



GLENAIRE-1/ST1

BASIC DATA REPORT

**VIC/PEP160
Victoria**

**Beach Petroleum Limited
A.B.N. 20227 617 969
Level 1, 25 Conyngham Street,
Glenside S.A. 5065
GPO Box 175
ADELAIDE S.A. 5001**

May 2007

TABLE OF CONTENTS

WELL DATA CARD	i
1. INTRODUCTION	1
2. WELL HISTORY	2
2.1 General Data	2
2.1.1 Well Name and Number	2
2.1.2 Location	2
2.1.3 Elevations	2
2.1.4 Petroleum Tenement	2
2.1.5 Name of Operator	2
2.1.6 Other Participants	2
2.1.7 Date Drilling Commenced	2
2.1.8 Date Drilling Completed	2
2.1.9 Date Rig Released	2
2.1.10 Total Depth	2
2.1.11 Status:	2
2.2 Rig Data	3
2.2.1 Drilling Contractor	3
2.2.2 Rig	3
2.2.3 Draw Works	3
2.2.4 Mast	3
2.2.5 Engines	3
2.2.6 Brake	3
2.2.7 Substructure	3
2.2.8 Rotary Table	3
2.2.9 Swivel	3
2.2.10 Kelly Drive	4
2.2.11 Kelly Spinner	4
2.2.12 Travelling Block/Hook	4
2.2.13 Mud Pumps	4
2.2.14 Mixing Pumps	4
2.2.15 Mud Tanks	4
2.2.16 Shale Shakers	5
2.2.17 Centrifuge	5
2.2.18 Degasser	5
2.2.19 BOPs	5
2.2.20 Accumulator	5
2.2.21 Pressure Control Equip.	5
2.2.22 Generators	5
2.2.23 Drill Pipe/Collars	5

2.3	Drilling and Completion Data	6
2.3.1	Drilling Data Summary	6
2.3.2	Hole Sizes and Depths	21
2.3.3	Casing and Cementing	21
2.3.4	Deviation Surveys (Magnetic Single Shot and MWD)	21
2.3.5	Drilling Fluid, Physical Mud Properties, Chemicals Used	21
2.3.6	Bit Record	22
2.3.7	Water Supply	22
2.4	Logging and Testing	22
2.4.1	Well-site Geologist	22
2.4.2	Mud-logging	22
2.4.3	Ditch Cutting Samples	22
2.4.4	Coring	22
2.4.5	Sidewall Cores	22
2.4.6	Testing	22
2.4.7	Wireline Logs	23
2.4.8	Temperature Surveys	23
2.4.9	Velocity Survey	23
4	CONCLUSIONS	25

FIGURES, TABLES & APPENDICES

LIST OF FIGURES

Figure 1: Glenaire-1 Location Map	ii
Figure 3: Drilling Time/Depth Curve Glenaire 1	19
Figure 4: Drilling Time/Depth Curve Glenaire 1/ST1	20
Figure 8: Down-hole Diagram for Glenaire-1	24

LIST OF APPENDICES

Appendix 1	Daily Drilling Reports
Appendix 2	Daily Geological Reports
Appendix 3	Bit Record
Appendix 4	Drilling Fluid Summary
Appendix 5	Casing and Cementing Reports
Appendix 6	Deviation Survey
Appendix 7	Pressure Reports (Geoservices)
Appendix 8	Well Location Survey
Appendix 9	Mud Map of Well Location
Appendix 10	Cuttings Descriptions

LIST OF ENCLOSURES

SCALE

Enclosure 1	Geoservices Mud Log	1:200
-------------	---------------------	-------

WELL DATA CARD**GLENAIRE-1 /ST1****PAGE 1 of 1**

Location:	Line: OMN93-02R	Permit: PEP 160
	SP: 248	Participants: Beach Petroleum Ltd (Op) 50%
	Offset: 16m SE	Santos Ltd 30%
		Origin Energy Resources Ltd 20%
	Latitude: 37 34' 47.03220"S	Status: Cased & completed for further testing (with gas & oil shows)
	Longitude: 140° 59' 52.25415"E	Type Structure: Fault dependant 3-way dip closure
	Easting: 499 810.02 E	Rig: Ensign 32
	Northing: 5 840 813.01 N	Total Depth: Driller: 3701.0m
	Projection MGA Zone 54	Logger: 3702.5m
	Spheroid GRS 80 Ellipsoid	Plugs: Kick-off plug in Glenaire-1 3028-3128m
	Datum GDA 94	Hole Sizes: 445mm (17 1/2") 307.0m
Elevation:	GL: 71.25m	311mm (12 1/4") 1255.0m
	RT: 77.4m ASL	216mm (8 1/2") 3002.0m
		152mm (6") 3701.0m
<u>Glenaire-1</u>		Casing: Size Shoe
Date Spudded: 08/09/2006 08:00 hours		(a) Conductor 508mm (20") 10.0m
Reached TD: 02/10/2006 06:30 hours		(b) Surface 340mm (13 3/8") 304.0m
		(c) Intermediate 244mm (9 5/8") 1252.0m
<u>Glenaire-1 /ST1</u>		(d) Production 178mm (7") 2998.0m
Start Operation: 04/10/2006 06:00 hours		(e) Production 114mm (4 1/2") 3701.0m
Reached TD: 27/10/2006 11:30 hours		(f) Production 73mm (2 7/8") 2876.7m tubing
Rig Release: 04/11/2006 15:00 hours		

WIRELINE LOGS (Schlumberger)

Type Log	Run	Interval (m)	Max Temp Recorded
Glenaire-1			
HALS-PEX-BHC-GR (Res-Sonic-GR)	1	2999.8 – 1252m (GR recorded to surface)	104 deg C (7.50 hrs after circ. stopped)
Glenaire-1/ ST1			
FMS-GR	1	3702.0 – 2996.0m	130 deg C
DLT-BHC-PEX-GR	2	3702.5 – 2997.0m	133 deg C

DRILL STEM TESTS

No	Formation / Interval (metres)	Periods (mins)	EMP IP/FP (psi)	EMP FSIP (psi)	Fluid to surface (mins)	Surface Press (max) (psi)	Result
	NIL						

Wellsite Geologist:	Dave Horner	Card Prepared by:	Andrew Hodgson	Date:	April 07
----------------------------	--------------------	--------------------------	-----------------------	--------------	-----------------

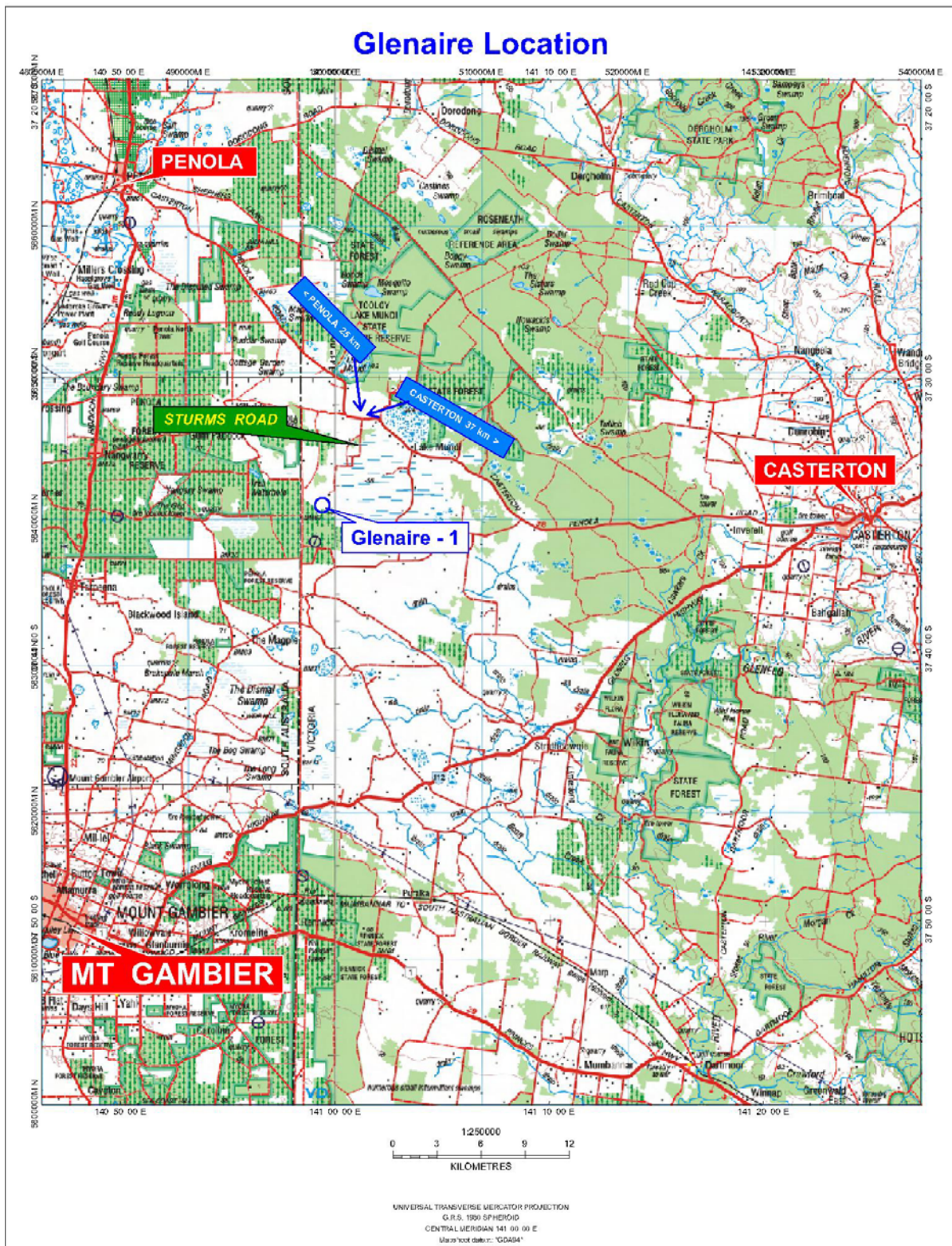


Figure 1: Glenaire-1 Location Map

1. INTRODUCTION

Glenaire-1/ST1 was a wildcat well designed to test a fault dependant 3-way dip structure in the onshore Otway Basin, within the eastern Penola Trough in Victoria, about 33 km north east of Mount Gambier (Figure 1) and approximately 24 km southeast of the Katnook Gas Field.

The Glenaire structure was interpreted to be primarily prospective for gas in the sands of the Early Cretaceous Pretty Hill Formation, with secondary potential within the Barremian Katnook / Windermere Sandstone. These reservoirs are proven productive in the South Australia portion of the basin, with the Katnook Graben hosting five gas fields (Katnook, Redman, Ladbroke Grove, Haselgrove and Haselgrove South) with recoverable reserves of approximately 100 bcf.

Glenaire is located in a similar structural and geological setting to the S.A. gas fields. The early rift sediments of the Casterton Formation and shales in the basal Pretty Hill Formation were expected to be the source of hydrocarbons. These units are interpreted, from modelling, to be the source of the hydrocarbons in the Katnook Graben gas fields.

The nearest offset wells to Glenaire-1/ST1 are Heathfield-1, 17 km to the south east, Haselgrove South-1, 19 km to the northwest, Bus Swamp-1, 19 km to the east northeast and the Ladbroke Grove and Katnook gas fields, 23 and 24 km to the northwest, respectively.

All depths reported in this report are measured depth relative to the rotary table (MDRT) unless otherwise stated.

2 WELL HISTORY

2.1 General Data

2.1.1	Well Name and Number	:	Glenaire-1/ST1	
2.1.2	Location	:	Latitude	37° 34' 47.03220"S
			Longitude	140° 59' 52.25415"E
			Easting	449 810.02 E
			Northing	5 840 813.01 N
			Projection	MGA Zone 54
			Spheroid	GRS 80 Ellipsoid
			Datum	GDA 94
			Survey	OMN93
			Line	02R
			SP	248, 16m SE Offset
2.1.3	Elevations	:	G.L.	71.25m
			R.T.	77.4m
2.1.4	Petroleum Tenement	:	Victoria PEP 160	
2.1.5	Name of Operator	:	Beach Petroleum Ltd	(50.0%)
			Level 1, 25 Conyngham St	
			Glenside SA 5065	
2.1.6	Other Participants	:	SANTOS Ltd	(30.0%)
			60 Flinders Street	
			Adelaide	
			South Australia 5000	
			Origin Energy Resources Ltd	(20.0%)
			John Oxley Centre	
			339 Coronation Drive	
			Milton QLD 4064	
2.1.7	Date Drilling Commenced	:	08:00 hours	8 th September, 2006
2.1.8	Date Drilling Completed	:	11:30 hours	27 th October, 2006
2.1.9	Date Rig Released	:	15:00 hours	4 th November, 2006
2.1.10	Total Depth	:	Driller	3701.0m MD
			Logger	3702.5m MD
2.1.11	Status:	:	Cased and completed for further testing (with gas and oil shows)	

2.2 Rig Data

- 2.2.1 Drilling Contractor : Ensign International Energy Services
15-17 Westport Road, Elizabeth West SA 5113.
- 2.2.2 Rig : Ensign Rig #32
- 2.2.3 Draw Works : National 610E. Horsepower rating 750/1000 input.
Traction motor: General Electric Model 5GE752AR1
DC type electric motor with 5hp Blower motor.
National Type B-2 Catheads makeup and breakout.
Hoisting Speed - 4
Rotary Speed - 2
- 2.2.4 Mast : Dreco Cantilever Type 133'
133 feet clear height - 21 feet wide base mast.
Static hook load capacity of 500,000 lbs with 10 lines.
Static hook load capacity of 467,000 lbs with 8 lines.

Max Hoist Load Limit 351,433 lbs w/ 1 1/8" Drill Line
with 10 lines- Safety Factor of 3 (Drilling)

Max Hoist Load Limit 500,000 lbs w/1 1/8" Drill Line
with 10 lines- Safety Factor of 2(Run casing/stuck pipe)
- 2.2.5 Engines : 3 – Caterpillar Model 3508 Diesel engines with rig
savers, each engine rated at 1100 HP.

3 - 600v Caterpillar generator sets 1137kVa, 60hz
synchronous alternators.

Ross Hill Controls - control centre 600V 3 phase, 60 hz,
3 generators + 4 SCR bays, metering panels for 1137
kVa generators @ 1800 RPM. 600V motor control
centre with starters.

Remote "Emergency Shut Down" facility at Rig
Managers office.
- 2.2.6 Brake : Baylor Elmagco 5032 brake c/w battery back up and
cooling tower
- 2.2.7 Substructure : Dreco four section box style.
Max pipe set back capacity - 300,000 lbs
Max rotary table capacity - 400,000 lbs
Simultaneous Capacity: - 700,000 lbs
Overall size - 29' w x 45' l x 18' h
Kelly Bushing to ground level - 20'
Top of matting to under Rotary Table beams - 13'10"
- 2.2.8 Rotary Table : National Model C-205 - 20½" rotary table with direct
prop_shaft drive.
Clutch 27" E475
Torque Rating @ 150 rpm - 20,000 ft/lbs
- 2.2.9 Swivel : National Model P300 swivel, complete with Varco

- 6800 hydraulic bi-rotational kelly spinner.
Capacity - 300 tons.
- 2.2.10 Kelly Drive : Varco type HDP-20 pin drive roller kelly bushing for 4.¼" hex kelly c/w safety guard.
- 2.2.11 Kelly Spinner : Hydraulic Spinner Varco 6800, driven by 2 x Commercial hydraulic power systems driven by 60 Hp electric motor (mounted in substructure).
- 1 - 4¼" hex x 40' long with 3 ½" IF Pin connection down.
- 2.2.12 Travelling Block/Hook : National type 540-G-250 hook block combination with 5 - 40" diameter sheaves. Capacity - 250 ton.
- 2.2.13 Mud Pumps : 3 - National type 8P-80, 6" x 8.1/2" Triplex single acting pumps 800 H.P. complete with Hydril pulsation dampener K20-5000 and Demco 3" shear relief valve. Powered by G.E. 752 DC traction motors. Each pump is charged by mission magnum 6" x 5" x 12". Pre-charge pump belt driven by 50 H.P. electric motor.
- 2.2.14 Mixing Pumps : Pumps Two Halco 6 x 8 x 100HP Mixing Pumps c/w mechanical seals
Mixing Hoppers - Two Halco 6" Venturi Type Mixing Hoppers
- 2.2.15 Mud Tanks : Shaker Tank
Total Volume 420 BBL
Overall Tank Dimension 14.0 m x 2.9 m x 2.55m
Trip Tank 50 BBL
Sand Trap 50 BBL
Desilter Tank 90 BBL
Degasser Tank 30 BBL
Pumps - One 5 x 6 Desilter Pump
One 5 x 6 Degasser Pump
One 2 x 3 Trip Tank Pump
Agitators - One 10 HP Agitator with 36" pitched blade impeller (Settling tank)
Suction Tank
Total Volume - 385 BBL Overall Tank Dimension 14.0 m x 2.9 m x 2.55m
Suction Tank 155 BBL
Premix Tank 155 BBL
Slug Tank 75 BBL
Pumps - Two Halco 6 x 8 x 100HP Mixing Pumps c/w mechanical seals
Agitators - Two 10 HP Agitators Premix and suction with 36" impellers.
One 5 HP Slug Tank 32 " impeller
Mixing Hoppers - Two Halco 6" Venturi Type Mixing Hoppers
- General Tank Features
Recessed Dump Valves - Redundancy manifolding
Wind up Handle Joe Stein suction Valves

		<p>Suction Swivel joint Equalisers - Rubber Components Nitrile Sloping Floors Triple Runner Skids - Mud Pump Suction 10" Shearing Nozzle Greenwood Tank - Valve Gates on Mud Ditch, four access Points</p>
2.2.16	Shale Shakers	: Shale Shakers – 2 Derrick Flo-Line Cleaners 514 Series
2.2.17	Centrifuge	: 1 Derrick DE-1000 VFO.
2.2.18	Degasser	: Vacuum Degasser - DFE Design
2.2.19	BOPs	: <p>1 x 13 5/8" x 5000psi Shaffer Bolted Cover Spherical Preventer, Studded top & Flanged bottom 1x 13 5/8" x 5000psi Shaffer SL Double Gate, Studded Preventer Manual Lock c/w 9 5/8", 7", 4 1/2", 3 1/2" & CSO rams. 1 x Stripping Bottle- connected to Spherical closing line.</p>
2.2.20	Accumulator	: <p>Wagner Model 25-120-3BN accumulator 140 gallon capacity, 5 station control valves. Nitrogen bottle backup system. Triplex pump with 25 Hp electric motor. Remote drillers control panel.</p>
2.2.21	Pressure Control Equip.	: <p>Cooper Cameron 3.1/8" FL gate valve x 5000 psi Choke Manifold c/w 1 x 5000psi Swaco Hydraulic actuated choke 1 x Cameron manually adjustable choke 200 ft. flare line, 3.1/2" tubing.</p> <p>Kill Line 2 x 3 1/8" Cameron FL manual gate valves. 5000 psi 1 x 2 1/16" Cameron Type R Check Valve 5000 psi</p> <p>Choke Line 1 x 3 1/8" Cameron FL manual gate valve 5000 psi 1 x 3 1/8" EEC hydraulic "HCR" gate valve 5000psi</p>
2.2.22	Generators	: <p>3 – Caterpillar Model 3508 Diesel engines with rig savers, each engine rated at 1100 HP. 3 - 600v Caterpillar generator sets 1137kVa, 60hz synchronous alternators. Ross Hill Controls - control centre 600V 3 phase, 60 hz, 3 generators + 4 SCR bays, metering panels for 1137 kVa generators @ 1800 RPM. 600V motor control centre with starters.</p>
2.2.23	Drill Pipe/Collars	: <p>Drillpipe 10,000ft, 3-1/2" O.D. grade "G", 15.5 lb/ft drill pipe c/w 3.1/2" IF connections. 5" OD x 2 9/16" OD Tool Joints</p>

Hevi-Weight Drillpipe
Six (6) 3.1/2" O.D. HWDP with 3.1/2" I.F. connections.

Drill Collars
Twenty Five (25) 6.1/2" OD Spiral drill collars. 4"IF conn
Thirty Five (35) 4.3/4" OD Spiral collars. 3 1/2"IF conn
One (1) 4.3/4" OD Monel non magnetic drill collar. 3 1/2"IF conn

2.3 Drilling and Completion Data

2.3.1 Drilling Data Summary

The following is the daily operations summary for Glenaire-1/ST1. It has been compiled from the tour sheets and daily drilling reports (Appendix 1). Brian Marriott, Barry Beetson and Ray Ell provided onsite drilling supervision for Beach Petroleum Ltd. A final time-depth curve is provided in Figures 3 and 4. The drilling bit record is included in Appendix 3. The depths in the following summary are those reached at 2400 hours on each day with the operations given for the previous 24 hour period.

Date	Depth metres	Operation
08.09.06	209.0m	<p>Make up #3 stands D.P., rack in Mast. Repair broken Geograph line & re-run same.</p> <p>Make up 12-1/4" bit, float sub, to stand D.P. Drill mouse hole, POOH, run mouse hole sock, break off bit &flt. Sub Pick up 17-1/2" bit & BHA, RIH, tag bottom @ 16 metres. Pre- Spud check, Hazard Hunt, sound alarm, muster drill, safety meeting, spud well @ 08:00hrs on 8th Sept.2006. Drill 17-1/2" surface hole f/ 16m > 48metres (Dylwyn came in @ 28 met. + -) Circ. & Totco survey @ 47 met., = 1/2 deg. Drill f/ 48 met. > 180 met., Sweep LCM pills as required (spot LCM pills on bottom while making connections) Circ. w/ reduced pump while building mud volume. Spot LCM pill on bottom, run MSS survey @ 131 met. = 1 deg., N25E, AZI = 32. Drill f/ 180met. > 209 met.</p>
09.09.06	307.0m	<p>Drill f/ 209 met > 307 met., pump LCM sweeps, excessive sand over shakers & losses. Sweep Hi Vis & Circ. Bottoms up x 2, spot 30bbls Hi Vis / LCM on bottom. Run MSS survey @ 259 met. = 1 deg., S80W, AZI = 267. Wiper trip to bit, hole good, hole took additional 16bbls mud for trip, lay out 17-1/2" stab, RIH, no fill. Circ. bottoms up, shakers clean POOH, lay out bit. Clear rig floor. Rig to run 13-3/8" casing. Safety meeting. Run 27 jnt's x 13-3/8" x 54.5lb/ft x K-55 x BTC casing,set shoe @ 304met.(#2 jnt's w/ thread damage, dress same).</p> <p>Circ. bottoms up & shakers clean, hold safety meeting, rig up Hallibuton equip., raise permit, pump 60bbls preflush water ahead. Head up Halliburton, load plugs, pump 10bbls water, pressure test lines to 4000psi, ok, release bottom plug, pump 10bbls water. Mix & pump 148bbls (388sx) Lead cmt. @ 12.5ppg</p>

10.09.06	307.0m	<p>Followed by 79bbbls (380sx) tail, release top plug, displace w/ 150bbbls water, bump plug w/ 650psi, press.to 1300psi f/10 min.,good test. "Wait On Cement", no cmt. to surface (flush riser, rig down flow line, cut & lift riser,welder cut & split conductor.) (fluid level down 5m) Dig out cement floor in cellar, for welder to cut conductor below 13-3/8" csg. collar for installation of Braden Head. Back out landing jnt Lay out riser, attempt to install Braden Head, thread galled on pin end up. Re-dress same, install B.H., chain tong up same. Run plumb bob thru rotary table, centre B.H. Welder install centralised "support" brackets on 20" conductor, rig up & torque up B.Hd. Make up 15m.x 1" stinger, run between 20" conductor & 13-3/8" csg, Haliburton perform cmt. top up job, 30bbbls @ 13.0ppg. Rig down. Nipple up spacer spool. Skid over 13-5/8" BOP, land & nipple up same & choke manifold. Close blind rams, pressure test csg. / Braden Head / spools & BOP to 1300psi for 10mins, surface equip. 200psi low > 5000psi high. BOP accumulator test. Install Bell nipple & flow line, clear rig floor.</p>
11.09.06	310.0m	<p>Complete cleaning drill pipe on racks, tally same. Hold PJSM & review JSA, pick up stands of drill pipe for next 12-1/4" section of hole & rack in mast. Rig Service. Make up 12-1/4" BHA, RIH, break circ. w/ water, tag float @ 291m (no cement above float collar). Sound alarm. Shut in well, drill crew to rig floor for a "Drill", circ. thru choke w/ 30spm @ 150psi, via choke manifold to poor boy. Drill on float collar with water via short system. Tesco top drive failed due to low voltage turbo shut downs & shut downs for hot oil shuttle valve. Re-set turbo's & re-adjust oil shuttle valve. Cont. drill, shoe track, shoe & rat hole to 307m. Drill 12-1/4" hole f/ 307m to 310m w/ new KCL / PHPA mud. Circ. & condition 8.7ppg mud in & out. Perform F.I.T. @ 13-3/8" shoe, depth = 304m (997ft) = 170psi > mud wt. = 8.8ppg > EMW = 12ppg.</p>
12.09.06	883.0m	<p>Take SCR's. Drill 12-1/4" hole f/ 310m to 450m (slight seepage losses @ 380m, 10bbbls/hr, add LCM, ok). Circ. & survey @ 400m, 1-1/4 deg., N21W, AZI = 346. Drill f/ 450m to 495m.</p> <p>TDS failed. Lost high / low RPM. Fault find, 20amp fuse blown in 24volt drillers panel, replace fuse (Work pipe during repairs). Drill f/ 495m to 594m, ream each stand twice due to last survey. Circ. & survey @ 544m, 3/4 deg., N20E, AZI = 27. TDS failed, fault find same. ESM vaults low, unable to start engine, change fuses, all ok (Work pipe during repairs). Drill f/ 594m to 739m. Circ. & survey @ 690met., 1/2 deg., S60W, AZI = 247. Drill f/ 739m to 883m. Sweep hi vis & circ. bottoms up. Survey @ 834m, 1/4 deg., N60W, AZI = 307. Pump slug, flow check. Wiper trip, tight hole f/ 854m to 835m, max over pull = 25k, re-wipe section.</p>
13.09.06	1248.0m	<p>Wiper trip back to 13-3/8" shoe @ 304m, hole good. Rig service. Slip drilling line. RIH f/ shoe to 854m. Break circ., wash & ream f/854m to 883m (1m. fill). Drill 12-1/4" hole f/ 883m to 1028m. Circ. & survey @ 978m, 1 deg., N60E, AZI = 67. Drill f/ 1028m to 1143m. Circ. & survey @ 1094m, 1-3/4 deg., N18E, AZI = 25. Drill f/ 1143m to 1248m, T.D. 9-5/8" csg. depth (Note; f/ 1150 met., ROP dropped f/ 28mph down to 4mph > 13mph)</p>

- 14.09.06 1255.0m Drill 12-1/4" hole f/ 1248m to 1255m. Pump sweep, circ. hole clean, (sample up = 80% silt > 20% sand for casing seat). Survey @ 1200m, 1-1/2 deg., N25E, AZI = 32. Wiper trip back to 864m, intermittent tight hole, max 35k over pull, wipe stand thru. each section, ok. RIH, to 1220m, hole good, hung up @ 1221m. Wash & ream f/ 1221m to 1225m, 1/2 m fill. Pump sweep, circ. hole clean. Pump slug, POOH, lay out 12-1/4" stab, bit, & #2 x 8" dc's, clear rig floor (top stab. = 1/16" u.g. > bottom = 1/4" u.g. > bit = 1/16" u.g). Rig to run 9-5/8" csg. Change out rams to 9-5/8". Run cup tester, press. test BOP doors to 1200psi, ok. Lay out cup tester. Safety Meeting. M.U. shoe jnt., fill w/ mud, check flow thru. Make up float, check flow thru. Run to 13-3/8" shoe, break circ. Run to 1229m, wash to 1241m.
- 15.09.06 1255.0m Cont.wash f/1241m to 1252m, (run a total 105 jnt's x 9-5/8" x K55 x 36lb/ft x BTC csg), set shoe @ 1252m. Circ. prior to cmt. Job. Load cmt. plug in Halliburton head. Rig up chicksans, Safety meeting. Head up Halliburton, pump 50bbls water w/ rig pump, pump 5bbls w/ Hali.test lines to 4000psi, ok. Release bottom plug, pump 5bbls water. Mix & pump 297bbls (783 sx) lead cmt. @ 12.5ppg, followed by 31bbls (148sx) tail. Displace with rig pump 314bbls mud.
- Bump w/ 2000psi, close lo-torque valve f/ rig pump, press.up to 2800psi w/ HOWCO for 10min, ok. Bleed back 3bbls, flt. Holding. Flush BOP w/ water, monitor well. Rig down Howco & spacer spool. Lift BOP, set slips, rough cut csg. @ 8" above B.H. Lay out csg.& cmt.head. Attempt to lower BOP back onto spacer spool. Chain block failed, BOP cocked. Rig up sling to blocks. Llft & level BOP. Lower same onto B.H. Replace chain block. Lift BOP to inspect 9-5/8" csg. Cut off stub. Noticed top 8" cut off section slightly out of round. Caliper @ 5-1/8" sect., ok. Final cut csg. stub to 5-1/8" & dress same, install "B" section, press. test same, install DSA & BOP (fit 5" liners to mud pumps).
- 16.09.06 1255.0m Cont. nipple up BOP, riser & flow line, change pipe rams to 4-1/2", function test pipe rams. Make up combination tool test plug. RIH & set same, pressure test BOP, 200psi low & 2800psi high. Conduct accumulator test. Pull comb. tool. Close blind rams, press. test same to 2800psi. Reverse comb. tool, run & set wear bushing, pull & lay out tool. Rig Service. Hold PJSM, lay out 8" dc's. Make up bit, DSX519M & BHA. RIH to 535m. Adjust Crown -Omatic Cont. RIH p.u. singles d.p. to 1104m. Conduct "Well Control Drill", close annular, sound "Muster Alarm". Circ.thru adjustable choke, holding back press.w/ choke, via Poor Boy. Cont. RIH, picking up singles d.p. to 1200m. Slip & cut drilling line. Break circ. wash to top of float @ 1239m. Drill float, shoe track & shoe @ 1252m, rat hole to 1255m.
- 17.09.06 1778.0m Drill 8-1/2" hole f/ 1255m to 1258m. Circ. hole clean & condition mud. Pull inside shoe. Conduct leak off test, 1000psi w/ 9.1ppg = EMW of 13.7ppg. Drill f/ 1258m to 1374m. Rig service. Circ. & survey @ 1362m, 1 deg., N70E AZI = 77. Drill f/ 1374m to 1518m. Circ. & survey @ 1507m, 3/4 deg., N65E, AZI = 72. Drill f/1518m to 1663m (2 x 108spm = 454gpm) > (454gpm x 0.288 = 131rpm @ bit) + (rotary = 75rpm) = (131rpm + 75rpm = 201rpm). Circ. & survey @ 1652m, 2.25 deg., N25E, AZI = 32. Drill f/ 1663m to 1778m (only drilled 115m. to re-check deviation).

18.0906	2125.0m	Circ. & survey @ 1767m, 3 deg., N15E, AZI = 22. Drill f/ 1778m to 1865m (control drill due to deviation) (only drilled 87m. to re-check deviation). Circ. & survey @ 1854m, 3.25 deg., N10E, AZI = 17. Drill f/ 1865m to 1991m (drill ahead) (Laira formation top came in @ 1968met). Control drill @ Geo. request @ 20mph f/ 1991m to 2010m. Circ. & survey @ 1999m, 3-3/4 deg., N35E, AZI = 42. Control drill @ Geo. request f/ 2010m to 2077m (reduce pump str./gpm f/ 453gpm to 360 w/ control drilling to prevent washing out formation). Drill ahead 8-1/2" hole f/ 2077m to 2125m.
19.09.06	2365.0m	Drill f/ 2125m to 2154m. Sweep hi vis. Circ. Run survey @ 2142m, 3-1/4 deg., N25E, AZI = 32. Flow check, wiper trip to 9-5/8" shoe, hole slick, RIH. Light wash & ream last stand to bottom, f/ 2127m to 2154m. Drill ahead 8-1/2" hole f/ 2154m to 2212m. TDS failed. Circ. whilst fault find. Found load nut adjustment bolt hole elongated, which allows the load to come in contact with the quill. Contact TDS main office to verify problem, instructed to drill ahead. Drill f/ 2212m to 2299m. Rig service. Survey @ 2288m, 5 deg, N10E, AZI = 17. Drill f/ 2299m to 2365m.
20.09.06	2485.0m	Drill 8-1/2" hole f/ 2365m to 2386m. Circ. & survey @ 2374m, 6 deg., N2E, AZI = 9. Circ. hole clean. Flow check, slug pipe, POOH, hole slick, break off bit, = in gage & good condition, clear rig floor. Make up 8-1/2", RR #3, PDC bit, & pendulum assembly BHA (stab. @ 27.56met) (90 ft). RIH, BHA to HWDP. Pick up # 57 single jnts of 4-1/2" d.p., RIH to 850m. Cont. RIH stands d.p. to 9-5/8" shoe, "Hold Kick Drill". Break circ. Slip drilling line Cont. RIH stands of d.p. (hole good). Break circ. Light wash & ream last stand to bottom @ 2386m (5m. of fill). Drill 8-1/2" hole f/ 2386m to 2485m.
21.09.06	2753.0	Drill 8-1/2" hole f/ 2485m to 2497m. Circ. & survey @ 2488m, miss run. Drill f/ 2497m to 2526m. Circ. & survey @ 2517m, 5-1/2 deg., N10W, AZI = 357. Control Drill 8.5" f/2526m to 2613m. Service rig. Control drill 8.5" f/2613m to 2642m. Circulate and run directional survey at 2633m Dev 6.5Deg N35W uncorrected. Control drill f/2642m to 2728m with 5k WOB and 227RPM. Circ & survey @ 2719m Dev 6.25Deg N45W. Control drill 8.5" f/2728m to 2753m with 5 k WOB and 227RPM.
22.09.06	2934.0	Control drill 8.5" f/2753m to 2815m. Circ & survey @ 2806m Dev 5.25Deg N53W. Control drill 8.5" f/2815m to 2844m. Lubricate rig. Control drill 8.5" f/2844m to 2902m. Circ & survey @ 2893m Dev 4.75Deg N50W. Control drill 8.5" f/2902m to 2931m. Tesco attempt to fix RPM sensor. Control drill 8.5" f/2931m to 2934m.
23.09.06	3002.0	Control drill 8.5" f/2934m to 3002m . Circulate hole clean. Directional survey at 2989m-6.25Deg N45W. Flow check, pump pill, POH to 2324m. Flow checking at 5 and 10stand out RIH to 2989m, precautionary wash to bottom, 4 m fill. Circulate hole clean. Flow check, pump pill, POH to log. Flow checking at 5 and 10stand shoe and BHA. Layout stab and monel. Service mud motor and layout. Clear rig floor, hold PJSM. Rig up Schlumberger. Makeup Run 1# HALS/Sonic/GR, tools in hole at 23:10hrs.
24.09.06	3002.0	Continue log run 1#. Caliper failed at start of main run section. POH, tools at surface at 02:30am. no spare. Log without caliper, rig down. Makeup cleanout BHA and RIH to shoe. Fill pipe at BHA and shoe. Slip & cut drilling line. Continue to RIH to 2989m, precautionary wash to bottom., hole good, no fill. Circulate and condition mud and hole. Wireline check survey at 2997m. 7Deg N40W. POH one single and wireline Check survey at 2987m 5 3/4Deg N30W. Layout drill string to 975m. Flow check at 5std, 10std and shoe.

25.09.06	3002.0	Continue to layout pipe to 764m. Repair forklift transmission selector, unable to clear pipe racks. Continue to layout pipe, flow check. Layout BHA. Change rams and pressure test bonnet seal. Rig up to run 7" casing, clear floor. Safety Meeting, M/U float and shoe and run 7" casing to 440m. Run casing to 2988m. Wash casing from 2988m to 2998m. Circulate clean hole.
26.09.06	3002.0	Circulate and work casing, pump pre-flush. Head up Halliburton and surface lines. Pressure test surface lines to 4000psi. Mix and pump cement. Lead 157bbls @12.5ppg. Tail 22.3bbls @15.8ppg. Displace with rig pumps. Plug NOT bumped. Install slip and seal assembly. N/D BOP rough cut and dress casing stub. Install C section. P-test C section to 5000psi, Install DSA and change rams to 3.5". N/U BOP, install bell nipple and flowline. Pressure test choke manifold and lines. Prepare rig floor. RIH 3-1/2" drill pipe, open end to 812m (makeup in stands for top drive drilling).
27.09.06	3002.0	Continue to RIH DP F/- 812m T/- 1032m. POOH and rack back stands (35 stands). Install HCR line. Load racks with BHA and strap and caliper. Pressure test BOP 200/4800psi (annular 200/2000psi). Install wear bushing. M/U BHA and RIH t/-196m. Test survey equipment (fail, won't drift DCs). POOH F/- 196m T/- 17m to relocate stab. RIH F/-17m T/- 188m. Test survey equipment. PJSM, Pick up from catwalk and RIH F/- 188m T/- 532m. Tesco downtime: Centre top drive torque track. Fire drill and test ESDs. Tesco downtime: change dies. RIH F/- 532m T/- 1775m.
28.09.06	3103.0	RIH F/-1775m T/-2953. Slip 66ft drill line. Wash down F/- 2953m to TOC@ 2963m. Drill cement to 2981m. Circ and clean hole. Pressure test casing to 3500psi for 10mins. Perform Koomey function test. BOP drill and circ through choke. Well controlled in 29secs. Drill cement F/- 2981m T/- 3002m. Tag float @ 2985m, Tag shoe at 2998m. Drill new 6" hole F/- 3002m T/-3005m. Circ bottoms up. LOT with 9.5ppg mud L/off @ 2275psi EMW 13.8ppg. (Program was for FIT to 3300psi but leak off prior). Drill 6" hole F/- 3005m T/- 3038m Circulate then run directional survey @ 3020m 6.75deg N35W uncorrected. Drill F/- 3038m T/-3103m.
29.09.06	3230.0	Drill f/-3103m to 3125m. Circulate and survey at 3108m 8.5DegN25W. Drill F/-3125m to 3156m. Hi gas 4500units. Flow check after gas cut mud and 6 bbl gain to surface. Well not flowing. Wait up to 9.8ppg with KCL. Drilled F/-3156m T/-3211m. Circulate and survey at 3194m 9.25DegN15W. Drill F/-3211m T/- 3230m. Suspend drilling and wait for directional drilling equipment. Circulate bottoms up. POOH F/-3230m T/- 2981m (shoe). Lubricate rig Wait on directional drilling equipment to steer to target.
30.09.06	3230.0	Wait on Directional Drilling Equipment to steer to target. RIH F/-2981m T/-3230m (TD). Circulate hole clean. Flow check, pump slug, POH to make up Dowell Schlumberger directional equipment. Service mud motor and layout. Lubricate rig. Wait on directional drilling equipment to steer to target. Prepare directional drilling equipment. M/U 6" milled tooth bit and direction assy. Set @ 1.5 deg. Function test mud motor. RIH from surface to 2980m. Slip and cut drilling line. Flow check and RIH F/- 2980m T/- 3209m. Circ bottoms up.(3500units gas). Work torque from string. Tight hole F/- 3209m T/-3200m. Max overpull 300k. Tool face orientation survey @ 3198m 10.3 deg N20W uncorrected.

01.10.06	3290.0	Wash from 3200m to 3230m. Directionally drill from 3230m to 3242m. Sliding and rotating as required. Circulate and survey at 3227m. 9.7Deg N9.3W corrected. Directionally drill from 3242m to 3253m. Sliding and rotating as required. Circulate and survey at 3236m 11.75Deg N8.3W corrected. Directionally drill from 3253m to 3267m. Sliding and rotating. Circulate and survey at 3256m. 14.5Deg N2.7E corrected. Reset toolface and run orientation survey, 15.5Deg N4.7E. Directionally drill from 3267m to 3287m sliding and rotating. Circulate and survey at 3276m 18.5Deg N7.3W corrected. Directionally drill from 3287m to 3290m sliding.
02.10.06	3306.0	Directionally drill from 3290m to 3295m sliding and rotating as required. Flow check after hi gas (4337 units, no pit gain), circulate out gas and raise mud weight to 10.2ppg. Directionally drill from 3295m to 3306m, sliding and rotating as required. Circulate and survey at 3294m 20.5 Deg N12W. Circulate hole clean. Flow check, pump pill, POH with flow checks at 5 std shoe and BHA. Break and layout float sub, orient sub, NMDC. Service mud motor and layout. Rig up and run 15 jts cement stinger and diffuser. Continue to RIH with 3.5" drill pipe to 3224m. Circulate BU and spot 100 mtrs+- HI Vis pill. POH to 3128m to run cement kickoff plug. Cement plug # 1 from 3128m to 3028m, 76 sx HTB mixed at 16.5ppg with additives as per cementing program. POH slowly to 2985m. Circulate out.
03.10.06	3306.0	Continue to circulate BU. POH to surface, layout cement stinger pipe clean. Makeup bit, bit sub and RIH to shoe. Circulate BU and check trip gas. Wait on kick off plug to harden, slip drill line, change out counter balance piston on top drive. RIH tag top of plug at 3037m, pull back to shoe. Wait on cement and arrival of MWD equipment and personnel.
Start Glenaire-1 /ST1		
04.10.06	3041.0	Wait on cement and arrival of MWD equipment and personnel. RIH to 3037m. Polish cement plug from 3037m to 3041m. Circulate BU, flow check and pump slug. POH to make up directional assembly. Makeup bit, mud motor, float sub and monel. Rig up MWD equipment (arrived on location at 13:30 hrs). Rig up MWD and run cables. Hold PJSM and makeup MWD, Test mud motor and MWD at 47.3m. Continue to RIH filling string every 30std.to 2982m.
05.10.06	3041.0	RIH from 2982m to 3041m. Unreadable signal from MWD tool, troubleshoot and check surface equipment. Consult with Houston Scientific Base. Unable to gain signal. Flow check, pump slug and POH to check for signal-depth relationship. Signal at 850m. Download MWD data at surface, change out gap sub, Reset MWD. RIH to 3041m breaking circulation every 30std. Circulate and rotate slowly 1m off bottom while waiting on MWD to start transmitting signal. No signal. Troubleshoot to regain signal. No success.
06.10.06	3041.0	Troubleshoot to regain signal. No success. Flow check, pump slug and POH to check for signal-depth relationship. Signal at 1335m. Boost watts from 8 to 50, good signal RIH. RIH to 2000m +- monitoring signal. Signal lost at 2000mtrs. Change earthing position on stack. Check out surface earthing areas, all OK. POH to surface. Layout directional equipment Make up 6" conventional BHA and run safety string to 256m. Slip and cut drilling line Wait on MWD from Anadrill (Schlumberger).
07.10.06	3041.0	POH with safety string and layout bitsub and bit. Wait on MWD tools, on location at 03:30, pick up bit, mud motor, monel and stand back. Rig up MWD tools, RIH, install MWD tools in string. Tools not returning signal to surface, trouble shoot, change out surface junction box, tools working. RIH to 3041m breaking circulation every 30std.

08.10.06	3072.0	<p>Orient tool face time drill to kickoff. Drill to 3048m. No formation in samples. 100% cement. WOB 2k. Slide from 3048m to 3058m. No formation in samples 100% cement returns. Work pipe to undercut hole and form a ledge from 3048m to 3058m. Time drill at 1m/hr to 3062m 100% cement, no formation in samples (sliding). Time drill at 0.5m/hr to 3064m (sliding) 30% formation. Time drill at 1m/hr to 3066m 90% formation in samples (sliding). Drill with 12/13k on bit sliding to 3068m. Drill with 60 RPM on rotary to 3069m. Check trip to shoe, hole OK above. Drill ahead to 3070m rotating. Drill ahead to 3072m rotating.</p>
09.10.06	3119.0	<p>Drill ahead to 3076m., sliding. Drill ahead to 3097m., rotating. Rig Service. Drill ahead to 3106m., sliding. Drill ahead to 3110m, rotating. Drill ahead to 3116m., sliding. Drill ahead to 3119m., rotating. Circulate hole clean, survey. POH for bit change, bit at 1996m at midnight.</p>
10.10.06	3119.0	<p>Change bit and cycle MWD. RIH to 264m. Topdrive hit monkey board while in extended position. Board sustained visual damage, as did top drive gooseneck. Wait on mast inspector. Inspect board. All major support pins, padeye and structural support beams on monkey board OK. Top drive gooseneck non repairable. Wait on part for top drive, unable to use change out and use kelly due to casing-kelly sizing. POH and rack string in derrick in preparation to test BOP's.</p>
11.10.06	3119.0	<p>Pull wear bushing. Test BOP's and manifold to 200psi lo and 4800psi Hi and accumulator performance test OK. Run wear bushing. Wait on gooseneck for top drive, write JSA for top drive. Wait on gooseneck for top drive, review JSA for top drive and RIH with safety string to 257m. Wait on gooseneck for top drive, monitoring well, well static.</p>
12.10.06	3119.0	<p>Wait on gooseneck for top drive, monitoring well, well static. Confirmed ETA of Gooseneck for 16:30hrs in Penola. Review JSA & hold safety meeting regarding trip out & in hole POOH f/ 264m. Make up 6" bit, BHA, mud motor & MWD, RIH to 57m. Test MWD, fault find w/ cables & receivers (Assemble Gooseneck while cont. to fault find MWD problems). Schlumb. ready @ 19:30hrs. Hold PJSM and assemble Gooseneck to Top drive, nipple up Kelly hose & pressure test same. RIH f/ 57m to 264m (Ensign back in operation f/ 264m, refer to 05:00hrs on 10th Oct). Cont. RIH f/ 264m to 1918m, break circ.</p>
13.10.06	3169.0	<p>Cont. RIH f/ 1918m to 3054m, break circ. Light wash f/ 3054m to bottom @ 3119m (2m fill). Drill ahead f/ 3119m to 3127m, rotating 60rpm (880 units gas, slight flow @ flow line, wt. up f/ 10.1ppg to 10.2ppg +). Drill f/ 3127m to 3135m, rotating 60 rpm. Survey @ 3120m = 2.04 deg., AZI =111.74. Set tool face, slide f/ 3135m to 3140.5m. Drill f/ 3140.5m to 3143m, rotating 60 rpm. Drill f/ 3143m to 3164m, rotating 60 rpm, Flow 250gpm (132rpm), 12-14WOB. Take SCR's @ 3164m make connection, take survey @ 3148m, orientate string to slide. Slide f/ 3164m to 3169m. 12-14 WOB, 250gpm.</p>

- 14.10.06 3182.0 Slide f/ 3169m to 3170m. Drill f/ 3170m to 3182m, (ROP dropped off, have 4 deg. dev. @ bit) >>>> rotating 60rpm, flow 250gpm (132rpm), WOB =12 > 14. Circ. bottoms up, back ground gas = 30 units. Pump slug, flow check, ok, POOH to shoe, flow check, slight flow, POOH another # 5 std's to 2729m, flow check, flow continued. RIH to bottom @ 3182m. Circ. bottoms up & wt. up f/ 10.3ppg to 10.5ppg + w/ salt (max gas from bot's up = 4154 units with slightly oil cut mud). Pump slug, flow check, ok, POOH to shoe, flow check, slight flow, observe for 15 minutes, intermittent flow. Cont. POOH flow check every 10 std's. Continue to POH, check motor and breakout bit. Layout motor, pick up new motor and make up 6" PDC bit, DSX516M, w/ 5x15 jets. RIH to 57m, test MWD, 2x59spm, 890psi. RIH to 1057m, break circulation, flow check.
- 15.10.06 3207.0 Cont. RIH f/ 1057m to 1948m. Break circ. flow check, slight flow, 1/2bbl gain, mud aerated. Cont. RIH to shoe @ 2998m. Break circ. & circ. bottoms up, 600 units of gas, monitor well. Slip drilling line. Cont. RIH to 3154m, break circ., take SCR's. Wash last stand to bottom @ 3182m, take check survey. Drill f/ 3182m to 3207m, rotating 60rpm, 250gpm (133rpm), (total 193rpm), WOB = 5 > 7 (bottoms up f/ 3182m = 3445 units). At 3207m, gas peaked @ 4345units, stop drilling. Circ. out, oil cut mud over shakers, gas leveled out @ 4000 units. Circ.& wt. up mud f/ 10.6ppg, gained 28bbbls (Geo. estimates oil / gas came f/ aprox 3192m)(note; 60bbbls gained f/ salt added to sys). Shut in well @ 08:00hrs, circ. out bot's up thru. Choke. Gained = 26bbbls, cont. wt. up to 10.8ppg, (gas = 90 units)(salt saturated mud). Open annular, well static, attempt to circ. long way, can't circ..Check top Drive. IBOP valves ok. Brk. off stand, circ., ok, attempt to circ. Attempt to clear blocked string, no success, flow check, ok. POOH to shoe, hole slick, flow check, ok. Attempt to clear blocked string, no success, flow check, ok. POOH to clear obstruction in drill string, flow check every 10 std's. Found salt packed off from 2nd. stand of HWDP. Break off stands of HWDP & DC's & clear salt f/ same. Check & clear salt f/ MWD, check rotation on motor, no go, lay out motor. Close blind rams, line up pumps on water & flush out choke manifold & poor boy. Transfer mud in tanks, check same, clear rig floor. Pick up (Beach) Transco P100XL mud mtr., make up bit, orientate & calibrate mtr. Test MWD tools & fault find. RIH BHA and drift same, drift lodged in DC - flushed thru. break circ @ top hwdp 256m circulate clear.Cont. RIH to 977, brk. circ.
- 16.10.06 3267.0 Cont. RIH , break circ. every 25 std's, run to shoe @ 2998 m. Slip & cut drilling line. Rig service, circ. bottoms up while service rig, 2491 units gas on bottoms up. Cont. RIH, light wash & ream f/ 3007m to 3207m, max gas on bottoms up = 300 units. Drill ahead f/ 3207m to 3217m, rotating 60rpm, 250gpm = 130rpm, WOB = 3k > 5k, gas peaked @ 4956 units. Stop drilling. Circ. out gas, circ. w/ continuouse 4500 units for 10 minutes. Commence to wt. up f/ 10.8ppg + to 11.00ppg w/ barite. Drill ahead f/ 3217m to 3221m (intermittent gas peaks f/ 2000 to 4500 units). Circ. & survey @ 3206.34, > 1 deg., > AZI = 172.45 (note; angle dropped due to additional circulating over last #2 days). Slide f/ 3221m to 3225m, motor stalling out, pressure increase, tool hanging up, suspend sliding operation. Drill f/ 3225m to 3243m, rotating 60rpm, WOB = 2 to 3k. Recycle tool & orientate tool face. Slide f/ 3243m to 3250m, 250gpm = 132rpm, (controlled ROP & WOB). Take SCR's, flow check, make connection, conduct survey @ 3234m, 0.60 deg., AZI = 350.93. Drill f/ 3250m to 3265m, rotating 60rpm, 250gpm = 130rpm, (total 190rpm), WOB = 2k > 5k. Survey @ 3249m, 0.92 deg., AZI = 242.06. Slide f/ 3265m to 3267m, w/ controlled WOB & ROP, due to motor stalling & aggressive drilling.

- 17.10.06 3361.0 Slide f/ 3267m to 3279m, w/ controlled WOB & ROP, due to motor stalling & aggressive drilling. Survey @ 3263m, 1.48 deg., AZI = 232.23. Drill f/ 3279 to 3300m, rotating 60rpm, 250gpm = 130rpm, WOB = 3k > 4k (each conn. gas peaks to 4500 units, w/ traces of oil in mud). Survey @ 3282.64, 2.6 deg., AZI = 228.60. Slide f/ 3300m to 3306m, 250gpm = 132rpm. Drill f/ 3306m to 3308m, rotate 70rpm, 250gpm = 130rpm, (total 200rpm) WOB = 3k. Rig Service & Survey @ 3292.43m, = 1.86, AZI = 259.15. Drill f/ 3308m to 3327m, rotating 70rpm, 250gpm = 130rpm, (total 200rpm), WOB = 2 > 3k. Circ. & survey @ 3311.56m, = 2.89 deg., AZI = 223.6. Drill f/ 3327m to 3356m, rotating 70rpm, 250gpm = 130rpm, (total 200rpm) WOB, = 3k. Circ. & survey @ 3341m, 1.99 deg., AZI = 256.98, orientate string / MWD for slide. Slide / 3356m to 3361m.
- 18.10.06 3418.0 Slide f/ 3361m to 3362m. Drill f/ 3362m to 3366m, rotating. Survey @ 3365m, 1.86 deg., AZI = 275.69. Drill f/ 3366m to 3386m, rotating 70rpm, 248gpm = 125rpm (total = 195rpm) WOB = 3k. Survey @ 3370m 3 deg., AZI = 232.77. Complete survey, work pipe, 40k over pull, hole sticky, circ. bottoms up, 4497 units of gas. Flow check, slug pipe, Wiper trip to shoe (14 stands), intermittent 10k to 15k overpull, jar free 50k overpull @ 3259m. Cont. POOH, ok.
- RIH to 3200m, light wash & ream thru 3259m. Cont. W/R to bottom, 25k overpull on bottom, wash, work & ream f/ 3383m to 3386m. Recycle tool & orientate tool face. Slide f/ 3386m to 3391m, 248gpm = 125rpm, (Lag time on connection gas corresponds to a depth @ 3192m = 4240 units). Drill f/ 3391m to 3394m, rotating 70rpm, 252gpm = 131rpm, (total 201rpm) WOB = 3k. Survey @ 3378.51m, 2.48, AZI = 244.84 (take SCR's w/ 11.3ppg mud wt.). Drill f/ 3394m to 3413m, rotating 70rpm, 252gpm = 131rpm, (total 201rpm) WOB = 3k > 4k. Survey @ 3398.34, 3.21 deg., AZI = 204.45. Slide f/ 3413m to 3418m, 244gpm = 127rpm.
- 19.10.06 3507.0 Slide f/ 3418m to 3419m, 244gpm = 127rpm. Drill f/ 3419m to 3423m, rotating 60rpm, 244gpm = 127rpm (total 187rpm) WOB = 3k > 4k. Survey @ 3407.21, 2.92 deg., AZI = 211.58. Drill f/ 3423m to 3443m, rotating 60rpm, losing mud @ 20bbls/ hr f/ 3440m, add LCM. Survey @ 3427.02, 2.99 deg., AZI = 169.22. Drill f/ 3443m to 3452m, rotating 60rpm. Take SCR's, make connection & hold "Safety Meeting" due to losses to the hole @ 20bbls.hr (med. / fine sands @ 3440m). Survey @ 3436m, failed due to pop off relief valve on mud pump. Drill f/ 3452m to 3480m, rotating 60rpm, 240gpm = 125rpm, (total 185rpm), WOB = 4 > 7k. Survey @ 3464.60m, 1.56 deg., AZI = 157.28. Drill f/ 3480m to 3507m, rotating 60rpm, 240gpm = 125rpm, (total 185rpm) WOB = 5 > 9k. Circ. bottoms up. Survey @ 3491.68m, 1.37 deg., AZI = 50.64 (Projection to bottom @ 3507.00, 1.2 deg., AZI = 40). Flow check, slug pipe, POOH to shoe (intermittent 10k to 25k for first 10std's to 3220m). Flow check, cont. POOH to 2000m. Lost 10bbls to the hole, while POOH to 2000m. Spot 60bbls 13.5ppg mud (493m) (2000m back to 1507m). Cont. POOH to jars lay out same & pick up new set.S/N 1400-222A.

- 20.10.06 3563.0 Break out bit. Set motor to 0 –degrees. Lay out monel & MWD (lost additional 25bbls after spotting 13.5ppg pill @ 2000m while POOH). Make up RR4 bit, DSX516, s.n. 114752, install totco ring. RIH to 1122m, break circ. Cont. RIH to 2580m , mud level dropped 2m. Circ.out weighted 13.5ppg pill (lost 9bbls while RIH to 2580) (lost additional 27bbls while circ. out weighted pill). Return to slug tank, nil gas. Slip drilling line. Cont. RIH to shoe @ 2998m, slowly. Circ. bottoms up. Hold "Safety Meeting" regarding drilling ahead into "Pretty Hill" Max gas on bottoms up f/ shoe = 690 units. RIH slowly f/ shoe to 3487m. Light wash & ream f/ 3487m to bottom @ 3507m, run centrifuge, reduce mud wt. f/ 11.4ppg + to 11.4ppg. Circ. bottoms up, max gas 3040 units (f/ 3192m), not losing any mud to hole. Mud wt. = 11.4ppg in & out (take SCR's). Drill f/ 3507m to 3563m, rotating 60rpm, 248gpm = 130rpm, (total 190rpm), WOB = 5k > 9k (reduce mud wt. f/11.4ppg + to 11.2ppg).
- 21.10.06 3572.0 Drill F/3563m to 3564m. Circ. and work pipe. Flow check & pump pill. POOH 50k over pull f/ 3510m > 3505m, 25k over pull f/ 3505m > 3190m, 15k over pull f/ 3190m > 2998m. Flow check @ shoe (ok). Flush out mud motor with water, break off bit, clear rig floor. Rig repairs (drawworks electrical panel problem). Make up Hyc., 6", bit, DSX111GJW (# 7 blade) s.n. = 112300, w/ 4x20 & 3x10 jets. RR mud motor. RIH to shoe, break circ. Slip drilling line. Rig service. Service top drive, repair faulty elect. wire for "max torque" in top drive box. Cont. RIH, to 3567m. Break circ.,light wash & ream f/ 3507m to bottom @ 3564m (ream thru. 3510m several times to clean up 50k overpull section). Drill f/ 3564m to 3572m, rotating 60rpm, 248gpm = 130rpm (total = 190rpm), WOB = 4k to 13k (av. ROP = 1.23mph).
- 22.10.06 3612.0 Drill f/ 3572m to 3578m, rotating 60rpm, 248gpm = 130rpm (total = 190rpm) WOB = 12k to 15k (av. ROP = 1.1mph). Increase top drive RPM. Drill f/ 3578m to 3600m, rotating 70rpm, 248gpm =130rpm (total = 200rpm) WOB = 9k to 14k (av. ROP = 2mph). Circ. & rig service. (Kaolinitic sandstone f/ 3593m to 3600m, intermittent ROP f/ 4 to 6mph w/ oil). Drill f/ 3600m to 3612m (14k to 15k) rpm 200 (av. ROP = 1.84mph) (max torque on bottom = 6200 off bottom = 5600).
- 23.10.06 3648.0 Drill f/ 3612m to 3641m (av. ROP = 1.57mph). (reduce mud wt. f/ 11.2ppg to 11.1ppg). Circ. hole clean. 6 std Wiper back to 3487m, max 65k over pull f/ 3602m to 3592m, jar free & back ream, intermittent 55k o.p f/ 3554 > 3544 & f/ 3515 > 3506m. Drill f/ 3641m to 3648m (av. ROP = 2.33mph). (max 2811 units gas on wiper trip f/ 3192m).
- 24.10.06 3688.0 Drill f/ 3648m to 3659m, Varied RPM for ROP optimisation 50-70RPM + 130RPM from motor, (1.3mph), WOB 14-17klbs. Rig service (Max 925 units of gas f/ 3192m). Reduce flow rate to 200gpm > Drill f/ 3659m to 3688m, rot. 65rpm, 200gpm = 104rpm, (total rpm = 169), WOB = 12k (av. 2mph) (1mph f/ 18:30hrs). Attempt connection, tight hole, max 65k o.p., work stand & clean up hole.
- 25.10.06 3700.0 Pull #2 stands d.p., back to 3630m. Top Drive mud saver key way leaking in upper double ball valve, "while rotating", RIH to bottom. Circ. bottoms up "with out rotation" of top drive POOH to shoe to repair top drive. (intermittent 10k to 25k overpull). Repair top drive, "mud saver, key way leak in upper double ball valve". RIH, hole good. Break circ., wash to bottom, work stand & clean up hole. Drill f/ 3688m to 3700.5m (av. ROP = 1.47mph). Circ. bottoms up. Flow check, POOH 11 std's to 3400m, max 40k o.p., intermittent 10k to 35k overpull. RIH. Circ. bottoms up, cont. until gas dropped off. POOH to shoe. Rig repairs. Carry out electrical repairs to the drawworks assignment switch. POOH to 1868m.

- 26.10.06 3700.0 POOH to 1000m. Present mud wt. = 11.1ppg, spot 60bbls weighted 14.5ppg mud (490m) equiv. mud wt. = 11.6ppg for hydrostatic @ 3192m. Cont. POOH. Flush out Mud motor with water, oil, break off bit, clear rig floor. Rig up to log. Safety Meeting. Run #1 = FMS - GR, run @ 04:50hrs, out @ 12:20hrs (hole in good condition, run to bottom, no fill). Make up tools, logging, run #2 = BHC-PEX-GR, run @ 12:50hrs, out @ 18:10hrs (loosing 1/2 bbl/ hr of mud to annulus). Rig down. Pull W.B., make up comb. test plug. RIH & set same. Press. test BOP, 200psi low & 3500psi high. Conduct accumulator test, set W.B. Make up RR, DSX111, PDC, RIH to 256m.
- 27.10.06 3701.0 Cont. RIH to 1200m. Slip & cut drilling line. Circ. out the 60bbl x 14.5ppg pill, return to slug tank. Cont. RIH to shoe. Repairs to top drive, fault find electrical wiring for "extend" operation, found & repaired damaged earth wire. Pressure test rig floor surface equipment, 200psi low x 5 min. & 5000psi high x 10 minutes. Circ. out gas f/ shoe, (max 1670 units on bottoms up). Cont. RIH to 3652m. Wash & ream f/ 3652m to 3700m, while taking torque values with top drive off bottom (off bottom RPM = 75, torque =7560 ft/lbs, w/ 2300psi). Drill f/ 3700m to 3701m, WOB = 10k, RPM = 75, torque = 7993 ft/lbs w/ 2400psi, (low gear) (max 3354 units f/ 3192). Circ. bot's up. Slight flow, wt. up f/ 11.1ppg to 11.4ppg, > 15:30hrs, flow increased, wt. up f/ 11.4ppg to 11.8ppg @ 19:30hrs = 2750units on bot's up. Low vol. in active tank, trans. 60bbls 11.8ppg LCM to active, reduce pump rate, build volume in pre-mix tank, transfer to active, wt. up to 12.1ppg.
- 28.10.06 3701.0 Cont. circ., wt. up w/ calcium carbonate to 12.1ppg in & out while building mud volume. Shut down pump, work string for 15 minutes while observing well, slight flow. Circ. bottoms up, 954units gas. Cont. circ. w/ 12.1ppg mud, wait on more weight material to arrive @ rig. Shut down pump, work string for 10 minutes while observing well, slight flow. Circ. bottoms up = 124 units gas. Shut down pump, work string for 10 minutes while observing well, slight flow. Circ. bottoms up = 416 units gas. Shut down pump, work string for 15 minutes while observing well, slight flow. Circ. bottoms up =393 units gas. Shut down pump, work string for 30 minutes while observing well, slight flow. Circ. bottoms up = 470 units gas. Shut down pump, work string for 30 minutes while observing well, NO FLOW, well static. Circ. bottoms up =220 units gas. Shut down pump, work string for 30 minutes while observing well, NO FLOW, well static. Circ. bottoms up = 212 units gas. Shut down pump, work string for 30 minutes while observing well, NO FLOW, well static. Weight up f/ 12.1ppg to 12.4ppg, stop pump for 10 min., circ. bot's up, 315 units gas, spot 15.3ppg mud f/ 3701m back to 3450m, minor losses. Flow check, slight flow, then stopped. Attempt to break top conn., no go. Top drive load nut overheating, causing no rotation, while hot, cooled down, now ok.
- 29.10.06 3701.0 POOH, flow check every 5 std's, intermittent tight hole f/ 3672m back to 3250m, max o.p. = 65k,. POOH, lay out # 1 stand d.c.'s, lay out PDC bit, make up tricone bit, w/ no jets, rack in mast. Flow check, well static, Rig up. Safety meeting. Make up DLT @ 08:00hrs, run same @ 08:50hrs, tools out @ 12:50hrs, rig down Schlumb. RIH w/ tricone bit w/ no jets to shoe. Circ. bottoms up, 352 units gas to surface. Make up x-o's & torque up same on Baker cement head. Slip drilling line. Rig service. RIH f/2992m to 3394m. Break circ. wash & ream last 10 std's to bottom (f/ 3394m to 3701m) to circ. out weighted 15.3ppg pill mud. Circ. bottoms up.

- 30.10.06 3701.0 Cont. circ. bottoms up. Flow check (well flowing). Circ.out gas 3670 units. Mix 30 bbl.14.5ppg.& pill and spot on bottom. Flow check and POOH w/ flow checks 1,3,5,10,15 stands out and @ shoe (max o.p.= 60k). Rig up to run 4-1/2" csg. Safety meeting. Pick up jnt. #1, baker lock shoe, & next # 2 jnt's, run 65 jnt's x 4-1/2" x P110 x 13.5 lb/ft csg., Baker hanger & 74 std's 3-1/2" drill pipe to shoe. Rig service. Repair consignment # 3 on drillers control panel.
- 31.10.06 3701.0 Cont. repairing control panel. Circ. bottoms up f/ shoe, reciprocate pipe, 480 units gas to surface. Cont. RIH stands d.p. to 3550m. Circ. bottoms up, reciprocate pipe, 970 units gas to surface. RIH to 3608m. .Circ. up weighted pill into 7" shoe. RIH, set shoe @ 3694m. Circ. bottoms up, 118 units gas to surface. Pick up "Baker" cement head, make up Haliburton equip., drop ball, pump down, attempt to shear & set slips on hanger, no success. Set liner on bot., shoe @ 3701m, attempt to release setting tool, no success. Re-attempt by increasing press. to 3000psi, ok. Shear out ball seat, @ 3790psi, ok. Circ. hole 80spm @ 1450psi, & hold safety meeting, pump tuned spacer @ 13ppg. Mix & pump 42bbls (143sx) lead @ 13.5ppg, followed by 22bbls (105sx)Tail @ 15.6ppg, (pumped 64bbls, only 13bbls returned). Displace w/ 101bbls mud, bump w/ 1400psi, increase to 3000psi, good test, retuned 1.25bbls, float held (displace 101bbls, only 18bbls returned). Equalise press. on RSB, pull RSB f/ Hanger, ok, circ. clean. Circ. bottoms up, flush top of Hanger, nil cement, lay out cmt. Head. Well flowing. Spot 50bbls 14.4ppg @ top of hanger, observe, slight flow, shut in on annular @ 21:30hrs & monitor well.
- 01.11.06 3701.0 Cont. w/ well shut in to let cement to set up. Open HCR & HydriL. Well static. POOH to run CBL. Rig up Schlumberger. Change of operation, rig down Schlumb. RIH open ended d.p. to 2793m. Slip & cut drilling line. Take SCR's, circ. bottoms up, 225 units gas, 35spm @ 500psi w/ 12.5ppg mud in the hole. Monitor well, 4bbl loss f/ bot's up, "wait on orders". Shut down pump, monitor well, nil losses, well static. Circ. bot's up @ 32 spm @ 500psi, constant 45 units gas, no increase on bottoms up, 3bbls loss f/ 1500hrs. (Schlumb. prepare equip.for CBL run). Shut down pump, monitor well, nil losses, well static. Cont. circ. @ 35spm @ 500psi (Schlumb.cont. rig up, replace BOP rams, set up pressure equip., re-head cable socket). Rig up Schlumberger.
- 02.11.06 3701.0 Rig up Schlumb. Run CBL, attempt to release tool, no success. Rig down lubricator, install head catcher release hose (Schlumb. forgot to install hose). Run CBL to 3662m (top of float collar @ 3676m). Correlate tool & log up f/ 3657m. Log up with CBL. Lay out lubricator & tools, rig down. Circ. bottoms up, w/ 12.4ppg mud in & out, 3035 units gas to surface, stop pump, slight flow, circ.while mixing pill. Stop circ. Observe annulus, flowing, spot 40bbls x 14ppg mud with 0.2% biocide @ 2793m, observe well, hole static. POOH sideways to 40 std's in hole, RIH std's d.p. f/ Mast to clear excess d.p. to 2037m. Flow check, flowing, mix & pump 40bbls x 14.7ppg pill @ 2037m, observe well, hole static. Cont. POOH sideways.

- 03.11.06 3701.0 Cont. POOH sideways to 40 std's in hole. RIH BHA & HWDP f/ Mast to 1564m. Observe well, slight flow. Close Annular for 15 min., nil pressure build up, open Annular, still slight flow. Circ. bottoms up f/ 1564m, spot 40bbls 14.8ppg mud, observe well, hole static. POOH sideways, all tubulars laid out. (lost a total of 20bbls mud in 20 hrs while laying out sideways)(av. 1bbl/hr). Make up combination tool, RIH & retrieve wear bushing. (rig up to run 2-7/8" tbg.) Flush BOP w/ water, close "Blind Rams", change out rams f/ 3-1/2" to 2-7/8". Open Blind rams, "Well Static". Make up tbg. hanger on 2-7/8" tbg.. Run & set same. Press. test rams 200psi low, 2000psi high, annular 1000psi. Pull & lay out tbg. Hanger. Safety meeting & toolbox talk w/ both crews. Flow check, well static. "HAND RIG OVER TO PRODUCTION" M/up completion assy as follows : 2 7/8" re-entry guide, 2 7/8"Owen under balancing disk 4000 psi nominal burst, 2 7/8 X-nipple, 1 jnt 2 7/8" 6.4 # J-55 EUE tbg , 7" x 2 7/8" Baker Oil Tool Hornet mechanical set pkr, 2 7/8" EUE L-10 on/off connector w/ 2.31" X profile. RIH completion assy on 2- 7/8" 6.4 # J-55 EUE tbg from cat walk. Torque set at 2060 ft/lb. Tbg filled with 3% KCL brine every jnt.
- 04.11.06 3701.0 Cont. Rih completion assy on 307 jnts of 2 7/8" 6.4 # J-55 EUE tbg from cat walk. Set pkr with center of element at 2864.37 m and end of tbg at 2876,76 m. Pkr landed with 10 000 lbs compression. P/test annulus to 2000 psi and hold 10 mins. M/up 2 7/8" EUE landing jnt to top drive and apply 1900 psi to tbg to counter balance differential pressure at on / off connector. Disconnect from on/off connector and space up hanger to rig floor. Displace annulus mud with 3% KCL brine direct circulated at 2 1/2 BPM / 2700 psi ICP. Engage on/off connector and land tbg hanger. P/ test tbg. to 3000psi for 15 min. Secure with tie down screws. Install BPV and n/dn BOP stack. N/up W-G 5K well head, cw/ needle v/v's and p gauges. Remove BPV, install TWCV. P/test seal pocket & X-mas tree to 5000 psi for 10 min. Remove TWCV valve & install BPV.(pressure tests witnessed by Brian Marriott, Beach DRR & Scott Healey, Beach Engineer) "RIG HANDED BACK TO DRILLING"

Rig released 14th October, 2006 @ 15:00 hours.



GLENAIRE-1 Time Depth Chart

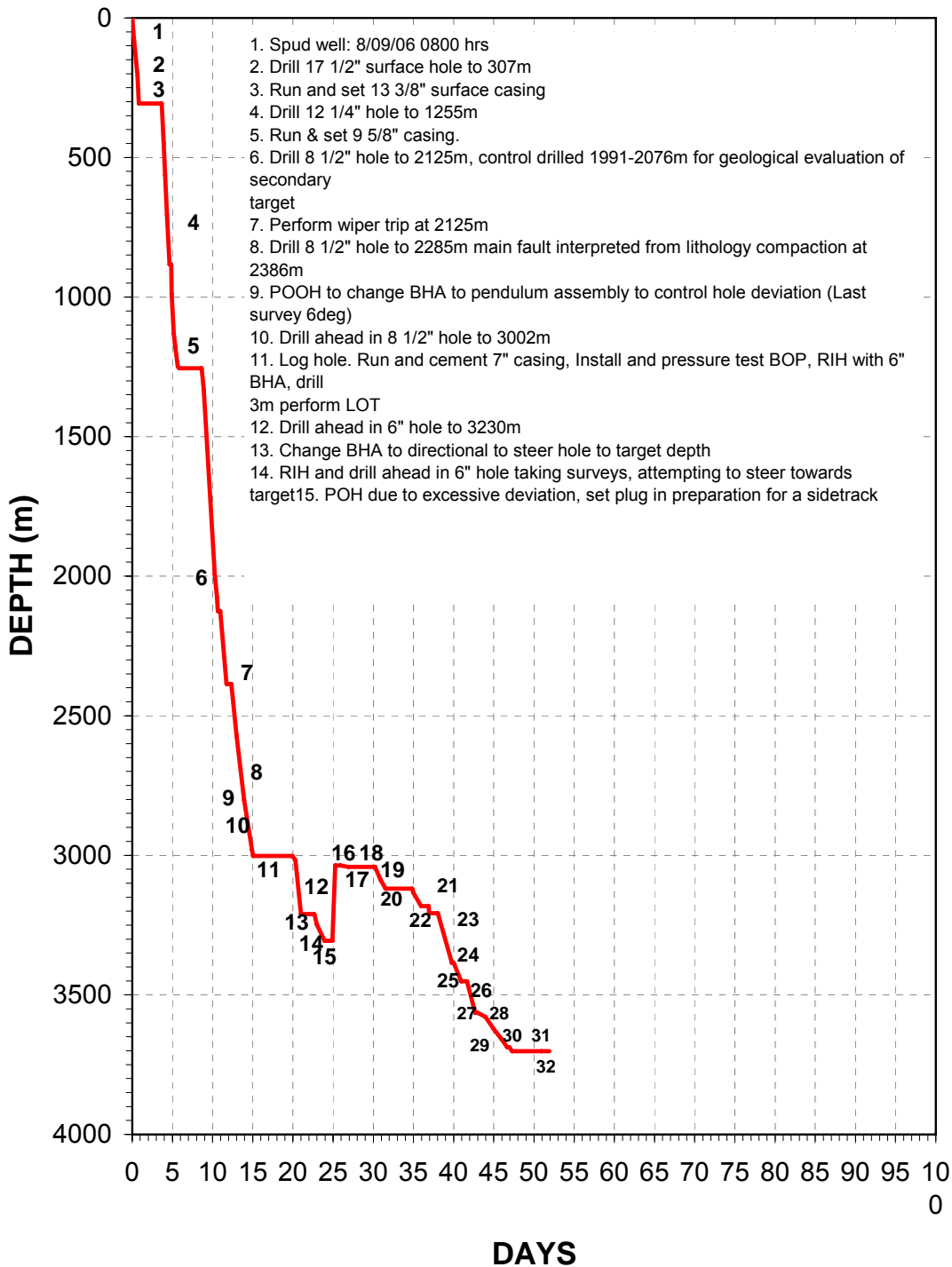


Figure 2: Drilling Time/Depth Curve Glenaire 1



GLENAIRE-1/1ST1 Time Depth Chart

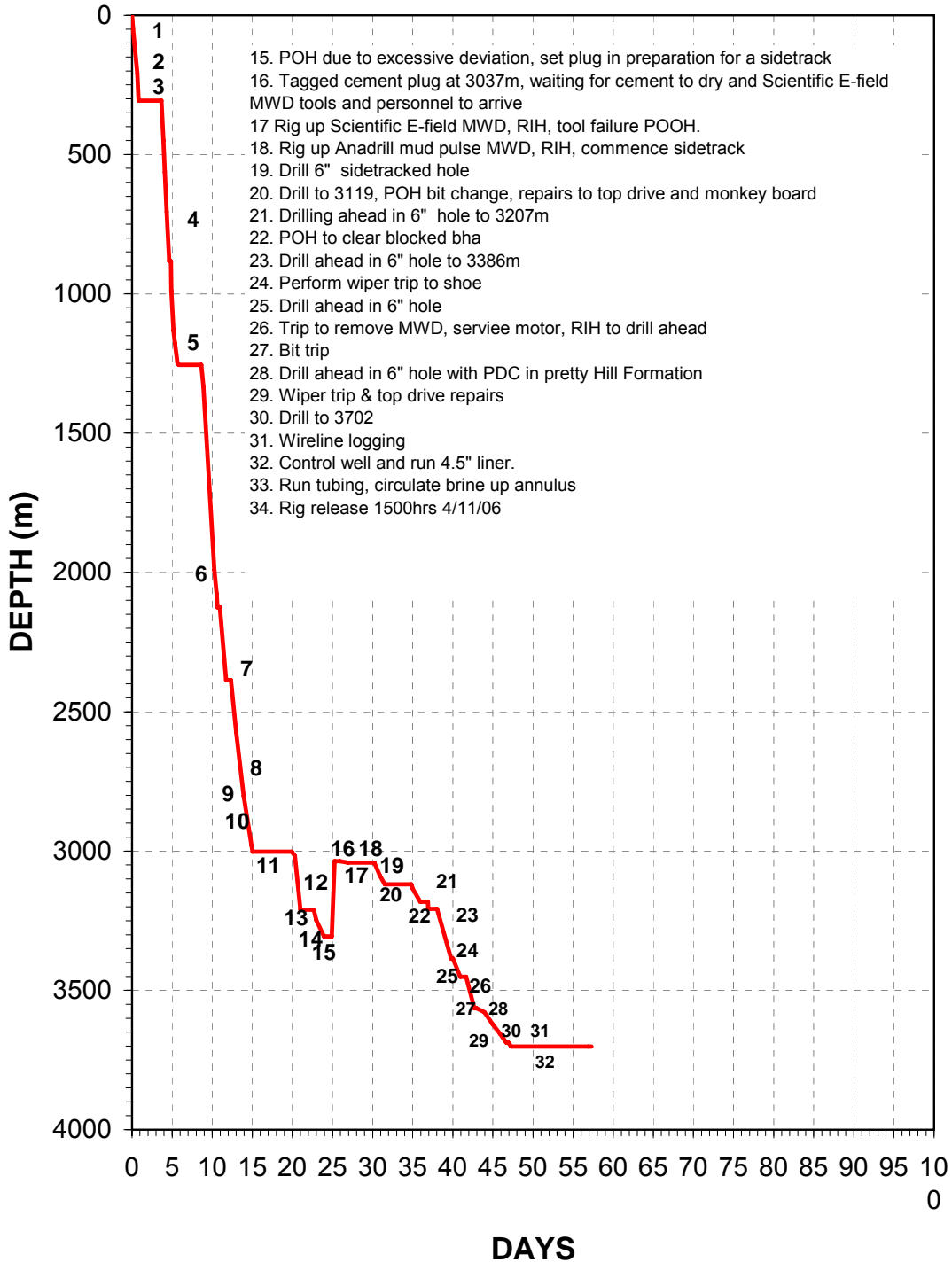


Figure 3: Drilling Time/Depth Curve Glenaire 1/ST1

2.3.2 Hole Sizes and Depths

17.5" / 445mm	to	307.0m	
12.25"/311mm	to	1255.0m	
8.5" / 216mm	to	3002.0m	
6" / 152 mm	to	3701.0m	(Total Depth – Drillers)

2.3.3 Casing and Cementing

Casing and cementing reports are available in Appendix 5.

2.3.4 Deviation Surveys (Magnetic Single Shot and MWD)

Glenaire-1 was planned as a vertical well. Due to hole deviation in excess of 20deg reached at 3294m, it was decided to sidetrack the hole back to vertical.

A final report by Schlumberger is available in Appendix 6

Glenaire-1

Depth (m)	Inclination (deg)	Depth (m)	Inclination (deg)	Depth (m)	Inclination (deg)
48m	0.5°	2893m	4.75°	3194m	9.25°
131m	1°	2989m	6.25°	3198m	9.75°
259m	1°	2997m	7°	3236m	11.75°
2633m	6.5°	2987m	5.75°	3256m	14.5°
2719m	6.25°	3020m	6.75°	3276m	18.5°
2806m	5.25°	3108m	8.5°	3294m	20.5°

Glenaire-1 /ST1

Depth (m)	Inclination (deg)	Depth (m)	Inclination (deg)	Depth (m)	Inclination (deg)
3120m	2.04°	3282m	2.6°	3398m	3.21°
3148m	2.72°	3292m	1.86°	3407m	2.92°
3148m	2.72°	3311m	2.89°	3427m	2.99°
3234m	1.0°	3349m	1.86°	3464m	1.56°
3234m	0.69°	3370m	3.0°	3491m	1.37°
3249m	0.92°	3370m	3.0°	3398m	3.21°
3263m	1.48°	3378m	2.48°	3407m	2.92°

2.3.5 Drilling Fluid, Physical Mud Properties, Chemicals Used

RMN Drilling Fluids provided the drilling mud for Glenaire-1/ST1 and a full report is provided in Appendix 4.

2.3.6 Bit Record

The bit record for Glenaire-1/ST1 is included in Appendix 3.

2.3.7 Water Supply

Drilling water for the well was supplied from local water bore.

2.4 Logging and Testing

2.4.1 Well-site Geologist

Dave Horner provided the onsite geological supervision for Beach Petroleum Ltd. Daily geological reports are contained in Appendix-2.

2.4.2 Mud-logging

Geoservices Overseas S.A provided Mud-logging services. Cuttings gas was monitored from surface conductor shoe to total depth using a GeoFast FIF (GFF) FID gas detector and chromatograph. CO2 concentrations were continuously monitored.

A mudlog recording lithology, penetration rate, mud gas and other data was prepared and is an enclosure (1) to this report. Overpressure was also monitored from surface – 3621m. The pressure reports can be found in Appendix 7.

2.4.3 Ditch Cutting Samples

Cuttings were collected and described from spud to TD. The sampling intervals were 10m from spud to 1800m, and 3m from 1800m to 3701m TD. The cuttings samples and sets were:

<u>Sample Type</u>	<u>No.Sets</u>
Washed & Dried	2
Samplex Trays	1

The cuttings descriptions are provided in Appendix 10.

2.4.4 Coring

None taken.

2.4.5 Sidewall Cores

None taken

2.4.6 Testing

None performed

2.4.7 Wireline Logs

Two suites of wire-line logs were acquired by Schlumberger:

Glenaire-1

<u>Suite</u>	<u>Run No.</u>	<u>Type Log</u>	<u>Interval</u>
1	1	PEX-BHC-HALS-GR (Res-Sonic-GR only) (GR to surface)	3702.0 – 2996.0m

Glenaire-1 /ST1

<u>Suite</u>	<u>Run No.</u>	<u>Type Log</u>	<u>Interval</u>
1	1	FMS-GR	3702.0 – 2996.0m
1	2	DLT-BHC-PEX-GR	3702.5 – 2997.0m

2.4.8 Temperature Surveys

The following maximum temperatures were recorded from wireline logs:

PEX-BHC-HALS-GR	104.0°C @ 3002.0m	7.5 hrs after circulation.
FMS-GR	130.0°C @ 3702.5m	10.2 hrs after circulation
DLT-BHC-PEX-GR	133.0°C @ 3702.5m	18.2 hrs after circulation

2.4.9 Velocity Survey

Not conducted.



**ATTACHMENT DOWNHOLE SCHEMATIC
PROPOSED COMPLETION
2-7/8"EUE TEST STRING**

WELL: Glenaire 1

DATE: 6/11/2006

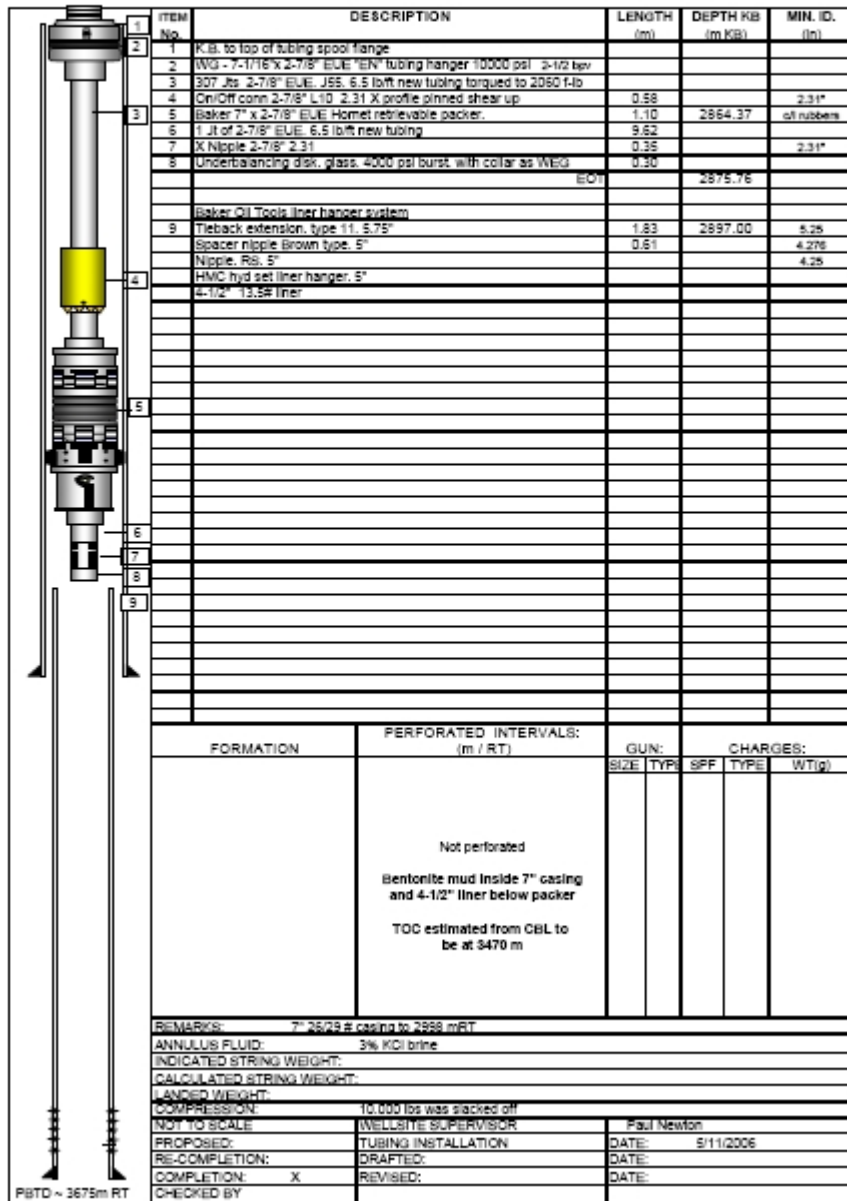


Figure 4: Down-hole Diagram for Glenaire-1

4 CONCLUSIONS

Glenaire-1 /ST1 was a successful test of the oil and gas potential of the Katnook/Windermere, Laira and Pretty Hill Formations in the Glenaire structure.

The well intersected the expected stratigraphic section with the exception the Katnook and Windermere Sandstones are absent. This well intersected the thickest section of Laira Formation to date.

Numerous gas shows were noted in the Laira Formation and Pretty Hill Formation. Coals within the Eumeralla and Laira Formations showed no direct oil fluorescence but exhibited dull to pale crush cut fluorescence. Fracture infill material of sandstones with the Laira Formation from 3438.0 to 3447.0m had dull, yellow mineral fluorescence and trace dull to moderately bright very pale yellow white oil fluorescence giving a weak dull milky white crush cut fluorescence. A kaolinitic sandstone from 3591.0 to 3603.0m within the Pretty Hill Formation had 50% dull patchy medium yellow oil fluorescence giving a very weak dull pale yellow crush cut. Very high gas readings were recorded from fracture zones within the Laira Formation and from sands within the Pretty Hill Formation. Traces of oil were observed at the shakers during drilling from a fracture zone at 3192m within the Laira Formation.

