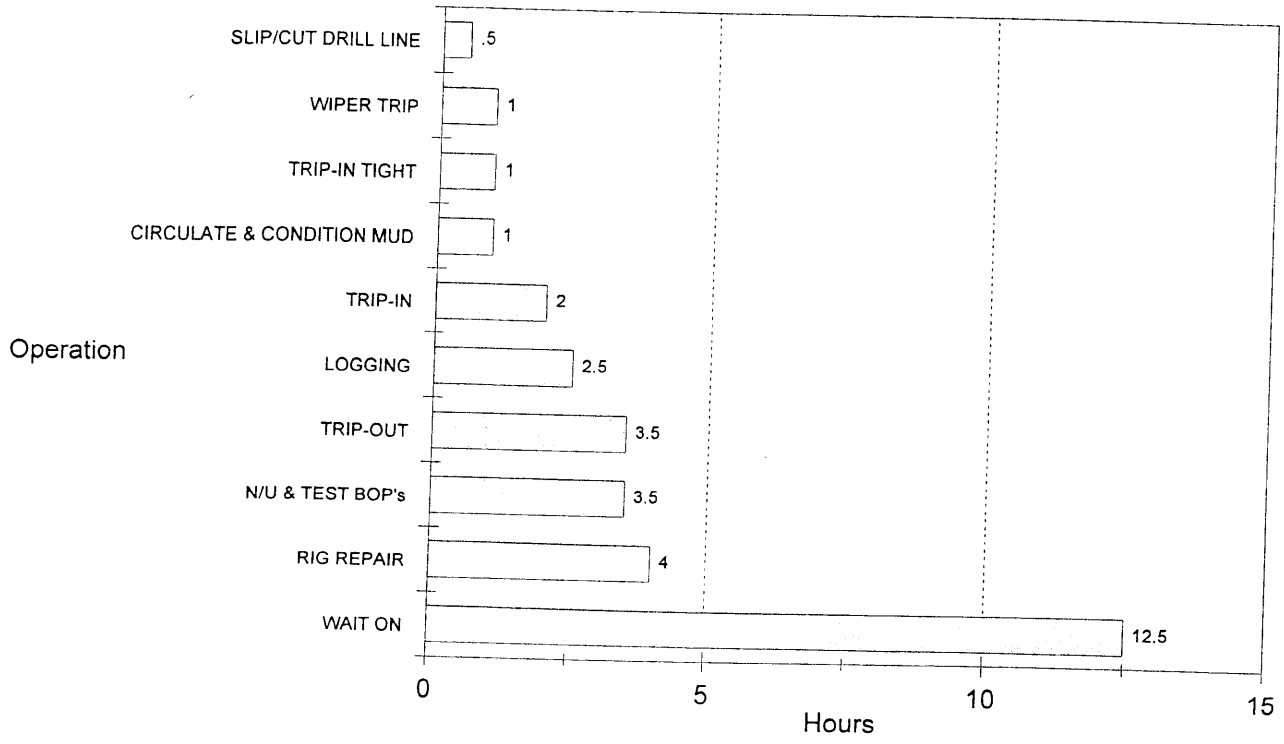
DATE	PHS	OPERATION	NPT hrs	DEPTH m	DESCRIPTION OF UNPROGRAMMED TROUBLE TIME
			0.0		No Trouble Time Present

RT above GL: 4 m
GL above MSL: 0 m
Lat : 38 deg 28 min 44.75 sec
Long : 142 deg 48 min 12.62 sec
Spud Date: 26/04/2001
Spud Time: 11:00:00
Release Date: 05/05/2001
Release Time: 15:00:00

TIME BREAKDOWN DATABASE Non-Productive Time Analysis (NPT)