No drill stem testing was carried out.

Glenaire-1 /ST1 was cased and completed for further testing and the rig released on 4th November 2006 at 15:00.



DAILY DRILLING REPORT

8/09/2006

REPORT # 01

WELL	Glenaire 01	24:00 DEPTH	209m	24 HR PROG	209m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Dilwyn	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Drill to 307m, Wiper trip, lay out 17-1/2" stab						
REMARKS / FORWARD PLAN:	RIH circ. Bottoms up, POOH, run 13-3/8" casing, cement same					PERSONNEL ON SITE:	31
LAST CASING	20 "	SET AT	10.0m	LOT		MAASP	
		BOP TEST	NIL	TEST DUE			
SAFETY	1. Pre-Spud 2.					WEATHER AM	overcast
						PM	Rain

BIT INFORMATION				BHA # 1		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	3-10	JET V(fps)	210	TOOL	LENGTH	Time	2130	BOP's / Wellhead		
RPM	120	H S I	0.62	17.5 Bit	0.43	Depth (m)	180	Cementing		
BIT NUMBER	1			Bit sub	0.92	Temp (° C)	24	Circ & Condition	1.0	1.0
Size (in)	17.5			2 x 8" dc's	17.20	Mud Type	Gel-Spud	Coring		
Make	Smith			17-1/2" stab	1.63	Density (ppg)	8.90	D/O Cement		
Type	XRCPS			3 x 8" dc's	27.95	ECD (ppg)	9.07	Drilling	14.0	14.0
IADC Code	115			X-O	0.65	Viscosity (sec)	75	FIT / LOT		
Serial Number	MR9725			6" Monal dc	9.33	PV / YP (cp/lb)	13 / 30	Handle BHA		
T.F.A.(")	1.117			7 x 6-1/4" dc's	65.23	Gells (s/m)	26 / 28	Repairs		
Depth In (m)				12 x 4-1/2" HWDP	114.65	API Filt. (cc)	12	Rig Service		
Depth Out (m)	IN					Cake (/32")	2	Rig up Csg./ Cmt.		
Total Meters	209					Solids (% Vol)	4	Run Casing		
Hours	14					Sand (% Vol)	1.25	Safety	1.0	1.0
ROP	14.9					MBT	25	Slip/Cut Drill Line		
Condition Out				BHA LENGTH (m)	237.98	pH (strip)	9.5	Survey	1.0	1.0
FLOW DATA				BHA WEIGHT(kLb)	50.9	Chlorides (mg/l)	700	Test BOP		
CIRC. RATE (gpm)	729			STRING WT (kLb)	50.7	KCL (%)	0	Tight hole / Fishing		
AV - DP (fpm)	63			HOOK LOAD (kLb)	65.0	PHPA (ppb)		Tripping		
AV - DC (fpm)	74			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		
SPP (psi)	1200			DRAG UP (kLb)	65.0	Circ. Vol. (Bbl)	729	Wash / Ream		
SPP (calculated)	750			DRAG DOWN (kLb)	65.0	CHEMICAL USAGE		Well Control		
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	2550	Ausben	650	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	950	Caustic Soda	6	Wiper Trip		
RATE	128	RATE	128	BULK PRODUCTS		Kwikseal M	44	Wireline		
LINER	6.0"	LINER	6.0"	FUEL ON SITE	47700 Litres			Other		
STROKE	8.0"	STROKE	8.0"	DAILY USAGE	-47700 Litres			TOTALS	17.0	17.0
SURVEYS				CUM. FUEL USED	-47700 Litres			DAILY MUD COSTS		\$10,087.06
0.5° at 48m				BARITES ON SITE	#N/A			CUM. MUD COSTS		\$10,087.06
1° at 131m				BARITES USED	#N/A			AFE COST - C&S		
1° at 259m				MUD MIXED	1350 Bbls			AFE COST - P&A		
				MUD LOSSES	621 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
	1:00	Make up #3 stands D.P., rack in Mast
1:00	3:00	Repair broken Geograph line & re-run same
3:00	3:30	Make up 12-1/4" bit, float sub, to stand D.P.
3:30	5:00	Drill mouse hole, POOH, run mouse hole sock, break off bit & ft. Sub
5:00	7:00	Pick up 17-1/2" bit & BHA, RIH, tag bottom @ 16 metres
7:00	8:00	Pre- Spud check, Hazard Hunt, Sound alarm, Muster Drill, Safety Meeting, Spud Well @ 08:00hrs on 8th Sept.2006
8:00	11:30	Drill 17-1/2" surface hole f/ 16m > 48metres (Dylwyn came in @ 28 met. + -)
11:30	12:00	Circ. & Totco survey @ 47 met., = 1/2 deg
12:00	21:00	Drill f/ 48 met. > 180 met., Sweep LCM pills as required (spot LCM pills on bottom while making connections)
21:00	22:00	Circ. w/ reduced pump while building mud volume
22:00	22:30	Spot LCM pill on bottom, run MSS survey @ 131 met. = 1 deg., N25E, AZI = 32
22:30	0:00	Drill f/ 180met. > 209 met.

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott	GEOLOGIST:		MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

9/09/2006

REPORT # 02

WELL	Glenaire 01		24:00 DEPTH	307m	24 HR PROG	98m	CUM. COSTS	
RIG	Ensign # 32		FORMATION	Dilwyn	PTD	3945m	DAILY COSTS	\$2,099.75
OP's TO 06:00	Drill f/ 209m > 307, wiper trip, circ., POOH, run 13-3/8" csg., circ. & cmt. same, WOC							
REMARKS / FORWARD PLAN:	Back out Landing jnt., install Braden Hd., rig up BOP, pressure test same & surface equipment						PERSONNEL ON SITE:	31
LAST CASING	13 3/8"	SET AT	304.0m	LOT		MAASP		BOP TEST NIL
TEST DUE								
SAFETY	1. Csg. / Cement job 2.						WEATHER AM	showers
							PM	overcast

BIT INFORMATION				BHA # 1		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	5-10	JET V(fps)	210	TOOL	LENGTH	Time	0815	BOP's / Wellhead		
RPM	120	H S I	0.63	17.5 Bit	0.43	Depth (m)	307	Cementing	1.0	1.0
BIT NUMBER	1			Bit sub	0.92	Temp (° C)	26	Circ & Condition	2.0	3.0
Size (in)	17.5			2 x 8" dc's	17.20	Mud Type	Gel-Spud	Coring		
Make	Smith			17-1/2" stab	1.63	Density (ppg)	9.00	D/O Cement		
Type	XRCPs			3 x 8" dc's	27.95	ECD (ppg)	9.13	Drilling	3.5	17.5
IADC Code	115			X-O	0.65	Viscosity (sec)	48	FIT / LOT		
Serial Number	MR9725			6" Monal dc	9.33	PV / YP (cp/lb)	9 / 10	Handle BHA		
T.F.A.(")	1.117			7 x 6-1/4" dc's	65.23	Gells (s/m)	9 / 17	Repairs		
Depth In (m)				12 x 4-1/2" HWDP	114.65	API Filt. (cc)	13.5	Rig Service		
Depth Out (m)	307					Cake (/32")	2	Rig up Csg./ Cmt.	3.0	3.0
Total Meters	307					Solids (% Vol)	4.4	Run Casing	8.5	8.5
Hours	17.5					Sand (% Vol)	1.75	Safety		1.0
ROP	17.5					MBT	20	Slip/Cut Drill Line		
Condition Out	1 1 NO A 2 I RR TD			BHA LENGTH (m)	237.98	pH (strip)	9	Survey	0.5	1.5
FLOW DATA				BHA WEIGHT(kLb)	50.8	Chlorides (mg/l)	720	Test BOP		
CIRC. RATE (gpm)	729			STRING WT (kLb)	51.2	KCL (%)	0	Tight hole / Fishing		
AV - DP (fpm)	63			HOOK LOAD (kLb)	65.0	PPHA (ppb)		Tripping	2.0	2.0
AV - DC (fpm)	74			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		
SPP (psi)	1200			DRAG UP (kLb)	65.0	Circ. Vol. (Bbl)	589	Wash / Ream		
SPP (calculated)	810			DRAG DOWN (kLb)	65.0	CHEMICAL USAGE		Well Control		
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	2550	Ausben	22	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	950	Barite	48	Wiper Trip	3.5	3.5
RATE	128	RATE	128	BULK PRODUCTS		Caustic Soda	1	Wireline		
LINER	6.0"	LINER	6.0"	FUEL ON SITE		Kwikseal M	25	Other		
STROKE	8.0"	STROKE	8.0"	DAILY USAGE				TOTALS	24.0	41.0
SURVEYS				CUM. FUEL USED	47700 Litres			DAILY MUD COSTS		\$2,099.75
				BARITES ON SITE				CUM. MUD COSTS		\$12,186.81
				BARITES USED				AFE COST - C&S		
				MUD MIXED	1600 Bbls			AFE COST - P&A		
				MUD LOSSES	1011 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	3:30	Drill f/ 209 met > 307 met., pump LCM sweeps, excessive sand over shakers & losses
3:30	4:00	Sweep Hi Vis & Circ. Bottoms up x 2, spot 30bbls Hi Vis / LCM on bottom
4:00	4:30	Run MSS survey @ 259 met. = 1 deg., S80W, AZI = 267
4:30	8:00	Wiper trip to bit, hole good, hole took additional 16bbls mud for trip, lay out 17-1/2" stab., RIH, no fill
8:00	8:30	Circ. Bottoms up, shakers clean
8:30	10:30	POOH, lay out bit
10:30	13:00	Clear rig floor, Rig to run 13-3/8" casing
13:00	21:30	Safety Meeting, Run 27 jnt's x 13-3/8" x 54.51b/ft x K-55 x BTC casing, set shoe @ 304met. (#2 jnt's w/ thread damage, dress same)
21:30	22:30	Circ. bottoms up & shakers clean, hold safety meeting, rig up Hallibuton equip., raise permit, pump 60bbls preflush water ahead
22:30	23:00	Head up Halliburton, load plugs, pump 10bbls water, pressure test lines to 4000psi, ok, release bottom plug, pump 10bbls water
23:00	0:00	Mix & pump 148bbls (388sx) Lead cmt. @ 12.5ppg

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott	GEOLOGIST:		MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

11/09/2006

REPORT # 04

WELL	Glenaire 01	24:00 DEPTH	310m	24 HR PROG	3m	CUM. COSTS	\$22,521
RIG	Ensign # 32	FORMATION	Dilwyn	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Complete making up 37 std's D.P., Make up 12-1/4" BHA, RIH, tag Flt., "Kick Drill", drill float, shoe track, rat hole to 307m, switch to KCL / PHPA mud, drill new hole f/ 307m to 310m, circ., perform F.I.T.						
REMARKS / FORWARD PLAN:	Drill ahead 12-1/4" hole taking surveys as required (note; Performed "Kick Drill" @ float collar, found SIDPP gauge on Swaco unit failed to read pressure, replaced same, all ok)					PERSONNEL ON SITE:	31
LAST CASING	13 3/8"	SET AT	304.0m	LOT		MAASP	
AFD's: 44	SAFETY	1. Safety meeting 2.				BOP TEST	10/09/2006
						TEST DUE	24/09
						WEATHER AM	sunny
						PM	sunny

BIT INFORMATION				BHA # 2		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	4-7	JET V(fps)	274	TOOL	LENGTH	Time	2330	BOP's / Wellhead		9.0
RPM	80	H S I	1.49			Depth (m)	310	Cementing		3.0
BIT NUMBER	2			12.25	0.32	Temp (° C)	24	Circ & Condition	0.5	3.5
Size (in)	12.25			1 x 8" dc	8.41	Mud Type	KCI/PHPA/POL	Coring		
Make	Smith			12-1/4" stab	1.35	Density (ppg)	8.75	D/O Cement	7.0	7.0
Type	XRPCS			1 x 8" dc	8.79	ECD (ppg)	8.78	Drilling	8.0	25.5
IADC Code	115			12-1/4" stab	1.36	Viscosity (sec)	40	FIT / LOT	0.5	0.5
Serial Number	MY0188			3 x 8" dc's	27.95	PV / YP (cp/lb)	5 / 6	Handle BHA		
T.F.A. (")	0.601			X-O w/ crows foot	0.65	Gells (s/m)	1 / 2	Repairs	1.0	1.0
Depth In (m)	307			1 x 6-1/2" NMDC	9.33	API Filtr. (cc)	12	Rig Service	0.5	0.5
Depth Out (m)	IN			10 x 6-1/2" dc's	93.32	Cake (/32")	1	Rig up Csg./ Cmt.		3.0
Total Meters	3			Drilling Jars	9.74	Solids (% Vol)	0.6	Run Casing		8.5
Hours	0.5			1 x 6-1/2" dc	9.43	Sand (% Vol)	NIL	Safety		1.0
ROP	6.0			12 x 4-1/2" HWDP	114.65	MBT	1	Slip/Cut Drill Line		
Condition Out				BHA LENGTH (m)	286.19	pH (strip)	12	Survey		1.5
FLOW DATA				BHA WEIGHT(kLb)	63.5	Chlorides (mg/l)	34000	Test BOP		3.5
CIRC. RATE (gpm)	513			STRING WT (kLb)	63.7	KCL (%)	7	Tight hole / Fishing		
AV - DP (fpm)	97			HOOK LOAD (kLb)	80.0	PHPA (ppb)	0.59	Tripping	4.0	6.0
AV - DC (fpm)	146			WT BELOW JARS (kLb)	47.7	ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)	950			DRAG UP (kLb)	80.0	Circ. Vol. (Bbl)	503	Wash / Ream		
SPP (calculated)	840			DRAG DOWN (kLb)	80.0	CHEMICAL USAGE		Well Control	0.5	0.5
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	1750			Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	1000			Wiper Trip		3.5
RATE	90	RATE	90	BULK PRODUCTS				Wireline		
LINER	6.0"	LINER	6.0"	FUEL ON SITE	33300 Litres			Other	2.0	6.5
STROKE	8.0"	STROKE	8.0"	DAILY USAGE	2550 Litres			TOTALS	24.0	89.0
SCR: 70 @ 50		SCR: 190 @ 80		CUM. FUEL USED	14400 Litres			DAILY MUD COSTS		
SURVEYS				BARITES ON SITE	-50 kg			CUM. MUD COSTS		\$22,520.75
				BARITES USED	50 kg			AFE COST - C&S		
				MUD MIXED	2150 Bbls			AFE COST - P&A		
				MUD LOSSES	1658 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	2:00	Complete cleaning drill pipe on racks, Tally same
2:00	9:30	Hold PISM & review JSA, pick up stands of drill pipe for next 12-1/4" section of hole & rack in Mast
9:30	10:00	Rig Service
10:00	14:00	Make up 12-1/4" BHA, RIH, break circ. w/ water, tag float @ 291m (no cement above float collar)
14:00	14:30	Sound alarm, Shut in well, Drill crew to rig floor for a "Drill", circ. thru choke w/ 30spm @ 150psi, via Choke manifold to Poor Boy
14:30	15:30	Drill on float collar with water via short system
15:30	16:30	Tesco Top Drive failed due to low voltage turbo shut downs & shut downs for hot oil shuttle valve, re-set turbo's & re-adjust oil shuttle valve
16:30	22:30	Cont. drill, shoe track, shoe & rat hole to 307met.
22:30	23:00	Drill 12-1/4" hole f/ 307m to 310m w/ new KCL / PHPA mud
23:00	23:30	Circ. & condition 8.7ppg mud in & out
23:30	0:00	Perform F.I.T. @ 13-3/8" shoe, depth = 304m (997ft) = 170psi > mud wt. = 8.8ppg > EMW = 12ppg

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott	GEOLOGIST:	David Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

12/09/2006

REPORT # 05

WELL	Glenaire 01	24:00 DEPTH	883m	24 HR PROG	573m	CUM. COSTS	\$39,918
RIG	Ensign # 32	FORMATION	Eumeralla	PTD	3945m	DAILY COSTS	\$17,397.03
OP's TO 06:00	Drill ahead 12-1/4" hole f/ 310m to 883m, taking surveys as required, wiper to 13-3/8" shoe						
REMARKS / FORWARD PLAN:	06:00 hrs on 13th = Drlg. Thru. 988m >> Forward plan = Drill ahead to 9-5/8" csg. point @ 1255m, circ. bot's up, wiper to 883m, circ. bot's up, POOH to run 9-5/8" csg.					PERSONNEL ON SITE:	31
LAST CASING	13 3/8"	SET AT	304.0m	LOT		MAASP	
AFD's: 45	SAFETY	1.		BOP TEST	10/09/2006	TEST DUE	24/09
		2.		WEATHER AM	sunny	PM	sunny

BIT INFORMATION				BHA # 2		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	6-20	JET V(fps)	334	TOOL	LENGTH	Time	2200	BOP's / Wellhead		9.0
RPM	130	H S I	2.86	12.25	0.32	Depth (m)	884	Cementing		3.0
BIT NUMBER	2			Bit sub	0.89	Temp (° C)	39	Circ & Condition	0.5	4.0
Size (in)	12.25			1 x 8" dc	8.41	Mud Type	KCI/PHPA/POL	Coring		
Make	Smith			12-1/4" stab	1.35	Density (ppg)	9.20	D/O Cement		7.0
Type	XRCPS			1 x 8" dc	8.79	ECD (ppg)	9.26	Drilling	18.5	44.0
IADC Code	115			12-1/4" stab	1.36	Viscosity (sec)	38	FIT / LOT		0.5
Serial Number	MY0188			3 x 8" dc's	27.95	PV / YP (cp/lb)	7 / 9	Handle BHA		
T.F.A.(")	0.601			X-O w/ crows foot	0.65	Gells (s/m)	2 / 4	Repairs	1.5	2.5
Depth In (m)	307			1 x 6-1/2" NMDC	9.33	API Filt. (cc)	9.4	Rig Service		0.5
Depth Out (m)	IN			10 x 6-1/2" dc's	93.32	Cake (/32")	1	Rig up Csg./ Cmt.		3.0
Total Meters	576			Drilling Jars	9.74	Solids (% Vol)	4	Run Casing		8.5
Hours	19			1 x 6-1/2" dc	9.43	Sand (% Vol)	1.75	Safety		1.0
ROP	30.3			12 x 4-1/2" HWDP	114.65	MBT	9	Slip/Cut Drill Line		
Condition Out				BHA LENGTH (m)	286.19	pH (strip)	9.5	Survey	2.0	3.5
FLOW DATA				BHA WEIGHT(kLb)	63.0	Chlorides (mg/l)	26000	Test BOP		3.5
CIRC. RATE (gpm)	627			STRING WT (kLb)	66.8	KCL (%)	5.7	Tight hole / Fishing		
AV - DP (fpm)	118			HOOK LOAD (kLb)	117.0	PHPA (ppb)	1	Tripping		6.0
AV - DC (fpm)	179			WT BELOW JARS (kLb)	47.4	ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)	1650			DRAG UP (kLb)	120.0	Circ. Vol. (Bbl)	807	Wash / Ream		
SPP (calculated)	1420			DRAG DOWN (kLb)	117.0	CHEMICAL USAGE		Well Control		0.5
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	4200	AMC Pac- LV	14	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	1500	Barite	32	Wiper Trip	1.5	5.0
RATE	110	RATE	110	BULK PRODUCTS		Biocide G	4	Wireline		
LINER	6.0"	LINER	6.0"	FUEL ON SITE	28750 Litres	Caustic Soda	3	Other		6.5
STROKE	8.0"	STROKE	8.0"	DAILY USAGE	4550 Litres	Defoamer	1	TOTALS		113.0
SCR: 160 @ 50		SCR: 280 @ 80		CUM. FUEL USED	18950 Litres	Kwikseal M	20	DAILY MUD COSTS		\$17,397.03
SURVEYS				BARITES ON SITE	-75 kg	PHPA	14	CUM. MUD COSTS		\$39,917.78
1.25° at 400m		0.25° at 834m		BARITES USED	75 kg	Sodium Sulphite	6	AFE COST - C&S		
0.75° at 544m				MUD MIXED	2800 Bbls	Xanthan Gum	15	AFE COST - P&A		
0.5° at 690m				MUD LOSSES	2024 Bbls	KCL	276	AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	5:30	Take SCR's, Drill 12-1/4" hole f/ 310m to 450m (slight seepage losses @ 380m, 10bbls/hr, add LCM, ok)
5:30	6:00	Circ. & survey @ 400m, 1-1/4 deg., N21W, AZI = 346
6:00	7:00	Drill f/ 450m to 495m
7:00	7:30	TDS failed, lost High / Low RPM, fault find, 20amp fuse blown in 24volt drillers panel, replace fuse (Work pipe during repairs)
7:30	11:00	Drill f/ 495m to 594m, ream each stand twice due to last survey
11:00	11:30	Circ. & survey @ 544m, 3/4 deg., N20E, AZI = 27
11:30	12:30	TDS failed, fault find same, ESM vaults low, unable to start engine, change fuses, all ok (Work pipe during repairs)
12:30	17:00	Drill f/ 594m to 739m
17:00	17:30	Circ. & survey @ 690met., 1/2 deg., S60W, AZI = 247
17:30	21:30	Drill f/ 739m to 883m
21:30	22:00	Sweep Hi Vis & Circ. Bottoms up
22:00	22:30	Survey @ 834m, 1/4 deg., N60W, AZI = 307
22:30	0:00	Pump slug, flow check, Wiper trip, tight hole f/ 854m to 835m, max over pull = 25k, re-wipe section

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott	GEOLOGIST:	David Horner	MUD CO:	RMN Drilling Fluids		

**DAILY DRILLING REPORT**

13/09/2006

REPORT # 06

WELL	Glenaire 01		24:00 DEPTH	1248m	24 HR PROG	365m	CUM. COSTS	\$46,795			
RIG	Ensign # 32		FORMATION	Eumeralla	PTD	3945m	DAILY COSTS	\$6,877.23			
OP's TO 06:00	Drill f/ 883m to 1255m, taking surveys as required, circ. bottoms up, Wiper trip back to 864m, RIH to bottom, circ. bottoms up & POOH to run 9-5/8" csg.										
REMARKS / FORWARD PLAN:	Present Op. @ 06:00hrs = Circ. hole clean >>> Forward plan = POOH, lay out 12-1/4" stab. & bit, rig & run 105 jnt's 9-5/8" csg., cement same,						PERSONNEL ON SITE:	32			
LAST CASING	13 3/8"	SET AT	304.0m	LOT	12.2ppg	MAASP	149psi	BOP TEST	10/09/2006	TEST DUE	24/09
AFD's: 46	SAFETY	1. 2.						WEATHER AM	suunny		
								PM	rain		

BIT INFORMATION				BHA # 2		MUD PROPERTIES		OPERATION		HRS	CUM	
WOB(kLb)	10-20	JET V(fps)	334	TOOL	LENGTH	Time	2100	BOP's / Wellhead			9.0	
RPM	130	H S I	2.89	12.25	0.32	Depth (m)	1224	Cementing			3.0	
BIT NUMBER	2			Bit sub	0.89	Temp (° C)	48	Circ & Condition			4.0	
Size (in)	12.25			1 x 8" dc	8.41	Mud Type	KCI/PHPA/POL	Coring				
Make	Smith			12-1/4" stab	1.35	Density (ppg)	9.30	D/O Cement			7.0	
Type	XRCPS			1 x 8" dc	8.79	ECD (ppg)	9.38	Drilling		20.5	64.5	
IADC Code	115			12-1/4" stab	1.36	Viscosity (sec)	40	FIT / LOT			0.5	
Serial Number	MY0188			3 x 8" dc's	27.95	PV / YP (cp/lb)	9 / 12	Handle BHA				
T.F.A. (")	0.601			X-O w/ crows foot	0.65	Gells (s/m)	3 / 7	Repairs			2.5	
Depth In (m)	307			1 x 6-1/2" NMDC	9.33	API Filt. (cc)	9.4	Rig Service		0.5	1.0	
Depth Out (m)	IN			10 x 6-1/2" dc's	93.32	Cake (/32")	1	Rig up Csg./ Cmt.			3.0	
Total Meters	941			Drilling Jars	9.74	Solids (% Vol)	4.7	Run Casing			8.5	
Hours	39.5			1 x 6-1/2" dc	9.43	Sand (% Vol)	0.75	Safety			1.0	
ROP	23.8			12 x 4-1/2" HWDP	114.65	MBT	13.3	Slip/Cut Drill Line		0.5	0.5	
Condition Out				BHA LENGTH (m)		286.19	pH (strip)	9.5	Survey		1.0	4.5
FLOW DATA				BHA WEIGHT(kLb)		62.9	Chlorides (mg/l)	26000	Test BOP			3.5
CIRC. RATE (gpm)	627			STRING WT (kLb)	69.0	KCL (%)	5.8	Tight hole / Fishing				
AV - DP (fpm)	118			HOOK LOAD (kLb)	135.0	PHPA (ppb)	0.97	Tripping			6.0	
AV - DC (fpm)	179			WT BELOW JARS (kLb)	47.3	ALC - 50 (K)		Wait on Cement			5.0	
SPP (psi)	1850			DRAG UP (kLb)	137.0	Circ. Vol. (Bbl)	964	Wash / Ream		0.5	0.5	
SPP (calculated)	1540			DRAG DOWN (kLb)	135.0	CHEMICAL USAGE		Well Control			0.5	
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	3000	AMC Pac- LV	6	Well Test				
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	1500	Biocide G	1	Wiper Trip		1.0	6.0	
RATE	110	RATE	110	BULK PRODUCTS		Caustic Soda	3	Wireline				
LINER	6.0"	LINER	6.0"	FUEL ON SITE	49300 Litres	Defoamer	1	Other			6.5	
STROKE	8.0"	STROKE	8.0"	DAILY USAGE	6018 Litres	Kwikseal M	5	TOTALS		24.0	137.0	
SCR: 200 @ 50		SCR: 320 @ 80		CUM. FUEL USED	24968 Litres	PHPA	3	DAILY MUD COSTS			\$6,877.23	
SURVEYS				BARITES ON SITE	-100 kg	Soda Ash	8	CUM. MUD COSTS			\$46,795.01	
1.0° at 978m				BARITES USED	100 kg	Sodium Sulphite	4	AFE COST - C&S				
1.75° at 1094m				MUD MIXED	3100 Bbls	Xanthan Gum	7	AFE COST - P&A				
1.5° at 1200m				MUD LOSSES	2122 Bbls	KCL	100	AFE COST - C&C				

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	0:30	Wiper trip back to 13-3/8" shoe @ 304m, hole good
0:30	1:00	Rig service
1:00	1:30	Slip drilling line
1:30	2:00	RIH f/ shoe to 854m
2:00	2:30	Break circ., wash & ream f/854m to 883m (1met. Fill)
2:30	7:30	Drill 12-1/4" hole f/ 883m to 1028m
7:30	8:00	Circ. & survey @ 978m, 1 deg., N60E, AZI = 67
8:00	13:00	Drill f/ 1028m to 1143m
13:00	13:30	Circ. & survey @ 1094m, 1-3/4 deg., N18E, AZI = 25
13:30	0:00	Drill f/ 1143m to 1248m, T.D. 9-5/8" csg. Depth (Note; f/ 1150 met., ROP dropped f/ 28mph down to 4mph > 13mph)

MAXIMUM GAS:	23.7% @ 1061m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott		GEOLOGIST:	David Horner		MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

14/09/2006

REPORT # 07

WELL	Glenaire 01	24:00 DEPTH	1255m	24 HR PROG	7m	CUM. COSTS	\$47,123				
RIG	Ensign # 32	FORMATION	Eumeralla	PTD	3945m	DAILY COSTS	\$328.00				
OP's TO 06:00	POOH, rig & run 105 jnt's of 9-5/8" csg., set shoe @ 1252met., circ. & cement same, bump plug w/ 2800psi, bleed off, float holding, flush BOP prior to nipping down to install slips & "B" section										
REMARKS / FORWARD PLAN:	Pres.Op. @ 06:00hrs = flush BOP, Fwd. plan = rig down, set slips, rough cut csg./dress stub, install "B" sect., press.test BOP, M.U.std's D.P, rack in Mast, make up 8-1/2" BHA					PERSONNEL ON SITE:	32				
LAST CASING	13 3/8"	SET AT	304.0m	LOT	12.2ppg	MAASP	149psi	BOP TEST	10/09/2006	TEST DUE	24/09
AFD's: 47	SAFETY	1. 2. Toolbox talk daily					WEATHER AM	sunny			
						PM	overcast				

BIT INFORMATION				BHA # 2		MUD PROPERTIES		OPERATION		HRS	CUM
WOB(kLb)	10-18	JET V(fps)	334	TOOL	LENGTH	Time	0515	BOP's / Wellhead			9.0
RPM	130	H S I	2.89		12.25	Depth (m)	1255	Cementing			3.0
BIT NUMBER			2	Bit sub	0.89	Temp (° C)	46	Circ & Condition		3.0	7.0
Size (in)	12.25			1 x 8" dc	8.41	Mud Type	KCI/PHPA/POL	Coring			
Make	Smith			12-1/4" stab	1.35	Density (ppg)	9.30	D/O Cement			7.0
Type	XRPCS			1 x 8" dc	8.79	ECD (ppg)	9.38	Drilling		0.5	65.0
IADC Code	115			12-1/4" stab	1.36	Viscosity (sec)	40	FIT / LOT			0.5
Serial Number	MY0188			3 x 8" dc's	27.95	PV / YP (cp/lb)	8 / 12	Handle BHA			
T.F.A.(")	0.601			X-O w/ crows foot	0.65	Gells (s/m)	3 / 6	Repairs			2.5
Depth In (m)	307			1 x 6-1/2" NMDC	9.33	API Filt. (cc)	9.2	Rig Service			1.0
Depth Out (m)	1255			10 x 6-1/2" dc's	93.32	Cake (/32")	1	Rig up Csg./ Cmt.		3.0	6.0
Total Meters	948			Drilling Jars	9.74	Solids (% Vol)	4.5	Run Casing		9.5	18.0
Hours	40			1 x 6-1/2" dc	9.43	Sand (% Vol)	0.5	Safety			1.0
ROP	23.7			12 x 4-1/2" HWDP	114.65	MBT	13.3	Slip/Cut Drill Line			0.5
Condition Out	2 2 NO A 2 1 NR TD			BHA LENGTH (m)	286.19	pH (strip)	9.5	Survey		0.5	5.0
FLOW DATA				BHA WEIGHT(kLb)	62.9	Chlorides (mg/l)	26600	Test BOP			3.5
CIRC. RATE (gpm)	627			STRING WT (kLb)	69.0	KCL (%)	6.1	Tight hole / Fishing			
AV - DP (fpm)	118			HOOK LOAD (kLb)	135.0	PHPA (ppb)	0.97	Tripping		5.0	11.0
AV - DC (fpm)	179			WT BELOW JARS (kLb)	47.3	ALC - 50 (K)		Wait on Cement			5.0
SPP (psi)	1850			DRAG UP (kLb)	137.0	Circ. Vol. (Bbl)	894	Wash / Ream		0.5	1.0
SPP (calculated)	1510			DRAG DOWN (kLb)	135.0	CHEMICAL USAGE		Well Control			0.5
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	3000	Barite	40	Well Test			
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	1500			Wiper Trip		2.0	8.0
RATE	110	RATE	110	BULK PRODUCTS				Wireline			
LINER	6.0"	LINER	6.0"	FUEL ON SITE	43950 Litres			Other			6.5
STROKE	8.0"	STROKE	8.0"	DAILY USAGE	5350 Litres			TOTALS		24.0	161.0
SCR: 200 @ 50		SCR: 320 @ 80		CUM. FUEL USED	30318 Litres			DAILY MUD COSTS			\$328.00
SURVEYS				BARITES ON SITE	-100 kg			CUM. MUD COSTS			\$47,123.01
				BARITES USED	100 kg			AFE COST - C&S			
				MUD MIXED	3100 Bbls			AFE COST - P&A			
				MUD LOSSES	2257 Bbls			AFE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	0:30	Drill 12-1/4" hole f/ 1248m to 1255m
0:30	1:30	Pump sweep, circ. hole clean, (sample up = 80% silt > 20% sand for casing seat)
1:30	2:00	Survey @ 1200m, 1-1/2 deg., N25E, AZI = 32
2:00	3:30	Wiper trip back to 864m, intermittent tight hole, max 35k over pull, wipe stand thru. each section, ok
3:30	4:00	RIH, to 1220m, hole good, hung up @ 1221m
4:00	4:30	Wash & ream f/ 1221m to 1225m, 1/2 met. Fill
4:30	6:30	Pump sweep, circ. hole clean.
6:30	11:30	Pump slug, POOH, lay out 12-1/4" stab.,bit, & #2 x 8" dc's, clear rig floor (top stab. = 1/16" u.g. > bottom = 1/4" u.g. > bit = 1/16" u.g.)
11:30	14:30	Rig to run 9-5/8" csg., change out rams to 9-5/8", run cup tester, press. test BOP doors to 1200psi, ok, lay out cup tester, Safety Meeting
14:30	0:00	M.U. shoe jnt., fill w/ mud, check flow thru., make up float, check flow thru., Run to 13-3/8" shoe, break circ., run to 1229m, wash to 1241m

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott	GEOLOGIST:	David Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

15/09/2006

REPORT # 08

WELL	Glenaire 01	24:00 DEPTH	1255m	24 HR PROG		CUM. COSTS						
RIG	Ensign # 32	FORMATION	Eumeralla	PTD	3945m	DAILY COSTS						
OP's TO 06:00	Set 9-5/8" shoe @ 1252m, Cmt. Csg., nipple down BOP, set slip & seal, L/O Cmt, Hd. & rough cut csg., chain block failure, repair same, final cut csg. stub, dress same, install "B" section, DSA & BOP, press. Test BOP											
REMARKS / FORWARD PLAN:	Complete testing BOP, set wear bushing, lay out 8"dc's, make up 36std's d.p. & rack in Mast, make up DSX519M, PDC bit & RIH, "Kick Drill", drill flt. & shoe, L/O, drill ahead					PERSONNEL ON SITE:	31					
LAST CASING	9 5/8"	SET AT	1252.0m	LOT		MAASP		BOP TEST	10/09/2006	TEST DUE	24/09	
AFD's: 48	SAFETY	1. 2. Toolbox talk daily					WEATHER AM	overcast	PM	overcast		

BIT INFORMATION				TOOL		MUD PROPERTIES		OPERATION	HRS	CUM																			
WOB(kLb)	JET V(fps)	RPM	H S I	LENGTH	Time	Depth (m)	Temp (° C)	Mud Type	Density (ppg)	ECD (ppg)	Viscosity (sec)	PV / YP (cp/lb)	Gells (s/m)	API Filtr. (cc)	Cake (/32")	Solids (% Vol)	Sand (% Vol)	MBT	pH (strip)	Chlorides (mg/l)	KCL (%)	PHPA (ppb)	ALC - 50 (K)	Circ. Vol. (Bbl)	CHEMICAL USAGE	Well Control			
					2145	1255	31	KCI/PHPA/POL	9.20		40	7 / 10	2 / 4	9.2	1	3.8	0.25	15	8.8	25000	5.7	0.9	50	940					
BIT NUMBER																													
Size (in)																													
Make																													
Type																													
IADC Code																													
Serial Number																													
T.F.A. ("																													
Depth In (m)																													
Depth Out (m)																													
Total Meters																													
Hours																													
ROP																													
Condition Out																													
FLOW DATA																													
CIRC. RATE (gpm)																													
AV - DP (fpm)																													
AV - DC (fpm)																													
SPP (psi)																													
SPP (calculated)																													
PUMP #1		PUMP #2																											
8-P-80		8-P-80																											
RATE																													
LINER		5.0"		LINER		5.0"		BULK PRODUCTS																					
STROKE		8.5"		STROKE		8.5"		FUEL ON SITE		41600 Litres																			
								DAILY USAGE				2350 Litres																	
								CUM. FUEL USED				32668 Litres																	
SURVEYS								BARITES ON SITE																					
								BARITES USED																					
								MUD MIXED				3146 Bbls																	
								MUD LOSSES				2257 Bbls																	

HOURLY OPERATIONS SUMMARY 0000 to 2400		
From	To	Description
0:00	1:00	Cont.wash f/1241m to 1252m, (run a total 105 jnt's x 9-5/8" x K55 x 36lb/ft x BTC csg.), set shoe @ 1252met.
1:00	2:00	Circ. prior to cmt. Job, load cmt. plug in Halliburton Head, rig up chicksans, Safety Meeting
2:00	3:00	Head up Halliburton, pump 50bbls water w/ rig pump, pump 5bbls w/ Hali.test lines to 4000psi, ok, release bottom plug, pump 5bbls water
3:00	5:00	Mix & pump 297bbls (783 sx) Lead cmt. @ 12.5ppg, followed by 31bbls (148sx) Tail, displace with rig pump 314bbls mud
5:00	5:30	Bump w/ 2000psi, close lo-torque valve f/ rig pump, press.up to 2800psi w/ HOWCO for 10min., ok, bleed back 3bbls, flt. holding
5:30	11:00	Flush BOP w/ water, monitor well, rig down Howco & spacer spool, lift BOP, set slips, rough cut csg. @ 8" above B.H., lay out csg.& cmt.Hd.
11:00	12:30	Attempt to lower BOP back onto spacer spool, chain block failed, BOP cocked, rig up sling to blocks, lift & level BOP, lower same onto B.H.
12:30	14:30	Replace chain block, lift BOP to inspect 9-5/8" csg. cut off stub, noticed top 8" cut off section slightly out of round, caliper @ 5-1/8" sect., ok
14:30	0:00	Final cut csg. stub to 5-1/8" & dress same, install "B" section, press. test same, install DSA & BOP (fit 5" liners to mud pumps)

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott		GEOLOGIST:	David Horner		MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

16/09/2006

REPORT # 09

WELL	Glenaire 01	24:00 DEPTH	1255m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Eumeralla	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Press. tast BOP, make up bit & BHA, RIH p.u. sgls d.p., "Well Control Drill", slip/cut Drlg. Line, cont. RIH p.u.d.p, drill fit, shoe & rat hole to 1255m, drill to 1258m, circ., L/O, EMW = 13.7ppg, drill f/1258 to 1333m						
REMARKS / FORWARD PLAN:	Drill ahead taking surveys every 150met.					PERSONNEL ON SITE:	32
LAST CASING	9 5/8"	SET AT	1252m	LOT		MAASP	
		BOP TEST	16/09/2006	TEST DUE	30/09		
AFD's: 49	SAFETY	1. 2. Toolbox talk daily				WEATHER AM	sunny
						PM	sunny

BIT INFORMATION				BHA # 3		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	3-4	JET V(fps)	168	TOOL	LENGTH	Time	2345	BOP's / Wellhead	4.0	22.5
RPM	145	H S I		8.5 Bit	0.23	Depth (m)	1255	Cementing		5.5
BIT NUMBER				NBS	1.26	Temp (° C)	36	Circ & Condition		8.0
Size (in)				Mud Motor	9.58	Mud Type	KCI/PHPA/POL	Coring		
Make				Stab	1.14	Density (ppg)	9.10	D/O Cement	2.5	9.5
Type				NMDC	8.33	ECD (ppg)	9.28	Drilling		65.0
IADC Code				Stab	1.14	Viscosity (sec)	50	FIT / LOT		0.5
Serial Number				15x6.5" dc's	112.15	PV / YP (cp/lb)	9 / 13	Handle BHA	1.0	1.0
T.F.A. (")				Drilling Jars	9.74	Gells (s/m)	3 / 9	Repairs	0.5	6.5
Depth In (m)				3x6.25 dc's	27.31	API Filt. (cc)	9.8	Rig Service	0.5	1.5
Depth Out (m)				12xHWDP	114.65	Cake (/32")	1	Rig up Csg./ Cmt.		7.0
Total Meters						Solids (% Vol)	3.1	Run Casing		19.0
Hours						Sand (% Vol)	0.2	Safety		1.0
ROP						MBT	13.3	Slip/Cut Drill Line	1.0	1.5
Condition Out				BHA LENGTH (m)	285.53	pH (strip)	12	Survey		5.0
FLOW DATA				BHA WEIGHT(kLb)	51.6	Chlorides (mg/l)	23500	Test BOP	5.0	8.5
CIRC. RATE (gpm)	315			STRING WT (kLb)	57.8	KCL (%)	5.5	Tight hole / Fishing		
AV - DP (fpm)	60			HOOK LOAD (kLb)	136.0	PHPA (ppb)	0.96	Tripping	9.0	20.0
AV - DC (fpm)	72			WT BELOW JARS (kLb)	32.0	ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)	650			DRAG UP (kLb)	136.0	Circ. Vol. (Bbl)	899	Wash / Ream		1.0
SPP (calculated)	470			DRAG DOWN (kLb)	136.0	CHEMICAL USAGE		Well Control	0.5	1.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)	2979	Biocide G	1	Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)	1943	PHPA	1	Wiper Trip		8.0
RATE	75	RATE	75	BULK PRODUCTS		Soda Ash	8	Wireline		
LINER	5.0"	LINER	5.0"	FUEL ON SITE	41250 Litres	Sodium Sulphite	2	Other		12.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	2350 Litres			TOTALS	24.0	209.0
SCR: 180 @ 50	SCR: 240 @ 80			CUM. FUEL USED	33018 Litres			DAILY MUD COSTS		\$517.25
SURVEYS				BARITES ON SITE	-100 kg			CUM. MUD COSTS		\$47,640.26
				BARITES USED	100 kg			AFE COST - C&S		
				MUD MIXED	3146 Bbbls			AFE COST - P&A		
				MUD LOSSES	2298 Bbbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	4:00	Cont. nipple up BOP, riser & flow line, change pipe rams to 4-1/2", function test pipe rams
4:00	7:30	Make up combination tool test plug, RIH & set same, pressure test BOP, 200psi low & 2800psi high, Conduct Accumulator Test
7:30	9:00	Pull comb. Tool., close blind rams, press. Test same to 2800psi, reverse comb. Tool, run & set wear bushing, pull & lay out tool
9:00	9:30	Rig Service
9:30	10:30	Hold PJSM, lay out 8" dc's
10:30	15:30	Make up bit, DSX519M & BHA, RIH to 535m
15:30	16:00	Ajust Crown -Omatic
16:00	19:00	Cont. RIH p.u. singles d.p. to 1104m
19:00	19:30	Conduct "Well Control Drill", close annular, sound "Muster Alarm", circ.thru ajustable choke, holding back press.w/ choke, via Poor Boy
19:30	20:30	Cont. RIH, picking up singles d.p. to 1200m
20:30	21:30	Slip & cut drilling line
21:30	0:00	Break circ., wash to top of Float @ 1239m, drill float, shoe track & shoe @ 1252m, rat hole to 1255met.

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott		GEOLOGIST:	Dave Horner		MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

17/09/2006

REPORT # 10

WELL	Glenaire 01	24:00 DEPTH	1778m	24 HR PROG	523m	CUM. COSTS					
RIG	Ensign # 32	FORMATION	Eumeralla	PTD	3945m	DAILY COSTS					
OP's TO 06:00 Control drill ahead f/ 1778m to 1850m, taking 90m surveys due to deviation.											
REMARKS / FORWARD PLAN: Drill ahead, taking survey as required, drill to 2150m + -, wiper trip back to shoe							PERSONNEL ON SITE:	33			
LAST CASING		9 5/8"	SET AT	1252m	LOT	MAASP	BOP TEST	16/09/2006	TEST DUE	30/09	
AFD's: 50		SAFETY 1. 2. Safety meeting					WEATHER AM		sunny	PM	sunny

BIT INFORMATION				BHA # 3		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	3-6	JET V(fps)	264	TOOL	LENGTH	Time	2125	BOP's / Wellhead		22.5
RPM	200	H S I	2.69	8.5 Bit	0.23	Depth (m)	1730	Cementing		5.5
BIT NUMBER	3			NBS	1.26	Temp (° C)	46	Circ & Condition	1.0	9.0
Size (in)	8.5			Mud Motor	9.58	Mud Type	KCI/PHPA/POL	Coring		
Make	Hyc			Stab	1.14	Density (ppg)	9.25	D/O Cement		9.5
Type	DSX519M			NMDC	8.33	ECD (ppg)	9.49	Drilling	20.5	85.5
IADC Code	PDC			Stab	1.14	Viscosity (sec)	45	FIT / LOT	0.5	1.0
Serial Number	211741			15x6.5" dc's	112.15	PV / YP (cp/lb)	10 / 14	Handle BHA		1.0
T.F.A.()	0.552			Drilling Jars	9.74	Gells (s/m)	3 / 12	Repairs		6.5
Depth In (m)	1255			3x6.25 dc's	27.31	API Filt. (cc)	9	Rig Service	0.5	2.0
Depth Out (m)	IN			12xHWDP	114.65	Cake (/32")	1	Rig up Csg./ Cmt.		7.0
Total Meters	523					Solids (% Vol)	4	Run Casing		19.0
Hours	20.5					Sand (% Vol)	0.25	Safety		1.0
ROP	25.5					MBT	15	Slip/Cut Drill Line		1.5
Condition Out				BHA LENGTH (m)	285.53	pH (strip)	10.5	Survey	1.5	6.5
FLOW DATA				BHA WEIGHT(kLb)	51.5	Chlorides (mg/l)	22000	Test BOP		8.5
CIRC. RATE (gpm)	454			STRING WT (kLb)	60.9	KCL (%)	5.6	Tight hole / Fishing		
AV - DP (fpm)	214			HOOK LOAD (kLb)	158.0	PHPA (ppb)	0.9	Tripping		20.0
AV - DC (fpm)	371			WT BELOW JARS (kLb)	31.9	ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)	1490			DRAG UP (kLb)	160.0	Circ. Vol. (Bbl)	778	Wash / Ream		1.0
SPP (calculated)	1480			DRAG DOWN (kLb)	158.0	CHEMICAL USAGE		Well Control		1.0
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	4500	AMC Pac- LV	11	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	1230	Biocide G	2	Wiper Trip		8.0
RATE	108	RATE	108	BULK PRODUCTS				Caustic Soda	1	Wireline
LINER	5.0"	LINER	5.0"	FUEL ON SITE	34000 Litres	PHPA	2	Other		12.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	7250 Litres	Soda Ash	8	TOTALS	24.0	233.0
SCR: 180 @ 40		SCR: 240 @ 60		CUM. FUEL USED	40268 Litres	Sodium Sulphite	8	DAILY MUD COSTS		\$5,742.28
SURVEYS				BARITES ON SITE	-100 kg	Xanthan Gum	4	CUM. MUD COSTS		\$53,382.54
1.0° at 1362m		3.0° at 1767m		BARITES USED	100 kg	KCL	72	AFE COST - C&S		
0.75° at 1507m				MUD MIXED	3326 Bbbs	Xtra Sweep	1	AFE COST - P&A		
2.25° at 1652m				MUD LOSSES	2431 Bbbs			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400											
From	To	Description									
0:00	0:30	Drill 8-1/2" hole f/ 1255m to 1258m									
0:30	1:30	Circ. Hole clean & condition mud									
1:30	2:00	Pull inside shoe, conduct Leak Off test, 1000psi w/ 9.1ppg = EMW of 13.7ppg									
2:00	7:00	Drill f/ 1258m to 1374m									
7:00	7:30	Rig service									
7:30	8:00	Circ. & survey @ 1362m, 1 deg., N70E AZI = 77									
8:00	12:30	Drill f/ 1374m to 1518m									
12:30	13:00	Circ. & survey @ 1507m, 3/4 deg., N65E, AZI = 72									
13:00	17:00	Drill f/1518m to 1663m (2 x 108spm = 454gpm) > (454gpm x 0.288 = 131rpm @ bit) + (rotary = 75rpm) = (131rpm + 75rpm = 201rpm)									
17:00	17:30	Circ. & survey @ 1652m, 2.25 deg., N25E, AZI = 32									
17:30	0:00	Drill f/ 1663m to 1778m									
MAXIMUM GAS:		% @ m			BACKGROUND GAS:		%		CONNECTION GAS:		%
SUPERVISOR:			Brian Marriott				GEOLOGIST:			Dave Horner	
MUD CO:							RMN Drilling Fluids				



DAILY DRILLING REPORT

18/09/2006

REPORT # 11

WELL Glenaire 01	24:00 DEPTH 2125m	24 HR PROG 347m	CUM. COSTS	
RIG Ensign # 32	FORMATION Laira	PTD 3945m	DAILY COSTS	
OP's TO 06:00 Circ. & survey @ 1767 = 3 deg., N15E, Drill f/ 1778m to 2154m taking surveys as required, circ., survey @ 2142m = 3-1/4 deg. N25E, Wiper trip to 9-5/8" shoe, hole slick, no over pull, RIH				
REMARKS / FORWARD PLAN: 3 x loads of 7" csg. arrived >> Complete wiper trip, drill ahead f/ 2154m to 3000m + -, taking surveys as required			PERSONNEL ON SITE: 32	
LAST CASING 9 5/8"	SET AT 1252m	LOT	MAASP	BOP TEST 16/09/2006
AFD's: 51				TEST DUE 30/09
SAFETY 1. 2. Toolbox talk daily			WEATHER AM overcast PM light shower	

BIT INFORMATION				BHA # 3		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb) 3-6	JET V(fps) 264			TOOL 8.5 Bit	LENGTH 0.23	Time 2145	BOP's / Wellhead		22.5	
RPM 200	H S I 2.70					Depth (m) 2084	Cementing		5.5	
BIT NUMBER 3				NBS 1.26		Temp (° C) 51	Circ & Condition		9.0	
Size (in) 8.5				Mud Motor 9.58		Mud Type KCI/PHPA/POL	Coring			
Make Hyc				Stab 1.14		Density (ppg) 9.30	D/O Cement		9.5	
Type DSX519M				NMDC 8.33		ECD (ppg) 9.55	Drilling	22.5	108.0	
IADC Code PDC				Stab 1.14		Viscosity (sec) 42	FIT / LOT		1.0	
Serial Number 211741				15x6.5" dc's 112.15		PV / YP (cp/lb) 10 / 14	Handle BHA		1.0	
T.F.A.() 0.552				Drilling Jars 9.74		Gells (s/m) 3 / 10	Repairs		6.5	
Depth In (m) 1255				3x6.25 dc's 27.31		API Filt. (cc) 8.4	Rig Service		2.0	
Depth Out (m) IN				12xHWDP 114.65		Cake (/32") 1	Rig up Csg./ Cmt.		7.0	
Total Meters 870						Solids (% Vol) 4.5	Run Casing		19.0	
Hours 43						Sand (% Vol) 0.25	Safety		1.0	
ROP 20.2						MBT 17.5	Slip/Cut Drill Line		1.5	
Condition Out				BHA LENGTH (m) 285.53		pH (strip) 9.8	Survey	1.5	8.0	
FLOW DATA				BHA WEIGHT(kLb) 51.5		Chlorides (mg/l) 25000	Test BOP		8.5	
CIRC. RATE (gpm) 454				STRING WT (kLb) 63.1		KCL (%) 5.9	Tight hole / Fishing			
AV - DP (fpm) 214				HOOK LOAD (kLb) 177.0		PHPA (ppb) 1.04	Tripping		20.0	
AV - DC (fpm) 371				WT BELOW JARS (kLb) 31.9		ALC - 50 (K)	Wait on Cement		5.0	
SPP (psi) 1580				DRAG UP (kLb) 178.0		Circ. Vol. (Bbl) 831	Wash / Ream		1.0	
SPP (calculated) 1540				DRAG DOWN (kLb) 173.0		CHEMICAL USAGE		Well Control	1.0	
PUMP #1 8-P-80	PUMP #2 8-P-80			TORQUE ON (Amps/Rel.) 4200		AMC Pac- LV 6	Well Test			
RATE 108	RATE 108			TORQUE OFF (Amps/Rel.) 3600		Biocide G 1	Wiper Trip		8.0	
LINER 5.0"	LINER 5.0"			BULK PRODUCTS		Caustic Soda 1	Wireline			
STROKE 8.5"	STROKE 8.5"			FUEL ON SITE 29850 Litres		Defoamer 1	Other		12.0	
SCR: 200 @ 40	SCR: 280 @ 60			DAILY USAGE 4150 Litres		PHPA 6	TOTALS	24.0	257.0	
				CUM. FUEL USED 44418 Litres		Soda Ash 2	DAILY MUD COSTS		\$5,119.33	
SURVEYS				BARITES ON SITE -125 kg		Xanthan Gum 4	CUM. MUD COSTS		\$58,501.87	
3.25° at 1854m				BARITES USED 125 kg		KCL 84	AFE COST - C&S			
3.75° at 1999m				MUD MIXED 3526 Bbls			AFE COST - P&A			
3.25° at 2142m				MUD LOSSES 2548 Bbls			AFE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	0:30	Circ. & survey @ 1767m, 3 deg., N15E, AZI = 22
0:30	7:30	Drill f/ 1778m to 1865m (control drill due to deviation) (only drilled 87met. to re-check deviation)
7:30	8:00	Circ. & survey @ 1854m, 3.25 deg., N10E, AZI = 17
8:00	14:30	Drill f/ 1865m to 1991m (drill ahead) (Laira formation top came in @ 1968met.)
14:30	15:30	Control drill @ Geo. Request @ 20mph f/ 1991m to 2010m
15:30	16:00	Circ. & survey @ 1999m, 3-3/4 deg., N35E, AZI = 42
16:00	21:00	Control drill @ Geo. request f/ 2010m to 2077m(reduce pump str./gpm f/ 453gpm to 360 w/ control drilling to prevent washing out formation)
21:00	0:00	Drill ahead f/ 2077m to 2125m

MAXIMUM GAS: 1128% @ 1951m	BACKGROUND GAS: %	CONNECTION GAS: %	TRIP GAS: %
SUPERVISOR: Brian Marriott	GEOLOGIST: Dave Horner	MUD CO: RMN Drilling Fluids	



DAILY DRILLING REPORT

19/09/2006

REPORT # 12

WELL	Glenaire 01	24:00 DEPTH	2365m	24 HR PROG	240m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00		Complete wiper trip, hole in good shape, light wash & ream last stand to bottom @ 2154m, Drill ahead f/ 2154m to 2386m, taking surveys as required, surv. @ 2374m = 6 deg, circ., POOH to run a Pendalum Ass., hole slick					
REMARKS / FORWARD PLAN:		Received 51x26lb/ft jnt's 7" csg. >> POOH to run a Pendalum assembly, RIH, drill ahead to 3000m + -, taking surveys as required				PERSONNEL ON SITE:	33
LAST CASING	9 5/8"	SET AT	1252m	LOT		MAASP	
		BOP TEST	16/09/2006	TEST DUE	30/09		
AFD's: 52	SAFETY	1. 2. Toolbox talk daily				WEATHER AM	overcast
						PM	rain

BIT INFORMATION				BHA # 3		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	3-6	JET V(fps)	264	TOOL	LENGTH	Time	2150	BOP's / Wellhead		22.5
RPM	200	H S I	2.70	8.5 Bit	0.23	Depth (m)	2349	Cementing		5.5
BIT NUMBER	3			NBS	1.26	Temp (° C)	54	Circ & Condition	0.5	9.5
Size (in)	8.5			Mud Motor	9.58	Mud Type	KCI/PHPA/POL	Coring		
Make	Hyc			Stab	1.14	Density (ppg)	9.30	D/O Cement		9.5
Type	DSX519M			NMDC	8.33	ECD (ppg)	9.65	Drilling	17.5	125.5
IADC Code	PDC			Stab	1.14	Viscosity (sec)	46	FIT / LOT		1.0
Serial Number	211741			15x6.5" dc's	112.15	PV / YP (cp/lb)	12 / 17	Handle BHA		1.0
T.F.A. (")	0.552			Drilling Jars	9.74	Gells (s/m)	5 / 14	Repairs	1.0	7.5
Depth In (m)	1255			3x6.25 dc's	27.31	API Filt. (cc)	7.6	Rig Service	0.5	2.5
Depth Out (m)	IN			12xHWDP	114.65	Cake (/32")	1	Rig up Csg. / Cmt.		7.0
Total Meters	1110					Solids (% Vol)	4.7	Run Casing		19.0
Hours	60.5					Sand (% Vol)	0.25	Safety		1.0
ROP	18.3					MBT	16.3	Slip/Cut Drill Line		1.5
Condition Out				BHA LENGTH (m)	285.53	pH (strip)	9.6	Survey	1.0	9.0
FLOW DATA				BHA WEIGHT(kLb)	51.5	Chlorides (mg/l)	27700	Test BOP		8.5
CIRC. RATE (gpm)	454			STRING WT (kLb)	64.6	KCL (%)	5.9	Tight hole / Fishing		
AV - DP (fpm)	214			HOOK LOAD (kLb)	191.0	PHPA (ppb)	1.05	Tripping		20.0
AV - DC (fpm)	371			WT BELOW JARS (kLb)	31.9	ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)	1600			DRAG UP (kLb)	192.0	Circ. Vol. (Bbl)	828	Wash / Ream	0.5	1.5
SPP (calculated)	1640			DRAG DOWN (kLb)	191.0	CHEMICAL USAGE		Well Control		1.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)	5000	AMC Pac- LV	5	Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)	3400	Biocide G	1	Wiper Trip	3.0	11.0
RATE	108	RATE	108	BULK PRODUCTS		Caustic Soda	1	Wireline		
LINER	5.0"	LINER	5.0"	FUEL ON SITE	23800 Litres	PHPA	2	Other		12.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	6050 Litres	Soda Ash	4	TOTALS	24.0	281.0
SCR: 240 @ 40	SCR: 320 @ 60			CUM. FUEL USED	50468 Litres	Sodium Sulphite	4	DAILY MUD COSTS		\$2,992.75
SURVEYS				BARITES ON SITE	-125 kg	Xanthan Gum	2	CUM. MUD COSTS		\$61,494.62
5.0° at 2288m				BARITES USED	125 kg	KCL	42	AFE COST - C&S		
6.0° at 2374m				MUD MIXED	3626 Bbls			AFE COST - P&A		
				MUD LOSSES	2699 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	2:00	Drill f/ 2125m to 2154m
2:00	2:30	Sweep Hi Vis, Circ.
2:30	3:00	Run survey @ 2142m, 3-1/4 deg., N25E, AZI = 32
3:00	6:00	Flow check, wiper trip to 9-5/8" shoe, hole slick, RIH
6:00	6:30	Light wash & ream last stand to bottom, f/ 2127m to 2154m
6:30	9:00	Drill ahead 8-1/2" hole f/ 2154m to 2212m
9:00	9:30	TDS failed, circ. whilst fault find, found load nut ajustment bolt hole elongated, which allows the load to come in contact with the quill.
9:30	10:00	Contact TDS main office to varify problem, instructed to drill ahead
10:00	15:30	Drill f/ 2212m to 2299m
15:30	16:00	Rig service
16:00	16:30	Survey @ 2288m, 5 deg, N10E, AZI = 17
16:30	0:00	Drill f/ 2299m to 2365m

MAXIMUM GAS:	89% @ 2154m	BACKGROUND GAS:	%	CONNECTION GAS:	0%	TRIP GAS:	0%
SUPERVISOR:	Brian Marriott	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

21/09/2006

REPORT # 14

WELL	Glenaire 01	24:00 DEPTH	2753m	24 HR PROG	268m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Drill f/2548m to 2802m.. Surveys @2633m 6-1/2Deg N35W(uncorrected), @2719m 6-1/4Deg N45W(uncorrected)						
REMARKS / FORWARD PLAN:	Drilling ahead to 3002m TD...last survey show deviation holding at current parameters, next survey due at 2806m+ -					PERSONNEL ON SITE:	38
LAST CASING	9 5/8"	SET AT	1252m	LOT	13.5ppg	MAASP	872psi
		BOP TEST	16/09/2006	TEST DUE	30/09		
AFD's: 54	SAFETY	1. Pretour Lifting and carrying 2. Pretour Revised procedures for tongs				WEATHER AM	fine
						PM	fine

BIT INFORMATION				BHA # 4		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	5-7	JET V(fps)	264	TOOL	LENGTH	Time	2215	BOP's / Wellhead		22.5
RPM	227	H S I	2.73		8.5	Depth (m)	2734	Cementing		5.5
BIT NUMBER	4			Mud Motor	8.58	Temp (° C)	56	Circ & Condition		10.0
Size (in)	8.5			NMDC	9.33	Mud Type	KCI/PHPA/POL	Coring		
Make	Hyc			1x6-1/4" dc	9.42	Density (ppg)	9.40	D/O Cement		9.5
Type	DSX519M			Stab.	1.14	ECD (ppg)	9.70	Drilling	20.5	158.0
IADC Code	PDC			11x6-1/4" dc's	102.73	Viscosity (sec)	48	FIT / LOT		1.0
Serial Number	211741			Jars	9.74	PV / YP (cp/lb)	13 / 16	Handle BHA		2.5
T.F.A.(°)	0.552			3x6-1/4" dc's	27.31	Gells (s/m)	4 / 16	Repairs		7.5
Depth In (m)	2386			12xHWDP	114.65	API Filt. (cc)	7.8	Rig Service	0.5	3.0
Depth Out (m)	IN					Cake (/32")	1	Rig up Csg./ Cmt.		7.0
Total Meters	367					Solids (% Vol)	5.4	Run Casing		19.0
Hours	28.5					Sand (% Vol)	0.25	Safety		1.0
ROP	12.9					MBT	20	Slip/Cut Drill Line		2.0
Condition Out				BHA LENGTH (m)	283.13	pH (strip)	9.5	Survey	2.0	11.5
FLOW DATA				BHA WEIGHT(kLb)	50.5	Chlorides (mg/l)	28600	Test BOP		8.5
CIRC. RATE (gpm)	454			STRING WT (kLb)	181.4	KCL (%)	5.9	Tight hole / Fishing		
AV - DP (fpm)	214			HOOK LOAD (kLb)	212.0	PHPA (ppb)	1.07	Tripping		28.5
AV - DC (fpm)	371			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)	1750			DRAG UP (kLb)	213.0	Circ. Vol. (Bbl)	975	Wash / Ream		2.0
SPP (calculated)	2090			DRAG DOWN (kLb)	203.0	CHEMICAL USAGE		Well Control		1.0
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	6929	AMC Pac- LV	5	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	6400	Biocide G	1	Wiper Trip		11.0
RATE	108	RATE	108	BULK PRODUCTS				Caustic Soda	1	Wireline
LINER	5.0"	LINER	5.0"	FUEL ON SITE	40900 Litres	PHPA	4	Other	1.0	13.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	5750 Litres	Soda Ash	4	TOTALS	24.0	329.0
SCR: 220 @ 40		SCR: 320 @ 60		CUM. FUEL USED	60421 Litres	Sodium Sulphite	2	DAILY MUD COSTS		\$3,680.85
SURVEYS				BARITES ON SITE	-125 kg	KCL	84	CUM. MUD COSTS		\$68,390.55
6.5° at 2633m				BARITES USED	125 kg	Citric Acid	6	AFE COST - C&S		
6.25° at 2719m				MUD MIXED	3892 Bbbls			AFE COST - P&A		
				MUD LOSSES	2855 Bbbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	0:30	Drill 8-1/2" hole f/ 2485m to 2497m
0:30	1:30	Circ. & survey @ 2488m, miss run
1:30	3:00	Drill f/ 2497m to 2526m
3:00	4:00	Circ. & survey @ 2517m, 5-1/2 deg., N10W, AZI = 357
4:00	10:30	Control Drill 8.5" f/2526m to 2613m.
10:30	11:00	Service rig
11:00	13:00	Control drill 8.5" f/2613m to 2642m
13:00	13:30	Circulate and run directional survey at 2633m Dev 6.5Deg N35W uncorrected
13:30	21:00	Control drill f/2642m to 2728m with 5k WOB and 227RPM
21:00	21:30	Circ & survey @ 2719m Dev 6.25Deg N45W
21:30	0:00	Control drill f/2728m to 2753m with 5 k WOB and 227RPM

MAXIMUM GAS:	109% @ 2737m	BACKGROUND GAS:	20-35%	CONNECTION GAS:	0%	TRIP GAS:	0%
SUPERVISOR:	Barry Beeton	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

22/09/2006

REPORT # 15

WELL	Glenaire 01	24:00 DEPTH	2934m	24 HR PROG	181m	CUM. COSTS	\$71,221				
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	\$2,830.08				
OP's TO 06:00	Drill ahead f/2753m to 2934m, surveys @2806m 5.25 deg N53W, @2893m 4.75deg N50W, lubricate rig, fix RPM sensor										
REMARKS / FORWARD PLAN:	Hole straightening up, ROP down to 5m/hr at times due to formation						PERSONNEL ON SITE:	38			
LAST CASING	9 5/8"	SET AT	1252m	LOT	13.5ppg	MAASP	883psi	BOP TEST	16/09/2006	TEST DUE	30/09
AFD's: 55	SAFETY	1. Pretour: review verbal shift handover 2. Pretour: review crown saver and emergency brake					WEATHER AM	rain	PM	showers clearing	

BIT INFORMATION				BHA # 4		MUD PROPERTIES		OPERATION	HRS	CUM	
WOB(kLb)	5-6	JET V(fps)	264	TOOL	LENGTH	Time	2200	BOP's / Wellhead		22.5	
RPM	210	H S I	2.72	8.5	0.23	Depth (m)	2917	Cementing		5.5	
BIT NUMBER	4			Mud Motor	8.58	Temp (° C)	60	Circ & Condition		10.0	
Size (in)	8.5			NMDC	9.33	Mud Type	KCI/PHPA/POL	Coring			
Make	Hyc			1x6-1/4" dc	9.42	Density (ppg)	9.35	D/O Cement		9.5	
Type	DSX519M			Stab.	1.14	ECD (ppg)	9.73	Drilling	21.0	179.0	
IADC Code	PDC			11x6-1/4" dc's	102.73	Viscosity (sec)	49	FIT / LOT		1.0	
Serial Number	211741			Jars	9.74	PV / YP (cp/lb)	13 / 19	Handle BHA		2.5	
T.F.A.(")	0.552			3x6-1/4" dc's	27.31	Gells (s/m)	5 / 16	Repairs	0.5	8.0	
Depth In (m)	2386			12xHWDP	114.65	API Filt. (cc)	8.8	Rig Service	0.5	3.5	
Depth Out (m)	IN					Cake (/32")	1	Rig up Csg./ Cmt.		7.0	
Total Meters	548					Solids (% Vol)	5.2	Run Casing		19.0	
Hours	49.5					Sand (% Vol)	0.15	Safety		1.0	
ROP	11.1					MBT	15	Slip/Cut Drill Line		2.0	
Condition Out				BHA LENGTH (m)	283.13	pH (strip)	10	Survey	2.0	13.5	
FLOW DATA				BHA WEIGHT(kLb)	50.6	Chlorides (mg/l)	29500	Test BOP		8.5	
CIRC. RATE (gpm)	454			STRING WT (kLb)	191.1	KCL (%)	5.8	Tight hole / Fishing			
AV - DP (fpm)	214			HOOK LOAD (kLb)	220.0	PHPA (ppb)	1.07	Tripping		28.5	
AV - DC (fpm)	371			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		5.0	
SPP (psi)	1800			DRAG UP (kLb)	225.0	Circ. Vol. (Bbl)	971	Wash / Ream		2.0	
SPP (calculated)	2150			DRAG DOWN (kLb)	212.0	CHEMICAL USAGE		Well Control		1.0	
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	7000	AMC Pac- LV	11	Well Test			
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	5500	PHPA	2	Wiper Trip		11.0	
RATE	108	RATE	108	BULK PRODUCTS				Soda Ash	2	Wireline	
LINER	5.0"	LINER	5.0"	FUEL ON SITE	36400 Litres	KCL	42	Other		13.0	
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	4500 Litres			TOTALS	24.0	353.0	
SCR: 260 @ 40		SCR: 360 @ 60		CUM. FUEL USED	64921 Litres			DAILY MUD COSTS		\$2,830.08	
SURVEYS				BARITES ON SITE	175 kg			CUM. MUD COSTS		\$71,220.63	
	5.25° at 2806m			BARITES USED	125 kg			APE COST - C&S			
	4.75° at 2893m			MUD MIXED	3992 Bbbls			APE COST - P&A			
				MUD LOSSES	2973 Bbbls			APE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400		
From	To	Description
0:00	7:30	Control drill 8.5" f/2753m to 2815m
7:30	8:30	Circ & survey @ 2806m Dev 5.25Deg N53W
8:30	12:00	Control drill 8.5" f/2815m to 2844m
12:00	12:30	Lubricate rig
12:30	20:00	Control drill 8.5" f/2844m to 2902m
20:00	21:00	Circ & survey @ 2893m Dev 4.75Deg N50W
21:00	23:00	Control drill 8.5" f/2902m to 2931m
23:00	23:30	Tesco Attempt to fix RPM sensor
23:30	0:00	Control drill 8.5" f/2931m to 2934m

MAXIMUM GAS:	86% @ 2893m	BACKGROUND GAS:	20-35%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Barry Beetson		GEOLOGIST:	Dave Horner		MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

23/09/2006

REPORT # 16

WELL	Glenaire 01	24:00 DEPTH	3002m	24 HR PROG	68m	CUM. COSTS	\$71,909
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	\$688.20
OP's TO 06:00	Logging with Schlumberger,run 1#,Hals/Sonic/GR						
REMARKS / FORWARD PLAN:	Caliper failed. Tool POH and caliper isolated and head checked.Logging ahead. No backup for caliper on site					PERSONNEL ON SITE:	38
LAST CASING	9 5/8"	SET AT	1252m	LOT	13.5ppg	MAASP	872psi
		BOP TEST	16/09/2006	TEST DUE	30/09		
AFD's: 56	SAFETY	1. Pretour Inspection pretrip 2. Pretour Tripping out				WEATHER AM	overcast
						PM	showers

BIT INFORMATION				BHA # 4		MUD PROPERTIES		OPERATION		HRS	CUM
WOB(kLb)	5-6	JET V(fps)	264	TOOL	LENGTH	Time	1500	BOP's / Wellhead			22.5
RPM	210	HSI	2.73	8.5	0.23	Depth (m)	3002	Cementing			5.5
BIT NUMBER	4			Mud Motor	8.58	Temp (° C)	59	Circ & Condition	2.0		12.0
Size (in)	8.5			NMDC	9.33	Mud Type	KCI/PHPA/POL	Coring			
Make	Hyc			1x6-1/4" dc	9.42	Density (ppg)	9.40	D/O Cement			9.5
Type	DSX519M			Stab.	1.14	ECD (ppg)	9.74	Drilling	9.0		188.0
IADC Code	PDC			11x6-1/4" dc's	102.73	Viscosity (sec)	49	FIT / LOT			1.0
Serial Number	211741			Jars	9.74	PV / YP (cp/lb)	12 / 19	Handle BHA	0.5		3.0
T.F.A.(")	0.552			3x6-1/4" dc's	27.31	Gells (s/m)	4 / 16	Repairs			8.0
Depth In (m)	2386			12xHWDP	114.65	API Filt. (cc)	8.5	Rig Service			3.5
Depth Out (m)	3002					Cake (/32")	1	Rig up Csg./ Cmt.			7.0
Total Meters	616					Solids (% Vol)	5.3	Run Casing			19.0
Hours	58.5					Sand (% Vol)	0.1	Safety			1.0
ROP	10.5					MBT	15	Slip/Cut Drill Line			2.0
Condition Out	1 1 NO A X I R R TD			BHA LENGTH (m)	283.13	pH (strip)	10	Survey	1.0		14.5
FLOW DATA				BHA WEIGHT(kLb)	50.5	Chlorides (mg/l)	29400	Test BOP			8.5
CIRC. RATE (gpm)	454			STRING WT (kLb)	194.5	KCL (%)	5.8	Tight hole / Fishing			
AV - DP (fpm)	214			HOOK LOAD (kLb)	222.0	PHPA (ppb)	0.98	Tripping	6.5		35.0
AV - DC (fpm)	371			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement			5.0
SPP (psi)	1820			DRAG UP (kLb)	227.0	Circ. Vol. (Bbl)	987	Wash / Ream			2.0
SPP (calculated)	2130			DRAG DOWN (kLb)	214.0	CHEMICAL USAGE		Well Control			1.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)	5375	Barite	72	Well Test			
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)	4700	Caustic Soda	2	Wiper Trip	3.0		14.0
RATE	108	RATE	108	BULK PRODUCTS				Wireline	2.0		2.0
LINER	5.0"	LINER	5.0"	FUEL ON SITE	29600 Litres			Other			13.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	6800 Litres			TOTALS	24.0		377.0
SCR: 260 @ 40	SCR: 370 @ 60			CUM. FUEL USED	71721 Litres			DAILY MUD COSTS			\$688.20
SURVEYS				BARITES ON SITE	175 kg			CUM. MUD COSTS			\$71,908.83
6.25° at 2989m				BARITES USED	125 kg			AFE COST - C&S			
				MUD MIXED	3992 Bbls			AFE COST - P&A			
				MUD LOSSES	3029 Bbls			AFE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	9:00	Control drill 8.5" f/2934m to 3002m with 5-6K WOB and 220 RPM
9:00	10:00	Circulate hole clean
10:00	11:00	Directional survey at 2989mtrs- 6.25DegN45W
11:00	12:30	Flow check, pump pill, POH to 2324m. Flow checking at 5 and 10 std out
12:30	14:00	RIH to 2989m., precautionary wash to bottom, 4 mtrs fill
14:00	15:00	Circulate hole clean
15:00	21:30	Flow check, pump pill, POH to Log Flow checking at 5 and 10 std shoe and BHA. Layout stab and monel
21:30	22:00	Service mud motor and layout
22:00	23:00	Clear rig floor, hold PJSM, Rig up Schlumberger
23:00	0:00	Makeup Run 1# HALS/SONIC/GR, tools in hole at 23:10hrs

MAXIMUM GAS:	217% @ 2989m	BACKGROUND GAS:	30-40%	CONNECTION GAS:	%	TRIP GAS:	70%
SUPERVISOR:	Barry Beetson		GEOLOGIST:	Dave Horner		MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

24/09/2006

REPORT # 17

WELL	Glenaire 01			24:00 DEPTH	3002m	24 HR PROG		CUM. COSTS	\$72,357		
RIG	Ensign # 32		FORMATION	Laira	PTD	3945m	DAILY COSTS	\$447.75			
OP's TO 06:00	Continue laying out drill string, with 1 hr repair to forklift transmission..Laying out BHA from 04:00hrs Recovering wear bushing at 06:00 hours										
REMARKS / FORWARD PLAN:	Bottoms up trip gas was approximately 2700 units. Some indications of sloughing but stabilized to 10 units gas very quickly. Possible slug of air from drill pipe. String filled 4 times on way in.						PERSONNEL ON SITE:	38			
LAST CASING	9 5/8"	SET AT	1252m	LOT	13.5ppg	MAASP	872psi	BOP TEST	16/09/2006	TEST DUE	30/09
AFD's: 57	SAFETY	1. Pretour Logging rigup and tear out 2. Weekly Safety meeting held, Pretour Stab valve on survey						WEATHER AM	showers		
								PM	Showers		

BIT INFORMATION				BHA # 5		MUD PROPERTIES		OPERATION	HRS	CUM		
WOB(kLb)		JET V(fps)	264	TOOL	LENGTH	Time	1510	BOP's / Wellhead		22.5		
RPM	80	H S I		Bit sub	0.79	Depth (m)	3002	Cementing		5.5		
BIT NUMBER				NMDC	9.33	Temp (° C)	46	Circ & Condition	1.5	13.5		
Size (in)				12x6-1/4" dc	112.15	Mud Type	KCI/PHPA/POL	Coring				
Make				Jars	9.74	Density (ppg)	9.40	D/O Cement		9.5		
Type				3x6-1/4" dc's	27.31	ECD (ppg)	9.91	Drilling		188.0		
IADC Code				12xHWDP	114.65	Viscosity (sec)	61	FIT / LOT		1.0		
Serial Number						PV / YP (cp/lb)	15 / 28	Handle BHA		3.0		
T.F.A.(")						Gells (s/m)	7 / 13	Repairs		8.0		
Depth In (m)						API Filt. (cc)	8.8	Rig Service		3.5		
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.		7.0		
Total Meters						Solids (% Vol)	5.3	Run Casing		19.0		
Hours						Sand (% Vol)	0.1	Safety		1.0		
ROP						MBT	15	Slip/Cut Drill Line	1.0	3.0		
Condition Out						pH (strip)	9.8	Survey	2.0	16.5		
FLOW DATA				BHA LENGTH (m)	274.20	Chlorides (mg/l)	29500	Test BOP		8.5		
CIRC. RATE (gpm)	454			BHA WEIGHT(kLb)	48.2	KCL (%)	5.8	Tight hole / Fishing				
AV - DP (fpm)	214			STRING WT (kLb)	192.7	PHPA (ppb)	0.98	Tripping	13.0	48.0		
AV - DC (fpm)	371			HOOK LOAD (kLb)	218.0	ALC - 50 (K)		Wait on Cement		5.0		
SPP (psi)	1800			WT BELOW JARS (kLb)		Circ. Vol. (Bbl)	956	Wash / Ream		2.0		
SPP (calculated)	2240			DRAG UP (kLb)	224.0	CHEMICAL USAGE						
				DRAG DOWN (kLb)	212.0	Barite	32	Well Control		1.0		
PUMP #1				PUMP #2				Biocide G	1	Well Test		
8-P-80				8-P-80				BULK PRODUCTS				
RATE	108	RATE	108	FUEL ON SITE		24100 Litres						
LINER	5.0"	LINER	5.0"	DAILY USAGE		5500 Litres						
STROKE	8.5"	STROKE	8.5"	CUM. FUEL USED		77221 Litres						
SCR: 260 @ 40		SCR: 360 @ 60		BARITES ON SITE		175 kg						
SURVEYS				BARITES USED		125 kg						
7° at 2997m				MUD MIXED		3992 Bbls						
5.75° at 2987m				MUD LOSSES		3074 Bbls						
TOTALS												
									DAILY MUD COSTS	\$447.75		
									CUM. MUD COSTS	\$72,356.58		
									AFE COST - C&S			
									AFE COST - P&A			
									AFE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400										
From	To	Description								
0:00	6:30	Continue log run 1#...Caliper failed at start of main run section...POH, tools at surface at 02:30am...no spare...log without caliper, rig down								
6:30	11:00	Makeup cleanout BHA and RIH to shoe...fill pipe at BHA and shoe								
11:00	12:00	Slip & cut drilling line								
12:00	14:30	Continue to RIH to 2989m., precautionary wash to bottom., hole good, no fill								
14:30	16:00	Circulate and condition mud and hole								
16:00	17:00	Wireline check survey at 2997m. 7Deg N40W.								
17:00	18:00	POH one single and wireline check survey at 2987m 5 3/4Deg N30W								
18:00	0:00	Layout drill string to 975m...Flow check at 5std, 10std and shoe								

MAXIMUM GAS:	% @ 3002m	BACKGROUND GAS:	30-40%	CONNECTION GAS:	%	TRIP GAS:	2700%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

25/09/2006

REPORT # 18

WELL	Glenaire 01		24:00 DEPTH	3002m	24 HR PROG		CUM. COSTS			
RIG	Ensign # 32		FORMATION	Laira	PTD	3945m	DAILY COSTS			
OP's TO 06:00	Circulate and reciprocate casing to clean hole and lower pack-off pressure. Cement as per program and set slip and seal assembly. CIP 0500									
REMARKS / FORWARD PLAN:	RIH 254jnts 7" 26/29 L80 casing to 2998m. Hole showing signs of caving in with associated shale cuttings to surface, high gas spikes (upto 4354 units) while circulating. Circulate until pressures and pack off stabilised.						PERSONNEL ON SITE:	34		
LAST CASING	9 5/8"	SET AT	1252m	LOT	13.5ppg	MAASP	850psi	BOP TEST 16/09/2006	TEST DUE 30/09	
AFD's: 58	SAFETY	1. Pretour: drill collars laying down 2. pretour: run Casing					WEATHER AM	fine	PM	fine cold

BIT INFORMATION				TOOL		MUD PROPERTIES		OPERATION		HRS	CUM		
WOB(kLb)		JET V(fps)	195	TIME		2345		BOPs / Wellhead			22.5		
RPM		HSI		DEPTH (m)		3002		Cementing			5.5		
BIT NUMBER						Temp (° C)	51	Circ & Condition		1.5	15.0		
Size (in)						Mud Type	KCl/PHPA/POL	Coring					
Make						Density (ppg)	9.50	D/O Cement			9.5		
Type						ECD (ppg)		Drilling			188.0		
IADC Code						Viscosity (sec)	51	FIT / LOT			1.0		
Serial Number						PV / YP (cp/lb)	13 / 19	Handle BHA			3.0		
T.F.A.(")						Gells (s/m)	4 / 16	Repairs		1.0	9.0		
Depth In (m)						API Filt. (cc)	9	Rig Service			3.5		
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.		3.0	10.0		
Total Meters						Solids (% Vol)	6	Run Casing		13.5	32.5		
Hours						Sand (% Vol)	TRC	Safety			1.0		
ROP						MBT	15	Slip/Cut Drill Line			3.0		
Condition Out						pH (strip)	9.8	Survey			16.5		
FLOW DATA				BHA LENGTH (m)		Chlorides (mg/l)		29600			8.5		
CIRC. RATE (gpm)				336		STRING WT (kLb)		5.8		Tight hole / Fishing			
AV - DP (fpm)				114		HOOK LOAD (kLb)		250.0		Tripping		5.0	53.0
AV - DC (fpm)				114		WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement			5.0
SPP (psi)						DRAG UP (kLb)		300.0		Wash / Ream			2.0
SPP (calculated)						DRAG DOWN (kLb)		180.0		Well Control			1.0
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)		Biocide G		4		Well Test			
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)		Sodium Sulphite		1		Wiper Trip		14.0	
RATE	80	RATE	80	BULK PRODUCTS		KCL		6		Wireline		8.5	
LINER	5.0"	LINER	5.0"	FUEL ON SITE		21800 Litres				Other		13.0	
STROKE	8.5"	STROKE	8.5"	DAILY USAGE		2300 Litres				TOTALS		24.0	425.0
				CUM. FUEL USED		79521 Litres				DAILY MUD COSTS		\$888.40	
SURVEYS				BARITES ON SITE		175 kg				CUM. MUD COSTS		\$73,244.98	
				BARITES USED		125 kg				AFE COST - C&S			
				MUD MIXED		4022 Bbls				AFE COST - P&A			
				MUD LOSSES		3090 Bbls				AFE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400		
From	To	Description
0:00	1:00	Continue to layout pipe to 764m.
1:00	2:00	Repair forklift transmission selector, unable to clear pipe racks
2:00	4:00	Continue to layout pipe, flow check
4:00	6:00	Layout BHA
6:00	7:30	Change rams and pressure test bonnet seal
7:30	9:00	Rig up to run 7" casing, clear floor.
9:00	12:00	Safety Meeting, M/U float and shoe and run 7" casing to 440m
12:00	22:30	Run casing to 2988m
22:30	0:00	Wash casing from 2988m to 2998m. Circulate clean hole

MAXIMUM GAS: % @ 3002m	BACKGROUND GAS: %	CONNECTION GAS: %	TRIP GAS: %
SUPERVISOR: Barry Beetson	GEOLOGIST:	MUD CO: RMN Drilling Fluids	



DAILY DRILLING REPORT

26/09/2006

REPORT # 19

WELL	Glenaire 01	24:00 DEPTH	3002m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Rack back 35 stands 3-1/2" drillpipe. Strap remaining 3-1/2" drillpipe. Pressure test BOP. Prepare BHA						
REMARKS / FORWARD PLAN:	Forward Plan: RIH 6" BHA, pressure test casing to 3000psi, Drill out shoe, FIT					PERSONNEL ON SITE:	35
LAST CASING	7 "	SET AT	2998m	LOT		MAASP	
		BOP TEST	16/09/2006	TEST DUE	30/09		
AFD's: 59	SAFETY	1. Cement Casing 2. Pretour: BOP nipple up				WEATHER AM	fine
					PM	fine	

BIT INFORMATION				MUD PROPERTIES		OPERATION	HRS	CUM		
WOB(kLb)		JET V(fps)		TOOL	LENGTH	Time	1515	BOP's / Wellhead	13.0	35.5
RPM		H S I				Depth (m)	3002	Cementing	2.0	7.5
BIT NUMBER						Temp (° C)	38	Circ & Condition	2.0	17.0
Size (in)						Mud Type	KCI/PHPA/POL	Coring		
Make						Density (ppg)	9.45	D/O Cement		9.5
Type						ECD (ppg)		Drilling		188.0
IADC Code						Viscosity (sec)	47	FIT / LOT		1.0
Serial Number						PV / YP (cp/lb)	11 / 14	Handle BHA		3.0
T.F.A. (")						Gells (s/m)	3 / 18	Repairs		9.0
Depth In (m)						API Filt. (cc)	7.5	Rig Service		3.5
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.	1.0	11.0
Total Meters						Solids (% Vol)	5.6	Run Casing		32.5
Hours						Sand (% Vol)	TRC	Safety		1.0
ROP						MBT	15	Slip/Cut Drill Line		3.0
Condition Out						pH (strip)	10.6	Survey		16.5
FLOW DATA				BHA LENGTH (m)		Chlorides (mg/l)	29500	Test BOP	2.5	11.0
CIRC. RATE (gpm)				BHA WEIGHT(kLb)		KCL (%)	5.9	Tight hole / Fishing		
AV - DP (fpm)				STRING WT (kLb)		PHPA (ppb)	0.94	Tripping	3.5	56.5
AV - DC (fpm)				HOOK LOAD (kLb)		ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)				WT BELOW JARS (kLb)		Circ. Vol. (Bbl)	856	Wash / Ream		2.0
SPP (calculated)				DRAG UP (kLb)		CHEMICAL USAGE				
PUMP #1		PUMP #2		DRAG DOWN (kLb)		AMC Pac- LV	6	Well Control		1.0
8-P-80		8-P-80		TORQUE ON (Amps/Rel.)		Defoamer	1	Well Test		
TORQUE OFF (Amps/Rel.)		TORQUE OFF (Amps/Rel.)		BULK PRODUCTS		Soda Ash	4	Wiper Trip		14.0
RATE		RATE		FUEL ON SITE 49200 Litres		Sodium Sulphite	2	Wireline		8.5
LINER 5.0"		LINER 5.0"		DAILY USAGE 560 Litres		TOTALS				
STROKE 8.5"		STROKE 8.5"		CUM. FUEL USED 80081 Litres				HRS	24.0	CUM 449.0
SURVEYS				BARITES ON SITE 150 kg		DAILY MUD COSTS \$1,246.08				
				BARITES USED 150 kg		CUM. MUD COSTS \$74,491.06				
				MUD MIXED 4022 Bbls		AFE COST - C&S				
				MUD LOSSES 3249 Bbls		AFE COST - P&A				
						AFE COST - C&C				

HOURLY OPERATIONS SUMMARY 0000 to 2400			
From	To	Description	
0:00	2:00	Circulate and work casing, pump pre-flush	
2:00	2:30	Head up Halliburton and surface lines	
2:30	3:00	Pressure Test Surface lines to 4000psi	
3:00	5:00	Mix and pump cement. Lead 157bbls @12.5ppg. Tail 22.3bbls @15.8ppg. Displace with rig pumps. Plug NOT bumped	
5:00	6:00	Install slip and seal assembly.	
6:00	12:00	N/D BOP rough cut and dress casing stub. Install C section	
12:00	14:00	P-test C section to 5000psi, Install DSA and change rams to 3.5"	
14:00	18:00	N/U BOP, install bell nipple and flowline	
18:00	20:30	Pressure test choke manifold and lines. Prepare rig floor	
20:30	0:00	RIH 3-1/2" drill pipe, open end to 812m(makeup in stands for top drive drilling)	
MAXIMUM GAS:	% @ 3002m	BACKGROUND GAS:	%
		CONNECTION GAS:	%
		TRIP GAS:	%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner
		MUD CO:	RMN Drilling Fluids

WELL	Glenaire 01	24:00 DEPTH	3002m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Continue RIH DP from 1775m to 2952m. Break circulation and work pipe..Slip drill line..						
REMARKS / FORWARD PLAN:	Had Trouble testing pipe rams, had to change out. Fire and ESD drill conducted. 1 Hr downtime due to Tesco.					PERSONNEL ON SITE:	35
LAST CASING	7 "	SET AT	2998m	LOT		MAASP	
		BOP TEST	27/09/2006	TEST DUE	11/10		
AFD's: 60	SAFETY	1. Pretour: collars and drill pipe picking up 2. Pretour: DP picking up, chaintongs, lifting				WEATHER AM	fine
						PM	fine-cold

BIT INFORMATION				BHA # 6		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)		JET V(fps)		TOOL	LENGTH	Time	1700	BOP's / Wellhead	0.5	36.0
RPM		H S I		6	0.20	Depth (m)	3002	Cementing		7.5
BIT NUMBER	6			Mud Motor	7.25	Temp (° C)	--	Circ & Condition		17.0
Size (in)	6.0			Float sub	0.40	Mud Type	KCI/PHPA/POL	Coring		
Make	Hyc			NMDC	9.29	Density (ppg)	9.45	D/O Cement		9.5
Type	DSX516M			String stab	1.42	ECD (ppg)		Drilling		188.0
IADC Code				14 x 4.75" DC's	132.53	Viscosity (sec)	46	FIT / LOT		1.0
Serial Number	114752			Drilling jars	9.34	PV / YP (cp/lb)	11 / 13	Handle BHA	5.5	8.5
T.F.A.(")				3 x DC's	28.30	Gells (s/m)	3 / 16	Repairs	1.0	10.0
Depth In (m)	3002			9 x 3.5" HWDP	85.47	API Filt. (cc)	7.4	Rig Service		3.5
Depth Out (m)						Cake (/32")	1	Rig up Csg. / Cmt.		11.0
Total Meters						Solids (% Vol)	5.6	Run Casing		32.5
Hours						Sand (% Vol)	TRC	Safety		1.0
ROP						MBT	15	Slip/Cut Drill Line		3.0
Condition Out				BHA LENGTH (m)	274.20	pH (strip)	10.5	Survey	0.5	17.0
FLOW DATA				BHA WEIGHT(kLb)	29.7	Chlorides (mg/l)	29500	Test BOP	6.0	17.0
CIRC. RATE (gpm)				STRING WT (kLb)	142.1	KCL (%)	5.9	Tight hole / Fishing		
AV - DP (fpm)				HOOK LOAD (kLb)	100.0	PHPA (ppb)	0.94	Tripping	10.0	66.5
AV - DC (fpm)				WT BELOW JARS (kLb)	20.1	ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)				DRAG UP (kLb)		Circ. Vol. (Bbl)	732	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control		1.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)				Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)				Wiper Trip		14.0
RATE		RATE		BULK PRODUCTS				Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	46650 Litres			Other	0.5	13.5
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	2550 Litres			TOTALS	24.0	473.0
				CUM. FUEL USED	82631 Litres			DAILY MUD COSTS		
SURVEYS				BARITES ON SITE	150 kg			CUM. MUD COSTS		\$74,491.06
				BARITES USED	150 kg			AFE COST - C&S		
				MUD MIXED	4022 Bbbls			AFE COST - P&A		
				MUD LOSSES	3249 Bbbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	1:00	Continue to RIH DP F/- 812m T/- 1032m
1:00	2:00	POOH and rack back stands (35 stands)
2:00	3:00	Install HCR line. Load racks with BHA and strap and caliper.
3:00	9:00	Pressure test BOP 200/4800psi (annular 200/2000psi)
9:00	9:30	Install Wear Bushing
9:30	12:00	M/U BHA and RIH t/-196m
12:00	12:30	Test Survey Equipment (fail, won't drift DCs)
12:30	13:30	POOH F/- 196m T/- 17m to relocate stab
13:30	14:30	RIH F/-17m T/- 188m. Test survey Equipment
14:30	16:30	PJSM, Pick up from catwalk and RIH F/- 188m T/- 532m
16:30	17:00	Tesco downtime: Centre top drive torque track
17:00	17:30	Fire Drill and test ESDs
17:30	18:00	Tesco downtime: change dies
18:00	0:00	RIH F/- 532m T/- 1775m

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

28/09/2006

REPORT # 21

WELL	Glenaire 01	24:00 DEPTH	3103m	24 HR PROG	101m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Continue to Drill 6" hole F/-3103 T/3156 mm. Survey @ 3108m 8.5deg N25W (uncorrected);Hi gas reading associated with pit gain. Flow check.Not flowing. Circulate increase Mud wt to 9.8ppg. Drill ahead to 3165m						
REMARKS / FORWARD PLAN:	BOP drill (29secs for Well control) Hydraulic choke tested by pumping fluid through. Tesco downtime yesterday only 1/2 hr, not 1hr.					PERSONNEL ON SITE:	35
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	2226psi
		BOP TEST	27/09/2006	TEST DUE	11/10		
AFD's: 61	SAFETY	1. Pretour: Pressure Testing 2. Pretour: mudlosses, rotation equipment.				WEATHER AM	Fine
						PM	Fine

BIT INFORMATION				BHA # 6		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	4-5	JET V(fps)	111	TOOL	LENGTH	Time	2215	BOP's / Wellhead		36.0
RPM	130	HSI	0.56	6	0.20	Depth (m)	3082	Cementing		7.5
BIT NUMBER	6			Mud Motor	7.25	Temp (° C)	54	Circ & Condition	1.5	18.5
Size (in)	6.0			Float sub	0.40	Mud Type	KCI/PHPA/POL	Coring		
Make	Hyc			NMDC	9.29	Density (ppg)	9.45	D/O Cement	2.5	12.0
Type	DSX516M			String stab	1.42	ECD (ppg)		Drilling	9.5	197.5
IADC Code	PDC			14 x 4.75" DC's	132.53	Viscosity (sec)	52	FIT / LOT	3.0	4.0
Serial Number	114752			Drilling jars	9.34	PV / YP (cp/lb)	12 / 19	Handle BHA		8.5
T.F.A.(")	0.752			3 x DC's	28.30	Gells (s/m)	4 / 16	Repairs		10.0
Depth In (m)				9 x 3.5" HWDP	85.47	API Filt. (cc)	8.7	Rig Service		3.5
Depth Out (m)	IN					Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters	3103					Solids (% Vol)	6	Run Casing		32.5
Hours	9.5					Sand (% Vol)	TRC	Safety		1.0
ROP	326.6					MBT	15	Slip/Cut Drill Line	0.5	3.5
Condition Out				BHA LENGTH (m)	274.20	pH (strip)	11	Survey	0.5	17.5
FLOW DATA				BHA WEIGHT(kLb)	29.7	Chlorides (mg/l)	28000	Test BOP	1.0	18.0
CIRC. RATE (gpm)	261			STRING WT (kLb)	146.2	KCL (%)	5.8	Tight hole / Fishing		
AV - DP (fpm)	269			HOOK LOAD (kLb)	180.0	PHPA (ppb)	0.9	Tripping	5.5	72.0
AV - DC (fpm)	476			WT BELOW JARS (kLb)	20.1	ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)	2900			DRAG UP (kLb)	185.0	Circ. Vol. (Bbl)	770	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)	175.0	CHEMICAL USAGE		Well Control		1.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)	2800	AMC Pac- LV	12	Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)	1800	Defoamer	1	Wiper Trip		14.0
RATE	62	RATE	62	BULK PRODUCTS		Soda Ash	12	Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	42800 Litres	Citric Acid	4	Other		13.5
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	3850 Litres			TOTALS	24.0	497.0
SCR: 640 @ 40	SCR: 1040 @ 60			CUM. FUEL USED	86481 Litres			DAILY MUD COSTS		\$2,578.76
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS		\$77,069.82
6.75° at 3020m				BARITES USED	175 kg			AFE COST - C&S		
				MUD MIXED	4052 Bbls			AFE COST - P&A		
				MUD LOSSES	3270 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	5:30	RIH F/-1775m T/-2953
5:30	6:00	Slip 66ft drill line
6:00	7:00	Wash down F/- 2953m to TOC@ 2963m. Drill cement to 2981m
7:00	7:30	Circ and clean hole
7:30	9:30	Pressure test casing to 3500psi for 10mins
9:30	10:00	Perform Koomey Function test
10:00	10:30	BOP drill and circ through choke. Well controlled in 29secs.
10:30	12:00	Drill cement F/- 2981m T/- 3002m. Tag float @ 2985m, Tag shoe at 2998m
12:00	12:30	Drill new 6" hole F/-3002m T/-3005m
12:30	13:30	Circ bottoms up
13:30	14:30	LOT with 9.5ppg mud L/off @ 2275psi EMW 13.8ppg. (Program was for FIT to 3300psi but leak off prior)
14:30	17:00	Drill 6" hole F/- 3005m T/- 3038m
17:00	17:30	Circulate then run directional survey @ 3020m 6.75deg N35W uncorrected
17:30	0:00	Drill F/- 3038m T/-3103m

MAXIMUM GAS:	245% @ 3006m	BACKGROUND GAS:	60-80%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

29/09/2006

REPORT # 22

WELL	Glenaire 01	24:00 DEPTH	3230m	24 HR PROG	127m	CUM. COSTS					
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS					
OP's TO 06:00	Prepare for directional drilling to do correctional run to target up.. RIH to 3230m Circ bottoms up. POOH to pick up Dowell Schlumberger directional tools.										
REMARKS / FORWARD PLAN:	Last survey at 3194m 9.25deg. Waiting on Directional Drilling Engineer. Due onsite 11am.					PERSONNEL ON SITE:	33				
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	2047psi	BOP TEST	27/09/2006	TEST DUE	11/10
AFD's: 62	SAFETY	1. Pretour: Man Riding 2. Pretour: slips and elevators					WEATHER AM	Fine	PM	Fine	

BIT INFORMATION				BHA # 6		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	2-5	JET V(fps)		TOOL	LENGTH	Time	2215	BOP's / Wellhead		36.0
RPM		H S I		6	0.20	Depth (m)	3230	Cementing		7.5
BIT NUMBER	6			Mud Motor	7.25	Temp (° C)	36	Circ & Condition	2.0	20.5
Size (in)	6.0			Float sub	0.40	Mud Type	KCI/PHPA/POL	Coring		
Make	Hyc			NMDC	9.29	Density (ppg)	9.80	D/O Cement		12.0
Type	DSX516M			String stab	1.42	ECD (ppg)		Drilling	7.0	204.5
IADC Code	PDC			14 x 4.75" DC's	132.53	Viscosity (sec)	62	FIT / LOT		4.0
Serial Number	114752			Drilling jars	9.34	PV / YP (cp/lb)	21 / 15	Handle BHA		8.5
T.F.A.(")	0.752			3 x DC's	28.30	Gells (s/m)	2 / 7	Repairs		10.0
Depth In (m)				9 x 3.5" HWDP	85.47	API Filt. (cc)	6.5	Rig Service	0.5	4.0
Depth Out (m)	IN					Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters	3230					Solids (% Vol)	6.7	Run Casing		32.5
Hours	16.5					Sand (% Vol)	TRC	Safety		1.0
ROP	195.8					MBT	15	Slip/Cut Drill Line		3.5
Condition Out				BHA LENGTH (m)	274.20	pH (strip)	10	Survey	2.0	19.5
FLOW DATA				BHA WEIGHT(kLb)	29.5	Chlorides (mg/l)	62000	Test BOP		18.0
CIRC. RATE (gpm)				STRING WT (kLb)	150.5	KCL (%)	12	Tight hole / Fishing		
AV - DP (fpm)				HOOK LOAD (kLb)	185.0	PHPA (ppb)	0.85	Tripping	0.5	72.5
AV - DC (fpm)				WT BELOW JARS (kLb)	20.0	ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)				DRAG UP (kLb)	190.0	Circ. Vol. (Bbl)	780	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)	180.0	CHEMICAL USAGE		Well Control		1.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)	3100	AMC Pac- LV	15	Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)	2750	Biocide G	-1	Wiper Trip		14.0
RATE		RATE		BULK PRODUCTS		KCL	414	Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	37450 Litres	Citric Acid	2	Other	12.0	25.5
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	5350 Litres			TOTALS	24.0	521.0
				CUM. FUEL USED	91831 Litres			DAILY MUD COSTS		\$10,206.15
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS		\$87,275.97
	8.5° at 3108m			BARITES USED	175 kg			AFE COST - C&S		
	9.25° at 3194m			MUD MIXED	4102 Bbbls			AFE COST - P&A		
				MUD LOSSES	3299 Bbbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	1:30	Drill f/-3103m to 3125m
1:30	2:30	Circulate and survey at 3108m 8.5DegN25W
2:30	4:00	Drill F/-3125m to 3156m. Hi gas 4500units.
4:00	5:00	Flow check after gascut mud and 6 bbl gain to surface. Well not flowing... Wait up to 9.8ppg with KCL.
5:00	8:00	Drilled F/-3156m T/-3211m
8:00	9:00	Circulate and survey at 3194m 9.25DegN15W
9:00	10:00	Drill F/-3211m T/- 3230m
10:00	11:00	Suspend Drilling and wait for directional Drilling Equipment. Circulate Bottoms up.
11:00	11:30	POOH F/-3230m T/- 2981m (shoe)
11:30	12:00	Lubricate rig
12:00	0:00	Wait on Directional Drilling Equipment to steer to target

MAXIMUM GAS:	4250% @ 3154m	BACKGROUND GAS:	60-80%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

30/09/2006

REPORT # 23

WELL	Glenaire 01	24:00 DEPTH	3230m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Directional Drill F/-3230m T/-3247m (Slide and steer as required) Taking wireline surveys surveys to align bit.						
REMARKS / FORWARD PLAN:	Directional Drilling target 2-3 deg/100m					PERSONNEL ON SITE:	34
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1944psi
		BOP TEST	27/09/2006	TEST DUE	11/10		
AFD's: 63	SAFETY	1. Pretour: tripping out of hole 2. Pretour: BHA m/u, chain tong, pipe tong				WEATHER AM	Fine
						PM	Fine

BIT INFORMATION				BHA # 7		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)		JET V(fps)	108	TOOL	LENGTH	Time	2300	BOP's / Wellhead		36.0
RPM		H S I		Hyc SL12TKPR	0.20	Depth (m)	3230	Cementing		7.5
BIT NUMBER				Mud Motor	6.79	Temp (° C)	39	Circ & Condition	2.0	22.5
Size (in)				Float sub	0.52	Mud Type	KCI/PHPA/POL	Coring		
Make				Orienting sub	0.66	Density (ppg)	10.00	D/O Cement		12.0
Type				NMDC	9.29	ECD (ppg)		Drilling		204.5
IADC Code				11xDC's	103.68	Viscosity (sec)	44	FIT / LOT		4.0
Serial Number				Jars	9.34	PV / YP (cp/lb)	12 / 12	Handle BHA	2.5	11.0
T.F.A. (")				3xDCs	28.30	Gells (s/m)	3 / 14	Repairs		10.0
Depth In (m)				9 x 3.5" HWDP	85.50	API Filt. (cc)	6.8	Rig Service	0.5	4.5
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	8.1	Run Casing		32.5
Hours						Sand (% Vol)	0.1	Safety		1.0
ROP						MBT	16.3	Slip/Cut Drill Line	1.0	4.5
Condition Out				BHA LENGTH (m)	244.28	pH (strip)	10	Survey	1.0	20.5
FLOW DATA				BHA WEIGHT(kLb)	32.0	Chlorides (mg/l)	85000	Test BOP		18.0
CIRC. RATE (gpm)		252		STRING WT (kLb)	153.8	KCL (%)	13.3	Tight hole / Fishing		
AV - DP (fpm)		260		HOOK LOAD (kLb)	185.0	PHPA (ppb)	0.85	Tripping	13.5	86.0
AV - DC (fpm)		460		WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)		2700		DRAG UP (kLb)		Circ. Vol. (Bbl)	782	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control		1.0
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)		Barite	40	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)		NaCl	200	Wiper Trip		14.0
RATE	60	RATE	60	BULK PRODUCTS		Sodium Sulphite	1	Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	34600 Litres			Other	3.5	29.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	2850 Litres			TOTALS	24.0	545.0
SCR: 700 @ 40		SCR: 950 @ 60		CUM. FUEL USED	94681 Litres			DAILY MUD COSTS		\$2,091.30
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS		\$89,367.27
9.75° at 3198m				BARITES USED	175 kg			AFE COST - C&S		
				MUD MIXED	4102 Bbls			AFE COST - P&A		
				MUD LOSSES	3324 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	2:30	Wait on Directional Drilling Equipment to steer to target
2:30	3:00	RIH F/-2981m T/-3230m (TD)
3:00	4:00	Circulate hole clean
4:00	10:00	Flow check, pump slug, POH to make up Dowell Schlumberger directional equipment.
10:00	10:30	Service mud motor and layout
10:30	11:00	Lubricate rig
11:00	12:00	Wait on Directional Drilling Equipment to steer to target
12:00	13:30	Prepare directional drilling equipment
13:30	14:30	M/U 6" milled tooth bit and direction assy. Set @ 1.5 deg. Function test mud motor.
14:30	19:30	RIH from surface to 2980m
19:30	20:30	Slip and cut drilling line
20:30	21:30	Flow check and RIH F/- 2980m T/- 3209m
21:30	22:30	Circ bottoms up.(3500units gas)
22:30	23:00	Work torque from string. Tight hole F/- 3209m T/-3200m Max overpull 300k
23:00	0:00	Tool faceOrientation Survey @ 3198m 10.3 deg N20W uncorrected

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	3790%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

1/10/2006

REPORT # 24

WELL	Glenaire 01	24:00 DEPTH	3290m	24 HR PROG	60m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00							
Directionally, drill sliding and rotating attempting to steer to prognosed target. Drilling ahead at 3304m.							
REMARKS / FORWARD PLAN:						PERSONNEL ON SITE:	
Unable to hold course due to steering blind and torque flexibility of 3.5" drill string.						33	
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1944psi
		BOP TEST	27/09/2006	TEST DUE	11/10		
AFD's: 64	SAFETY	1. PTSM: While driller is relieved 2. Weekly safety meeting				WEATHER AM	Fine
					PM	Fine Cold	

BIT INFORMATION				BHA # 7		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	10-15	JET V(fps)	91	TOOL	LENGTH	Time	2150	BOP's / Wellhead		36.0
RPM		H S I	0.40	Hyc SL12TKPR	0.20	Depth (m)	3287	Cementing		7.5
BIT NUMBER	7			Mud Motor	6.79	Temp (° C)	57	Circ & Condition	0.5	23.0
Size (in)	6.0			Float sub	0.52	Mud Type	KCl/PHPA/POL	Coring		
Make	Hyc			Orienting sub	0.66	Density (ppg)	10.00	D/O Cement		12.0
Type	SL12TKPR			NMDC	9.29	ECD (ppg)		Drilling	18.5	223.0
IADC Code	127			11xDC's	103.68	Viscosity (sec)	44	FIT / LOT		4.0
Serial Number	NR2619			Jars	9.34	PV / YP (cp/lb)	13 / 12	Handle BHA		11.0
T.F.A.()	0.920			3xDCs	28.30	Gells (s/m)	2 / 8	Repairs		10.0
Depth In (m)	3230			9 x 3.5" HWDP	85.50	API Filt. (cc)	6.5	Rig Service		4.5
Depth Out (m)	IN					Cake (/32")	1	Rig up Csg. / Cmt.		11.0
Total Meters	60					Solids (% Vol)	8.3	Run Casing		32.5
Hours	18.5					Sand (% Vol)	0.1	Safety		1.0
ROP	3.2					MBT	16.3	Slip/Cut Drill Line		4.5
Condition Out				BHA LENGTH (m)	244.28	pH (strip)	10.2	Survey	5.0	25.5
FLOW DATA				BHA WEIGHT(kLb)	32.0	Chlorides (mg/l)	90500	Test BOP		18.0
CIRC. RATE (gpm)	261			STRING WT (kLb)	156.2	KCL (%)	12.9	Tight hole / Fishing		
AV - DP (fpm)	269			HOOK LOAD (kLb)	185.0	PHPA (ppb)	1.1	Tripping		86.0
AV - DC (fpm)	476			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)	2570			DRAG UP (kLb)	190.0	Circ. Vol. (Bbl)	741	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)	175.0	CHEMICAL USAGE		Well Control		1.0
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	6700	AMC Pac- LV	6	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	5700	Biocide G	2	Wiper Trip		14.0
RATE	62	RATE	62	BULK PRODUCTS		Caustic Soda	1	Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	30000 Litres	NaCl	10	Other		29.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	4600 Litres	PHPA	4	TOTALS	24.0	569.0
SCR: 550 @ 40		SCR: 980 @ 60		CUM. FUEL USED	99281 Litres	Soda Ash	2	DAILY MUD COSTS		\$3,191.53
SURVEYS				BARITES ON SITE	125 kg	Sodium Sulphite	4	CUM. MUD COSTS		\$92,558.80
11.75° at 3236m				BARITES USED	175 kg	KCL	57	AFE COST - C&S		
14.5° at 3256m				MUD MIXED	4122 Bbbls			AFE COST - P&A		
18.5° at 3276m				MUD LOSSES	3387 Bbbls			AFE COST - C&C		

From	To	Description
0:00	0:30	Wash from 3200m to 3230m
0:30	3:30	Directionally drill from 3230m to 3242m. Sliding and rotating as required
3:30	4:30	Circulate and survey at 3227m. 9.7Deg N9.3W corrected
4:30	7:30	Directionally drill from 3242m to 3253m. Sliding and rotating as required
7:30	8:30	Circulate and survey at 3236m 11.75Deg N8.3W corrected
8:30	12:30	Directionally drill from 3253m to 3267m. Sliding and rotating
12:30	13:30	Circulate and survey at 3256m. 14.5Deg N2.7E corrected
13:30	14:30	Reset toolface and run orientation survey, 15.5Deg N4.7E
14:30	22:00	Directionally drill from 3267m to 3287m Sliding and rotating
22:00	23:00	Circulate and survey at 3276m 18.5Deg N7.3W corrected
23:00	0:00	Directionally drill from 3287m to 3290m Sliding

MAXIMUM GAS:	300% @ 3239m	BACKGROUND GAS:	40-60%	CONNECTION GAS:	665%	TRIP GAS:	%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO: RMN Drilling Fluids			



DAILY DRILLING REPORT

2/10/2006

REPORT # 25

WELL	Glenaire 01	24:00 DEPTH	3306m	24 HR PROG	16m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Circulated out,POH with drill string and cement stinger, make up bit and RIH						
REMARKS / FORWARD PLAN:	Cement samples hard at surface at 06:00hrs, will circulate at shoe prior to tagging up.					PERSONNEL ON SITE:	35
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1842psi
		BOP TEST	27/09/2006	TEST DUE	11/10		
AFD's: 65	SAFETY	1. Pretour: Rig safety 2. Pretour Tripping responsabilites,Cement stinger & precement				WEATHER AM	Fine
						PM	Fine/Cold

BIT INFORMATION				BHA # 7		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	10-18	JET V(fps)	91	TOOL	LENGTH	Time	0815	BOP's / Wellhead		36.0
RPM		H S I	0.41	Hyc SL12TKPR	0.20	Depth (m)	3306	Cementing	1.0	8.5
BIT NUMBER	7			Mud Motor	6.79	Temp (° C)	57	Circ & Condition	4.5	27.5
Size (in)	6.0			Float sub	0.52	Mud Type	KCI/PHPA/POL	Coring		
Make	Hyc			Orienting sub	0.66	Density (ppg)	10.20	D/O Cement		12.0
Type	SL12TKPR			NMDC	9.29	ECD (ppg)		Drilling	5.0	228.0
IADC Code	127			11xDC's	103.68	Viscosity (sec)	45	FIT / LOT		4.0
Serial Number	NR2619			Jars	9.34	PV / YP (cp/lb)	13 / 10	Handle BHA	0.5	11.5
T.F.A.(")	0.920			3xDCs	28.30	Gells (s/m)	2 / 7	Repairs		10.0
Depth In (m)	3230			9 x 3.5" HWDP	85.50	API Filt. (cc)	6.5	Rig Service		4.5
Depth Out (m)	3306					Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters	76					Solids (% Vol)	8.7	Run Casing		32.5
Hours	23.5					Sand (% Vol)	0.1	Safety		1.0
ROP	3.2					MBT	15	Slip/Cut Drill Line		4.5
Condition Out	3 5 WT A E 1 BT BHA			BHA LENGTH (m)	244.28	pH (strip)	10	Survey	1.0	26.5
FLOW DATA				BHA WEIGHT(kLb)	31.9	Chlorides (mg/l)	125000	Test BOP		18.0
CIRC. RATE (gpm)	261			STRING WT (kLb)	175.0	KCL (%)	15	Tight hole / Fishing		
AV - DP (fpm)	269			HOOK LOAD (kLb)	185.0	PHPA (ppb)	1.1	Tripping	12.0	98.0
AV - DC (fpm)	476			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		5.0
SPP (psi)	2600			DRAG UP (kLb)	190.0	Circ. Vol. (Bbl)	573	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)	175.0	CHEMICAL USAGE		Well Control		1.0
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	5100	Barite	44	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	3900	Biocide G	1	Wiper Trip		14.0
RATE	62	RATE	62	BULK PRODUCTS		NaCl	222	Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	25000 Litres	Sodium Sulphite	2	Other		29.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	5000 Litres	Xanthan Gum	1	TOTALS	24.0	593.0
SCR: 550 @ 40		SCR: 980 @ 60		CUM. FUEL USED	104281 Litres			DAILY MUD COSTS		\$2,892.30
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS		\$95,451.10
20.5° at 3294m				BARITES USED	175 kg			AFE COST - C&S		
				MUD MIXED	4122 Bbls			AFE COST - P&A		
				MUD LOSSES	3444 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	2:30	Directionally drill from 3290m to 3295m Sliding and rotating as required
2:30	4:00	Flow check after hi gas(4337 units, no pit gain), circulate out gas and raise mud weight to 10.2ppg
4:00	6:30	Directionally drill from 3295m to 3306m, Sliding and rotating as required
6:30	7:30	Circulate and survey at 3294m 20.5 Deg N12W
7:30	9:00	Circulate hole clean
9:00	14:00	Flow check, pump pill, POH with flow checks at 5 std shoe and BHA. Break and layout Float sub, orient sub, NMDC
14:00	14:30	Service mud motor and layout
14:30	15:30	Rigup and run 15 jts cement stinger and diffuser
15:30	20:30	Continue to RIH with 3.5" drill pipe to 3224m
20:30	21:30	Circulate BU and spot 100 mtrs+- HI Vis pill
21:30	22:00	POH to 3128m to run cement kickoff plug
22:00	23:00	Cement plug # 1 from 3128m to 3028m, 76 sx HTB mixed at 16.5ppg with additives as per cementing program
23:00	23:30	POH slowly to 2985m
23:30	0:00	Circulate out

MAXIMUM GAS:	4337% @ 3294m	BACKGROUND GAS:	50-70%	CONNECTION GAS:	%	TRIP GAS:	4006%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

3/10/2006

REPORT # 26

WELL	Glenaire 01	24:00 DEPTH	3006m	24 HR PROG	-300m	CUM. COSTS	\$99,070
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	\$3,618.93
OP's TO 06:00	Slow circulation at shoe while waiting on cement plug to harden and MWD equipment and personnel.						
REMARKS / FORWARD PLAN:	Plan to RIH and polish plug at 06:00 hrs. then POH to coincide with tool arrival					PERSONNEL ON SITE:	37
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1842psi
		BOP TEST	27/09/2006		TEST DUE	11/10	
AFD's: 66	SAFETY	1. Pretour: Slip & cut 2. Pretour: Slips & Elevators				WEATHER AM	Fine
					PM	Fine/Cool	

BIT INFORMATION				BHA # 8		MUD PROPERTIES		OPERATION		HRS	CUM
WOB(kLb)	JET V(fps)	86	TOOL	LENGTH	Time	1945	BOP's / Wellhead			36.0	
RPM	H S I	0.35	Hyc SL12TKPR	0.20	Depth (m)	3306	Cementing			8.5	
BIT NUMBER	7		Bit Sub	0.81	Temp (° C)	52	Circ & Condition		1.5	29.0	
Size (in)	6.0		11xDC's	103.68	Mud Type	KCL/PHPA/PO	Coring				
Make	Hyc		Jars	9.34	Density (ppg)	10.20	D/O Cement			12.0	
Type	SL12TKPR		3xDCs	28.30	ECD (ppg)		Drilling			228.0	
IADC Code	127		9 x 3.5" HWDP	85.50	Viscosity (sec)	45	FIT / LOT			4.0	
Serial Number	NR2619				PV / YP (cp/lb)	16 / 12	Handle BHA			11.5	
T.F.A.(")	0.920				Gells (s/m)	3 / 9	Repairs			10.0	
Depth In (m)	3230				API Filtr. (cc)	6.2	Rig Service			4.5	
Depth Out (m)	3306				Cake (/32")	1	Rig up Csg./ Cmt.			11.0	
Total Meters	76				Solids (% Vol)	9	Run Casing			32.5	
Hours	23.5				Sand (% Vol)	9.1	Safety			1.0	
ROP	3.2				MBT	14	Slip/Cut Drill Line			4.5	
Condition Out			BHA LENGTH (m)	227.83	pH (strip)	11	Survey			26.5	
FLOW DATA				BHA WEIGHT(kLb)	29.5	Chlorides (mg/l)	119000	Test BOP			18.0
CIRC. RATE (gpm)	248		STRING WT (kLb)	159.3	KCL (%)	14.5	Tight hole / Fishing				
AV - DP (fpm)	256		HOOK LOAD (kLb)	175.0	PHPA (ppb)	0.9	Tripping		9.0	107.0	
AV - DC (fpm)	453		WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		13.5	18.5	
SPP (psi)	1950		DRAG UP (kLb)		Circ. Vol. (Bbl)	703	Wash / Ream			2.0	
SPP (calculated)			DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control			1.0	
PUMP #1	PUMP #2		TORQUE ON (Amps/Rel.)		AMC Pac- LV	6	Well Test				
8-P-80	8-P-80		TORQUE OFF (Amps/Rel.)		Barite	40	Wiper Trip			14.0	
RATE	59	RATE	59	BULK PRODUCTS		NaCl	192	Wireline		8.5	
LINER	5.0"	LINER	5.0"	FUEL ON SITE	20300 Litres	PHPA	2	Other		29.0	
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	4700 Litres	Soda Ash	4	TOTALS		24.0	617.0
SURVEYS				CUM. FUEL USED	108981 Litres	Xanthan Gum	1	DAILY MUD COSTS			\$3,618.93
				BARITES ON SITE	125 kg			CUM. MUD COSTS			\$99,070.03
				BARITES USED	175 kg			AFE COST - C&S			
				MUD MIXED	4222 Bbls			AFE COST - P&A			
				MUD LOSSES	3482 Bbls			AFE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	0:30	Continue to circulate BU
0:30	4:30	POH to surface, layout cement stinger pipe clean
4:30	9:30	Makeup bit, bitsub and RIH to shoe
9:30	10:30	Circulate BU and check trip gas
10:30	14:00	Wait on kick off plug to harden, slip drill line, change out counter balance piston on top drive
14:00	15:00	RIH tag top of plug at 3037m, pull back to shoe
15:00	0:00	Wait on cement and arrival of MWD equipment and personnel

MAXIMUM GAS:	% @ 3306m	BACKGROUND GAS:	2%	CONNECTION GAS:	%	TRIP GAS:	97%
SUPERVISOR:	Barry Beetson		GEOLOGIST:	Dave Horner		MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

4/10/2006

REPORT # 27

WELL	Glenaire 01		24:00 DEPTH	3041m	24 HR PROG	-265m	CUM. COSTS				
RIG	Ensign # 32		FORMATION	Laira	PTD	3945m	DAILY COSTS	\$254.20			
OP's TO 06:00	Continued to RIH, tagged up at 3041m., unable to get surface readout from MWD., signal very weak. POH and monitor signal to see if it is depth related										
REMARKS / FORWARD PLAN:	Exhausted avenues of making tool work, consulted with Scientific Base. POH monitoring signal strength to see if signal is depth related.						PERSONNEL ON SITE:	40			
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1842psi	BOP TEST	27/09/2006	TEST DUE	11/10
AFD's: 67	SAFETY	1. Pretour: Hand tools 2. Pretour: Pickup and makeup mud motor						WEATHER AM	Fine	PM	Overcast/showers

BIT INFORMATION				BHA # 9		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)		JET V (fps)		TOOL	LENGTH	Time	0930	BOP's / Wellhead		36.0
RPM		HSI		Bit	0.20	Depth (m)	3041	Cementing		8.5
BIT NUMBER	9			Mud Motor	6.79	Temp (° C)	49	Circ & Condition	1.0	30.0
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/PO	Coring		
Make	Security			NMDC	9.29	Density (ppg)	10.20	D/O Cement	0.5	12.5
Type	XS4SDB036			MWD NM Sub	0.61	ECD (ppg)		Drilling		228.0
IADC Code	217S			MWD NM Sub	1.52	Viscosity (sec)	50	FIT / LOT		4.0
Serial Number	10826038			11xDC's	103.68	PV / YP (cp/lb)	16 / 11	Handle BHA	1.0	12.5
T.F.A. (")	0.920			Jars	9.34	Gells (s/m)	3 / 10	Repairs		10.0
Depth In (m)				3xDCs	28.30	API Filtr. (cc)	6.4	Rig Service		4.5
Depth Out (m)	IN			9 x 3.5" HWDP	85.50	Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters	3041					Solids (% Vol)	8.7	Run Casing		32.5
Hours	37					Sand (% Vol)	0.1	Safety		1.0
ROP	82.2					MBT	14	Slip/Cut Drill Line		4.5
Condition Out				BHA LENGTH (m)	245.75	pH (strip)	11	Survey		26.5
FLOW DATA				BHA WEIGHT(kLb)	32.0	Chlorides (mg/l)	118000	Test BOP		18.0
CIRC. RATE (gpm)				STRING WT (kLb)	162.7	KCL (%)	14.5	Tight hole / Fishing		
AV - DP (fpm)				HOOK LOAD (kLb)	175.0	PHPA (ppb)	0.9	Tripping	11.0	118.0
AV - DC (fpm)				WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement	6.0	24.5
SPP (psi)				DRAG UP (kLb)		Circ. Vol. (Bbl)	702	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control		1.0
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)		Barite	31	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)				Wiper Trip		14.0
RATE		RATE		BULK PRODUCTS				Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	44200 Litres			Other	4.5	33.5
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	4905 Litres			TOTALS	24.0	641.0
				CUM. FUEL USED	113886 Litres			DAILY MUD COSTS		\$254.20
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS		\$99,324.23
				BARITES USED	175 kg			AFE COST - C&S		
				MUD MIXED	4222 Bbls			AFE COST - P&A		
				MUD LOSSES	3482 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	6:00	Wait on cement and arrival of MWD equipment and personnel
6:00	6:30	RIH to 3037m
6:30	7:00	Polish cement plug from 3037m to 3041m
7:00	8:00	Circulate BU, flow check and pump slug
8:00	14:00	POH to make up directional assembly
14:00	15:00	Makeup bit, mud motor, float sub and monel, Rig up MWD equipment(arrived on location at 13:30 hrs
15:00	17:00	Rig up MWD and run cables
17:00	19:30	Hold PJSM and makeup MWD,Test mud motor and MWD at 47.3m
19:30	0:00	Continue to RIH filling string every 30std.to 2982m

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

5/10/2006

REPORT # 28

WELL	Glenaire 01	24:00 DEPTH	3041m	24 HR PROG		CUM. COSTS					
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS					
OP's TO 06:00	POH, downloaded MWD data and reset RIH with tool in sleep mode. Wait at 3040m. for startup. No signal to surface. POH after troubleshooting. Regained signal. Boosted watts from 8 to 50. RIH..Lost signal at 2000 mtrs.Try different earthspots. POH.										
REMARKS / FORWARD PLAN:	Lookahead POH, when signal regained check wattage, continue to POH. Run safety string. Wait on mud pulse MWD from Anadrill, Release ScientificDrilling operators					PERSONNEL ON SITE:	36				
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1842psi	BOP TEST	27/09/2006	TEST DUE	11/10
AFD's: 68	SAFETY	1. Pretour: Tripping 2. Pretour: Tripping					WEATHER AM	Fine	PM	Fine/cold	

BIT INFORMATION				BHA # 9		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)		JET V(fps)		FOOL	LENGTH	Time	2330	BOP's / Wellhead		36.0
RPM		HSI		Bit	0.20	Depth (m)	3041	Cementing		8.5
BIT NUMBER	9			Mud Motor	6.79	Temp (° C)	45	Circ & Condition		30.0
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/POI	Coring		
Make	Sec			NMDC	9.29	Density (ppg)	10.20	D/O Cement		12.5
Type	XS4			MWD NM Sub	0.61	ECD (ppg)		Drilling		228.0
IADC Code	217s			MWD NM Sub	1.52	Viscosity (sec)	45	FIT / LOT		4.0
Serial Number	10826038			11xDC's	103.68	PV / YP (cp/lb)	13 / 9	Handle BHA		12.5
T.F.A.(")	0.920			Jars	9.34	Gells (s/m)	2 / 11	Repairs		10.0
Depth In (m)				3xDCs	28.30	API Filt. (cc)	6.8	Rig Service		4.5
Depth Out (m)				9 x 3.5" HWDP	85.50	Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	8.7	Run Casing		32.5
Hours						Sand (% Vol)	0.1	Safety		1.0
ROP						MBT	14	Slip/Cut Drill Line		4.5
Condition Out				BHA LENGTH (m)	245.75	pH (strip)	11	Survey		26.5
FLOW DATA				BHA WEIGHT(kLb)	32.0	Chlorides (mg/l)	114000	Test BOP		18.0
CIRC. RATE (gpm)				STRING WT (kLb)	162.7	KCL (%)	14.5	Tight hole / Fishing		
AV - DP (fpm)				HOOK LOAD (kLb)	175.0	PHPA (ppb)	0.9	Tripping	12.0	130.0
AV - DC (fpm)				WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)				DRAG UP (kLb)		Circ. Vol. (Bbl)	712	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control		1.0
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)		Barite	30	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)				Wiper Trip		14.0
RATE		RATE		BULK PRODUCTS				Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	45150 Litres			Other	12.0	45.5
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	-950 Litres			TOTALS	24.0	665.0
				CUM. FUEL USED	112936 Litres			DAILY MUD COSTS		\$246.00
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS		\$99,570.23
				BARITES USED	175 kg			AFE COST - C&S		
				MUD MIXED	4222 Bbls			AFE COST - P&A		
				MUD LOSSES	3482 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	0:30	RIH from 2982m to 3041m
0:30	6:00	Unreadable signal from MWD tool, troubleshoot and check surface equipment, Consult with Houston Scientific Base, unable to gain signal
6:00	12:00	Flow check, Pump slug and POH to check for signal-depth relationship.Signal at 850m.
12:00	14:30	Download MWD data at surface, change out gap sub, Reset MWD
14:30	20:00	RIH to 3041m breaking circulation every 30std.
20:00	22:00	Circulate and rotate slowly 1mtr off bottom while waiting on MWD to start transmitting signal. No signal
22:00	0:00	Troubleshoot to regain signal. No success

MAXIMUM GAS:	14.5% @ 3041m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

6/10/2006

REPORT # 29

WELL	Glenaire 01	24:00 DEPTH	3041m	24 HR PROG		CUM. COSTS					
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS					
OP's TO 06:00	Wait on MWD, Tools arrived at 03:30hrs..Rigging up and preparing for drilling										
REMARKS / FORWARD PLAN:	Both Schlumberger MWD on location last night, Scientific to Melbourne yesterday					PERSONNEL ON SITE:	38				
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1842psi	BOP TEST	27/09/2006	TEST DUE	11/10
AFD's: 69	SAFETY	1. Pretour: Working at heights 2. Pretour: Working at heights, inertia reel installation				WEATHER AM	Fine	PM	Fine/cold		

BIT INFORMATION				BHA # 8		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)		JET V(fps)		TOOL	LENGTH	Time	2000	BOP's / Wellhead		36.0
RPM		HSI		Hyc SL12TKPR	0.20	Depth (m)	3041	Cementing		8.5
BIT NUMBER				Bit Sub	0.81	Temp (° C)		Circ & Condition		30.0
Size (in)				11xDC's	103.68	Mud Type	KCL/PHPA/POI	Coring		
Make				Jars	9.34	Density (ppg)	10.20	D/O Cement		12.5
Type				3xDCs	28.30	ECD (ppg)		Drilling		228.0
IADC Code				9 x 3.5" HWDP	85.50	Viscosity (sec)	45	FIT / LOT		4.0
Serial Number						PV / YP (cp/lb)	13 / 10	Handle BHA	0.5	13.0
T.F.A. (")						Gells (s/m)	2 / 10	Repairs		10.0
Depth In (m)						API Fil. (cc)	7	Rig Service		4.5
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	8.7	Run Casing		32.5
Hours						Sand (% Vol)	0.1	Safety		1.0
ROP						MBT	14	Slip/Cut Drill Line	1.0	5.5
Condition Out				BHA LENGTH (m)	227.83	pH (strip)	11	Survey		26.5
FLOW DATA				BHA WEIGHT(kLb)	29.5	Chlorides (mg/l)	113000	Test BOP		18.0
CIRC. RATE (gpm)				STRING WT (kLb)	161.0	KCL (%)	14.5	Tight hole / Fishing		
AV - DP (fpm)				HOOK LOAD (kLb)	45.0	PHPA (ppb)	0.9	Tripping	9.0	139.0
AV - DC (fpm)				WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)				DRAG UP (kLb)		Circ. Vol. (Bbl)	712	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control		1.0
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)		Barite	40	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)				Wiper Trip		14.0
RATE		RATE		BULK PRODUCTS				Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	42300 Litres			Other	13.5	59.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	2850 Litres			TOTALS	24.0	689.0
				CUM. FUEL USED	115786 Litres			DAILY MUD COSTS		\$328.00
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS		\$99,898.23
				BARITES USED	175 kg			AFE COST - C&S		
				MUD MIXED	4222 Bbls			AFE COST - P&A		
				MUD LOSSES	3482 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	1:00	Troubleshoot to regain signal. No success
1:00	3:30	Flow check, pump slug and POH to check for signal-depth relationship.Signal at 1335m Boost watts from 8 to 50, good signal RIH
3:30	5:30	RIH to 2000m +- monitoring signal. Signal lost at 2000mtrs.Change earthing position on stack
5:30	6:00	Check out surface earthing areas, all OK.
6:00	9:30	POH to surface
9:30	10:00	Layout directional equipment
10:00	11:00	Make up 6" conventional BHA and run safety string to 256m
11:00	12:00	Slip and cut drilling line
12:00	0:00	Wait on MWD from Anadrill(Schlumberger)

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Barry Beeton	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		

**DAILY DRILLING REPORT****7/10/2006****REPORT # 30**

WELL	Glenaire 01	24:00 DEPTH	3041m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00 Kicking off plug steering 180deg az. Time drilling to 3050m. No formation returns.							
REMARKS / FORWARD PLAN: Reset tool to 140 deg. Continue to time drill.						PERSONNEL ON SITE: 38	
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1842psi
					BOP TEST	27/09/2006	TEST DUE 11/10
AFD's: 70	SAFETY	1. Pretour: Stored energy.. valves 2. Tretour: Tesco lockout procedure				WEATHER AM	Fine
						PM	Fine/cold

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)		JET V(fps)		TOOL	LENGTH	Time	1530	BOP's / Wellhead		36.0
RPM		HSI		Bit Sec XN4	0.20	Depth (m)	3041	Cementing		8.5
BIT NUMBER	9			Mud Motor	6.79	Temp (° C)		Circ & Condition		30.0
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/POI	Coring		
Make	Sec			NMDC	9.29	Density (ppg)	10.20	D/O Cement		12.5
Type	XN4			MWD NM pony collar	1.94	ECD (ppg)		Drilling		228.0
IADC Code	217S			MWDcollar	10.30	Viscosity (sec)	47	FIT / LOT		4.0
Serial Number	10826038			11xDC's	103.68	PV / YP (cp/lb)	13 / 9	Handle BHA		13.0
T.F.A. (")	0.920			Jars	9.34	Gells (s/m)	2 / 8	Repairs		10.0
Depth In (m)	3041			3xDC's	28.30	API Filt. (cc)	7.2	Rig Service		4.5
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	8.5	Run Casing		32.5
Hours						Sand (% Vol)	0.1	Safety		1.0
ROP						MBT	14	Slip/Cut Drill Line		5.5
Condition Out				BHA LENGTH (m)	170.36	pH (strip)	11	Survey		26.5
FLOW DATA				BHA WEIGHT(kLb)	22.2	Chlorides (mg/l)	113000	Test BOP		18.0
CIRC. RATE (gpm)				STRING WT (kLb)	156.4	KCL (%)	14.5	Tight hole / Fishing		
AV - DP (fpm)				HOOK LOAD (kLb)	175.0	PHPA (ppb)	0.9	Tripping	6.0	145.0
AV - DC (fpm)				WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)				DRAG UP (kLb)		Circ. Vol. (Bbl)	702	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control		1.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)				Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)				Wiper Trip		14.0
RATE	RATE			BULK PRODUCTS				Wireline		8.5
LINER 5.0"	LINER 5.0"			FUEL ON SITE	40450 Litres			Other	18.0	77.0
STROKE 8.5"	STROKE 8.5"			DAILY USAGE	1850 Litres			TOTALS	24.0	713.0
				CUM. FUEL USED	117636 Litres			DAILY MUD COSTS		
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS \$99,898.23		
				BARITES USED	175 kg			AFE COST - C&S		
				MUD MIXED	4222 Bbls			AFE COST - P&A		
				MUD LOSSES	3492 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	1:00	POH with safety string and layout bitsub and bit
1:00	3:30	Wait on MWD tools, on location at 03:30, pick up bit, mud motor, monel and stand back
3:30	13:30	Rig up MWD tools, RIH, install MWD tools in string
13:30	19:00	Tools not returning signal to surface, trouble shoot, change out surface junction box, tools working
19:00	0:00	RIH to 3041m breaking circulation every 30std.,
MAXIMUM GAS: % @ m BACKGROUND GAS: % CONNECTION GAS: % TRIP GAS: %		
SUPERVISOR:	Barry Beetson	GEOLOGIST: Dave Horner
		MUD CO: RMN Drilling Fluids



DAILY DRILLING REPORT

8/10/2006

REPORT # 31

WELL	Glenaire 01ST1	24:00 DEPTH	3072m	24 HR PROG	31m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Directionally drilling from 3072m to 3083m Rotating and sliding as required						
REMARKS / FORWARD PLAN:	Survey tool 15m+- behind bit.. Should start seeing new surveys shortly.					PERSONNEL ON SITE:	38
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg MAASP	1919psi	BOP TEST 27/09/2006 TEST DUE 11/10
AFD's: 71	SAFETY	1. Pretour: Mixing chemicals 2. Weekly safety meetings, Pretour				WEATHER AM	Fine
						PM	Fine/cold

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	1-13	JET V(fps)	108	TOOL	LENGTH	Time	2340	BOP's / Wellhead		36.0
RPM		H S I	0.54	Bit Sec XN4	0.20	Depth (m)	3072	Cementing		8.5
BIT NUMBER	9			Mud Motor	6.79	Temp (° C)	52	Circ & Condition		30.0
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/POI	Coring		
Make	Security			NMDC	9.29	Density (ppg)	10.05	D/O Cement		12.5
Type	XN4			MWD NM pony collar	1.94	ECD (ppg)		Drilling	23.0	251.0
IADC Code	217S			MWDCollar	10.30	Viscosity (sec)	38	FIT / LOT		4.0
Serial Number	10826038			11xDC's	103.68	PV / YP (cp/lb)	11 / 6	Handle BHA		13.0
T.F.A.(")				Jars	9.34	Gells (s/m)	1 / 1	Repairs		10.0
Depth In (m)	3041			3xDCs	28.30	API Filt. (cc)	7	Rig Service		4.5
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters	31					Solids (% Vol)	7.6	Run Casing		32.5
Hours	23.5					Sand (% Vol)	Tr	Safety		1.0
ROP	1.3					MBT	13	Slip/Cut Drill Line		5.5
Condition Out				BHA LENGTH (m)	170.36	pH (strip)	11	Survey		26.5
FLOW DATA				BHA WEIGHT(kLb)	22.3	Chlorides (mg/l)	110500	Test BOP		18.0
CIRC. RATE (gpm)	252			STRING WT (kLb)	158.3	KCL (%)	14	Tight hole / Fishing		
AV - DP (fpm)	260			HOOK LOAD (kLb)	178.0	PHPA (ppb)	0.87	Tripping		145.0
AV - DC (fpm)	460			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)	2850			DRAG UP (kLb)	185.0	Circ. Vol. (Bbl)	756	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)	173.0	CHEMICAL USAGE		Well Control		1.0
PUMP #1	PUMP #2	TORQUE ON (Amps/Rel.)	1500	BULK PRODUCTS		AMC Pac- LV	6	Well Test		
8-P-80	8-P-80	TORQUE OFF (Amps/Rel.)	1000	FUEL ON SITE	35600 Litres	Biocide G	1	Wiper Trip		14.0
RATE	60	RATE	60	DAILY USAGE	4850 Litres	PHPA	1	Wireline		8.5
LINER	5.0"	LINER	5.0"	CUM. FUEL USED	122486 Litres	Sodium Sulphite	1	Other	1.0	78.0
STROKE	8.5"	STROKE	8.5"	BARITES ON SITE	125 kg	Xanthan Gum	1	TOTALS	24.0	737.0
SCR: 580 @ 40	SCR: 1010 @ 60	BARITES USED	175 kg	MUD MIXED	4312 Bbbs			DAILY MUD COSTS		\$1,656.68
SURVEYS				MUD LOSSES	3528 Bbbs			CUM. MUD COSTS		\$101,554.91
								AFE COST - C&S		
								AFE COST - P&A		
								AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	6:00	Orient tool face time drill to kickoff, Drill to 3048m. No formation in samples. 100% cement..WOB 2k
6:00	6:30	Slide from 3048m to 3058m. No formation in samples 100% cement returns
6:30	7:30	Work pipe to undercut hole and form a ledge from 3048m to 3058m
7:30	12:00	Time drill at 1m/hr to 3062m..100% cement no formation in samples(sliding)
12:00	15:00	Time drill at 0.5m/hr to 3064m..(sliding) 30% formation
15:00	16:30	Time drill at 1m/hr to 3066m.. 90% formation in samples(sliding)
16:30	19:30	Drill with 12/13k on bit sliding..to 3068m
19:30	20:30	Drill with 60 RPM on rotary to 3069m
20:30	21:00	Check trip to shoe, hole OK above
21:00	22:00	Drill ahead to 3070m., rotating
22:00	0:00	Drill ahead to 3072m., rotating

MAXIMUM GAS:	14.2% @ 3059m	BACKGROUND GAS:	1.8 to 2.5%	CONNECTION GAS:	%	TRIP GAS:	15%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

9/10/2006

REPORT # 32

WELL	Glenaire 01	24:00 DEPTH	3119m	24 HR PROG	47m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00	POH for bit change, change bit and RIH. After last HWDP driller left top drive extended and sat on Monkey board..damaging board and Topdrive						
REMARKS / FORWARD PLAN:	After rig back operational,will line out well with this bit, then run PDC in conjunction with steering gear					PERSONNEL ON SITE:	39
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1919psi
		BOP TEST	27/09/2006	TEST DUE	11/10		
AFD's: 72	SAFETY	1. Pretour:Isolation lockout system 2. Pretour: Drilling actual				WEATHER AM	Fine
						PM	Fine/cold

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	12-15	JET V(fps)	108	TOOL	LENGTH	Time	2130	BOP's / Wellhead		36.0
RPM		H S I	0.54	Bit Sec XN4	0.20	Depth (m)	3119	Cementing		8.5
BIT NUMBER	9	10		Mud Motor	6.79	Temp (° C)	53	Circ & Condition	0.5	30.5
Size (in)	6.0	6.0		Float sub	0.52	Mud Type	KCL/PHPA/POI	Coring		
Make	Security	Smith		NMDC	9.29	Density (ppg)	10.05	D/O Cement		12.5
Type	XN4	XR+		MWD NM pony collar	1.94	ECD (ppg)		Drilling	20.5	271.5
IADC Code	217S	117		MWDcollar	10.30	Viscosity (sec)	38	FIT / LOT		4.0
Serial Number	10826038	PB9348		11xDC's	103.68	PV / YP (cp/lb)	11 / 7	Handle BHA		13.0
T.F.A.(")	0.752			Jars	9.34	Gells (s/m)	1 / 1	Repairs		10.0
Depth In (m)	3041	3119		3xDC's	28.30	API Filt. (cc)	7	Rig Service	0.5	5.0
Depth Out (m)	3119					Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters	78					Solids (% Vol)	7.7	Run Casing		32.5
Hours	43.5					Sand (% Vol)	Tr	Safety		1.0
ROP	1.8					MBT	13	Slip/Cut Drill Line		5.5
Condition Out	3 5 WT A F 1 FC BC			BHA LENGTH (m)	170.36	pH (strip)	10.5	Survey		26.5
FLOW DATA				BHA WEIGHT(kLb)	22.3	Chlorides (mg/l)	107000	Test BOP		18.0
CIRC. RATE (gpm)	252			STRING WT (kLb)	160.5	KCL (%)	14	Tight hole / Fishing		
AV - DP (fpm)	260			HOOK LOAD (kLb)	180.0	PHPA (ppb)	0.87	Tripping	2.5	147.5
AV - DC (fpm)	460			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)	2930			DRAG UP (kLb)	185.0	Circ. Vol. (Bbl)	774	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)	175.0	CHEMICAL USAGE		Well Control		1.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)	5300	Ausben	1	Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)	4090	Barite	47	Wiper Trip		14.0
RATE	60	RATE	60	BULK PRODUCTS		Sodium Sulphite	3	Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	30250 Litres			Other		78.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	5350 Litres			TOTALS	24.0	761.0
				CUM. FUEL USED	127836 Litres			DAILY MUD COSTS		\$496.55
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS		\$102,051.46
				BARITES USED	175 kg			AFE COST - C&S		
				MUD MIXED	4312 Bbbls			AFE COST - P&A		
				MUD LOSSES	3548 Bbbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	3:00	Drill ahead to 3076m., sliding
3:00	11:00	Drill ahead to 3097m., rotating
11:00	11:30	Rig Service
11:30	15:00	Drill ahead to 3106m., sliding
15:00	16:30	Drill ahead to 3110m, rotating
16:30	19:30	Drill ahead to 3116m., sliding
19:30	21:00	Drill ahead to 3119m., rotating
21:00	21:30	Circulate hole clean, survey
21:30	0:00	POH for bit change, bit at 1996m at midnight

MAXIMUM GAS:	8% @ 3089m	BACKGROUND GAS:	1.5 - 6%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

10/10/2006**REPORT # 33**

WELL	Glenaire 01 ST1	24:00 DEPTH	3119m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00		Waiting on gooseneck for topdrive ex Djakarta					
REMARKS / FORWARD PLAN:	Testing BOP's and choke manifold, test due, while repairing top drive, will RIH to shoe after BOP test and renewing battery pack in MWD.					PERSONNEL ON SITE:	40
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1919psi
		BOP TEST	27/09/2006	TEST DUE	11/10		
AFD's: 73	SAFETY	1. Pretour: Pipe and chain tongs 2. Pretour: Rotating equipment				WEATHER AM	Fine
						PM	Fine/Cold

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)		JET V(fps)		TOOL	LENGTH	Time	2200	BOP's / Wellhead		36.0
RPM		HSI		Bit Sec XN4	0.20	Depth (m)	3119	Cementing		8.5
BIT NUMBER	7			Mud Motor	6.79	Temp (° C)		Circ & Condition		30.5
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/POI	Coring		
Make	Security			MWD NM pony collar	1.94	Density (ppg)	10.05	D/O Cement		12.5
Type	XR+			MWD collar	10.30	ECD (ppg)		Drilling		271.5
IADC Code	117			NMDC	9.29	Viscosity (sec)	39	FIT / LOT		4.0
Serial Number	PB9348			11xDC's	103.68	PV / YP (cp/lb)	11 / 6	Handle BHA		13.0
T.F.A. (")	3x 24			Jars	9.34	Gells (s/m)	1 / 1	Repairs	19.0	29.0
Depth In (m)	3119			3xDC's	28.30	API Filt. (cc)	6.8	Rig Service		5.0
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	7.7	Run Casing		32.5
Hours						Sand (% Vol)	Tr	Safety		1.0
ROP						MBT	13	Slip/Cut Drill Line		5.5
Condition Out				BHA LENGTH (m)	170.36	pH (strip)	10.5	Survey		26.5
FLOW DATA				BHA WEIGHT(kLb)	22.1	Chlorides (mg/l)	107000	Test BOP		18.0
CIRC. RATE (gpm)				STRING WT (kLb)	160.3	KCL (%)	14	Tight hole / Fishing		
AV - DP (fpm)				HOOK LOAD (kLb)	50.0	PHPA (ppb)	0.87	Tripping	5.0	152.5
AV - DC (fpm)				WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)				DRAG UP (kLb)		Circ. Vol. (Bbl)	774	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control		1.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)				Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)				Wiper Trip		14.0
RATE		RATE		BULK PRODUCTS				Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	34667 Litres			Other		78.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	14350 Litres			TOTALS	24.0	785.0
				CUM. FUEL USED	142186 Litres			DAILY MUD COSTS		
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS		
				BARITES USED	175 kg			\$102,051.46		
				MUD MIXED	4312 Bbbs			AFE COST - C&S		
				MUD LOSSES	3548 Bbbs			AFE COST - P&A		
								AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	3:00	Continue to POH to change bit and BHA
3:00	3:30	Change bit and cycle MWD
3:30	5:00	RIH to 264m
5:00	16:00	Topdrive hit monkeyboard while in extended position, Board sustained visual damage, as did top drive gooseneck, Wait on mast inspector
16:00	17:30	Inspect board..All major support pins, padeye and structural support beams on monkey board OK., Top drive gooseneck non repairable
17:30	22:30	Wait on part for top drive, unable to use change out and use Kelly due to casing-Kelly sizing
22:30	0:00	POH and rack string in derrick in preparation to test BOP's

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Barry Beetson	GEOLOGIST:	Dave Horner	MUD CO: RMN Drilling Fluids			



DAILY DRILLING REPORT

11/10/2006

REPORT # 34

Summary table with fields: WELL (Glenaire 01 ST1), 24:00 DEPTH (3119m), 24 HR PROG, CUM. COSTS, RIG (Ensign # 32), FORMATION (Laira), PTD (3945m), DAILY COSTS, OP's TO 06:00 (Waiting on gooseneck for topdrive ex Djakarta), REMARKS / FORWARD PLAN (Waiting at 284m with kill string for gooseneck to arrive), PERSONNEL ON SITE (38), LAST CASING (7"), SET AT (2998m), LOT (13.8ppg), MAASP (1919psi), BOP TEST (11/10/2006), TEST DUE (25/10), SAFETY (1. Pretour: Pressure test procedures, 2. Pretour: RIH and pipe tongs), WEATHER AM (Fine), PM (Fine/cold), AFD's: 74

Main data table with columns: BIT INFORMATION, BHA # 10, MUD PROPERTIES, OPERATION, HRS, CUM. Sub-tables include BIT NUMBER, FLOW DATA, PUMP #1, PUMP #2, SURVEYS, TORQUE ON/OFF, BULK PRODUCTS, CHEMICAL USAGE, and TOTALS.

HOURLY OPERATIONS SUMMARY 0000 to 2400. Table with columns: From, To, Description. Rows include: 0:00-0:30 Pull wear bushing; 0:30-5:30 Test BOP's and manifold to 200psi lo and 4800psi Hi and accumulator performance test OK; 5:30-6:00 Run wear bushing; 6:00-12:00 Wait on gooseneck for top drive, write JSA for top drive; 12:00-13:30 Wait on gooseneck for top drive, review JSA for top drive and RIH with safety string to 257m; 13:30-0:00 Wait on gooseneck for top drive, monitoring well, well static.

Summary row: MAXIMUM GAS: % @ m, BACKGROUND GAS: %, CONNECTION GAS: %, TRIP GAS: %, SUPERVISOR: Barry Beetsen/Brian Marriot, GEOLOGIST: Dave Horner, MUD CO: RMN Drilling Fluids

WELL	Glenaire 01 ST1	24:00 DEPTH	3119m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00	ETA of Gooseneck confirmed, POOH w/ kill string, m.u.bit & MWD assbly, RIH to 57m, press.test MWD, fault find problems, install Gooseneck & complete repairs, cont. RIH to 3054m, wash to bottom, drill f/ 3119 > 3126						
REMARKS / FORWARD PLAN:	Drill & steer f/ 3119m to 3219m + -, deviation to aprox 5 deg.					PERSONNEL ON SITE:	37
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1919psi
		BOP TEST	11/10/2006		TEST DUE	25/10	
AFD's: 75	SAFETY	1. Tripping & repairs to Top Drive 2.				WEATHER AM	Fine
					PM	Fine/cold	

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	5-12	JET V(fps)	106	TOOL	LENGTH	Time	2230	BOP's / Wellhead		36.0
RPM	192	H S I		Smith XR+	0.19	Depth (m)	3119	Cementing		8.5
BIT NUMBER	7			Mud Motor	6.79	Temp (° C)		Circ & Condition		30.5
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/POI	Coring		
Make	Smith			MWD NM pony collar	1.94	Density (ppg)	10.05	D/O Cement		12.5
Type	XR+			MWD collar	10.30	ECD (ppg)		Drilling		271.5
IADC Code	117			NMDC	9.30	Viscosity (sec)	39	FIT / LOT		4.0
Serial Number	PB9349			11xDC's	104.08	PV / YP (cp/lb)	11 / 6	Handle BHA		13.0
T.F.A.("				Jars	9.34	Gells (s/m)	1 / 1	Repairs	20.5	67.5
Depth In (m)	3119			3xDCs	28.30	API Filt. (cc)	7.5	Rig Service		5.0
Depth Out (m)				9xHWDP	85.50	Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	7.7	Run Casing		32.5
Hours						Sand (% Vol)	Tr	Safety	0.5	1.5
ROP						MBT	13	Slip/Cut Drill Line		5.5
Condition Out				BHA LENGTH (m)	256.26	pH (strip)	10.5	Survey		26.5
FLOW DATA				BHA WEIGHT(kLb)	33.3	Chlorides (mg/l)	107000	Test BOP		24.0
CIRC. RATE (gpm)	248			STRING WT (kLb)	167.4	KCL (%)	14	Tight hole / Fishing		
AV - DP (fpm)	256			HOOK LOAD (kLb)	120.0	PHPA (ppb)	0.87	Tripping	3.0	155.5
AV - DC (fpm)	453			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)	2950			DRAG UP (kLb)	180.0	Circ. Vol. (Bbl)	769	Wash / Ream		2.0
SPP (calculated)				DRAG DOWN (kLb)	175.0	CHEMICAL USAGE		Well Control		1.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)	4000	Barite	30	Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)	3900			Wiper Trip		14.0
RATE	59	RATE	59	BULK PRODUCTS				Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	41700 Litres			Other		78.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	-8650 Litres			TOTALS	24.0	833.0
SCR: 720 @ 40	SCR: 1000 @ 60			CUM. FUEL USED	135153 Litres			DAILY MUD COSTS	\$246.00	
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS	\$102,297.46	
				BARITES USED	175 kg			AFE COST - C&S		
				MUD MIXED	4312 Bbbls			AFE COST - P&A		
				MUD LOSSES	3553 Bbbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	12:30	Wait on gooseneck for top drive, monitoring well, well static
12:30	13:00	Confirmed ETA of Gooseneck for 16:30hrs in Penola. Review JSA & hold safety meeting regarding trip out & in hole
13:00	14:00	POOH f/ 264m
14:00	15:00	Make up 6" bit, BHA ,mud motor & MWD, RIH to 57m
15:00	18:30	Test MWD, fault find w/ cables & receivers (Assemble Gooseneck while cont. to fault find MWD problems) Schlumb. ready @ 19:30hrs
18:30	20:30	Hold PJSM and assemble Gooseneck to Top drive, nipple up Kelly hose & pressure test same
20:30	21:00	RIH f/ 57m to 264m (Ensign back in operation f/ 264m, refer to 05:00hrs on 10th Oct.)
21:00	0:00	Cont. RIH f/ 264m to 1918m, break circ.

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott		GEOLOGIST:	Dave Horner		MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

13/10/2006

REPORT # 36

WELL	Glenaire 01 ST1	24:00 DEPTH	3169m	24 HR PROG	50m	CUM. COSTS					
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	\$5,441.10				
OP's TO 06:00	RIH to 3054m, light wash to bottom, drill w/ down hole mtr. & MWD f/ 3119m > 3181m										
REMARKS / FORWARD PLAN:	Expect to have enough deviation by 09:00hrs today, then POOH to run PDC >>>>Drill & steer ahead, taking surveys as required					PERSONNEL ON SITE:	39				
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1791psi	BOP TEST	11/10/2006	TEST DUE	25/10
AFD's: 76	SAFETY					WEATHER AM		Fine			
	1. Toolbox meeting					PM		Fine			
	2.										

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION		HRS	CUM
WOB(kLb)	10-14	JET V(fps)	106	TOOL	LENGTH	Time	2300	BOP's / Wellhead			36.0
RPM	192	H S I	0.53	Smith XR+	0.19	Depth (m)	3165	Cementing			8.5
BIT NUMBER	7			Mud Motor	6.79	Temp (° C)	52	Circ & Condition			30.5
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/PO	Coring			
Make	Smith			MWD NM pony collar	1.94	Density (ppg)	10.30	D/O Cement			12.5
Type	XR+			MWD collar	10.30	ECD (ppg)		Drilling	20.0		291.5
IADC Code	117			NMDC	9.30	Viscosity (sec)	36	FIT / LOT			4.0
Serial Number	PB9349			11xDC's	104.08	PV / YP (cp/lb)	9 / 6	Handle BHA			13.0
T.F.A. (")				Jars	9.34	Gells (s/m)	1 / 1	Repairs			67.5
Depth In (m)	3119			3xDCs	28.30	API Filt. (cc)	6.6	Rig Service			5.0
Depth Out (m)				9xHWDP	85.50	Cake (/32")	1	Rig up Csg./ Cmt.			11.0
Total Meters						Solids (% Vol)	7.9	Run Casing			32.5
Hours						Sand (% Vol)	Tr	Safety			1.5
ROP						MBT	12	Slip/Cut Drill Line			5.5
Condition Out				BHA LENGTH (m)	256.26	pH (strip)	10	Survey	1.5		28.0
FLOW DATA				BHA WEIGHT(kLb)	33.1	Chlorides (mg/l)	131000	Test BOP			24.0
CIRC. RATE (gpm)	248			STRING WT (kLb)	169.0	KCL (%)	11.5	Tight hole / Fishing			
AV - DP (fpm)	256			HOOK LOAD (kLb)	180.0	PHPA (ppb)	0.84	Tripping	2.0		157.5
AV - DC (fpm)	453			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement			24.5
SPP (psi)	3050			DRAG UP (kLb)	195.0	Circ. Vol. (Bbl)	731	Wash / Ream	0.5		2.5
SPP (calculated)				DRAG DOWN (kLb)	175.0	CHEMICAL USAGE		Well Control			1.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)	5100	AMC Pac- LV	5	Well Test			
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)	3057	Biocide G	1	Wiper Trip			14.0
RATE	59	RATE	59	BULK PRODUCTS		NaCl	456	Wireline			8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	37850 Litres	PHPA	1	Other			78.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	3850 Litres	Sodium Sulphite	1	TOTALS	24.0		857.0
SCR: 540 @ 40	SCR: 950 @ 60			CUM. FUEL USED	139003 Litres	Xanthan Gum	1	DAILY MUD COSTS			\$5,441.10
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS			\$107,738.56
2.04° at 3120m				BARITES USED	175 kg			AFE COST - C&S			
2.72° at 3148m				MUD MIXED	4422 Bbls			AFE COST - P&A			
				MUD LOSSES	3582 Bbls			AFE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	2:00	Cont. RIH f/ 1918m to 3054m, break circ.
2:00	2:30	Light wash f/ 3054m to bottom @ 3119m (2m fill)
2:30	3:00	Drill ahead f/ 3119m to 3127m, rotating 60rpm (880 units gas, slight flow @ flow line, wt. up f/ 10.1ppg to 10.2ppg +)
3:00	8:30	Drill f/ 3127m to 3135m, rotating 60 rpm
8:30	9:00	Survey @ 3120m = 2.04 deg., AZI =111.74
9:00	10:30	Set tool face, slide f/ 3135m to 3140.5m
10:30	12:00	Drill f/ 3140.5m to 3143m, rotating 60 rpm
12:00	21:00	Drill f/ 3143m to 3164m, rotating 60 rpm, Flow 250gpm (132rpm), 12-14WOB
21:00	22:00	Take SCR's @ 3164m make connection, take survey @3148m, orientate string to slide.
22:00	0:00	Slide f/ 3164m to 3169m. 12-14WOB, 250gpm

MAXIMUM GAS: 2900% @ 3152m	BACKGROUND GAS: %	CONNECTION GAS: 938%	TRIP GAS: 89%
SUPERVISOR: Brian Marriott	GEOLOGIST: Dave Horner	MUD CO: RMN Drilling Fluids	

WELL	Glenaire 01 ST1	24:00 DEPTH	3182m	24 HR PROG	13m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Slide f/ 3169 > 3170m, drill f/ 3170 > 3182m rotating, circ. bot's up, POOH to 2729, slight flow, RIH, circ. & wt. up f/ 10.3 to 10.5ppg +, POOH, make up 6" PDC bit, RIH						
REMARKS / FORWARD PLAN:	Slight oil leak on drilling jars, require replacement >> Pres.op. @ 06:00hrs drlg ahead thru. 3192m, Rotating, RPM = 192, WOB = 6k, ROP = 40mph, Drill ahead					PERSONNEL ON SITE:	39
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1663psi
AFD's: 77	SAFETY	1. Toolbox meeting 2.				BOP TEST	11/10/2006
						TEST DUE	25/10
						WEATHER AM	Overcast
						PM	O/cast & showers

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION	HRS	CUM	
WOB(klb)	12-14	JET V(fps)	106	TOOL	LENGTH	Time	1100	BOP's / Wellhead		36.0	
RPM	192	H S I	0.54	DSX516M-B1, RR4	0.19	Depth (m)	3182	Cementing		8.5	
BIT NUMBER	RR4	Mud Motor	6.79	Temp (° C)	51	Circ & Condition	3.5	Coring		34.0	
Size (in)	6.0	Float sub	0.52	Mud Type	KCL/PHPA/POH	D/O Cement		Drilling		12.5	
Make	Hyc	MWD NM pony collar	1.94	Density (ppg)	10.55	ECD (ppg)		FIT / LOT		4.0	
Type	DSX516M	MWD collar	10.30	Viscosity (sec)	36	PV / YP (cp/lb)	10 / 5	Handle BHA		13.0	
IADC Code	PDC	NMDC	9.30	Jars	9.34	Gells (s/m)	1 / 3	Repairs		67.5	
Serial Number	114752	11xDC's	104.08	3xDCs	28.30	API Filt. (cc)	6	Rig Service		5.0	
T.F.A. (")		9xHWDP	85.50	Total Meters		Cake (/32")	1	Rig up Csg./ Cmt.		11.0	
Depth In (m)	3182	Hours		ROP		Solids (% Vol)	7.8	Run Casing		32.5	
Depth Out (m)	IN	Condition Out		BHA LENGTH (m)	256.26	Sand (% Vol)	Tr	Safety		1.5	
Flow Data		BHA WEIGHT(kLb)	33.0	STRING WT (kLb)	168.8	MBT	12	Slip/Cut Drill Line		5.5	
CIRC. RATE (gpm)	248	HOOK LOAD (kLb)	185.0	WT BELOW JARS (kLb)		pH (strip)	9.5	Survey		28.0	
AV - DP (fpm)	256	DRAG UP (kLb)	190.0	DRAG DOWN (kLb)	175.0	Chlorides (mg/l)	159000	Test BOP		24.0	
AV - DC (fpm)	453	TORQUE ON (Amps/Rel.)	5100	TORQUE OFF (Amps/Rel.)	3500	KCL (%)	10	Tight hole / Fishing			
SPP (psi)	3050	BULK PRODUCTS		FUEL ON SITE	33350 Litres	PHPA (ppb)	0.83	Tripping	14.0	171.5	
SPP (calculated)		DAILY USAGE	4500 Litres	CUM. FUEL USED	143503 Litres	ALC - 50 (K)		Wait on Cement		24.5	
PUMP #1	PUMP #2	BARITES ON SITE	125 kg	BARITES USED	175 kg	Circ. Vol. (Bbl)	770	Wash / Ream		2.5	
8-P-80	8-P-80	MUD MIXED	4542 Bbls	MUD LOSSES	3606 Bbls	CHEMICAL USAGE		Well Control		1.0	
RATE	59	RATE	59					Well Test			
LINER	5.0"	LINER	5.0"					Wiper Trip		14.0	
STROKE	8.5"	STROKE	8.5"					Wireline		8.5	
SURVEYS										Other	78.0
										TOTALS	24.0
										DAILY MUD COSTS	
										CUM. MUD COSTS	\$107,738.56
										AFE COST - C&S	
										AFE COST - P&A	
										AFE COST - C&C	

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	0:30	Slide f/ 3169m to 3170m
0:30	6:30	Drill f/ 3170m to 3182m, (ROP dropped off, have 4 deg. dev. @ bit) >>>> rotating 60rpm, flow 250gpm (132rpm), WOB =12 > 14
6:30	7:30	Circ. Bottoms up, back ground gas = 30 units
7:30	9:00	Pump slug, flow check, ok, POOH to shoe, flow check, slight flow, POOH another # 5 std's to 2729m, flow check, flow continued.
9:00	10:00	RIH to bottom @ 3182m
10:00	12:30	Circ. Bottoms up & wt. up f/ 10.3ppg to 10.5ppg + w/ salt (max gas from bot's up = 4154 units with slightly oil cut mud)
12:30	17:00	Pump slug, flow check, ok, POOH to shoe, flow check, slight flow, observe for 15 minutes, intermittent flow, cont. POOH flow check every 10 std's
17:00	19:30	Continue to POH, check motor and breakout bit
19:30	21:30	Layout motor, pick up new motor and make up 6" PDC bit, DSX516M, w/ 5x15 jets
21:30	22:00	RIH to 57m, test MWD, 2x59spm, 890psi
22:00	0:00	RIH to 1057m, break circulation, flow check

MAXIMUM GAS:	330% @ 3179m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	4154%
SUPERVISOR:	Brian Marriott	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

15/10/2006

REPORT # 38

WELL	Glenaire 01 ST1	24:00 DEPTH	3207m	24 HR PROG	25m	CUM. COSTS					
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS					
OP's TO 06:00	Drill f/3182m to 3207m, well kicked, wt. up to 10.8ppg+ while circ. out influx, open annular, well static, attempt to circ, no go, POOH, string blocked w/ salt f/ HWDP, clear same, p.u. bit, RIH to shoe, slip & cut, Circ.										
REMARKS / FORWARD PLAN:	Jars still leaking >>> Rig service while circ. bot's up @ shoe, 2491 units gas. Pres. Op. RIH f/ shoe to 3207m, circ. bot's up, drill ahead f/ 3207 to 3450m, POOH, lay out MWD					PERSONNEL ON SITE:	39				
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1510psi	BOP TEST	11/10/2006	TEST DUE	25/10
AFD's: 78	SAFETY	1. Safety meeting 2.					WEATHER AM	Fine	PM	Fine / O/cast	

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	4-5	JET V(fps)	106	TOOL	LENGTH	Time	1200	BOP's / Wellhead		36.0
RPM	192	H S I	0.56	DSX516M-B1, RR4	0.19	Depth (m)	3207	Cementing		8.5
BIT NUMBER	RR4			Mud Motor	6.79	Temp (° C)	50	Circ & Condition	1.0	35.0
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/POI	Coring		
Make	Hyc			MWD NM pony collar	1.94	Density (ppg)	10.85	D/O Cement		12.5
Type	DSX516M			MWD collar	10.30	ECD (ppg)		Drilling	1.0	299.0
IADC Code	PDC			NMDC	9.30	Viscosity (sec)	37	FIT / LOT		4.0
Serial Number	114752			11xDC's	104.08	PV / YP (cp/lb)	8 / 4	Handle BHA		13.0
T.F.A.(")	0.752			Jars	9.34	Gells (s/m)	1 / 2	Repairs		67.5
Depth In (m)	3182			3xDCs	28.30	API Filt. (cc)	4.8	Rig Service		5.0
Depth Out (m)				9xHWDP	85.50	Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	8.3	Run Casing		32.5
Hours						Sand (% Vol)	Tr	Safety		1.5
ROP						MBT	13	Slip/Cut Drill Line	0.5	6.0
Condition Out				BHA LENGTH (m)	256.26	pH (strip)	9	Survey		28.0
FLOW DATA				BHA WEIGHT(kLb)	32.8	Chlorides (mg/l)	183000	Test BOP		24.0
CIRC. RATE (gpm)	248			STRING WT (kLb)	169.1	KCL (%)	9.5	Tight hole / Fishing		
AV - DP (fpm)	256			HOOK LOAD (kLb)		PHPA (ppb)	0.83	Tripping	14.5	186.0
AV - DC (fpm)	453			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)				DRAG UP (kLb)		Circ. Vol. (Bbl)	692	Wash / Ream	0.5	3.0
SPP (calculated)				DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control	2.5	3.5
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)		Barite	103	Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)		NaCl	978	Wiper Trip		14.0
RATE	59	RATE	59	BULK PRODUCTS				Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE				Other	4.0	82.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE				TOTALS	24.0	905.0
				CUM. FUEL USED	176853 Litres			DAILY MUD COSTS		\$9,304.30
SURVEYS				BARITES ON SITE	125 kg			CUM. MUD COSTS		\$120,282.86
				BARITES USED	175 kg			AFE COST - C&S		
2.72° at 3148m				MUD MIXED	4542 Bbls			AFE COST - P&A		
				MUD LOSSES	3804 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	1:30	Cont. RIH f/ 1057m to 1948m
1:30	2:00	Break circ., flow check, slight flow, 1/2bbl gain, mud airted
2:00	3:30	Cont. RIH to shoe @ 2998m
3:30	4:00	Break circ. & circ. bottoms up, 600 units of gas, monitor well
4:00	4:30	Slip drilling line
4:30	5:00	Cont. RIH to 3154m, break circ., take SCR's
5:00	5:30	Wash last stand to bottom @ 3182m, take check survey
5:30	6:30	Drill f/ 3182m to 3207m, rotating 60rpm, 250gpm (133rpm), (total 193rpm), WOB = 5 > 7 (bottoms up f/ 3182m = 3445 units)
6:30	7:00	At 3207m, gas peaked @ 4345units, stop drilling, circ. out, oil cut mud over shakers, gas leveled out @ 4000 units
7:00	8:00	Circ. & wt. up mud f/ 10.6ppg, gained 28bbls (Geo. estimates oil / gas came f/ aprox 3192m)(note: 60bbls gained f/ salt added to sys.)
8:00	9:00	Shut in well @ 08:00hrs, circ. out bot's up thru. choke, gained = 26bbls, cont. wt. up to 10.8ppg, (gas = 90 units)(salt saturated mud)
9:00	10:00	Open annular, well static, attempt to circ. long way, can't circ., check Top Drive IBOP valves, ok, brk. off stand, circ., ok, attempt to circ.
10:00	10:30	Attempt to clear blocked string, no success, flow check, ok
10:30	11:00	POOH to shoe, hole slick, flow check, ok
11:00	11:30	Attempt to clear blocked string, no success, flow check, ok
11:30	16:30	POOH to clear obstruction in drill string, flow check every 10 std's., found salt packed off from 2nd. stand of HWDP
16:30	17:30	Break off stands of HWDP & DC's & clear salt f/ same, check & clear salt f/ MWD, check rotation on motor, no go, lay out motor
17:30	18:30	Close blind rams, line up pumps on water & flush out choke manifold & poor boy, transfer mud in tanks, check same, clear rig floor
18:30	21:30	Pick up (Beach) Transco P100XL mud mtr., make up bit, orientate & calibrate mtr. Test MWD tools & fault find,
21:30	0:00	RIH BHA and drift same, drift lodged in DC - flushed thru. break circ @ top hwdp 256m circulate clear. Cont. RIH to 977, brk. Circ.