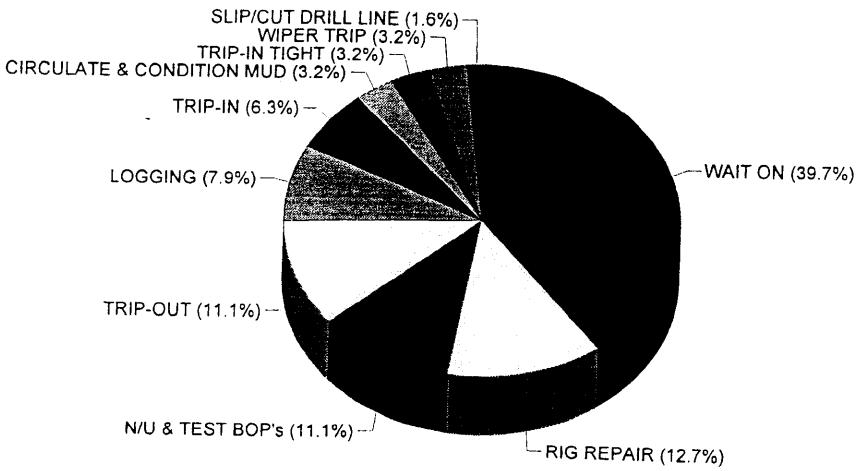
(Pre-Spud time included)

Trouble Drilling by Operational Code



Trouble Drilling by Operational Code

OPERATION	HRS
WAIT ON	12.5
RIG REPAIR	4.0
N/U & TEST BOP's	3.5
TRIP-OUT	3.5
LOGGING	2.5
TRIP-IN	2.0
CIRCULATE & CONDITION MUD	1.0
TRIP-IN TIGHT	1.0
WIPER TRIP	1.0
SLIP/CUT DRILL LINE	0.5



Section 6.0

Survey Data
- IDS Survey Report

908031 100

LAVERS #1

Drilling Co.: OD&E **Rig:** OD&E #30

RT above GL: 4 m Lat : 38 deg 28 min 44.75 sec Spud Date: 26/04/2001 Release Date: 05/05/2001
GL above MSL : 0 m Long : 142 deg 48 min 12.62 sec Spud Time: 11:00:00 Release Time: 15:00:00
Magnetic Declination (degs): 12.00
Projection:

DEVIATION SURVEY

MD (m)	TVD (m)	INCL (deg)	AZIMUTH (deg)	CORRECT. AZ (deg)	DOGLEG (deg/30m)	'V' SECT (m)	N/S (m)	E/W (m)	CLOSURE (m)
49	49	0.38	120	132	0.2	-0	-0	0	0
169	169	0.38	50	62	0.1	-0	-0	1	1
285	285	0.50	25	37	0.1	0	0	1	1
413	413	0.20	38	50	0.1	1	1	2	2
552	552	0.63	53	65	0.1	2	1	3	3
720	720	0.60	342	354	0.1	3	3	4	4
878	878	0.60	200	212	0.2	3	3	3	4
1,082	1,082	0.25	216	228	0.1	2	2	2	3
1,234	1,234	0.75	169	181	0.1	0	0	2	2
1,610	1,610	2.20	168	180	0.1	-9	-9	2	9