MAXIMUM GAS:	4560% @ 3193m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	3445%
SUPERVISOR:	Brian Marriott		GEOLOGIST:	Dave Horner		MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

16/10/2006

REPORT # 39

WELL	Glenaire 01 ST1	24:00 DEPTH	3267m	24 HR PROG	60m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS	
OP's TO 06:00	RIH to shoe, slip & cut, wash f/ 3007m to bottom @ 3207m, drill f/ 3207m to 3217m, 4956 units of gas, stop drilling & circ. out, drill f/ 3217 to 3267m taking surveys as required						
REMARKS / FORWARD PLAN:	Slide f/ 3267m to 3279m @ 06:00hrs, (controlled WOB & ROP, due to motor stalling & aggressive drilling)					PERSONNEL ON SITE:	40
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1382psi
		BOP TEST	11/10/2006	TEST DUE	25/10		
AFD's: 79	SAFETY	1. Toolbox meeting 2.				WEATHER AM	Fine
					PM	Fine	

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	2-5	JET V(fps)	92	TOOL	LENGTH	Time	2400	BOP's / Wellhead		36.0
RPM	192	H S I	0.43	DSX516M-B1, RR4	0.19	Depth (m)	3267	Cementing		8.5
BIT NUMBER	RR4			P100XL Mud Motor	6.79	Temp (° C)	51	Circ & Condition	0.5	35.5
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/POI	Coring		
Make	Hyc			MWD NM pony collar	1.94	Density (ppg)	11.10	D/O Cement		12.5
Type	DSX516M			MWD collar	10.30	ECD (ppg)		Drilling	14.0	313.0
IADC Code	PDC			NMDC	9.30	Viscosity (sec)	34	FIT / LOT		4.0
Serial Number	114752			11xDC's	104.08	PV / YP (cp/lb)	8 / 6	Handle BHA		13.0
T.F.A.("	0.863			Jars	9.34	Gells (s/m)	1 / 1	Repairs		67.5
Depth In (m)	3207			3xDCs	28.30	API Filt. (cc)	4.6	Rig Service	1.0	6.0
Depth Out (m)	3207			9xHWDP	85.50	Cake (/32")	2	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	8.6	Run Casing		32.5
Hours						Sand (% Vol)	0.1	Safety		1.5
ROP						MBT	12	Slip/Cut Drill Line	1.0	7.0
Condition Out				BHA LENGTH (m)	256.26	pH (strip)	9	Survey	2.0	30.0
FLOW DATA				BHA WEIGHT(kLb)	32.6	Chlorides (mg/l)	177000	Test BOP		24.0
CIRC. RATE (gpm)	248			STRING WT (kLb)	171.1	KCL (%)	7.5	Tight hole / Fishing		
AV - DP (fpm)	256			HOOK LOAD (kLb)	180.0	PHPA (ppb)	0.7	Tripping	3.5	189.5
AV - DC (fpm)	453			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)	3080			DRAG UP (kLb)	185.0	Circ. Vol. (Bbl)	778	Wash / Ream	2.0	5.0
SPP (calculated)				DRAG DOWN (kLb)	175.0	CHEMICAL USAGE		Well Control		3.5
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)	4100	AMC Pac- LV	6	Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)	3050	Barite	981	Wiper Trip		14.0
RATE	59	RATE	59	BULK PRODUCTS		Biocide G	3	Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	27000 Litres	Caustic Soda	2	Other		82.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	4000 Litres	Defoamer	1	TOTALS	24.0	929.0
SCR: 540 @ 40	SCR: 920 @ 60			CUM. FUEL USED	149853 Litres	NaCl	174	DAILY MUD COSTS		\$17,180.13
SURVEYS				BARITES ON SITE	100 kg	PHPA	3	CUM. MUD COSTS		\$137,462.99
		0.92° at 3249m		BARITES USED	200 kg	Sodium Sulphite	3	AFE COST - C&S		
1.0° at 3206m				MUD MIXED	4902 Bbbls	Xanthan Gum	7	AFE COST - P&A		
0.69° at 3234m				MUD LOSSES	3828 Bbbls	KCL	153	AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	3:30	Cont. RIH , break circ. every 25 std's, run to shoe @ 2998 m
3:30	4:30	Slip & cut drilling line
4:30	5:30	Rig service, circ. bottoms up while service rig, 2491 units gas on bottoms up
5:30	7:30	Cont. RIH, light wash & ream f/ 3007m to 3207m, max gas on bottoms up = 300 units
7:30	8:00	Drill ahead f/ 3207m to 3217m, rotating 60rpm, 250gpm = 130rpm, WOB = 3k > 5k, gas peaked @ 4956 units
8:00	8:30	Stop drilling, Circ. out gas, circ. w/ continuous 4500 units for 10 minutes, commence to wt. up f/ 10.8ppg + to 11.00ppg w/ barite
8:30	9:00	Drill ahead f/ 3217m to 3221m (intermittent gas peaks f/ 2000 to 4500 units)
9:00	9:30	Circ. & survey @ 3206.34, > 1 deg., > AZI = 172.45 (note; angle dropped due to additional circulating over last #2 days)
9:30	11:00	Slide f/ 3221m to 3225m, motor stalling out, pressure increase, tool hanging up, suspend sliding operation
11:00	13:00	Drill f/ 3225m to 3243m, rotating 60rpm, WOB = 2 to 3k
13:00	13:30	Recycle tool & orientate tool face
13:30	20:30	Slide f/ 3243m to 3250m, 250gpm = 132rpm, (controlled ROP & WOB)
20:30	21:00	Take SCR's, flow check, make connection, conduct Survey @ 3234m, 0.60 deg., AZI = 350.93
21:00	22:30	Drill f/ 3250m to 3265m, rotating 60rpm, 250gpm = 132rpm, WOB = 2k > 5k
22:30	23:00	Survey @ 3249m, 0.92 deg., AZI = 242.06
23:00	0:00	Slide f/ 3265m to 3267m, w/ controlled WOB & ROP, due to motor stalling & aggressive drilling

MAXIMUM GAS:	4956% @ 3215m	BACKGROUND GAS:	%	CONNECTION GAS:	4465%	TRIP GAS:	4709%
SUPERVISOR:	Brian Marriott/Ray Ell		GEOLOGIST:	Dave Horner		MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

17/10/2006

REPORT # 40

WELL	Glenaire 01 ST1	24:00 DEPTH	3361m	24 HR PROG	94m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Laria	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Slide / drill f/ 3265m to 3386m, taking surveys as required, 40k o.p. @ 3386m after survey, circ. bottoms up & work pipe, wiper trip, intermittent 10 to 15k o.p., 50k o.p. @ 3259m, jar free, cont. POOH to shoe, hole ok						
REMARKS / FORWARD PLAN:	Present Op. = Wiper to shoe, then RIH, wash & ream tight hole f/ 3200m to bottom, drill ahead to 3500m +-					PERSONNEL ON SITE:	40
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1331psi
		BOP TEST	11/10/2006	TEST DUE	25/10		
AFD's: 80	SAFETY	1. Toolbox meeting 2.				WEATHER AM	Fine
						PM	Showers

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	2-4	JET V(fps)	91	TOOL	LENGTH	Time	2300	BOP's / Wellhead		36.0
RPM	200	H S I	0.41	DSX516M-B1, RR4	0.19	Depth (m)	3357	Cementing		8.5
BIT NUMBER	RR4			P100XL Mud Motor	6.79	Temp (° C)	54	Circ & Condition		35.5
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/POI	Coring		
Make	Hyc			MWD NM pony collar	1.94	Density (ppg)	11.20	D/O Cement		12.5
Type	DSX516M			MWD collar	10.30	ECD (ppg)		Drilling	21.0	334.0
IADC Code	PDC			NMDC	9.30	Viscosity (sec)	36	FIT / LOT		4.0
Serial Number	114752			11xDC's	104.08	PV / YP (cp/lb)	10 / 8	Handle BHA		13.0
T.F.A. (")	0.863			Jars	9.34	Gells (s/m)	1 / 2	Repairs		67.5
Depth In (m)	3207			3xDCs	28.30	API Filt. (cc)	4.4	Rig Service	0.5	6.5
Depth Out (m)				9xHWDP	85.50	Cake (/32")	1	Rig up Csg. / Cmt.		11.0
Total Meters						Solids (% Vol)	9.2	Run Casing		32.5
Hours						Sand (% Vol)	Tr	Safety		1.5
ROP						MBT	11	Slip/Cut Drill Line		7.0
Condition Out				BHA LENGTH (m)	256.26	pH (strip)	9	Survey	2.5	32.5
FLOW DATA				BHA WEIGHT(kLb)	32.6	Chlorides (mg/l)	175000	Test BOP		24.0
CIRC. RATE (gpm)	244			STRING WT (kLb)	175.1	KCL (%)	6.5	Tight hole / Fishing		
AV - DP (fpm)	252			HOOK LOAD (kLb)	180.0	PHPA (ppb)	0.7	Tripping		189.5
AV - DC (fpm)	445			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)	3150			DRAG UP (kLb)	200.0	Circ. Vol. (Bbl)	810	Wash / Ream		5.0
SPP (calculated)				DRAG DOWN (kLb)	185.0	CHEMICAL USAGE		Well Control		3.5
PUMP #1	PUMP #2	TORQUE ON (Amps/Rel.)	5900	TORQUE OFF (Amps/Rel.)	3500	Barite	132	Well Test		
8-P-80	8-P-80	BULK PRODUCTS				Caustic Soda	1	Wiper Trip		14.0
RATE	58	RATE	58	FUEL ON SITE	36935 Litres	Defoamer	2	Wireline		8.5
LINER	5.0"	LINER	5.0"	DAILY USAGE	8100 Litres			Other		82.0
STROKE	8.5"	STROKE	8.5"	CUM. FUEL USED	157953 Litres			TOTALS	24.0	953.0
SCR: 580 @ 40	SCR: 980 @ 60	BARITES ON SITE	50 kg	BARITES USED	250 kg			DAILY MUD COSTS		\$1,424.10
SURVEYS				MUD MIXED	4902 Bbbls			CUM. MUD COSTS		\$138,887.09
1.48° at 3263m	2.89° at 3311m	MUD LOSSES	3906 Bbbls	AFE COST - C&S				AFE COST - P&A		
2.6° at 3282m	1.86° at 3349m			AFE COST - C&C						
1.86° at 3292m	3.0° at 3370m									

HOURLY OPERATIONS SUMMARY 0000 to 2400										
From	To	Description								
0:00	6:00	Slide f/ 3267m to 3279m, w/ controlled WOB & ROP, due to motor stalling & aggressive drilling								
6:00	6:30	Survey @ 3263m, 1.48 deg., AZI = 232.23								
6:30	7:00	Drill f/ 3279 to 3300m, rotating 60rpm, 250gpm = 130rpm, WOB = 3k > 4k (each conn. gas peaks to 4500 units, w/ traces of oil in mud)								
7:00	7:30	Survey @ 3282.64, 2.6 deg., AZI = 228.60								
7:30	11:30	Slide f/ 3300m to 3306m, 250gpm = 132rpm								
11:30	12:00	Drill f/ 3306m to 3308m, rotate 70rpm, 250gpm = 130rpm, (total 200rpm) WOB = 3k								
12:00	12:30	Rig Service & Survey @ 3292.43m, = 1.86, AZI = 259.15								
12:30	14:30	Drill f/ 3308m to 3327m, rotating 70rpm, 250gpm = 130rpm, (total 200rpm), WOB = 2 > 3k								
14:30	15:00	Circ. & survey @ 3311.56m, = 2.89 deg., AZI = 223.6								
15:00	18:30	Drill f/ 3327m to 3356m, rotating 70rpm, 250gpm = 130rpm, (total 200rpm) WOB = 3k								
18:30	19:00	Circ. & survey @ 3341m, 1.99 deg., AZI = 256.98, orientate string / MWD for slide								
19:00	0:00	Slide / 3356m to 3361m								
MAXIMUM GAS: 4583% @ 3357m										
BACKGROUND GAS: %			CONNECTION GAS: 4570%			TRIP GAS: %				
SUPERVISOR: Brian Marriott/Ray Ell			GEOLOGIST: Dave Horner			MUD CO: RMN Drilling Fluids				



DAILY DRILLING REPORT

18/10/2006

REPORT # 41

WELL	Glenaire 01 ST1	24:00 DEPTH	3418m	24 HR PROG	57m	CUM. COSTS					
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS					
OP's TO 06:00	Slide / Drill f/ 3356m to 3386m, surveys as required, 40k o.p. @ 3386m, circ., Wiper to shoe, RIH, wash / Ream f/ 3200m to bottom @ 3386m, Slide / Drill f/ 3386m to 3451m, take surveys as required										
REMARKS / FORWARD PLAN:	(Lag time on conn. Gasses, corresponds to a depth @ 3192m) / Cont. drill thru. 3451m @ 06:00hrs. Plan is to drill / slide ahead to 3500m +/-, POOH & lay out Schumb. tools					PERSONNEL ON SITE:	40				
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1279psi	BOP TEST	11/10/2006	TEST DUE	25/10
AFD's: 81	SAFETY	1. Toolbox meeting 2.				WEATHER AM	Overcast	PM	Overcast/Shower		

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION		HRS	CUM
WOB(kLb)	3-4	JET V(fps)	91	TOOL	LENGTH	Time	2345	BOP's / Wellhead			36.0
RPM	200	H S I	0.42	DSX516M-B1, RR4	0.19	Depth (m)	3418	Cementing			8.5
BIT NUMBER	RR4			P100XL Mud Motor	6.79	Temp (° C)	53	Circ & Condition		0.5	36.0
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/POI	Coring			
Make	Hyc			MWD NM pony collar	1.94	Density (ppg)	11.30	D/O Cement			12.5
Type	DSX516M			MWD collar	10.30	ECD (ppg)		Drilling		17.5	351.5
IADC Code	PDC			NMDC	9.30	Viscosity (sec)	35	FIT / LOT			4.0
Serial Number	114752			11xDC's	104.08	PV / YP (cp/lb)	10 / 9	Handle BHA			13.0
T.F.A. (")	0.863			Jars	9.34	Gells (s/m)	1 / 2	Repairs			67.5
Depth In (m)	3207			3xDCs	28.30	API Filt. (cc)	5.5	Rig Service			6.5
Depth Out (m)	3207			9xHWDP	85.50	Cake (/32")	1	Rig up Csg. / Cmt.			11.0
Total Meters						Solids (% Vol)	9.8	Run Casing			32.5
Hours						Sand (% Vol)	Tr	Safety			1.5
ROP						MBT	9	Slip/Cut Drill Line			7.0
Condition Out				BHA LENGTH (m)	256.26	pH (strip)	9	Survey		2.0	34.5
FLOW DATA				BHA WEIGHT(kLb)	32.5	Chlorides (mg/l)	171000	Test BOP			24.0
CIRC. RATE (gpm)	244			STRING WT (kLb)	177.3	KCL (%)	7	Tight hole / Fishing			
AV - DP (fpm)	252			HOOK LOAD (kLb)	190.0	PHPA (ppb)	0.74	Tripping			189.5
AV - DC (fpm)	445			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement			24.5
SPP (psi)	3170			DRAG UP (kLb)	200.0	Circ. Vol. (Bbl)	800	Wash / Ream		3.0	8.0
SPP (calculated)				DRAG DOWN (kLb)	180.0	CHEMICAL USAGE		Well Control			3.5
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)	5650	AMC Pac- LV	3	Well Test			
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)	4093	Barite	384	Wiper Trip		0.5	14.5
RATE	58	RATE	58	BULK PRODUCTS				Wireline			8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	32250 Litres	Biocide G	1	Other		0.5	82.5
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	4685 Litres	Caustic Soda	1	TOTALS		24.0	977.0
SCR: 630 @ 40	SCR: 1080 @ 60			CUM. FUEL USED	162638 Litres	PHPA	2	DAILY MUD COSTS			\$6,510.99
SURVEYS				BARITES ON SITE	50 kg	Sodium Sulphite	3	CUM. MUD COSTS			\$145,398.08
3.0° at 3370m	2.92° at 3407m			BARITES USED	250 kg	Xanthan Gum	2	APE COST - C&S			
2.48° at 3378m	2.99° at 3427m			MUD MIXED	5002 Bbls	KCL	84	APE COST - P&A			
3.21° at 3398m				MUD LOSSES	3975 Bbls			APE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	1:00	Slide f/ 3361m to 3362m
1:00	1:30	Drill f/ 3362m to 3366m, rotating
1:30	2:00	Survey @ 3365m, 1.86 deg., AZI = 275.69
2:00	4:30	Drill f/ 3366m to 3386m, rotating 70rpm, 248gpm = 125rpm (total = 195rpm) WOB = 3k
4:30	5:00	Survey @ 3370m 3 deg., AZI = 232.77
5:00	5:30	Complete survey, work pipe, 40k over pull, hole sticky, circ. bottoms up, 4497 units of gas
5:30	6:00	Flow check, slug pipe, Wiper trip to shoe (14 stands), intermittent 10k to 15k overpull, jar free 50k overpull @ 3259m, cont. POOH, ok
6:00	9:00	RIH to 3200m, light wash & ream thru 3259m, cont. W/R to bottom, 25k overpull on bottom, wash, work & ream f/ 3383m to 3386m
9:00	9:30	Recycle tool & Oreintate tool face
9:30	15:00	Slide f/ 3386m to 3391m, 248gpm = 125rpm, (Lag time on connection gas corresponds to a depth @ 3192m = 4240 units)
15:00	16:00	Drill f/ 3391m to 3394m, rotating 70rpm, 252gpm = 131rpm, (total 201rpm) WOB = 3k
16:00	16:30	Survey @ 3378.51m, 2.48, AZI = 244.84 (take SCR's w/ 11.3ppg mud wt.)
16:30	18:30	Drill f/ 3394m to 3413m, rotating 70rpm, 252gpm = 131rpm, (total 201rpm) WOB = 3k > 4k
18:30	19:00	Survey @ 3398.34, 3.21 deg., AZI = 204.45
19:00	0:00	Slide f/ 3413m to 3418m, 244gpm = 127rpm

MAXIMUM GAS:	4624% @ 3394m	BACKGROUND GAS:	160%	CONNECTION GAS:	4624%	TRIP GAS:	4233%
SUPERVISOR:	Brian Marriott/Ray Ell		GEOLOGIST:	Dave Horner		MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

19/10/2006**REPORT # 42**

WELL	Glenaire 01 ST1	24:00 DEPTH	3507m	24 HR PROG	89m	CUM. COSTS		
RIG	Ensign # 32	FORMATION	Laira	PTD	3945m	DAILY COSTS		
OP's TO 06:00	Slide / Drill f/ 3418m to 3507, Circ. bot's up, Survey, POOH to 2000m, spot 60bbls 13.5ppg mud, POOH, lay out Schlumb. tools, Jars & Monal d.c., RR bit, p.u. #1 std. d.c.& new Jars, RIH to 2580m, circ.out 13.5ppg pill							
REMARKS / FORWARD PLAN:	Lost 10bbls mud to annulus to 2000m, spot 13.5ppg pill, lost additional 18bbls for trip. >> Op. = Drill ahead, reduce mud wt. 0.1ppg per. circulation & evaluate				PERSONNEL ON SITE:	40		
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg/MAASP	1279psi	BOP TEST 11/10/2006	TEST DUE 25/10
AFD's: 82	SAFETY	1. Toolbox meeting 2. Safety meeting, regarding losing mud to formation				WEATHER AM	Overcast	
						PM	Overcast	

BIT INFORMATION				BHA # 10		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(klb)	3-6	JET V(fps)	73	TOOL	LENGTH	Time	1600	BOP's / Wellhead		36.0
RPM	200	H S I	0.24	DSX516M-B1, RR4	0.19	Depth (m)	3507	Cementing		8.5
BIT NUMBER	RR4			P100XL Mud Motor	6.79	Temp (° C)	54	Circ & Condition	1.5	37.5
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/POI	Coring		
Make	Hyc			MWD NM pony collar	1.94	Density (ppg)	11.30	D/O Cement		12.5
Type	DSX516M			MWD collar	10.30	ECD (ppg)		Drilling	12.5	364.0
IADC Code				NMDC	9.30	Viscosity (sec)	35	FIT / LOT		4.0
Serial Number	114752			11xDC's	104.08	PV / YP (cp/lb)	10 / 9	Handle BHA		13.0
T.F.A. (")				Jars	9.34	Gells (s/m)	1 / 2	Repairs		67.5
Depth In (m)	3507			3xDC's	28.30	API Filt. (cc)	5.2	Rig Service		6.5
Depth Out (m)				9xHWDP	85.50	Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	9.3	Run Casing		32.5
Hours						Sand (% Vol)	Tr	Safety	0.5	2.0
ROP						MBT	9	Slip/Cut Drill Line		7.0
Condition Out	1 1 NO A X 1 1 BHA			BHA LENGTH (m)	256.26	pH (strip)	9	Survey	2.0	36.5
FLOW DATA				BHA WEIGHT(kLb)	32.5	Chlorides (mg/l)	182000	Test BOP		24.0
CIRC. RATE (gpm)	210			STRING WT (kLb)	181.4	KCL (%)	7.75	Tight hole / Fishing		
AV - DP (fpm)	217			HOOK LOAD (kLb)	191.0	PHPA (ppb)	0.69	Tripping	7.0	196.5
AV - DC (fpm)	383			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)	3150			DRAG UP (kLb)	202.0	Circ. Vol. (Bbl)	815	Wash / Ream		8.0
SPP (calculated)				DRAG DOWN (kLb)	181.0	CHEMICAL USAGE		Well Control		3.5
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	5650	Barite	304	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	4093	Biocide G	1	Wiper Trip		14.5
RATE	40	RATE	60	BULK PRODUCTS		Caustic Soda	1	Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	20500 Litres	PHPA	2	Other	0.5	83.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	11750 Litres	Xanthan Gum	3	TOTALS	24.0	1001.0
SCR: 1040 @ 630		SCR: 1060 @ 640		CUM. FUEL USED	174388 Litres	KCL	84	DAILY MUD COSTS		\$5,747.18
SURVEYS				BARITES ON SITE	50 kg	Kwikseal F	2	CUM. MUD COSTS		\$151,145.26
1.56° at 3464m				BARITES USED	250 kg			AFE COST - C&S		
1.37° at 3491m				MUD MIXED	5102 Bbls			AFE COST - P&A		
				MUD LOSSES	4112 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	0:30	Slide f/ 3418m to 3419m, 244gpm = 127rpm
0:30	1:00	Drill f/ 3419m to 3423m, rotating 60rpm, 244gpm = 127rpm (total 187rpm) WOB = 3k > 4k
1:00	1:30	Survey @ 3407.21, 2.92 deg., AZI = 211.58
1:30	4:30	Drill f/ 3423m to 3443m, rotating 60rpm, losing mud @ 20bbls/ hr f/ 3440m, add LCM
4:30	5:00	Survey @ 3427.02, 2.99 deg., AZI = 169.22
5:00	6:00	Drill f/ 3443m to 3452m, rotating 60rpm
6:00	6:30	Take SCR's, make connection & hold "Safety Meeting" due to losses to the hole @ 20bbls.hr (med. / fine sands @ 3440m)
6:30	7:00	Survey @ 3436m, failed due to pop off relief valve on mud pump
7:00	10:30	Drill f/ 3452m to 3480m, rotating 60rpm, 240gpm = 125rpm, (total 185rpm), WOB = 4 > 7k
10:30	11:00	Survey @ 3464.60m, 1.56 deg., AZI = 157.28
11:00	15:00	Drill f/ 3480m to 3507m, rotating 60rpm, 240gpm = 125rpm, (total 185rpm) WOB = 5 > 9k
15:00	16:00	Circ. Bottoms up
16:00	16:30	Survey @ 3491.68m, 1.37 deg., AZI = 50.64 >>>>>>>>> (Projection to bottom @ 3507.00, 1.2 deg., AZI = 40)
16:30	19:30	Flow check, slug pipe, POOH to shoe (intermittent 10k to 25k for first 10std's to 3220m), flow check, cont. POOH to 2000m
19:30	20:00	"Lost 10bbls to the hole, while POOH to 2000m", Spot 60bbls 13.5ppg mud (493m) (2000m back to 1507m)
20:00	0:00	Cont. POOH to jars lay out same & pick up new set.S/N 1400-222A

MAXIMUM GAS:	3443% @ 1646m	BACKGROUND GAS:	125 - 250%	CONNECTION GAS:	3480%	TRIP GAS:	2548%
SUPERVISOR:	Brian Marriott/ Ray Ell	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

20/10/2006

REPORT # 43

WELL	Glenaire 01 ST1	24:00 DEPTH	3563m	24 HR PROG	56m	CUM. COSTS					
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS					
OP's TO 06:00	RIH w/ RR #4, DSX516 bit, to 2280m, circ. out 13.5ppg pill, cont. RIH to shoe, slip Drlg. line, RIH to bottom, circ. bot's up, drill f/ 3507m to 3563m, reduce mud wt. f/11.4ppg + to 11.2ppg										
REMARKS / FORWARD PLAN:	Formation top for "Pretty Hill" @ 3508m >>>> R.O.P. slowed to 1 mph, POOH lay out M/motor & bit & RIH Tricone, Smith XR30 (537) w/ 3x24 jets, Drill ahead					PERSONNEL ON SITE:	40				
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1331psi	BOP TEST	11/10/2006	TEST DUE	25/10
AFD's: 83	SAFETY	1. Toolbox meeting 2. Hole losses & drlg. into Pretty Hill formation over balance					WEATHER AM	shower	PM	overcast	

BIT INFORMATION				BHA # 11		MUD PROPERTIES		OPERATION	HRS	CUM	
WOB(klb)	4-12	JET V(fps)	73	TOOL	LENGTH	Time	2230	BOP's / Wellhead		36.0	
RPM	190	H S I	0.23	DSX516M-B1,RR	0.20	Depth (m)	3558	Cementing		8.5	
BIT NUMBER	RR4	P100XL Mud Motor			7.25	Temp (° C)	50	Circ & Condition	2.0	39.5	
Size (in)	6.0	Float sub			0.52	Mud Type	KCL/PHPA/PO	Coring			
Make	Hyc	14 X DC's			132.38	Density (ppg)	11.20	D/O Cement		12.5	
Type	DSX516M	Jars			8.96	ECD (ppg)	11.61	Drilling		13.5	
IADC Code		3 X DC's			28.30	Viscosity (sec)	36	FIT / LOT		4.0	
Serial Number	114752	9 X HWDP			85.50	PV / YP (cp/lb)	11 / 9	Handle BHA	1.0	14.0	
T.F.A.(")						Gells (s/m)	1 / 2	Repairs		67.5	
Depth In (m)	3507					API Filt. (cc)	5.5	Rig Service		6.5	
Depth Out (m)	3564					Cake (/32")	1	Rig up Csg./ Cmt.		11.0	
Total Meters	57					Solids (% Vol)	8.7	Run Casing		32.5	
Hours	145.5					Sand (% Vol)	Tr	Safety		2.0	
ROP						MBT	8	Slip/Cut Drill Line	0.5	7.5	
Condition Out						pH (strip)	9.5	Survey		36.5	
FLOW DATA				BHA LENGTH (m)		263.11		Chlorides (mg/l)	181000	Test BOP	24.0
CIRC. RATE (gpm)		210	BHA WEIGHT(kLb)		33.3	STRING WT (kLb)		184.7	KCL (%)		8
AV - DP (fpm)		217	HOOK LOAD (kLb)		195.0	HOOK LOAD (kLb)		195.0	PHPA (ppb)		0.7
AV - DC (fpm)		383	WT BELOW JARS (kLb)			WT BELOW JARS (kLb)			ALC - 50 (K)		50
SPP (psi)		2900	DRAG UP (kLb)		208.0	DRAG UP (kLb)		208.0	Circ. Vol. (Bbl)		840
SPP (calculated)		2570	DRAG DOWN (kLb)		188.0	DRAG DOWN (kLb)		188.0	CHEMICAL USAGE		
PUMP #1			TORQUE ON (Amps/Rel.)		6100	TORQUE ON (Amps/Rel.)		6100	Barite		320
PUMP #2			TORQUE OFF (Amps/Rel.)		4093	TORQUE OFF (Amps/Rel.)		4093	Biocide G		2
8-P-80			BULK PRODUCTS			BULK PRODUCTS			Caustic Soda		3
RATE		40	FUEL ON SITE		21050 Litres	FUEL ON SITE		21050 Litres	PHPA		2
LINER		5.0"	DAILY USAGE		4350 Litres	DAILY USAGE		4350 Litres	Sodium Sulphite		4
STROKE		8.5"	CUM. FUEL USED		173838 Litres	CUM. FUEL USED		173838 Litres	Xanthan Gum		2
SCR: 1040 @ 630			BARITES ON SITE		50 kg	BARITES ON SITE		50 kg	KCL		84
SCR: 1060 @ 640			BARITES USED		250 kg	BARITES USED		250 kg	Kwikseal F		1
SURVEYS			MUD MIXED		5202 Bbls	MUD MIXED		5202 Bbls			
			MUD LOSSES		4127 Bbls	MUD LOSSES		4127 Bbls			
HOURLY OPERATIONS SUMMARY 0000 to 2400											
From	To	Description									
0:00	1:00	Break out bit, Set motor to 0 -degrees, Lay out monel & MWD (lost additional 25bbls after spotting 13.5ppg pill @ 2000m while POOH)									
1:00	5:30	Make up RR4 bit, DSX516, s.n. 114752, install toco ring, RIH to 1122m, break circ., cont. RIH to 2580m , mud level dropped 2m									
5:30	6:30	Circ.out weighted 13.5ppg pill (lost 9bbls while RIH to 2580) (lost additional 27bbls while circ. out weighted pill) return to slug tank, nil gas									
6:30	7:00	Slip drilling line									
7:00	8:00	Cont. RIH to shoe @ 2998m, slowly									
8:00	8:30	Circ. bottoms up, Hold "Safety Meeting" regarding drilling ahead into "Pretty Hill) Max Gas on bottoms up f/ shoe = 690 units									
8:30	9:30	RIH slowly f/ shoe to 3487m									
9:30	10:00	Light wash & ream f/ 3487m to bottom @ 3507m (run centrifuge, reduce mud wt. f/ 11.4ppg + to 11.4ppg									
10:00	10:30	Circ. bottoms up, max gas 3040 units (f/ 3192m), not losing any mud to hole. Mud wt. = 11.4ppg in & out (take SCR's)									
10:30	0:00	Drill f/ 3507m to 3563m, rotating 60rpm, 248gpm = 130rpm, (total 190rpm), WOB = 5k > 9k (reduce mud wt. f/11.4ppg + to 11.2ppg)									
MAXIMUM GAS: 2331% @ 3529m BACKGROUND GAS: 80 - 150% CONNECTION GAS: 3543% TRIP GAS: 3231%											
SUPERVISOR: Brian Marriott/Ray Ell			GEOLOGIST: Dave Horner			MUD CO: RMN Drilling Fluids					



DAILY DRILLING REPORT

21/10/2006

REPORT # 44

WELL	Glenaire 01 ST1	24:00 DEPTH	3572m	24 HR PROG	9m	CUM. COSTS	\$157,435
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS	\$410.20
OP's TO 06:00	POOH w/ PDC, DSX516m, RIH w/ 6" x DSX111GJW bit, w/ 4x20 & 3x10 jets, RIH to shoe, slip drlg. line, rig service, cont. RIH, light ream & wash last #2 stands (57m) to bot., bed in bit, drill f/ 3564m to 3578m						
REMARKS / FORWARD PLAN:	f/ 3564m to 3572m Av. = 1.23mph >> f/ 3572m to 3579m Av. = 1.16mph, Operation = Drilling thru, 3578m @ 06:00hrs, Drill ahead to end of bit life or TD					PERSONNEL ON SITE:	39
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg MAASP	1331psi	BOP TEST 11/10/2006
AFD's: 84	SAFETY 1. Toolbox meeting 2.					TEST DUE	25/10
WEATHER AM						Fine	
PM						Overcast	

BIT INFORMATION				BHA # 12		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	4-13	JET V(fps)	73	TOOL	LENGTH	Time	2230	BOP's / Wellhead		36.0
RPM	190	H S I	0.23	DSX111GJW	0.20	Depth (m)	3570	Cementing		8.5
BIT NUMBER	11			P100XL Mud Motor	7.25	Temp (° C)	51	Circ & Condition	0.5	40.0
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/PO	Coring		
Make	Hyc			14 X 4-3/4" DC's	132.38	Density (ppg)	11.20	D/O Cement		12.5
Type	DSX111			Dailey Drlg. Jars	8.96	ECD (ppg)	11.58	Drilling	7.0	384.5
IADC Code	PDC			3 X 4-3/4" DC's	28.30	Viscosity (sec)	37	FIT / LOT		4.0
Serial Number	112300			9 X HWDP	85.50	PV / YP (cp/lb)	11 / 10	Handle BHA		14.0
T.F.A. (")						Gells (s/m)	2 / 3	Repairs	0.5	68.0
Depth In (m)	3564					API Filt. (cc)	6.2	Rig Service	0.5	7.0
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	8.9	Run Casing		32.5
Hours						Sand (% Vol)	Tr	Safety		2.0
ROP						MBT	8	Slip/Cut Drill Line	0.5	8.0
Condition Out						pH (strip)	9.5	Survey		36.5
FLOW DATA				BHA LENGTH (m)	263.11	Chlorides (mg/l)	168000	Test BOP		24.0
CIRC. RATE (gpm)	210			BHA WEIGHT(kLb)	33.5	KCL (%)	7.75	Tight hole / Fishing		
AV - DP (fpm)	217			STRING WT (kLb)	185.4	PHPA (ppb)	0.75	Tripping	13.0	216.0
AV - DC (fpm)	383			HOOK LOAD (kLb)	200.0	ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)	2900			WT BELOW JARS (kLb)		Circ. Vol. (Bbl)	842	Wash / Ream	1.0	9.5
SPP (calculated)	2530			DRAG UP (kLb)	205.0	CHEMICAL USAGE				
PUMP #1	PUMP #2			DRAG DOWN (kLb)	190.0	Barite	40	Well Control		3.5
8-P-80	8-P-80			TORQUE ON (Amps/Rel.)	5400	Caustic Soda	1	Well Test		
RATE	40	RATE	60	TORQUE OFF (Amps/Rel.)	3600	Sodium Sulphite	1	Wiper Trip		14.5
LINER	5.0"	LINER	5.0"	BULK PRODUCTS				Wireline		8.5
STROKE	8.5"	STROKE	8.5"	FUEL ON SITE	16200 Litres			Other	1.0	84.0
SCR: 980 @ 720		SCR: 980 @ 680		DAILY USAGE	4850 Litres			TOTALS	24.0	1049.0
SURVEYS				CUM. FUEL USED	178688 Litres			DAILY MUD COSTS		\$410.20
				BARITES ON SITE	50 kg			CUM. MUD COSTS		\$157,434.55
				BARITES USED	250 kg			AFE COST - C&S		
				MUD MIXED	5202 Bbls			AFE COST - P&A		
				MUD LOSSES	4199 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400		
From	To	Description
0:00	0:30	Drill F/3563m to 3564m.
0:30	1:00	Circ. and work pipe, Flow check & pump pill
1:00	7:30	POOH 50k over pull f/ 3510m > 3505m, 25k over pull f/ 3505m > 3190m, 15k over pull f/ 3190m > 2998m, Flow check @ shoe (ok)
7:30	8:00	Flush out Mud motor with water, break off bit, clear rig floor
8:00	8:30	Rig repairs
8:30	14:00	Make up Hyc., 6", bit, DSX111GJW (# 7 blade) s.n. = 112300, w/ 4x20 & 3x10 jets, RR mud motor, RIH to shoe, break circ.
14:00	14:30	Slip drilling line
14:30	15:00	Rig service
15:00	15:30	Service Top Drive, repair faulty elect. wire for "max torque" in Top drive box
15:30	16:30	Cont. RIH, to 3567m
16:30	17:30	Break circ., light wash & ream f/ 3507m to bottom @ 3564m (ream thru. 3510m several times to clean up 50k overpull section)
17:30	0:00	Drill f/ 3564m to 3572m, rotating 60rpm, 248gpm = 130rpm (total = 190rpm), WOB = 4k to 13k (av. ROP = 1.23mph)
MAXIMUM GAS:	114% @ 3566m	BACKGROUND GAS: 60 - 80%
SUPERVISOR:	Brian Marriott/Ray Ell	CONNECTION GAS: %
		TRIP GAS: 3610%
GEOLOGIST:	Dave Horner	MUD CO: RMN Drilling Fluids

**DAILY DRILLING REPORT****22/10/2006****REPORT # 45**

WELL	Glenaire 01 ST1	24:00 DEPTH	3612m	24 HR PROG	40m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Drill f/ 3572m to 3620m @ 06:00hrs						
REMARKS / FORWARD PLAN:	16000 lit. of fuel was arranged & delivered to rig @ 2200hrs last night, Sunday the 22nd >> Drill ahead, w/ the possibility of POOH for bit					PERSONNEL ON SITE:	39
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1331psi
		BOP TEST	11/10/2006	TEST DUE	25/10		
SAFETY	1. Safety meeting 2. Toolbox meeting					WEATHER AM	Fine / cold
						PM	Fine

BIT INFORMATION				BHA # 12		MUD PROPERTIES		OPERATION		HRS	CUM
WOB(kLb)	4-14	JET V(fps)	73	TOOL	LENGTH	Time	2245	BOP's / Wellhead			36.0
RPM	197	H S I	0.23	DSX111GJW	0.20	Depth (m)	3610	Cementing			8.5
BIT NUMBER	11			P100XL Mud Motor	7.25	Temp (° C)	55	Circ & Condition			40.0
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/PO	Coring			
Make	Hyc			14 X 4-3/4" DC's	132.38	Density (ppg)	11.20	D/O Cement			12.5
Type	DSX111			Dailey Drlg. Jars	8.96	ECD (ppg)	11.70	Drilling		23.5	408.0
IADC Code				3 X 4-3/4" DC's	28.30	Viscosity (sec)	37	FIT / LOT			4.0
Serial Number	112300			9 X HWDP	85.50	PV / YP (cp/lb)	12 / 12	Handle BHA			14.0
T.F.A. (")						Gells (s/m)	2 / 5	Repairs			68.0
Depth In (m)	3564					API Filtr. (cc)	7	Rig Service		0.5	7.5
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.			11.0
Total Meters						Solids (% Vol)	8.7	Run Casing			32.5
Hours						Sand (% Vol)	Tr	Safety			2.0
ROP						MBT	7	Slip/Cut Drill Line			8.0
Condition Out				BHA LENGTH (m)	263.11	pH (strip)	9	Survey			36.5
FLOW DATA				BHA WEIGHT(kLb)	33.5	Chlorides (mg/l)	170000	Test BOP			24.0
CIRC. RATE (gpm)		210		STRING WT (kLb)	187.2	KCL (%)	7.75	Tight hole / Fishing			
AV - DP (fpm)		217		HOOK LOAD (kLb)	200.0	PHPA (ppb)	0.81	Tripping			216.0
AV - DC (fpm)		383		WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement			24.5
SPP (psi)		2990		DRAG UP (kLb)	215.0	Circ. Vol. (Bbl)	838	Wash / Ream			9.5
SPP (calculated)		2650		DRAG DOWN (kLb)	190.0	CHEMICAL USAGE		Well Control			3.5
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	6200	AMC Pac- LV	2	Well Test			
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	4100	Barite	40	Wiper Trip			14.5
RATE	40	RATE	60	BULK PRODUCTS		Caustic Soda	1	Wireline			8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	9850 Litres	Sodium Sulphite	2	Other			84.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	22350 Litres			TOTALS		24.0	1073.0
SCR: 980 @ 720		SCR: 980 @ 680		CUM. FUEL USED	201038 Litres			DAILY MUD COSTS			\$763.46
SURVEYS				BARITES ON SITE	50 kg			CUM. MUD COSTS			\$158,198.01
				BARITES USED	250 kg			AFE COST - C&S			
				MUD MIXED	5202 Bbls			AFE COST - P&A			
				MUD LOSSES	4225 Bbls			AFE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	6:00	Drill f/ 3572m to 3578m, rotating 60rpm, 248gpm = 130rpm (total = 190rpm) WOB = 12k to 15k (av. ROP = 1.1mph)
6:00	17:00	Increase Top Drive RPM, Drill f/ 3578m to 3600m, rotating 70rpm, 248gpm = 130rpm (total = 200rpm) WOB = 9k to 14k (av. ROP = 2mph)
17:00	17:30	Circ. & Rig service >>> (Kaolinitic sandstone f/ 3593m to 3600m, intermittent ROP f/ 4 to 6mph w/ oil)
17:30	0:00	Drill f/ 3600m to 3612m (14k to 15k) rpm 200 (av. ROP = 1.84mph) (max torque on bottom = 6200 >>> off bottom = 5600)

MAXIMUM GAS:	101% @ 3582m	BACKGROUND GAS:	30 - 60%	CONNECTION GAS:	3010%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott/Ray Ell	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

23/10/2006

REPORT # 46

WELL	Glenaire 01 ST1	24:00 DEPTH	3648m	24 HR PROG	36m	CUM. COSTS					
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS					
OP's TO 06:00	Drill f/ 3612m to 3641m, circ., 6 stand Wiper trip to 3487, max 65k overpull, f/ 3602 to 3592m, jar free, back ream & clean up hole, RIH to 3630m, wash & ream to 3641m, no fill, drill f/ 3641 to 3656m @ 06:00hrs today										
REMARKS / FORWARD PLAN:	If DSX111 is pulled, we will RIH tricone, Smith XR30 (537) >>>>>Op. = Drill ahead to 3710m or untill ROP drops below 1mph, then POOH & test BOP					PERSONNEL ON SITE:	37				
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1382psi	BOP TEST	11/10/2006	TEST DUE	25/10
AFD's: 86	SAFETY		1. Toolbox meeting 2. Safety meeting			WEATHER AM		Fine			
						PM		Fine			

BIT INFORMATION				BHA # 12		MUD PROPERTIES		OPERATION		HRS	CUM
WOB(kLb)	14-17	JET V(fps)	73	TOOL	LENGTH	Time	2320	BOP's / Wellhead			36.0
RPM	200	HSI	0.23	DSX111GJW	0.20	Depth (m)	3648	Cementing			8.5
BIT NUMBER	11			P100XL Mud Motor	7.25	Temp (° C)	57	Circ & Condition		0.5	40.5
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/POH	Coring			
Make	Hyc			14 X 4-3/4" DC's	132.38	Density (ppg)	11.10	D/O Cement			12.5
Type	DSX111			Dailey Drlg. Jars	8.96	ECD (ppg)	11.60	Drilling		21.5	429.5
IADC Code				3 X 4-3/4" DC's	28.30	Viscosity (sec)	36	FIT / LOT			4.0
Serial Number	112300			9 X HWDP	85.50	PV / YP (cp/lb)	12 / 12	Handle BHA			14.0
T.F.A. (")						Gells (s/m)	2 / 4	Repairs			68.0
Depth In (m)	3564					API Filtr. (cc)	6.6	Rig Service			7.5
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.			11.0
Total Meters						Solids (% Vol)	7.5	Run Casing			32.5
Hours						Sand (% Vol)	Tr	Safety			2.0
ROP						MBT	6.5	Slip/Cut Drill Line			8.0
Condition Out				BHA LENGTH (m)	263.11	pH (strip)	9	Survey			36.5
FLOW DATA				BHA WEIGHT(kLb)	33.6	Chlorides (mg/l)	171000	Test BOP			24.0
CIRC. RATE (gpm)	210			STRING WT (kLb)	189.2	KCL (%)	7.75	Tight hole / Fishing			
AV - DP (fpm)	217			HOOK LOAD (kLb)	200.0	PHPA (ppb)	0.79	Tripping			216.0
AV - DC (fpm)	383			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement			24.5
SPP (psi)	3040			DRAG UP (kLb)	205.0	Circ. Vol. (Bbl)	846	Wash / Ream			9.5
SPP (calculated)	2660			DRAG DOWN (kLb)	185.0	CHEMICAL USAGE		Well Control			3.5
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	6600	AMC Pac- LV	11	Well Test			
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	4100	Barite	360	Wiper Trip		2.0	16.5
RATE	40	RATE	60	BULK PRODUCTS		Biocide G	1	Wireline			8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	19500 Litres	Caustic Soda	1	Other			84.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	-9650 Litres	PHPA	1	TOTALS		24.0	1097.0
SCR: 990 @ 570		SCR: 1000 @ 580		CUM. FUEL USED	191388 Litres	Sodium Sulphite	1	DAILY MUD COSTS			\$6,669.02
SURVEYS				BARITES ON SITE	50 kg	Xanthan Gum	2	CUM. MUD COSTS			\$164,867.03
				BARITES USED	250 kg	KCL	42	AFE COST - C&S			
				MUD MIXED	5302 Bbls	Kwikseal F	1	AFE COST - P&A			
				MUD LOSSES	4262 Bbls			AFE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	18:30	Drill f/ 3612m to 3641m (av. ROP = 1.57mph) >>> (reduce mud wt. f/ 11.2ppg to 11.1ppg)
18:30	19:00	Circ. hole clean
19:00	21:00	6 std Wiper back to 3487m, max 65k over pull f/ 3602m to 3592m, jar free & back ream, intermittent 55k o.p f/ 3554 > 3544 & f/ 3515 > 3506m
21:00	0:00	Drill f/ 3641m to 3648m (av. ROP = 2.33mph) >>> (max 2811 units gas on wiper trip f/ 3192m)

MAXIMUM GAS:	101% @ 3642m	BACKGROUND GAS:	20 - 60%	CONNECTION GAS:	%	TRIP GAS:	3200%
SUPERVISOR:	Brian Marriott	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		

WELL	Glenaire 01 ST1	24:00 DEPTH	3688m	24 HR PROG	40m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS	
OP's TO 06:00							
Drill f/ 3648m to 3688m, work tight conn., 2 std. wiper, circ., POOH to shoe, repairs to Top Drive IBOP valve, RIH, drill ahead f/ 3688m @ 06:00hrs							
REMARKS / FORWARD PLAN:						PERSONNEL ON SITE:	
Drlg. Break f/3671 to 3674m, lost 35bbls, refer to mud report / 4hrs down time for Top Drive / Present Op. = Drill ahead f/ 3688m to 3710m + -						37	
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg MAASP	1382psi	BOP TEST
							11/10/2006
AFD's: 87						TEST DUE	
						25/10	
SAFETY						WEATHER AM	
1. Toolbox meeting						Fine	
2.						PM	
						Fine	

BIT INFORMATION				BHA # 12		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	14-17	JET V(fps)	73	TOOL	LENGTH	Time	2230	BOP's / Wellhead		36.0
RPM	175	HSI	0.23	DSX111GJW	0.20	Depth (m)	3687	Cementing		8.5
BIT NUMBER				P100XL Mud Motor		Temp (° C)	57	Circ & Condition		40.5
Size (in)	6.0			Float sub	7.25	Mud Type	KCL/PHPA/POI	Coring		
Make	Hyc			14 X 4-3/4" DC's	132.38	Density (ppg)	11.10	D/O Cement		12.5
Type	DSX111			Dailey Drlg. Jars	8.96	ECD (ppg)	11.61	Drilling	23.0	452.5
IADC Code				3 X 4-3/4" DC's	28.30	Viscosity (sec)	38	FIT / LOT		4.0
Serial Number	112300			9 X HWDP	85.50	PV / YP (cp/lb)	12 / 13	Handle BHA		14.0
T.F.A. (")						Gells (s/m)	2 / 5	Repairs		68.0
Depth In (m)	3564					API Filtr. (cc)	6.4	Rig Service	0.5	8.0
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	7.7	Run Casing		32.5
Hours						Sand (% Vol)	Tr	Safety		2.0
ROP						MBT	6.5	Slip/Cut Drill Line		8.0
Condition Out				BHA LENGTH (m)		pH (strip)	9	Survey		36.5
FLOW DATA				BHA WEIGHT(kLb)		Chlorides (mg/l)	166000	Test BOP		24.0
CIRC. RATE (gpm)	210			STRING WT (kLb)		KCL (%)	7.5	Tight hole / Fishing	0.5	0.5
AV - DP (fpm)	217			HOOK LOAD (kLb)		PHPA (ppb)	0.79	Tripping		216.0
AV - DC (fpm)	383			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)	2350			DRAG UP (kLb)		Circ. Vol. (Bbl)	824	Wash / Ream		9.5
SPP (calculated)	2660			DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control		3.5
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)		Caustic Soda	1	Well Test		
8-P-80		8-P-80		6300		Sodium Sulphite	2	Wiper Trip		16.5
RATE	40	RATE	60	TORQUE OFF (Amps/Rel.)		Kwikseal F	1	Wireline		8.5
8-P-80		8-P-80		4100		BULK PRODUCTS		Other		84.0
LINER	5.0"	LINER	5.0"	FUEL ON SITE		42000 Litres		TOTALS	24.0	1121.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE		-4900 Litres		DAILY MUD COSTS		\$171.89
SCR: 990 @ 570		SCR: 1000 @ 580		CUM. FUEL USED		186488 Litres		CUM. MUD COSTS		\$165,038.92
SURVEYS				BARITES ON SITE		50 kg		AFE COST - C&S		
				BARITES USED		250 kg		AFE COST - P&A		
				MUD MIXED		5302 Bbls		AFE COST - C&C		
				MUD LOSSES		4349 Bbls				

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	8:30	Drill f/ 3648m to 3659m, Varied RPM for ROP optimisation 50-70RPM + 130RPM from motor, (1.3mph), WOB 14-17klbs
8:30	9:00	Rig service >>> (Max 925 units of gas f/ 3192m)
9:00	23:30	Reduce flow rate to 200gpm > Drill f/ 3659m to 3688m, rot. 65rpm, 200gpm = 104rpm, (total rpm = 169), WOB = 12k (av. 2mph)(1mph f/ 18:30hrs)
23:30	0:00	Attempt connection, tight hole, max 65k o.p., work stand & clean up hole

MAXIMUM GAS:	200% @ 3680m	BACKGROUND GAS:	20 - 40%	CONNECTION GAS:	%	TRIP GAS:	677%
SUPERVISOR:	Brian Marriott	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

25/10/2006

REPORT # 48

WELL	Glenaire 01 ST1	24:00 DEPTH	3700m	24 HR PROG	12m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Drill f/ 3688m to 3700m, circ. bottoms up, wiper to 3400, RIH, circ., POOH to 1000m, spot 60bbls weighted 14.5ppg mud, cont. POOH, rig up Schlumberger, run #1 = FMS-GR, run @ 04:50hrs						
REMARKS / FORWARD PLAN:	2nd log run = BHC-PEX, >>>>> Run logs, pressure test BOP					PERSONNEL ON SITE:	37
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg MAASP	1382psi	BOP TEST 11/10/2006 TEST DUE DUE
AFD's: 88	SAFETY	1. Toolbox meeting 2.				WEATHER AM	Fine
						PM	Fine

BIT INFORMATION				BHA # 12		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	12-17	JET V(fps)	73	TOOL	LENGTH	Time	1730	BOP's / Wellhead		36.0
RPM	170	H S I	0.23	DSX111GJW	0.20	Depth (m)	3700	Cementing		8.5
BIT NUMBER	5			P100XL Mud Motor	7.25	Temp (° C)	54	Circ & Condition	4.0	44.5
Size (in)	6.0			Float sub	0.52	Mud Type	KCL/PHPA/PO	Coring		
Make	Hyc			14 X 4-3/4" DC's	132.38	Density (ppg)	11.10	D/O Cement		12.5
Type	DSX111			Dailey Drlg. Jars	8.96	ECD (ppg)	11.63	Drilling	8.5	461.0
IADC Code				3 X 4-3/4" DC's	28.30	Viscosity (sec)	39	FIT / LOT		4.0
Serial Number	112300			9 X HWDP	85.50	PV / YP (cp/lb)	13 / 13	Handle BHA		14.0
T.F.A. (")						Gells (s/m)	2 / 6	Repairs	5.0	73.0
Depth In (m)	3564					API Filt. (cc)	6.4	Rig Service		8.0
Depth Out (m)	3700					Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters	136					Solids (% Vol)	7.6	Run Casing		32.5
Hours	81					Sand (% Vol)	Tr	Safety		2.0
ROP	1.7					MBT	6.5	Slip/Cut Drill Line		8.0
Condition Out	2-3-WT-A-X-i-PN-TD			BHA LENGTH (m)	263.11	pH (strip)	9.5	Survey		36.5
FLOW DATA				BHA WEIGHT(kLb)	33.6	Chlorides (mg/l)	158000	Test BOP		24.0
CIRC. RATE (gpm)	210			STRING WT (kLb)	191.6	KCL (%)	8	Tight hole / Fishing		0.5
AV - DP (fpm)	217			HOOK LOAD (kLb)	205.0	PHPA (ppb)	0.79	Tripping	4.5	220.5
AV - DC (fpm)	383			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)	2350			DRAG UP (kLb)	215.0	Circ. Vol. (Bbl)	822	Wash / Ream		9.5
SPP (calculated)	2740			DRAG DOWN (kLb)	200.0	CHEMICAL USAGE		Well Control		3.5
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)	5000	AMC Pac- LV	8	Well Test		
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)	4000	Barite	160	Wiper Trip	2.0	18.5
RATE	40	RATE	60	BULK PRODUCTS		Biocide G	1	Wireline		8.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	37250 Litres	Caustic Soda	2	Other		84.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	4750 Litres	Sodium Sulphite	1	TOTALS	24.0	1145.0
SCR: 1000 @ 580		SCR: 1000 @ 580		CUM. FUEL USED	191238 Litres	Xanthan Gum	1	DAILY MUD COSTS		\$3,323.93
SURVEYS				BARITES ON SITE	50 kg	Kwikseal F	1	CUM. MUD COSTS		\$168,362.85
				BARITES USED	250 kg			AFE COST - C&S		
				MUD MIXED	5302 Bbls			AFE COST - P&A		
				MUD LOSSES	4375 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	0:30	Pull #2 stands d.p., back to 3630m, Top Drive mud saver key way leaking in upper double ball valve, "while rotating", RIH to bottom
0:30	1:30	Circ. bottoms up "with out rotation" of Top Drive
1:30	3:00	POOH to shoe to repair Top Drive >> (intermitent 10k to 25k overpull)
3:00	4:30	Repair Top Drive, "mud saver, key way leak in upper double ball valve"
4:30	5:30	RIH, hole good
5:30	6:00	Break circ., wash to bottom, work stand & clean up hole
6:00	14:30	Drill f/ 3688m to 3700.5m (av. ROP = 1.47mph)
14:30	15:30	Circ. bottoms up
15:30	17:00	Flow check, POOH 11 std's to 3400m, max 40k o.p., intermittent 10k to 35k overpull, RIH
17:00	18:30	Circ. bottoms up, cont. untill gas dropped off
18:30	21:00	POOH to shoe
21:00	22:00	Rig repairs, Carry out electrical repairs to the Drawworks Assignment switch
22:00	0:00	POOH to 1868m

MAXIMUM GAS: 89% @ 3692m	BACKGROUND GAS: 20 - 40%	CONNECTION GAS: %	TRIP GAS: 2956%
SUPERVISOR: Brian Marriott	GEOLOGIST: Dave Horner	MUD CO: RMN Drilling Fluids	



DAILY DRILLING REPORT

26/10/2006

REPORT # 49

WELL	Glenaire 01 ST1	24:00 DEPTH	3700m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Log #1 = FMS-GR, Log #2 = BHC-PEX-GR, rig down, pressure test BOP, RIH to shoe, Repairs, fault find wiring for "extend" operation on Top Drive.						
REMARKS / FORWARD PLAN:	Pressure test rig floor surface equip., circ., RIH to bottom, Drill 1m of hole to evaluate torque / ROP w/ no mud motor, Circ. bottoms up, POOH to complete logs					PERSONNEL ON SITE:	38
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg	MAASP	1356psi
AFD's: 87	SAFETY	1. Safety meeting 2. Toolbox meeting				WEATHER AM	Fine
						PM	Fine
						BOP TEST	26/10/2006
						TEST DUE	09/11

BIT INFORMATION				BHA # 13		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)		JET V(fps)		TOOL	LENGTH	Time	2130	BOP's / Wellhead		36.0
RPM		HSI		DSX111GJW	0.20	Depth (m)	3700	Cementing		8.5
BIT NUMBER	RR11			Float sub	0.91	Temp (° C)	No Circ	Circ & Condition	0.5	45.0
Size (in)	6.0			14 x 4-3/4" dc's	132.38	Mud Type	KCL/PHPA/POH	Coring		
Make	Hyc			Dailey Drlg. Jars	8.96	Density (ppg)	11.15	D/O Cement		12.5
Type	DSX111			3 x 4-3/4" dc's	28.30	ECD (ppg)		Drilling		461.0
IADC Code				9 x HWDP	85.50	Viscosity (sec)	41	FIT / LOT		4.0
Serial Number	112300					PV / YP (cp/lb)	13 / 14	Handle BHA	0.5	14.5
T.F.A.(")						Gells (s/m)	2 / 6	Repairs		73.0
Depth In (m)	3700					API Filt. (cc)	6.2	Rig Service		8.0
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	8.8	Run Casing		32.5
Hours						Sand (% Vol)	Tr	Safety		2.0
ROP						MBT	6.5	Slip/Cut Drill Line		8.0
Condition Out				BHA LENGTH (m)	256.25	pH (strip)	9.5	Survey		36.5
FLOW DATA				BHA WEIGHT(kLb)	32.6	Chlorides (mg/l)	158000	Test BOP	4.0	28.0
CIRC. RATE (gpm)				STRING WT (kLb)	190.8	KCL (%)	8	Tight hole / Fishing		0.5
AV - DP (fpm)				HOOK LOAD (kLb)		PHPA (ppb)	0.79	Tripping	3.0	223.5
AV - DC (fpm)				WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)				DRAG UP (kLb)		Circ. Vol. (Bbl)	855	Wash / Ream		9.5
SPP (calculated)				DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control		3.5
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)				Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)				Wiper Trip	1.0	19.5
RATE	RATE			BULK PRODUCTS				Wireline	15.0	23.5
LINER 5.0"	LINER 5.0"			FUEL ON SITE	33900 Litres			Other		84.0
STROKE 8.5"	STROKE 8.5"			DAILY USAGE	3350 Litres			TOTALS	24.0	1169.0
				CUM. FUEL USED	176988 Litres			DAILY MUD COSTS		
SURVEYS				BARITES ON SITE	50 kg			CUM. MUD COSTS		\$168,362.85
				BARITES USED	250 kg			AFE COST - C&S		
				MUD MIXED	5302 Bbls			AFE COST - P&A		
				MUD LOSSES	4405 Bbls			AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	1:00	POOH to 1000m
1:00	1:30	Present mud wt. = 11.1ppg, spot 60bbls weighted 14.5ppg mud (490m) equiv. mud wt. = 11.6ppg for hydrostatic @ 3192m
1:30	3:30	Cont. POOH
3:30	4:00	Flush out Mud motor with water, oil, break off bit, clear rig floor
4:00	12:30	Rig up to log, Safety Meeting, run #1 = FMS - GR, run @ 04:50hrs, out @ 12:20hrs (hole in good condition, run to bottom, no fill)
12:30	19:00	Make up tools, Logging, run #2 = BHC-PEX-GR, run @ 12:50hrs, out @ 18:10hrs (loosing 1/2 bbl/ hr of mud to annulus) Rig Down
19:00	23:00	Pull W.B., make up comb. test plug, RIH & set same, press. test BOP, 200psi low & 3500psi high, Conduct Accumulator Test, set W.B.
23:00	0:00	Make up RR, DSX111, PDC, RIH to 256m

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott	GEOLOGIST:	Dave Horner	MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

27/10/2006

REPORT # 50

WELL	Glenaire 01 ST1	24:00 DEPTH	3701m	24 HR PROG	1m	CUM. COSTS	\$198,404
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS	\$30,041.05
OP's TO 06:00	Shoe, bots.up = 1670 units, RIH to 3643m, W/R to bot., drill f/ 3700m > 3701m, circ. bot's up, flow check, well flowing, wt. up f/ 11.1ppg to 12.1ppg, flow check, slight flow, circ. bottoms up, 954 units to surface, cont. circ.						
REMARKS / FORWARD PLAN:	1300hrs = bottoms up, noticed small pieces of shale type cuttings over the shakers >> Operation =circ. with 12.1ppg in & out of hole					PERSONNEL ON SITE:	37
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg MAASP	870psi	BOP TEST 26/10/2006 TEST DUE 09/11
AFD's: 88	SAFETY	1. Toolbox meeting 2.				WEATHER AM	Showers
						PM	Rain

BIT INFORMATION				BHA # 13		MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	8-10	JET V(fps)	73	TOOL	LENGTH	Time	0130	BOP's / Wellhead		36.0
RPM	75	H S I	0.25	DSX111GJW	0.20	Depth (m)	3701	Cementing		8.5
BIT NUMBER	RR 11			Float sub	0.91	Temp (° C)	45	Circ & Condition	1.5	46.5
Size (in)	6.0			14 x 4-3/4" dc's	132.38	Mud Type	KCL/PHPA/POI	Coring		
Make	Hyc			Dailey Drlg. Jars	8.96	Density (ppg)	12.10	D/O Cement		12.5
Type	DSX111			3 x 4-3/4" dc's	28.30	ECD (ppg)	12.77	Drilling	1.0	462.0
IADC Code				9 x HWDP	85.50	Viscosity (sec)	41	FIT / LOT		4.0
Serial Number	112300					PV / YP (cp/lb)	14 / 18	Handle BHA		14.5
T.F.A. (")						Gells (s/m)	3 / 6	Repairs	1.0	74.0
Depth In (m)	3700					API Filtr. (cc)	6.8	Rig Service		8.0
Depth Out (m)						Cake (/32")	1	Rig up Csg./ Cmt.		11.0
Total Meters						Solids (% Vol)	16	Run Casing		32.5
Hours						Sand (% Vol)	Tr	Safety		2.0
ROP						MBT	7	Slip/Cut Drill Line	1.0	9.0
Condition Out	2-3-WT-A-X-i-PN-TD			BHA LENGTH (m)	256.25	pH (strip)	8.5	Survey		36.5
FLOW DATA				BHA WEIGHT(kLb)	32.1	Chlorides (mg/l)	140000	Test BOP	1.0	29.0
CIRC. RATE (gpm)	210			STRING WT (kLb)	187.5	KCL (%)	10	Tight hole / Fishing		0.5
AV - DP (fpm)	217			HOOK LOAD (kLb)	202.0	PHPA (ppb)	0.61	Tripping		223.5
AV - DC (fpm)	383			WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		24.5
SPP (psi)	2700			DRAG UP (kLb)	220.0	Circ. Vol. (Bbl)	689	Wash / Ream	1.0	10.5
SPP (calculated)	2930			DRAG DOWN (kLb)	190.0	CHEMICAL USAGE		Well Control	12.5	16.0
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)	7993	Barite	1184	Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)	7560	Biocide G	1	Wiper Trip	5.0	24.5
RATE	40	RATE	60	BULK PRODUCTS		Caustic Soda	1	Wireline		23.5
LINER	5.0"	LINER	5.0"	FUEL ON SITE	31550 Litres	NaCl	48	Other		84.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	2350 Litres	Xanthan Gum	8	TOTALS	24.0	1193.0
SURVEYS				CUM. FUEL USED	179338 Litres	KCL	252	DAILY MUD COSTS		\$30,041.05
				BARITES ON SITE	50 kg	Kwikseal F	20	CUM. MUD COSTS		\$198,403.90
				BARITES USED	250 kg	CaCO3 UF	192	AFE COST - C&S		
				MUD MIXED	5522 Bbls	CaCO3 F	192	AFE COST - P&A		
				MUD LOSSES	4602 Bbls	CaCO3 M	384	AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	1:30	Cont. RIH to 1200m
1:30	2:30	Slip & cut drilling line
2:30	3:00	Circ. out the 60bbl x 14.5ppg pill, return to slug tank
3:00	5:30	Cont. RIH to shoe
5:30	6:30	Repairs to Top Drive, fault find electrical wiring for "extend" operation, found & repaired damaged earth wire
6:30	7:30	Pressure test rig floor surface equipment, 200psi low x 5 min. & 5000psi high x 10 minutes
7:30	8:30	Circ. out gas f/ shoe, >>> (max 1670 units on bottoms up)
8:30	9:30	Cont. RIH to 3652m
9:30	10:30	Wash & ream f/ 3652m to 3700m, while taking torque values with Top Drive off bottom (off bottom RPM = 75, torque =7560 ft/lbs, w/ 2300psi)
10:30	11:30	Drill f/ 3700m to 3701m, WOB = 10k, RPM = 75, torque = 7993 ft/lbs w/ 2400psi, (low gear) >>> (max 3354 units f/ 3192)
11:30	21:00	Circ. bot's up 2750 units f/ bottom, slight flow, wt. up f/ 11.1ppg to 11.4ppg, > 15:30hrs, flow increased, wt. up f/ 11.4ppg to 11.8ppg @ 19:30hrs
21:00	0:00	Low vol. in active tank, trans. 60bbls 11.8ppg LCM to active, reduce pump rate, build volume in pre-mix tank, transfer to active, wt. up to 12.1ppg

MAXIMUM GAS:	3354% @ 3700m	BACKGROUND GAS:	12%	CONNECTION GAS:	2700%	TRIP GAS:	1617%
SUPERVISOR:	Brian Marriott		GEOLOGIST:	Dave Horner		MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

28/10/2006

REPORT # 25

WELL	Glenaire 01 ST 01	24:00 DEPTH	3701m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Circ. & weight up mud f/ 11.1ppg to 12.1ppg, additional Barite arrived, cont. wt. up f/ 12.1ppg to 12.4ppg, stop pump for 10 min., circ. bot's up, 315 units gas, spot 15.3ppg f/ 3701 to 3450m, minor losses, flow check, POOH						
REMARKS / FORWARD PLAN:	Note, daylight savings adjustment (1 hr ahead)>> Hole taking correct amount of fluid, slightly over >> Operation = Cont. POOH, @ BHA @ 06:00hrs, complete log, wiper trip					PERSONNEL ON SITE:	37
LAST CASING	7 "	SET AT	2998m	LOT	13.8ppg MAASP	717psi	BOP TEST 26/10/2006
AFD's: 65	SAFETY	1. Toolbox meeting 2.				WEATHER AM	Over cast
						PM	Over cast

BIT INFORMATION				BHA # 13		MUD PROPERTIES		OPERATION	HRS	CUM	
WOB(kLb)	1	JET V(fps)	46	TOOL	LENGTH	Time	2230	BOP's / Wellhead			
RPM	40	H S I		DSX111GJW	0.20	Depth (m)	3701	Cementing			
BIT NUMBER				Float sub	0.91	Temp (° C)	46	Circ & Condition	20.0	37.5	
Size (in)				14 x 4-3/4" dc's	132.38	Mud Type	KCL/PHPA/POH	Coring			
Make				Drilling Jars	8.96	Density (ppg)	12.40	D/O Cement			
Type				3 x 4-3/4" dc's	28.30	ECD (ppg)	13.13	Drilling		234.5	
IADC Code				9 x HWDP	85.50	Viscosity (sec)	42	FIT / LOT			
Serial Number						PV / YP (cp/lb)	15 / 19	Handle BHA		3.0	
T.F.A. (")						Gells (s/m)	4 / 6	Repairs	1.0	65.0	
Depth In (m)						API Filt. (cc)	7.3	Rig Service		3.5	
Depth Out (m)						Cake (/32")	2	Rig up Csg./ Cmt.			
Total Meters						Solids (% Vol)	17.5	Run Casing			
Hours						Sand (% Vol)	Tr	Safety		1.0	
ROP						MBT	7	Slip/Cut Drill Line		4.5	
Condition Out						pH (strip)	8.5	Survey		10.0	
FLOW DATA				BHA LENGTH (m)	256.25	Chlorides (mg/l)	140000	Test BOP		11.0	
CIRC. RATE (gpm)	210			BHA WEIGHT(kLb)	31.9	KCL (%)	10	Tight hole / Fishing		0.5	
AV - DP (fpm)	217			STRING WT (kLb)	186.5	PHPA (ppb)	0.61	Tripping		116.5	
AV - DC (fpm)	383			HOOK LOAD (kLb)	202.0	ALC - 50 (K)		Wait on Cement			
SPP (psi)	1820			WT BELOW JARS (kLb)	16.6	Circ. Vol. (Bbl)	791	Wash / Ream		8.5	
SPP (calculated)	2620			DRAG UP (kLb)	220.0	CHEMICAL USAGE		Well Control	3.0	18.0	
PUMP #1				PUMP #2				Barite	332	Well Test	
8-P-80				8-P-80				Xanthan Gum	1	Wiper Trip	10.5
RATE	40	RATE	60	BULK PRODUCTS						Wireline	15.0
LINER	5.0"	LINER	5.0"	FUEL ON SITE	36700 Litres					Other	55.0
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	-5150 Litres					TOTALS	24.0
SCR: 980 @ 580		SCR: 980 @ 580		CUM. FUEL USED	62507 Litres					DAILY MUD COSTS	\$3,081.65
SURVEYS				BARITES ON SITE	-203200 kg					CUM. MUD COSTS	\$102,415.52
				BARITES USED	114600 kg					AFE COST - C&S	
				MUD MIXED	1300 Bbls					AFE COST - P&A	
				MUD LOSSES	1135 Bbls					AFE COST - C&C	

HOURLY OPERATIONS SUMMARY 0000 to 2400											
From	To	Description									
0:00	1:00	Cont. circ., wt. up w/ calcium carbonate to 12.1ppg in & out while building mud volume									
1:00	2:00	Shut down pump, work string for 15 minutes while observing well, slight flow									
2:00	2:30	Circ. bottoms up, 954units gas									
2:30	6:30	Cont. circ. w/ 12.1ppg mud, wait on more weight material to arrive @ rig									
6:30	7:00	Shut down pump, work string for 10 minutes while observing well, slight flow									
7:00	8:00	Circ. bottoms up = 124 units gas									
8:00	8:30	Shut down pump, work string for 10 minutes while observing well, slight flow									
8:30	9:30	Circ. bottoms up = 416 units gas									
9:30	10:00	Shut down pump, work string for 15 minutes while observing well, slight flow									
10:00	11:00	Circ. bottoms up =393 units gas									
11:00	11:30	Shut down pump, work string for 30 minutes while observing well, slight flow									
11:30	13:30	Circ. bottoms up = 470 units gas									
13:30	14:00	Shut down pump, work string for 30 minutes while observing well, NO FLOW, well static									
14:00	15:30	Circ. bottoms up =220 units gas									
15:30	16:00	Shut down pump, work string for 30 minutes while observing well, NO FLOW, well static									
16:00	17:00	Circ. bottoms up = 212 units gas									
17:00	17:30	Shut down pump, work string for 30 minutes while observing well, NO FLOW, well static									
17:30	22:30	Weight up f/ 12.1ppg to 12.4ppg, stop pump for 10 min., circ. bot's up, 315 units gas, spot 15.3ppg mud f/ 3701m back to 3450m, minor losses									
22:30	23:00	Flow check, slight flow, then stopped									
23:00	0:00	Attempt to break top conn., no go, Top Drive load nut overheating, causing no rotation, while hot, cooled down, now ok									
MAXIMUM GAS:	960% @ 3700m			BACKGROUND GAS:	%		CONNECTION GAS:	%		TRIP GAS:	%
SUPERVISOR:	Brian Marriott			GEOLOGIST:	Dave Horner			MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

31/10/2006

REPORT # 28

WELL	Glenaire 01 ST 01	24:00 DEPTH	3701m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Run 4-1/2" liner, attempt to set hanger, no success, sit liner on bottom, cmt. same, sting out, circ. bottoms up, well flowing, spot 50bbls 14.4ppg on bot., slight flow, shut in & monitor well, no press., open annular, POOH						
REMARKS / FORWARD PLAN:	POOH & run CBL					PERSONNEL ON SITE:	41
LAST CASING	7 "	SET AT	2998m	LOT	9.1ppg MAASP	-1815psi	BOP TEST 26/10/2006 TEST DUE 09/11
AFD's: 68	SAFETY	1. Toobox meeting 2.				WEATHER AM	Fine
						PM	Fine

BIT INFORMATION				MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)		JET V(fps)		TOOL	Time	BOP's / Wellhead		
RPM		HSI		LENGTH	Depth (m)	Cementing	1.5	1.5
BIT NUMBER					Temp (° C)	Circ & Condition	11.0	54.0
Size (in)					Mud Type	Coring		
Make					Density (ppg)	D/O Cement		
Type					ECD (ppg)	Drilling		234.5
IADC Code					Viscosity (sec)	FIT / LOT		
Serial Number					PV / YP (cp/lb)	Handle BHA		3.0
T.F.A. (")					Gells (s/m)	Repairs	0.5	66.5
Depth In (m)					API Filtr. (cc)	Rig Service		4.5
Depth Out (m)					Cake (/32")	Rig up Csg./ Cmt.	2.5	4.0
Total Meters					Solids (% Vol)	Run Casing	5.0	17.0
Hours					Sand (% Vol)	Safety		1.0
ROP					MBT	Slip/Cut Drill Line		5.0
Condition Out					pH (strip)	Survey		10.0
FLOW DATA				BHA LENGTH (m)		Chlorides (mg/l)		11.0
CIRC. RATE (gpm)				BHA WEIGHT(kLb)		KCL (%)		0.5
AV - DP (fpm)				STRING WT (kLb)		PHPA (ppb)		127.5
AV - DC (fpm)				HOOK LOAD (kLb)		ALC - 50 (K)		
SPP (psi)				WT BELOW JARS (kLb)		Circ. Vol. (Bbl)		9.5
SPP (calculated)				DRAG UP (kLb)		CHEMICAL USAGE		
				DRAG DOWN (kLb)		Ausben	2	Well Control
PUMP #1		PUMP #2		TORQUE ON (Amps/Rel.)		Barite	424	Well Test
8-P-80		8-P-80		TORQUE OFF (Amps/Rel.)		Soda Ash	2	Wiper Trip
RATE		RATE		BULK PRODUCTS				Wireline
LINER	5.0"	LINER	5.0"	FUEL ON SITE	15650 Litres	Xanthan Gum	2	21.5
STROKE	8.5"	STROKE	8.5"	DAILY USAGE	3850 Litres			56.0
				CUM. FUEL USED	83557 Litres			TOTALS
				BARITES ON SITE	-230300 kg			24.0
				BARITES USED	141700 kg			666.0
				MUD MIXED	1513 Bbls			DAILY MUD COSTS
				MUD LOSSES	1398 Bbls			\$4,254.40
								CUM. MUD COSTS
								\$114,197.59
								AFE COST - C&S
								AFE COST - P&A
								AFE COST - C&C

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	0:30	Cont.repairing control panel
0:30	2:30	Circ. bottoms up f/ shoe, recipitate pipe, 480 units gas to surface
2:30	4:00	Cont. RIH stands d.p. to 3550m
4:00	7:30	Circ. bottoms up, recipitate pipe, 970 units gas to surface
7:30	8:00	RIH to 3608m
8:00	8:30	Circ. up weighted pill into 7" shoe
8:30	9:00	RIH, set shoe @ 3694m
9:00	12:30	Circ. bottoms up, 118 units gas to surface
12:30	15:00	Pick up "Baker" cement head, make up Haliburton equip., drop ball, pump down, attempt to shear & set slips on hanger, no success
15:00	16:30	Set liner on bot., shoe @ 3701m, attempt to release setting tool, no succes, re-attempt by increasing press. to 3000psi, ok,
16:30	17:30	Shear out ball seat, @ 3790psi, ok, circ. hole
17:30	18:00	Circ. 80spm @ 1450psi, & hold safety meeting, pump tuned spacer @ 13ppg
18:00	18:30	Mix & pump 42bbls (143sx) lead @ 13.5ppg, followed by 22bbls (105sx)Tail @ 15.6ppg, (pumped 64bbls, only 13bbls returned)
18:30	19:00	Displace w/ 101bbls mud, bump w/ 1400psi, increase to 3000psi, good test, retuned 1.25bbls, float held (displace 101bbls, only 18bbls returned)
19:00	19:30	Equalise press. on RSB, pull RSB f/ Hanger, ok, circ. clean
19:30	20:30	Circ. bottoms up, flush top of Hanger, nil cement, lay out cmt. head
20:30	0:00	Well flowing, spot 50bbls 14.4ppg @ top of hanger, observe, slight flow, shut in on annular @ 21:30hrs & monitor well

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott/Ray Ell	GEOLOGIST:		MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

1/11/2006

REPORT # 29

WELL	Glenaire 01 ST 01	24:00 DEPTH	3701m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Well shut in to allow cmt. To set up, check Annulus press., ok, open Annular, well static, POOH, rig up Schlumb., rig down Schlumb., RIH open ended D.P. to 2793m, circ. & monitor well, rig up Schlumb., run C.B.L.						
REMARKS / FORWARD PLAN:	Complete CBL run, circ. bottoms up, POOH laying down tubulars, leaving 1000m in hole, re-evaluate forward plan					PERSONNEL ON SITE:	36
LAST CASING	7 "	SET AT	2998m	LOT	9.1ppg MAASP	-1712psi	BOP TEST 26/10/2006
AFD's: 69	SAFETY	1. Toolbox meeting 2.				TEST DUE	09/11
						WEATHER AM	Fine
						PM	Fine

BIT INFORMATION				MUD PROPERTIES		OPERATION	HRS	CUM																
WOB(kLb)		JET V(fps)		TOOL	Time	21.45		BOP's / Wellhead																
RPM		H S I		LENGTH	Depth (m)	2793		Cementing																
BIT NUMBER					Temp (° C)	41		Circ & Condition																
Size (in)					Mud Type	KCL/PHPA/PO	11.0	65.0																
Make					Density (ppg)	12.40		Coring																
Type					ECD (ppg)			D/O Cement																
IADC Code					Viscosity (sec)	41		Drilling																
Serial Number					PV / YP (cp/lb)	13 / 22		FIT / LOT																
T.F.A.(")					Gells (s/m)	4 / 6		Handle BHA																
Depth In (m)					API Filt. (cc)	12.4		Repairs																
Depth Out (m)					Cake (/32")	2		Rig Service																
Total Meters					Solids (% Vol)	17.9		Rig up Csg./ Cmt.																
Hours					Sand (% Vol)	Tr		Run Casing																
ROP					MBT	9		Safety																
Condition Out					pH (strip)	8	1.0	6.0																
FLOW DATA				BHA LENGTH (m)	Chlorides (mg/l)	108000		10.0																
CIRC. RATE (gpm)				BHA WEIGHT(kLb)	KCL (%)	7.5		11.0																
AV - DP (fpm)				STRING WT (kLb)	PHPA (ppb)	0.42		0.5																
AV - DC (fpm)				HOOK LOAD (kLb)	ALC - 50 (K)		7.5	135.0																
SPP (psi)		500		WT BELOW JARS (kLb)	Circ. Vol. (Bbl)	754		9.5																
SPP (calculated)				DRAG UP (kLb)	CHEMICAL USAGE			25.0																
PUMP #1		PUMP #2		DRAG DOWN (kLb)	Barite	24		3.0																
8-P-80		8-P-80		TORQUE ON (Amps/Rel.)				25.0																
RATE		RATE		TORQUE OFF (Amps/Rel.)				17.0																
LINER 5.0"		LINER 5.0"		BULK PRODUCTS				23.0																
STROKE 8.5"		STROKE 8.5"		FUEL ON SITE	40400 Litres			56.0																
				DAILY USAGE	1719 Litres			690.0																
				CUM. FUEL USED	85276 Litres																			
				BARITES ON SITE	-230900 kg																			
				BARITES USED	142300 kg																			
				MUD MIXED	1513 Bbls																			
				MUD LOSSES	1501 Bbls																			
HOURLY OPERATIONS SUMMARY 0000 to 2400																								
From	To	Description																						
0:00	2:00	Cont. w/ well shut in to let cement to set up																						
2:00	6:00	Open HCR & Hydril, Well static, POOH to run CBL																						
6:00	7:00	Rig up Schlumberger, change of operation, rig down schlumb.																						
7:00	10:30	RIH open ended d.p. to 2793m																						
10:30	11:30	Slip & cut drilling line																						
11:30	14:30	Take SCR's, circ. bottoms up, 225 units gas, 35spm @ 500psi w/ 12.5ppg mud in the hole, monitor well, 4bbl loss f/ bot's up, "wait on orders"																						
14:30	15:00	Shut down pump, monitor well, nil losses, well static																						
15:00	18:30	Circ. bot's up @ 32 spm @ 500psi, constant 45 units gas, no increase on bottoms up, 3bbls loss f/ 1500hrs (Schlumb. prepare equip.for CBL run)																						
18:30	19:00	Shut down pump, monitor well, nil losses, well static																						
19:00	23:30	Cont. circ. @ 35spm @ 500psi (Schlumb.cont. rig up, replace BOP rams, set up pressure equip., re-head cable socket)																						
23:30	0:00	Rig up Schlumberger																						
<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">MAXIMUM GAS:</td> <td style="width: 25%;">225% @ m</td> <td style="width: 25%;">BACKGROUND GAS:</td> <td style="width: 25%;">%</td> <td style="width: 25%;">CONNECTION GAS:</td> <td style="width: 25%;">%</td> <td style="width: 25%;">TRIP GAS:</td> <td style="width: 25%;">%</td> </tr> <tr> <td>SUPERVISOR:</td> <td>Brian Marriott/Ray Ell</td> <td>GEOLOGIST:</td> <td></td> <td>MUD CO:</td> <td colspan="3">RMN Drilling Fluids</td> </tr> </table>									MAXIMUM GAS:	225% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%	SUPERVISOR:	Brian Marriott/Ray Ell	GEOLOGIST:		MUD CO:	RMN Drilling Fluids		
MAXIMUM GAS:	225% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%																	
SUPERVISOR:	Brian Marriott/Ray Ell	GEOLOGIST:		MUD CO:	RMN Drilling Fluids																			



DAILY DRILLING REPORT

2/11/2006

REPORT # 30

WELL	Glenaire 01 ST 01	24:00 DEPTH	3701m	24 HR PROG		CUM. COSTS	\$116,497
RIG	Ensign # 32	FORMATION	Pretty Hill	PTD	3945m	DAILY COSTS	\$2,102.95
OP's TO 06:00	Compete CBL run, rig down Schlumb., circ. bottoms up, POOH sideways, clear Mast of excess tubulars, cont. POOH sideways						
REMARKS / FORWARD PLAN:	Aprox 35 std's left to lay out. >>>>Complete POOH sideways, change to 2-7/8" rams, pressure test same, rig & run 2-7/8" tubing to 2876m					PERSONNEL ON SITE:	33
LAST CASING	2 7/8"	SET AT	2998m	LOT	14.0ppg MAASP	810psi	BOP TEST 26/10/2006
AFD's: 70	SAFETY	1. Toolbox meeting 2.				WEATHER AM	Fine
						PM	Fine

BIT INFORMATION				MUD PROPERTIES		OPERATION	HRS	CUM	
WOB(kLb)	JET V(fps)	TOOL	LENGTH	Time	2200	BOP's / Wellhead			
RPM	H S I			Depth (m)	2793	Cementing		1.5	
BIT NUMBER				Temp (° C)	39	Circ & Condition	4.0	69.0	
Size (in)				Mud Type	KCL/PHPA/PO	Coring			
Make				Density (ppg)	12.40	D/O Cement			
Type				ECD (ppg)		Drilling		234.5	
IADC Code				Viscosity (sec)	40	FIT / LOT			
Serial Number				PV / YP (cp/lb)	11 / 21	Handle BHA		3.0	
T.F.A.(")				Gells (s/m)	4 / 5	Repairs	1.0	67.5	
Depth In (m)				API Filtr. (cc)	12.8	Rig Service		4.5	
Depth Out (m)				Cake (/32")	2	Rig up Csg./ Cmt.		4.0	
Total Meters				Solids (% Vol)	18	Run Casing		17.0	
Hours				Sand (% Vol)	Tr	Safety		1.0	
ROP				MBT	9	Slip/Cut Drill Line		6.0	
Condition Out				pH (strip)	8	Survey		10.0	
FLOW DATA				BHA LENGTH (m)		Chlorides (mg/l)	107000	Test BOP	11.0
CIRC. RATE (gpm)		STRING WT (kLb)		KCL (%)	7.5	Tight hole / Fishing		0.5	
AV - DP (fpm)		HOOK LOAD (kLb)		PHPA (ppb)	0.42	Tripping	10.0	145.0	
AV - DC (fpm)		WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement			
SPP (psi)		DRAG UP (kLb)		Circ. Vol. (Bbl)	721	Wash / Ream		9.5	
SPP (calculated)		DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control	0.5	25.5	
PUMP #1	PUMP #2	TORQUE ON (Amps/Rel.)		Barite	216	Well Test			
8-P-80	8-P-80	TORQUE OFF (Amps/Rel.)		Biocide G	1	Wiper Trip		17.0	
RATE	RATE	BULK PRODUCTS		Defoamer	1	Wireline	8.5	31.5	
LINER 5.0"	LINER 5.0"	FUEL ON SITE	36850 Litres			Other		56.0	
STROKE 8.5"	STROKE 8.5"	DAILY USAGE	3550 Litres			TOTALS	24.0	714.0	
SURVEYS				CUM. FUEL USED	88826 Litres	DAILY MUD COSTS		\$2,102.95	
		BARITES ON SITE	-236300 kg			CUM. MUD COSTS		\$116,497.34	
		BARITES USED	147700 kg			AFE COST - C&S			
		MUD MIXED	1513 Bbls			AFE COST - P&A			
		MUD LOSSES	1534 Bbls			AFE COST - C&C			

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	1:00	Rig up Schlumb.
1:00	1:30	Run CBL, attempt to release tool, no success
1:30	2:30	Rig down lubricator, install head catcher release hose (Schlumb. forgot to install hose)
2:30	5:00	Run CBL to 3662m (top of float collar @ 3676m)
5:00	6:00	Correlate tool & log up f/ 3657m
6:00	8:30	Log up with CBL
8:30	9:30	Lay out lubricator & tools, rig down
9:30	13:00	Circ. bottoms up, w/ 12.4ppg mud in & out, 3035 units gas to surface, stop pump, slight flow, circ.while mixing pill.
13:00	13:30	Stop circ., observe annulus, flowing, spot 40bbls x 14ppg mud with 0.2% biocide @ 2793m, observe well, hole static
13:30	21:00	POOH sideways to 40 std's in hole, RIH std's d.p. f/ Mast to clear excess d.p. to 2037m
21:00	21:30	Flow check, flowing, mix & pump 40bbls x 14.7ppg pill @ 2037m, observe well, hole static
21:30	0:00	Cont. POOH sideways

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott		GEOLOGIST:			MUD CO:	RMN Drilling Fluids



DAILY DRILLING REPORT

3/11/2006

REPORT # 31

WELL	Glenaire 01 ST 01	24:00 DEPTH	3701m	24 HR PROG		CUM. COSTS	
RIG	Ensign # 32	FORMATION	Pretty hill	PTD	3945m	DAILY COSTS	\$2,047.10
OP's TO 06:00	Complete POOH sideways, retrieve wear bushing, install 2-7/8" rams, press. test BOP, rig & run 2-7/8" tbg., set packer & Hanger, pressure test to 2000psi, raise hanger, circ. annulus to Brine						
REMARKS / FORWARD PLAN:	circ. hole to Brine, hang off tubing hanger, remove BOP, install Xmas Tree					PERSONNEL ON SITE:	33
LAST CASING	2 7/8"	SET AT	2998m	LOT	14.0ppg	MAASP	758psi
		BOP TEST	26/10/2006	TEST DUE	09/11		
AFD's: 71	SAFETY	1. Toolbox meeting 2. Safety meeting				WEATHER AM	Overcast
					PM	Overcast	

BIT INFORMATION				MUD PROPERTIES		OPERATION	HRS	CUM		
WOB(kLb)		JET V(fps)		TOOL	LENGTH	Time	2030	BOP's / Wellhead		
RPM		H S I				Depth (m)	RIH	Cementing		1.5
BIT NUMBER						Temp (° C)	No Circ	Circ & Condition	1.0	70.0
Size (in)						Mud Type	KCL/PHPA/POI	Coring		
Make						Density (ppg)	12.50	D/O Cement		
Type						ECD (ppg)		Drilling		234.5
IADC Code						Viscosity (sec)	41	FIT / LOT		
Serial Number						PV / YP (cp/lb)	11 / 22	Handle BHA		3.0
T.F.A.(")						Gells (s/m)	4 / 6	Repairs		67.5
Depth In (m)						API Filt. (cc)	13	Rig Service		4.5
Depth Out (m)						Cake (/32")	2	Rig up Csg./ Cmt.		4.0
Total Meters						Solids (% Vol)	18.8	Run Casing	11.5	28.5
Hours						Sand (% Vol)	Tr	Safety	0.5	1.5
ROP						MBT	9	Slip/Cut Drill Line		6.0
Condition Out						pH (strip)	8	Survey		10.0
FLOW DATA				BHA LENGTH (m)		Chlorides (mg/l)	107000	Test BOP	3.0	14.0
CIRC. RATE (gpm)				BHA WEIGHT(kLb)		KCL (%)	7.5	Tight hole / Fishing		0.5
AV - DP (fpm)				STRING WT (kLb)		PHPA (ppb)	0.42	Tripping	7.5	152.5
AV - DC (fpm)				HOOK LOAD (kLb)		ALC - 50 (K)		Wait on Cement		
SPP (psi)				WT BELOW JARS (kLb)		Circ. Vol. (Bbl)	686	Wash / Ream		9.5
SPP (calculated)				DRAG UP (kLb)		CHEMICAL USAGE		Well Control	0.5	26.0
PUMP #1		PUMP #2		DRAG DOWN (kLb)		Barite	112	Well Test		
8-P-80		8-P-80		TORQUE ON (Amps/Rel.)		Biocide G	2	Wiper Trip		17.0
TORQUE OFF (Amps/Rel.)		BULK PRODUCTS		FUEL ON SITE		KCL	40	Wireline		31.5
RATE		RATE		DAILY USAGE				Other		56.0
LINER	5.0"	LINER	5.0"	CUM. FUEL USED				TOTALS	24.0	738.0
STROKE	8.5"	STROKE	8.5"	BARITES ON SITE				DAILY MUD COSTS		\$2,047.10
SURVEYS				BARITES USED				CUM. MUD COSTS		\$118,544.44
				MUD MIXED				AFE COST - C&S		
				MUD LOSSES				AFE COST - P&A		
								AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	2:00	Cont. POOH sideways to 40 std's in hole, RIH BHA & HWDP f/ Mast to 1564m
2:00	2:30	Observe well, slight flow, close Annular for 15 min., nil pressure build up, open Annular, still slight flow
2:30	3:30	Circ. bottoms up f/ 1564m, spot 40bbls 14.8ppg mud, observe well, hole static
3:30	9:00	POOH sideways, all tubulars layed out. (lost a total of 20bbls mud in 20 hrs while laying out sideways) (av. 1bbl/hr)
9:00	9:30	Make up combination tool, RIH & retrieve wear bushing (rig up to run 2-7/8" Tbg.)
9:30	11:00	Flush BOP w/ water, close "Blind Rams", change out rams f/ 3-1/2" to 2-7/8", open Blind rams, "Well Static"
11:00	12:00	Make up Tbg. Hanger on 2-7/8" Tbg., run & set same, press. Test rams 200psi low, 2000psi high, Annular 1000psi, pull & lay out Tbg. Hanger
12:00	12:30	Safety Meeting & Toolbox talk w/ both crews. Flow check, well static. "HAND RIG OVER TO PRODUCTION"
12:30	13:00	M/up completion assy as follows : 2 7/8" re-entry guide, 2 7/8"Owen under balancing disk 4000 psi nominal burst, 2 7/8 X-nipple,
13:00	14:00	1 jnt 2 7/8" 6.4 # J-55 EUE tbg , 7" x 2 7/8" Baker Oil Tool Hornet mechanical set pkr, 2 7/8" EUE L-10 on/off connector w/ 2.31" X profile
14:00	0:00	Rih completion assy on 2- 7/8" 6.4 # J-55 EUE tbg from cat walk. Torque set at 2060 ft/lb. Tbg filled with 3% KCL brine every jnt

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott	GEOLOGIST:		MUD CO:	RMN Drilling Fluids		



DAILY DRILLING REPORT

4/11/2006

REPORT # 32

WELL	Glenaire 01 ST 01	24:00 DEPTH		24 HR PROG	-3701m	CUM. COSTS	
RIG	Ensign # 32	FORMATION	Pretty hill	PTD	3945m	DAILY COSTS	
OP's TO 06:00	Cont. run 2-7/8" tbg, set packer @ 2864.37, press. test, circ. annuluss to brine, land Tbg. Hanger, nipple up & press. Test Xmas tree, RIG RELEASED @ 1500hrs, commence to rig down						
REMARKS / FORWARD PLAN:	rig down, rig & prepare to lower Mast					PERSONNEL ON SITE:	30
LAST CASING	2 7/8"	SET AT	2876m	LOT	14.0ppg MAASP	BOP TEST	26/10/2006
AFD's: 72	SAFETY	1. Toolbox meeting 2.				WEATHER AM	Overcast
						PM	Fine

BIT INFORMATION						MUD PROPERTIES		OPERATION	HRS	CUM
WOB(kLb)	JET V(fps)	TOOL		LENGTH		Time		BOP's / Wellhead		
RPM	HSI					Depth (m)		Cementing		
BIT NUMBER	RR 11					Temp (° C)		Circ & Condition		
Size (in)	6.0					Mud Type		Coring		
Make	Hyc					Density (ppg)		D/O Cement		
Type	DSX111					ECD (ppg)		Drilling		
IADC Code	PDC					Viscosity (sec)		FIT / LOT		
Serial Number	112300					PV / YP (cp/lb)		Handle BHA		
T.F.A.(")	1.457					Gells (s/m)		Repairs		
Depth In (m)	3700					API Filt. (cc)		Rig Service		
Depth Out (m)	3701					Cake (/32")		Rig up Csg./ Cmt.		
Total Meters	1					Solids (% Vol)		Run Casing		
Hours	1					Sand (% Vol)		Safety		
ROP	1.0					MBT		Slip/Cut Drill Line		
Condition Out	2 3 WT A X i PN TD			BHA LENGTH (m)		pH (strip)		Survey		
FLOW DATA				BHA WEIGHT(kLb)		Chlorides (mg/l)		Test BOP		
CIRC. RATE (gpm)				STRING WT (kLb)		KCL (%)		Tight hole / Fishing		
AV - DP (fpm)				HOOK LOAD (kLb)		PHPA (ppb)		Tripping		
AV - DC (fpm)				WT BELOW JARS (kLb)		ALC - 50 (K)		Wait on Cement		
SPP (psi)				DRAG UP (kLb)		Circ. Vol. (Bbl)		Wash / Ream		
SPP (calculated)				DRAG DOWN (kLb)		CHEMICAL USAGE		Well Control		
PUMP #1	PUMP #2			TORQUE ON (Amps/Rel.)				Well Test		
8-P-80	8-P-80			TORQUE OFF (Amps/Rel.)				Wiper Trip		
RATE	RATE			BULK PRODUCTS				Wireline		
LINER	5.0"	LINER		FUEL ON SITE		30650 Litres		Other		
STROKE	8.5"	STROKE		DAILY USAGE		3350 Litres		TOTALS		
				CUM. FUEL USED		95026 Litres		DAILY MUD COSTS		
SURVEYS				BARITES ON SITE		-239100 kg		CUM. MUD COSTS		
				BARITES USED		150500 kg		AFE COST - C&S		
				MUD MIXED		1513 Bbls		AFE COST - P&A		
				MUD LOSSES		1534 Bbls		AFE COST - C&C		

HOURLY OPERATIONS SUMMARY 0000 to 2400

From	To	Description
0:00	3:00	Cont. Rih completion assy on 307 jnts of 2 7/8" 6.4 # J-55 EUE tbg from cat walk.
3:00	4:30	Set pkr with center of element at 2864.37 mtrs and end of tbg at 2876.76 mtrs. Pkr landed with 10 000 lbs compression
4:30	5:00	P/test annulus to 2000 psi and hold 10 mins
5:00	5:30	M/up 2 7/8" EUE landing jnt to top drive and apply 1900 psi to tbg to counter balance differential pressure at on / off connector
5:30	6:00	Disconnect from on/off connector and space up hanger to rig floor.
6:00	8:30	Displace annulus mud with 3% KCL brine direct circulated at 2 1/2 BPM / 2700 psi ICP.
8:30	9:00	Engage on/off connector and land tbg hanger. P/ Test Tbg. to 3000psi for 15 min., Secure with tie down screws.
9:00	10:30	Install BPV and n/dn BOP stack.
10:30	14:00	N/up W-G 5K well head, cw/ needle v/v's and p gauges. Remove BPV, install TWCV. P/test seal pocket & X-mas tree to 5000 psi for 10 min.
14:00	14:30	Remove TWCV valve & install BPV. (pressure Tests witnessed by Brian Marriott, Beach DRR & Scott Healey, Beach Engineer)
14:30	15:00	"RIG HANDED BACK TO DRILLING" "RIG RELEASED" @ 15:00hrs on 4-11-06
15:00	0:00	Rig down BOP, secure same on stump, Top Drive, rig floor jewelry, clean out mud tanks, secure shakers & centrifuge for transport.