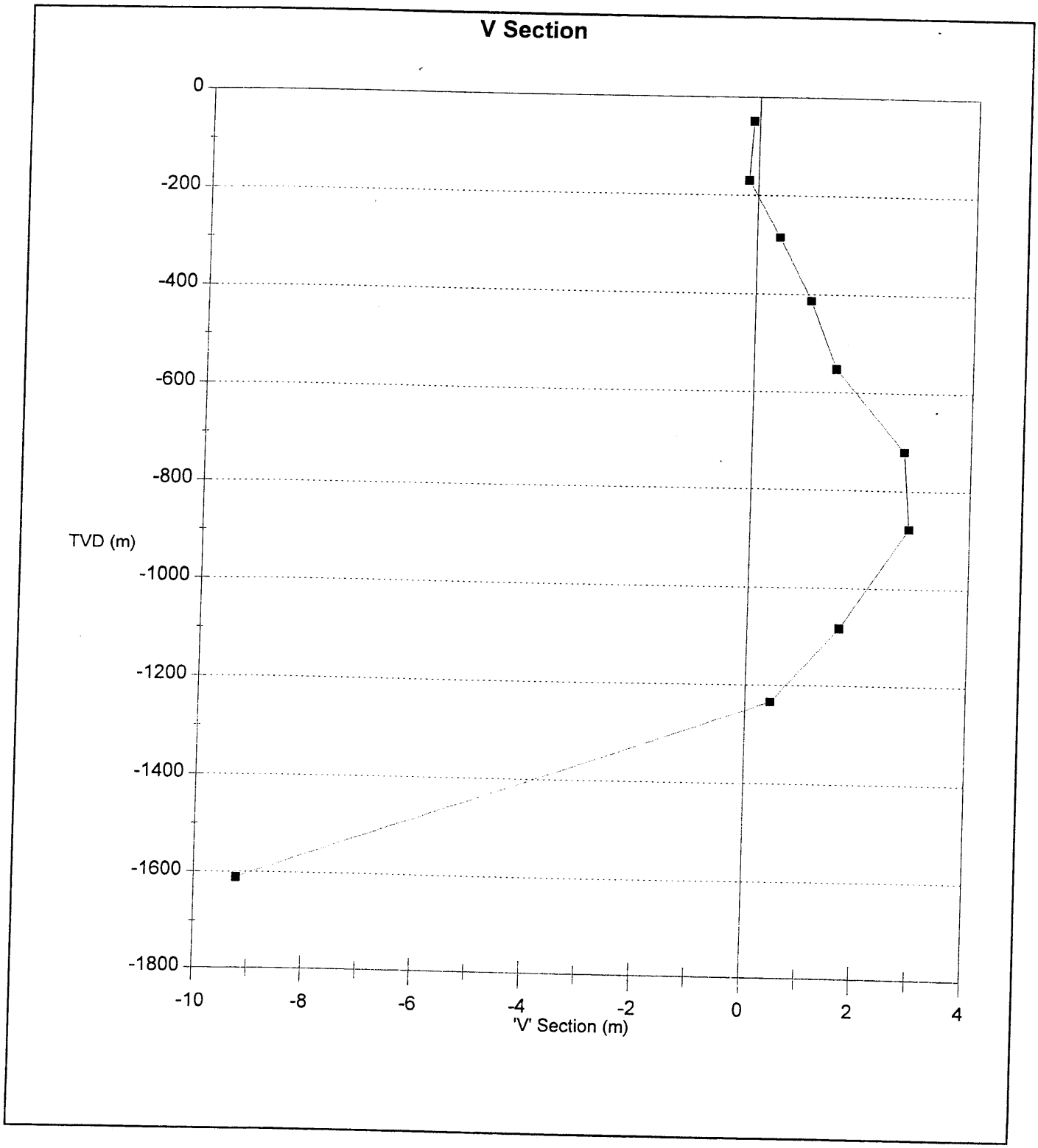
908031 101

LAVERS #1

Drilling Co.: OD&E **Rig:** OD&E #30

RT above GL: 4 m
GL above MSL : 0 m
Lat : 38 deg 28 min 44.75 sec
Long : 142 deg 48 min 12.62 sec
Spud Date: 26/04/2001
Spud Time: 11:00:00
Release Date: 05/05/2001
Release Time: 15:00:00
Magnetic Declination (degs): 12.00
Projection:

DEVIATION SURVEY



APPENDIX XIII: RIG SPECIFICATIONS

Rig Inventory for RIG # 30

DRAWWORKS	:	Ideco Hydrair H-725-D double drum with V-80 Parmac hydromatic brake, Martin Decker satellite automatic drilling control. Max. single line pull - 50,000 lbs. Main drum grooved for 1-1/8" drilling line.
SUBSTRUCTURE	:	One piece substructure 14' high x 13'6" wide x 50' long with 12' BOP clearance. Setback area loading: 250,000 lbs Casing area loading: 275,000 lbs
ENGINES	:	Four (4) Caterpillar Model 3412 PCTA diesel engines.
BRAKE	:	V-80 Parmac hydromatic brake,
MAST	:	Dreco Model #: M12713-510 Floor Mounted Cantilever Mast designed in accordance with API Specification 4E Drilling & Well Servicing Structures. Hook load Gross Nominal Capacity - 510,000 lbs with:- 10 lines strung - 365,000 lbs 8 lines strung - 340,000 lbs Clear working height of 127'. Base width of 13'6". Adjustable racking board with capacity for i) 108 stands of 4.½" drill pipe, ii) 10 stands of 6.½" drill collars, iii) 3 stands of 8" drill collars Designed to withstand an API windload of 84 mph with pipe racked and 100 mph with no pipe racked.
CATHEADS	:	One (1) Foster Model 37 make-up spinning cathead mounted on drillers side. One (1) Foster Model 24 break-out cathead mounted off drillers side.
TRAVELLING BLOCK/HOOK	:	One (1) 667 Crosby McKissick 250 ton combination block hook Web Wilson. 250 ton Hydra hook Unit 5 - 36" sheaves.
WINCHES	:	One (1) Ingersol Rand HU-40 with 5/8" wireline. Capacity 2,000 lb. One (1) ANSI B30.7 with 3/8'wire capacity 4000lbs @ 70 fpm
SWIVEL	:	One (1) Oilwell PC-300 ton swivel
RIG LIGHTING	:	Explosive proof fluorescent. As per approved State Specifications.
KELLY DRIVE	:	One (1) 27 HDP Varco kelly drive bushing.
MUD PUMPS	:	Two (2) Gardner Denver mud pumps Model PZH-8 each driven by 750 HP EMD D-79 motors. 8" stroke with liner size 6" through to 5". 6" liner maximum pressure 2387 psi 5.1/2" liner maximum pressure 2841 psi 5" liner maximum pressure 3437 psi 6" liner maximum volume 412 gpm 5.1/2" liner maximum volume 345 gpm 5" liner maximum volume 280 gpm
MIXING PUMP	:	Two (2) Mission Magnum 5" x 6" x 14" centrifugal pump complete with 50 HP, 600 Volt, 60 Hz, 3 phase explosion proof electric motors.
MUD AGITATORS	:	Five (5) Geolograph/Pioneer 40TD - 15" 'Pitbull' mud agitators with 15 HP, 60 Volt, 60 HZ, 3 phase electric motors.

LINEAR MOTION SHALE SHAKERS	:	Two (2) DFE SCR-01 Linear motion shale shakers.
DEGASSER	:	48" Dia Poor Boy Degasser
DESILTER	:	One (1)DFE - Harrisburg style 12 cone desilter 12 x 5" cones. Approximate output of 960 gpm. Driven by Mission Magnum 5" x 6" x 11" centrifugal pump complete with 50 hp 600 volt 60 Hz 3 phase explosion proof motor.
GENERATORS	:	Four (4) Brown Boveri 600 volt, 600 Kw, 750 kva , 3 phase, 60 HZ AC generators. Powered by four (4) Cat 3412 PCTA diesel engines.
BOP's & ACCUMULATOR	:	One (1) Wagner Model 20-160 3 BND 160 gallon accumulator consisting of: Sixteen (16) 11 gallon bladder type bottles One (1) 20 HP electric driven triplex pump 600 volts, 60 HZ, 3 phase motor and controls. One (1) Wagner Model A 60 auxiliary air pump 4.5 gals/minute.
BOP's & ACCUMULATOR (Cont'd)	:	One (1) Wagner Model UM2SCB5S mounted hydraulic control panel with five (5) 1" stainless steel fitted selector valves and two (2) stripping controls and pressure reducing valves. Three (3) 4" hydraulic readout gauges:- one for annular pressure- one for accumulator pressure one for manifold pressure. One (1) Stewart & Stevenson 5 station remote drillers control with air cable umbilical with three pressure gauges, increase and decrease control for annular pressure. One (1) Shaffer 13.5/8" x 3,000 psi spherical annular BOP, One (1) Shaffer 13.5/8" x 5,000 psi LWS studded, double gate autolock B.O.P.
KELLY COCK (UPPER)	:	Two (2) Upper Kelly Cock 7.3/4"OD with 6.5/8" API connections (1 x M&M, 1 x Hydril).
KELLY COCK (LOWER)	:	Three (3) M&M Lower Kelly Cocks 6.½" OD with 4" IF connections
DRILL PIPE SAFETY VALVE	:	One (1) Hydril 6.½" stabbing valve (4" IF). One (1) Gray inside BOP with 4.3/4" OD and 2.1/4" ID with 3.1/2" IF connections c/w releasing tool and thread protectors.
AIR COMPRESSORS AND RECEIVERS	:	Two (2) LeRoi Dresser Model 660A air compressor packages c/w 10 HP motors rated at 600 Volts, 60 HZ, 3 phase. Receivers each 120 gallon capacity and fitted with relief valves.
POWER TONGS	:	One (1) Farr 13.5/8" - 5.½" hydraulic casing tongs c/w hydraulic power pack and hoses and torque gauge assembly. One (1) Foster hydraulic kelly spinner with 6.5/8" LH connection.
TORQUE WRENCH	:	Yutani c/w drive sockets 1 1/8" through to 2 3/8"
SPOOLS	:	One (1) set double studded adaptor flanges to mate 13.5/8" 5,000 psi. API BOP flange to following wellhead flange 13.5/8" x 3,000 series, 11" x 3,000 series, 11" x 5,000 series 7.1/16" x 3,000 series, 7.1/16" x 5,000 series 4 1/16" 5000 x 3 1/16" 5000 3 1/16" 5000 x 2 1/16" 5000

SPOOLS (Cont'd)	:	1 double studded adaptor flange 4 1/16"5K x 3 1/16"5K 1 double studded adaptor flange 3 1/16" 5K x 2 1/16" 5K 1 only 14" - BOP mud cross (drilling spool) 13.5/8" 5,000 x 13.5/8" 5,000 BX160. with 2 x 3 1/16" 5K outlets. 1 only BOP spacer spool 13 5/8" 3,000 x 13 5/8" 3,000 1 only BOP spacer .spool 11" 3,000 x 13.5/8" 5,000 .
ROTARY TABLE	:	One (1) Oilwell A 20.½" rotary table torque tube driven from drawworks complete with Varco MASTER bushings and Insert Bowls.
MUD TANKS	:	SHAKER Active No 1. 277 BBL Desilter 73 BBL Sand Trap 50 BBL Trip Tank 29 BBL Total 429 BBL SUCTION Active No 2 174 BBL Pre-Mix 146 BBL Pill Tank 63 BBL Total 383 BBL
TRIP TANK	:	Trip Tank 29 BBL One (1) Mission Magnum 2" x 3" centrifugal pump complete with 20 HP, 600 Volts, 60 HZ, 3 phase explosion proof motors
KILL LINE VALVE	:	2 x 3 1/8" Cameron FL 5K gate valves
CHOKE LINE VALVES	:	1 x 4 1/16 Cameron FC 5K hydraulic operated gate valve 1 x 4 1/16 5K manual gate valve
CHOKE MANIFOLD	:	One (1) McEvoy choke and kill manifold 3" 5,000 psi with hydraulic Swaco "super" choke.
DRILL PIPE	:	240 joints (2270 m) - 3.½" 13.30lb/ft drill pipe Grade 'G' 105 with 3 1/2" IF conn
PUP JOINTS	:	One (1) - 10'(3.65 m)3.½" OD Grade 'G' with 3.½" IF conn
HEVI-WATE DRILL PIPE	:	6 joints of 3.½" H.W.D.P. with 3.½" IF conn
DRILL COLLARS	:	12 x 6.½" OD drill collars (113 m) with 4" IF conn 24 x 4 ¾" O.D. drill collars (227 m) with 3.½"IF conn 1 x 4.3/4" OD Pony Drill Collar
KELLIES	:	Two (2) Square Kelly drive 4.¼" x 40' complete with Scabbard and 55 ft x 3 ½" kelly hose
FISHING TOOLS	:	One (1) only 8.1/8" Bowen series 150 FS overshot One (1) 5.3/4" SH Bowen 150 Overshot c/w grapples and packoffs to fish contractors downhole equipment. One (1) only Reverse circulating junk basket 4" IF box One (1) only 6.½" OD Griffith Fishing Jars One (1) only 4 ¾" O.D. Bowen Type "Z" Fishing Jar One (1) only Bumper Sub 6.½" OD 4" IF pin & box. One (1) 5" R.C.J.B. One (1) 5" Junk Sub with 4.3/4" OD x 1.1/2" ID.
WIRELINE SURVEY UNIT	:	Gearmatic hydraulic drive Model 5 c/w .092" line