MAXIMUM GAS:	% @ m	BACKGROUND GAS:	%	CONNECTION GAS:	%	TRIP GAS:	%
SUPERVISOR:	Brian Marriott		GEOLOGIST:			MUD CO:	RMN Drilling Fluids



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 1-4 **DAYS FROM SPUD:** 4 **DATE:** 11/06/06
PL: PEP 160 **0000 hrs Depth:** 310 m **LAST DEPTH:** 307 m **PROGRESS:** 3m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove, Heathfield-1

0600 OPS: Drill ahead at 448m in Pebble Point Formation conglomeratic sandstones.

PREVIOUS 24 Hours Operations: Set 340mm casing to 303.5m, drill out shoe track, and new hole to 310m, perform FIT to 12.0 ppg mweq.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group			487	-411	
Eumeralla Formation			656	-580	
Windermere/Katnook Ss			2034	-1958	
Laira Formation			2059	-1983	
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
0 - 307	See mudlog.	Nil
Fluorescence	Nil	
307 – 320 12-27 (17)	SANDSTONE, (80%) off white to light grey, silty to very coarse, dominantly very fine, subangular to rounded, very poorly sorted, very weak silica cement, abundant white argillaceous and silt matrix – matrix supported, friable, poor visual porosity. SILTSTONE, (20%) off white, very argillaceous, trace micromica, soft, non fissile.	Nil
Fluorescence	Nil	
320 -380 15-27 (24)	SILTY CLAYSTONE, (100%) dark brown, common to abundant dispersed very fine to very coarse quartz sand grains often with brown staining, moderately carbonaceous, trace pyrite, rare glauconite, trace fossil fragments, soft, non fissile.	Nil
Fluorescence	Nil	
380 – 448 10-120 (60)	SANDSTONE, light brown, very fine to pebble, dominantly very coarse, subangular to rounded, very poorly sorted, weak silica cement, common dark brown argillaceous matrix, opaque to milky quartz grains often with brown staining, trace pyrite, unconsolidated to friable, good inferred porosity, no oil fluorescence.	Nil
Fluorescence	Nil	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 5 **DAYS FROM SPUD:** 5 **DATE:** 12/06/06
PL: PEP 160 **0000 hrs Depth:** 883 m **LAST DEPTH:** 310 m **PROGRESS:** 573 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead at 990m.

PREVIOUS 24 Hours Operations: Drill ahead to 883m, wiper trip to shoe.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss			2034	-1958	
Laira Formation			2059	-1983	
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
448 - 609 16.6 – 0.3 (1.1)	SANDSTONE, (95%) light brown, very fine to occasionally pebble, dominantly coarse to very coarse, subangular to rounded, very poorly sorted, weak silica cement, trace dark brown argillaceous matrix, opaque to milky quartz grains occasionally with yellow to brown staining, trace pyrite, friable, very good inferred porosity, no oil fluorescence. SILTSTONE, (5%) medium brown, very argillaceous, trace very fine off white altered feldspar grains, trace medium brown cryptocrystalline dolomite, trace black carbonaceous flecks, trace pyrite, trace micromica, soft, very dispersive, non fissile.	Nil
Fluorescence	Nil	

609 – 700 12.5 – 0.5 (1.3)	SILTY CLAYSTONE, (95%) light to medium green grey to light to medium brown grey to medium brown, trace very fine altered feldspar grains, trace black carbonaceous flecks, trace micromica, soft, non fissile. SANDSTONE, (5%) light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common to abundant green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, friable, no visual porosity, no oil fluorescence.	Nil
Fluorescence	Nil	

DAILY GEOLOGICAL REPORT

700 – 883 3.0 – 153 (45)	<p>SANDSTONE, (10%) light green grey, very fine to occasionally medium, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, very weak calcareous cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common to abundant green grey brown red and black volcanogenic lithics, trace quartz grains, trace brown mica flakes, trace pyrite, trace black carbonaceous detritus, friable to moderately hard, no visual porosity, no oil fluorescence.</p> <p>SILTY CLAYSTONE, (90%) light to medium green grey to light to medium brown grey, trace very fine altered feldspar grains, trace black carbonaceous flecks, trace micromica, soft, non fissile.</p>	0.0 – 0.2 (0.1) (100:0:0:0)
Fluorescence	Nil	
883-970 14 – 166 (38)	<p>SANDSTONE, light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, abundant green grey brown and red volcanogenic lithics, trace quartz grains, trace brown and clear mica flakes, trace pyrite, trace black carbonaceous detritus, friable to moderately hard, no visual porosity, no oil fluorescence.</p> <p>SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft, non fissile.</p>	0.0 – 3.0 (1) (100:0:0:0)
Fluorescence		



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 6 **DAYS FROM SPUD:** 6 **DATE:** 13/06/06
PL: PEP 160 **0000 hrs Depth:** 1248 m **LAST DEPTH:** 883 m **PROGRESS:** 365 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead to 1255m, wiper trip prior to running casing.

PREVIOUS 24 Hours Operations: Drill ahead to 1248m.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss			2034	-1958	
Laira Formation			2059	-1983	
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
970 – 1080 (35)	<p>SILTY CLAYSTONE, (90%) light to medium green grey to light to medium brown grey, trace very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, trace micromica, common pyrite, soft, non fissile.</p> <p>SANDSTONE, (10%) light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, trace brown and clear mica flakes, trace pyrite, trace black carbonaceous detritus, friable to moderately hard, no visual porosity, no oil fluorescence.</p>	3 – 23.7 (100:0:0:0:0)
Fluorescence	Nil	

1080 – 1255 (14)	<p>SILTY CLAYSTONE, off white to light to medium brown grey to light to medium green grey, trace to common very fine altered feldspar grains, slightly calcareous in part where arenaceous, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft, non fissile.</p> <p>SANDSTONE, off white to light green grey, very fine to occasionally medium, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, very weak calcareous cement in part, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.</p>	3 – 26.7 (97:2:tr:tr:0)
Fluorescence	Nil	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 07-08 **DAYS FROM SPUD:** 8 **DATE:** 16/06/06
PL: PEP 160 **0000 hrs Depth:** 1255 m **LAST DEPTH:** 1255 m **PROGRESS:** 0 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tulich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill out shoe track and new hole to 1258m, perform FIT to 1000 PSI, drill ahead with 216mm hole to 1333m.

PREVIOUS 24 Hours Operations: Set 244mm casing at 1252m. Drill out cement and shoe track.

Comment: Increases in gas readings correspond with increases in carbonaceous content.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed Depths (mRT)	Prognosed Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss			2034	-1958	
Laira Formation			2059	-1983	
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
1255 – 1230 (28)	<p>SILTY CLAYSTONE, off white to light to medium brown grey to light to medium green grey, common to abundant very fine altered feldspar grains, trace black carbonaceous flecks and coaly detritus, trace micromica, rare pyrite, soft, non fissile.</p> <p>SANDSTONE, off white to light green grey, very fine to medium, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, common black coaly detritus, moderately hard, no visual porosity, no oil fluorescence.</p>	TG 5-51 (23) (96:2:1:1:0)
Fluorescence	Nil	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 09 **DAYS FROM SPUD:** 9 **DATE:** 17/09/06
PL: PEP 160 **0000 hrs Depth:** 1778 m **LAST DEPTH:** 1255 m **PROGRESS:** 523 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 216mm hole at 1853m.

PREVIOUS 24 Hours Operations: Drill out cement and shoe track, drill new 216mm hole to 1258m, perform FIT to 1000PSI (eq MW = 13.7ppg), drill ahead with 216mm hole to 1778m.

Comment: At around 1546m appears to be a quartz lined fracture zone. From just above this fracture interval the sandstones appear to be gas saturated, however the intergranular porosity of these sandstones is interpreted as being extremely low – insufficient for any significant accumulation or production potential.

The detrital coal below 1680m has no fluorescence but gives a very weak dull yellow crush cut – signifies probable maturation of the sediments.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss			2034	-1958	
Laira Formation			2059	-1983	
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
1330 - 1540 (55)	<p>SILTY CLAYSTONE, (70%) off white to light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft to firm, non fissile.</p> <p>SANDSTONE, (30%) off white to light green grey, very fine to occasionally medium, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.</p>	TG 5 – 89.2 (45) (96:2:1:tr:tr)
Fluorescence	Nil	

1540 – 1680 (40)	<p>SILTY CLAYSTONE, (80%) light to medium green grey to light to medium brown, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft to firm, non fissile.</p> <p>SANDSTONE, (20%) off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence. Vein quartz is present in sample around 1546m.</p>	TG 65 - 254 (90) (95:3:1:tr:tr)
Fluorescence	Nil	

DAILY GEOLOGICAL REPORT

1680 – 1778 (23)	<p>SILTY CLAYSTONE, (80%) light to medium green grey to light to medium brown, trace to common very fine altered feldspar grains, trace to rarely common black carbonaceous flecks and coaly detritus, trace micromica, rare pyrite, soft to firm, non fissile.</p> <p>SANDSTONE, (20%) off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace to rarely common black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.</p> <p>COAL: (trace) (detrital) black, earthy to subvitreous luster, platy fracture, very argillaceous in part, moderately hard, brittle.</p> <p>FLUORESCENCE: The coal has no fluorescence but gives a very dull yellow crush cut.</p>	65 – 432 (80) (95:3:1:tr:tr)
Fluorescence	<p>Nil in the sandstone but: The coal has no fluorescence but gives a very dull yellow crush cut.</p>	
1778 – 1853 ((16)	<p>SILTY CLAYSTONE, (90%) off white to medium green grey to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, firm, subfissile.</p> <p>SANDSTONE, (10%) off white to light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.</p> <p>COAL, black to very dark brown grey, earthy to subvitreous, blocky to platy to subconchoidal fracture, very argillaceous in part, hard, brittle.</p>	TG 35 – 705 (85) (96:3:1:tr:tr)
Fluorescence	<p>Nil in the sandstone, but: The coal has no fluorescence but gives a weak dull yellow crush cut.</p>	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 10 **DAYS FROM SPUD:** 10 **DATE:** 18/09/06
PL: PEP 160 **0000 hrs Depth:** 2125 m **LAST DEPTH:** 1778 m **PROGRESS:** 347 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 216mm hole to 2154m, wiper trip to shoe.
PREVIOUS 24 Hours Operations: Drill ahead with 216mm hole to 2125m.
Comment: Controlled drilling 1991-2076m. Reliability of pick for top of Laira – poor.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
1853 – 1968 (35)	<p>SILTY CLAYSTONE, (80%) off white to medium green grey to medium brown grey, trace to common very fine altered feldspar grains, trace to common black carbonaceous flecks and detritus, trace medium brown cryptocrystalline dolomite, trace micromica, rare pyrite, firm, subfissile.</p> <p>SANDSTONE, (20%) off white to light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to occasionally moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.</p> <p>COAL, (trace) black to very dark brown grey, earthy to subvitreous, blocky to platy to subconchoidal fracture, very argillaceous in part, hard, brittle.</p>	35 – 1128 (85) (97:2:1:tr:tr)
Fluorescence	Nil in the sandstone, but: The coal has no fluorescence but gives a weak dull yellow crush cut.	

1968 – 2055 (20)	<p>SILTY CLAYSTONE, (80%) off white to medium grey to medium brown to medium green grey, often common to abundant very fine altered feldspar grains, trace to common black carbonaceous flecks and detritus, trace medium brown cryptocrystalline dolomite, common micromica, firm, subfissile.</p> <p>SANDSTONE, (20%) off white to light green grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica cement, weak calcareous cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, common black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.</p>	20 – 210 (100) (97:2:1:tr:tr)
Fluorescence	Nil in the sandstone, but the detrital coal has no fluorescence but gives a weak dull yellow crush cut.	

DAILY GEOLOGICAL REPORT

2055 – 2154 (20)	<p>SILTY CLAYSTONE, (95%) medium to dark brown grey to medium grey to medium green grey, gradually becomes more brownish with depth, trace very fine altered feldspar grains in part, moderately carbonaceous in part, trace black carbonaceous flecks and fine detritus, common micromica, moderately hard, subfissile.</p> <p>SANDSTONE, (5%) off white to light brown grey, very fine to fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace to common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace to common black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p>	25 – 124 (60) (97:2:1:tr:tr)
Fluorescence	Nil	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 11 **DAYS FROM SPUD:** 11 **DATE:** 19/09/06
PL: PEP 160 **0000 hrs Depth:** 2365 m **LAST DEPTH:** 2125 m **PROGRESS:** 240 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 216mm hole to 2386m, survey - 6 degrees, POOH for BHA change to pendulum assembly.
PREVIOUS 24 Hours Operations: Drill ahead with 216mm hole to 2154m, wiper trip to shoe, hole condition good, drill ahead to 2365m.

Comment: Calcite veining present in samples around 2106m, 2164m. Major fault interpreted from lithology compaction increase at 2284m, no visible indication in cutting samples.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
2154 – 2285 (30)	SILTY CLAYSTONE, (90%) light to medium grey to medium brown grey to medium green grey, trace to common very fine altered feldspar grains in part, trace black carbonaceous flecks and fine detritus, trace crystalline calcite veining in part, trace to common micromica, moderately hard, subfissile. SANDSTONE, (10%) off white to light brown grey, very fine to fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace to common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace to common black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	25 – 125 (50) (97:2:1:tr:tr)
Fluorescence	Nil in the sandstone, but: The detrital coal has no fluorescence but gives a weak dull yellow crush cut.	
2285 – 2327 (13)	SILTY CLAYSTONE, (90%) light to medium grey to medium brown grey to slightly medium green grey, often common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, (10%) off white to light brown grey, silty to very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace to common black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	10 – 44 (22) (97:2:1:tr:tr)
Fluorescence	Nil in the sandstone, but: The detrital coal has no fluorescence but gives a weak dull yellow crush cut.	

DAILY GEOLOGICAL REPORT

2327 – 2386 (10)	<p>SILTY CLAYSTONE, (95%) medium grey to medium brown grey to medium green grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.</p> <p>SANDSTONE, (5%0 off white to light brown grey, silty to very fine, occasionally fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p>	10 – 41 (18) (95:2:2:1:tr)
Fluorescence	Nil in the sandstone, but: The detrital coal has no fluorescence but gives a weak dull yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 12 **DAYS FROM SPUD:** 12 **DATE:** 20/09/06
PL: PEP 160 **0000 hrs Depth:** 2485 m **LAST DEPTH:** 2365 m **PROGRESS:** 120 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 216mm hole at 2550m

PREVIOUS 24 Hours Operations: Drill ahead with 216mm hole to 2365m, survey 6 degrees, POOH for BHA change to pendulum assembly, trip gas 85 units, drill ahead with 216mm hole to 2485m.

Comment: Last survey 5.25 degrees.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
2386 – 2541 (16)	<p>SILTY CLAYSTONE, (80%) light to medium grey to medium brown grey, common very fine altered feldspar grains in part, trace to rarely abundant black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.</p> <p>SANDSTONE, (20%) off white to light brown grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p>	7 – 60 (25) (95:3:1:1:tr)
Fluorescence	Nil in the sandstone, but: The detrital coal has no fluorescence but gives a very weak dull yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 13 **DAYS FROM SPUD:** 13 **DATE:** 21/09/06
PL: PEP 160 **0000 hrs Depth:** 2753 m **LAST DEPTH:** 2485 m **PROGRESS:** 268 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 216mm hole at 2802m.

PREVIOUS 24 Hours Operations: Drill ahead with 216mm hole to 2753m.

Comment: Gas analysis is getting more heavies with depth. Very little evidence of fracturing in lithology. Last survey 6.25 degrees N45W at 2719m.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
2541 - 2670 (17)	<p>SILTY CLAYSTONE, (90%) light to medium grey to medium brown grey, dark brown and very carbonaceous in part, common very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.</p> <p>SANDSTONE, (10%) off white to light brown grey, very fine to occasionally fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p>	10 – 62 (32) (93:3:3:1:tr)
Fluorescence	<p>Nil in the sandstone, but: The detrital coal has no fluorescence but gives a very weak dull yellow crush cut.</p>	
2670 – 2766 (13)	<p>SILTY CLAYSTONE, (90%) light to dark grey to medium brown grey, dark brown grey and moderately argillaceous in part, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.</p> <p>SANDSTONE, (10%) off white to light brown grey, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p>	12 – 115 (40) (90:4:3:2:1)
Fluorescence	<p>Nil in the sandstone, but: The detrital coal has no fluorescence but gives a very weak dull yellow crush cut.</p>	

DAILY GEOLOGICAL REPORT

2766 – 2802 (9)	<p>SILTY CLAYSTONE, (70%) light to dark grey to medium brown grey, often abundant very fine altered feldspar grains – grades to silty sandstone, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.</p> <p>SANDSTONE, (30%) off white to light grey, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p>	15 – 40 (27) (88:5:5:2:tr)
Fluorescence	Nil in the sandstone, but: The detrital coal has no fluorescence but gives a very weak dull yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 14 **DAYS FROM SPUD:** 14 **DATE:** 22/09/06
PL: PEP 160 **0000 hrs Depth:** 2934 m **LAST DEPTH:** 2753 m **PROGRESS:** 181 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 216mm hole at 2980m.

PREVIOUS 24 Hours Operations: Drill ahead with 216mm hole to 2934m.

Comment: Survey at 2806 = 5.25 degrees N60E, survey at 2893 = 4.74 degrees at 317 degrees. Note increase in heavy gas analysis below c. 2930m.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation			3746	-3670		
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
2802 – 2907 (11)	<p>SILTY CLAYSTONE, (80%) light to medium dark grey to medium brown grey, often abundant very fine altered feldspar grains, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.</p> <p>SANDSTONE, (20%) off white to light grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p>	15 – 75 (25) (88:5:5:2:tr)
Fluorescence	<p>Nil in the sandstone, but: The detrital coal has no fluorescence but gives a very weak dull yellow crush cut.</p>	
2907 – 2976 (13)	<p>SILTY CLAYSTONE, (70%) light to dominantly medium dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.</p> <p>SANDSTONE, (30%) off white to light brown, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p>	15 – 164 (50) (77:7:8:5:3)
Fluorescence	<p>Nil in the sandstone, but: The detrital coal has no fluorescence but gives a very weak dull yellow crush cut.</p>	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 15 **DAYS FROM SPUD:** 15 **DATE:** 23/09/06
PL: PEP 160 **0000 hrs Depth:** 3002 m **LAST DEPTH:** 2934 m **PROGRESS:** 68 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: RIH with Schlumberger Run#1 GR-LLD-LLS-DT-Cal, log repeat section from bottom, run back to bottom - calliper failure – POOH - check head - isolate calliper (no backup calliper available) – RIH - log up to shoe with Run#1 GR-LLD-LLS-DT (no calliper or Rxoz), GR to surface.

PREVIOUS 24 Hours Operations: Drill ahead with 216mm hole to 3002m, wiper trip to condition hole, POOH to log, Rig up Schlumberger, Run#1 GR-LLD-LLS-DT-Cal, RIH.

Comment: Deviation at 2989m = 6.25Deg Az 315 (uncorrected).

Caliper at bottom on repeat – hole in gauge, good condition.

Hole deviation in approximate agreement with rig survey results.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed Depths (mRT)	Prognosed Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation			3746	-3670		
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
2976 – 3002 (10)	SILTY CLAYSTONE, (100%) light to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, (Trace) off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	27 – 215 (45) (77:8:9:4:2)
Fluorescence	Nil in the sandstone, but: The detrital coal has no fluorescence but gives a very weak dull yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 16-19 **DAYS FROM SPUD:** 19 **DATE:** 27/09/06
PL: PEP 160 **0000 hrs Depth:** 3002 m **LAST DEPTH:** 3002 m **PROGRESS:** 0 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS:

PREVIOUS 24 Hours Operations: Schlumberger Run#1 GR-LLD-LLS-DT-Cal, wiper trip to condition hole, lay out drill string, run and cement 178mm casing to 2999m, change BOP rams, pick up and RIH 89mm drill string, repair top drive, RIH, prepare to drill out shoe track.

Comment: Tight hole and abundant cavings encountered below 2988m on wiper trip and casing run. Cuttings shape and hole instability is suggestive of tectonic stress.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
	No new formation drilled.	
Fluorescence		



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 20 **DAYS FROM SPUD:** 20 **DATE:** 28/09/06
PL: PEP 160 **0000 hrs Depth:** 3103 m **LAST DEPTH:** 3002 m **PROGRESS:** 101 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 152mm hole to 3156m, increase mud weight to 9.8 lb/gal, drill ahead to 3168m.

PREVIOUS 24 Hours Operations: Drill out shoe track and new hole to 3005m, FIT to 13.8 ppg mw eq, drill ahead with 152mm hole to 3103m.

Comment: Pressure response on FIT, cutting shape and hole instability would indicate the probable presence of a tectonically stressed fault/fracture being present at around 3000m.

Survey at 3108m = 8.5 degrees at 332 degrees TN.

At 3153m total gas readings rose to 4251 units (70:10:11:6:3) corresponding to a very strongly calcareous cemented sandstone (no visual porosity – dull orange carbonate fluorescence – no cut). Sample and drilling indicators suggest the gas came from a small partially open calcite lined fracture at this depth. Subsequently the mud weight was increased from 9.5 lb/gal to 9.8 lb/gal by the addition of KCl.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3002 – 3108 (17)	SILTY CLAYSTONE, (90%) medium to dark grey to medium brown grey, grey black and very carbonaceous in part, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, (10%) off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	35 – 240 (76) (83:7:5:3:2)
Fluorescence	Nil in the sandstone, but: The detrital coal has no fluorescence but gives a very weak dull yellow crush cut.	

3108-3162 (40)	SILTY CLAYSTONE, (70%) medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, slightly calcareous where arenaceous, trace black carbonaceous flecks and detritus, trace vein calcite at 3129m, common micromica, hard, subfissile. SANDSTONE, (30%) off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and very strong calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence. COAL, (trace) black, subvitreous to vitreous, subconchoidal fracture, hard, brittle.	50 – 530 (190) (70:10:11:6:3)
-------------------	--	----------------------------------



DAILY GEOLOGICAL REPORT

Fluorescence	The sandstone has dull orange mineral fluorescence, no cut. The coal has no fluorescence but gives a weak pale yellow crush cut.
---------------------	--



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 21 **DAYS FROM SPUD:** 21 **DATE:** 29/09/06
PL: PEP 160 **0000 hrs Depth:** 3230 m **LAST DEPTH:** 3103 m **PROGRESS:** 127 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: RIH, circulate hole clean (WTG 3076 units (81:8:7:3:1)), POOH for steering assembly.

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3230m, circulate hole clean, POOH to due to excessive deviation, wait at shoe for directional steering equipment.

Comment: Survey at 3194m = 9.25 degrees N15W.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3162 – 3230 (33)	<p>SILTY CLAYSTONE, (90%) medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, moderately calcareous where arenaceous, trace black carbonaceous flecks and detritus, trace calcite veining, common micromica, hard, subfissile.</p> <p>SANDSTONE, (10%) off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and strong calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p>	35 – 2766 (300) (77:8:8:5:2)
Fluorescence	Dull orange mineral fluorescence, no cut, in the sandstone, but: The detrital coal has no fluorescence but gives a very weak dull yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 22 **DAYS FROM SPUD:** 22 **DATE:** 30/09/06
PL: PEP 160 **0000 hrs Depth:** 3230 m **LAST DEPTH:** 3230 m **PROGRESS:** 0 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead to 3247m.

PREVIOUS 24 Hours Operations: RIH, circulate hole clean (WTG 3076 units (81:8:7:3:1)), POOH, pick up bent sub and steering assembly to correct excessive hole deviation, RIH, TG 3790u, orientate tool, prepare to drill ahead.

Comment: Controlled drilling to correct excessive hole deviation. Mud weight increased to 10.0 ppg due to increased formation pressure.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3230 – 3246 (5)	SILTY CLAYSTONE, (90%) medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, (10%) off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace fine black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	35 – 462 (95) (79:8:7:4:2)
Fluorescence	The sandstone has dull orange mineral fluorescence, no cut. The detrital coal has no fluorescence but gives a very weak dull yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 23 **DAYS FROM SPUD:** 23 **DATE:** 01/10/06
PL: PEP 160 **0000 hrs Depth:** 3290 m **LAST DEPTH:** 3230 m **PROGRESS:** 60 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tulich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 152mm hole at 3304m.

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3290m.

Comment: Survey at 3255 = 14.1 degrees at N2.7E. Survey at 3275 = 18.1 degrees at N7.3W

From 3293-3303+m the cutting samples have common calcite lined fractures and minor quartz lined fractures. These gave 4337 units of total gas (60:8:13:12:7). Subsequently the mud weight was increased to 10.2 ppg. Best assessment based on currently available data is for this to be the parasitic edge of the main fault zone. Indications suggest the drilled section has only limited porosity interconnectivity.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation			3746	-3670		
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3246 – 3304 (4)	<p>SILTY CLAYSTONE, (90%) medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile, with from 3293m common calcite and occasional quartz lined fractures.</p> <p>SANDSTONE, (10%) off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace fine black carbonaceous detritus, hard, no visual porosity, no oil fluorescence, with from 3293m common calcite and occasional quartz lined fractures.</p> <p>CARBONACEOUS CLAYSTONE, (trace) grey black, earthy texture, blocky to platy fracture, trace micromica, moderately hard.</p>	41 – 4337 (70) (60:8:13:12:7)
Fluorescence	<p>The sandstone has dull orange mineral fluorescence, no cut.</p> <p>The detrital coal and carbonaceous claystone has no fluorescence but gives a very weak dull yellow crush cut.</p>	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 24 **DAYS FROM SPUD:** 24 **DATE:** 02/10/06
PL: PEP 160 **0000 hrs Depth:** 3306 m **LAST DEPTH:** 3290 m **PROGRESS:** 16 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS:

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3306m, survey at 3294m = 20.5 degrees at 358.7 degrees azimuth, circulate hole clean, POOH in preparation for setting cement plug and sidetracking due to excessive hole deviation.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation			3746	-3670		
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3304 – 3306 (4.5)	<p>SILTY CLAYSTONE, (100%) medium to dark grey to medium brown grey, occasionally very dark grey and moderately carbonaceous, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common calcite lined fractures, common micromica, hard, subfissile.</p> <p>SANDSTONE, (Trace) off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace fine black carbonaceous detritus, common calcite lined fractures, hard, no visual porosity, no oil fluorescence.</p>	54 – 79 (70) (60:8:13:12:7)
Fluorescence	<p>The sandstone has dull orange mineral fluorescence, no cut. The detrital coal has no fluorescence but gives a very weak dull yellow crush cut.</p>	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-01 **REPORT No.:** 25-29 **DAYS FROM SPUD:** 25-29 **DATE:** 07/10/06
PL: PEP 160 **0000 hrs Depth:** 3041 m **LAST DEPTH:** 3041 m **PROGRESS:** 0 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Begin to establish kick-off from 3042m, 0600 depth 3051m, current samples 100% cement.

PREVIOUS 24 Hours Operations: RIH with directional drilling assembly.

Comment: 152mm Hole was drilled to 3306m, hole was subsequently cemented back due to excessive hole deviation. Top of cement plug dressed to 3041m, before RIH with directional drilling assembly with MWD to steer well to target.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation			3746	-3670		
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
	No new formation drilled.	
Fluorescence		



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 30 **DAYS FROM SPUD:** 30 **DATE:** 08/10/06
PL: PEP 160 **0000 hrs Depth:** 3072 m **LAST DEPTH:** 3041 m **PROGRESS:** 31 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 152mm hole at 3083m.

PREVIOUS 24 Hours Operations: RIH with directional drilling assembly, try to establish kick-off from 3042m, kick off established by 3063m, drill ahead with 152mm hole whilst correcting hole angle to 3072m.

Comment: Lower gas readings on ST1 compared with original hole are due to lower ROP and increased mud weight. Gas system checks indicate gas sampling system to be fully functional.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation			3746	-3670		
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3042 - 3063	Cement (100%).	
Fluorescence		

3063 – 3081 (1.5)	SILTY CLAYSTONE, (80%) medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, (20%) off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	1 – 15 (11) (82:7:5:2:3)
Fluorescence	No oil fluorescence but the carbonaceous material gives a very weak pale yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 31 **DAYS FROM SPUD:** 31 **DATE:** 09/10/06
PL: PEP 160 **0000 hrs Depth:** 3119 m **LAST DEPTH:** 3072 m **PROGRESS:** 47 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tulich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: POOH for new bit, top drive hit monkey board, attempt to repair top drive.

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3119m, POOH for new bit.

Comment: Survey at 3104m = 2.52 degrees at 30.28 az.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3081 – 3119 (2.8)	SILTY CLAYSTONE, (80%) medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, (20%) off white to light brown, silty to occasionally fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	2 – 28 (6) (82:8:7:3:tr)
Fluorescence	No oil fluorescence but the carbonaceous material gives a very weak pale yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 32 **DAYS FROM SPUD:** 32 **DATE:** 10/10/06
PL: PEP 160 **0000 hrs Depth:** 3119 m **LAST DEPTH:** 3119 m **PROGRESS:** 0 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Wait on repairs to top drive and monkey board.

PREVIOUS 24 Hours Operations: POOH for new bit, top drive hit monkey board; wait on repairs to top drive and monkey board.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation			3746	-3670		
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
	No new formation drilled.	
Fluorescence		



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 33 **DAYS FROM SPUD:** 33 **DATE:** 11/10/06
PL: PEP 160 **0000 hrs Depth:** 3119 m **LAST DEPTH:** 3119 m **PROGRESS:** 0 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Wait on repairs to top drive and monkey board.

PREVIOUS 24 Hours Operations: Wait on repairs to top drive and monkey board.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation			3746	-3670		
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
	No new formation drilled.	
Fluorescence		



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 34 **DAYS FROM SPUD:** 34 **DATE:** 12/10/06
PL: PEP 160 **0000 hrs Depth:** 3119 m **LAST DEPTH:** 3119 m **PROGRESS:** 0 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: RIH with tricone mill tooth bit and directional drilling assembly, TG 89u, drill ahead with 152mm hole to 3127m.

PREVIOUS 24 Hours Operations: Wait on repairs to top drive and monkey board, repair MWD, RIH.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed Depths (mRT)	Prognosed Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3119 – 3126 (3.0)	SILTY CLAYSTONE, (90%) medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, (10%) off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	3 – 881 (50) (80:9:8:2:1)
Fluorescence	No oil fluorescence but the carbonaceous material gives a very weak pale yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 35 **DAYS FROM SPUD:** 35 **DATE:** 13/10/06
PL: PEP 160 **0000 hrs Depth:** 3169 m **LAST DEPTH:** 3119 m **PROGRESS:** 50 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 152mm hole at 3182m.

PREVIOUS 24 Hours Operations: RIH with tricone mill tooth bit and directional drilling assembly, TG 89u, drill ahead with 152mm hole to 3169m.

Comment: Survey at 3148m = 2.72 degrees at 152.37 azimuth.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3126 – 3182 (2.5)	<p>SILTY CLAYSTONE, (90%) medium to dark grey to medium brown grey, rarely very carbonaceous, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, trace calcite lined fractures in part, hard, subfissile.</p> <p>SANDSTONE, (10%) off white to light brown, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, trace calcite lined fractures in part, hard, no visual porosity, no oil fluorescence.</p> <p>COAL, (trace) black, subvitreous to vitreous, subconchoidal fracture, hard, brittle.</p>	3 – 2538 (150) (77:9:8:4:2)
Fluorescence	The sandstone has dull yellow-orange mineral fluorescence but no cut. The coaly material has no fluorescence but gives a very weak pale yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 36 **DAYS FROM SPUD:** 36 **DATE:** 14/10/06
PL: PEP 160 **0000 hrs Depth:** 3182 m **LAST DEPTH:** 3169 m **PROGRESS:** 13 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: RIH, drill ahead with 152mm hole to 3192m, trip gas 3445 units with slightly oil cut mud.

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3182m, POOH for new bit, flow check at shoe positive, slow influx, RIH, circulate out (4154 units gas and slightly oil cut mud), increase mud weight to 10.5+ lb/gal, POOH, pick up PDC bit.

Comment: Influx on trip gave 4154 units of total gas (73:9:9:6:3) with oil cut mud. The oil is on the heavier end of light crude (bright pale yellow white fluorescence, milky white cut). The sandstones present visually are too tight for significant intergranular porosity, but the little fractures through it coupled with a minor input from the sand would be the most likely source, (the fluorescence does not show up in the sand cutting samples - too tight). The producing interval is probably mainly from around 3152m, but with some minor input from other fractures below at 3165 and 3180m.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 37 **DAYS FROM SPUD:** 37 **DATE:** 15/10/06
PL: PEP 160 **0000 hrs Depth:** 3207 m **LAST DEPTH:** 3182 m **PROGRESS:** 25 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tulich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: RIH to shoe, circulate, bottoms up gas from shoe 2491u.

PREVIOUS 24 Hours Operations: RIH, drill ahead with 152mm hole to 3207m, well flowing oil and gas cut mud, circulate through choke, increase mud weight to 10.8ppg, drill string blocked, POOH, clear string of salt, RIH.

Comment: Well began flowing oil/gas cut mud from around 3192m (well TD 3207m), maximum gas readings 4560 units (61:12:13:9:5). The crude is green, waxy (pour point 35 degrees C.), and is on the heavier end of a light crude, gives a bright pale greenish yellow white fluorescence with a milky white cut. Best assessment is for the flow to be from small fractures associated with a coal/sand section around 3192m. No fluorescence was observed in the sand and the sand visually has no discernable intergranular porosity. Estimated potential recoverable volume – low.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3182 – 3207 (33)	<p>SILTY CLAYSTONE, (80%) medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, very carbonaceous in part, common micromica, hard, subfissile.</p> <p>SANDSTONE, (20%) off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace fine black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p> <p>COAL, (trace) black to very dark grey, very argillaceous in part, earthy to subvitreous lustre, irregular/contused fracture, hard, brittle.</p>	25 – 4560 (300) (61:12:13:9:5)
Fluorescence	<p>The sandstone has dull yellow-orange mineral fluorescence but no cut.</p> <p>The coaly material has no fluorescence but gives a very weak pale yellow crush cut.</p> <p>The oil flowing from around 3192m gives a bright pale greenish yellow white fluorescence with a milky white cut, pour point 35 degrees C.</p>	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 38 **DAYS FROM SPUD:** 38 **DATE:** 16/10/06
PL: PEP 160 **0000 hrs Depth:** 3267 m **LAST DEPTH:** 3207 m **PROGRESS:** 60 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 152mm hole at 3279m (slide and rotate to control hole angle).

PREVIOUS 24 Hours Operations: RIH to shoe, circulate, RIH, trip gas 4709units with oil cut mud, drill ahead (slide and rotate to control hole angle) to 3267m.

Comment: Bottoms up after trip 4709 units (61:10:14:10:5) with oil cut mud.

Survey at 3206m = 1.0 degrees at 172.45 degrees azimuth, 3249 = 0.9 degrees at 242.06 Azimuth.

Mud is salt saturated – further mud weight increases and maintenance will be with barite – mud weight increased to 11.0+ ppg.

Gas peak at 3215m of 4056 units (60:12:15:9:4) associated with probable minor fractures in silty claystone (very carbonaceous in part) - no flow, no oil in mud.

Connection gas peaks on all connections to 4500 units with traces of free oil in mud.

From 3261m well very slowly flowing gas and oil probably from the fractured interval around 3192m, flow checks negative – reservoir pressure appears to be depleting whilst drilling. The oil in the drilling mud gives a bright pale greenish yellow white fluorescence with a milky white cut, freezes at surface temperatures.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation			3746	-3670		
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3207 – 3279 (5)	SILTY CLAYSTONE, (90%) medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and coaly detritus, common micromica, hard, subfissile. SANDSTONE, (10%) off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence. COAL, (trace) black to very dark grey, very argillaceous in part, earthy to subvitreous lustre, irregular to blocky fracture, hard, brittle.	70 – 4436 (350) (60:12:15:9:4)
Fluorescence	The sandstone has dull yellow-orange mineral fluorescence but no cut. The coaly material has no fluorescence but gives a very weak pale yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 39 **DAYS FROM SPUD:** 39 **DATE:** 17/10/06
PL: PEP 160 **0000 hrs Depth:** 3361 m **LAST DEPTH:** 3277 m **PROGRESS:** 84 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 152mm hole to 3386m, wiper trip.

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3361m - slide and rotate to control hole angle.

Comment: Survey at 3263m = 1.48 degrees @ 232.27 azimuth, Survey at 3282.64m = 2.60 degrees @ 228.6 Azimuth, Survey at 3292m = 1.86 degrees @ 259.15 azimuth, Survey at 3341m = 1.99 degrees @ 256.98 azimuth.

Connection gases on all connections to 4578 units of total gas often with small volumes of free oil in the drilling mud - lag timing on connection gases corresponds to a depth of 3192m.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation			3746	-3670		
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3279 – 3386 (7)	<p>SILTY CLAYSTONE, (90%) medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, trace calcite lined fractures in part, common micromica, hard, subfissile.</p> <p>SANDSTONE, (10%) off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p> <p>COAL, (trace) black to very dark grey, very argillaceous – grades to carbonaceous claystone, earthy lustre, irregular to blocky fracture, hard.</p>	75 – 4578 (155) (59:11:14:11:5)
Fluorescence	<p>The sandstone has dull yellow-orange mineral fluorescence but no cut.</p> <p>The coaly material has no fluorescence but gives a very weak pale yellow crush cut.</p> <p>Free oil in mud associated with connection gases from 3192m has a bright pale greenish yellow white fluorescence with a milky white cut, freezes at surface temperatures.</p>	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 40 **DAYS FROM SPUD:** 40 **DATE:** 18/10/06
PL: PEP 160 **0000 hrs Depth:** 3418 m **LAST DEPTH:** 3361m **PROGRESS:** 57 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 152mm hole at 3451m.

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3386m, wiper trip, (work tight hole at 3259m), wiper trip gas 4233 units, dill ahead with 152mm hole to 3418m.

Comment: Survey at 3427m = 2.99 degrees at 169.22 azimuth.

Connection gases on all connections to 4578 units of total gas often with small volumes of free oil in the drilling mud - lag timing on connection gases corresponds to a depth of 3192m.

Hole slowly loosing mud into fractures below 3433m.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed Depths (mRT) (mSS)		Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3386 – 3440 (4)	<p>SILTY CLAYSTONE, (85%) medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common micromica, hard, subfissile.</p> <p>SANDSTONE, (15%) off white to light brown, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, rare fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.</p> <p>COAL, (trace) black to very dark grey, very argillaceous in part, earthy to subvitreous lustre, irregular to blocky fracture often contused and striated, hard, brittle.</p>	<p>10 to 200 units from Coal (90:4:2:5:1)</p> <p>200 – 4473 units from oil flow (59:11:14:11:5)</p>
Fluorescence	<p>The sandstone has dull yellow-orange mineral fluorescence but no cut. The coaly material has no fluorescence but gives a very weak pale yellow crush cut. Free oil in mud associated with connection gases lagged from 3192m has a bright pale greenish yellow white fluorescence with a milky white cut, freezes at surface temperatures.</p>	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 41 **DAYS FROM SPUD:** 41 **DATE:** 19/10/06
PL: PEP 160 **0000 hrs Depth:** 3507 m **LAST DEPTH:** 3418 m **PROGRESS:** 89 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: RIH.

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3507m, POOH to layout MWD.

Comment: Section from 3440-3450m consists predominantly of a fine to medium grained sandstone, no visible intergranular porosity, no intergranular oil fluorescence; however this section has abundant calcite infilled fractures. Most fractures appear to be solidly cemented with calcite, however some open fracturing is present as evidenced by mud losses through this section of about 20 bbls/hr - this corresponds to the presence of oil fluorescence in some of the fracture infill material. The fractures continue below 3450m, (hosted predominantly by silty claystone) however these have no oil fluorescence and appear to be all tight – verified by no increased mud losses through this interval.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation			3746	-3670	
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3440 – 3450 (9)	SILTY CLAYSTONE, (20%) medium to dark grey to medium brown, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, abundant calcite lined fractures, common micromica, hard, subfissile. SANDSTONE, (80%) off white, very fine to medium, dominantly fine, subangular to subrounded, moderately sorted, abundant white argillaceous matrix – matrix supported, very strong calcite cement, moderate silica cement, trace multicoloured lithics, common quartz grains, trace black coaly detritus, abundant calcite lined fractures, very hard, no visible intergranular porosity, no intergranular oil fluorescence.	150 – 1647 (210) (86:7:3:2:2)
Fluorescence	The fracture infill material has dull yellow mineral fluorescence and trace dull to moderately bright very pale yellow white oil fluorescence giving a weak dull milky white crush cut fluorescence. The sandstone has no intergranular oil fluorescence. The coaly material has no fluorescence but gives a very weak pale yellow crush cut.	

DAILY GEOLOGICAL REPORT

3450 – 3507 (10)	<p>SILTY CLAYSTONE, (90%) medium to dark grey to medium brown, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, trace calcite lined fractures, common micromica, hard, subfissile.</p> <p>SANDSTONE, (10%) off white, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, abundant white argillaceous matrix – matrix supported, very strong calcite cement, moderate silica cement, trace multicoloured lithics, common quartz grains, trace black coaly detritus, trace calcite lined fractures, very hard, no visible porosity, no intergranular oil fluorescence.</p> <p>COAL, (trace) black to very dark grey, very argillaceous in part, earthy to subvitreous lustre, irregular to blocky fracture often contused and striated, hard, brittle.</p>	75 – 1647 (210) (89:6:3:1:1)
Fluorescence	<p>The sandstone has dull orange mineral fluorescence, no cut. The coal has no fluorescence but gives a weak pale yellow crush cut.</p>	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 42 **DAYS FROM SPUD:** 42 **DATE:** 20/10/06
PL: PEP 160 **0000 hrs Depth:** 3563 m **LAST DEPTH:** 3507 m **PROGRESS:** 54 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 152mm hole to 3564m, POOH due to low ROP.

PREVIOUS 24 Hours Operations: POOH, lay out MWD, RIH, trip gas 3162 units, drill ahead with 152mm hole to 3563m.

Comment: The sandstone interval from 3508-3532m appears to be gas saturated, however the porosity is inferred as being very poor to poor, with most of the sand interval being sufficiently tight as to preclude gas accumulation. The gross sand interval is 24m, with a net effective gas pay of 5.5m. No evidence was seen in the cutting samples of fracturing, and no mud losses were recorded whilst drilling this interval.

The sandstones from 3550-3564m in cutting samples appear to have extremely limited porosity – sufficiently tight as to preclude gas accumulation - no evidence was observed in cutting samples of fracturing and no mud losses were recorded whilst drilling this interval.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation	3508	-1822	3746	-3670	238H
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3507 – 3508 (8)	SILTY CLAYSTONE, (100%) medium to dark grey to medium brown, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common micromica, hard, subfissile.	130 (89:6:3:1:1)
Fluorescence	NIL	

3508 – 3532 (15)	SANDSTONE, (100%) off white, very fine to fine at top becoming very fine to occasionally very coarse at base, dominantly fine at top becoming dominantly medium to coarse at base, angular to subrounded, poorly sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, hard, nil to poor visual porosity, no oil fluorescence.	60 – 2332 (93:3:2:1:1)
Fluorescence	NIL	

3532 – 3550 (4)	SILTY CLAYSTONE, (80%) medium to dark grey to medium brown, common very fine altered feldspar grains in part, slightly carbonaceous, trace fine black carbonaceous flecks and detritus in part, common micromica, hard, subfissile. SANDSTONE, (20%) off white, very fine to very coarse, dominantly fine, angular to subrounded, poorly sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, very hard, no visual porosity, no oil fluorescence.	65 – 214 (125) (92:4:2:1:1)
Fluorescence	NIL	

DAILY GEOLOGICAL REPORT

3550 – 3564 (3)	SILTY CLAYSTONE, (30%) medium to dark grey to medium brown, trace very fine altered feldspar grains in part, moderately carbonaceous, trace fine black carbonaceous flecks and detritus in part, common micromica, hard, subfissile. SANDSTONE, (70%) off white, very fine to rarely coarse, dominantly medium, angular to subrounded, poorly sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, trace to common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, very hard, no visual porosity, no oil fluorescence.	75 – 256 (120) (92:4:2:1:1)
Fluorescence	The sandstone has dull yellow orange mineral fluorescence, no oil fluorescence or cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 43 **DAYS FROM SPUD:** 43 **DATE:** 21/10/06
PL: PEP 160 **0000 hrs Depth:** 3572 m **LAST DEPTH:** 3563 m **PROGRESS:** 9 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 152mm hole to 3578m.

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3564m, POOH due to low ROP, pick up new PDC bit, RIH, trip gas (from 3192m) 3610 units with slightly oil cut mud, trip gas from 3564m 10 units, drill ahead with 152mm hole to 3572m.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation	3508	-1822	3746	-3670	238H	
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3564 – 3576 (1)	<p>SILTY CLAYSTONE, (50%) medium to dark grey to rarely medium brown grey,, moderately carbonaceous, trace fine black carbonaceous flecks and detritus, common micromica, hard, subfissile.</p> <p>SANDSTONE, (50%) off white, very fine to medium, dominantly fine, angular to subrounded, poorly sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, trace to common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, very hard, no visual porosity, no oil fluorescence.</p>	35 – 98 (70) (72:8:7:7:6)
Fluorescence	The sandstone has dull yellow orange mineral fluorescence, no oil fluorescence or cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 44 **DAYS FROM SPUD:** 44 **DATE:** 22/10/06
PL: PEP 160 **0000 hrs Depth:** 3612 m **LAST DEPTH:** 3572 m **PROGRESS:** 40 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 152mm hole at 3619m.

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3612m.

Comment: Oil Show: 3593-3603m – the oil is contained within the kaolinitic sandstone with very limited visual porosity – as the sandstone becomes cleaner with depth the kaolin is replaced with silica cement thus reducing effective porosity and hence fluorescence. Best assessment would suggest this interval is too tight for significant pore fluid recovery.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation	3508	-1822	3746	-3670	238H	
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3576 – 3593 (1.7)	<p>SILTY CLAYSTONE, (90%) medium grey to black, medium brown grey in part, moderately carbonaceous, trace black carbonaceous flecks and detritus, common micromica, hard to very hard, subfissile.</p> <p>SANDSTONE, (10%) off white, very fine to medium, dominantly fine, angular to subrounded, poorly sorted, strong silica and moderate calcareous cements, common white argillaceous matrix, quartzose, common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, very hard, no visual porosity, no oil fluorescence.</p>	35 – 98 (75) (77:7:6:9:7)
Fluorescence	The sandstone has dull yellow orange mineral fluorescence, no oil fluorescence or cut.	

3593 – 3603 (4.0)	<p>KAOLINITIC SANDSTONE, (100%) off white, moderately calcareous, abundant very fine to fine quartz sand grains dispersed through a white kaolin clay matrix, common black coaly laminates – sand percentage and grain size increases with depth, trace grey banded cryptocrystalline chert in part – possible fracture infill?, moderately hard, very poor intergranular porosity - grades with depth to:</p> <p>SANDSTONE, off white, very fine to medium, dominantly fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, common to abundant white argillaceous matrix, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, trace grey banded cryptocrystalline chert – possible fracture infill?, very hard, no visual porosity.</p>	30 – 78 (55) (72:6:5:8:9)
Fluorescence	FLUORESCENCE, (3593-3603m) the kaolinitic sandstone has 50% decreasing to trace with depth, dull patchy medium yellow oil fluorescence giving a very weak dull pale yellow crush cut at the top.	

DAILY GEOLOGICAL REPORT

3603 – 3618 (1.3)	<p>SILTY CLAYSTONE, (90%) medium grey to black to medium brown, moderately carbonaceous, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile.</p> <p>SANDSTONE, (10%) off white, very fine to fine, dominantly very fine, angular to subrounded, moderately sorted, very strong silica and moderate calcareous cements, common white argillaceous matrix, quartzose, common to abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, very hard, no visual porosity.</p>	8 – 39 (21) (84:6:4:3:3)
Fluorescence	The sandstone has dull yellow orange mineral fluorescence, no oil fluorescence or cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 45 **DAYS FROM SPUD:** 45 **DATE:** 23/10/06
PL: PEP 160 **0000 hrs Depth:** 3648 m **LAST DEPTH:** 3612 m **PROGRESS:** 36 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Drill ahead with 152mm hole at 3655m.

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3642m, wiper trip (hole tight), wiper trip gas 3200 units, drill ahead with 152mm hole to 3648m.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation	3508	-1822	3746	-3670	238H	
T.D.			3945	-3869		

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3618 – 3654 (1.8)	<p>SILTY CLAYSTONE, (70%) medium grey to black to medium brown, moderately carbonaceous, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile.</p> <p>SANDSTONE, (30%) off white, very fine to fine, dominantly very fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, abundant white argillaceous matrix –matrix supported, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, hard, no visual porosity.</p>	5 – 43 (27) (82:7:5:3:3)
Fluorescence	The sandstone has dull yellow orange mineral fluorescence, no oil fluorescence or cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 46 **DAYS FROM SPUD:** 46 **DATE:** 24/10/06
PL: PEP 160 **0000 hrs Depth:** 3688 m **LAST DEPTH:** 3648 m **PROGRESS:** 40 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Wiper trip, prepare to drill ahead with 152mm hole from 3688m.

PREVIOUS 24 Hours Operations: Drill ahead with 152mm hole to 3688m, connection tight, wiper trip.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation	3508	-1822	3746	-3670	238H
T.D.			3945	-3869	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3654 – 3671 (2.2)	<p>SILTY CLAYSTONE, (50%) medium grey to black to medium brown grey, moderately carbonaceous, trace black carbonaceous flecks and coaly detritus, trace to common micromica, hard, subfissile.</p> <p>SANDSTONE, (50%) off white, very fine to occasionally fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, abundant white argillaceous matrix –matrix supported, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, trace to abundant grey banded cryptocrystalline chert, hard, no visual porosity, no oil fluorescence.</p>	25 – 64 (55) (81:5:6:5:3)
Fluorescence	The sandstone has dull yellow orange mineral fluorescence, no oil fluorescence or cut.	
3671 – 3674 ((4.6)	<p>KAOLINITIC SANDSTONE, (100%) off white, very fine to occasionally fine, angular to subrounded, moderately sorted, moderate silica and weak calcareous cements, abundant white argillaceous matrix –matrix supported, quartzose, abundant altered feldspar grains, trace black coaly detritus, trace grey banded cryptocrystalline chert, moderately hard, no visual porosity.</p>	35 – 51 (50) (86:6:3:3:2)
Fluorescence	The sandstone has dull yellow orange mineral fluorescence, no oil fluorescence or cut.	
3674 – 3687 (2.0)	<p>SILTY CLAYSTONE, (20%) medium grey to black to medium brown grey, moderately carbonaceous, trace black carbonaceous flecks and coaly detritus, trace to common micromica, hard, subfissile.</p> <p>SANDSTONE, (80%) off white, very fine to medium, dominantly fine – becoming coarser with depth, angular to subrounded, moderately sorted, strong to very strong silica and moderate calcareous cements, common to abundant white argillaceous matrix –matrix decreases with depth, quartzose, common to abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, hard, nil to very poor visual porosity, no oil fluorescence.</p>	25 – 190 (45) (95:3:1:tr:tr)
Fluorescence	The sandstone has dull yellow orange mineral fluorescence, no oil fluorescence or cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 47 **DAYS FROM SPUD:** 47 **DATE:** 25/10/06
PL: PEP 160 **0000 hrs Depth:** 3700 m **LAST DEPTH:** 3688 m **PROGRESS:** 12 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Finish conditioning hole, POOH to log, RIH with Schlumberger Run#1 FMS-GR.

PREVIOUS 24 Hours Operations: Wiper trip, wiper trip gas 3561 units, drill ahead with 152mm hole to 3700m (T.D.), circulate hole clean, wiper trip, hole tight, condition hole.

Comment: T.D. 3700m reached at 1430hrs 25th October 2006.

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation	3508	-1822	3746	-3670	238H
T.D.	3700	-3630	3945	-3869	245H

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3687 – 3700 (1.6) T.D.	SILTY CLAYSTONE, (70%) medium grey to black to medium brown, moderately to very carbonaceous, trace black carbonaceous flecks and coaly detritus, trace very fine altered feldspar where brown, trace to common micromica, hard, subfissile. SANDSTONE, (30%) off white, very fine to medium, dominantly medium, angular to subrounded, moderately sorted, very strong silica and moderate calcareous cements, common white argillaceous matrix, quartzose, common altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, very hard, no visual porosity, no oil fluorescence.	25 – 125 (35) (88:7:5:3:2)
Fluorescence	The sandstone has dull yellow orange mineral fluorescence, no oil fluorescence or cut. The carbonaceous material has no fluorescence but gives a very weak dull yellow crush cut.	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 48 **DAYS FROM SPUD:** 48 **DATE:** 26/10/06
PL: PEP 160 **0000 hrs Depth:** 3700 m **LAST DEPTH:** 3700 m **PROGRESS:** 0 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: RIH to shoe, pressure test surface equipment, circulate out from shoe (maximum as 1670 units).
PREVIOUS 24 Hours Operations: Finish conditioning hole, POOH to log, RIH with Schlumberger Run#1 FMS-GR, Run#2 Pex-BHC, Rig down Schlumberger, pressure test BOPs, RIH for cleanout trip.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation	3508	-1822	3746	-3670	238H
T.D.	3700	-3630	3945	-3869	245H

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
	No new hole drilled.	
Fluorescence		



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 49 **DAYS FROM SPUD:** 49 **DATE:** 27/10/06
PL: PEP 160 **0000 hrs Depth:** 3701 m **LAST DEPTH:** 3700 m **PROGRESS:** 1 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tulich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Circulate while waiting for mud chemicals.

PREVIOUS 24 Hours Operations: RIH to shoe, pressure test surface equipment, circulate out from shoe (maximum gas 1670 units, RIH, trip gas 3354u, drill 1m of new hole at 0.9m/hr in claystone to evaluate torque, hole slowly flowing from bottom, gradually increase mud weight to 12.0 ppg attempting to control influx.

Comment: Gas analysis of influx (90:6:2:1:1) cf. gas analysis of influx from oil zone at 3192m (61:12:13:9:5). Gas analysis whilst circulating 10-20 units (80:6:4:5:5), gas from shutdown peaks 960 units (90:6:2:1:1).

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation	3508	-1822	3746	-3670	238H	
T.D.	3700	-3630	3945	-3869	245H	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
3700 – 3701 (0.9)	SILTY CLAYSTONE, (90%) medium grey to black to medium brown, moderately to very carbonaceous, trace black carbonaceous flecks and coaly detritus, trace very fine altered feldspar where brown, trace to common micromica, hard, subfissile. SANDSTONE, (10%) off white, very fine to fine, dominantly fine, angular to subrounded, moderately sorted, very strong silica and moderate calcareous cements, common white argillaceous matrix, quartzose, common altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, very hard, no visual porosity, no oil fluorescence.	190units (90:6:2:1:1)
Fluorescence	NIL	



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 50 **DAYS FROM SPUD:** 50 **DATE:** 28/10/06
PL: PEP 160 **0000 hrs Depth:** 3701 m **LAST DEPTH:** 3701 m **PROGRESS:** 0 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: POOH to log.

PREVIOUS 24 Hours Operations: Increase mud weight to 12.1ppg, influx whilst not circulating 960units (90:6:2:1:1) circulate whilst waiting for mud chemicals, increase mud weight to 12.4ppg, spot heavy mud 3700-3450m, hole static, repair top drive.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L	
Gambier Limestone	6.1	70	6	70	0	
Dilwyn Formation	29	47	82	-6	53H	
Pember Formation	320	-244	347	-271	27H	
Pebble Point Formation	380	-304	421	-345	41H	
Sherbrook Group	448	-372	487	-411	39H	
Eumeralla Formation	609	-533	656	-580	47H	
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present	
Laira Formation	1968	-1892	2059	-1983	91H	
Pretty Hill Formation	3508	-1822	3746	-3670	238H	
T.D.	3700	-3630	3945	-3869	245H	

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
	No new formation drilled.	
Fluorescence		



DAILY GEOLOGICAL REPORT

WELL: Glenaire-1ST1 **REPORT No.:** 51 **DAYS FROM SPUD:** 51 **DATE:** 29/10/06
PL: PEP 160 **0000 hrs Depth:** 3701 m **LAST DEPTH:** 3701 m **PROGRESS:** 0 m
LOCATION: Otway Basin **Rig:** Ensign 32 **RT elevation:** 76.1 m **PTD:** 3945 m
Northing: 5 840 813 m N **Easting:** 499 810 m E **Ground Level:** 70.0m
NEARBY WELLS: Tullich-1, Mceachern-1, Haselgrove South-1, Heathfield-1

0600 OPS: Condition mud, spot heavy mud on bottom, POOH for running 4.5" (114.3mm) liner.
PREVIOUS 24 Hours Operations: POOH, RIH Schlumberger log#3 DLT, rig down Schlumberger, RIH, circulate hole clean and condition mud.

Comment:

Formation Tops (Wellsite)	Wellsite (mRT)	Wellsite (mSS)	Prognosed (mRT)	Depths (mSS)	Prognosis Diff H/L
Gambier Limestone	6.1	70	6	70	0
Dilwyn Formation	29	47	82	-6	53H
Pember Formation	320	-244	347	-271	27H
Pebble Point Formation	380	-304	421	-345	41H
Sherbrook Group	448	-372	487	-411	39H
Eumeralla Formation	609	-533	656	-580	47H
Windermere/Katnook Ss	Not Present	n/p	2034	-1958	Not Present
Laira Formation	1968	-1892	2059	-1983	91H
Pretty Hill Formation	3508	-1822	3746	-3670	238H
T.D.	3700	-3630	3945	-3869	245H

Interval (m) ROP (ave) min/m	Lithology Description	Gas/Background Breakdown C1/C2/C3/C4/C5
	No new formation drilled.	
Fluorescence		

BEACH PETROLEUM BIT RECORD

Well : **Glenaire 01 ST1** Basin / Area : **Otway Basin** Permit : **PEP 160** Field : **ay Basin in the Eastern Penola Tr**
 Location : Latitude : **37° 34'** **47.03" S** G.L. : **70.00** metres Spud Date : **08-Sep-06**
 Longitude : **140° 59'** **52.25" E** Well Site Supervisor : **Brian Marriott** K.B. : **74.80** metres T.D. Date : **27-Oct-06**
 Contractor : **Ensign** Rig #: **32** Proposed TD : **3945** metres Rig Released Date : **28-Oct-06**

PUMPS										MUD TYPE																		
No.	Type	Stroke (in)	Liner (in)	Output (gps)	Section	Dev	Interval	Type	Wt																			
1	8-P-80 Triplex	8.50	5.00	2.10	Surface	1.00°	0m to 307m	Gel-Spud	9.00																			
2	8-P-80 Triplex	8.50	5.00	2.10	#REF!	1.00°	307m to 307m	Gel-Spud	9.00																			
					#REF!	#REF!	##	###	####																			
Bit No.	Run No.	Size (in)	Make	Type	IADC Code	Serial No.	# of nozzles Size- 32nds	Motor Y / N	Shock-Sub Serial No.	Depth Out	Metres	Hours	ROP (m/hr)	Accum Hours	Bit Grading								WOB		RPM		Press (psi)	Pump (gpm)
1	1	17.5	Smith	XRCPS	115	MR9725	3 1 20 16	N		307	307	25	12.3	25	1	1	NO	A	2	i	RR	TD	2	10	70	120	1200	768
2	2	12.25	Smith	XRCPS	115	MY0188	3 1 14 14	N		1255	948	40	23.7	65	2	2	NO	A	2	1	NR	TD	4	20	70	130	1850	660
3	3	8.5	Hyc	DSX519M	PDC	211741.0	5 12	Y		2386	1131	64.5	17.5	129.5	0	0	NO	A	X	i	RR	BHA	3	6	175	200	1600	454
4	RR#3	8.5	Hyc	DSX519M	PDC	211741	5 12	Y		3002	616	58.5	10.5	188	1	1	NO	A	X	I	RR	TD	5	6	200	227	1850	454
5	RR#3	8.5	Hyc	DSX519M	PDC	211741	5 12	Y		3002	0	0		188	1	1	NO	A	X	I	I	TD	CL	EA	N	OU	T	
6	4	6.0	Hyc	DSX516M	PDC	114752	5 14	Y		3230	228	16	14.3	204	1	1	NO	A	X	1	1	BHA	2	4	147	187	2850	260
7	5	6.0	Hyc	SL12TKPR	127	NR2619	3 20	Y		3306	76	23.5	3.2	227.5	3	5	WT	A	E	1	BT	BHA	10	18	135	195	2600	260
GlenAire-1ST1																												
8	RR#5	6.0	Hyc	SL12TKPR	127	NR2619	3 20	N		3041	4	0.5	8.0	228	3	5	WT	A	E	1	BT	BHA	DR	ILL		CE	ME	NT
9	6	6.0	Security	XN4	217S	10826038	3 20	Y		3119	78	43.5	1.8	271.5	3	5	WT	A	F	1	FC	BC	1	15	135	195	2930	250
10	7	6.0	Smith	XR+	117	PB9348	3 24	Y		3182	63	26.5	2.4	298	2	2	WT	A	E	I	NO	HR	10	14	130	195	3000	250
11	RR#4	6.0	Hyc	DSX516M	PDC	114752	5 15	Y		3207	25	1	25.0	299	1	1	0	A	X	i	NO	BHA	3	8	130	195	3150	250
12	RR#4	6.0	Hyc	DSX516M	PDC	114752	5 15	Y		3507	300	66	4.5	364	1	1	CT	S	X	1	NO	PP	0	6	130	200	3150	250
13	RR#4	6.0	Hyc	DSX516M	PDC	114752	5 16	Y		3564	57	76.5	0.7	280.5	1	4	CT	S	X	1	NR	PR	4	10	130	190	3100	250
14	8	6.0	Hyc	DSX111	PDC	112300	4 3 20 10	Y		3700	136	83	1.6	363.5	2	3	WT	A	X	i	PN	TD	5	17	150	200	2300	200
15	RR#8	6.0	Hyc	DSX111	PDC	112300	4 3 20 10	N		3701	1	1	1.0	364.5	2	3	WT	A	X	i	PN	TD	8	10	75	80	2700	248

Comments : Bit #3, Hyc, PDC, 8-1/2" x DSX519M, s.n. = 211741 was RR as bit #4
 Bit #4, Hyc, PDC, 6" x DSX516M-B1, s.n. = 114752 was RR as bit #8 (changed jets f/ 5 x 14 jets to 5 x 15 jets) (RR in hole @ 3207m, no jets > out @ 3564m = 143.5hrs
 I.H., 4-3/4", P100XL Bico, motor, s.n. = 380-47759-03 = F/15-10-06 = 41.5hrs + 14hrs on 16th = 55.5hrs + 17hrs on 17th = 72.5hrs + 17.5hrs on 18th = 90hrs + 12.5 on 19th = 102.5hrs + 14hrs on 20th = 116.5hrs
 7hrs on 21st = 123.5hrs + 23.5hrs on 22nd = 147hrs + 23.5 on 23rd = 170.5hrs + 23 on 24th = 193.5hrs + 8.5hrs on 25th = 202 hrs
 Spare 4-3/4" Bico, 150 Mud motor, s.n. = H35
 4-3/4" Dailey Drilling Jars, s.n. = 1400-222A; f/ 20-10-06, Hours = 14hrs + 7hrs on 21st = 21hrs + 23.5hrs on 22nd = 44.5hrs + 23.5hrs on 23rd = 67.5hrs + 23 on 24th = 90.5hrs + 8.5hrs = 99 hrs

4 Jikara Drive
Glen Osmond SA 5064
Phone : 61 8 83387266
Fax : 61 8 83387277
ABN : 13 211 314 811



DRILLING FLUID SUMMARY

FOR : BEACH PETROLEUM

WELL : GLENAIRE # 1 & ST1

OTWAY BASIN

VICTORIA

Prepared by : Peter Aronetz
Andre Skujins

Date : November 2006

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



CONTENTS

1. Summary of Operations
2. Observations, Recommendations & Well Analysis
3. Interval Costs
 - 3.1 Glenaire # 1
 - 3.2 Glenaire # 1 ST1
4. Material Reconciliation
5. Fluid Properties Summary
 - 5.1 Glenaire # 1
 - 5.2 Glenaire # 1 ST1
6. Mud Volume Reconciliation
 - 6.1 17-1/2", 12-1/4" and 8-1/2" Sections
 - 6.2 6" and 6" ST Sections
7. Graphs
8. Bit & Hydraulics Record
9. Daily Mud Reports

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



1. SUMMARY OF OPERATIONS

Glenaire - 1 was spudded at 08:00 hrs on the 8th of September 2006, using Ensign Rig 32. 17½" Surface hole was drilled to 307m. 13 3/8" casing was run and cemented with the shoe at 304m, on the 9th of September 2006.

The 12¼" hole reached intermediate casing point at 1255m on the 14th of September 2006; with 9 5/8" casing being set at 1252m and cemented in the early hours of the following day.

8½" hole was drilled to 3002m, when the well was logged and 7" casing was set and cemented with the shoe at 2999m on the 25th of September.

The expected final hole section was drilled with a 6" bit to 3306m, at which depth the well was plugged back to 3041m due to deviation problems.

The 6" hole on the sidetracked well was drilled to a total depth of 3701m on the 27th October 2006. The well had already been logged at 3700m, and after the extra metre had been drilled, extra logs were completed before running and cementing a 4-1/2" Liner on the 31st October 2007.

Drill water was pumped from a bore on site and at the beginning of operations, this supply had the following properties :

pH : 7.8
Chlorides : 530 mg/l
Pf/Mf : 0.0 / 0.33
Hardness : 320 mg/l

HOLE SIZE : 17½" Surface Hole
MUD TYPE : Fresh-water Gel Spud Mud
INTERVAL : 0 – 307 m
CASING : 13-3/8" @ 304 m

While the rig-up was being completed, 536bbls of 21ppb Bentonite / Caustic Spud Mud was mixed in the pre-mix and suction tanks and stored in all surface tank sections. Both Derrick FLC-514 shale shakers were fitted with 4 Pyramid 84-mesh screen panels each.

A new tri-cone bit with 3x20 jets and one size 16 centre jet installed, was made up to spud the well at 08:00 Hrs. Used the prepared Bentonite spud mud with a 60 second viscosity.

The 8" collars and the first few 6½" collars were slowly drilled down through the surficial sands, using a reduced pump rate (240gpm), to prevent washing out the

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



conductor shoe at 12m RT. At a depth of 38m, the first indications of down-hole mud losses were observed and Kwikseal Coarse LCM was added to the system.

At a drilled depth of 48m the first deviation survey was run. Drilling resumed with the mud losses continuing and averaging 50bbls/hour. LCM pills were now being prepared with a concentration of 12ppb LCM, using both fine and coarse Kwikseal. 20bbls of the resulting fluid was spotted on bottom prior to each stand of drill collars - and later HWDP - being made up.

This routine was carried through to the 3 stands of 4½" DP being used and casing depth being reached. The losses continued at a marginally reduced rate, even after change of formation was encountered just below 200m.

Observing the amount of material being discharged at the shale shakers, large amounts of unconsolidated sand were carried from the hole. This must have resulted in substantial hole enlargement of some sections of this interval.

To minimise this occurrence, the viscosity of the drilling fluid was intentionally kept higher, that what would have normally been the case for surface hole. Thus quite a lot (672sx) of Bentonite was used for this interval. Below 200m the situation stabilised somewhat, but the circulatory losses seen in this hole section never fully healed.

After the 6½" drill collars had been buried, the pump rate was increased. However the envisaged pump-rate of 990gpm was not realised. The massive amounts of unconsolidated sands being circulated out also caused screen blinding. This resulted in run-off at the shakers, when the circulating rate was increased above 775gpm.

The solids control equipment on this rig consists of two Derrick FLC-514 shakers and a Derrick DE-1000 centrifuge. Desander and desilter are not part of the solids control system. At a depth of 76m, the centrifuge was placed on-line, working very well and assisting in keeping the fluid density below 9.1ppg, by discarding an average of 2gpm underflow with a density of better than 15ppg. The centrifuge was kept running for eighteen hours, until the completion of the wiper-trip at casing depth.

Casing point had been reached at 307m with the drilling fluid having a density of 9.0ppg and a funnel viscosity of 48sec. The hole was circulated clean and a 20bbl LCM pill spotted on bottom. Made a wiper trip to surface and laid out 17½" stabiliser. Ran back in the hole without problems and found no fill. Circulated bottoms up and after spotting a last LCM pill on bottom, POOH for casing.

Rigged up for running casing and ran a total of 27 joints of 13 3/8" casing. The circulating swage was installed on each of the last two joints, but was not needed. The casing was run right to setting depth, without circulation being required.

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



Circulated the hole clean, pumped 60bbls of water and prepared for cementation. The casing was cemented and after dropping the plug, the cement was displaced with fresh water.

Full returns (based on pit-level measurements) were observed throughout, but neither water spacers nor cement were returned to the surface. A cement top-up was carried out after the bradenhead had been installed. While WOC, the tanks were dumped and cleaned. A new 5% KCl/PHPA/Polymer fluid system was then prepared for drilling the 12 $\frac{1}{4}$ " hole.

HOLE SIZE : 12 $\frac{1}{4}$ "
MUD TYPE : 5% KCl - PHPA - POLYMER
INTERVAL : 307m to 1255m
CASING : 9 5/8" @ 1252m

To drill the 12 $\frac{1}{4}$ " interval, 550 bbl of 6% KCl brine were prepared, to which Caustic Soda (0.1ppb), Pac-L (0.75ppb), Xanthan Gum (0.75ppb), PHPA (0.5ppb) and Biocide (0.2ppb) were added. All tanks were filled, with the exception of the pill tank. This tank was partially filled with water, to provide a source of water while testing the BOP stack. It was also intended to later receive the water displaced out of the hole by the drill string, when RIH. The shaker screens configuration remained unchanged, with 84-mesh Pyramid screen panels installed in all positions. One defective panel at the inlet end of each shaker had to be replaced.

Made up new 12 $\frac{1}{4}$ " BHA and this was run in the hole on 4 $\frac{1}{2}$ " pipe and the top of the cement tagged at 292m. The shoe track was drilled out, using lease water and utilising a short surface system. This consisted of only the pill tank. Cleaned out rat-hole to 307m and displaced to newly mixed KCl/PHPA/Polymer fluid. The water used to drill out the shoe-track was dumped. Made new hole to 310m, circulated hole clean and carried out formation integrity test with 8.8ppg fluid in the hole.

The test indicated that the casing seat would support at least an equivalent mud density of 12.0ppg.

Resumed drilling with a circulation rate of 90spm on two pumps, delivering 545gpm. Below 340m losses of fluid to the formation began to reassert themselves. Added Kwikseal Medium LCM to the system in an attempt to control these losses. At around this depth the centrifuge was also put on line, discarding between 1.5 and 2.5 gpm of concentrated solids, weighing up to 16.5ppg. The equipment returned to the system about 50gpm of 8.7ppg fluid.

Although the centrifuge was used full time, the fluid density increased slowly to 9.1ppg. At this point of time, all shaker screen panels were changed from Pyramid 84-mesh to Pyramid 110-mesh.

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



Recycling of fluid from the sump was carried out. However the poor delivery rate of the pump used made that effort too time consuming, when extra volume was needed quickly. This was the case in the early stages of this interval, when fluid losses up to 60bbls/hr were observed. During that time, the recycled water supply had to be augmented with bore water.

Premixed KCl/PHPA/Polymer fluid was prepared in the pre-mix tank, using about 2/3rds of recycled fluid and 1/3rd bore water. The finished product was then bled across into the active system at a choice of three outlets. Once the mud-loss situation eased, it was possible to prepare the premixed volume pills solely with fluid recycled from the sump.

Drilling continued to 884m, at which depth a Xanthan Gum-based HiVis pill was mixed and pumped around. Mixed and pumped a heavy Barite pill and prepared for a check trip.

POOH with the first few stands pulling tight with over-pull to 20K lbs being observed. This eased however and the string was pulled back without further problems to 270m. Ran back in the hole and resumed drilling.

The continued increase of the fluid density (9.3ppg) and sand content (1¼ - 2%) prompted a review of the installed shaker screens and it was decided to replace the screen on the Nr 1(LH) shaker with 175-mesh. This had an immediate effect on the sand content, which dropped to 1% and prevented any further increase in the fluid density.

In the meantime, the down-hole fluid-losses had also eased and practically full returns were being observed. Drilling continued and the well was pronounced to be at casing depth at 1255m.

Mixed and pumped a 0.4ppb Xtra-Sweep and circulated around before starting a wiper trip. On several occasions tight hole was observed, maximum over-pull recorded was 35K lbs. Pulled back to 864m, before RIH to 1221m, at which depth the hole had again become tight. Worked through to bottom and pumped remaining sweep.

Circulated hole clean and POOH for casing, after pumping a Barite-based heavy pill. The pill tank was then cleaned out and filled with bore water to be on hand as spacer to be pumped before the cement job.

When POOH, tight hole conditions and swabbing was seen around 1114m. Worked tight section and continued to pull out. Laid out stabilisers and 2 x 8" drill collars.

Rigged up for and ran 9 5/8" casing to 1229m. The remaining two joints were washed to the setting depth of 1252m. The hole was circulated clean, while

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



reciprocating the casing string. At the end of the circulation 50bbbls lease water were pumped as a spacer.

Rigged up Halliburton, pumped cement and displaced with 311bbbls drilling fluid, utilising one of the rig pumps.

At the completion of the cement job, the KMC-Oilttools centrifuge was run and the fluid volume at surface circulated and processed. This was done for 26 hours, with a view of reducing the sand content and the accumulated micro-fine drill solids.

During this time the screens on shaker Nr 1 were changed from 175 to 210-mesh and the mud pumps liners were changed from 6 to 5 inch.

HOLE SIZE : 8½" hole section
MUD TYPE : 5% KCI – PHPA – POLYMER
INTERVAL : 1257 – 3002m
CASING : 7" @ 2999m

With the final tests on the BOP stack completed, extra 4½" pipe was picked up, made up into stands and racked in the derrick. Made up the 8½" BHA, starting with a new Hycalog PDC bit with 5 of size 12 jets.

Picked up additional DP singles and eventually RIH on stands to just above the float collar. Slipped and cut drilling line and continued in the hole to tag cement at 1239m. The surface system had been shortened, by by-passing all major tanks and directing the returns to the pill tank, which acted as suction tank, while drilling out cement.

The fluid in the active part of the system, as well as the isolated volume, had been pre-treated with Soda Ash and Citric Acid, the stored fluid also with Sodium Sulphite, PHPA and Biocide. Thus the effect of the cement contamination, when it did happen, was minimal. It manifested itself in increased viscosity and gel strength and a marginally higher fluid loss (9.8cc/30min). None of the values were extreme. A maximum pH of 12 was measured. Drilled out the shoe track, cleaned out rat-hole and drilled to 1258m. Circulated hole clean and rigged up to conduct Leak-Off test.

This was carried out with 9.1ppg fluid in the hole and leak-off was established at 1000psi applied pressure. The casing-shoe fracture rating was calculated as 13.7ppg equivalent MW.

While drilling the upper part of this interval, the drilling fluid was treated with Soda Ash to reduce the Calcium level, Citric Acid to lower the pH value from 12.0 and Pac-L to reduce the fluid loss. These treatments alleviated the effects of the cement contamination. Sodium sulphite continued to be added to the system, to

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



reduce the oxygen level and therefore the corrosivity of the fluid in view of the better than 5% KCl concentration.

Drilling was halted at 2154m, the hole circulated clean, a heavy, Barite-based pill mixed and pumped and a wiper trip made back to the 9 5/8" casing shoe. Hole conditions were good, no problems were experienced when RIH to 2125m. Reamed and washed to bottom and resumed drilling.

Plans were to drill through to ~2470m for the next check trip. However at a depth of 2288m, the deviation had increased to 5°, the direction being N10E. The next deviation reading was recorded at 2374m, after reaching a depth of 2386m. The angle had further increased to 6° in nearly the same direction. The decision was made to switch to a pendulum type BHA. Mixed and pumped a Barite-based heavy pill and POOH to surface.

RIH with the same bit and mud motor, but modified the BHA, by taking out the NB Stabiliser and one string stabiliser. One string stabiliser remained in the BHA, positioned 28m above the bit. Then picked up 57 lengths of 4½" DP and continued to RIH.

Washed from 2353m, found 5m fill, reached bottom at 2386m and resumed drilling.

Treatment of the drilling fluid continued in the established manner. Premixed volume pills with a net volume of 100bbls were prepared on an ongoing basis and added as required to maintain a comfortable active surface volume of between 350 and 450 bbls. Sodium Sulphite was added direct to the system at the Suction tank. With low-end rheology sufficiently high it was possible to first reduce Xanthan Gum treatment and eventually phase it out, while drilling 8½" hole and approaching casing depth.

This point was reached at 09:00 hrs on the 23rd September at a depth of 3002m. The hole was circulated clean, a heavy Barite-based pill mixed and pumped and a 20-stand wiper trip made back to 2324m. Ran back in the hole, washed to bottom from 2889m and found 4m fill. Circulated hole clean, mixed and pumped a second heavy Barite pill and POOH for E-logs.

Rigged up Schlumberger and commenced logging run. Tools went to bottom, but calliper tool failed early in the run. At the completion of logging run, Schlumberger was rigged down and the 8½" BHA (minus the mud-motor) made up and run in the hole. Washed to bottom and circulated hole clean. Mixed and pumped heavy Barite pill and POOH, laying down entire 4½" drill string and 6¼" / 8½" BHA.

Rigged up for and ran 7" casing. The last joint of casing was washed down and at times high circulating pressures were observed. Appreciable amounts of cavings came over the shakers and on bottoms up, a maximum gas reading of 4700 units was recorded.

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



Circulated until the gas readings had dropped below 400 units and the cavings had substantially reduced. At this point 130bbls of drilling fluid, that had been specifically treated to increase both the biocide and Sodium Sulphite concentration, was pumped and that was followed by a cement pre-flush. This consisted of 30bbls lease water, to which 6 sacks of KCl, 20lt Biocide and 7kg of Sodium Sulphite had been added.

After the cementing head had been installed, the casing was cemented and displaced with mud. WOC.

HOLE SIZE : 6" hole section
MUD TYPE : 5% KCl – PHPA – POLYMER
INTERVAL : 3002m – 3306m
CASING : Plugged Back

The cement job was followed by the re-installation of the BOP stack. During this time, the drilling fluid at surface was treated with 0.6 ppb PAC-L to reduce the fluid loss and 0.44 ppb Soda Ash was added as a pre-treatment for the expected cement contamination, when drilling out the shoe track.

Made up the new BHA, starting with a 6" Hycalog PDC bit, fitted with 5x14 jets. Total length of the BHA came to 282.20m. This was run in the hole on 3½" pipe.

RIH to 2953m, washed down to 2963m, where the top of the cement was found. Drilled out top plug and cement to 2981m using shortened system, in which the flow from below the shakers was directed via the trough to the pill tank, which was set up as active tank for that operation.

Circulated hole clean and conducted a casing test during which 3500psi were applied and held for 10 minutes. Drilled out remaining cement, bottom plug, float-collar and shoe track. Cleaned out rat-hole to 3002m and made new hole to 3005m. Circulated hole clean and conducted formation leak-off test with 9.5ppg fluid in the hole. Leak-off occurred at 2200psi, giving the casing seat a calculated fracture rating of 13.9ppg equivalent MW.

Resumed drilling and after an initial stretch of good ROP, the drilling slowed down markedly and the conclusion was reached that the bit had balled up. Mixed a 30bbls 9.3ppg KCl-pill, using bore water and 36sx KCl, and pumped around. This cleared the bit and acceptable rates of penetration were obtained again.

At a depth of 3156m a gas peak of 4260 units was recorded by the logging unit. Drilling was halted and a flow-check carried out. Eventually the well was declared static, but the decision was made to raise the fluid density. KCl was used for that purpose and 378sx KCl added to raise the system WT to 9.8ppg. Even with the elevated fluid density further gas peaks of up to 2600 units were seen.

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



Drilling continued, but at a depth of 3230m was halted, the hole circulated clean and the bit pulled back inside the 7" casing to 2981m. Waited on orders and then on the arrival on location of directional drilling equipment and personnel.

During this time various servicing jobs on the rig were carried out. The waiting period was also used to treat the surface mud volume with PAC-L in an effort to further reduce the fluid loss. This was done with a view to bring that parameter back in line with the specifications for this interval.

With arrival of the directional equipment confirmed, ran back in the hole from 2981m to bottom, found no fill and circulated hole clean. Recorded 3000 units gas. Mixed and pumped a heavy Barite pill and pulled the drill string from the hole.

Make up new BHA and RIH to 2980m, breaking circulation @ 1100m + 1900m. Slipped and cut drilling line at 2900m and RIH to 3209m, washed down to bottom and circulated bottoms up. Recorded 3900 units gas. Carried out a deviation survey @ 3198m - 9³/₄°N10W.

Resumed drilling and continued to 3242m, when the first of a series of surveys was run. This first DS from 3227m recorded a near identical reading to the result of the previous survey at 3198m:

At 3227m the first of several deviation surveys was carried out:

Drilled depth	Survey depth	Reading
3230m	3198m	9 ³ / ₄ °N09W
3253m	3236m	11 ³ / ₄ °N08W
3267m	3256m	14 ¹ / ₂ °N02E

Oriented tool and re-surveyed at the same depth:
3267m 3256m 15¹/₂°N05E

Resumed drilling and took two more surveys:
3287m 3276m 18¹/₂°N07W
3306m 3294m 20¹/₂°N03W

When drilling at 3294m, with a fluid system weight of 10.0ppg, a gas-peak of 4300 units was recorded. Flow-checked the well and found it to be static. The gas-peak resulting from this flow-check measured 4100 units. At this point it was decided to raise the fluid density to 10.2ppg. A further flow-check confirmed that the well was static. The maximum gas-reading after this second flow-check reached only 3300 units.

Drilling resumed and a depth of 3306m reached. Flow-checked the well (static) and broke the stand at this depth to conduct a further survey. The result was a reading of 20¹/₂°N03W. As this meant having reached the limits of the instrument

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



and also the well path having reverted to the original northerly direction, the decision was made to plug back and side track.

Circulated the hole clean, observing a maximum gas-reading of 3660 units. Mixed and pumped a heavy Barite pill and POOH to surface.

A cement stinger was run in the hole on 3½" DP to bottom, under good hole conditions. Circulated hole clean and recorded 4000u gas. 25bbbls of Xanthan Gum based HiVis pill had been mixed, 15bbbls of that was now spotted on bottom and the string pulled back to 3128m.