SUBSTITUTES	:	Two (2)Bit Sub - 7.5/8" reg x 6.5/8" reg double box. Two (2) Bit Subs - 6.5/8" reg double box. Two (2) Bit Sub - 6.5/8" reg box. x 4½" IF box Two (2) Bit Subs - 4.½" reg x 4" IF double box. Two (2) 4.3/4" bit subs (36" long) with 3.1/2" IF box x 3.1/2" reg box bored for float. One (1) Float Sub 6.5/8" reg box (FC) x 6.5/8" reg pin Two (2) XO Sub - 4" IF box x 4.½" IF pin. Two (2) XO Sub - 4½" IF box x 4." IF pin. One (1) XO Sub - 4.½" reg x 4" IF double pin. Two (2) XO Sub - 6.5/8" reg pin x 4" IF box. One (1) Junk Sub - 6.5/8" reg pin x 6.5/8" reg box One (1) Junk Sub - 4.½" reg box x 4.½" reg pin. One (1) XO Sub - 4.½" IF box x 4" IF box. Two (2) Kelly Saver Subs c/w rubber 4" IF pin & box. Two (2) Kelly Saver Subs 4" IF pin & box One (1) Kelly Saver Subs 4½" IF pin & box. Two (2)4 IF box x 3.1/2" IF pin Saver Subs. One (1) Circulating Subs - 4" IF x 2" 1502 hammer union. One (1) Circulating Subs - 4" IF x 2" 602 hammer union. Eleven (11) Lifting Subs - 18□ Taper 4.½" pick up neck and 4" IF pin. Eight (8) Lift Subs with 3.1/2" OD D.P. neck and 3.1/2" IF pin connections.
HANDLING TOOLS	:	2 only 4.½" BJ 250 ton 18 degree taper D/P elevators. 1 only 3.½" BJ 200 ton 18 degree taper D/P elevators. 1 only 3.1/2" BJ type MGG 18° centre latch Elevators. 1 only 4.½" Varco SDXL D/P slips. 1 only 4.½" Varco SDML D/P slips 2 only 8" - 6.½" DCS-R drill collar slips. 1 only 3.1/2" Varco SDML Slips 1 only 4.3/4" Varco DCS-S Drill Collar Slips
CASING RUNNING TOOLS	:	1 only 13.3/8" Webb Wilson 150 ton side door elevator. 1 only 13.3/8" single joint P.U. elevators. 1 only 9.5/8" Webb Wilson 150 ton side door elevators. 1 only 9.5/8 single joint P.U. elevator. 1 only 7" BJ 150 ton side door elevators. 1 only 7" single joint P.U. elevators. 1 only 5.½" BJ 200 ton S11 1 only 2.7/8" BJ 100 ton tubing elevator. 1 only 2.3/8" BJ 100 ton tubing elevator. (all P.U. elevators c/w slings & swivel) 1 only 13.3/8" Varco CMS-XL casing slips 1 only 9.5/8" Varco CMS-XL casing slips. 1 only 7" Varco CMS-XL casing slips. 1 only 3.1/2" Varco SDML tubing slips.
CASING / TUBING DRIFTS	:	9 5/8, 7", 5 ½",3 ½"
THREAD PROTECTORS	:	9 5/8, 7".
KELLY SPINNER	:	One (1) Foster hydraulic kelly spinner with 6.5/8" LH connection.
PIPE SPINNER	:	One (1) International 850H hydraulic pipe spinner
WELDING EQUIPMENT	:	1 - Miller 400 amp welding machine. 1 - oxy acetylene set.
DOGHOUSE	:	1 Doghouse 5m x 2.4m x 2.3m
GENERATOR HOUSE	:	Ross Hill SCR

UTILITY HOUSE	:	1 Utility and Mechanics House
CATWALKS	:	2 catwalks total 18.6m long x 1.6m wide x1.08m high
PIPE RACKS	:	8 - 9m tumble racks.
DAY FUEL TANK	:	1 only 19,000 ltrs
WATER/FUEL TANK	:	WATER 1 only 320 bbls. 1 only brake cooling tank 80 bbl FUEL 1 only 27,500 litres
OIL STORAGE	:	drums
DRILLING RATE RECORDER	:	1 only 6 pen Pioneer Geolograph drill sentry recorder to record: weight (D) penetration (feet) pump pressure (0-6,000 psi) electric rotary torque rotary speed (rpm) pump spm (with selector switch)
DEVIATION RECORDER	:	1 set Totco 'Double Shot' deviation instrument 0□-8□.
INSTRUMENTS & INDICATORS	:	1 only Martin Decker Sealtite. 1 only Martin Decker Deadline type. 1 only drillers console including the following equipment. Martin Decker Weight Indicator type'D' Electric rotary torque gauge. MD Totco Mud Watch Instrumentation c/w display and alarms. Rotary rpm gauge
MUD TESTING	:	1 set Baroid mud testing laboratory (standard kit
RATHOLE DRILLER	:	One (1) fabricated rotary table chain driven.
MUD SAVER	:	Okeh unit
CELLAR PUMP	:	Cellar jet from No 1 pump
WATER PUMP	:	Three (3) Mission Magnum 2" x 3" centrifugal pumps c/w 20 HP, 600 Volts, 60 HZ, 3 phase explosion proof motors
FIRE EXTINGUISHERS	:	Dry Chemical Rig 22 Camp 20 CO2 Rig 3 Camp 0 Foam Rig 1 Camp 1
PIPE BINS	:	5 units
CUP TESTER	:	Two (2) Grey Cup Tester c/w test cups for 9.5/8" & 13.3/8".
DRILLING LINE	:	5,000' 1.1/8" - E.I.P.S

TRANSPORT EQUIPMENT AND MOTOR VEHICLES

One (1) International 530 Forklift
One (1) Tray Top Utility
One (1) Crew Bus

CAMP EQUIPMENT

Four (4) x 8-Man Bunkhouses (12 man emergency)
One (1) x Recreation/Canteen unit
One (1) x Ablution/Laundry/Freezer unit
One (1) x Kitchen/Cooler/Diner unit
One (1) x Toolpushers unit
One (1) x Meeting / Smoko unit
One (1) x Combined Water/Fuel Tank unit
Two (2) x CAT 3304PC generator sets each 106 kVa, 86 KW, 50 HZ.

NOTE: At Contractor's discretion any of the foregoing items may be replaced by equipment of equivalent or greater capacity.

ENCLOSURE I: 1 : 200 COMPOSITE LOG

PE605260

This is an enclosure indicator page.
The enclosure PE605260 is enclosed within the container PE908031 at this location in this document.