Rigged up Halliburton and pressure-tested lines. Mixed and pumped cement slurry and displaced with water, followed by drilling fluid. Pulled back into the 7" casing to 2985m and circulated conventionally. No cement was seen at the flow-line, however some of the water-spacer was circulated out. Recorded a maximum of 820u of gas.

Pulled cementing string from the hole and laid out stinger. Made up Bit and BHA and RIH to 2992m and circulated out trip gas. After further waiting on cement, the bit was run down to 3037m where it took weight. The bit was pulled back to 2992m and the well was monitored while circulating through the trip tank.

The bit was then washed back to bottom and bottoms up was circulated with no gas readings seen. A pill was pumped and the pipe pulled from the hole. A bit, MWD tools and BHA were made up ahead of drill pipe and run in the hole to 3041m.

Circulation was established but attempts to get a signal from the MWD tools proved futile.

A heavy slug was pumped and pipe was pulled from the hole. The tool was re-set and run back in the hole. Again attempts to get a signal from the MWD tools proved futile.

The tools were pulled from the hole and laid out. Pipe was run back in to 256m and the hole slowly circulated while waiting on another set of MWD tools. When these arrived, they were made up and run in the hole.

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



HOLE SIZE : 6" Side Track
MUD TYPE : 5% KCl – PHPA – POLYMER
INTERVAL : 3041m – 3701m
CASING : 4-1/2" Liner

After tagging cement, new hole was made by sliding / drilling with the directional assembly. A fresh premix was built to re-establish mud properties – extra Pac-LV was added to reduce the fluid loss back to around 7 cc's while maintaining a relatively low yield point (around 6 – 8 lb/100ft² at this stage) so as to minimise pressure losses inside drill pipe. The centrifuge was run and along with the fine 310 mesh screens on the shale shakers, the mud weight was allowed to slowly drop back from 10.2 ppg.

At 3119m the bit was tripped. The new bit was run in the hole but at 264m, the Monkey Board flaps were bent by the Top Drive and this had to be fixed and inspected before drilling could resume.

After repairs and associated work had been completed, drilling resumed after washing to bottom.

After experiencing high gas readings at 3127m, with an associated mud weight of 10.2 ppg, the weight was increased with salt to 10.3 ppg. Salt was used as it did not require high yield points for suspension. A premix built after was also weighed up to 10.3 ppg. As further un-viscosified premix was added, the yield point at this stage was around 5 – 6 lb/100ft². However, hole cleaning appeared good as the annular velocities were quite high.

Drilling / sliding continued to 3182m where bottoms up was circulated. A slug was pumped and pipe was pulled. A flow check at 2991m indicated that the well was flowing slightly. Pipe was pulled further to 2846m, and a flow check there also indicated that the well was flowing slightly. After pulling to 2729m, the procedure was repeated with the same results.

Pipe was subsequently run back to bottom and the weight was increased to 10.5+ ppg with salt. Gas peaked at 4000 units, along with an oil show, on bottoms up. A flow check with 10.5+ ppg mud showed a static well.

Pipe was then pulled and the MWD tools were serviced. A new bit was run in the hole. The hole was circulated at the shoe and 600 units were recorded on bottoms up. The bit was then run to bottom and drilling resumed. A gas peak of 3445 units was seen on bottoms up.

At 3207m, a gas peak of 4000 units along with crude oil cut mud was seen at the shakers. The mud was circulated and weighed up to 10.8+ ppg. The well was then shut in and circulated through the choke as the weighing up process continued with salt. As mud weights were being taken continuously, it was seen when the mud

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



reached saturation point as salt was no longer dissolving into the mud. Barite was then added to reach the 10.8+ ppg weight, although not much was required.

With the mud weight at 10.8+ ppg, the annular preventer was opened and the well was seen to be static. An attempt was made to circulate but in the time between stopping circulation to open the annular preventers and trying to break circulation again, undissolved salt had settled out in the BHA and further circulation was not possible, despite attempts to regain it. As a consequence, the pipe was pulled wet from the hole.

With the mud's salinity at saturation, and the chlorides at 183,000 mg/l, the mud had thinned out further and the yield point was now 4 lb/100ft². When out of the hole, salt was found to have blocked off the BHA up to the 2nd stand of heavy weight drill pipe.

Once the salt had been cleaned out, pipe was run back in the hole. Bottoms up was circulated at the shoe with 2500 units seen. Pipe was run further to 3007m where fill was tagged, assumed to be salt. This was lightly washed to bottom and drilling continued.

At 3217m, 4956 units of gas were recorded and so the mud was weighed up further to 11.0 ppg with barite, and then maintained in the range of 11.0 – 11.2 ppg. The yield point was increased somewhat also to 6 – 8 lb/100ft² using Xanthan Gum. Essentially, the level that the yield point was run was a compromise between minimising friction loss (which requires low yield points) and reasonable suspension, which requires higher yield points. As a consequence, some settling of barite was expected.

Drilling continued and while doing so, extra volume was built and weighted up to the required 11.0 ppg. It was thought that fractures in the formation could materialise and lead to substantial losses, so the extra volume was insurance against losing (or partially losing) circulation.

As drilling continued, it was found that gas peaks corresponded to periods or times when the pump pressure was reduced (eg. when picking up off bottom or when the pumps were stopped), thereby reducing the ECD – effectively taking the "ECD portion" of the hydrostatic off the formation.

At 3358m, the mud weight was increased further to 11.3 – 11.4 ppg as background gas levels appeared to be slowly increasing.

Extra Pac-LV was added at this stage as the fluid loss was showing a trend to slightly increase. KCl additions also continued (albeit slowly) as the mud was now below saturation levels and there were indications that some depletion of Potassium was occurring.

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



Drilling / sliding continued to 3386m, where a connection was made. Tight hole was experienced at 3385m with 40k overpull. Bottoms up was circulated and a wiper trip was initiated. Tight hole was seen at 3280m (25k over-pull), so pipe was pumped out to 3251m. The hole was very tight at 3259m with over-pull of 50k being recorded. The remainder of the pipe was pulled to the shoe and then run back in again. The hole was washed and reamed to bottom from 3222m, with over-pull of 25k being recorded again at 3385m.

Drilling / sliding continued to 3445m, where rapid losses to the hole occurred. Losses of 20 bbl / hour were recorded initially. Kwikseal Fine (LCM) additions were made and losses soon slowed but remained sporadic, however at a lower level, so they were no longer a big concern.

The bit was tripped at 3507m. A heavy slug was pumped and the pipe was pulled. Due to ongoing large gas peaks from the zone at 3192m, a 60 bbl weighted slug was spotted in the 7" casing from 2000m. This gave a hydrostatic pressure at 3192m equivalent to 13.5 ppg mud.

After changing out the bit, pipe was run back in the hole. Circulation was broken at 1122m and then later at 2575m, at which stage the heavy weight pill that was spotted earlier, was circulated out and stored in the pill tank for future use.

The hole was washed and reamed 20m to bottom finding no fill. As drilling continued, the heavy weight pill was blended in with premix used to increase the active system volume to close to maximum. This was done as a precaution against losing circulation as the Geologist had advised this was a definite possibility.

As the ROP appeared to be poor, two x 5 bbl KCl – Caustic Soda slugs were pumped in case bit balling was the cause. No significant improvement was observed. The mud weight was slowly reduced down to 11.2 ppg during this bit run.

The bit was again tripped at 3564m. Tight hole was experienced from 3510m – 3505m (50k over-pull), 3505m – 3190m (25k over-pull) and 3190m to the shoe (15k over-pull). After changing out the bit and mud motor, pipe was run back in again, hanging up at 3510m. The bit washed and reamed to bottom prior to drilling ahead.

By this stage, the mud system was very stable. The premixes being added were simply maintaining properties. The yield point averaged between 8 – 12 lb/100ft² and only climbed as far as 13 lb/100ft² by TD. The fluid loss remained stable at 5 – 7 cc's but as the well's depth increased, more Pac-LV was required to keep it in check. The KCl level dropped as far as 7% but was re-established at 8% and was kept at that level through to TD.

Although very little viscosifying polymer was being added, the overall rheological readings were increasing slowly as TD approached. This did not really have an

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



adverse effect on pump pressure, but did increase the ECD somewhat, perhaps leading to greater invasion of mud into fractures while drilling/circulating.

A wiper trip back to 3487m was conducted at 3641m. While drilling through to this depth, the mud weight had been allowed to drop to 11.1 ppg, with other properties remaining stable. Tight hole was experienced from 3602m – 3592m, 3563m – 3554m and 3515m – 3506m. When running back in the hole was in good condition.

Drilling continued. After a minor drilling break at 3672m, losses of around 35 bbls occurred. These losses soon reverted back to the more "normal" seepage type losses seen earlier. At 3688m, a connection was tight (65k over-pull).

The pump rate was also cut back to 95 spm (200 gpm) to slow the mud motor, hoping to improve the ROP. Due to the cut in pump rate, the yield point was allowed to increase somewhat as the ECD was not as high, leading to better barite suspension.

As the likelihood of massive lost circulation was seen to be past, mud tank volume was allowed to drop as maintaining high volume levels was fairly expensive. (Each weighted premix cost around \$6,000 - \$7,000.)

As Total Depth approached, the pH was slowly increased to 9.5 – 10.0 and extra biocide was added, in anticipation of extended logging runs.

Drilling continued to a total depth of 3700m. After circulating the hole clean, a wiper trip to 3400m was made, experiencing tight hole with 40k over-pull. After running in and circulating bottoms up, a gas peak of 3000 units was seen.

Pipe was then pulled and when at the shoe, a heavy weight slug was pumped. After pulling out further to 1000, 60bbls of a slug weighing 14.5 ppg was pumped into the annulus. Once pipe had been pulled above the top of the slug it was expected that the extra weight of this slug would give a hydrostatic at the shoe equivalent to 11.6 ppg.

Two runs of electric logs were then made. Minor seepage loss to the hole was seen during logging. Once finished, a bit was run back in the hole. At 1200m, the heavy weight pill that was spotted in the casing was circulated out and stored in the pill tank. Bottoms up was again circulated when at the shoe. The bit was then run to 3652m, from where the hole was washed to bottom. A further metre of hole was drilled and the hole was circulated clean. The mud weight had remained steady at 11.2 ppg.

A flow check was then conducted, but the well seen to be flowing. (Gas readings indicated that the well was flowing from the interval just drilled rather than from the pressured zones higher up in the 6" section.) The mud weight was then increased incrementally through to 12.4 ppg. Barite was used initially, but as stocks reduced, calcium carbonate was later used. As the mud weight increased, losses to the

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



fractures in the well increased so the calcium carbonate also acted as an LCM. In total, approximately 197 bbls were lost downhole in this period. Kwikseal Fine was also added when losses appeared to be more rapid and had a positive effect. Shaker screens were also down graded from 310 mesh to 84 mesh to prevent stripping out weight material.

A flow check at 12.4 ppg found the well to be static, so a 30 bbl pill weighing 14.5 ppb was spotted on bottom. The pipe was then pulled with regular flow checks indicating the well was dead. Tight hole was worked (65k maximum over-pull) from 3672m – 3250m while pulling out.

Further logs were then run and completed. A bit was run back in and circulated bottoms up at the shoe, recording 312 units of gas. Pipe was run in further to 3394m, from where the hole was washed to bottom. The washing to bottom was not due to hole conditions, but rather to space out the heavy weight pill that was in this section of hole to TD. It was thought that running to TD and then circulating up the heavy pill may have led to losses to the thief zones. As it was, losses were a little higher when the pill was circulated up and the losses tapered once the pill was out of the hole.

Once bottoms up had been circulated, a further 30 bbl, 14.5 ppg pill was spotted on bottom prior to pipe being pulled. Regular flow checks were made on the way out of the hole.

The 4-1/2" liner was then run in the hole. While this was happening, a further 118 bbls of weighted premix was built as "insurance" against any further major losses down hole.

The liner was run in the hole and at the shoe, bottoms up was circulated. It was then run further to 3609m, where the heavy weight pill in the hole was circulated up to the shoe. The liner was then run further to 3694m, where the hole was circulated clean.

The cementing head was made up and the cement job was conducted. Significant mud losses were experienced while pumping both Halliburton's "tuned spacer" and the cement, totalling approximately 195 bbls throughout the period.

The cement head was rigged down and the well circulated bottoms up (above the liner). A flow check then found the well to be flowing. As a consequence, 55bbls of 14.5 ppg mud was spotted at 2879m, the liner top. A further flow check still found the well to be flowing, the well was shut in "hard". Due to the significant downhole losses, a further 95 bbls of 11.4 ppg mud was built at surface.

After monitoring pressures, the annular preventer was opened and a flow check found the well to be static. Pipe was then pulled from 2879m to surface.

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



Drill pipe was run in the hole to 2793m and circulated. A CBL run was then made. Bottoms up was circulated and 3035 units of gas were seen, as well as the well slightly flowing. 50 bbls of 14.5 ppg mud was then spotted at this depth. A flow check found the well static.

Pipe was then pulled sideways from the hole. After running 31 stands of pipe back into the hole, a flow check found the well to be flowing slightly at 2037m, so a further 40 bbls of 14.7 ppg mud was spotted at this depth. 6 stands were pulled (above the heavy slug) and a flow check found the well static. Pipe was pulled out sideways to 1223m, where 4 stands plus the BHA were run back in to 1564m. A flow check at this time again found the well to be flowing. The well was shut in and monitored. After opening the well back up, bottoms up was circulated and 40 bbls of 14.7 ppg mud was spotted from 1564m up.

Pipe continued to be laid out to surface. The floor was then rigged up and 2-7/8" tubing was run. When run to the appropriate depth, pressure tests were successful and the hole was displaced to a 3% brine. All mud was saved (in case required) but was later dumped when the tubing displacement was successful. The mud engineer was subsequently released.

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



2. OBSERVATIONS & RECOMMENDATIONS

Glenaire # 1 & 1ST was drilled to a total depth of 3701m for a mud cost of \$219,519.68 or \$59.31 per metre. The majority of the mud cost involved weight material used in the 6" hole sections.

The well was drilled essentially trouble free through to the 6" hole section. Deviation and pressure control issues were the main problems seen in this section, although the KCI PHPA based Drilling Fluid did maintain excellent hole conditions.

Overall, the Fluid types used for each section worked well and few changes are required, although minor changes to aspects of the fluid used in the 6" hole will be reviewed.

Solids Control

With two Derrick FLC 514 shakers and a Derrick DE 1000 centrifuge and the absence of any hydro-cyclone type equipment, the solids control on this rig presented a less than typical configuration.

However the equipment worked very well, with pyramid type screen panels up to 310 mesh being utilised on the 6" hole. It was only while drilling the 12-1/4" hole that solids became problematical with the sand content rising to almost 2%. Since the shakers are the only item of solids control equipment that process the **entire** flow rate, any solids that pass through the shaker screens are unlikely to be discarded by the centrifuge, as that piece of equipment only processes a small percentage of the total flow.

Never the less, even when there were problems with the sand content, all that was really required was that the shaker screens be upgraded (as they were) for the sand content and consequently the mud weight, to drop.

Some problems were also noted on surface hole as the high flow rate along with shaker screen blinding caused some run off – however it was found that keeping the pump rate at 775 gpm instead of the programmed higher rate of 990 gpm kept most of the fluid on the shakers.

Overall, the Solids Control equipment was well run by the dedicated KMC Oiltools hands.

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



17-1/2" Surface Hole

This section of hole was drilled to 307 m for a mud cost of \$12,286.81 or \$39.70 per metre. Ausben (API bentonite) was the main additive to maintain a good viscosity / yield point for good effective hole cleaning. Hole conditions were good, so the main aim of the fluid was realised.

Significant downhole losses were expected and were experienced, up to 50 bbls / hour at times. In total, 911 bbls of mud were lost to the formation and 69 sacks of Kwikseal (both Coarse and Medium grades) were used to control the losses. The Kwikseal did work at keeping the losses manageable.

When cementing, cement did not return to surface. This could have been due to a combination of washed out hole (the sandy formation was not overly consolidated) and cement going into the sandstone formation. It is doubtful whether higher yield points would have prevented the formation from washing out in any case.

12-1/4" Intermediate Hole

This section was drilled with a KCl PHPA based fluid through to 1255m for a mud cost of \$35,026.31 or \$36.95 per metre. No significant problems were noted and the fluid worked well. As mentioned, there were minor problems with mud weight and the sand content, but when finer shaker screens were fitted, the sand content reduced, as did the mud weight.

Significant losses were experienced at 340m – up to 60 bbls / hour initially. Kwikseal aided in reducing the losses. To rebuild volume, both sump water and bore water were used – recycled sump water was preferred but the supply pump from the sump was not quick enough. Later in the interval, when losses eased, only sump water was used to build premixes.

8-1/2" Intermediate Hole

This section was drilled with a KCl PHPA based fluid through to 3002m for a mud cost of \$25,975.47 or \$14.97 per metre. The low cost for this interval was due both to the fact that, a) the mud system was already up and running from the previous interval and only required minor adjustment, and b) the relatively low dilution rate of 0.5 bbl / per metre.

The cement from the previous casing string was drilled out using mud, so the cement contamination experienced was treated out by using soda ash to reduce hardness levels and citric acid to reduce the pH.

Prior to drilling out, the centrifuge was run for 26 hours to reduce the sand content and to reduce overall solids as much as possible. Once drilling ahead, extra Pac-

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



LV was required to reduce the fluid loss back to around 7 cc's, as the cement had affected this parameter.

However, once the system settled down, maintenance was fairly simple with Xanthan Gum being added for yield point, Pac-LV for fluid loss, and PHPA and KCl for inhibition. Sodium sulphite was continually added to reduce the fluid's dissolved oxygen levels to prevent / reduce corrosion and biocide was added to protect the fluid against bacterial contamination due to continually recycling sump water.

As with the previous interval, the KCl PHPA based fluid worked well as hole conditions were generally excellent.

6" Hole Sections

The initial 6" section through to 3306m was drilled for a mud cost of \$26.653.25 or \$87.68 per metre, and the sidetracked section was drilled from 3041m to 3701m for a mud cost of \$119,677.84 or \$181.84 per metre.

The same KCl PHPA based fluid used for the previous hole section was used to drill ahead in the 6" sections. The main difference though was that the yield point was allowed to reduce to 9 – 12 lb/100ft² in the initial section of hole, and 4 – 8 for most of the sidetracked section of hole. The yield points were lowered due to high pressure losses in the drill pipe – higher yield points would have led to undesirably high pump pressures.

Despite the lower yield points, hole cleaning was never an issue due to the high annular velocities. Since it was planned to run low yield points, it was also planned that mud weight increases would occur with a combination of KCl and NaCl, as these salts were soluble and would not require higher yield points for suspension as barite or calcium carbonate would. At the time it was not expected that mud weights would have to be increased past the solubility limits of the salts.

The added benefit of running these lower yield points in the 6" hole was that the ECD (Equivalent Circulating Density) was lower than if higher yield points had been used.

However, as it turned out, the required mud weight increases did have to go past the solubility limits of both KCl and NaCl, so barite was eventually used. Calcium carbonate was also used after TD as weight material. As TD approached, the yield point was allowed to increase slightly to give better suspension properties.

The increased yield point perhaps had one minor draw back in that the ECD for any given mud weight was slightly higher than for lower yield points earlier.

There were many instances of tight hole, mainly while tripping and mainly in the sidetracked hole. In general, it was thought that most of the tight hole was due

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



mainly to the wellbore's fairly convoluted path, as directional control earlier in the interval was extremely difficult and kept requiring remedial action to keep the well bore travelling in the correct direction. As such, drag was the main offender with respect to the tight hole seen.

Mud Weights, Pressure Control and Downhole Mud Losses

Apart from deviation problems and slow ROP's, the major problems during this hole section concerned pressure control and associated issues.

After commencing drilling of the initial 6" section, the mud weight had to be increased from 9.5 ppg to 9.8 ppg and then soon after to 10.0 ppg after high gas readings at 3156m. High gas peaks at 3294m necessitated the fluid's weight being further increased to 10.2 ppg. Even with the higher mud weights showing the well to be static, high gas peaks continued, co-inciding with times when the pumps were switched off or the pipe being worked – and this occurred many more times in both this and the sidetracked hole section.

It was thought that a major reason for the high peaks was that while drilling / circulating on bottom, the ECD which typically was a minimum of 0.5 ppg higher than the circulating mud weight, would either keep the gas back or in fact slowly "push" mud into the same fractures that were possibly gas bearing. Then, when circulation stopped, the ECD portion of the hydrostatic would come off of the formation, either allowing oil / gas to seep into the hole (leading to the high gas readings on bottoms up) and / or some of the mud lost would also come back into the wellbore.

The mud and / or oil & gas that would seep into the hole manifested itself as a "flow", so that would often lead to a decision to increase the mud weight, perhaps thereby even exacerbating the pressure problems seen.

Perhaps the best demonstration of this phenomenon was after the 4-1/2" liner was set. The well had been seen to be flowing after the cement job. Due to the very small annulus, the ECD in the annulus (4-1/2" liner to 6" hole) was very high with the "tuned spacer" and cement that was pumped, and as a consequence it was thought that a lot of the spacer and cement were pumped into the formation, as around 195 bbls were lost to the hole during these operations.

The well was flowing after the cement job, not only indicating that the cement job itself was not successful, but that it was likely that the flow was the hole giving "back" some of the 195 bbls that had been pumped into the formation. A heavy weight pill spotted above the top of the liner "succeeded" in stopping further flow.

However, while laying out the string of drill pipe that had been run along with the liner, the well flowed twice. Each time it occurred was after stands had been run in (so they could then be laid out.) It appeared that the action of running the stands in

Operator : Beach Petroleum
Well : Glenaire # 1
Rig : Ensign Rig 32
Spud : 8th September 2006



had surged the well somewhat, as flow checks immediately after running the stands in showed the well to be flowing. 40 bbls heavy weight slugs were pumped into the annulus each time, and each time the well stopped flowing.

Also to exacerbate the weighting up of the mud, especially after the well had been deepened from 3700m to 3701m, mud losses to fractures higher in the well occurred when the mud weight was increased. While increasing the mud weight from 11.1 ppg to the eventual 12.4 ppg, significant downhole mud losses occurred. These were eventually cured with LCM, but the lingering problem would be how much damage did these large volumes of relatively high solids mud do to any formations that were possibly hydrocarbon bearing.

Formation Damage

Throughout the drilling of the 6" Sidetrack, over 1000 bbls were recorded to have been lost downhole, presumably predominantly to fractures that may have been the source of hydrocarbons.

Of the amount of mud lost, approximately 400 bbls were lost after TD had been reached. Firstly losses occurred when the mud weight was increased from 11.1 ppg to 12.4 ppg after the last metre of hole had been drilled. The second lot of losses occurred when conducting the cement job on the 4-1/2" Liner. The high yield points associated with both the tuned spacer and the cement itself led to very high pressure losses in the liner / hole annulus, presumably "forcing" fluid into the formation.

Any damage caused by the mud losses to the formation / fractures would have been exacerbated by the LCM used and the mud's relatively high solids content. Although some acid soluble CaCO₃ was used, it was a relatively small concentration compared to the amount of barite in the mud of for example, almost 160 ppb at the 12.4 ppg mud weight.

Recommendations for Future Wells

Only the 6" section of hole needs refining if future wells are to be drilled. The general make up of the mud was good – inhibition was maintained and hole conditions were very good from a mud perspective. (i.e. The instances of tight hole would not have been remedied by running a different style of mud.)

The main area that needs to be looked at is what type of weight material to use in future. If mud weights can be controlled under approximately 10.8 ppg with confidence, then a similar system can be used where a combination of salt and / or KCl can be used to increase mud density.

Operator : **Beach Petroleum**
Well : **Glenaire # 1**
Rig : **Ensign Rig 32**
Spud : **8th September 2006**



However, if higher mud weights are thought to be required, then a change in mud system may be necessary. As both Barite and CaCO₃ require some sort of suspension achieved by having higher yield points, this then leads to increased pressure losses in the relatively narrow drill pipe and higher ECD's.

Therefore, it is recommended that a Calcium Chloride (CaCl₂) based mud system be considered for future wells of this type. Calcium acts as an effective inhibiting agent (PHPA would not be used) and Xanthan Gum would still maintain the yield point, with Starch being used for fluid loss control.

Using CaCl₂, mud weights approaching 11.8 ppg can be achieved, prior to accounting for drilled solids which would bring the fluid weight up to 12.2 – 12.4 ppg with "typical" solids levels. If higher mud weights were then required, barite or CaCO₃ would have to be used but the amount of solid weight material would not be a problematical issue as far as suspension is concerned.



3.1 INTERVAL COSTS

Glenaire # 1

Product	Interval :		17-1/2" Surface Hole			12-1/4" Intermediate Hole			8-1/2" Intermediate Hole			6" Production Hole			Glenaire # 1 Total Consumption		
	0 - 307 m		0 - 307 m			307 m - 1255 m			1255 m - 3002 m			3002 m - 3306 m			0 - 3701 m (TD)		
	Cost	Unit Size	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost	Used	Cost	%Cost
AMC Biocide G	\$ 185.35	25 lt				7	\$1,297.45	3.7%	12	\$2,224.20	8.6%	2	\$370.70	1.4%	21	\$3,892.35	3.9%
AMC Defoamer	\$ 146.40	25 lt				4	\$585.60	1.7%	1	\$146.40	0.6%	2	\$292.80	1.1%	7	\$1,024.80	1.0%
AMC Pac-LV	\$ 159.98	25 kg				28	\$4,479.44	12.8%	44	\$7,039.12	27.1%	45	\$7,199.10	27.0%	117	\$18,717.66	18.7%
Ausben	\$ 11.25	25 kg	672	\$7,560.00	62.0%										672	\$7,560.00	7.6%
Baryte	\$ 8.20	25 kg	48	\$393.60	3.2%	72	\$590.40	1.7%	168	\$1,377.60	5.3%	225	\$1,845.00	6.9%	513	\$4,206.60	4.2%
Caustic Soda	\$ 48.90	25 kg	7	\$342.30	2.8%	9	\$440.10	1.3%	7	\$342.30	1.3%	1	\$48.90	0.2%	24	\$1,173.60	1.2%
Citric Acid	\$ 73.25	25 kg				2	\$146.50	0.4%	4	\$293.00	1.1%	6	\$439.50	1.6%	12	\$879.00	0.9%
Class A Cement	\$ 11.33	18.2 kg				22	\$249.26	0.7%							22	\$249.26	0.2%
Kwikseal C	\$ 56.39	18.2 kg	45	\$2,537.55	20.8%										45	\$2,537.55	2.5%
Kwikseal M	\$ 56.39	25 kg	24	\$1,353.36	11.1%	24	\$1,353.36	3.9%							48	\$2,706.72	2.7%
PHPA	\$ 118.90	25 kg				22	\$2,615.80	7.5%	19	\$2,259.10	8.7%	6	\$713.40	2.7%	47	\$5,588.30	5.6%
Potassium Chloride	\$ 18.95	205 kg				628	\$11,900.60	34.0%	372	\$7,049.40	27.1%	471	\$8,925.45	33.5%	1471	\$27,875.45	27.9%
Salt	\$ 8.65	25 kg										624	\$5,397.60	20.3%	624	\$5,397.60	5.4%
Soda Ash	\$ 18.30	25 kg				8	\$146.40	0.4%	30	\$549.00	2.1%	22	\$402.60	1.5%	60	\$1,098.00	1.1%
Sodium Sulphite	\$ 33.30	200 lt				10	\$333.00	1.0%	19	\$632.70	2.4%	9	\$299.70	1.1%	38	\$1,265.40	1.3%
Xanthan Gum	\$ 359.25	25 kg				30	\$10,777.50	30.8%	11	\$3,951.75	15.2%	2	\$718.50	2.7%	43	\$15,447.75	15.5%
Xtra Sweep	\$ 110.90	12 lb				1	\$110.90	0.3%	1	\$110.90	0.4%				2	\$221.80	0.2%
Totals :				\$12,186.81	100.0%		\$35,026.31	100.0%		\$25,975.47	100.0%		\$26,653.25	100.0%		\$99,841.84	100.0%
Cost per Metre :				\$39.70			\$36.95			\$14.87			\$87.68			\$26.98	



3.2 INTERVAL COSTS Glenaire # 1 ST1

Product			6" Production Hole Sidetrack			Total Well Consumption		
	Interval :		3041 m - 3701 m (TD)			0 - 3701 m (TD)		
	Cost	Unit Size	Used	Cost	%Cost	Used	Cost	%Cost
AMC Biocide G	\$ 185.35	25 lt	19	\$3,521.65	2.9%	40	\$7,414.00	3.4%
AMC Defoamer	\$ 146.40	25 lt	8	\$1,171.20	1.0%	15	\$2,196.00	1.0%
AMC Pac-LV	\$ 159.98	25 kg	41	\$6,559.18	5.5%	158	\$25,276.84	11.5%
Ausben	\$ 11.25	25 kg	3	\$33.75	0.0%	675	\$7,593.75	3.5%
Baryte	\$ 8.20	25 kg	5919	\$48,535.80	40.6%	6432	\$52,742.40	24.0%
Calcium Carbonate F	\$ 14.20	25 kg	192	\$2,726.40	2.3%	192	\$2,726.40	1.2%
Calcium Carbonate M	\$ 12.60	25 kg	384	\$4,838.40	4.0%	384	\$4,838.40	2.2%
Calcium Carbonate UF	\$ 17.40	25 kg	192	\$3,340.80	2.8%	192	\$3,340.80	1.5%
Caustic Soda	\$ 48.90	25 kg	17	\$831.30	0.7%	41	\$2,004.90	0.9%
Citric Acid	\$ 73.25	25 kg				12	\$879.00	0.4%
Class A Cement	\$ 11.33	18.2 kg	20	\$226.60	0.2%	42	\$475.86	0.2%
Kwikseal C	\$ 56.39	18.2 kg				45	\$2,537.55	1.2%
Kwikseal F	\$ 56.39	18.2 kg	29	\$1,635.31	1.4%	29	\$1,635.31	0.7%
Kwikseal M	\$ 56.39	25 kg				48	\$2,706.72	1.2%
PHPA	\$ 118.90	25 kg	12	\$1,426.80	1.2%	59	\$7,015.10	3.2%
Potassium Chloride	\$ 18.95	205 kg	810	\$15,349.50	12.8%	2281	\$43,224.95	19.7%
Salt	\$ 8.65	25 kg	1968	\$17,023.20	14.2%	2592	\$22,420.80	10.2%
Soda Ash	\$ 18.30	25 kg	2	\$36.60	0.0%	62	\$1,134.60	0.5%
Sodium Sulphite	\$ 33.30	200 lt	17	\$566.10	0.5%	55	\$1,831.50	0.8%
Xanthan Gum	\$ 359.25	25 kg	33	\$11,855.25	9.9%	76	\$27,303.00	12.4%
Xtra Sweep	\$ 110.90	12 lb				2	\$221.80	0.1%
Totals :				\$119,677.84	100.0%		\$219,519.68	100.0%
Cost per Metre :				\$181.33			\$59.31	



4. Material Reconciliation

Products	Unit	Pre Spud	11-Sep	14-Sep	20-Sep	30-Sep	7-Oct	14-Oct	15-Oct	16-Oct	19-Oct	21-Oct	24-Oct	28-Oct	31-Oct	2-Nov	Total Received	Total Used	Returned 31st October	Returned End of Well
AMC Biocide G	50 lb	32										8					40	40		
AMC Defoamer	55 lb	12										4					16	15		1
AMC PAC-L	55 lb	80		64		32							64				240	158	82	0
AMC PHPA	55 lb	90															90	59	31	0
AUS-BEN	55 lb	840															840	675	165	0
Baryte	55 lb	720		400				160	960	800	800		880	1920		880	7520	6432		1088
Calcium carbonate F	55 lb											192					192	192		0
Calcium carbonate M	55 lb											384					384	384		0
Calcium carbonate UF	55 lb											192					192	192		0
Caustic Soda	55 lb	32			16								12				60	41	19	0
Citric Acid	55 lb	40															40	12	28	0
Class A Cement	88 lb	252															252	42	210	0
KWIKSEAL - C	55 lb	80		32													112	45	67	0
KWIKSEAL - F	40 lb	80														32	112	29	51	32
KWIKSEAL - M	40 lb	80		9													89	48	41	0
Lime	44 lb	20															20	0	20	0
Potassium Chloride (Tech)	55 lb	504	784	378						168	168	168			126		2296	2281		15
ROD-FREE 25Lt	55 lb	1	7														8	0	8	0
Salt	55 lb					816	960	816									2592	2592		0
Soda Ash	55 lb	48			48												96	62	34	0
Sodium Sulphite	55 lb		84														84	55	29	0
Xanthan Gum	55 lb	30	30	60													120	76	30	14
XTRA - Sweep	12 lb	10			4												14	2	12	



5.1 FLUID PROPERTIES SUMMARY

Glenaire # 1

Date	Mud Type	Temp	Depth	Weight	Vis	PV	YP	Gels		Filtrate		Solids				pH	Pm	Pf	Mf	Cl-	Ca++	SO3=	K+	KCl
								10 sec	10 min	API	Cake	Solids	Water	Sand	MBT									
8-Sep-06	BENTONITE Spud Mud	17	12	8.55	60	7	28	16	18	16	2	1.5	98.5	0	20.0	9.0	0.72	0.52	0.75	650	20	--		0
		24	180	8.90	75	13	30	26	28	12	2	4.0	96.0	1½	25.0	9.5	0.58	0.26	0.53	700	20	--		0
9-Sep-06	BENTONITE Spud Mud	26	307	9.00	48	9	10	9	17	14	2	4.4	95.6	1¼	20.0	9.0	0.55	0.18	0.39	720	30	--		0
10-Sep-06	5% KCl-PHPA-POLYMER	20	307	8.70	45	5	7	2	3	15	1	0.3	99.7	0	1.0	10.5	0.68	0.38	0.98	38,000	40	--	39,400	7
11-Sep-06	5% KCl-PHPA-POLYMER	24	310	8.75	40	5	6	1	2	12	1	0.6	99.4	0	1.0	12.0	1.45	0.56	1.30	34,000	180	--	37,800	7
12-Sep-06	5% KCl-PHPA-POLYMER	34	587	9.15	38	7	11	2	5	9	1	3.3	96.7	1½	5.0	9.8	0.50	0.21	0.51	30,500	280	150	36,700	7
	5% KCl-PHPA-POLYMER	39	883	9.20	38	7	9	2	4	9	1	4.0	96.0	1¼	9.0	9.5	0.22	0.10	0.45	26,000	380	250	30,800	6
13-Sep-06	5% KCl-PHPA-POLYMER	41.3	1097	9.25	39	8	12	3	6	9	1	4.3	95.7	1.0	11.3	9.0	0.16	0.08	0.42	27,000	500	250	31,900	6
	5% KCl-PHPA-POLYMER	47.9	1224	9.30	40	9	12	3	7	9	1	4.7	95.3	¾	13.3	9.5	0.02	0.05	0.55	26,000	540	250	31,300	6
14-Sep-06	5% KCl-PHPA-POLYMER	46.4	1255	9.30	40	8	12	3	6	9	1	4.4	95.6	¾	13.3	9.5	0.32	0.08	0.43	26,600	400	150	33,000	6
15-Sep-06	5% KCl-PHPA-POLYMER	30.9	1255	9.20	40	7	10	2	4	9	1	4.0	96.0	¾	15.0	8.8	0.10	0.06	0.41	25,000	440	80	30,800	6
16-Sep-06	5% KCl-PHPA-POLYMER	28.1	1255	9.10	41	7	9	2	3	9	1	3.3	96.7	0.1	11.7	9.0	0.13	0.05	0.72	24,500	180	250	30,800	6
	5% KCl-PHPA-POLYMER	35.8	1255	9.10	50	9	13	3	9	10	1	3.3	96.7	0.2	13.3	12.0	2.90	0.92	1.45	23,500	200	100	29,700	6
17-Sep-06	5% KCl-PHPA-POLYMER	39.4	1473	9.15	45	9	14	3	11	10	1	3.5	96.5	0.2	13.3	10.5	0.88	0.28	1.35	24,000	240	250	31,300	6
	5% KCl-PHPA-POLYMER	45.9	1730	9.25	45	10	14	3	12	9	1	4.2	95.8	¾	15.0	10.5	0.65	0.21	1.00	22,000	220	200	30,300	6
18-Sep-06	5% KCl-PHPA-POLYMER	49.3	1904	9.30	45	10	17	3	12	8	1	4.6	95.4	¾	16.7	9.5	0.33	0.11	0.65	24,600	320	250	31,300	6
	5% KCl-PHPA-POLYMER	51.1	2084	9.30	42	10	14	3	10	8	1	4.6	95.4	¾	17.5	9.8	0.28	0.10	0.62	25,000	280	250	31,900	6
19-Sep-06	5% KCl-PHPA-POLYMER	52.1	2240	9.30	46	12	17	4	12	8	1	4.9	95.1	¾	17.5	10.0	0.31	0.17	0.78	27,400	160	250	31,300	6
	5% KCl-PHPA-POLYMER	53.5	2349	9.30	46	12	17	5	14	8	1	4.8	95.2	¾	16.3	9.5	0.16	0.05	0.55	27,700	240	250	31,900	6
20-Sep-06	5% KCl-PHPA-POLYMER	50.6	2463	9.40	49	12	18	5	15	8	1	5.6	94.4	0.2	17.5	9.0	0.11	0.08	0.68	28,300	200	200	31,300	6
21-Sep-06	5% KCl-PHPA-POLYMER	56.1	2620	9.40	49	12	19	5	16	8	1	5.5	94.5	0.1	16.3	9.5	0.14	0.10	0.70	28,700	180	100	31,900	6
	5% KCl-PHPA-POLYMER	55.9	2734	9.40	48	13	16	4	16	8	1	5.5	94.5	¾	20.0	9.5	0.13	0.13	0.64	28,600	200	100	31,900	6
22-Sep-06	5% KCl-PHPA-POLYMER	57.3	2826	9.40	50	13	18	5	18	9	1	5.5	94.5	¾	17.5	9.8	0.08	0.08	0.70	28,600	280	80	31,300	6
	5% KCl-PHPA-POLYMER	59.6	2917	9.35	49	13	19	5	16	9	1	5.2	94.8	0.2	15.0	10.0	0.10	0.12	0.74	29,500	220	120	31,300	6
23-Sep-06	5% KCl-PHPA-POLYMER	62.2	3002	9.40	51	13	19	5	19	8	1	5.6	94.4	0.1	15.0	10.2	0.10	0.14	0.78	29,800	120	150	31,900	6
	5% KCl-PHPA-POLYMER	58.5	3002	9.40	49	12	19	4	16	9	1	5.4	94.6	0.1	15.0	10.0	0.08	0.12	0.72	29,400	100	180	31,300	6
24-Sep-06	5% KCl-PHPA-POLYMER	46.1	3002	9.40	61	15	28	7	13	9	1	5.4	94.6	0.1	15.0	9.8	0.06	0.10	0.71	29,500	100	150	31,300	6
25-Sep-06	5% KCl-PHPA-POLYMER	50.9	3002	9.50	51	13	19	4	16	9	1	6.1	93.9	Tr	15.0	9.8	0.08	0.11	0.75	29,600	100	200	31,300	6
26-Sep-06	5% KCl-PHPA-POLYMER	38	3002	9.45	47	11	14	3	18	8	1	5.7	94.3	Tr	15.0	10.6	0.68	0.35	1.88	29,500	40	150	31,900	6
27-Sep-06	5% KCl-PHPA-POLYMER		3002	9.45	46	11	13	3	16	7	1	6.0	94.0	Tr	15.0	10.5	0.66	0.33	1.17	29,500	60	120	31,900	6
28-Sep-06	5% KCl-PHPA-POLYMER	49.7	3005	9.55	60	15	18	7	24	9	1	6.8	93.2	Tr	12.5	12.5	1.95	1.15	2.45	28,700	60	200	31,300	6
	5% KCl-PHPA-POLYMER	54.1	3082	9.45	52	12	19	4	16	9	1	6.0	94.0	Tr	15.0	11.0	0.78	0.48	1.72	28,000	40	250	31,300	6
29-Sep-06	5% KCl-PHPA-POLYMER	53.3	3230	9.75	43	11	11	3	18	9	1	6.2	93.8	Tr	15.0	10.0	0.28	0.20	1.50	65,000	60	150	67,600	13
	5% KCl-PHPA-POLYMER	--	3230	9.80	62	21	15	3	7	7	1	6.7	93.3	Tr	15.0	10.0	0.30	0.28	1.95	62,000	40	300	64,800	12
30-Sep-06	5% KCl-PHPA-POLYMER	39.2	3230	10.00	44	12	12	3	14	7	1	8.1	91.9	0.1	16.3	10.0	0.12	0.20	1.65	85,000	160	180	71,900	13
1-Oct-06	5% KCl-PHPA-POLYMER	52.4	3259	10.00	40	10	9	2	8	7	1	8.5	91.5	0.1	16.3	10.2	0.53	0.28	1.92	91,000	120	250	64,800	12
	5% KCl-PHPA-POLYMER	57.2	3287	10.00	44	13	11	2	8	7	1	8.3	91.7	0.1	16.3	10.2	0.28	0.30	2.00	90,500	40	250	69,700	13
2-Oct-06	5% KCl-PHPA-POLYMER	56.5	3306	10.20	45	13	10	2	7	7	1	8.7	91.3	0.1	15.0	10.0	0.20	0.18	1.90	125,000	60	150	81,100	15
3-Oct-06	5% KCl-PHPA-POLYMER	52.4	2992	10.20	45	15	12	3	9	6	1	8.8	91.2	0.1	14.0	11.0	0.50	0.45	1.80	119,000	40	250	78,400	15
4-Oct-06	5% KCl-PHPA-POLYMER	49	3037	10.20	50	16	11	3	10	6	1	8.7	91.3	0.1	14.0	11.0	0.56	0.42	1.86	118,000	60	200	78,400	15
5-Oct-06	5% KCl-PHPA-POLYMER	46	3041	10.15	45	12	9	2	11	7	1	8.4	91.6	0.1	14.0	11.0	0.55	0.40	1.80	118,000	60	180	78,400	15
	5% KCl-PHPA-POLYMER	45	3041	10.20	45	13	9	2	11	7	1	8.7	91.3	0.1	14.0	11.0	0.60	0.52	1.85	114,000	20	180	78,400	15
6-Oct-06	5% KCl-PHPA-POLYMER		3041	10.20	45	13	10	2	10	7	1	8.5	91.5	0.1	14.0	11.0	0.56	0.50	1.80	113,000	20	150	78,400	15
7-Oct-06	5% KCl-PHPA-POLYMER		3041	10.20	47	13	9	2	8	7	1	8.5	91.5	0.1	14.0	11.0	0.50	0.48	1.80	113,000	20	120	78,400	15



5.2 FLUID PROPERTIES SUMMARY

Glenaire # 1 ST1

Date	Mud Type	Temp	Depth	Weight	Vis	PV	YP	Gels				Filtrate		Solids				pH	Pm	Pf	Mf	Cl-	Ca++	SO3=	K+	KCl
								10 sec	10 min	API	Cake	Solids	Water	Sand	MBT											
8-Oct-06	5% KCl-PHPA-POLYMER	49	3051	10.15	39	12	7	1	2	7	1	8.2	91.8	0.1	14.0	11.0	0.55	0.50	1.75	113,500	Tr	100	78,400	15		
	5% KCl-PHPA-POLYMER	52	3072	10.05	38	11	6	1	1	7	1	7.6	92.4	Tr	13.0	11.0	0.45	0.35	1.40	110,500	Tr	100	75,700	14		
9-Oct-06	5% KCl-PHPA-POLYMER	52	3092	10.05	37	11	6	1	1	7	1	7.7	92.3	Tr	13.0	10.8	0.40	0.28	1.30	107,500	Tr	100	75,700	14		
	5% KCl-PHPA-POLYMER	52.5	3119	10.05	38	11	7	1	2	7	1	7.5	92.5	Tr	13.0	10.5	0.40	0.26	1.24	107,000	Tr	120	75,700	14		
10-Oct-06	5% KCl-PHPA-POLYMER		3119	10.05	39	11	6	1	1	7	1	7.5	92.5	Tr	13.0	10.5	0.42	0.25	1.15	107,000	Tr	120	75,700	14		
11-Oct-06	5% KCl-PHPA-POLYMER		3119	10.05	39	10	8	1	1	7	1	7.5	92.5	Tr	13.0	10.5	0.42	0.25	1.12	107,000	Tr	100	75,700	14		
12-Oct-06	5% KCl-PHPA-POLYMER		3119	10.05	39	11	6	1	1	8	1	7.4	92.6	Tr	13.0	10.5	0.40	0.24	1.10	107,000	Tr	80	75,700	14		
13-Oct-06	5% KCl-PHPA-POLYMER	51	3150	10.30	36	10	5	1	3	7	1	8.0	92.0	Tr	12.5	10.0	0.30	0.22	0.98	129,500	40	120	67,600	13		
	5% KCl-PHPA-POLYMER	52	3165	10.30	36	9	6	1	3	7	1	7.9	92.1	Tr	12.0	10.0	0.28	0.24	0.94	131,000	40	100	62,100	12		
14-Oct-06	5% KCl-PHPA-POLYMER	51	3182	10.55	36	10	5	1	3	6	1	7.8	92.2	Tr	12.0	9.5	0.18	0.15	0.70	159,000	80	120	54,000	10		
15-Oct-06	5% KCl-PHPA-POLYMER	50	3207	10.85	37	8	4	1	2	5	1	8.3	91.7	Tr	13.0	9.0		0.12	0.66	183,000	120	150	51,300	10		
16-Oct-06	5% KCl-PHPA-POLYMER	49	3231	11.00	36	7	4	1	2	5	2	9.7	90.3	0.1	12.0	9.0	0.15	0.12	0.65	156,000	100	120	45,934	9		
	5% KCl-PHPA-POLYMER	51	3267	11.10	34	8	6	1	1	5	2	8.6	91.4	0.1	12.0	9.0	0.16	0.14	0.70	177,000	80	120	40,530	8		
17-Oct-06	5% KCl-PHPA-POLYMER	53	3315	11.25	35	9	7	1	1	4	1	9.5	90.5	Tr	11.0	9.0		0.15	0.78	175,500	120	150	37,828	7		
	5% KCl-PHPA-POLYMER	54	3357	11.20	36	10	8	1	2	4	1	9.2	90.8	Tr	11.0	9.0		0.20	0.90	175,000	100	120	36,477	7		
18-Oct-06	5% KCl-PHPA-POLYMER	53	3393	11.30	35	10	8	1	2	6	1	9.8	90.2	Tr	10.0	9.0		0.17	0.84	174,000	120	120	39,179	7		
	5% KCl-PHPA-POLYMER	53	3418	11.30	35	10	9	1	2	6	1	9.8	90.2	Tr	9.0	9.0		0.15	0.80	171,000	140	100	37,828	7		
19-Oct-06	5% KCl-PHPA-POLYMER	54	3507	11.30	35	10	9	1	2	5	1	9.3	90.7	Tr	9.0	9.0		0.14	0.82	182,000	160	100	41,881	8		
20-Oct-06	5% KCl-PHPA-POLYMER	48	3528	11.30	37	12	10	1	2	5	1	9.1	90.9	Tr	8.0	9.0		0.15	0.85	184,000	140	80	43,232	8		
	5% KCl-PHPA-POLYMER	50	3558	11.20	36	11	9	1	2	6	1	8.7	91.3	Tr	8.0	9.5		0.17	0.92	181,000	120	120	43,232	8		
21-Oct-06	5% KCl-PHPA-POLYMER	51	3570	11.20	37	11	10	2	3	6	1	8.9	91.1	Tr	8.0	9.5		0.15	0.90	168,000	80	100	41,881	8		
22-Oct-06	5% KCl-PHPA-POLYMER	53	3588	11.20	36	11	11	1	3	6	1	8.9	91.1	Tr	7.5	9.5		0.14	0.92	168,000	80	120	41,881	8		
	5% KCl-PHPA-POLYMER	55	3610	11.20	37	12	12	2	5	7	1	8.4	91.6	Tr	7.0	9.0		0.12	0.88	170,000	100	120	41,881	8		
23-Oct-06	5% KCl-PHPA-POLYMER	56	3627	11.20	36	11	12	2	5	7	1	8.0	92.0	Tr	7.0	9.0		0.13	0.90	172,000	100	150	41,881	8		
	5% KCl-PHPA-POLYMER	57	3648	11.10	36	12	12	2	4	7	1	7.5	92.5	Tr	6.5	9.0		0.12	0.92	171,000	80	120	41,881	8		
24-Oct-06	5% KCl-PHPA-POLYMER	56	3664	11.10	37	11	13	2	5	7	1	7.7	92.3	Tr	6.5	9.0		0.13	0.95	167,000	80	150	41,881	8		
	5% KCl-PHPA-POLYMER	57	3687	11.10	38	12	13	2	5	6	1	7.7	92.3	Tr	6.5	9.0		0.10	0.98	166,000	100	120	40,530	8		
25-Oct-06	5% KCl-PHPA-POLYMER	55	3697	11.15	39	13	13	2	7	8	1	8.7	91.3	Tr	6.5	9.0		0.15	1.10	160,000	80	150	43,232	8		
	5% KCl-PHPA-POLYMER	54	3700	11.10	39	13	13	2	6	6	1	8.4	91.6	Tr	6.5	9.5		0.20	1.40	158,000	20	150	43,232	8		
26-Oct-06	5% KCl-PHPA-POLYMER		3700	11.15	41	13	14	2	6	6	1	8.8	91.2	Tr	6.5	9.5		0.22	1.35	158,000	40	120	43,232	8		
27-Oct-06	5% KCl-PHPA-POLYMER	49	3701	11.10	40	13	14	2	6	6	1	9.9	90.1	Tr	6.5	9.5		0.20	1.40	144,000	60	120	43,232	8		
	5% KCl-PHPA-POLYMER	45	3701	12.10	41	14	18	3	6	7	1	16.0	84.0	Tr	7.0	8.5		0.12	0.85	140,000	100	100	54,040	10		
28-Oct-06	5% KCl-PHPA-POLYMER	45	3701	12.10	42	13	18	3	5	7	2	16.0	84.0	Tr	7.0	9.0		0.14	1.10	140,000	100	100	54,040	10		
	5% KCl-PHPA-POLYMER	46	3701	12.40	42	15	19	4	6	7	2	17.5	82.5	Tr	7.0	8.5		0.10	0.90	140,000	120	80	54,040	10		
29-Oct-06	5% KCl-PHPA-POLYMER	39	3701	12.60	41	14	19	4	6	8	2	18.8	81.2	Tr	9.0	8.0		0	0.83	136,000	160	80	54,040	10		
30-Oct-06	5% KCl-PHPA-POLYMER		3701	12.60	42	14	20	4	6	8	2	18.8	81.2	Tr	9.0	8.0		0	0.80	136,000	160	80	54,040	10		
31-Oct-06	5% KCl-PHPA-POLYMER	35	3701	12.60	46	16	22	5	7	9	2	18.8	81.2	Tr	9.0	8.0		0	0.80	136,000	180	60	54,040	10		
1-Nov-06	5% KCl-PHPA-POLYMER	41	2793	12.40	41	13	22	4	6	12	2	17.9	82.1	Tr	9.0	8.0		0	0.76	108,000	200	40	40,530	8		
2-Nov-06	5% KCl-PHPA-POLYMER	39	2793	12.40	40	11	21	4	5	13	2	18.0	82.0	Tr	9.0	8.0		0	0.80	107,000	220	40	40,530	8		
3-Nov-06	5% KCl-PHPA-POLYMER		2793	12.50	41	11	22	4	6	13	2	18.8	81.2	Tr	9.0	8.0		0	0.80	107,000	240	Tr	40,530	8		



6.1 Mud Volume Analysis

Date	Hole Size	Interval		Mud Type	Fluid Built & Received					Fluid Disposed					Summary				
		From	To		Fresh Premix	Sump Premix	Direct Recirc	Water	Other	De-sander	De-silter	Centrifuge	Down-hole	Dumped	Other	Initial	Received	Disposed	Final
8-Sep-06	17-1/2"	0 m	209 m	Spud Mud	1250			100				41	580			0	1350	621	729
9-Sep-06	17-1/2"	209 m	307 m	Spud Mud	100			150				29	331	30		729	250	390	589
Sub Total					1350	0	0	250	0	0	0	70	911	30	0		1600	1011	
10-Sep-06	12-1/4"	307 m	307 m	KCl Polymer	550			40						434		589	590	434	745
11-Sep-06	12-1/4"	307 m	310 m	KCl Polymer										213		745	0	213	532
12-Sep-06	12-1/4"	310 m	884 m	KCl Polymer	200	450					70	286				532	650	356	826
13-Sep-06	12-1/4"	884 m	1250 m	KCl Polymer		300					68	30				826	300	98	1028
14-Sep-06	12-1/4"	1250 m	1255 m	KCl Polymer							44	41	50		1028	0	135	894	
15-Sep-06	12-1/4"	1255 m	1255 m	KCl Polymer					46						894	46	0	940	
Sub Total					750	750	0	40	46	0	0	182	357	697	0		1586	1236	
16-Sep-06	8-1/2"	1255 m	1255 m	KCl Polymer							33		8		940	0	41	899	
17-Sep-06	8-1/2"	1255 m	1778 m	KCl Polymer		180					60	23	50		899	180	133	945	
18-Sep-06	8-1/2"	1778 m	2125 m	KCl Polymer		200					82	20	15		945	200	117	1029	
19-Sep-06	8-1/2"	2125 m	2365 m	KCl Polymer		100					66	65	20		1029	100	151	977	
20-Sep-06	8-1/2"	2365 m	2485 m	KCl Polymer		90					34	36			977	90	70	997	
21-Sep-06	8-1/2"	2485 m	2753 m	KCl Polymer		200					72	14			997	200	86	1111	
22-Sep-06	8-1/2"	2753 m	2935 m	KCl Polymer		100					68	30	20		1111	100	118	1093	
23-Sep-06	8-1/2"	2935 m	3002 m	KCl Polymer							28	28			1093	0	56	1037	
24-Sep-06	8-1/2"	3002 m	3002 m	KCl Polymer								16	20		1037	0	36	1001	
25-Sep-06	8-1/2"	3002 m	3002 m	KCl Polymer				30				16			1001	30	16	1015	
26-Sep-06	8-1/2"	3002 m	3002 m	KCl Polymer									159		1015	0	159	856	
Sub Total					0	870	0	30	0	0	443	249	292	0		900	984		
Well Total					2100	1620	0	320	46	0	0	695	1516	1019	0		4086	3230	

Dilution Factors			
	Interval Length	Dilution Vol	Dilution Factor
17½" Hole	307 m	1064	3.5 bbls/m
12¼" Surface Hole	948 m	1036 bbls	1.1 bbls/m
8½" Hole	1747 m	900 bbls	0.5 bbls/m



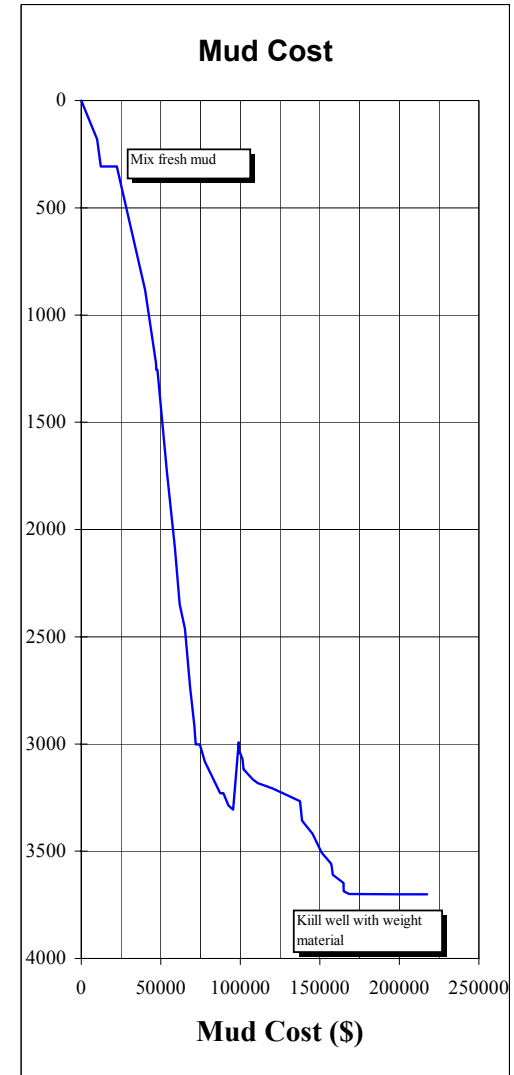
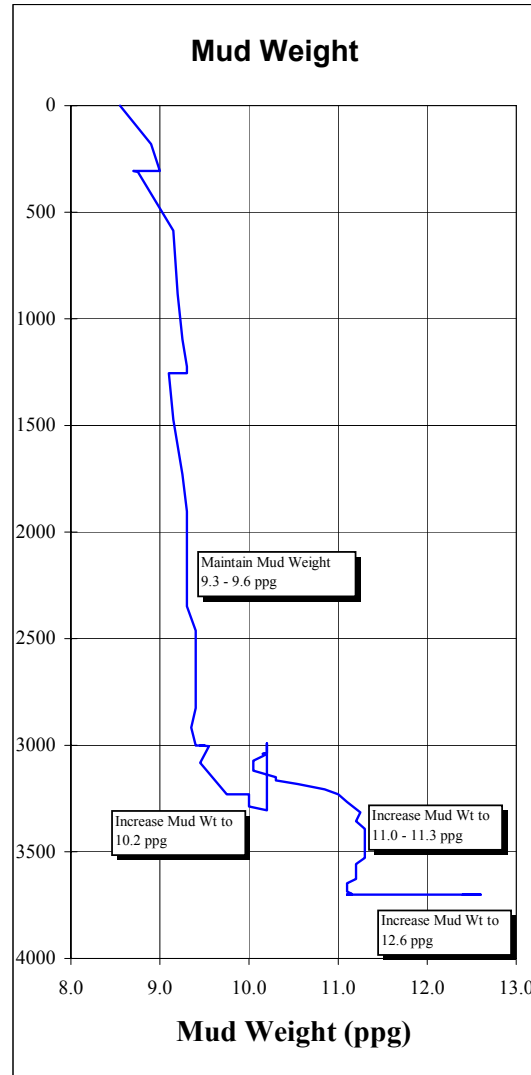
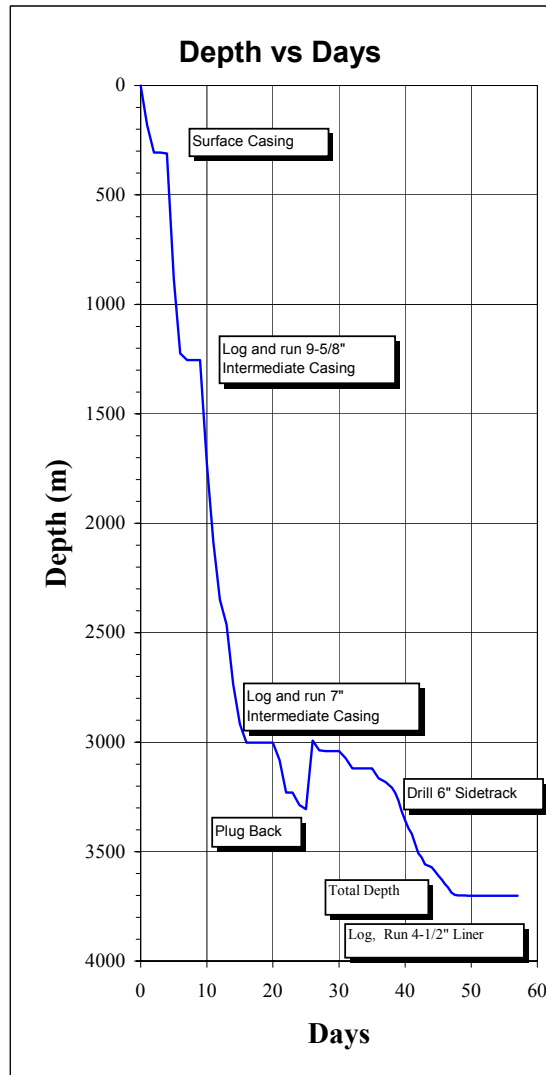
6.2 Mud Volume Analysis

Date	Hole Size	Interval		Mud Type	Fluid Built & Received					Fluid Disposed					Summary					
		From	To		Fresh Premix	Sump Premix	Direct Recirc	Water	Other	De-sander	De-silter	Centrifuge	Down-hole	Dumped	Other	Initial	Received	Disposed	Final	
27-Sep-06	6"	3002 m	3002 m	KCl Polymer												856	0	0	856	
28-Sep-06	6"	3002 m	3103 m	KCl Polymer				30								856	30	21	865	
29-Sep-06	6"	3103 m	3230 m	KCl Polymer				50								865	50	29	886	
30-Sep-06	6"	3230 m	3230 m	KCl Polymer												886	0	25	861	
1-Oct-06	6"	3230 m	3290 m	KCl Polymer				20								861	20	63	818	
2-Oct-06	6"	3290 m	2985 m	KCl Polymer												818	0	64	754	
3-Oct-06	6"	2985 m	3037 m	KCl Polymer		100										754	100	38	816	
4-Oct-06	6"	3037 m	3041 m	KCl Polymer												816	0	2	814	
5-Oct-06	6"	3041 m	3041 m	KCl Polymer												814	0	0	814	
6-Oct-06	6"	3041 m	3041 m	KCl Polymer												814	0	0	814	
7-Oct-06	6"	3041 m	3041 m	KCl Polymer												814	0	0	814	
Sub Total					0	100	0	100	0	0	0	0	139	9	94	0	200	242		
Glenaire # 1 ST1																				
8-Oct-06	6"	3041 m	3072 m	KCl Polymer		90							18	8	10		814	90	36	868
9-Oct-06	6"	3072 m	3119 m	KCl Polymer									14	6			868	0	20	848
10-Oct-06	6"	3119 m	3119 m	KCl Polymer													848	0	0	848
11-Oct-06	6"	3119 m	3119 m	KCl Polymer										3			848	0	3	845
12-Oct-06	6"	3119 m	3119 m	KCl Polymer										2			845	0	2	843
13-Oct-06	6"	3119 m	3169 m	KCl Polymer		110							6	13	23		843	110	42	911
14-Oct-06	6"	3169 m	3182 m	KCl Polymer									5	9	10		911	0	24	887
15-Oct-06	6"	3182 m	3207 m	KCl Polymer									1		196		887	0	197	689
16-Oct-06	6"	3207 m	3267 m	KCl Polymer		360								24			689	360	24	1025
17-Oct-06	6"	3267 m	3361 m	KCl Polymer									3	50	25		1025	0	78	947
18-Oct-06	6"	3361 m	3418 m	KCl Polymer		100								54	15		947	100	69	978
19-Oct-06	6"	3418 m	3507 m	KCl Polymer		100							2	126	10		978	100	137	941
20-Oct-06	6"	3507 m	3563 m	KCl Polymer		100		35					2	13			941	135	15	1061
21-Oct-06	6"	3563 m	3572 m	KCl Polymer									2	45	25		1061	0	72	989
22-Oct-06	6"	3572 m	3572 m	KCl Polymer									2	24			989	0	26	963
23-Oct-06	6"	3572 m	3612 m	KCl Polymer		100							2	27	8		963	100	37	1025
24-Oct-06	6"	3612 m	3648 m	KCl Polymer									3	74	10		1025	0	87	938
25-Oct-06	6"	3648 m	3688 m	KCl Polymer									2	14	10		938	0	26	912
26-Oct-06	6"	3688 m	3700 m	KCl Polymer										20	10		912	0	30	882
27-Oct-06	6"	3700 m	3700 m	KCl Polymer	220									197			882	220	197	906
28-Oct-06	6"	3700 m	3701 m	KCl Polymer										15			906	0	15	891
29-Oct-06	6"	3701 m	3701 m	KCl Polymer										39			891	0	39	852
30-Oct-06	6"	3701 m	3701 m	KCl Polymer										29			852	118	29	941
31-Oct-06	6"	3701 m	3701 m	KCl Polymer	95									182			941	95	182	854
1-Nov-06	6"	3701 m	3701 m	KCl Polymer										23	80		854	0	103	751
2-Nov-06	6"	3701 m	3701 m	KCl Polymer										33			751	0	33	718
3-Nov-06	6"	3701 m	3701 m	KCl Polymer				200						35			718	200	35	883
4-Nov-06	6"	3701 m	3701 m	KCl Polymer										-65	494		883	0	429	454
Sub Total					433	960	0	235	0	0	0	63	999	926	0	1628	1988			
Well Total					2533	2680	0	655	46	0	0	897	2524	2039	0	5914	5460			

Dilution Factors			
	Interval Length	Dilution Vol	Dilution Factor
6" Production Hole	288 m	200 bbls	0.7 bbls/m
6" Side Track	660 m	1628 bbls	2.5 bbls/m



7. Graphs





8. Bit & Hydraulics Record

Bit #	Size	Make	Type	Jets					Depth Out	Depth Drilled	Hours	Cumm Hours	WOB	RPM	GPM	Mud Wt	Jet Vel	HHPb/sq"	Impact Force
1	17 1/2"	SMITH	XRCPS	20	20	20	16		307	307	25	25	2 - 10	70-120	768	9	220	176	788
2	12 1/4"	SMITH	XRCPS	14	14	14	14		1255	948	40	65	4 - 20	70-130	660	9.3	351	397	1117
3	8 1/2"	HYCALOG	DSX519M-A5	12	12	12	12	12	2386	1131	64.5	129.5	3 - 6	175-200	450	9.3	261	149	565
4RR3	8 1/2"	HYCALOG	DSX519M-A5	12	12	12	12	12	3002	616	58.5	188	5 - 6	200-230	450	9.4	261	151	571
5RR3	8 1/2"	HYCALOG	DSX519M-A5	12	12	12	12	12	3002					Clean out trip					
6	6 "	HYCALOG	DSX516M	14	14	14	14	14	3230	228	16	16	2 - 4	147-187	450	9.4	192	81	420
7	6 "	REED	SL12TKPR	30	30	30			3306	76	23.5	39.5	10 - 18	135-195	260	10.2	40	2	55
Glenaire # 1 ST																			
8	6 "	HYCALOG	SL12TKPR	20	20	20			3041	4	0.5	228		Drill Cement					
9	6 "	SEC	XN4	20	20	20			3119	78	43.5	271.5	1 - 15	135-195	250	10.05	87	10	113
10	6 "	SMITH	XR+	24	24	24			3182	63	26.5	298	10 - 14	130-195	250	10.55	60	5	82
11	6 "	HYCALOG	DSX516M	15	15	15	15	15	3207	25	1	299	3 - 8	130-195	250	10.85	93	12	130
12	6 "	HYCALOG	DSX516M	15	15	15	15	15	3507	300	66	365	0 - 6	130-200	250	11.3	93	13	136
13	6 "	HYCALOG	DSX516M	16	16	16	16	16	3564	57	76.5	441.5	4 - 10	130-190	250	11.2	81	10	118
14	6 "	HYCALOG	DSX111	20	20	20	20	12.25	3700	136	83	524.5	5 - 17	150-200	200	11.1	44	2	51
15	6 "	HYCALOG	DSX111	20	20	20	20	12.25	3701	1	1	525.5	8 - 10	75-80	248	11.1	54	4	78



9. DAILY DRILLING FLUIDS REPORTS



DRILLING FLUID REPORT

Report #	1	Date :	8-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	to 209		Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Brian MARRIOTT		REPORT FOR Andy BAKER	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE	TYPE	20	20	20	SURFACE SET @	40 ft	HOLE	PUMP SIZE		CIRCULATION	
17.50	XRCPS	16		12	12	M	187	6	8.5	PRESS (PSI) 1200 psi	
DRILL PIPE SIZE	TYPE	Length		INTERMEDIATE SET @		ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP (min)
4.5	16.6 #			M			729	3 x NAT 8-P80	97 %	9 min	
DRILL PIPE SIZE	TYPE	Length		PRODUCTION/LINER Set @		ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC. TIME (min)
4.50	HW	86 Mtrs		M			159	0.0743	256	40 min	
DRILL COLLAR SIZE (")		Length		MUD TYPE							
8.00	6.25	45 78 Mtrs		BENTONITE Spud Mud							

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Suction	Below shkrs	Mud Weight	8.6 - 9.4	API Filtrate	NC	HPHT Filtrate	--
DEPTH (ft) - (m)	Metres	12	180	Plastic Vis	ALAP	Yield Point	15 - 40	pH	9.0 - 10.0
FLOWLINE TEMPERATURE	°C / °F	17	24	KCl	NIL	PHPA	NIL	Sulphites	NIL

WEIGHT	ppg / SG	8.55	1.026	8.90	1.068
FUNNEL VISCOSITY (sec/qt) API @	°C	60	75		
PLASTIC VISCOSITY cP @	50 °C	7	13		
YIELD POINT (lb/100ft ²)		28	30		
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		16 | 18	26 | 28		
RHEOLOGY q 600 / q 300		42	35	56	43
RHEOLOGY q 200 / q 100		31	27	38	32
RHEOLOGY q 6 / q 3		20	19	23	20
FILTRATE API (cc's/30 min)		16.0	12.0		
HPHT FILTRATE (cc's/30 min) @	-- °F	--	--		
CAKE THICKNESS API : HPHT (32nd in)		2	2		
SOLIDS CONTENT (% by Volume)		1.5	4.0		
LIQUID CONTENT (% by Volume) OIL/WATER		0	98.5	0	96.0
SAND CONTENT (% by Vol.)		0	1.25		
METHYLENE BLUE CAPACITY (ppb equiv.)		20.0	25.0		
pH		9.0	9.5		
ALKALINITY MUD (Pm)		0.72	0.58		
ALKALINITY FILTRATE (Pf / Mf)		0.52 | 0.75	0.26 | 0.53		
CHLORIDE (mg/L)		650	700		
TOTAL HARDNESS AS CALCIUM (mg/L)		20	20		
SULPHITE (mg/L)		--	--		
K+ (mg/L)					
KCl (% by Wt.)		0	0		
PHPA (ppb)					

OBSERVATIONS

Prepare 536bbls of Gel Spud mud. Spud well and drill w/ reduced pump rate and High Viscosity mud to prevent conductor washout. When losses start, pre-hydrate extra Bentonite in P/mix tank and add to system. Add LCM to active, later prepare 12ppb LCM pills using KWIKSEAL M+C to spot on bottom prior to connections. Losses averaging 50bbls/hr. Most of losses occur downhole, however observe some run-off over shakers due to screen blinding by sand. Centrifuge on-line @ 15:00 hrs. U/flow weighing 15ppg plus.

OPERATIONS SUMMARY

Complete Rig-up operations. Make up NB 1, SMITH XRCPS, SN MR9725, 3x20+1x16 jets to B/sub+1st 8" DC. Spud Well at 08:00hrs. Drill to 48m for DS. ½" @ 45m. Started recording d/hole mud losses at 38m, which continue for remainder of the day. Drill to 180.5m, DS @ 131.7m - 1"; Drill to 209m @ 2400 hrs.

Mud Accounting (bbls)

FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)	1250	Desander		INITIAL VOLUME	0
Premix (recirc from sump)		Desilter		+ FLUID RECEIVED	1350
Drill Water	100	Downhole	580	- FLUID LOST	621
Direct Recirc Sump		Dumped		+ FLUID IN STORAGE	159
Other (eg Diesel)		Centrifuge	41	FINAL VOLUME	888
TOTAL RECEIVED	1350	TOTAL LOST	621		

Solids Control Equipment

Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Centrifuge	DE1000	9	Desander	NA	0	Shaker #1	4 x 84	16
Degasser		0	Desilter	0	0	Shaker #2	4 x 84	16
		Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)				
Centrifuge		15.2	8.7	1.90				
		0		0				

Product	Price	Start	Received	Used	Close	Cost
AUS-BEN	\$ 11.25	840		650	190	\$ 7,312.50
Caustic Soda	\$ 48.90	32		6	26	\$ 293.40
KWIKSEAL - C	\$ 56.39	80		36	44	\$ 2,030.04
KWIKSEAL - M	\$ 56.39	80		8	72	\$ 451.12

Solids Analysis		Bit Hydraulics & Pressure Data		
	%	PPB	Jet Velocity	222
High Grav solids			Impact force	794
Total LGS	4.0	37.5	HHP	178
Bentonite	2.6	23.9	HSI	0.7
Drilled Solids	1.3	12.1	Bit Press Loss	395
Salt	0.0	0.4	CSG Seat Frac Press	
n @ 21:30 Hrs	0.38		Equiv. Mud Wt.	
K @ 21:30 Hrs	20.44		ECD	8.97 ppg
		Max Pressure @ Shoe :		
DAILY COST		CUMULATIVE COST		
\$10,087.06		\$10,087.06		

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	2	Date :	9-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	209	to	307 Metres

OPERATOR BEACH Petroleum LTD	CONTRACTOR ENSIGN Int'l Energy SVCs
REPORT FOR Brian MARRIOTT	REPORT FOR Andy BAKER
WELL NAME AND No GLENAIRE # 1	FIELD PEP 160
	LOCATION OTWAY Basin
	STATE VICTORIA

DRILLING ASSEMBLY				JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE	TYPE	20	20	20	SURFACE SET @	40 ft	HOLE	PITS	PUMP SIZE		CIRCULATION		
17.50	XRCPS	16			12	M	279	310	6 X 8.5	Inches	PRESS (PSI)	1400	psi
DRILL PIPE SIZE	TYPE	Length			INTERMEDIATE SET @	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS		
4.5	16.6 #	98	Mtrs				589		3 x NAT 8-P80	97 %	UP (min)		
DRILL PIPE SIZE	TYPE	Length			PRODUCTION/LINER Set @	ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC.		
4.50	HW	86	Mtrs				0		0.0743	250	TIME (min)		
DRILL COLLAR SIZE (")	Length			MUD TYPE					BBL/MIN	GAL / MIN	ANN VEL.	DP	
8.00	6.25	45	78	BENTONITE Spud Mud				18.02		757	(ft/min)	DCs	
											77	65	
												69	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
TIME SAMPLE TAKEN		Below shkrs	Below shkrs	Mud Weight	8.6 - 9.4	API Filtrate	NC
DEPTH (ft) - (m)			08:15	Plastic Vis	ALAP	Yield Point	15 - 40
FLOWLINE TEMPERATURE	°C / °F		307	KCI	NIL	PHPA	NIL
WEIGHT	ppg / SG		26 79	OBSERVATIONS			
FUNNEL VISCOSITY (sec/qt) API @	26 °C		9.00 1.080	<p>Formation change around 200m to reactive clays. Phase out Gel-based pre-mix, increase water addition. Maintain placement of LCM pills on bottom, prior to connections. DH losses gradually reducing but not healing. Spot 20bbls LCM pill on BTM prior to wiper-trip; spot a further 10bbls after wiper-trip, before POOH for CSG. Hole cond. for running CSG good, no drag or fill; RIH to setting depth w/out having to resort to washing. Observe neither water-spacer or cement at the flow-line, 100% fluid returns during cementation. Circulating data and Fluid levels on this report as recorded prior to running casing. Dump all fluid volume and start preparation of new fluid system for 12 1/4" hole interval.</p> <p style="text-align: center;">OPERATIONS SUMMARY</p> <p>Drill to 307m, CO, POOH wiper trip. Lay out 17 1/2" stabiliser. RIH to bottom, no fill. CO, POOH for CSG. DS @ 259m - 1° Rig up for and run 27 Joints 13-3/8" 54.5# K-55 BTRS CSG to 304m. Circulate hole clean, pump 60bbls water. Rig up H'BURTON, Pumps 10bbls water spacer, pressure test lines. Pump a further 10bbls and cement CSG w/- 148bbl 12.5ppg lead, followed by 80bbls 15.8ppg tail-in cmt. Drop plug and displace cement with 148bbls lease water, using HALLIBURTON. Bump plug and test casing - OK. Cement job complete after midnight.</p>			
PLASTIC VISCOSITY cP @	50 °C		48				
YIELD POINT (lb/100ft²)			9				
GEL STRENGTHS (lb/100ft²) 10 sec/10 min			10				
RHEOLOGY q 600 / q 300			9 17				
RHEOLOGY q 200 / q 100			28 19				
RHEOLOGY q 6 / q 3			16 12				
FILTRATE API (cc's/30 min)			6 5				
HPHT FILTRATE (cc's/30 min) @	-- °F		13.5				
CAKE THICKNESS API : HPHT (32nd in)			--				
SOLIDS CONTENT (% by Volume)			2				
LIQUID CONTENT (% by Volume) OIL/WATER			4.4				
SAND CONTENT (% by Vol.)			0 95.6				
METHYLENE BLUE CAPACITY (ppb equiv.)			1.75				
pH			20.0				
ALKALINITY MUD (Pm)			9.0				
ALKALINITY FILTRATE (Pf / Mf)			0.55				
CHLORIDE (mg/L)			0.18 0.39				
TOTAL HARDNESS AS CALCIUM (mg/L)			720				
SULPHITE (mg/L)			30				
K+ (mg/L)			--				
KCl (% by Wt.)			0				
PHPA (ppb)							

Mud Accounting (bbls)					Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)	100	Desander		INITIAL VOLUME	729	Centrifuge	DE1000	9	Desander	NA	0	Shaker #1	4 x 84	24
Premix (recirc from sump)		Desilter		+ FLUID RECEIVED	250	Degasser		0	Desilter	0	0	Shaker #2	4 x 84	24
Drill Water	150	Downhole	331	- FLUID LOST	390									
Direct Recirc Sump		Dumped	30	+ FLUID IN STORAGE	0									
Other (eg Diesel)		Centrifuge	29											
TOTAL RECEIVED	250	TOTAL LOST	390	FINAL VOLUME	589									
						Overflow (ppg)	Underflow (ppg)		Output (Gal/Min.)					
						Centrifuge	8.8		15.1		1.60			
								0		0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AUS-BEN	\$ 11.25	190		22	168	\$ 247.50	%	PPB	Jet Velocity	217	
Baryte	\$ 8.20	720		48	672	\$ 393.60	High Grav solids	0.3	4.48	Impact force	765
Caustic Soda	\$ 48.90	26		1	25	\$ 48.90	Total LGS	4.1	38.8	HHP	168
KWIKSEAL - C	\$ 56.39	44		9	35	\$ 507.51	Bentonite	2.0	18.1	HSI	0.7
KWIKSEAL - M	\$ 56.39	72		16	56	\$ 902.24	Drilled Solids	2.1	19.2	Bit Press Loss	381
							Salt	0.0	0.4	CSG Seat Frac Press	
							n @ 08:15 Hrs	0.56		Equiv. Mud Wt.	
							K @ 08:15 Hrs	2.97		ECD	9.02 ppg
										Max Pressure @ Shoe :	
							DAILY COST		CUMULATIVE COST		
							\$2,099.75		\$12,186.81		

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	3	Date :	10-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	307	to	307 Metres

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs		
REPORT FOR	Brian MARRIOTT	REPORT FOR	Andy BAKER		
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160	LOCATION	OTWAY Basin
				STATE	VICTORIA

DRILLING ASSEMBLY	JET SIZE	CASING	MUD VOLUME (BBL)	CIRCULATION DATA		
BIT SIZE 12.25	TYPE	20 SURFACE SET @ 40 ft 12 M	HOLE 156	PITS 40	PUMP SIZE 6 X 8.5 Inches	CIRCULATION PRESS (PSI) 0 psi
DRILL PIPE SIZE 4.5	TYPE 16.6 #	Length Mtrs	13 3/8 INTERMEDIATE SET @ 997 ft 304 M	TOTAL CIRCULATING VOL. 196	PUMP MODEL 3 x NAT 8-P80	ASSUMED EFF 97 %
DRILL PIPE SIZE 4.50	TYPE HW	Length Mtrs	PRODUCTION/ LINDER Set @ ft M	IN STORAGE 550	BBL/STK@ 100% 0.0743	STK / MIN
DRILL COLLAR SIZE (") 8.00	6.25	Length Mtrs	MUD TYPE 5% KCI-PHPA-POLYMER		BBL/MIN	GAL / MIN

SAMPLE FROM	MUD PROPERTIES	P/Suction	Mud Weight	8.6 - 9.4	API Filtrate	6 - 10	HPHT Filtrate	NA
TIME SAMPLE TAKEN		17:30	Plastic Vis	ALAP	Yield Point	15 - 35	pH	9.0 - 9.5
DEPTH (ft) - (m)	Metres	307	KCI	>5%	PHPA	0.2 - 1.5	Sulphites	80 - 120

FLOWLINE TEMPERATURE	°C / °F	20 / 68	OBSERVATIONS					
WEIGHT	ppg / SG	8.70 / 1.044	Prepare 550bbls base for new 5% KCI/PHPA/Polymer fluid system.					
FUNNEL VISCOSITY (sec/qt) API @ 20 °C		45	Continue shearing newly mixed fluid because of PHPA content.					
PLASTIC VISCOSITY cP @ 50 °C		5	Casing and pill tank contain drill water for drilling out shoe track.					
YIELD POINT (lb/100ft²)		7	Replace one damaged 84-mesh screen panel on each FLC-514.					
GEL STRENGTHS (lb/100ft²) 10 sec/10 min		2 / 3	Circulating fluid in well+pill tk (active) is water; remaining tanks hold KCI/PHPA/POLYMER fluid.					
RHEOLOGY q 600 / q 300		17 / 12						
RHEOLOGY q 200 / q 100		10 / 7						
RHEOLOGY q 6 / q 3		2 / 1						
FILTRATE API (cc's/30 min)		14.6						
HPHT FILTRATE (cc's/30 min) @ °F		--						
CAKE THICKNESS API : HPHT (32nd in)		1						
SOLIDS CONTENT (% by Volume)		0.3						
LIQUID CONTENT (% by Volume) OIL/WATER		0 / 99.7						

SAND CONTENT (% by Vol.)		0	OPERATIONS SUMMARY					
METHYLENE BLUE CAPACITY (ppb equiv.)		1.0	WOC, back-out landing jt, install bradenhead. Carry out cement top-up, as CMT did not reach SFC when CSG was cemented. Install, function and pressure test BOP stack. Modify and install riser+F/line.					
pH		10.5						
ALKALINITY MUD (Pm)		0.68						
ALKALINITY FILTRATE (Pf / Mf)		0.38 / 0.98						
CHLORIDE (mg/L)		38,000						
TOTAL HARDNESS AS CALCIUM (mg/L)		40						
SULPHITE (mg/L)		--						
K+ (mg/L)		38,325						
KCI (% by Wt.)		7.3						
PHPA (ppb)		0.59						

Mud Accounting (bbls)					Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY			Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)	550	Desander		INITIAL VOLUME	589	Centrifuge	DE1000	0	Desander	NA	0	Shaker #1	4 x 84	0
Premix (recirc from sump)		Desilter				Degasser		0	Desilter	0		Shaker #2	4 x 84	0
Drill Water	40	Downhole	0	+ FLUID RECEIVED	590									
Direct Recirc Sump		Dumped	434	- FLUID LOST	434									
Other (eg Diesel)		Centrifuge	0	FLUID IN STORAGE	550									
TOTAL RECEIVED	590	TOTAL LOST	434	FINAL VOLUME	746									

Product							Solids Analysis			Bit Hydraulics & Pressure Data			
AMC Biocide G	\$ 185.35	32	2	30	\$ 370.70		%	PPB	Jet Velocity				
AMC Defoamer	\$ 146.40	12	2	10	\$ 292.80	High Grav solids			Impact force				
AMC PAC-L	\$ 159.98	80	8	72	\$ 1,279.84	Total LGS	0.3	2.4	HHP				
AMC PHPA	\$ 118.90	90	5	85	\$ 594.50	Bentonite	0.1	0.8	HSI				
Caustic Soda	\$ 48.90	25	3	22	\$ 146.70	Drilled Solids	0.2	1.5	Bit Press Loss				
Potassium Chloride	\$ 18.95	504	252	252	\$ 4,775.40	Salt	2.3	22.0	CSG Seat Frac Press				
Xanthan Gum	\$ 359.25	30	8	22	\$ 2,874.00	n @ 17:30 Hrs	0.50			Equiv. Mud Wt.			
						K @ 17:30 Hrs	2.68			ECD			
							Max Pressure @ Shoe :						

DAILY COST							CUMULATIVE COST						
\$10,333.94							\$22,520.75						

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	4	Date :	11-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	307	to	310
		Metres	

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Brian MARRIOTT		REPORT FOR Andy BAKER	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE 12.25	TYPE XRCPS	14	14	14	20	SURFACE SET @ 40 ft 12 M	HOLE 133	PITS 370	PUMP SIZE 6 X 8.5 Inches		CIRCULATION PRESS (PSI) 950 psi		
DRILL PIPE SIZE 4.5	TYPE 16.6 #	Length 48 Mtrs		13 3/8	INTERMEDIATE SET @ 997 ft 304 M	TOTAL CIRCULATING VOL. 503		PUMP MODEL 3 x NAT 8-P80		ASSUMED EFF 97 %		BOTTOMS UP (min) 8 min	
DRILL PIPE SIZE 4.50	TYPE HW	Length 115 Mtrs			PRODUCTION/LINER Set @ ft M	IN STORAGE 30		BBL/STK@ 100% 0.0743		STK / MIN 180		TOTAL CIRC. TIME (min) 41 min	
DRILL COLLAR SIZE (") 8.00		6.25	45	103	MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN 12.97		GAL / MIN 545		ANN VEL. (ft/min) 103
											DP 155	DCs 120	

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM				Below shkrs			
TIME SAMPLE TAKEN				23:30			
DEPTH (ft) - (m)				310			
FLOWLINE TEMPERATURE				24 °C 75 °F			
WEIGHT				8.75 ppg 1.050 SG			
FUNNEL VISCOSITY (sec/qt) API @ 24 °C				40			
PLASTIC VISCOSITY cP @ 50 °C				5			
YIELD POINT (lb/100ft ²)				6			
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min				1 2			
RHEOLOGY q 600 / q 300				16 11			
RHEOLOGY q 200 / q 100				8 6			
RHEOLOGY q 6 / q 3				1 1			
FILTRATE API (cc's/30 min)				12.0			
HPHT FILTRATE (cc's/30 min) @ -- °F				--			
CAKE THICKNESS API : HPHT (32nd in)				1			
SOLIDS CONTENT (% by Volume)				0.6			
LIQUID CONTENT (% by Volume) OIL/WATER				0 99.4			
SAND CONTENT (% by Vol.)				0			
METHYLENE BLUE CAPACITY (ppb equiv.)				1.0			
pH				12.0			
ALKALINITY MUD (Pm)				1.45			
ALKALINITY FILTRATE (Pf / Mf)				0.56 1.30			
CHLORIDE (mg/L)				34,000			
TOTAL HARDNESS AS CALCIUM (mg/L)				180			
SULPHITE (mg/L)				--			
K+ (mg/L)				36,750			
KCI (% by Wt.)				7.0			
PHPA (ppb)				0.59 0.59			

OBSERVATIONS

Keep shearing newly mixed fluid, using mix- and/or one mud pump. Shearing effective, no run-off at shakers at displacement. Fill sandtrap with returned fluid, prepare to build extra volume w/- KCI/POLYMER pre-mix.