The enclosure PE605260 has the following characteristics:

ITEM_BARCODE	PE605260
CONTAINER_BARCODE	PE908031
NAME	Encl.1 Lavers-1 Composite Well Log
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	WELL
DATA_SUB_TYPE	COMPOSITE_LOG
DESCRIPTION	Encl.1 Lavers-1 Composite Well Log, Scale 1:200, W1317, PEP154. Enclosure 1 contained within "Lavers-1 Well Completion Report" [PE908031]
REMARKS	
DATE_WRITTEN	
DATE_PROCESSED	
DATE_RECEIVED	09-NOV-2001
RECEIVED_FROM	Santos Ltd
WELL_NAME	Lavers-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	Santos Ltd
TOP_DEPTH	0
BOTTOM_DEPTH	1608
ROW_CREATED_BY	DN07_SW

(Inserted by DNRE - Vic Govt Mines Dept)

ENCLOSURE II: 1 : 500 MUDLOG

PE605261

This is an enclosure indicator page.
The enclosure PE605261 is enclosed within the container PE908031 at this location in this document.

The enclosure PE605261 has the following characteristics:

ITEM_BARCODE	PE605261
CONTAINER_BARCODE	PE908031
NAME	Encl.2 Lavers-1 Mud Log
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	WELL
DATA_SUB_TYPE	MUD_LOG
DESCRIPTION	Encl.2 Lavers-1 Mud Log, Scale 1:500, W1317, PEP154. Enclosure 2 contained within "Lavers-1 Well Completion Report" [PE908031].
REMARKS	
DATE_WRITTEN	
DATE_PROCESSED	
DATE_RECEIVED	09-NOV-2001
RECEIVED_FROM	Santos Ltd
WELL_NAME	Lavers-1
CONTRACTOR	Santos Ltd
AUTHOR	
ORIGINATOR	Santos Ltd
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	DN07_SW

(Inserted by DNRE - Vic Govt Mines Dept)

ENCLOSURE III: STRUCTURE MAPS

PE908032

This is an enclosure indicator page.
The enclosure PE908032 is enclosed within the container PE908031 at this location in this document.

The enclosure PE908032 has the following characteristics:

ITEM_BARCODE	PE908032
CONTAINER_BARCODE	PE908031
NAME	Encl.3 Lavers-1 Field Structure Map
BASIN	OTWAY
ONSHORE?	Y
DATA_TYPE	SEISMIC
DATA_SUB_TYPE	STRUCTURE_MAP
DESCRIPTION	Encl.3 Lavers-1 Field Top Waarre Sand Depth Structure Map, [Pre-drilling] Scale 1:20000, C.I. 5m, W1317, PEP154. Enclosure 3 contained within "Lavers-1 Well Completion Report" [PE908031].
REMARKS	
DATE_WRITTEN	27-JUL-2001
DATE_PROCESSED	
DATE_RECEIVED	09-NOV-2001
RECEIVED_FROM	Santos Ltd
WELL_NAME	Lavers-1
CONTRACTOR	
AUTHOR	
ORIGINATOR	Santos Ltd
TOP_DEPTH	
BOTTOM_DEPTH	
ROW_CREATED_BY	DN07_SW

(Inserted by DNRE - Vic Govt Mines Dept)

ENCLOSURE IV: WELL EVALUATION PLOT

PE605262

This is an enclosure indicator page.
The enclosure PE605262 is enclosed within the container PE908031 at this location in this document.

The enclosure PE605262 has the following characteristics:

ITEM_BARCODE	= PE605262
CONTAINER_BARCODE	= PE908031
NAME	= Encl.4 Lavers-1 Well Evaluation Plot
BASIN	= OTWAY
ONSHORE?	= Y
DATA_TYPE	= WELL
DATA_SUB_TYPE	= WELL_LOG
DESCRIPTION	= Encl.4 Lavers-1 Well Evaluation Plot, Scale 1:200, W1317, PEP154. Enclosure 4 contained within "Lavers-1 Well Completion Report" [PE908031].
REMARKS	=
DATE_WRITTEN	= 31-JUL-2001
DATE_PROCESSED	=
DATE_RECEIVED	= 09-NOV-2001
RECEIVED_FROM	= Santos Ltd
WELL_NAME	= Lavers-1
CONTRACTOR	=
AUTHOR	=
ORIGINATOR	= Santos Ltd
TOP_DEPTH	=
BOTTOM_DEPTH	=
ROW_CREATED_BY	= DN07_SW

(Inserted by DNRE - Vic Govt Mines Dept)