No mud chemical usage last 24 hours. Received one load mud chem's, for details see below.

OPERATIONS SUMMARY			
P/U 111 jts DP, make up 37stands in derrick, Make up NB 2, 12 1/4" SMITH XRCPS, SN MY0188, 4x14jets, 8"DC, 12 1/4"stab, 8"DC, 12 1/4"stab, 3x8"DC, XO, 1x6 1/2"NMDC, 10x6 1/2"DC, jars, 1x6 1/2"DC, 12x4 1/2"HWDP, RIH on 4 1/2"DP, tag CMT @ 292m. Drill out shoe-track+rat hole to 307mcw/- water (114spm-440psi). Displace to KCI/PHPA/POLYMER fluid, dump water returns. Make new hole from 307>310m, circulate hole clean. Conduct FIT with 8.8ppg fluid in hole. 170psi applied - 12.0ppg Equiv MWt. Resume drilling @ 310m at 24:00 hrs.			

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	746	Centrifuge	DE1000	0	Desander	NA	0	Shaker #1	4 x 84
Premix (recirc from sump)		Desilter				Degasser		0	Desilter	0	0	Shaker #2	4 x 84
Drill Water		Downhole	0	+ FLUID RECEIVED									
Direct Recirc Sump		Dumped	213	- FLUID LOST									
Other (eg Diesel)		Centrifuge	0	FLUID in STORAGE									
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME		Centrifuge		Overflow (ppg)	Underflow (ppg)		Output (Gal/Min.)		
		213		533				0	0		0		

Product						Solids Analysis			Bit Hydraulics & Pressure Data		
Product	Price	Start	Received	Used	Close	Cost		%	PPB	Jet Velocity	290
Potassium Chloride (	\$ 18.95	252	784	0	1036	\$ 0.00	High Grav solids			Impact force	716
ROD-FREE 25Lt	\$ 124.85	1	7	0	8	\$ 0.00	Total LGS	0.6	5.4	HHP	210
Sodium Sulphite	\$ 33.30		84	0	84	\$ 0.00	Bentonite	0.1	0.5	HSI	1.8
Xanthan Gum	\$ 359.25	22	30	0	52	\$ 0.00	Drilled Solids	0.5	4.7	Bit Press Loss	662
							Salt	2.1	19.7	CSG Seat Frac Press	
							n @ 23:30 Hrs	0.54		Equiv. Mud Wt.	
							K @ 23:30 Hrs	1.93		ECD	8.77 ppg
										Max Pressure @ Shoe :	
						DAILY COST			CUMULATIVE COST		
						\$0.00			\$22,520.75		

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	5	Date :	12-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	310 to 884	Metres	

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Brian MARRIOTT	REPORT FOR	Andy BAKER
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA							
BIT SIZE	TYPE	14	14	14	20	SURFACE SET @	40 ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
12.25	XRCPS	14				12	M	387	420	6	X	8.5	Inches	1650	psi
DRILL PIPE SIZE	TYPE	Length	13 3/8		INTERMEDIATE SET @	997	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS			
4.5	16.6 #	622	Mtrs		304	M		807		3 x NAT 8-P80	97	%			
DRILL PIPE SIZE	TYPE	Length	PRODUCTION/ LINER Set @			ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC.				
4.50	HW	115	Mtrs				20		0.0743	220	TIME (min)				
DRILL COLLAR SIZE (")	Length	MUD TYPE		5% KCI-PHPA-POLYMER		BBL/MIN		GAL / MIN	ANN VEL.	DP	DCs				
8.00	6.25	45	103		Mtrs		15.86	666	(ft/min)	126	190 147				

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS						
TIME SAMPLE TAKEN		Below shkrs	Below shkrs	Mud Weight	8.6 - 9.4	API Filtrate	6 - 10	HPHT Filtrate	NA	
DEPTH (ft) - (m)		Metres	587	883	Plastic Vis	ALAP	Yield Point	15 - 35	pH	9.0 - 9.5
FLOWLINE TEMPERATURE		⁰ C / ⁰ F	34	39	KCI	>5%	PHPA	0.2 - 1.5	Sulphites	80 - 120

WEIGHT	ppg / SG	9.15	1.098	9.20	1.104	OBSERVATIONS Prepare pre-mixed volume pills as required to maintain sufficient SFC volume. Centrifuge put on line @ 01:30 hours; though-put 50>55gpm, Cake 2.2 gpm @16.5ppg. Change all 8 shaker screen panels on both shakers to 110-mesh. D/hole losses averaging 15bbls/hr, maintain LCM additions, Using an estimated 65% of recycled fluid for pre-mixed volume pills.				
FUNNEL VISCOSITY (sec/qt) API @	39 ⁰ C	38	38							
PLASTIC VISCOSITY cP @	50 ⁰ C	7	7							
YIELD POINT (lb/100ft ²)		11	9							
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		2.5	2.4							
RHEOLOGY q 600 / q 300		25	18	23	16					
RHEOLOGY q 200 / q 100		14	10	13	10					
RHEOLOGY q 6 / q 3		3	2	2	2					
FILTRATE API (cc's/30 min)		9.0	9.4							
HPHT FILTRATE (cc's/30 min) @	-- ⁰ F	--	--							

CAKE THICKNESS API : HPHT (32nd in)		1	1	OPERATIONS SUMMARY Between 340 and 380m down-hole losses re-appear, adding LCM. Drill to 450m, DS @ 400m - 1 1/4" N21W; drill to 594m, DS @ 544m - 3/4" N20E. Drill to 739m, DS @ 690m - 1/2" S60W. Drill to 884m, CO, pump XANTHAN Gum based HiVis sweep, mix and pump heavy DS @ 834m - 1/4" N60W Make wiper trip, POOH to 478m @ 2400 hrs.						
SOLIDS CONTENT (% by Volume)		3.3	4.0							
LIQUID CONTENT (% by Volume) OIL/WATER		0	96.7						0	96.0
SAND CONTENT (% by Vol.)		1.50	1.75							
METHYLENE BLUE CAPACITY (ppb equiv.)		5.0	9.0							
pH		9.8	9.5							
ALKALINITY MUD (Pm)		0.50	0.22							
ALKALINITY FILTRATE (Pf / Mf)		0.21	0.51						0.10	0.45
CHLORIDE (mg/L)		30,500	26,000							
TOTAL HARDNESS AS CALCIUM (mg/L)		280	380							
SULPHITE (mg/L)		150	250							
K+ (mg/L)		35,700	29,925							
KCI (% by Wt.)		6.8	5.7							
PHPA (ppb)		0.87	1.00							

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)	200	Desander		INITIAL VOLUME	533	Centrifuge	DE1000	22.5	Desander	NA	0	Shaker #1	4 x 110	24
Premix (recirc from sump)	450	Desilter		+ FLUID RECEIVED	650	Degasser		0	Desilter	0	0	Shaker #2	4 x 110	24
Drill Water		Downhole	286	- FLUID LOST	356									
Direct Recirc Sump		Dumped		FLUID in STORAGE	20									
Other (eg Diesel)		Centrifuge	70					Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)				
TOTAL RECEIVED	650	TOTAL LOST	356	FINAL VOLUME	827	Centrifuge		9.1	16.5	2.20				
								0		0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$ 185.35	30		4	26	\$ 741.40	%	PPB	Jet Velocity	354	
AMC Defoamer	\$ 146.40	10		1	9	\$ 146.40	High Grav solids	0.1	2.13	Impact force	1125
AMC PAC-L	\$ 159.98	72		14	58	\$ 2,239.72	Total LGS	3.9	36.6	HHP	404
AMC PHPA	\$ 118.90	85		14	71	\$ 1,664.60	Bentonite	0.6	5.8	HSI	3.4
Baryte	\$ 8.20	672		32	640	\$ 262.40	Drilled Solids	3.2	29.3	Bit Press Loss	1039
Caustic Soda	\$ 48.90	22		3	19	\$ 146.70	Salt	1.6	15.1	CSG Seat Frac Press	
Citric Acid	\$ 73.25	40		2	38	\$ 146.50	n @ 22:00 Hrs	0.52		Equiv. Mud Wt.	
Class A Cement	\$ 11.33	252		22	230	\$ 249.26	K @ 22:00 Hrs	3.13		ECD	10.07 ppg
KWIKSEAL- M	\$ 56.39	56		20	36	\$ 1,127.80				Max Pressure @ Shoe :	
Potassium Chloride (	\$ 18.95	1036		276	760	\$ 5,230.20					
Sodium Sulphite	\$ 33.30	84		6	78	\$ 199.80					
Xanthan Gum	\$ 359.25	52		15	37	\$ 5,388.75					
							DAILY COST		CUMULATIVE COST		
							\$17,543.53		\$40,064.28		

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	6	Date :	13-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	884	to	1250
			Metres

OPERATOR BEACH Petroleum LTD	CONTRACTOR ENSIGN Int'l Energy SVCs
REPORT FOR Brian MARRIOTT	REPORT FOR Andy BAKER
WELL NAME AND No GLENAIRE # 1	FIELD PEP 160
	LOCATION OTWAY Basin
	STATE VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE 12.25	TYPE XRCPS	14	14	14	20	SURFACE SET @ 40 ft	HOLE 549	PITS 415	PUMP SIZE 6 X 8.5 Inches		CIRCULATION PRESS (PSI) 1850 psi		
DRILL PIPE SIZE 4.5	TYPE 16.6 #	Length 988 Mtrs		13 3/8	INTERMEDIATE SET @ 997 ft	304 M	TOTAL CIRCULATING VOL. 964		PUMP MODEL 3 x NAT 8-P80	ASSUMED EFF 97 %	BOTTOMS UP (min) 31 min		
DRILL PIPE SIZE 4.50	TYPE HW	Length 115 Mtrs			PRODUCTION/LINER Set @ M		IN STORAGE 65		BBL/STK@ 100% 0.0743	STK / MIN 220	TOTAL CIRC. TIME (min) 65 min		
DRILL COLLAR SIZE (") 8.00		6.25	45	103	MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN 15.86	GAL / MIN 666	ANN VEL. (ft/min)	DP 126	DCs 190 147

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS							
		Below shkrs	Below shkrs	Mud Weight	8.6 - 9.4	API Filtrate	6 - 10	HPHT Filtrate	NA		
TIME SAMPLE TAKEN		10:25	21:00	Plastic Vis	ALAP	Yield Point	15 - 35	pH	9.0 - 9.5		
DEPTH (ft) - (m)		Metres	1,097	1,224	KCI	>5%	PHPA	0.2 - 1.5	Sulphites	80 - 120	
FLOWLINE TEMPERATURE		⁰ C / ⁰ F	41	48	OBSERVATIONS Seepage losses gradually healed. Able to make up KCI/POLYMER entirely with fluid recycled from sump. Analysis indicates 3600mg/l Chloride; Alkalinity: 0.76/1.05; KCI - Trc.. Ca+Mg - 400mg/l; Higher total hardness from this source necessitates treatment with Soda Ash. Sufficient viscosity in system allows use of XTRA SWEEP for HiVis sweep.						
WEIGHT		ppg / SG	9.25	1.110						9.30	1.116
FUNNEL VISCOSITY (sec/qt) API @		48 ⁰ C	39	40							
PLASTIC VISCOSITY cP @		50 ⁰ C	8	9							
YIELD POINT (lb/100ft ²)			12	12							
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			3.6	3.7							
RHEOLOGY q 600 / q 300			28	20						30	21
RHEOLOGY q 200 / q 100			16	12						18	13
RHEOLOGY q 6 / q 3			3	2						3	2
FILTRATE API (cc's/30 min)			9.4	9.4							
HPHT FILTRATE (cc's/30 min) @		-- ⁰ F	--	--							
CAKE THICKNESS API : HPHT (32nd in)			1	1							
SOLIDS CONTENT (% by Volume)			4.3	4.7							
LIQUID CONTENT (% by Volume) OIL/WATER			0	95.7						0	95.3
SAND CONTENT (% by Vol.)			1.00	¾							
METHYLENE BLUE CAPACITY (ppb equiv.)			11.3	13.3							
pH			9.0	9.5							
ALKALINITY MUD (Pm)			0.16	0.02							
ALKALINITY FILTRATE (Pf / Mf)			0.08	0.42	0.05	0.55					
CHLORIDE (mg/L)			27,000	26,000							
TOTAL HARDNESS AS CALCIUM (mg/L)			500	540							
SULPHITE (mg/L)			250	250							
K+ (mg/L)			30,975	30,450							
KCI (% by Wt.)			5.9	5.8							
PHPA (ppb)			1.01	0.97							

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	827	Centrifuge	DE1000	24	Desander	NA	0	Shaker #1	4 x 175	24
Premix (recirc from sump)	300	Desilter				Degasser		0	Desilter	0	0	Shaker #2	4 x 175	24
Drill Water		Downhole	30	+ FLUID RECEIVED	300									
Direct Recirc Sump		Dumped		- FLUID LOST	98									
Other (eg Diesel)		Centrifuge	68	FLUID in STORAGE	65									
TOTAL RECEIVED	300	TOTAL LOST	98	FINAL VOLUME	1,029			Overflow (ppg)	9.2	Underflow (ppg)	16.0	Output (Gal/Min.)	2.00	
									0				0	

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$ 185.35	26		1	25	\$ 185.35		%	PPB	Jet Velocity	354
AMC Defoamer	\$ 146.40	9		1	8	\$ 146.40	High Grav solids	0.1	1.52	Impact force	1137
AMC PAC-L	\$ 159.98	58		6	52	\$ 959.88	Total LGS	4.6	43.5	HHP	408
AMC PHPA	\$ 118.90	71		3	68	\$ 356.70	Bentonite	1.1	9.9	HSI	3.5
Caustic Soda	\$ 48.90	19		3	16	\$ 146.70	Drilled Solids	3.5	31.9	Bit Press Loss	1050
KWIKSEAL- M	\$ 56.39	36		5	31	\$ 281.95	Salt	1.6	15.1	CSG Seat Frac Press	
Potassium Chloride (	\$ 18.95	760		100	660	\$ 1,895.00	n @ 21:00 Hrs	0.51		Equiv. Mud Wt.	
Soda Ash	\$ 18.30	48		8	40	\$ 146.40	K @ 21:00 Hrs	4.34		ECD	9.36 ppg
Sodium Sulphite	\$ 33.30	78		4	74	\$ 133.20				Max Pressure @ Shoe :	
Xanthan Gum	\$ 359.25	37		7	30	\$ 2,514.75					
XTRA - Sweep	\$ 110.90	10		1	9	\$ 110.90					
							DAILY COST		CUMULATIVE COST		
							\$6,877.23		\$46,941.51		

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	9	Date :	16-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	1255	to	1255 Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Brian MARRIOTT		REPORT FOR Andy BAKER	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA							
BIT SIZE	TYPE	12	12	12	13 3/8	SURFACE SET @	997 ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
8.50	DSX519M-A5	12	12	12		304 M		262	637	5	X	8.5	Inches	600	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8		INTERMEDIATE SET @	4107 ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS			
4.5	16.6 #	969 Mtrs				1252 M		899		3 x NAT 8-P80	97 %	UP (min) 27 min			
DRILL PIPE SIZE	TYPE	Length		PRODUCTION/ LINER Set @				IN STORAGE		BBL/STK @ 100%	STK / MIN	TOTAL CIRC.			
4.50	HW	115 Mtrs								0.0516	150	TIME (min) 120 min			
DRILL COLLAR SIZE (")		Length		MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL.	DP		
6.50	6.25	31 140 Mtrs		5% KCI-PHPA-POLYMER						7.51	315	(ft/min)	DCs 149 258 233		

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM		Storage	Below shkrs	Mud Weight	8.6 - 9.4	API Filtrate	6 - 10
TIME SAMPLE TAKEN		21:00	23:45	Plastic Vis	ALAP	Yield Point	15 - 35
DEPTH (ft) - (m)		Metres	1,255	KCI	>5%	PHPA	0.2 - 1.5
FLOWLINE TEMPERATURE		° C	28	HPHT Filtrate			NA
WEIGHT		ppg / SG	9.10				
FUNNEL VISCOSITY (sec/qt) API @		36 °C	41				
PLASTIC VISCOSITY cP @		50 °C	7				
YIELD POINT (lb/100ft ²)			9				
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			2				
RHEOLOGY q 600 / q 300			23				
RHEOLOGY q 200 / q 100			13				
RHEOLOGY q 6 / q 3			2				
FILTRATE API (cc's/30 min)			8.8				
HPHT FILTRATE (cc's/30 min) @		-- °F	--				
CAKE THICKNESS API : HPHT (32nd in)			1				
SOLIDS CONTENT (% by Volume)			3.1				
LIQUID CONTENT (% by Volume) OIL/WATER			0				
SAND CONTENT (% by Vol.)			0.10				
METHYLENE BLUE CAPACITY (ppb equiv.)			11.7				
pH			9.0				
ALKALINITY MUD (Pm)			0.13				
ALKALINITY FILTRATE (Pf / Mf)			0.05				
CHLORIDE (mg/L)			24,500				
TOTAL HARDNESS AS CALCIUM (mg/L)			180				
SULPHITE (mg/L)			250				
K+ (mg/L)			29,925				
KCI (% by Wt.)			5.7				
PHPA (ppb)			0.96				

OBSERVATIONS
 Treat fluid @ SFC w/- Soda ash, Sodium Suphite, PHPA+Biocide, while centrifuging for 12 hours.

Mud-check @ 21:00 hrs: SFC volume processed w/- centrifuge for a total of 26hrs.

Mud-check @ 23:45 hrs: Short system drilling shoe-track (CMT). (Fluid from inside CSG not processed through centrifuge).

Mud Accounting (bbls)					
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	940
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	0	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped	8	- FLUID LOST	41
Other (eg Diesel)		Centrifuge	33	FLUID in STORAGE	
TOTAL RECEIVED		TOTAL LOST	41	FINAL VOLUME	899

OPERATIONS SUMMARY							
Complete BOP installation and tests; make up stands of DP and stand in derrick. Make up 8 1/2" BHA, starting w/- HYCALOG DSX519M-A5 PDC bit, SN 211741, 5x12 jets and NB Stab, 2 string stab., 1x6 1/4" NMDC a total of 15x6 1/4" DC, Jar and 12x4 1/2" HWDP. RIH to float collar. Cut+slip DRLG line, RIH, tag CMT @ 1239m. Drill out shoe track. using a shortened SFC mud system. Bit @ 1255m @ 2400 hrs.							

Mud Accounting (bbls)				Solids Control Equipment								
				Type	Hrs		Cones	Hrs	FLC 514	Size	Hrs	
				Centrifuge	DE1000	12	Desander	NA	0	Shaker #1	4 x 210	12
				Degasser		0	Desilter	0	0	Shaker #2	4 x 175	12
						Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)		
						Centrifuge		9.0		16.0		1.90
								0		0		

Mud Accounting (bbls)							Solids Analysis			Bit Hydraulics & Pressure Data		
Product	Price	Start	Received	Used	Close	Cost		%	PPB	Jet Velocity		183
AMC Biocide G	\$ 185.35	25		1	24	\$ 185.35	High Grav solids	0.2	3.53	Impact force		272
AMC PHPA	\$ 118.90	68		1	67	\$ 118.90	Total LGS	2.9	27.4	HHP		50
Citric Acid	\$ 73.25	38		2	36	\$ 146.50	Bentonite equiv.	1.3	11.8	HSI		0.9
Soda Ash	\$ 18.30	40		8	32	\$ 146.40	Drilled Solids	1.6	14.5	Bit Press Loss		273
Sodium Sulphite	\$ 33.30	74		2	72	\$ 66.60	Salt	1.4	13.6	CSG Seat Frac Press		
							n @ 23:45 Hrs	0.49		Equiv. Mud Wt.		
							K @ 23:45 Hrs	5.15		ECD		9.26 ppg
										Max Pressure @ Shoe :		
							DAILY COST			CUMULATIVE COST		
							\$663.75			\$47,933.26		

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	10	Date :	17-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	1255	to	1778
			Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Brian MARRIOTT		REPORT FOR Andy BAKER	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE 8.50	TYPE DSX519M-A5	12	12	12	13 3/8	SURFACE SET @ 997 ft	HOLE 364	PITS 414	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) 1490 psi		
DRILL PIPE SIZE 4.5	TYPE 16.6 #	Length 1492 Mtrs		9 5/8	INTERMEDIATE SET @ 4107 ft	1252 M	TOTAL CIRCULATING VOL. 778		PUMP MODEL 3 x NAT 8-P80	ASSUMED EFF 97 %	BOTTOMS UP (min) 27 min		
DRILL PIPE SIZE 4.50	TYPE HW	Length 115 Mtrs			PRODUCTION/LINER Set @ ft	M	IN STORAGE 168		BBL/STK @ 100% 0.0516	STK / MIN 210	TOTAL CIRC. TIME (min) 90 min		
DRILL COLLAR SIZE (") 6.50	6.25	Length 31 140 Mtrs		MUD TYPE 5% KCI-PHPA-POLYMER					BBL/MIN 10.51	GAL / MIN 441	ANN VEL. (ft/min)	DP 208	DCs 361 326

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS						
		Below shkrs	Below shkrs	Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA	
TIME SAMPLE TAKEN		10:50	21:25	Plastic Vis	ALAP	Yield Point	12 - 20	pH	9.0 - 9.5	
DEPTH (ft) - (m)		Metres	1,473	1,730	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

FLOWLINE TEMPERATURE		° C		° F		OBSERVATIONS Treat cement contamination of fluid in shortened system, then combine with centrifuged fluid at SFC. With increasing fluid density upgraded screen panels on Nr 2 shaker from 175 to 210-mesh.					
WEIGHT		ppg / SG		9.15 1.098						9.25 1.110	
FUNNEL VISCOSITY (sec/qt) API @		46 °C		45						45	
PLASTIC VISCOSITY cP @		50 °C		9						10	
YIELD POINT (lb/100ft²)				14						14	
GEL STRENGTHS (lb/100ft²) 10 sec/10 min				3 11						3 12	
RHEOLOGY q 600 / q 300				32 23						34 24	
RHEOLOGY q 200 / q 100				19 14						20 16	
RHEOLOGY q 6 / q 3				4 3						4 3	
FILTRATE API (cc's/30 min)				9.6						9.0	
HPHT FILTRATE (cc's/30 min) @		-- °F		--						--	
CAKE THICKNESS API : HPHT (32nd in)				1						1	
SOLIDS CONTENT (% by Volume)				3.3						4.0	
LIQUID CONTENT (% by Volume) OIL/WATER				0 96.7						0 96.0	

SAND CONTENT (% by Vol.)		0.20		0.25		OPERATIONS SUMMARY Drill to 1258m, CO and conduct leak-off test w/- 9.1ppg fluid in hole. Leak-off established at 1000psi, Equiv MW: 13.7ppg. Resume drilling Drill to: DS @ Reading: 1374m 1362m 1°N20E 1519m 1507m ¾°N65E 1663m 1652m 2¼°N25E Drill to 1778m @ 24:00 hrs.			
METHYLENE BLUE CAPACITY (ppb equiv.)		13.3		15.0					
pH		10.5		10.5					
ALKALINITY MUD (Pm)		0.88		0.65					
ALKALINITY FILTRATE (Pf / Mf)		0.28 1.35		0.21 1.00					
CHLORIDE (mg/L)		24,000		22,000					
TOTAL HARDNESS AS CALCIUM (mg/L)		240		220					
SULPHITE (mg/L)		250		200					
K+ (mg/L)		30,450		29,400					
KCI (% by Wt.)		5.8		5.6					
PHPA (ppb)		0.93		0.90					

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	899	Centrifuge	DE1000	20	Desander	NA	0	Shaker #1	4 x 210	24
Premix (recirc from sump)	180	Desilter				Degasser		0	Desilter	0	0	Shaker #2	4 x 175	24
Drill Water		Downhole	23	+ FLUID RECEIVED	180									
Direct Recirc Sump		Dumped	50	- FLUID LOST	133									
Other (eg Diesel)		Centrifuge	60	FLUID in STORAGE	168									
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME		Centrifuge		9.2	Underflow (ppg)		16.2	Output (Gal/Min.)		2.10
								0						0

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$ 185.35	24		2	22	\$ 370.70		%	PPB	Jet Velocity	256
AMC PAC-L	\$ 159.98	116		11	105	\$ 1,759.78	High Grav solids	0.2	2.89	Impact force	541
AMC PHPA	\$ 118.90	67		2	65	\$ 237.80	Total LGS	3.8	35.9	HHP	140
Caustic Soda	\$ 48.90	16		1	15	\$ 48.90	Bentonite equiv.	1.4	12.7	HSI	2.5
Citric Acid	\$ 73.25	36		2	34	\$ 146.50	Drilled Solids	2.4	21.8	Bit Press Loss	544
Potassium Chloride (	\$ 18.95	1038		72	966	\$ 1,364.40	Salt	1.3	12.7	CSG Seat Frac Press	1000 psi
Soda Ash	\$ 18.30	32		8	24	\$ 146.40	n @ 21:25 Hrs	0.50		Equiv. Mud Wt.	13.70 ppg
Sodium Sulphite	\$ 33.30	72		8	64	\$ 266.40	K @ 21:25 Hrs	5.35		ECD	
Xanthan Gum	\$ 359.25	90		4	86	\$ 1,437.00				Max Pressure @ Shoe :	950 psi
XTRA - Sweep	\$ 110.90	9		1	8	\$ 110.90					

								DAILY COST		CUMULATIVE COST	
								\$5,888.78		\$53,822.04	

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	11	Date :	18-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	1778	to	2125
			Metres

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Brian MARRIOTT	REPORT FOR	Andy BAKER
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE	12	12	12	13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
8.50	DSX519M-A5	12	12	12		304	M		431	400	5	X	8.5	Inches	1580	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8		INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP (min)			
4.5	16.6 #	1839		Mtrs		1252	M		831		3 x NAT 8-P80	97 %	32			
DRILL PIPE SIZE	TYPE	Length		PRODUCTION/ LINER Set @			ft	IN STORAGE		BBL/STK @ 100%	STK / MIN	TOTAL CIRC. TIME (min)				
4.50	HW	115		Mtrs			M	198		0.0516	216	95				
DRILL COLLAR SIZE (")	Length			MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL.	DP			
6.50	6.25	31		140		5% KCI-PHPA-POLYMER				10.81	454	(ft/min)	DCs	214		
														371		
														335		

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS						
		Below shkrs	Below shkrs	Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA	
TIME SAMPLE TAKEN		11:00	21:45	Plastic Vis	ALAP	Yield Point	12 - 20	pH	9.0 - 9.5	
DEPTH (ft) - (m)		Metres	1,904	2,084	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

FLOWLINE TEMPERATURE	⁰ C | ⁰ F	49	121	51	124
WEIGHT	ppg / SG	9.30	1.116	9.30	1.116
FUNNEL VISCOSITY (sec/qt) API @	51 ⁰ C	45	42		
PLASTIC VISCOSITY cP @	50 ⁰ C	10	10		
YIELD POINT (lb/100ft ²)		17	14		
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		3	12	3	10
RHEOLOGY q 600 / q 300		37	27	34	24
RHEOLOGY q 200 / q 100		22	16	20	15
RHEOLOGY q 6 / q 3		4	3	4	3
FILTRATE API (cc's/30 min)		8.2	8.4		
HPHT FILTRATE (cc's/30 min) @	-- ⁰ F	--	--		
CAKE THICKNESS API : HPHT (32nd in)		1	1		
SOLIDS CONTENT (% by Volume)		4.5	4.5		
LIQUID CONTENT (% by Volume) OIL/WATER		0	95.5	0	95.5
SAND CONTENT (% by Vol.)		1/4	1/4		
METHYLENE BLUE CAPACITY (ppb equiv.)		16.7	17.5		
pH		9.5	9.8		
ALKALINITY MUD (Pm)		0.33	0.28		
ALKALINITY FILTRATE (Pf / Mf)		0.11	0.65	0.10	0.62
CHLORIDE (mg/L)		24,600	25,000		
TOTAL HARDNESS AS CALCIUM (mg/L)		320	280		
SULPHITE (mg/L)		250	250		
K+ (mg/L)		30,450	30,975		
KCI (% by Wt.)		5.8	5.9		
PHPA (ppb)		0.97	1.04		

OBSERVATIONS

Maintain fluid parameters with addition of chemicals as listed.

Maintain SFC volume with premixed volume pills, based on fluid recycled from sump.

Replace one damaged 210-mesh shaker screen panel. KMC/OILTOOLS technician will attempt repairs.

Mud Accounting (bbls)		Solids Control Equipment			
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	946
Premix (recirc from sump)	200	Desilter			
Drill Water		Downhole	20	+ FLUID RECEIVED	200
Direct Recirc Sump		Dumped	15	- FLUID LOST	117
Other (eg Diesel)		Centrifuge	82	FLUID in STORAGE	198
TOTAL RECEIVED	200	TOTAL LOST	117	FINAL VOLUME	1,029

OPERATIONS SUMMARY

Drill to: DS @ Reading:

1778m 1767m 3°N15E

1865m 1854m 3 1/4°N10E

2010m 1999m 3 3/4°N35E

Drill to 2125m @ 24:00 hrs

Product		Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$	185.35	22		1	21	\$ 185.35	%	PPB	Jet Velocity	263	
AMC Defoamer	\$	146.40	8		1	7	\$ 146.40	High Grav solids	0.2	2.34	Impact force	576
AMC PAC-L	\$	159.98	105		6	99	\$ 959.88	Total LGS	4.3	40.8	HHP	153
AMC PHPA	\$	118.90	65		6	59	\$ 713.40	Bentonite equiv.	1.6	15.0	HSI	2.7
Caustic Soda	\$	48.90	15		1	14	\$ 48.90	Drilled Solids	2.7	24.2	Bit Press Loss	579
Potassium Chloride (	\$	18.95	966		84	882	\$ 1,591.80	Salt	1.5	14.5	CSG Seat Frac Press	1000 psi
Soda Ash	\$	18.30	24		2	22	\$ 36.60	n @ 21:45 Hrs	0.50		Equiv. Mud Wt.	13.70 ppg
Xanthan Gum	\$	359.25	86		4	82	\$ 1,437.00	K @ 21:45 Hrs	5.35		ECD	
											Max Pressure @ Shoe :	940 psi

		Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)	
		Centrifuge		9.2		16.1	
				0		2.40	
				0		0	

DAILY COST		CUMULATIVE COST	
\$5,119.33		\$58,941.37	

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	13	Date :	20-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	2365 to 2485	Metres	

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Brian MARRIOTT/Barry BEETSON	REPORT FOR	Andy BAKER
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE	12	12	12	13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
8.50	DSX519M-A5	12	12	12		304	M		501	430	5	X	8.5	Inches	1630	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8		INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP (min)			
4.5	16.6 #	2202		Mtrs		1252	M		931		3 x NAT 8-P80	97	%	37	min	
DRILL PIPE SIZE	TYPE	Length		PRODUCTION/ LINER Set @		ft		IN STORAGE		BBL/STK @ 100%	STK / MIN	TOTAL CIRC. TIME (min)				
4.50	HW	115		Mtrs				66		0.0516	216	92				
DRILL COLLAR SIZE (")	Length	MUD TYPE		5% KCI-PHPA-POLYMER				BBL/MIN		GAL / MIN	ANN VEL. (ft/min)	DP	214			
6.50	6.25	29		140		Mtrs		10.81		454		371	335			

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Trip	Below shkrs	Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)		Metres		Plastic Vis	ALAP	Yield Point	12 - 20	pH	9.0 - 9.5
FLOWLINE TEMPERATURE		°C / °F		KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
WEIGHT		ppg / SG		OBSERVATIONS					
FUNNEL VISCOSITY (sec/qt) API @		51 °C		No changes in fluid system maintenance.					
PLASTIC VISCOSITY cP @		50 °C		Received extra mud chemicals as listed below.					
YIELD POINT (lb/100ft ²)		18							
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		5 | 15							
RHEOLOGY q 600 / q 300		42 | 30							
RHEOLOGY q 200 / q 100		25 | 18							
RHEOLOGY q 6 / q 3		5 | 4							
FILTRATE API (cc's/30 min)		7.6							
HPHT FILTRATE (cc's/30 min) @		-- °F							
CAKE THICKNESS API : HPHT (32nd in)		1							
SOLIDS CONTENT (% by Volume)		5.5							
LIQUID CONTENT (% by Volume) OIL/WATER		0 | 94.5							
SAND CONTENT (% by Vol.)		0.20		OPERATIONS SUMMARY					
METHYLENE BLUE CAPACITY (ppb equiv.)		17.5		Drill to 2386m, DS @ 2374m - 6°N02E. Decision to change BHA.					
pH		9.0		Mix+ump heavy Barite pill, POOH to SFC. Lay out NBR+1xStab.					
ALKALINITY MUD (Pm)		0.11		1 Stab in pos. 28m above bit. RIH remaining BHA+P/U 57x4 1/2" DP.					
ALKALINITY FILTRATE (Pf / Mf)		0.08 | 0.68		Wash+ream 2353-2386m, find 5m fill. Resume drilling.					
CHLORIDE (mg/L)		28,300		Drill to 2485m @ 24:00 hrs.					
TOTAL HARDNESS AS CALCIUM (mg/L)		200							
SULPHITE (mg/L)		200							
K+ (mg/L)		30,450							
KCI (% by Wt.)		5.8							
PHPA (ppb)		1.06							

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	978	Centrifuge	DE1000	12	Desander	NA	0	Shaker #1	4 x 310	24
Premix (recirc from sump)	90	Desilter		+ FLUID RECEIVED	90	Degasser		0	Desilter	0	0	Shaker #2	4 x 210	24
Drill Water		Downhole	36	- FLUID LOST	70	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)				
Direct Recirc Sump		Dumped		FLUID in STORAGE	66	Centrifuge	9.2	16.0	2.00					
Other (eg Diesel)		Centrifuge	34	FINAL VOLUME	997	0		0		0				
TOTAL RECEIVED	90	TOTAL LOST	70											

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$ 185.35	20		1	19	\$ 185.35	%	PPB	Jet Velocity	263	
AMC PAC-L	\$ 159.98	94		6	88	\$ 959.88	High Grav solids	0.3	3.86	Impact force	582
AMC PHPA	\$ 118.90	57		2	55	\$ 237.80	Total LGS	5.2	49.2	HHP	155
Baryte	\$ 8.20	1000		64	936	\$ 524.80	Bentonite equiv.	1.5	14.0	HSI	2.7
Caustic Soda	\$ 48.90	13	16	1	28	\$ 48.90	Drilled Solids	3.7	33.2	Bit Press Loss	585
Potassium Chloride (	\$ 18.95	840		42	798	\$ 795.90	Salt	1.7	16.4	CSG Seat Frac Press	1000 psi
Soda Ash	\$ 18.30	18	48	2	64	\$ 36.60	n @ 21:40 Hrs	0.49	Equiv. Mud Wt.		13.70 ppg
Sodium Sulphite	\$ 33.30	60		2	58	\$ 66.60	K @ 21:40 Hrs	7.44	ECD		
Xanthan Gum	\$ 359.25	80		1	79	\$ 359.25			Max Pressure @ Shoe :		918 psi
XTRA - Sweep	\$ 110.90	8	4	0	12	\$ 0.00					

DAILY COST		CUMULATIVE COST	
\$3,215.08		\$65,149.20	

RMN ENGINEER	Peter ARONETZ	CITY	Adelaide Office	TELEPHONE	08 8338 7266
--------------	---------------	------	-----------------	-----------	--------------

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	14	Date :	21-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	2485	to	2753 Metres

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Barry BEETSON/Trevor WADHAM	REPORT FOR	David SHEERAN
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE	12	12	12	13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
8.50	DSX519M-A5	12	12	12		304	M		553	422	5	X	8.5	Inches	1750	psi
DRILL PIPE SIZE	TYPE	Length			9 5/8	INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP (min)			
4.5	16.6 #	2470	Mtrs			1252	M		975		3 x NAT 8-P80	97	%	41	min	
DRILL PIPE SIZE	TYPE	Length				PRODUCTION/ LINER Set @		ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC. TIME (min)			
4.50	HW	115	Mtrs				M		136		0.0516	216	103	min		
DRILL COLLAR SIZE (")	Length				MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP		
6.50	6.25	29	140	Mtrs	5% KCI-PHPA-POLYMER						10.81	454	214	371	335	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS						
		Below shkrs	Below shkrs	Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA	
TIME SAMPLE TAKEN		11:20	22:15	Plastic Vis	ALAP	Yield Point	12 - 20	pH	9.0 - 9.5	
DEPTH (ft) - (m)		Metres	2,620	2,734	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

FLOWLINE TEMPERATURE		° C		° F		OBSERVATIONS			
		56	133	56	133	Maintain SFC volume with addition of pre-mixed chemicals, fluid density steady at 9.4ppg measured below shaker screens.			
WEIGHT		ppg / SG		9.40	1.128	9.40	1.128		
FUNNEL VISCOSITY (sec/qt) API @		56 °C		49	48				
PLASTIC VISCOSITY cP @		50 °C		12	13				
YIELD POINT (lb/100ft ²)				19	16				
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min				5	16				
RHEOLOGY q 600 / q 300				43	31	42	29		
RHEOLOGY q 200 / q 100				26	19	25	18		
RHEOLOGY q 6 / q 3				6	4	5	4		
FILTRATE API (cc's/30 min)				7.8	7.8				
HPHT FILTRATE (cc's/30 min) @		-- ° F		--	--				
CAKE THICKNESS API : HPHT (32nd in)				1	1				
SOLIDS CONTENT (% by Volume)				5.4	5.4				
LIQUID CONTENT (% by Volume) OIL/WATER				0	94.6	0	94.6		
SAND CONTENT (% by Vol.)				0.10	1/4				
METHYLENE BLUE CAPACITY (ppb equiv.)				16.3	20.0				
pH				9.5	9.5				
ALKALINITY MUD (Pm)				0.14	0.13				
ALKALINITY FILTRATE (Pf / Mf)				0.10	0.70	0.13	0.64		
CHLORIDE (mg/L)				28,700	28,600				
TOTAL HARDNESS AS CALCIUM (mg/L)				180	200				
SULPHITE (mg/L)				100	100				
K+ (mg/L)				30,975	30,975				
KCI (% by Wt.)				5.9	5.9				
PHPA (ppb)				1.07	1.07				

OPERATIONS SUMMARY			
Drill to 2496m, DS @ 2484m - Misrun;			
Drill to 2526m, DS @ 2517m - 5 1/2" N10W,			
Drill to 2643m, DS @ 2632m - 6 1/2" N35W,			
Drill to 2728m, DS @ 2719m - 6 1/4" N45W,			
Drill to 2753m @ 24:00 hrs			

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	997	Centrifuge	DE1000	24	Desander	NA	0	Shaker #1	4 x 310	24
Premix (recirc from sump)	200	Desilter		+ FLUID RECEIVED	200	Degasser		0	Desilter	0	0	Shaker #2	4 x 210	24
Drill Water		Downhole	14	- FLUID LOST	86									
Direct Recirc Sump		Dumped		FLUID in STORAGE	136									
Other (eg Diesel)		Centrifuge	72											
TOTAL RECEIVED	200	TOTAL LOST	86	FINAL VOLUME	1,111									
						Centrifuge	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)			
							9.3		16.2		2.10			
							0				0			

Product		Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$	185.35	19	1	18	\$	185.35		%	PPB	Jet Velocity	263
AMC PAC-L	\$	159.98	88	5	83	\$	799.90	High Grav solids	0.3	4.32	Impact force	582
AMC PHPA	\$	118.90	55	4	51	\$	475.60	Total LGS	5.1	48.2	HHP	155
Caustic Soda	\$	48.90	28	1	27	\$	48.90	Bentonite equiv.	1.9	17.0	HSI	2.7
Potassium Chloride	\$	18.95	798	84	714	\$	1,591.80	Drilled Solids	3.2	29.3	Bit Press Loss	585
Soda Ash	\$	18.30	64	4	60	\$	73.20	Salt	1.7	16.6	CSG Seat Frac Press	1000 psi
Sodium Sulphite	\$	33.30	58	2	56	\$	66.60	n @ 22:15 Hrs	0.53		Equiv. Mud Wt.	13.70 ppg
								K @ 22:15 Hrs	5.30		ECD	
											Max Pressure @ Shoe :	918 psi

DAILY COST		CUMULATIVE COST	
\$3,241.35		\$68,390.55	

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

An opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	15	Date :	22-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	2753	to	2935 Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Barry BEETSON/Trevor WADHAM		REPORT FOR David SHEERAN	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE	12	12	12	13 3/8	SURFACE SET @	997 ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)		
8.50	DSX519M-A5	12	12	12		304 M		589	382	5	X 8.5	Inches	1800	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8		INTERMEDIATE SET @	4107 ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS		
4.5	16.6 #	2652 Mtrs				1252 M		971		3 x NAT 8-P80	97 %	UP (min) 44 min		
DRILL PIPE SIZE	TYPE	Length		PRODUCTION/ LINER Set @			ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC. TIME (min)		
4.50	HW	115 Mtrs						123		0.0516	216	101 min		
DRILL COLLAR SIZE (")		Length		MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP	214
6.50	6.25	29 140 Mtrs		5% KCI-PHPA-POLYMER						10.81	454		371	335

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS						
		Below shkrs	Below shkrs	Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA	
TIME SAMPLE TAKEN		09:40	22:00	Plastic Vis	ALAP	Yield Point	12 - 20	pH	9.0 - 9.5	
DEPTH (ft) - (m)		Metres	2,826	2,917	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

FLOWLINE TEMPERATURE		° C | ° F		57	135	60	139
WEIGHT		ppg / SG		9.40	1.128	9.35	1.122
FUNNEL VISCOSITY (sec/qt) API @		60 °C		50		49	
PLASTIC VISCOSITY cP @		50 °C		13		13	
YIELD POINT (lb/100ft²)				18		19	
GEL STRENGTHS (lb/100ft²) 10 sec/10 min				5	18	5	16
RHEOLOGY q 600 / q 300				44	31	45	32
RHEOLOGY q 200 / q 100				26	19	27	20
RHEOLOGY q 6 / q 3				5	4	6	5
FILTRATE API (cc's/30 min)				8.6		8.8	
HPHT FILTRATE (cc's/30 min) @		-- ° F		--		--	
CAKE THICKNESS API : HPHT (32nd in)				1	--	1	--
SOLIDS CONTENT (% by Volume)				5.5		5.2	
LIQUID CONTENT (% by Volume) OIL/WATER				0	94.5	0	94.8
SAND CONTENT (% by Vol.)				1/4		0.15	
METHYLENE BLUE CAPACITY (ppb equiv.)				17.5		15.0	
pH				9.8		10.0	
ALKALINITY MUD (Pm)				0.08		0.10	
ALKALINITY FILTRATE (Pf / Mf)				0.08	0.70	0.12	0.74
CHLORIDE (mg/L)				28,600		29,500	
TOTAL HARDNESS AS CALCIUM (mg/L)				280		220	
SULPHITE (mg/L)				80		120	
K+ (mg/L)				30,450		30,450	
KCI (% by Wt.)				5.8		5.8	
PHPA (ppb)				1.07		1.07	

OBSERVATIONS
Increase treatment with PAC-L to counteract increasing filtrate, XANTHAN Gun phased out, with sufficiently high low-end rheology.

OPERATIONS SUMMARY		Drill to 2815m, DS @ 2806m - 5½°N53W,	
		Drill to 2902m, DS @ 2893m - 4¾°N50W,	
		Drill to 2935m @ 24:00 hrs	

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	1111	Centrifuge	DE1000	24	Desander	NA	0	Shaker #1	4 x 310	24
Premix (recirc from sump)	100	Desilter				Degasser		0	Desilter	0	0	Shaker #2	4 x 210	24
Drill Water		Downhole	30	+ FLUID RECEIVED	100									
Direct Recirc Sump		Dumped	20	- FLUID LOST	118									
Other (eg Diesel)		Centrifuge	68	FLUID in STORAGE	123									
TOTAL RECEIVED		TOTAL LOST	118	FINAL VOLUME	1,094	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)				
						Centrifuge	9.2	16.1		2.00				
							0			0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC PAC-L	\$ 159.98	83		11	72	\$ 1,759.78	%	PPB	Jet Velocity	263	
AMC PHPA	\$ 118.90	51		2	49	\$ 237.80	High Grav solids	0.3	3.93	Impact force	579
Potassium Chloride (	\$ 18.95	714		42	672	\$ 795.90	Total LGS	4.9	46.3	HHP	154
Soda Ash	\$ 18.30	60		2	58	\$ 36.60	Bentonite equiv.	1.3	11.5	HSI	2.7
							Drilled Solids	3.6	33.0	Bit Press Loss	582
							Salt	1.8	17.1	CSG Seat Frac Press	1000 psi
							n @ 22:00 Hrs	0.49		Equiv. Mud Wt.	13.70 ppg
							K @ 22:00 Hrs	7.63		ECD	
										Max Pressure @ Shoe :	929 psi

DAILY COST		CUMULATIVE COST	
\$2,830.08		\$71,220.63	

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	16	Date :	23-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	2935 to 3002	Metres	

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Barry BEETSON/Trevor WADHAM	REPORT FOR	David SHEERAN
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA							
BIT SIZE	TYPE	12	12	12	13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)		
8.50	DSX519M-A5	12	12	12	9 5/8	INTERMEDIATE SET @	4107	ft	721	266	5	X	8.5	1820	psi
DRILL PIPE SIZE	TYPE	Length		Mtrs	9 5/8	INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS		
4.5	16.6 #					1252	M		987		3 x NAT 8-P80	97 %	UP (min) 67 min		
DRILL PIPE SIZE	TYPE	Length		Mtrs		PRODUCTION/LINER Set @		ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC.		
4.50	HW								51		0.0516	216	TIME (min) 96 min		
DRILL COLLAR SIZE (")		Length		Mtrs		MUD TYPE					BBL/MIN	GAL / MIN	ANN VEL.	DP	
6.50	6.25					5% KCI-PHPA-POLYMER					10.81	454	(ft/min)	214	
														DCs	335

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS					
SAMPLE FROM		Below shkrs	Below shkrs	Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA
TIME SAMPLE TAKEN		09:30	15:00	Plastic Vis	ALAP	Yield Point	12 - 20	pH	9.0 - 9.5
DEPTH (ft) - (m)		Metres	3,002	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

FLOWLINE TEMPERATURE				OBSERVATIONS				
		° C	° F	62	144	59	137	Allow act. SFC volume to deplete somewhat (266 bbls @ 24:00 hrs), with view of 7"CSG to be run+cemented and excess volume expected to be returned.
WEIGHT		ppg / SG	9.40	1.128	9.40	1.128		
FUNNEL VISCOSITY (sec/qt) API @		59 °C	51	49				
PLASTIC VISCOSITY cP @		50 °C	13	12				
YIELD POINT (lb/100ft²)			19	19				
GEL STRENGTHS (lb/100ft²) 10 sec/10 min			5	19				
RHEOLOGY q 600 / q 300			45	32	43	31		
RHEOLOGY q 200 / q 100			27	20	26	19		
RHEOLOGY q 6 / q 3			6	5	5	4		
FILTRATE API (cc's/30 min)			8.4	8.5				
HPHT FILTRATE (cc's/30 min) @		-- °F	--	--				
CAKE THICKNESS API : HPHT (32nd in)			1	--	1	--		
SOLIDS CONTENT (% by Volume)			5.5	5.3				
LIQUID CONTENT (% by Volume) OIL/WATER			0	94.5	0	94.7		

OPERATIONS SUMMARY			
Drill to 3002m, well @ CSG point. CO, mix+pump heavy BAR pill, wiper trip to 2324m. Holecondition good. RIH to 2889m. Wash to bottom, find 4m fill. CO, mix+pump heavy BAR pill, POOH f logs. Rg up SCHLUMBERGER, commence logging run.			

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	1094	Centrifuge	DE1000	9	Desander	NA	0	Shaker #1	4 x 310	22
Premix (recirc from sump)		Desilter				Degasser		0	Desilter	0	0	Shaker #2	4 x 210	22
Drill Water		Downhole	28	+ FLUID RECEIVED										
Direct Recirc Sump		Dumped		- FLUID LOST	56									
Other (eg Diesel)		Centrifuge	28	FLUID in STORAGE	51									
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME		Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)				
		56		1,038		Centrifuge	9.3	16.0	2.20					
							0		0					

Solids Analysis				Bit Hydraulics & Pressure Data							
Product	Price	Start	Received	Used	Close	Cost	%	PPB	Jet Velocity	263	
Baryte	\$ 8.20	936	72	864	\$ 590.40		High Grav solids	0.5	7.75	Impact force	582
Caustic Soda	\$ 48.90	27	2	25	\$ 97.80		Total LGS	4.8	45.1	HHP	155
							Bentonite equiv.	1.3	11.6	HSI	2.7
							Drilled Solids	3.5	31.7	Bit Press Loss	585
							Salt	1.8	17.0	CSG Seat Frac Press	1000 psi
							n @ 15:00 Hrs	0.47		Equiv. Mud Wt.	13.70 ppg
							K @ 15:00 Hrs	8.36		ECD	
										Max Pressure @ Shoe :	918 psi

DAILY COST				CUMULATIVE COST			
\$688.20				\$71,908.83			

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	17	Date :	24-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3002	to	3002 Metres

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Barry BEETSON/Trevor WADHAM	REPORT FOR	David SHEERAN
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE	12	12	12	13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
8.50	DSX519M-A5	12	12	12		304	M		672	284	5	X	8.5	Inches	1750	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8		INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS			
4.5	16.6 #	783 Mtrs				1252	M		956		3 x NAT 8-P80	97 %	UP (min) 58 min			
DRILL PIPE SIZE	TYPE	Length		PRODUCTION/ LINER Set @			ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC. TIME (min)				
4.50	HW	115 Mtrs					M	45		0.0516	216	93 min				
DRILL COLLAR SIZE (")	Length		MUD TYPE							BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP	214		
6.50	6.25	19	140	5% KCl-PHPA-POLYMER						10.81	454		DCs	371 335		

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Trip	Below shkrs	Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)		Metres		Plastic Vis	ALAP	Yield Point	12 - 20	pH	9.0 - 9.5
FLOWLINE TEMPERATURE		°C / °F		KCl	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
WEIGHT		ppg / SG		OBSERVATIONS					
FUNNEL VISCOSITY (sec/qt) API @ 46 °C		61		Hole took 2bbls of mud while logging. Added Biocide while circulating on bottom; no other treatment of fluid system.					
PLASTIC VISCOSITY cP @ 50 °C		15							
YIELD POINT (lb/100ft ²)		28							
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		7 | 13							
RHEOLOGY q 600 / q 300		58 | 43							
RHEOLOGY q 200 / q 100		37 | 28							
RHEOLOGY q 6 / q 3		9 | 7							
FILTRATE API (cc's/30 min)		8.8							
HPHT FILTRATE (cc's/30 min) @ -- °F		--							
CAKE THICKNESS API : HPHT (32nd in)		-- | 1 | --							
SOLIDS CONTENT (% by Volume)		5.3							
LIQUID CONTENT (% by Volume) OIL/WATER		0 | 94.7							
SAND CONTENT (% by Vol.)		0.10		OPERATIONS SUMMARY					
METHYLENE BLUE CAPACITY (ppb equiv.)		15.0		Logs go to bottom, caliper fails while logging. Complete run without. Rig down SCHLUMBERGER, Make up BHA, using same bit, but without mud motor. Slip+cut drilling line. RIH to bottom, no fill. Circulate hole clean, mix+pump Barite pill, POOH laying down 4 1/2" DP, using a remnant can of BAROID corrosion inhibitor. Bit at 1056m at 24:00 hrs.					
pH		9.8							
ALKALINITY MUD (Pm)		0.06							
ALKALINITY FILTRATE (Pf / Mf)		0.10 | 0.71							
CHLORIDE (mg/L)		29,500							
TOTAL HARDNESS AS CALCIUM (mg/L)		100							
SULPHITE (mg/L)		150							
K+ (mg/L)		30,450							
KCl (% by Wt.)		5.8							
PHPA (ppb)		0.98							

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	1038	Centrifuge	DE1000	0	Desander	NA	0	Shaker #1	4 x 310	10
Premix (recirc from sump)		Desilter				Degasser		0	Desilter	0	0	Shaker #2	4 x 210	10
Drill Water		Downhole		16	+ FLUID RECEIVED									
Direct Recirc Sump		Dumped		20	- FLUID LOST									
Other (eg Diesel)		Centrifuge		0	FLUID in STORAGE									
TOTAL RECEIVED		TOTAL LOST		36	FINAL VOLUME	Centrifuge		0	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)	
					1,001			0					0	

Product		Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data			
AMC Biocide G		\$ 185.35	18		1	17	\$ 185.35	%	PPB	Jet Velocity 263			
Baryte		\$ 8.20	864		32	832	\$ 262.40	High Grav solids	0.5	7.75	Impact force 582		
								Total LGS	4.8	45.2	HHP 155		
								Bentonite equiv.	1.3	11.6	HSI 2.7		
								Drilled Solids	3.5	31.8	Bit Press Loss 585		
								Salt	1.8	17.1	CSG Seat Frac Press 1000 psi		
								n @ 15:10 Hrs	0.43		Equiv. Mud Wt. 13.70 ppg		
								K @ 15:10 Hrs	14.91		ECD		
											Max Pressure @ Shoe : 918 psi		

DAILY COST		CUMULATIVE COST	
\$447.75		\$72,356.58	

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	18	Date :	25-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3002	to	3002 Metres

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Barry BEETSON/Trevor WADHAM	REPORT FOR	David SHEERAN
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA							
BIT SIZE	TYPE			13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
8.50					304	M		623	218	5	X	8.5	Inches	950	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8	INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS			
	#	3	Mtrs		1252	M		841		3 x NAT 8-P80	97	%	UP (min)	66	min
DRILL PIPE SIZE	TYPE	Length			PRODUCTION/ LINER Set @		ft	IN STORAGE		BBL/STK @ 100%	STK / MIN	TOTAL CIRC.			
	HW		Mtrs			M		174		0.0516	160	TIME (min)	127	min	
DRILL COLLAR SIZE (")	Length			MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL.	DP	114	
7.00	7.00	1430	1569	5% KCI-PHPA-POLYMER						8.01	336	(ft/min)	DCs	354	354

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Run CSG	Below shkrs	Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres		23:45	Plastic Vis	ALAP	Yield Point	12 - 20	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	⁰ C / ⁰ F		3,002	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
WEIGHT	ppg / SG		51	OBSERVATIONS					
FUNNEL VISCOSITY (sec/qt) API @	51 ⁰ C		9.50	Treat 150bbls mud with 18kg Sodium Sulphite and 55lt Biocide;					
PLASTIC VISCOSITY cP @	50 ⁰ C		1.140	Prepare 30bbls pre-flush, adding to bore water 6sx KCl, 20lt Biocide and 7kg Sodium sulphite.					
YIELD POINT (lb/100ft ²)			19	Circulating volumes and tubular lengths reflect 7" casing being circulated in open hole, prior to cementing.					
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			4						
RHEOLOGY q 600 / q 300			45						
RHEOLOGY q 200 / q 100			27						
RHEOLOGY q 6 / q 3			6						
FILTRATE API (cc's/30 min)			9.0						
HPHT FILTRATE (cc's/30 min) @	-- ⁰ F		--						
CAKE THICKNESS API : HPHT (32nd in)			1						
SOLIDS CONTENT (% by Volume)			6.0						
LIQUID CONTENT (% by Volume) OIL/WATER			0						
SAND CONTENT (% by Vol.)			94.0	OPERATIONS SUMMARY					
METHYLENE BLUE CAPACITY (ppb equiv.)			TRC	Lay down remainder of drill string and BHA. Rig up for casing.					
pH			15.0	Run 254 jts of 7" L80 BTC CSG, 1430m 26#, 1569m 29#.					
ALKALINITY MUD (Pm)			9.8	Wash down last joint to setting depth. Circulate hole clean.					
ALKALINITY FILTRATE (Pf / Mf)			0.08						
CHLORIDE (mg/L)			0.11						
TOTAL HARDNESS AS CALCIUM (mg/L)			0.75						
SULPHITE (mg/L)			29,600						
K+ (mg/L)			100						
KCI (% by Wt.)			200						
PHPA (ppb)			30,450						
			5.8						
			0.94						

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	1001	Centrifuge	DE1000	0	Desander	NA	0	Shaker #1	4 x 310	24
Premix (recirc from sump)		Desilter				Degasser		0	Desilter	0	0	Shaker #2	4 x 310	24
Drill Water	30	Downhole	16	+ FLUID RECEIVED	30									
Direct Recirc Sump		Dumped		- FLUID LOST	16									
Other (eg Diesel)		Centrifuge	0	FLUID in STORAGE	174									
TOTAL RECEIVED	30	TOTAL LOST	16	FINAL VOLUME	1,015			Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)		
						Centrifuge		0				0		
								0				0		

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data			
AMC Biocide G	\$ 185.35	17		4	13	\$ 741.40		%	PPB	Jet Velocity		
Potassium Chloride	\$ 18.95	672		6	666	\$ 113.70	High Grav solids	0.5	7.41	Impact force		
Sodium Sulphite	\$ 33.30	56		1	55	\$ 33.30	Total LGS	5.5	52.5	HHP		
							Bentonite equiv.	1.2	10.8	HSI		
							Drilled Solids	4.4	39.7	Bit Press Loss		
							Salt	1.8	17.1	CSG Seat Frac Press 1000 psi		
							n @ 23:45 Hrs	0.49		Equiv. Mud Wt. 13.70 ppg		
							K @ 23:45 Hrs	7.63		ECD		
										Max Pressure @ Shoe : 897 psi		

						DAILY COST		CUMULATIVE COST	
						\$888.40		\$73,244.98	

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	19	Date :	26-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3002	to	3002 Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Barry BEETSON/Trevor WADHAM		REPORT FOR David SHEERAN	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 6.00	TYPE			13 3/8	SURFACE SET @ 997 ft 304 M	HOLE 357	PITS 499	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) psi	
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 812 Mtrs		9 5/8	INTERMEDIATE SET @ 4107 ft 1252 M	TOTAL CIRCULATING VOL. 856		PUMP MODEL 3 x NAT 8-P80	ASSUMED EFF 97 %	BOTTOMS UP (min) min	
DRILL PIPE SIZE 3.50	TYPE HW	Length Mtrs		7	PRODUCTION/ LINER Set @ 9839 ft 2999 M	IN STORAGE 0		BBL/STK @ 100% 0.0516	STK / MIN	TOTAL CIRC. TIME (min) min	
DRILL COLLAR SIZE (") 4.75	Length Mtrs			MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP DCs

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Below shkrs	Below shkrs		Mud Weight 8.9 - 9.6	API Filtrate 6 - 8	HPHT Filtrate NA	
TIME SAMPLE TAKEN		15:15		Plastic Vis ALAP	Yield Point 8 - 15	pH 9.0 - 9.5	
DEPTH (ft) - (m)	Metres	3,002		KCI >5%	PHPA 0.75 - 1.5	Sulphites 80 - 120	

FLOWLINE TEMPERATURE				OBSERVATIONS			
WEIGHT	ppg / SG	9.45	1.134	Treat fluid at SFC w/- PAC-L, Soda Ash+Sod.Sulphite.			
FUNNEL VISCOSITY (sec/qt) API @	38 °C	47		Install 310 mesh screen panels on shaker # 2. Circulate SFC volume through both shakers, for 6 hours to remove unwanted drill solids but not utilising centrifuge. Final MWt: 9.45ppg.			
PLASTIC VISCOSITY cP @	50 °C	11		Mud-check reflects properties of fluid at SFC, after conditioning.			
YIELD POINT (lb/100ft²)		14		Mud loss listed under DUMPED, refers to fluid actually left behind casing. No downhole fluid loss observed during cementation.			
GEL STRENGTHS (lb/100ft²) 10 sec/10 min		3 | 18					
RHEOLOGY q 600 / q 300		36 | 25					
RHEOLOGY q 200 / q 100		20 | 14					
RHEOLOGY q 6 / q 3		3 | 3					
FILTRATE API (cc's/30 min)		7.5					
HPHT FILTRATE (cc's/30 min) @	-- °F	--					
CAKE THICKNESS API : HPHT (32nd in)		1 | --					
SOLIDS CONTENT (% by Volume)		5.6					
LIQUID CONTENT (% by Volume) OIL/WATER		0 | 94.4					
SAND CONTENT (% by Vol.)		TRC					
METHYLENE BLUE CAPACITY (ppb equiv.)		15.0		After first seeing higher pump pressure, circulate CSG w/- 950psi. Record 4700 units of gas with bottoms up. Circulate hole clean, then pump 130bbbls Biocide/Sod Sulphite treated fluid, followed by 20bbbls pre-flush. Rig up HALLIBURTON, pressure test lines. Cement CSG w/- 157bbbls 12.5ppg lead and 23bbbls 15.8ppg tail-in. Drop plug and displace CMT w/- 7300 p/strokes, using rig-pump. Plug does not bump. WOC; install 7" slips, cut CSG and install CSG spool. Pick up 85 jts of 3½"DP; 812m DP in hole @ 24:00 hrs.			
pH		10.6					
ALKALINITY MUD (Pm)		0.68					
ALKALINITY FILTRATE (Pf / Mf)		0.35 | 1.88					
CHLORIDE (mg/L)		29,500					
TOTAL HARDNESS AS CALCIUM (mg/L)		40					
SULPHITE (mg/L)		150					
K+ (mg/L)		30,975					
KCI (% by Wt.)		5.9					
PHPA (ppb)		0.94					

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	1015	Centrifuge DE1000	0	Desander	NA	0	Shaker #1	4 x 310	16
Premix (recirc from sump)		Desilter				Degasser	0	Desilter	0	0	Shaker #2	4 x 310	16
Drill Water		Downhole	0	+ FLUID RECEIVED									
Direct Recirc Sump		Dumped	159	- FLUID LOST									
Other (eg Diesel)		Centrifuge	0	FLUID in STORAGE									
TOTAL RECEIVED		TOTAL LOST	159	FINAL VOLUME				Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
					856	Centrifuge	0			0			
							0			0			

Product							Solids Analysis			Bit Hydraulics & Pressure Data		
Product	Price	Start	Received	Used	Close	Cost		%	PPB	Jet Velocity		
AMC Defoamer	\$ 146.40	7		1	6	\$ 146.40	High Grav solids	0.5	7.41	Impact force		
AMC PAC-L	\$ 159.98	72		6	66	\$ 959.88	Total LGS	5.1	48.5	HHP		
Soda Ash	\$ 18.30	58		4	54	\$ 73.20	Bentonite equiv.	1.2	11.2	HSI		
Sodium Sulphite	\$ 33.30	55		2	53	\$ 66.60	Drilled Solids	3.9	35.3	Bit Press Loss		
							Salt	1.8	17.1	CSG Seat Frac Press N/A		
							n @ 15:15 Hrs	0.53		Equiv. Mud Wt. N/A		
							K @ 15:15 Hrs	4.81		ECD		
										Max Pressure @ Shoe : N/A		
							DAILY COST			CUMULATIVE COST		
							\$1,246.08			\$74,491.06		

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	20	Date :	27-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3002	to	3002 Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Barry BEETSON/Trevor WADHAM		REPORT FOR David SHEERAN	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 6.00	TYPE DSK516M	11	11	11	13 3/8 SURFACE SET @ 997 ft 304 M	HOLE 332	PITS 400	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI)	
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 1541 Mtrs		9 5/8 INTERMEDIATE SET @ 4107 ft 1252 M	TOTAL CIRCULATING VOL. 732		PUMP MODEL 3 x NAT 8-P80		ASSUMED EFF 97 %		BOTTOMS UP (min)
DRILL PIPE SIZE 3.50	TYPE HW	Length 95 Mtrs		7 PRODUCTION/ LINER Set @ 9839 ft 2999 M	IN STORAGE 125		BBL/STK@ 100% 0.0516		STK / MIN		TOTAL CIRC. TIME (min)
DRILL COLLAR SIZE (") 4.75	4.75	Length 27 161 Mtrs		MUD TYPE 5% KCI-PHPA-POLYMER		BBL/MIN		GAL / MIN		ANN VEL. (ft/min)	DP DCs

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		RIH	Suction	Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)		Metres		Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE		° C / ° F		KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT		ppg / SG	9.45	1.134	OBSERVATIONS No full circulation or treatment of fluid system last 24 hours. No mud chemicals used.
FUNNEL VISCOSITY (sec/qt) API @		° C	46		
PLASTIC VISCOSITY cP @		50 ° C	11		
YIELD POINT (lb/100ft ²)			13		
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			3 16		
RHEOLOGY q 600 / q 300			35	24	
RHEOLOGY q 200 / q 100			19	13	
RHEOLOGY q 6 / q 3			3	3	
FILTRATE API (cc's/30 min)			7.4		
HPHT FILTRATE (cc's/30 min) @		-- ° F	--		

CAKE THICKNESS API : HPHT (32nd in)		--	1	--	OPERATIONS SUMMARY Cont P/U 3 1/2"DP+RIH to 1032m, POH+rack stands in mast. Resume BOP+ancillary equipment tests. M/U new BHA, starting w/-6"HYCALOG DSK516M PDC bit, SN 114752, 5x11 jets, mud mtr., float sub, NMDC, 14x4 1/4"DC, Jars, 3x4 1/4"DC and 10x3 1/2"HWDP Total length of BHA: 282.2m. P/U singles 3 1/2"DP+RIH to 1823m at 24:00 hrs.
SOLIDS CONTENT (% by Volume)			5.6		
LIQUID CONTENT (% by Volume) OIL/WATER			0	94.4	
SAND CONTENT (% by Vol.)			TRC		
METHYLENE BLUE CAPACITY (ppb equiv.)			15.0		
pH			10.5		
ALKALINITY MUD (Pm)			0.66		
ALKALINITY FILTRATE (Pf / Mf)			0.33	0.17	
CHLORIDE (mg/L)			29,500		
TOTAL HARDNESS AS CALCIUM (mg/L)			60		
SULPHITE (mg/L)			120		
K+ (mg/L)			30,975		
KCI (% by Wt.)			5.9		
PHPA (ppb)			0.94		

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME	856	Centrifuge	DE1000	0	Desander	0	0	Shaker #1	4 x 310	18
Premix (recirc from sump)		Desilter				Degasser		0	Desilter	0	0	Shaker #2	4 x 310	18
Drill Water		Downhole	0	+ FLUID RECEIVED										
Direct Recirc Sump		Dumped		- FLUID LOST	0									
Other (eg Diesel)		Centrifuge	0	FLUID in STORAGE	125									
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME		Centrifuge		0	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)	
		0		857				0					0	

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data			
								%	PPB	Jet Velocity		
							High Grav solids	0.5	7.41	Impact force		
							Total LGS	5.1	48.5	HHP		
							Bentonite equiv.	1.2	11.2	HSI		
							Drilled Solids	3.9	35.3	Bit Press Loss		
							Salt	1.8	17.1	CSG Seat Frac Press		
							n @ 17:00 Hrs	0.54		Equiv. Mud Wt.		
							K @ 17:00 Hrs	4.12		ECD		
										Max Pressure @ Shoe :		
							DAILY COST		CUMULATIVE COST			
									\$74,491.06			

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	21	Date :	28-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3002	to	3103
			Metres

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Barry BEETSON/Trevor WADHAM	REPORT FOR	David SHEERAN
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE	14	14	14	13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
6.00	DSX516M	14	14	14		304	M		321	449	5	X	8.5	Inches	2900	psi
DRILL PIPE SIZE	TYPE	Length			9 5/8	INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS			
3.5	15.5 #	2821	Mtrs			1252	M		770		3 x NAT 8-P80	97	%	UP (min)		
DRILL PIPE SIZE	TYPE	Length			7	PRODUCTION/ LINER Set @	9839	ft	IN STORAGE		BBL/STK @ 100%	STK / MIN	TOTAL CIRC.			
3.50	HW	95	Mtrs			2999	M		96		0.0516	124	TIME (min)			
DRILL COLLAR SIZE (")	Length				MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL.	DP		
4.75	4.75	27	161		5% KCI-PHPA-POLYMER						6.21	261	(ft/min)	DCs	269	475

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
		Below shkrs	Below shkrs	Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA
TIME SAMPLE TAKEN		12:30	22:15	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
DEPTH (ft) - (m)		Metres	3,005	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

FLOWLINE TEMPERATURE	⁰ C / ⁰ F	50	121	54	129		
WEIGHT	ppg / SG	9.55	1.146	9.45	1.134		
FUNNEL VISCOSITY (sec/qt) API @	54 ⁰ C	60	52	OBSERVATIONS Treat cement contamination with extra Soda Ash + Citric Acid addition. PAC-L being added to system with a view to reduce both fluid-loss and rheology. Mud-check @ 12:30 from shortened system after drilling shoe track, prior to leak-off test. Cement contamination present. Note revised bit type & jet sizes!			
PLASTIC VISCOSITY cP @	50 ⁰ C	15	12				
YIELD POINT (lb/100ft ²)		18	19				
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		7	24			4	16
RHEOLOGY q 600 / q 300		48	33			43	31
RHEOLOGY q 200 / q 100		28	21			26	19
RHEOLOGY q 6 / q 3		10	9			6	5
FILTRATE API (cc's/30 min)		8.9	8.7				
HPHT FILTRATE (cc's/30 min) @	-- ⁰ F	--	--				
CAKE THICKNESS API : HPHT (32nd in)		1	--			1	--
SOLIDS CONTENT (% by Volume)		6.8	6.0				
LIQUID CONTENT (% by Volume) OIL/WATER		0	93.2	0	94.0		

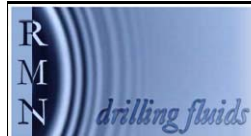
SAND CONTENT (% by Vol.)	TRC	TRC	OPERATIONS SUMMARY Cont P/U 3 1/2" DP+RIH to 2953m, tag cement @ 2963m. Drill out top plug and cement to 2981m, employing shortened SFC system, shakers via trough to pill tank only. Circulate hole clean + conduct casing pressure test to 3500psi for 10 minutes. Drill out remaining cement and shoe track and clean out rat-hole to 3002m. Make new hole to 3005m, Circulate hole clean and conduct leak-off test w/- 9.5ppg fluid in hole. Leak-off pressure 2200psi, EMW 13.8ppg. Resume drilling and drill to 3038m, DS @ 3020m - 6 1/2" N36W Drill to 3103m at 24:00 hrs.				
METHYLENE BLUE CAPACITY (ppb equiv.)	12.5	15.0					
pH	12.5	11.0					
ALKALINITY MUD (Pm)	1.95	0.78					
ALKALINITY FILTRATE (Pf / Mf)	1.15	2.45				0.48	1.72
CHLORIDE (mg/L)	28,700	28,000					
TOTAL HARDNESS AS CALCIUM (mg/L)	60	40					
SULPHITE (mg/L)	200	250					
K+ (mg/L)	30,450	30,450					
KCI (% by Wt.)	5.8	5.8					
PHPA (ppb)	0.92	0.90					

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	857	Centrifuge	DE1000	8	Desander		Shaker #1	4 x 310	24
Premix (recirc from sump)		Desilter				Degasser		0	Desilter		Shaker #2	4 x 310	24
Drill Water	30	Downhole	0	+ FLUID RECEIVED	30								
Direct Recirc Sump		Dumped		- FLUID LOST	21								
Other (eg Diesel)		Centrifuge	21	FLUID in STORAGE	96								
TOTAL RECEIVED	30	TOTAL LOST	21	FINAL VOLUME	866	Centrifuge		9.2	Underflow (ppg)	16.2	Output (Gal/Min.)	1.80	

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Defoamer	\$ 146.40	6		5	1	\$ 732.00		%	PPB	Jet Velocity	111
AMC PAC-L	\$ 159.98	66		12	54	\$ 1,919.76	High Grav solids			Impact force	142
Citric Acid	\$ 73.25	34		4	30	\$ 293.00	Total LGS	6.0	57.0	HHP	16
Soda Ash	\$ 18.30	54		12	42	\$ 219.60	Bentonite equiv.	1.1	10.2	HSI	0.6
							Drilled Solids	4.9	44.5	Bit Press Loss	105
							Salt	1.7	16.2	CSG Seat Frac Press	2200 psi
							n @ 22:15 Hrs	0.47		Equiv. Mud Wt.	13.80 ppg
							K @ 22:15 Hrs	8.36		ECD	10.07 ppg
										Max Pressure @ Shoe :	2226 psi
							DAILY COST		CUMULATIVE COST		
							\$3,164.36		\$77,655.42		

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	22	Date :	29-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3103	to	3230
Metres			

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Barry BEETSON/Trevor WADHAM		REPORT FOR David SHEERAN	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 6.00	TYPE DSX516M	14	14	14	13 3/8 SURFACE SET @ 997 ft 304 M	HOLE 338	PITS 442	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) 2900 psi	
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 2699 Mtrs			9 5/8 INTERMEDIATE SET @ 4107 ft 1252 M	TOTAL CIRCULATING VOL. 780		PUMP MODEL 3 x NAT 8-P80	ASSUMED EFF 97 %	BOTTOMS UP (min) 45 min	
DRILL PIPE SIZE 3.50	TYPE HW	Length 95 Mtrs			7 PRODUCTION/LINER Set @ 9839 ft 2999 M	IN STORAGE 107		BBL/STK @ 100% 0.0516	STK / MIN 124	TOTAL CIRC. TIME (min) 143 min	
DRILL COLLAR SIZE (") 4.75	4.75	Length 27	161	Mtrs	MUD TYPE 5% KCl-PPHA-POLYMER			BBL/MIN 6.21	GAL / MIN 261	ANN VEL. (ft/min) 269	DP 475

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS						
TIME SAMPLE TAKEN		Below shkrs	Suction	Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA	
DEPTH (ft) - (m)		Metres	3,230	3,230	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE		⁰ C / ⁰ F	53	128	KCl	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT		ppg / SG	9.75	1.170	9.80	1.176	OBSERVATIONS Use 378sx KCl to increase fluid density to 9.8ppg. Continue treatment with PAC-L to control fluid loss, after pulling back into CSG. Mud-check @ 2200 hrs reflect mud properties of SFC volume. No circulation after 1100 hrs. Negative usage entry for Defoamer corrects error of usage recorded on RPT 21, negative usage of Biocide is a stock correction.			
FUNNEL VISCOSITY (sec/qt) API @		-- ⁰ C	43	62						
PLASTIC VISCOSITY cP @		50 ⁰ C	11	21						
YIELD POINT (lb/100ft ²)			11	15						
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			3	18	3	7				
RHEOLOGY q 600 / q 300			33	22	57	36				
RHEOLOGY q 200 / q 100			18	12	28	18				
RHEOLOGY q 6 / q 3			3	2	3	2				
FILTRATE API (cc's/30 min)			9.2	6.5						
HPHT FILTRATE (cc's/30 min) @		-- ⁰ F	--	--						

CAKE THICKNESS API : HPHT (32nd in)			1	--	1	--	OPERATIONS SUMMARY Observe bit balling, mix 30bbl KCl pill, pump around+clear bit. Drill to 3125m, DS @ 3108m - 8 1/2"N25W. Drill ahead, at 3156m Observe 4250 units of gas, flow-check well - static. Decision to raise density, adding KCl; final system WT 9.8ppg. Further gas-readings to max of 2600 units. Drill to 3211m, DS @ 3194m - 9 1/4"N15W. Drill to 3230m, Decision to POOH, CO, pull back to 2981m, above 7" CSG show, wait on directional drilling specialist+equipment.			
SOLIDS CONTENT (% by Volume)			6.2	6.7						
LIQUID CONTENT (% by Volume) OIL/WATER			0	93.8	0	93.3				
SAND CONTENT (% by Vol.)			TRC	TRC						
METHYLENE BLUE CAPACITY (ppb equiv.)			15.0	15.0						
pH			10.0	10.0						
ALKALINITY MUD (Pm)			0.28	0.30						
ALKALINITY FILTRATE (Pf / Mf)			0.20	1.50	0.28	1.95				
CHLORIDE (mg/L)			65,000	62,000						
TOTAL HARDNESS AS CALCIUM (mg/L)			60	40						
SULPHITE (mg/L)			150	300						
K+ (mg/L)			65,625	63,000						
KCl (% by Wt.)			12.5	12.0						
PHPA (ppb)			0.88	0.85						

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	866	Centrifuge	DE1000	11	Desander		Shaker #1	4 x 310	12
Premix (recirc from sump)		Desilter				Degasser		0	Desilter		Shaker #2	4 x 310	12
Drill Water	50	Downhole	0	+ FLUID RECEIVED	50								
Direct Recirc Sump		Dumped		- FLUID LOST	29								
Other (eg Diesel)		Centrifuge	29	FLUID in STORAGE	107								
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME		Centrifuge		9.2	Underflow (ppg)	16.1	Output (Gal/Min.)	1.80	

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data			
AMC PAC-L	\$ 159.98	54		15	39	\$ 2,399.70		%	PPB	Jet Velocity 111		
Citric Acid	\$ 73.25	30		2	28	\$ 146.50	High Grav solids			Impact force 147		
Potassium Chloride (	\$ 18.95	666		414	252	\$ 7,845.30	Total LGS	6.7	63.9	HHP 17		
							Bentonite equiv.	1.0	9.4	HSI 0.6		
							Drilled Solids	5.7	52.0	Bit Press Loss 109		
							Salt	3.9	35.9	CSG Seat Frac Press 2200 psi		
							n @ 22:15 Hrs	0.66		Equiv. Mud Wt. 13.80 ppg		
							K @ 22:15 Hrs	2.95		ECD		
										Max Pressure @ Shoe : 2047 psi		
							DAILY COST		CUMULATIVE COST			
AMC Biocide G	\$ 185.35	13		-1	14	\$ (185.35)						
AMC Defoamer	\$ 146.40	1		-4	5	\$ (585.60)	\$9,620.55		\$87,275.97			

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	23	Date :	30-Sep-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3230 to 3230	Metres	

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Barry BEETSON/Trevor WADHAM	REPORT FOR	David SHEERAN
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA									
BIT SIZE	TYPE	30	30	30	13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)				
6.00	SL12TKPR						304	M	334	448	5	X	8.5	Inches	2700	psi	
DRILL PIPE SIZE	TYPE	Length		9 5/8		INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF		BOTTOMS		
3.5	15.5 #	2985		Mtrs			1252	M	782		3 x NAT 8-P80		97 %		UP (min)		
DRILL PIPE SIZE	TYPE	Length		7		PRODUCTION/ LINER Set @	9839	ft	IN STORAGE		BBL/STK @ 100%		STK / MIN		TOTAL CIRC.		
3.50	HW	86		Mtrs			2999	M	79		0.0516		120		TIME (min)		
DRILL COLLAR SIZE (")		Length		MUD TYPE		5% KCI-PHPA-POLYMER				BBL/MIN		GAL / MIN		ANN VEL.		DP	
4.75	4.75	27		132		Mtrs				6.01		252		(ft/min)		DCs	260
																460	460

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS							
TIME SAMPLE TAKEN		Trip		Below shkrs		Mud Weight	8.9 - 9.6	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)		Metres		3,230		Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE		° C / ° F		39 / 103		KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
WEIGHT		ppg / SG		10.00 / 1.200		OBSERVATIONS Receive orders to raise MW to 10ppg using salt, (on loc @ 1530hrs). Weighing up, while circulating.					
FUNNEL VISCOSITY (sec/qt) API @		39 °C		44							
PLASTIC VISCOSITY cP @		50 °C		12							
YIELD POINT (lb/100ft ²)				12							
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min				3 / 14							
RHEOLOGY q 600 / q 300				36 / 24							
RHEOLOGY q 200 / q 100				19 / 13							
RHEOLOGY q 6 / q 3				3 / 2							
FILTRATE API (cc's/30 min)				6.8							
HPHT FILTRATE (cc's/30 min) @		-- ° F		--							
CAKE THICKNESS API : HPHT (32nd in)		--		1 / --							
SOLIDS CONTENT (% by Volume)				8.1							
LIQUID CONTENT (% by Volume) OIL/WATER				0 / 91.9							
SAND CONTENT (% by Vol.)				0.10							
METHYLENE BLUE CAPACITY (ppb equiv.)				16.3							
pH				10.0							
ALKALINITY MUD (Pm)				0.12							
ALKALINITY FILTRATE (Pf / Mf)				0.20 / 1.65							
CHLORIDE (mg/L)				85,000							
TOTAL HARDNESS AS CALCIUM (mg/L)				160							
SULPHITE (mg/L)				180							
K+ (mg/L)				69,825							
KCI (% by Wt.)				13.3							
PHPA (ppb)				0.85							

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME		Centrifuge	DE1000	0	Desander		Shaker #1	4 x 310	24
Premix (recirc from sump)		Desilter				Degasser		0	Desilter		Shaker #2	4 x 310	24
Drill Water		Downhole		+ FLUID RECEIVED									
Direct Recirc Sump		Dumped		- FLUID LOST									
Other (eg Diesel)		Centrifuge		FLUID in STORAGE									
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME		Centrifuge		Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
		25		861				0		0			

Product		Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data			
AMC PAC-L		\$ 159.98	39	32	0	71	\$ 0.00		%	PPB	Jet Velocity		39
Baryte		\$ 8.20	832		40	792	\$ 328.00	High Grav solids	0.2	2.52	Impact force		51
Salt		\$ 8.65		816	200	616	\$ 1,730.00	Total LGS	7.9	75.2	HHP		2
Sodium Sulphite		\$ 33.30	53		1	52	\$ 33.30	Bentonite equiv.	1.0	9.5	HSI		0.1
								Drilled Solids	6.9	62.8	Bit Press Loss		14
								Salt	5.4	49.2	CSG Seat Frac Press		2200 psi
								n @ 23:00 Hrs	0.58		Equiv. Mud Wt.		13.80 ppg
								K @ 23:00 Hrs	3.20		ECD		
											Max Pressure @ Shoe :		1944 psi
								DAILY COST		CUMULATIVE COST			
								\$2,091.30		\$89,367.27			

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	24	Date :	1-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3230 to 3290	Metres	

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Barry BEETSON/Trevor WADHAM	REPORT FOR	David SHEERAN
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE	30	30	30	13 3/8 SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)	
6.00	SL12TKPR					304	M	340	401	5 X 8.5	Inches	2600 psi	
DRILL PIPE SIZE	TYPE	Length		9 5/8 INTERMEDIATE SET @		4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP (min)	
3.5	15.5 #	3045 Mtrs				1252	M	741		3 x NAT 8-P80	97 %	44 min	
DRILL PIPE SIZE	TYPE	Length		7 PRODUCTION/ LINER Set @		9839	ft	IN STORAGE		BBL/STK @ 100%	STK / MIN	TOTAL CIRC. TIME (min)	
3.50	HW	86 Mtrs				2999	M	77		0.0516	124	132 min	
DRILL COLLAR SIZE (")		Length		MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP
4.75	4.75	27 132 Mtrs		5% KCI-PHPA-POLYMER						6.21	261	269	475 475

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM	Below shkrs		Below shkrs	Mud Weight	10.0	API Filtrate	6 - 8
TIME SAMPLE TAKEN	10:15		21:50	Plastic Vis	ALAP	Yield Point	8 - 15
DEPTH (ft) - (m)	Metres			KCI	>5%	PHPA	0.75 - 1.5
FLOWLINE TEMPERATURE	°C		°F				
WEIGHT	ppg / SG			HPHT Filtrate			NA
FUNNEL VISCOSITY (sec/qt) API @	57 °C						
PLASTIC VISCOSITY cP @	50 °C						
YIELD POINT (lb/100ft ²)							
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min							
RHEOLOGY q 600 / q 300	29		19				
RHEOLOGY q 200 / q 100	15		10				
RHEOLOGY q 6 / q 3	2		2				
FILTRATE API (cc's/30 min)	7.4		6.5				
HPHT FILTRATE (cc's/30 min) @	-- °F		--				
CAKE THICKNESS API : HPHT (32nd in)	1		--				
SOLIDS CONTENT (% by Volume)	8.5		8.3				
LIQUID CONTENT (% by Volume) OIL/WATER	0		91.5				
SAND CONTENT (% by Vol.)	0.10		0.10				
METHYLENE BLUE CAPACITY (ppb equiv.)	16.3		16.3				
pH	10.2		10.2				
ALKALINITY MUD (Pm)	0.53		0.28				
ALKALINITY FILTRATE (Pf / Mf)	0.28		1.92				
CHLORIDE (mg/L)	91,000		90,500				
TOTAL HARDNESS AS CALCIUM (mg/L)	120		40				
SULPHITE (mg/L)	250		250				
K+ (mg/L)	63,000		67,725				
KCI (% by Wt.)	12.0		12.9				
PHPA (ppb)	0.97		1.10				

OBSERVATIONS
 Carry out fluid treatment w/- PAC-L, Soda Ash, Sodium Sulphite, Caustic Soda, Biocide+PHPA. Keeping rheology low, to minimise pressure drop in drill string. Maintaining 10.0ppg density w/- Salt. Use KCI for a pills to flush bit, which may have balled. Lower rheology may prevent a possible recurrence.

MUD ACCOUNTING (bbls)					
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	861
Premix (recirc from sump)		Desilter			
Drill Water	20	Downhole	0	+ FLUID RECEIVED	20
Direct Recirc Sump		Dumped		- FLUID LOST	63
Other (eg Diesel)		Centrifuge	63	FLUID in STORAGE	77
TOTAL RECEIVED	20	TOTAL LOST	63	FINAL VOLUME	818

OPERATIONS SUMMARY							
Drill to 3242m, DS @ 3227m - 9¼°N09W,							
Drill to 3253m, DS @ 3236m - 11¼°N08W,							
Drill to 3267m, DS @ 3256m - 14½°N02E;							
Orient tool, resurvey @ 3256m-15½°N05E, Drill ahead, slide/rotate							
Drill to 3287m, DS @ 3276m - 18½°N07W ,							
Drill to 3290m @ 24:00 hrs.							

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs		
Premix (drill water)		Desander		INITIAL VOLUME		861	Centrifuge	DE1000	22	Desander		Shaker #1	4 x 310	24
Premix (recirc from sump)		Desilter					Degasser		0	Desilter		Shaker #2	4 x 310	24
Drill Water		Downhole		+ FLUID RECEIVED		20	Overflow (ppg)		9.8	Underflow (ppg)		Output (Gal/Min.)		2.00
Direct Recirc Sump		Dumped		- FLUID LOST		63	Centrifuge							
Other (eg Diesel)		Centrifuge		FLUID in STORAGE		77								
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME		818								

Mud Accounting (bbls)							Solids Analysis			Bit Hydraulics & Pressure Data			
Product	Price	Start	Received	Used	Close	Cost	%	PPB	Jet Velocity	40			
AMC Biocide G	\$ 185.35	14	2	12	\$ 370.70		High Grav solids	0.2	2.46	Impact force			54
AMC PAC-L	\$ 159.98	71	6	65	\$ 959.88		Total LGS	8.1	76.6	HHP			2
AMC PHPA	\$ 118.90	49	4	45	\$ 475.60		Bentonite equiv.	1.0	9.3	HSI			0.1
Caustic Soda	\$ 48.90	25	1	24	\$ 48.90		Drilled Solids	7.1	64.3	Bit Press Loss			15
Potassium Chloride (	\$ 18.95	252	57	195	\$ 1,080.15		Salt	5.7	52.4	CSG Seat Frac Press			2200 psi
Salt	\$ 8.65	616	10	606	\$ 86.50		n @ 21:50 Hrs	0.62		Equiv. Mud Wt.			13.80 ppg
Soda Ash	\$ 18.30	42	2	40	\$ 36.60		K @ 21:50 Hrs	2.50		ECD			
Sodium Sulphite	\$ 33.30	52	4	48	\$ 133.20					Max Pressure @ Shoe :			1944 psi

							DAILY COST			CUMULATIVE COST		
							\$3,191.53			\$92,558.80		

RMN ENGINEER Peter ARONETZ CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	25	Date :	2-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3290	to	2985 Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Barry BEETSON		REPORT FOR David SHEERAN	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 6.00	TYPE			13 3/8	SURFACE SET @ 997 ft 304 M	HOLE 318	PITS 255	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) 1900 psi	
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 2755 Mtrs		9 5/8	INTERMEDIATE SET @ 4107 ft 1252 M	TOTAL CIRCULATING VOL. 573		PUMP MODEL 3 x NAT 8-P80	ASSUMED EFF 97 %	BOTTOMS UP (min) 44 min	
DRILL PIPE SIZE 3.50	TYPE HW	Length 86 Mtrs		7	PRODUCTION/ LINER Set @ 9839 ft 2999 M	IN STORAGE 188		BBL/STK@ 100% 0.0516	STK / MIN 120	TOTAL CIRC. TIME (min) 127 min	
DRILL COLLAR SIZE (") 2.88	Length 145 Mtrs			MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN 6.01	GAL / MIN 252	ANN VEL. (ft/min) 260	DP DCS 223

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM		Below shkrs		Mud Weight	10.2	API Filtrate	6 - 8
TIME SAMPLE TAKEN		08:15		Plastic Vis	ALAP	Yield Point	8 - 15
DEPTH (ft) - (m)	Metres	3,306		KCI	>5%	PHPA	0.75 - 1.5
FLOWLINE TEMPERATURE	⁰ C / ⁰ F	57 / 134		HPHT Filtrate		pH	9.0 - 9.5
WEIGHT	ppg / SG	10.20 / 1.224		Sulphites			80 - 120

OBSERVATIONS			
Raise MW to 10.2ppg and maintain at this level, using salt.			
Prepare HiVis pill below CMT with XANTHAN GUM.			
Depth indicated above and right, is estimated plug-back depth. Max depth reached before plug-back was 3306m.			
Circulation data recorded while circulating through open-ended DP after CMT job.			

OPERATIONS SUMMARY			
Drill to 3294m - record gas peak of 4300u, Flow-check, well static. Gas peak circ out fm flow-check - 4100u. Raise MW to 10.2ppg Drill to 3306m, Flow-check, well static. DS 3294m - 20 1/2" N03W. MW 10.2ppg in and out; Circulate out 3600u from survey. Mix & pump Barite heavy pill, flow-check, well static, POOH to SFC. P/U 15 jts (144m) 2-7/8" pipe CMT stinger and RIH on 3/2" DP to btm. Circulate btms up, record 4000u gas. Pressure-test cementing lines. Mix 25 and spot 15bbls X-G HiVis pill on bottom prior to cementing. pull back to 3128m, pump 14bbls 16.5ppg CMT slurry, displace with 2.5bbls water and 59bbls d/fluid, using HALLIBURTON. Pull back to 2985m, and circulate conventionally. Record 820u gas. Circulate w/- 2x60 SPM and 1900psi until 24:00 hrs			

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	818	Centrifuge	DE1000	9	Desander		Shaker #1	4 x 310	12
Premix (recirc from sump)		Desilter				Degasser		8	Desilter		Shaker #2	4 x 310	12
Drill Water		Downhole	0	+ FLUID RECEIVED									
Direct Recirc Sump		Dumped	31	- FLUID LOST	57								
Other (eg Diesel)		Centrifuge	26	FLUID in STORAGE	188								
TOTAL RECEIVED		TOTAL LOST	57	FINAL VOLUME	761	Centrifuge	Overflow (ppg)	9.9	Underflow (ppg)	16.0	Output (Gal/Min.)	2.00	

Product				Price				Start				Received				Used				Close				Cost			
AMC Biocide G	\$	185.35	12	1	11	\$	185.35	Solids Analysis				Bit Hydraulics & Pressure Data															
Baryte	\$	8.20	792	44	748	\$	360.80		%	PPB	Jet Velocity																
Salt	\$	8.65	606	222	384	\$	1,920.30	High Grav solids	0.4	5.67	Impact force																
Sodium Sulphite	\$	33.30	48	2	46	\$	66.60	Total LGS	8.4	79.2	HHP																
Xanthan Gum	\$	359.25	79	1	78	\$	359.25	Bentonite equiv.	0.8	7.6	HSI																
								Drilled Solids	7.5	68.5	Bit Press Loss																
								Salt	8.0	72.4	CSG Seat Frac Press																
								n @ 08:15 Hrs	0.65		Equiv. Mud Wt.																
								K @ 08:15 Hrs	2.09		13.80 ppg																
											ECD																
											10.56 ppg																
											Max Pressure @ Shoe :																
											1842 psi																
DAILY COST								CUMULATIVE COST																			
\$2,892.30								\$95,451.10																			

RMN ENGINEER Peter ARONETZ	CITY Adelaide Office	TELEPHONE 08 8338 7266
-----------------------------------	-----------------------------	-------------------------------

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	26	Date :	3-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	2985	to	3037
		Metres	

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Barry BEETSON		REPORT FOR David SHEERAN	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 6.00	TYPE SL12TKPR	OPEN		13 3/8 SURFACE SET @	997 ft 304 M	HOLE 323	PITS 380	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) 1950 psi	
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length	2807 Mtrs	9 5/8 INTERMEDIATE SET @	4107 ft 1252 M	TOTAL CIRCULATING VOL. 703		PUMP MODEL 3 x NAT 8-P80	ASSUMED EFF 97 %	BOTTOMS UP (min) 46 min	
DRILL PIPE SIZE 3.50	TYPE HW	Length	86 Mtrs	7 PRODUCTION/ LINER Set @	9839 ft 2999 M	IN STORAGE 120		BBL/STK@100% 0.0516	STK / MIN 118	TOTAL CIRC. TIME (min) 139 min	
DRILL COLLAR SIZE (")	Length	145 Mtrs		MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN 5.91	GAL / MIN 248	ANN VEL. (ft/min)	DP DCs 256 219

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		P/Suction	19.45	Mud Weight	10.2	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres		2,992	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	°C | °F		52 | 126	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
WEIGHT	ppg / SG		10.20 | 1.224	OBSERVATIONS					
FUNNEL VISCOSITY (sec/qt) API @	52 °C		45	Added salt weighted premix to improve surface volume. Mud pH fairly high, so will have to monitor this when polishing plug / kicking off. However, hardness is low so contamination from cement is not a problem.					
PLASTIC VISCOSITY cP @	50 °C		15						
YIELD POINT (lb/100ft ²)			12						
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			3 | 9						
RHEOLOGY q 600 / q 300			42 | 27						
RHEOLOGY q 200 / q 100			22 | 15						
RHEOLOGY q 6 / q 3			3 | 3						
FILTRATE API (cc's/30 min)			6.2						
HPHT FILTRATE (cc's/30 min) @	°F								
CAKE THICKNESS API : HPHT (32nd in)			1 | --						
SOLIDS CONTENT (% by Volume)			9.0						
LIQUID CONTENT (% by Volume) OIL/WATER			91.0						
SAND CONTENT (% by Vol.)			0.10						
METHYLENE BLUE CAPACITY (ppb equiv.)			14.0						
pH			11.0						
ALKALINITY MUD (Pm)			0.50						
ALKALINITY FILTRATE (Pf / Mf)			0.45 | 1.80						
CHLORIDE (mg/L)			119,000						
TOTAL HARDNESS AS CALCIUM (mg/L)			40						
SULPHITE (mg/L)			250						
K+ (mg/L)			76,125						
KCI (% by Wt.)			14.5						
PHPA (ppb)			0.90						

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs
Premix (drill water)		Desander		INITIAL VOLUME	761	Centrifuge	DE1000	Desander		Shaker #1	4 x 310	2
Premix (recirc from sump)	100	Desilter				Degasser		Desilter		Shaker #2	4 x 310	2
Drill Water		Downhole	0	+ FLUID RECEIVED	100							
Direct Recirc Sump		Dumped	38	- FLUID LOST	38							
Other (eg Diesel)		Centrifuge		FLUID IN STORAGE	120							
TOTAL RECEIVED	100	TOTAL LOST	38	FINAL VOLUME	823							

Product		Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data	
AMC PAC-L	\$	159.98	65		6	59	\$ 959.88	%	PPB	Jet Velocity	
AMC PHPA	\$	118.90	45		2	43	\$ 237.80	High Grav solids	0.3	4.67	Impact force
Baryte	\$	8.20	748		40	708	\$ 328.00	Total LGS	8.7	82.1	HHP
Salt	\$	8.65	384		192	192	\$ 1,660.80	Bentonite equiv.	0.7	6.1	HSI
Soda Ash	\$	18.30	40		4	36	\$ 73.20	Drilled Solids	8.0	72.8	Bit Press Loss
Xanthan Gum	\$	359.25	78		1	77	\$ 359.25	Salt	7.6	68.9	CSG Seat Frac Press
								n @ 19.45 Hrs	0.64		Equiv. Mud Wt.
								K @ 19.45 Hrs	2.60		ECD
											Max Pressure @ Shoe :
											1842 psi

Mud Accounting (bbls)				Solids Control Equipment								
TOTAL RECEIVED		100	TOTAL LOST	38	FINAL VOLUME	823	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)	
							Centrifuge		0			

Mud Accounting (bbls)				Solids Control Equipment								
TOTAL RECEIVED		100	TOTAL LOST	38	FINAL VOLUME	823	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)	
							Centrifuge		0			

RMN ENGINEER Andre Skujins		CITY Adelaide Office		TELEPHONE 08 8338 7266			
DAILY COST				CUMULATIVE COST			
\$3,618.93				\$99,070.03			

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	27	Date :	4-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3037 to 3041	Metres	

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Barry BEETSON	REPORT FOR	David SHEERAN
WELL NAME AND No	GLENAIRE # 1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA							
BIT SIZE	TYPE	OPEN		13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
6.00	SL12TKPR				304	M		324	378	5	X	8.5	Inches	1500	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8	INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP (min)			
3.5	15.5 #	2795	Mtrs		1252	M		702		3 x NAT 8-P80	97 %	55 min			
DRILL PIPE SIZE	TYPE	Length		7	PRODUCTION/ LINER Set @	9839	ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC. TIME (min)			
3.50	HW	86	Mtrs		2999	M		120		0.0516	98	168 min			
DRILL COLLAR SIZE (")	Length			MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP	DCs	
2.88	161	Mtrs		5% KCI-PHPA-POLYMER						4.91	206		213	182	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		P/Suction	P/Suction	Mud Weight	10.2	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres		09.30	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	⁰ C / ⁰ F		3,037	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
WEIGHT	ppg / SG		49	OBSERVATIONS					
FUNNEL VISCOSITY (sec/qt) API @	49 ⁰ C		10.20	Further truck load of salt (for mud weight purposes) has been ordered.					
PLASTIC VISCOSITY cP @	50 ⁰ C		1.224						
YIELD POINT (lb/100ft ²)			50						
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			16						
RHEOLOGY q 600 / q 300			11						
RHEOLOGY q 200 / q 100			3						
RHEOLOGY q 6 / q 3			10						
FILTRATE API (cc's/30 min)			43						
HPHT FILTRATE (cc's/30 min) @	⁰ F		27						
CAKE THICKNESS API : HPHT (32nd in)			21						
SOLIDS CONTENT (% by Volume)			15						
LIQUID CONTENT (% by Volume) OIL/WATER			3						
SAND CONTENT (% by Vol.)			2						
METHYLENE BLUE CAPACITY (ppb equiv.)			6.4						
pH			1						
ALKALINITY MUD (Pm)			--						
ALKALINITY FILTRATE (Pf / Mf)			8.7						
CHLORIDE (mg/L)			91.3						
TOTAL HARDNESS AS CALCIUM (mg/L)			0.10						
SULPHITE (mg/L)			14.0						
K+ (mg/L)			11.0						
KCI (% by Wt.)			0.56						
PHPA (ppb)			0.42						
			1.86						
			118,000						
			60						
			200						
			76,125						
			14.5						
			0.90						

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	823	Centrifuge	DE1000	1			Shaker #1	4 x 310	2
Premix (recirc from sump)		Desilter		+ FLUID RECEIVED		Degasser					Shaker #2	4 x 310	2
Drill Water		Downhole	0	- FLUID LOST	1								
Direct Recirc Sump		Dumped		FLUID in STORAGE	120								
Other (eg Diesel)		Centrifuge	1										
TOTAL RECEIVED		TOTAL LOST	1	FINAL VOLUME	822			Overflow (ppg)	Underflow (ppg)		Output (Gal/Min.)		
						Centrifuge		9.9	15.5		1.00		

Mud Accounting (bbls)							Solids Control Equipment							
Product		Price	Start	Received	Used	Close	Cost	Solids Analysis			Bit Hydraulics & Pressure Data			
Baryte		\$ 8.20	708	31	677	\$	254.20		%	PPB	Jet Velocity			
								High Grav solids	0.6	9.42	Impact force			
								Total LGS	8.1	76.6	HHP			
								Bentonite equiv.	0.7	6.7	HSI			
								Drilled Solids	7.4	66.9	Bit Press Loss			
								Salt	7.5	68.3	CSG Seat Frac Press		2200 psi	
								n @ 09.30 Hrs	0.67		Equiv. Mud Wt.		13.80 ppg	
								K @ 09.30 Hrs	2.10		ECD		10.72 ppg	
											Max Pressure @ Shoe : 1842 psi			
							DAILY COST			CUMULATIVE COST				
							\$254.20			\$99,324.23				

RMN ENGINEER Andre Skujins CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	29	Date :	6-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3041	to	3041 Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Barry BEETSON		REPORT FOR David SHEERAN	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE	OPEN		13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION				
6.00	SL12TKPR					304	M	324	388	5	X	8.5	Inches	PRESS (PSI)	2000	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8	INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS				
3.5	15.5 #	2795	Mtrs			1252	M	712		3 x NAT 8-P80	97	%	UP (min)	57	min	
DRILL PIPE SIZE	TYPE	Length		7	PRODUCTION/ LINER Set @	9839	ft	IN STORAGE		BBL/STK@ 100%	STK / MIN	TOTAL CIRC.				
3.50	HW	86	Mtrs			2999	M	110		0.0516	95	TIME (min)	173	min		
DRILL COLLAR SIZE (")	Length			MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP	206		
2.88	161	Mtrs		5% KCI-PHPA-POLYMER						4.76	200		DCs	176		

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		P/Suction		Mud Weight	10.2	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)		20.00		Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE		3,041		KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
WEIGHT		10.20 1.224		OBSERVATIONS OPERATIONS SUMMARY Circulate at 3040 m and attempt to retrieve signal from MWD. No Go. Pump slug and POH to 1132 m. Strong signal from MWD found. RIH to 2052 m. Lost signal. Attempt to find signal. No Go. POH. Lay out MWD tool. Make up bit and bit sub and RIH to 256 m. Slip and cut line. Wait on directional tools and circulate at low pump rate (35 spm.)					
FUNNEL VISCOSITY (sec/qt) API @		45							
PLASTIC VISCOSITY cP @		13							
YIELD POINT (lb/100ft ²)		10							
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		2 10							
RHEOLOGY q 600 / q 300		36 23							
RHEOLOGY q 200 / q 100		18 11							
RHEOLOGY q 6 / q 3		3 2							
FILTRATE API (cc's/30 min)		7.0							
HPHT FILTRATE (cc's/30 min) @									
CAKE THICKNESS API : HPHT (32nd in)		1 --							
SOLIDS CONTENT (% by Volume)		8.7							
LIQUID CONTENT (% by Volume) OIL/WATER		91.3							
SAND CONTENT (% by Vol.)		0.10							
METHYLENE BLUE CAPACITY (ppb equiv.)		14.0							
pH		11.0							
ALKALINITY MUD (Pm)		0.56							
ALKALINITY FILTRATE (Pf / Mf)		0.50 1.80							
CHLORIDE (mg/L)		113,000							
TOTAL HARDNESS AS CALCIUM (mg/L)		20							
SULPHITE (mg/L)		150							
K+ (mg/L)		76,125							
KCl (% by Wt.)		14.5							
PHPA (ppb)		0.90							

Mud Accounting (bbbls)		Solids Control Equipment			
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	822
Premix (recirc from sump)		Desilter		Centrifuge	DE1000
Drill Water		Downhole		Degasser	
Direct Recirc Sump		Dumped		Desander	
Other (eg Diesel)		Centrifuge		Desilter	
TOTAL RECEIVED		TOTAL LOST		Shaker #1	4 x 310 12
		FLUID IN STORAGE	110	Shaker #2	4 x 310 12
		FINAL VOLUME	822	Overflow (ppg)	
				Underflow (ppg)	0
				Output (Gal/Min.)	

Product		Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data	
Baryte	\$	8.20	647		40	607	\$ 328.00	High Grav solids	0.8	11.42	Jet Velocity
								Total LGS	7.9	75.0	Impact force
								Bentonite equiv.	0.8	6.9	HHP
								Drilled Solids	7.2	65.2	HSI
								Salt	7.2	65.4	Bit Press Loss
								n @ 20.00 Hrs	0.65		CSG Seat Frac Press
								K @ 20.00 Hrs	2.09		2200 psi
											Equiv. Mud Wt.
											13.80 ppg
											ECD
											10.59 ppg
											Max Pressure @ Shoe :
											1842 psi
DAILY COST								CUMULATIVE COST			
\$328.00								\$99,898.23			

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	30	Date :	7-Aug-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3041	to	3041 Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Barry BEETSON		REPORT FOR David SHEERAN	
WELL NAME AND No GLENAIRE # 1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE 6.00	TYPE Sec SDB036	20	20	20	13 3/8 SURFACE SET @ 997 ft 304 M	HOLE 324	PITS 378	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) psi		
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 2794 Mtrs		9 5/8 INTERMEDIATE SET @ 4107 ft 1252 M	TOTAL CIRCULATING VOL. 702		PUMP MODEL 3 x NAT 8-P80		ASSUMED EFF 97 %		BOTTOMS UP (min) min	
DRILL PIPE SIZE 3.50	TYPE HW	Length 86 Mtrs		7 PRODUCTION/ LINER Set @ 9839 ft 2999 M	IN STORAGE 110		BBL/STK@ 100% 0.0516		STK / MIN		TOTAL CIRC. TIME (min) min	
DRILL COLLAR SIZE (") 2.88	Length 161 Mtrs		MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN		GAL / MIN		ANN VEL. (ft/min)	DP DCs

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		P/Suction	P/Suction	Mud Weight	10.2	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres		15.30	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	⁰ C / ⁰ F		3,041	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT		OBSERVATIONS	
FUNNEL VISCOSITY (sec/qt) API @ ⁰ C	47	No product used - heavy weight pill pumped used remnants of previous slug.	
PLASTIC VISCOSITY cP @ 50 ⁰ C	13		
YIELD POINT (lb/100ft ²)	9		
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min	2.8		
RHEOLOGY q 600 / q 300	35 22		
RHEOLOGY q 200 / q 100	16 10		
RHEOLOGY q 6 / q 3	2 1		
FILTRATE API (cc's/30 min)	7.2		
HPHT FILTRATE (cc's/30 min) @ ⁰ F			
CAKE THICKNESS API : HPHT (32nd in)	1 --		

LIQUID CONTENT (% by Volume) OIL/WATER		OPERATIONS SUMMARY	
SAND CONTENT (% by Vol.)	0.10	Pump slug and POH. Wait on MWD tools. Make up bit and mud motor and MWD BHA. RIH. Test MWD. Break circulation regularly while RIH. Tag cement.	
METHYLENE BLUE CAPACITY (ppb equiv.)	14.0		
pH	11.0		
ALKALINITY MUD (Pm)	0.50		
ALKALINITY FILTRATE (Pf / Mf)	0.48 1.80		
CHLORIDE (mg/L)	113,000		
TOTAL HARDNESS AS CALCIUM (mg/L)	20		
SULPHITE (mg/L)	120		
K+ (mg/L)	76,125		
KCI (% by Wt.)	14.5		
PHPA (ppb)	0.90		

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	822	Centrifuge	DE1000			Desander			
Premix (recirc from sump)		Desilter				Degasser				Desilter			
Drill Water		Downhole	10	+ FLUID RECEIVED									
Direct Recirc Sump		Dumped		- FLUID LOST	10								
Other (eg Diesel)		Centrifuge		FLUID in STORAGE	110								
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME		Centrifuge		Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)	
		10		812				0					

Product		Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data			
								%	PPB	Jet Velocity			
								High Grav solids	1.0	14.10	Impact force		
								Total LGS	7.6	71.9	HHP		
								Bentonite equiv.	0.8	7.3	HSI		
								Drilled Solids	6.8	61.8	Bit Press Loss		
								Salt	7.2	65.4	CSG Seat Frac Press 2200 psi		
								n @ 15.30 Hrs	0.67		Equiv. Mud Wt. 13.80 ppg		
								K @ 15.30 Hrs	1.73		ECD		
											Max Pressure @ Shoe : 1842 psi		

DAILY COST		CUMULATIVE COST	
		\$99,898.23	

RMN ENGINEER **Andre Skujins** CITY **Adelaide Office** TELEPHONE **08 8338 7266**

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	31	Date :	8-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3041 to 3072	Metres	

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Barry BEETSON	REPORT FOR	David SHEERAN
WELL NAME AND No	GLENAIRE # 1 ST1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE	20	20	20	13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
6.00	Sec SDB036						304	M	327	429	5	X	8.5	Inches	2850	psi
DRILL PIPE SIZE	TYPE	Length			9 5/8	INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS			
3.5	15.5 #	2825	Mtrs				1252	M	756		3 x NAT 8-P80	97 %	UP (min)			
DRILL PIPE SIZE	TYPE	Length			7	PRODUCTION/ LINER Set @	9839	ft	IN STORAGE		BBL/STK @ 100%	STK / MIN	TOTAL CIRC.			
3.50	HW	86	Mtrs				2999	M	110		0.0516	123	TIME (min)			
DRILL COLLAR SIZE (")	Length				MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL.	DP		
2.88	161	Mtrs			5% KCI-PHPA-POLYMER						6.16	259	(ft/min)	DCs		
														267		
														228		

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		P/Suction	P/Suction	Mud Weight	< 10.2	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres	13.45	23.40	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	⁰ C / ⁰ F	3,051	3,072	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
WEIGHT	ppg / SG	49	120	52	126				
FUNNEL VISCOSITY (sec/qt) API @	52 ⁰ C	10.15	1.218	10.05	1.206				
PLASTIC VISCOSITY cP @	50 ⁰ C	39	12	11					
YIELD POINT (lb/100ft ²)		7	6						
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		1	2	1	1				
RHEOLOGY q 600 / q 300		31	19	28	17				
RHEOLOGY q 200 / q 100		15	9	13	8				
RHEOLOGY q 6 / q 3		2	1	1	1				
FILTRATE API (cc's/30 min)		7.4	7.0						
HPHT FILTRATE (cc's/30 min) @	⁰ F								
CAKE THICKNESS API : HPHT (32nd in)		1	--	1	--				
SOLIDS CONTENT (% by Volume)		8.2	7.6						
LIQUID CONTENT (% by Volume) OIL/WATER		91.8	92.4						
SAND CONTENT (% by Vol.)		0.10	TRC						
METHYLENE BLUE CAPACITY (ppb equiv.)		14.0	13.0						
pH		11.0	11.0						
ALKALINITY MUD (Pm)		0.55	0.45						
ALKALINITY FILTRATE (Pf / Mf)		0.50	1.75	0.35	1.40				
CHLORIDE (mg/L)		113,500	110,500						
TOTAL HARDNESS AS CALCIUM (mg/L)		Tr	Tr						
SULPHITE (mg/L)		100	100						
K+ (mg/L)		76,125	73,500						
KCI (% by Wt.)		14.5	14.0						
PHPA (ppb)		0.85	0.87						

OBSERVATIONS
 One premix built to both aid in lowering fluid loss back towards 6 cc's and to improve volume in mud tanks.
 Mud Rheology has been allowed to "thin" out so as to minimise friction losses in drill pipe.
 Mud weight is being allowed to drop naturally - i.e. Premixes are not presently being weighted up with salt.

OPERATIONS SUMMARY	
Slide / drill with directional assembly.	

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY			Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs
Premix (drill water)		Desander		INITIAL VOLUME	812	Centrifuge	DE1000	16	Desander		Shaker #1	4 x 310	24
Premix (recirc from sump)	90	Desilter		+ FLUID RECEIVED	90	Degasser			Desilter		Shaker #2	4 x 310	24
Drill Water		Downhole	8	- FLUID LOST	36								
Direct Recirc Sump		Dumped	10	FLUID in STORAGE	110								
Other (eg Diesel)		Centrifuge	18				Centrifuge	Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
TOTAL RECEIVED	90	TOTAL LOST	36	FINAL VOLUME	866		10.1	19.2	0.80				

Product		Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$	185.35	11	1	10	\$	185.35	%	PPB	Jet Velocity	90	
AMC PAC-L	\$	159.98	59	6	53	\$	959.88	High Grav solids	0.9	12.65	Impact force	121
AMC PHPA	\$	118.90	43	1	42	\$	118.90	Total LGS	6.8	64.2	HHP	11
Sodium Sulphite	\$	33.30	46	1	45	\$	33.30	Bentonite equiv.	0.8	7.1	HSI	0.4
Xanthan Gum	\$	359.25	77	1	76	\$	359.25	Drilled Solids	6.0	54.6	Bit Press Loss	73
								Salt	7.0	64.0	CSG Seat Frac Press	2200 psi
								n @ 23.40 Hrs	0.72		Equiv. Mud Wt.	13.80 ppg
								K @ 23.40 Hrs	0.98		ECD	10.69 ppg
											Max Pressure @ Shoe :	1919 psi

DAILY COST		CUMULATIVE COST	
\$1,656.68		\$101,554.91	

RMN ENGINEER Andre Skujins CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	32	Date :	9-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3072 to 3119	Metres	

OPERATOR BEACH Petroleum LTD				CONTRACTOR ENSIGN Int'l Energy SVCs					
REPORT FOR Barry BEETSON				REPORT FOR David SHEERAN					
WELL NAME AND No GLENAIRE # 1 ST1				FIELD PEP 160		LOCATION OTWAY Basin		STATE VICTORIA	
DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA	
BIT SIZE 6.00	TYPE Sec SDB036	20	20	20	13 3/8 SURFACE SET @ 997 ft 304 M	HOLE 331	PITS 443	PUMP SIZE 5 X 8.5 Inches	CIRCULATION PRESS (PSI) 2900 psi
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 2872 Mtrs	9 5/8 INTERMEDIATE SET @ 4107 ft 1252 M		TOTAL CIRCULATING VOL. 774		PUMP MODEL 3 x NAT 8-P80	ASSUMED EFF 97 %	BOTTOMS UP (min) 45 min
DRILL PIPE SIZE 3.50	TYPE HW	Length 86 Mtrs	7 PRODUCTION/ LINER Set @ 9839 ft 2999 M		IN STORAGE 71		BBL/STK @ 100% 0.0516	STK / MIN 124	TOTAL CIRC. TIME (min) 136 min
DRILL COLLAR SIZE (") 2.88	Length 161 Mtrs	MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN 6.21		GAL / MIN 261	ANN VEL. (ft/min) DP 269 230

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS						
SAMPLE FROM		Below shkrs	Below shkrs	Mud Weight	< 10.2	API Filtrate	6 - 8	HPHT Filtrate	NA	
TIME SAMPLE TAKEN		12.00	21.30	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5	
DEPTH (ft) - (m)		Metres	3,092	3,119	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

FLOWLINE TEMPERATURE		° C / ° F	52	126	53	127	OBSERVATIONS Mud weight slowly coming down as premix is added. With the slow ROP, few solids are entering the mud and properties are remaining quite stable.			
WEIGHT		ppg / SG	10.05	1.206	10.05	1.206				
FUNNEL VISCOSITY (sec/qt) API @		53 ° C	37	38						
PLASTIC VISCOSITY cP @		50 ° C	11	11						
YIELD POINT (lb/100ft²)			6	7						
GEL STRENGTHS (lb/100ft²) 10 sec/10 min			1	1						
RHEOLOGY q 600 / q 300			28	17	29	18				
RHEOLOGY q 200 / q 100			12	7	13	7				
RHEOLOGY q 6 / q 3			1	1	1	1				
FILTRATE API (cc's/30 min)			7.1	7.0						

HPHT FILTRATE (cc's/30 min) @		° F			OPERATIONS SUMMARY Slide / drill with directional assembly to 3119 m. Circulate bottoms up and trip bit.							
CAKE THICKNESS API : HPHT (32nd in)			1	--							1	--
SOLIDS CONTENT (% by Volume)			7.7	7.7								
LIQUID CONTENT (% by Volume) OIL/WATER			92.3	92.3								
SAND CONTENT (% by Vol.)			TRC	TRC								
METHYLENE BLUE CAPACITY (ppb equiv.)			13.0	13.0								
pH			10.8	10.5								
ALKALINITY MUD (Pm)			0.40	0.40								
ALKALINITY FILTRATE (Pf / Mf)			0.28	1.30							0.26	1.24
CHLORIDE (mg/L)			107,500	107,000								

Mud Accounting (bbls)						Solids Control Equipment							
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	866	Centrifuge	DE1000	22.5	Desander		Shaker #1	4 x 310	22
Premix (recirc from sump)		Desilter				Degasser			Desilter		Shaker #2	4 x 310	22
Drill Water		Downhole	6	+ FLUID RECEIVED									
Direct Recirc Sump		Dumped		- FLUID LOST	20								
Other (eg Diesel)		Centrifuge	14	FLUID in STORAGE	71								
TOTAL RECEIVED		TOTAL LOST	20	FINAL VOLUME	845								
						Centrifuge		Overflow (ppg)	10.1	Underflow (ppg)	15.6	Output (Gal/Min.)	0.45

Product				Price				Start				Received				Used				Close				Cost				Solids Analysis				Bit Hydraulics & Pressure Data			
AUS-BEN	\$	11.25	168					1	167	\$	11.25							High Grav solids	0.9	12.65	PPB	Jet Velocity	91												
Baryte	\$	8.20	607					47	560	\$	385.40							Total LGS	6.8	64.6	HSI	Impact force	123												
Sodium Sulphite	\$	33.30	45					3	42	\$	99.90							Bentonite equiv.	0.8	7.0	Bit Press Loss	74													
																		Drilled Solids	6.1	55.1	CSG Seat Frac Press	2200 psi													
																		Salt	6.8	62.0	Equiv. Mud Wt.	13.80 ppg													
																		n @ 21.30 Hrs	0.69		ECD	10.95 ppg													
																		K @ 21.30 Hrs	1.26		Max Pressure @ Shoe :	1919 psi													

DAILY COST				CUMULATIVE COST			
\$496.55				\$102,051.46			



DRILLING FLUID REPORT

Report #	33	Date :	10-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3119	to	3119 Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Barry BEETSON		REPORT FOR David SHEERAN	
WELL NAME AND No GLENAIRE # 1 ST1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE 6.00	TYPE Smith XR+	24	24	24	13 3/8 SURFACE SET @ 997 ft 304 M	HOLE 331	PITS 443	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) psi		
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 2872 Mtrs		9 5/8 INTERMEDIATE SET @ 4107 ft 1252 M	TOTAL CIRCULATING VOL. 774		PUMP MODEL 3 x NAT 8-P80		ASSUMED EFF 97 %		BOTTOMS UP (min) min	
DRILL PIPE SIZE 3.50	TYPE HW	Length 86 Mtrs		7 PRODUCTION/ LINER Set @ 9839 ft 2999 M	IN STORAGE 71		BBL/STK@ 100% 0.0516		STK / MIN		TOTAL CIRC. TIME (min) min	
DRILL COLLAR SIZE (") 2.88	Length 161 Mtrs		MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN		GAL / MIN		ANN VEL. (ft/min)	DP DCs

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		P/Suction	22.00	Mud Weight	< 10.2	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres		3,119	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	⁰ C / ⁰ F			KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT	ppg / SG	10.05	1.206	OBSERVATIONS Note - mud volume analysis assumes pipe in hole.			
FUNNEL VISCOSITY (sec/qt) API @	⁰ C	39					
PLASTIC VISCOSITY cP @	50 ⁰ C	11					
YIELD POINT (lb/100ft ²)		6					
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		1 | 1					
RHEOLOGY q 600 / q 300		28	17				
RHEOLOGY q 200 / q 100		12	6				
RHEOLOGY q 6 / q 3		1	1				
FILTRATE API (cc's/30 min)		6.8					
HPHT FILTRATE (cc's/30 min) @	⁰ F						
CAKE THICKNESS API : HPHT (32nd in)		--	1				
SOLIDS CONTENT (% by Volume)		7.7					
LIQUID CONTENT (% by Volume) OIL/WATER		92.3					
SAND CONTENT (% by Vol.)		Tr					

METHYLENE BLUE CAPACITY (ppb equiv.)		13.0	OPERATIONS SUMMARY POH. Change bit and RIH - 264 m. Bent Monkey Board flap with Top Drive. Wait on clearance from Inspectors.			
pH		10.5				
ALKALINITY MUD (Pm)		0.42				
ALKALINITY FILTRATE (Pf / Mf)		0.25 | 1.15				
CHLORIDE (mg/L)		107,000				
TOTAL HARDNESS AS CALCIUM (mg/L)		Tr				
SULPHITE (mg/L)		120				
K+ (mg/L)		73,500				
KCI (% by Wt.)		14.0				
PHPA (ppb)		0.87				

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	845	Centrifuge	DE1000			Desander		Shaker #1	4 x 310
Premix (recirc from sump)		Desilter				Degasser				Desilter		Shaker #2	4 x 310
Drill Water		Downhole		+ FLUID RECEIVED									
Direct Recirc Sump		Dumped		- FLUID LOST									
Other (eg Diesel)		Centrifuge		FLUID in STORAGE	71								
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME	845	Centrifuge		Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)	

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data			
							%	PPB	Jet Velocity			
							High Grav solids	0.9	12.65	Impact force		
							Total LGS	6.8	64.6	HHP		
							Bentonite equiv.	0.8	7.0	HSI		
							Drilled Solids	6.1	55.1	Bit Press Loss		
							Salt	6.8	62.0	CSG Seat Frac Press 2200 psi		
							n @ 22.00 Hrs	0.72		Equiv. Mud Wt. 13.80 ppg		
							K @ 22.00 Hrs	0.98		ECD		
										Max Pressure @ Shoe : 1919 psi		

				DAILY COST		CUMULATIVE COST	
						\$102,051.46	



DRILLING FLUID REPORT

Report #	34	Date :	11-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3119	to	3119 Metres

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Barry BEETSON	REPORT FOR	David SHEERAN
WELL NAME AND No	GLENAIRE # 1 ST1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE	24	24	24	13 3/8	SURFACE SET @	997 ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)		
6.00	Smith XR+					304 M		331	440	5	X	8.5	Inches	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8	INTERMEDIATE SET @	4107 M	TOTAL CIRCULATING VOL.	PUMP MODEL		ASSUMED EFF		BOTTOMS		
3.5	15.5 #	2872 Mtrs			1252 M		771	3 x NAT 8-P80		97 %		UP (min)		
DRILL PIPE SIZE	TYPE	Length		7	PRODUCTION/ LINER Set @	9839 M	IN STORAGE	BBL/STK @ 100%		STK / MIN		TOTAL CIRC.		
3.50	HW	86 Mtrs			2999 M		71	0.0516				TIME (min)		
DRILL COLLAR SIZE (")	Length			MUD TYPE				BBL/MIN		GAL / MIN		ANN VEL. DP		
2.88	161 Mtrs			5% KCI-PHPA-POLYMER								(ft/min) DCs		

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		P/Suction	P/Suction	Mud Weight	< 10.2	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres		21.30	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	⁰ C / ⁰ F		3,119	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT	ppg / SG	10.05	1.206	OBSERVATIONS Note - mud volume analysis assumes pipe in hole.
FUNNEL VISCOSITY (sec/qt) API @	⁰ C		39	
PLASTIC VISCOSITY cP @	50 ⁰ C		10	
YIELD POINT (lb/100ft ²)			8	
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			1 | 1	
RHEOLOGY q 600 / q 300			28 | 18	
RHEOLOGY q 200 / q 100			13 | 7	
RHEOLOGY q 6 / q 3			1 | 1	
FILTRATE API (cc's/30 min)			7.3	
HPHT FILTRATE (cc's/30 min) @	⁰ F			
CAKE THICKNESS API : HPHT (32nd in)		--	1 | --	
SOLIDS CONTENT (% by Volume)			7.7	
LIQUID CONTENT (% by Volume) OIL/WATER			92.3	
SAND CONTENT (% by Vol.)			Tr	

METHYLENE BLUE CAPACITY (ppb equiv.)			13.0	OPERATIONS SUMMARY Pull wear bushing. RIH to 263 m.
pH			10.5	
ALKALINITY MUD (Pm)			0.42	
ALKALINITY FILTRATE (Pf / Mf)			0.25 | 1.12	
CHLORIDE (mg/L)			107,000	
TOTAL HARDNESS AS CALCIUM (mg/L)			Tr	
SULPHITE (mg/L)			100	
K+ (mg/L)			73,500	
KCI (% by Wt.)			14.0	
PHPA (ppb)			0.87	

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	845	Centrifuge	DE1000			Desander			
Premix (recirc from sump)		Desilter				Degasser				Desilter			
Drill Water		Downhole	3	+ FLUID RECEIVED									
Direct Recirc Sump		Dumped		- FLUID LOST	3								
Other (eg Diesel)		Centrifuge		FLUID in STORAGE	71								
TOTAL RECEIVED		TOTAL LOST	3	FINAL VOLUME	842	Centrifuge		Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)	
									0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data			
							%	PPB	Jet Velocity			
							High Grav solids	0.9	12.65	Impact force		
							Total LGS	6.8	64.6	HHP		
							Bentonite equiv.	0.8	7.0	HSI		
							Drilled Solids	6.1	55.1	Bit Press Loss		
							Salt	6.8	62.0	CSG Seat Frac Press 2200 psi		
							n @ 21.30 Hrs	0.64		Equiv. Mud Wt. 13.80 ppg		
							K @ 21.30 Hrs	1.73		ECD		
										Max Pressure @ Shoe : 1919 psi		

						DAILY COST	CUMULATIVE COST					
							\$102,051.46					

RMN ENGINEER Andre Skujins CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	35	Date :	12-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3119	to	3119 Metres

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Brian MARRIOTT	REPORT FOR	Andy BAKER
WELL NAME AND No	GLENAIRE # 1 ST1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE	24	24	24	13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
6.00	Smith XR+						304	M	324	438	5	X	8.5	Inches	80	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8	INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.	PUMP MODEL		ASSUMED EFF		BOTTOMS			
3.5	15.5 #	2872 Mtrs				1252	M	762	3 x NAT 8-P80		97 %		UP (min) 131 min			
DRILL PIPE SIZE	TYPE	Length		7	PRODUCTION/ LINER Set @	9839	ft	IN STORAGE	BBL/STK@ 100%		STK / MIN		TOTAL CIRC.			
3.50	HW	86 Mtrs				2999	M	71	0.0516		40		TIME (min) 416 min			
DRILL COLLAR SIZE (")	Length		MUD TYPE		5% KCI-PHPA-POLYMER				BBL/MIN		GAL / MIN		ANN VEL. DP			
4.75	161 Mtrs								2.00		84		87			
														DCs	153	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		P/Suction	P/Suction	Mud Weight	>= 10.0	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres		22.30	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	⁰ C / ⁰ F		3,119	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT	ppg / SG	10.05	1.206	OBSERVATIONS Note - mud volume analysis assumes pipe in hole.			
FUNNEL VISCOSITY (sec/qt) API @	⁰ C	39					
PLASTIC VISCOSITY cP @	50 ⁰ C	11					
YIELD POINT (lb/100ft ²)		6					
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		1 | 1					
RHEOLOGY q 600 / q 300		28	17				
RHEOLOGY q 200 / q 100		12	6				
RHEOLOGY q 6 / q 3		1	1				
FILTRATE API (cc's/30 min)		7.5					
HPHT FILTRATE (cc's/30 min) @	⁰ F						

MUD ACCOUNTING (bbls)				OPERATIONS SUMMARY			
FLUID BUILT & RECEIVED	FLUID DISPOSED	SUMMARY		Wait on goose neck.			
Premix (drill water)	Desander	INITIAL VOLUME	835	Monitor well with pill tank and circulate through 2" line.			
Premix (recirc from sump)	Desilter			POH. Pick up mud motor and RIH.			
Drill Water	Downhole	+ FLUID RECEIVED		Test MWD tool at 57 m. Faulty.			
Direct Recirc Sump	Dumped	- FLUID LOST	2	Install goose neck and fix MWD. Pressure test goose neck.			
Other (eg Diesel)	Centrifuge	FLUID in STORAGE	71	RIH.			
TOTAL RECEIVED	TOTAL LOST	2	FINAL VOLUME				
			833				

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	835	Centrifuge	DE1000			Desander	Shaker #1	4 x 310	10
Premix (recirc from sump)		Desilter				Degasser				Desilter	Shaker #2	4 x 310	10
Drill Water		Downhole		+ FLUID RECEIVED									
Direct Recirc Sump		Dumped		- FLUID LOST	2								
Other (eg Diesel)		Centrifuge		FLUID in STORAGE	71								
TOTAL RECEIVED		TOTAL LOST		2	FINAL VOLUME	Centrifuge		Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
					833				0				

Mud Accounting (bbls)				Solids Analysis				Bit Hydraulics & Pressure Data						
Product	Price	Start	Received	Used	Close	Cost	%	PPB	Jet Velocity				20	
Baryte	\$ 8.20	560		30	530	\$ 246.00	High Grav solids	0.9	12.73	Impact force				9
							Total LGS	6.8	64.5	HHP				0
							Bentonite equiv.	0.8	7.0	HSI				0.0
							Drilled Solids	6.0	55.0	Bit Press Loss				4
							Salt	6.8	62.0	CSG Seat Frac Press				2200 psi
							n @ 22.30 Hrs	0.72		Equiv. Mud Wt.				13.80 ppg
							K @ 22.30 Hrs	0.98		ECD				10.16 ppg
										Max Pressure @ Shoe :				1919 psi

Mud Accounting (bbls)				DAILY COST				CUMULATIVE COST			
				\$246.00				\$102,297.46			

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	36	Date :	13-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3119	to	3169
			Metres

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs		
REPORT FOR	Brian MARRIOTT - Scott HEALEY	REPORT FOR	Andy BAKER		
WELL NAME AND No	GLENAIRE # 1 ST1	FIELD	PEP 160	LOCATION	OTWAY Basin
		STATE	VICTORIA		

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE	24	24	24	13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
6.00	Smith XR+					304	M		329	402	5	X	8.5	Inches	3050	psi
DRILL PIPE SIZE	TYPE	Length			9 5/8	INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP (min)			
3.5	15.5 #	3253	Mtrs			1252	M		731		3 x NAT 8-P80	97 %	50			
DRILL PIPE SIZE	TYPE	Length			7	PRODUCTION/ LINER Set @	9839	ft	IN STORAGE		BBL/STK @ 100%	STK / MIN	TOTAL CIRC. TIME (min)			
3.50	HW	86	Mtrs			2999	M		183		0.0516	118	154			
DRILL COLLAR SIZE (")	Length				MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP	256	
4.75	161	Mtrs			5% KCI-PHPA-POLYMER						5.91	248		DCS	452	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS							
TIME SAMPLE TAKEN		Below shkrs	Below shkrs	Mud Weight	>=10.3	API Filtrate	6 - 8	HPHT Filtrate	NA		
DEPTH (ft) - (m)	Metres	3,150	3,165	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5		
FLOWLINE TEMPERATURE	° C / ° F	51	124	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120		
WEIGHT	ppg / SG	10.30	1.236	OBSERVATIONS Salt added directly to mud system to increase mud weight over one circulation after well was seen to be flowing slightly. Salt added to premix to pre-weight it to 10.3 ppg. Premix being added to slowly build tank volume and to maintain properties. Maintaining yield point at relatively low levels so as to minimise drill string pressure losses. Despite low yield point, hole cleaning not compromised due to high annular velocities. Will be maintaining mud weight at or above 10.3 ppg.							
FUNNEL VISCOSITY (sec/qt) API @	52 ° C	36	36								
PLASTIC VISCOSITY cP @	55 ° C	10	9								
YIELD POINT (lb/100ft²)		5	6								
GEL STRENGTHS (lb/100ft²) 10 sec/10 min		1	3								
RHEOLOGY q 600 / q 300		25	15							24	15
RHEOLOGY q 200 / q 100		11.5	7							11.5	7
RHEOLOGY q 6 / q 3		1	1							1	1
FILTRATE API (cc's/30 min)		6.5	6.6								
HPHT FILTRATE (cc's/30 min) @	° F										
CAKE THICKNESS API : HPHT (32nd in)		1	--	1	--						
SOLIDS CONTENT (% by Volume)		8.0	7.9								
LIQUID CONTENT (% by Volume) OIL/WATER		92.0	92.1								
SAND CONTENT (% by Vol.)		Tr	Tr								
METHYLENE BLUE CAPACITY (ppb equiv.)		12.5	12.0								
pH		10.0	10.0								
ALKALINITY MUD (Pm)		0.30	0.28								
ALKALINITY FILTRATE (Pf / Mf)		0.22	0.98	0.24	0.94						
CHLORIDE (mg/L)		129,500	131,000								
TOTAL HARDNESS AS CALCIUM (mg/L)		40	40								
SULPHITE (mg/L)		120	100								
K+ (mg/L)		65,625	60,375								
KCI (% by Wt.)		12.5	11.5								
PHPA (ppb)		0.82	0.84								

OPERATIONS SUMMARY	
RIH to 3054 m. Wash to bottom.	
Drill / slide to 3169 m.	
Slight flow, after high gas readings, was experienced at 3127 m with a mud weight at the time of 10.2 ppg.	
Increased mud weight to 10.3 ppg.	
Elevated Gas readings at 3153 m (2900 units), 3153.76 m (1200), 3154.27 m (80), 3156 m (230), 3157 m (510) and 3159 m (185).	

Mud Accounting (bbls)				Solids Control Equipment										
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY				Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs
Premix (drill water)		Desander		INITIAL VOLUME	833	Centrifuge	DE1000	21	Desander			Shaker #1	4 x 310	22
Premix (recirc from sump)	110	Desilter				Degasser		6	Desilter			Shaker #2	4 x 310	22
Drill Water		Downhole	13	+ FLUID RECEIVED	110									
Direct Recirc Sump		Dumped	10	- FLUID LOST	29									
Other (eg Diesel)		Centrifuge	6	FLUID in STORAGE	183									
TOTAL RECEIVED	110	TOTAL LOST	29	FINAL VOLUME	914									
						Centrifuge		10.3	Underflow (ppg)	15.6	Output (Gal/Min.)			

Mud Accounting (bbls)							Solids Analysis				Bit Hydraulics & Pressure Data			
Product	Price	Start	Received	Used	Close	Cost		%	PPB	Jet Velocity	60			
AMC Biocide G	\$ 185.35	10		1	9	\$ 185.35	High Grav solids	0.8	11.34	Impact force	79			
AMC PAC-L	\$ 159.98	53		5	48	\$ 799.90	Total LGS	8.3	78.7	HHP	5			
AMC PHPA	\$ 118.90	42		1	41	\$ 118.90	Bentonite equiv.	0.5	4.2	HSI	0.2			
Salt	\$ 8.65	1152		456	696	\$ 3,944.40	Drilled Solids	7.8	71.4	Bit Press Loss	33			
Sodium sulphite	\$ 33.30	42		1	41	\$ 33.30	Salt	8.2	75.8	CSG Seat Frac Press	2200 psi			
Xanthan Gum	\$ 359.25	76		1	75	\$ 359.25	n @ 23.00 Hrs	0.68		Equiv. Mud Wt.	13.80 ppg			
							K @ 23.00 Hrs	1.12		ECD	11.04 ppg			
										Max Pressure @ Shoe :	1791 psi			
							DAILY COST				CUMULATIVE COST			
							\$5,441.10				\$107,738.56			

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	37	Date :	14-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3169	to	3182
			Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Brian MARRIOTT - Scott HEALEY		REPORT FOR Andy BAKER	
WELL NAME AND No GLENAIRE # 1 ST1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE 6.00	TYPE Smith XR+	24	24	24	13 3/8 SURFACE SET @ 997 ft 304 M	HOLE 330	PITS 440	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) 3000 psi	
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 2935 Mtrs		9 5/8 INTERMEDIATE SET @ 4107 ft 1252 M	TOTAL CIRCULATING VOL. 770		PUMP MODEL 3 x NAT 8-P80		ASSUMED EFF 97 %		BOTTOMS UP (min) 45 min
DRILL PIPE SIZE 3.50	TYPE HW	Length 86 Mtrs		7 PRODUCTION/ LINER Set @ 9839 ft 2999 M	IN STORAGE 120		BBL/STK@ 100% 0.0516		STK / MIN 118		TOTAL CIRC. TIME (min) 151 min
DRILL COLLAR SIZE (") 4.75	Length 161 Mtrs		MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN 5.91		GAL / MIN 248		ANN VEL. (ft/min) 256
										DP DCs	452

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Below shkrs	Below shkrs	Mud Weight	>=10.5	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)		Metres		Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE		° C / ° F		KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT		ppg / SG		10.55		1.267		OBSERVATIONS Increasing mud weight due to formation flowing slightly. Using salt at present.	
FUNNEL VISCOSITY (sec/qt) API @ 51 °C				36					
PLASTIC VISCOSITY cP @ 55 °C				10					
YIELD POINT (lb/100ft²)				5					
GEL STRENGTHS (lb/100ft²) 10 sec/10 min				1		3			
RHEOLOGY q 600 / q 300				25		15			
RHEOLOGY q 200 / q 100				12		7			
RHEOLOGY q 6 / q 3				1		1			
FILTRATE API (cc's/30 min)				6.0					
HPHT FILTRATE (cc's/30 min) @ ° F									

CAKE THICKNESS API : HPHT (32nd in)		1		--		OPERATIONS SUMMARY Drill / slide to 3182 m. Circulate bottoms up. Pump slug and POH. Flow check at 2991 m - slight flow. POH - 2846 m - Flow Check - slight flow. POH - 2729 m - Flow Check - slight flow. RIH to bottom - no fill. Circulate bottoms up (4000 units gas plus oil show) and weight up to 10.5+ ppg. Flow check - hole ok. POH. Flow check every 15 stands. Change bit and service mwd tools. RIH.			
SOLIDS CONTENT (% by Volume)		7.8							
LIQUID CONTENT (% by Volume) OIL/WATER		92.2							
SAND CONTENT (% by Vol.)		Tr							
METHYLENE BLUE CAPACITY (ppb equiv.)		12.0							
pH		9.5							
ALKALINITY MUD (Pm)		0.18							
ALKALINITY FILTRATE (Pf / Mf)		0.15		0.70					
CHLORIDE (mg/L)		159,000							
TOTAL HARDNESS AS CALCIUM (mg/L)		80							
SULPHITE (mg/L)		120							
K+ (mg/L)		52,500							
KCI (% by Wt.)		10.0							
PHPA (ppb)		0.83							

Mud Accounting (bbls)				Solids Control Equipment									
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	FLC 514	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	914	Centrifuge	DE1000	7	Desander		Shaker #1	4 x 310	12
Premix (recirc from sump)		Desilter				Degasser		9	Desilter		Shaker #2	4 x 310	12
Drill Water		Downhole	9	+ FLUID RECEIVED									
Direct Recirc Sump		Dumped	10	- FLUID LOST	24								
Other (eg Diesel)		Centrifuge	5	FLUID in STORAGE	120								
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME		Centrifuge		Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)			
		24		890				10.3	15.6	0.50			

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
Barite	\$ 8.20	530	160	66	624	\$ 541.20	%	PPB	Jet Velocity	60	
Salt	\$ 8.65	696	816	312	1200	\$ 2,698.80	High Grav solids	0.8	11.21	Impact force	81
							Total LGS	8.7	82.2	HHP	5
							Bentonite equiv.	0.4	3.8	HSI	0.2
							Drilled Solids	8.3	75.2	Bit Press Loss	34
							Salt	9.9	92.1	CSG Seat Frac Press	2200 psi
							n @ 11.00 Hrs	0.74		Equiv. Mud Wt.	13.80 ppg
							K @ 11.00 Hrs	0.78		ECD	11.45 ppg
										Max Pressure @ Shoe :	1663 psi

DAILY COST		CUMULATIVE COST	
\$3,240.00		\$110,978.56	

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	38	Date :	15-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3182	to	3207
			Metres

OPERATOR BEACH Petroleum LTD	CONTRACTOR ENSIGN Int'l Energy SVCs
REPORT FOR Brian MARRIOTT - Scott HEALEY	REPORT FOR Andy BAKER
WELL NAME AND No GLENAIRE # 1 ST1	FIELD PEP 160
	LOCATION OTWAY Basin
	STATE VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA							
BIT SIZE	TYPE	15	15	15	13 3/8 SURFACE	997 ft	HOLE	PITS	PUMP SIZE		CIRCULATION				
6.00	Hyc DSX516M	15	15		SET @	304 M	332	330	5	X 8.5	Inches	PRESS (PSI)	3100	psi	
DRILL PIPE	TYPE	Length		9 5/8 INTERMEDIATE	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS				
SIZE 3.5	15.5 #	2960 Mtrs		SET @	1252	M	692		3 x NAT 8-P80	97 %	UP (min)		46	min	
DRILL PIPE	TYPE	Length		7 PRODUCTION. o	9839	ft	IN STORAGE		BBL/STK	STK / MIN	TOTAL CIRC.				
SIZE 3.50	HW	86 Mtrs		LINER Set @	2999	M	30		0.0516	118	TIME (min)		117	min	
DRILL COLLAR SIZE (")	Length			MUD TYPE					BBL/MIN	GAL / MIN	ANN VEL.	DP	256	Tur	
4.75	161 Mtrs			5% KCI-PHPA-POLYMER						5.91	248	(ft/min)	DCs	452	Tur

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
		Below shkrs	Below shkrs	Mud Weight	>=10.8	API Filtrate	6 - 8	HPHT Filtrate	NA
TIME SAMPLE TAKEN				Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
DEPTH (ft) - (m)		Metres		KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
FLOWLINE TEMPERATURE		°C / °F		OBSERVATIONS Weighted mud up to salt saturation point. An approximate volume of 60 bbls was expected to result from the addition of the salt that was made. Once saturation point was reached, barite additions were made. Lost mud on wet trip and while cleaning out mud tanks of settled salt. At 24.00 hours, a 120 bbl premix of weighted mud was being built. Usage will be on tomorrows report.					
WEIGHT		ppg / SG							
FUNNEL VISCOSITY (sec/qt) API @		°C							
PLASTIC VISCOSITY cP @		55 °C							
YIELD POINT (lb/100ft ²)									
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min									
RHEOLOGY q 600 / q 300		20 12							
RHEOLOGY q 200 / q 100		9 5							
RHEOLOGY q 6 / q 3		1 1							
FILTRATE API (cc's/30 min)		4.8							
HPHT FILTRATE (cc's/30 min) @		°F							
CAKE THICKNESS API : HPHT (32nd in)		1							
SOLIDS CONTENT (% by Volume)		8.3							
LIQUID CONTENT (% by Volume) OIL/WATER		91.7							
SAND CONTENT (% by Vol.)		Tr							
METHYLENE BLUE CAPACITY (ppb equiv.)		13.0							
pH		9.0							
ALKALINITY MUD (Pm)									
ALKALINITY FILTRATE (Pf / Mf)		0.12 0.66							
CHLORIDE (mg/L)		183,000							
TOTAL HARDNESS AS CALCIUM (mg/L)		120							
SULPHITE (mg/L)		150							
K+ (mg/L)		49,875							
KCI (% by Wt.)		9.5							
PHPA (ppb)		0.83 0.83							

OPERATIONS SUMMARY	
RIH to 1948 m. Break circulation. Flow check - slight flow and gain 1/2 bbl. Mud aerated. Continue RIH to shoe. Circ btms up - 600 units gas. RIH 3154 m. Wash to bottom. Drill - 3207 m. (3445 units gas from bottoms up at 3154 m.) Gas peak at 4000 units with oil cut mud over shakers. Circulate and weigh up from 10.6 - 10.8+. Shut in well and circulate through choke. Continue weighing up. Open annular - well static. Attempt to circulate - no go. Attempt to unblock string. No go. POH to shoe. Attempt to unblock string - no go. POH wet. Found salt packed off from 2nd stand heavy weight pipe. Break off stands and clear blockages. Pick up mud motor and make up bit. RIH.	

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	890	Centrifuge	2	Desander		Shaker #1	4 x 310	12
Premix (recirc from sump)		Desilter				Degasser		Desilter		Shaker #2	4 x 310	12
Drill Water		Downhole	0	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped	196	- FLUID LOST	198							
Other (eg Diesel)		Centrifuge	1	+ FLUID IN STORAGE	30							
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME	722	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)		
		198				Centrifuge	10.5	16.8		0.50		
						Desilter		0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data	
Baryte	\$ 8.20	624	960	103	1481	\$ 844.60	%	PPB	Jet Velocity	92
Salt	\$ 8.65	1200		978	222	\$ 8,459.70	High Grav solids	1.9 27.93	Impact force	128
							Total LGS	7.5 70.6	HHP	12
							Bentonite	0.7 6.3	HSI	0.4
							Drilled Solids	6.8 61.5	Bit Press Loss	83
							Salt	11.4 106.0	CSG Seat Frac Press	2200 psi
							n @ 12.00 Hrs	0.74	Equiv. Mud Wt.	13.80 ppg
							K @ 12.00 Hrs	0.62	ECD	11.71 ppg
									Max Pressure @ Shoe :	1509 psi
							DAILY COST		CUMULATIVE COST	
							\$9,304.30		\$120,282.86	

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	39	Date :	16-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3207	to	3267
			Metres

OPERATOR BEACH Petroleum LTD	CONTRACTOR ENSIGN Int'l Energy SVCs
REPORT FOR Brian MARRIOTT - Scott HEALEY - Ray E	REPORT FOR Andy BAKER
WELL NAME AND No GLENAIRE # 1 ST1	FIELD PEP 160
	LOCATION OTWAY Basin
	STATE VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE 6.00	TYPE Hyc DSX516M	15	15	15	15	13 3/8 SURFACE SET @	997 ft	HOLE 338	PITS 440	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) 3080 psi	
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 3020 Mtrs		9 5/8 INTERMEDIATE SET @	4107 ft	TOTAL CIRCULATING VOL. 1028		PUMP MODEL 3 x NAT 8-P80		ASSUMED EFF 97 %		BOTTOMS UP (min) 47 min	
DRILL PIPE SIZE 3.50	TYPE HW	Length 86 Mtrs		7 PRODUCTION. o LINER Set @	9839 ft	IN STORAGE 250		BBL/STK 0.0516		STK / MIN 118		TOTAL CIRC. TIME (min) 174 min	
DRILL COLLAR SIZE (") 4.75	Length 161 Mtrs			MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN 5.91		GAL / MIN 248		ANN VEL. DP (ft/min) DCs 256 Tur 452 Tur	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Below shkrs	Below shkrs	Mud Weight	11.0 - 11.2	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres	3,231	3,267	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	°C / °F	49	51	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT		YIELD POINT		OBSERVATIONS			
FUNNEL VISCOSITY (sec/qt) API @	°C	36	34	<p>Maintaining mud weight in range 11.0 - 11.2 ppg with barite now.</p> <p>Have mixed extra premixes throughout day to build volume in active system and extra has been stored in pill and premix tanks. This is in case extra volume is required in a hurry.</p> <p>Mud properties are remaining quite stable. Extra Xanthan gum has been added to slightly boost yield point, as it had dropped to 4 lb/100ft². Yield point being run in a range that is a compromise between maintaining minimal friction losses and reasonable suspension characteristics for the barite.</p> <p>A further 800 sacks barite and 168 sacks KCI delivered just after midnight, but have been added to the inventory for todays report.</p>			
PLASTIC VISCOSITY cP @	55 °C	7	8				
GEL STRENGTHS (lb/100ft²) 10 sec/10 min		1 | 2	1 | 1				
RHEOLOGY q 600 / q 300		18 | 11	22 | 14				
RHEOLOGY q 200 / q 100		8 | 5	11 | 7				
RHEOLOGY q 6 / q 3		1 | 0.5	1 | 1				
FILTRATE API (cc's/30 min)		4.6	4.6				
HPHT FILTRATE (cc's/30 min) @	°F						
CAKE THICKNESS API : HPHT (32nd in)		2	2				
SOLIDS CONTENT (% by Volume)		9.7	8.6				

LIQUID CONTENT (% by Volume) OIL/WATER		SAND CONTENT (% by Vol.)		OPERATIONS SUMMARY			
		90.3	91.4	<p>RIH to 2998 m Circulate bottoms up. 2500 units gas.</p> <p>RIH - 3007 m - tag fill (salt). Lightly was to bottom.</p> <p>Drill ahead to 3217 m. 4956 units gas. Increase mud weight to 11.0 ppg.</p> <p>Drill / slide to 3267 m.</p>			
METHYLENE BLUE CAPACITY (ppb equiv.)		12.0	12.0				
pH		9.0	9.0				
ALKALINITY MUD (Pm)		0.15	0.16				
ALKALINITY FILTRATE (Pf / Mf)		0.12 | 0.65	0.14 | 0.70				
CHLORIDE (mg/L)		156,000	177,000				
TOTAL HARDNESS AS CALCIUM (mg/L)		100	80				
SULPHITE (mg/L)		120	120				
K+ (mg/L)		44,625	39,375				
KCI (% by Wt.)		8.5	7.5				
PHPA (ppb)		0.72	0.70				

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	692	Centrifuge		Desander		Shaker #1	4 x 310	21
Premix (recirc from sump)	360	Desilter		+ FLUID RECEIVED	360	Degasser		Desilter		Shaker #2	4 x 310	21
Drill Water		Downhole	24	- FLUID LOST	24	Overflow (ppg) Underflow (ppg) Output (Gal/Min.)						
Direct Recirc Sump		Dumped		+ FLUID IN STORAGE	250	Centrifuge		0				
Other (eg Diesel)		Centrifuge		FINAL VOLUME	1,278	Desilter		0				
TOTAL RECEIVED	360	TOTAL LOST	24									

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$ 185.35	9		3	6	\$ 556.05	%	PPB	Jet Velocity	92	
AMC Defoamer	\$ 146.40	5		1	4	\$ 146.40	High Grav solids	4.8	70.39	Impact force	131
AMC PAC-L	\$ 159.98	48		6	42	\$ 959.88	Total LGS	3.8	36.1	HHP	12
AMC PHPA	\$ 118.90	41		3	38	\$ 356.70	Bentonite	1.0	9.3	HSI	0.4
Baryte	\$ 8.20	1481	800	981	1300	\$ 8,044.20	Drilled Solids	2.8	25.4	Bit Press Loss	84
Caustic Soda	\$ 48.90	24		2	22	\$ 97.80	Salt	10.9	102.5	CSG Seat Frac Press	2200 psi
Potassium Chloride	\$ 18.95	195	168	153	210	\$ 2,899.35	n @ 24.00 Hrs	0.65		Equiv. Mud Wt.	13.80 ppg
Salt	\$ 8.65	222		174	48	\$ 1,505.10	K @ 24.00 Hrs	1.23		ECD	12.38 ppg
Sodium Sulphite	\$ 33.30	41		3	38	\$ 99.90	Max Pressure @ Shoe : 1381 psi				
Xanthan Gum	\$ 359.25	75		7	68	\$ 2,514.75					
							DAILY COST		CUMULATIVE COST		
							\$17,180.13		\$137,462.99		

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	40	Date :	17-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3267	to	3361
			Metres

OPERATOR BEACH Petroleum LTD	CONTRACTOR ENSIGN Int'l Energy SVCs
REPORT FOR Brian Marriott - Scott Healey - Ray Ell	REPORT FOR Andy Baker
WELL NAME AND No GLENAIRE # 1 ST1	FIELD PEP 160
	LOCATION OTWAY Basin
	STATE VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA								
BIT SIZE	TYPE	15	15	15	13 3/8 SURFACE	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION				
6.00	Hyc DSX516M	15	15	15	SET @	304	M	347	463	5	X	8.5	Inches	PRESS (PSI)	3150	psi
DRILL PIPE	TYPE	Length		9 5/8 INTERMEDIATE	4107	ft	TOTAL CIRCULATING VOL.	PUMP MODEL		ASSUMED EFF		BOTTOMS				
SIZE 3.5	15.5 #	3114 Mtrs		SET @	1252	M	950	3 x NAT 8-P80		97 %		UP (min)				
DRILL PIPE	TYPE	Length		7 PRODUCTION. o	9839	ft	IN STORAGE	BBL/STK		STK / MIN		TOTAL CIRC.				
SIZE 3.50	HW	86 Mtrs		LINER Set @	2999	M	140	0.0516		116		TIME (min)				
DRILL COLLAR SIZE (")	Length	MUD TYPE		5% KCl-PHPA-POLYMER				BBL/MIN		GAL / MIN		ANN VEL. DP				
4.75	161 Mtrs							5.81		244		252 Tur				
												445 Tur				

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Below shkrs	Below shkrs	Mud Weight	11.2 - 11.3	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres	3,315	3,357	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	°C / °F	53	54	KCl	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT	ppg / SG	11.25	1.351	11.20	1.345
FUNNEL VISCOSITY (sec/qt) API @	°C	35	36		
PLASTIC VISCOSITY cP @	55 °C	9	10		
YIELD POINT (lb/100ft ²)		7	8		
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		1 | 1	1 | 2		
RHEOLOGY q 600 / q 300		25 | 16	28 | 18		
RHEOLOGY q 200 / q 100		12 | 8	14 | 9		
RHEOLOGY q 6 / q 3		1 | 1	2 | 1		
FILTRATE API (cc's/30 min)		4.4	4.2		
HPHT FILTRATE (cc's/30 min) @	°F				
CAKE THICKNESS API : HPHT (32nd in)		1	1		
SOLIDS CONTENT (% by Volume)		9.5	9.2		
LIQUID CONTENT (% by Volume) OIL/WATER		90.5	90.8		
SAND CONTENT (% by Vol.)		Tr	Tr		
METHYLENE BLUE CAPACITY (ppb equiv.)		11.0	11.0		
pH		9.0	9.0		
ALKALINITY MUD (Pm)					
ALKALINITY FILTRATE (Pf / Mf)		0.15 | 0.78	0.20 | 0.90		
CHLORIDE (mg/L)		175,500	175,000		
TOTAL HARDNESS AS CALCIUM (mg/L)		120	100		
SULPHITE (mg/L)		150	120		
K+ (mg/L)		36,750	35,438		
KCl (% by Wt.)		7.0	6.8		
PHPA (ppb)		0.70	0.70		

OBSERVATIONS

At 23.30 hrs started increasing mud weight to approx 11.3 ppg as gas levels appear to be on average higher than earlier in day.

Premix additions (mixed and costed previously) are maintaining stable properties and slowly increasing rheological properties.

Gas peaks are corresponding to periods / times when pump pressure is reduced (eg when picking up off bottom) and when pumps are stopped, thereby taking the ECD portion of the "hydrostatic" off the formation.

Defoamer used previously.

Mud Accounting (bbls)		Solids Control Equipment								
FLUID BUILT & RECEIVED	FLUID DISPOSED	SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)	Desander	INITIAL VOLUME	1028	Centrifuge	5.5	Desander		Shaker #1	4 x 310	24
Premix (recirc from sump)	Desilter			Degasser		Desilter		Shaker #2	4 x 310	24
Drill Water	Downhole	53	+ FLUID RECEIVED							
Direct Recirc Sump	Dumped	25	- FLUID LOST							
Other (eg Diesel)	Centrifuge		+ FLUID IN STORAGE							
			140							
TOTAL RECEIVED	TOTAL LOST	78	FINAL VOLUME	Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)		
			1,090	Centrifuge	10.3	21.5	0.40			
				Desilter		0				

Product		Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data	
AMC Defoamer	\$ 146.40	4		2	2	\$ 292.80		%	PPB	Jet Velocity	90
Baryte	\$ 8.20	1300		132	1168	\$ 1,082.40	High Grav solids	5.3	77.88	Impact force	128
Caustic Soda	\$ 48.90	22		1	21	\$ 48.90	Total LGS	3.5	33.4	HHP	12
							Bentonite	0.9	8.5	HSI	0.4
							Drilled Solids	2.6	23.6	Bit Press Loss	82
							Salt	10.7	101.3	CSG Seat Frac Press	2200 psi
							n @ 23.00 Hrs	0.64		Equiv. Mud Wt.	13.80 ppg
							K @ 23.00 Hrs	1.73		ECD	11.65 ppg
										Max Pressure @ Shoe :	1330 psi
								DAILY COST		CUMULATIVE COST	
								\$1,424.10		\$138,887.09	

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	41	Date :	18-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3361	to	3418 Metres

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Brian Marriott - Scott Healey - Ray Ell	REPORT FOR	Andy Baker
WELL NAME AND No	GLENAIRE # 1 ST1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA												
BIT SIZE	6.00	TYPE	Hyc DSX516M	15	15	15	15	13 3/8 SURFACE SET @	997	ft	HOLE	353	PITS	447	PUMP SIZE	5 X 8.5	Inches	CIRCULATION PRESS (PSI)	3000	psi
DRILL PIPE SIZE	3.5	TYPE	15.5 #	Length	3171	Mtrs	9 5/8 INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.	981	PUMP MODEL	3 x NAT 8-P80	ASSUMED EFF	97	%	BOTTOMS UP (min)	49	min	
DRILL PIPE SIZE	3.50	TYPE	HW	Length	86	Mtrs	7 PRODUCTION. o LINER Set @	9839	ft	IN STORAGE	181	BBL/STK	0.0516	STK / MIN	116	TOTAL CIRC. TIME (min)	169	min		
DRILL COLLAR SIZE (")	4.75	Length	161	Mtrs	MUD TYPE		5% KCI-PHPA-POLYMER				BBL/MIN	5.81	GAL / MIN	244	ANN VEL. (ft/min)	252	DP	445	Tur	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS							
TIME SAMPLE TAKEN		Below shkrs	13.00	Below shkrs	23.45	Mud Weight	11.3 - 11.4	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres	3,393	3,418	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5	KCI	>5%
FLOWLINE TEMPERATURE	°C / °F	53	53	PHPA	0.75 - 1.5	Sulphites	80 - 120	OBSERVATIONS			

WEIGHT	ppg / SG	11.30	1.357	11.30	1.357	Maintaining mud weight at 11.3 - 11.4 ppg.					
FUNNEL VISCOSITY (sec/qt) API @	°C	35	35	Majority of barite mixed was to pre-weight a further premix of fresh mud.							
PLASTIC VISCOSITY cP @	55 °C	10	10	Initially, premix had no Pac-LV added as fluid loss was very stable below 5 cc's. Miday check however showed an increasng trend so 3 sacks Pac-LV were added to premix. Fluid loss subsequently has come back down and appears stable.							
YIELD POINT (lb/100ft ²)		8	9	Potassium is being continually topped up as there is some depletion occurring.							
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		1	2								
RHEOLOGY q 600 / q 300		28	18								
RHEOLOGY q 200 / q 100		14	10								
RHEOLOGY q 6 / q 3		2	1								
FILTRATE API (cc's/30 min)		6.2	5.5								
HPHT FILTRATE (cc's/30 min) @	°F										
CAKE THICKNESS API : HPHT (32nd in)		1	1								
SOLIDS CONTENT (% by Volume)		9.8	9.8								
LIQUID CONTENT (% by Volume) OIL/WATER		90.2	90.2								
SAND CONTENT (% by Vol.)		Tr	Tr								
METHYLENE BLUE CAPACITY (ppb equiv.)		10.0	9.0								
pH		9.0	9.0								
ALKALINITY MUD (Pm)											
ALKALINITY FILTRATE (Pf / Mf)		0.17	0.84	0.15	0.80						
CHLORIDE (mg/L)		174,000	171,000								
TOTAL HARDNESS AS CALCIUM (mg/L)		120	140								
SULPHITE (mg/L)		120	100								
K+ (mg/L)		38,063	36,750								
KCI (% by Wt.)		7.3	7.0								
PHPA (ppb)		0.72	0.74								

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	950	Centrifuge		Desander		Shaker #1	4 x 310	19
Premix (recirc from sump)	100	Desilter		+ FLUID RECEIVED	100	Degasser		Desilter		Shaker #2	4 x 310	19
Drill Water		Downhole	54	- FLUID LOST	69	Overflow (ppg)						
Direct Recirc Sump		Dumped	15	+ FLUID IN STORAGE	181	Underflow (ppg)						
Other (eg Diesel)		Centrifuge		FINAL VOLUME	1,162	Output (Gal/Min.)						
TOTAL RECEIVED	100	TOTAL LOST	69									

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$ 185.35	6		1	5	\$ 185.35	%	PPB	Jet Velocity	90	
AMC PAC-L	\$ 159.98	42		3	39	\$ 479.94	High Grav solids	5.5	81.09	Impact force	129
AMC PHPA	\$ 118.90	38		2	36	\$ 237.80	Total LGS	4.3	40.6	HHP	12
Baryte	\$ 8.20	1168		384	784	\$ 3,148.80	Bentonite	0.6	5.4	HSI	0.4
Caustic Soda	\$ 48.90	21		1	20	\$ 48.90	Drilled Solids	3.7	33.6	Bit Press Loss	83
Potassium Chloride	\$ 18.95	210		84	126	\$ 1,591.80	Salt	10.5	99.0	CSG Seat Frac Press	2200 psi
Sodium Sulphite	\$ 33.30	38		3	35	\$ 99.90	n @ 23.45 Hrs	0.61		Equiv. Mud Wt.	13.80 ppg
Xanthan Gum	\$ 359.25	68		2	66	\$ 718.50	K @ 23.45 Hrs	2.17		ECD	11.80 ppg
										Max Pressure @ Shoe :	1279 psi

DAILY COST		CUMULATIVE COST	
\$6,510.99		\$145,398.08	
RMN ENGINEER	Andre Skujins	CITY	Adelaide Office
		TELEPHONE	08 8338 7266



DRILLING FLUID REPORT

Report #	42	Date :	19-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3418	to	3507
			Metres

OPERATOR BEACH Petroleum LTD	CONTRACTOR ENSIGN Int'l Energy SVCs
REPORT FOR Brian Marriott - Scott Healey - Ray Ell	REPORT FOR Andy Baker
WELL NAME AND No GLENAIRE # 1 ST1	FIELD PEP 160
	LOCATION OTWAY Basin
	STATE VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE 6.00	TYPE Hyc DSX516M	15	15	15	15	13 3/8 SURFACE SET @	997 ft	HOLE 362	PITS 453	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) 3130 psi	
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 3260 Mtrs		9 5/8 INTERMEDIATE SET @	4107 ft	TOTAL CIRCULATING VOL. 944		PUMP MODEL 3 x NAT 8-P80		ASSUMED EFF 97 %		BOTTOMS UP (min) 52 min	
DRILL PIPE SIZE 3.50	TYPE HW	Length 86 Mtrs		7 PRODUCTION. o LINER Set @	9839 ft	IN STORAGE 129		BBL/STK 0.0516		STK / MIN 114		TOTAL CIRC. TIME (min) 165 min	
DRILL COLLAR SIZE (") 4.75	Length 161 Mtrs			MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN 5.71		GAL / MIN 240		ANN VEL. DP (ft/min) DCs 247 Tur 437 Tur	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Below shkrs	Below shkrs	Mud Weight	11.2 - 11.4	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres		16.00	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	°C / °F		3,507	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
WEIGHT	ppg / SG		11.30	OBSERVATIONS Rapid losses to hole occurred after drilling a sand at 3335 m. Losses of 20 bbl / hour were initially recorded. Losses almost self healed, perhaps with aid of some Kwikseal fine. Losses were ongoing then throughout day, albeit at far lower rates that are presently of little concern. A weighted slug was spotted in casing at 2000 m to give an equivalent mud weight at 3192 m of 13.65 ppg - the weight predicted to prevent gas from trickling into the wellbore. Received truckload of barite and KCI this evening. Note that Volume Summary is up until 21.00 hrs, and assumes pipe in hole.					
FUNNEL VISCOSITY (sec/qt) API @	°C		35						
PLASTIC VISCOSITY cP @	55 °C		10						
YIELD POINT (lb/100ft ²)			9						
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			1 | 2						
RHEOLOGY q 600 / q 300			29 | 19						
RHEOLOGY q 200 / q 100			15 | 10						
RHEOLOGY q 6 / q 3			2 | 1						
FILTRATE API (cc's/30 min)			5.2						
HPHT FILTRATE (cc's/30 min) @	°F								

LIQUID CONTENT (% by Volume) OIL/WATER		SAND CONTENT (% by Vol.)		METHYLENE BLUE CAPACITY (ppb equiv.)		pH		ALKALINITY MUD (Pm)		ALKALINITY FILTRATE (Pf / Mf)		CHLORIDE (mg/L)		TOTAL HARDNESS AS CALCIUM (mg/L)		SULPHITE (mg/L)		K+ (mg/L)		KCI (% by Wt.)		PHPA (ppb)		
			90.7		Tr		9.0				0.14	0.82		182,000		160		100		40,688		7.8		0.69

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	981	Centrifuge	2.5	Desander		Shaker #1	4 x 310	18
Premix (recirc from sump)	100	Desilter		+ FLUID RECEIVED	100	Degasser		Desilter		Shaker #2	4 x 310	18
Drill Water		Downhole	126	- FLUID LOST	137							
Direct Recirc Sump		Dumped	10	+ FLUID IN STORAGE	129							
Other (eg Diesel)		Centrifuge	2									
TOTAL RECEIVED	100	TOTAL LOST	137	FINAL VOLUME	1,073							
						Overflow (ppg)	10.4	Underflow (ppg)	20.9	Output (Gal/Min.)	0.48	
						Desilter			0			

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$ 185.35	5		1	4	\$ 185.35	%	PPB	Jet Velocity	89	
AMC PHPA	\$ 118.90	36		2	34	\$ 237.80	High Grav solids	5.7	83.45	Impact force	125
Baryte	\$ 8.20	784	800	304	1280	\$ 2,492.80	Total LGS	3.6	33.9	HHP	11
Caustic Soda	\$ 48.90	20		1	19	\$ 48.90	Bentonite	0.7	6.2	HSI	0.4
KWIKSEAL - F	\$ 56.39	80		2	78	\$ 112.78	Drilled Solids	2.9	26.5	Bit Press Loss	80
Potassium Chloride	\$ 18.95	126	168	84	210	\$ 1,591.80	Salt	11.2	105.4	CSG Seat Frac Press	2200 psi
Xanthan Gum	\$ 359.25	66		3	63	\$ 1,077.75	n @ 16.00 Hrs	0.61		Equiv. Mud Wt.	13.80 ppg
							K @ 16.00 Hrs	2.17		ECD	11.80 ppg
										Max Pressure @ Shoe :	1279 psi

DAILY COST						CUMULATIVE COST					
\$5,747.18						\$151,145.26					

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	43	Date :	20-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3507	to	3563
			Metres

OPERATOR BEACH Petroleum LTD	CONTRACTOR ENSIGN Int'l Energy SVCs
REPORT FOR Brian Marriott - Ray Ell	REPORT FOR Andy Baker
WELL NAME AND No GLENAIRE # 1 ST1	FIELD PEP 160
	LOCATION OTWAY Basin
	STATE VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE	15	15	15	13 3/8 SURFACE	997 ft	HOLE	PITS	PUMP SIZE		CIRCULATION			
6.00	Hyc DSX516M	15	15		SET @	304 M	367	473	5	X 8.5	Inches	PRESS (PSI)	2800	psi
DRILL PIPE	TYPE	Length			9 5/8 INTERMEDIATE	4107 ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS			
SIZE 3.5	15.5 #	3316 Mtrs			SET @	1252 M	1064		3 x NAT 8-P80	97 %	UP (min)			
DRILL PIPE	TYPE	Length			7 PRODUCTION. o	9839 ft	IN STORAGE		BBL/STK	STK / MIN	TOTAL CIRC.			
SIZE 3.50	HW	86 Mtrs			LINER Set @	2999 M	224		0.0516	118	TIME (min)			
DRILL COLLAR SIZE (")	Length			MUD TYPE				BBL/MIN	GAL / MIN	ANN VEL.	DP	256	Tur	
4.75	161 Mtrs			5% KCI-PHPA-POLYMER				5.91	248	(ft/min)	DCs	452	Tur	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Below shkrs	Below shkrs	Mud Weight	11.2 - 11.4	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres	3,528	3,558	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	°C / °F	48	50	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT		ppg / SG		OBSERVATIONS			
FUNNEL VISCOSITY (sec/qt) API @	°C	37	36	<p>Mud tank volume has been increased to near maximum as a safety measure in case of severe lost circulation, which is still a possibility.</p> <p>Two KCI - Caustic - water slugs (5 bbls each) were circulated in case poor ROP was due to some bit balling.</p> <p>Mud losses to hole since resuming drilling have been very slight, if at all. Reduced mud weight to 11.2 ppg earlier in day.</p> <p>Truckload of mud arrived soon after midnight on 21st October - Mainly calcium carbonate for use as possible LCM.</p>			
PLASTIC VISCOSITY cP @	55 °C	12	11				
YIELD POINT (lb/100ft ²)		10	9				
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		1 | 2	1 | 2				
RHEOLOGY q 600 / q 300		34 | 22	31 | 20				
RHEOLOGY q 200 / q 100		17 | 11	16 | 11				
RHEOLOGY q 6 / q 3		2 | 1	2 | 1				
FILTRATE API (cc's/30 min)		5.4	5.5				
HPHT FILTRATE (cc's/30 min) @	°F						
CAKE THICKNESS API : HPHT (32nd in)		1	1				
SOLIDS CONTENT (% by Volume)		9.1	8.7				
LIQUID CONTENT (% by Volume) OIL/WATER		90.9	91.3				
SAND CONTENT (% by Vol.)		Tr	Tr				
METHYLENE BLUE CAPACITY (ppb equiv.)		8.0	8.0				
pH		9.0	9.5				
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)		0.15 | 0.85	0.17 | 0.92				
CHLORIDE (mg/L)		184,000	181,000				
TOTAL HARDNESS AS CALCIUM (mg/L)		140	120				
SULPHITE (mg/L)		80	120				
K+ (mg/L)		42,000	42,000				
KCI (% by Wt.)		8.0	8.0				
PHPA (ppb)		0.69	0.70				

Mud Accounting (bbls)				Solids Control Equipment																					
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs														
Premix (drill water)		Desander		INITIAL VOLUME	944	Centrifuge	3	Desander		Shaker #1	4 x 310	18													
Premix (recirc from sump)	100	Desilter		+ FLUID RECEIVED	135	Degasser		Desilter		Shaker #2	4 x 310	18													
Drill Water	35	Downhole	13	- FLUID LOST	15	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Overflow (ppg)</td> <td colspan="2">Underflow (ppg)</td> <td colspan="2">Output (Gal/Min.)</td> </tr> <tr> <td>Centrifuge</td> <td>10.4</td> <td>Desilter</td> <td>0</td> <td>Centrifuge</td> <td>21.0</td> <td>Output</td> <td>0.47</td> </tr> </table>						Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)		Centrifuge	10.4	Desilter	0	Centrifuge	21.0	Output	0.47
Overflow (ppg)		Underflow (ppg)		Output (Gal/Min.)																					
Centrifuge	10.4	Desilter	0	Centrifuge	21.0	Output	0.47																		
Direct Recirc Sump		Dumped		+ FLUID IN STORAGE	224																				
Other (eg Diesel)		Centrifuge	2	FINAL VOLUME	1,288																				
TOTAL RECEIVED	135	TOTAL LOST	15																						

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$ 185.35	4		2	2	\$ 370.70	%	PPB	Jet Velocity	92	
AMC PHPA	\$ 118.90	34		2	32	\$ 237.80	High Grav solids	5.5	81.11	Impact force	132
Baryte	\$ 8.20	1280		320	960	\$ 2,624.00	Total LGS	3.2	30.5	HHP	12
Caustic Soda	\$ 48.90	19		3	16	\$ 146.70	Bentonite	0.6	5.4	HSI	0.4
KWIKSEAL - F	\$ 56.39	78		1	77	\$ 56.39	Drilled Solids	2.6	23.8	Bit Press Loss	85
Potassium Chloride	\$ 18.95	210		84	126	\$ 1,591.80	Salt	11.2	104.8	CSG Seat Frac Press	2200 psi
Sodium Sulphite	\$ 33.30	35		4	31	\$ 133.20	n @ 22.30 Hrs	0.63		Equiv. Mud Wt.	13.80 ppg
Xanthan Gum	\$ 359.25	63		2	61	\$ 718.50	K @ 22.30 Hrs	1.99		ECD	11.70 ppg
										Max Pressure @ Shoe :	1330 psi

DAILY COST						CUMULATIVE COST					
\$5,879.09						\$157,024.35					

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	44	Date :	21-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3563	to	3572
			Metres

OPERATOR BEACH Petroleum LTD	CONTRACTOR ENSIGN Int'l Energy SVCs
REPORT FOR Brian Marriott - Ray Ell	REPORT FOR Andy Baker
WELL NAME AND No GLENAIRE # 1 ST1	FIELD PEP 160
	LOCATION OTWAY Basin
	STATE VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE 6.00	TYPE Reed DSX111	18	18	18	13 3/8 SURFACE SET @	997	ft	HOLE 368	PITS 474	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) 2880 psi	
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 3325 Mtrs		9 5/8 INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL. 992		PUMP MODEL 3 x NAT 8-P80		ASSUMED EFF 97 %	BOTTOMS UP (min) 51 min	
DRILL PIPE SIZE 3.50	TYPE HW	Length 86 Mtrs		7 PRODUCTION. o LINER Set @	9839	ft	IN STORAGE 150		BBL/STK 0.0516	STK / MIN 118	TOTAL CIRC. TIME (min) 168 min		
DRILL COLLAR SIZE (") 4.75	Length 161 Mtrs		MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN 5.91	GAL / MIN 248	ANN VEL. (ft/min) 256	DP DCs	256 452		Tur Tur

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Below shkrs	22.30	Mud Weight	11.2 - 11.4	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres		3,570	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	°C / °F		51	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
WEIGHT	ppg / SG		11.20	OBSERVATIONS Maintaining mud weight at 11.2 ppg - selectively using centrifuge as required. Mud system quite stable. Adding premix very slowly to maintain properties. Note that bit has 4x20 and 2x10 nozzles - due to mud report limitation of only only 6 nozzles, this configuration is equivalent to 6 x 17.8 nozzles.					
FUNNEL VISCOSITY (sec/qt) API @	°C		37						
PLASTIC VISCOSITY cP @	55 °C		11						
YIELD POINT (lb/100ft ²)			10						
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			2 | 3						
RHEOLOGY q 600 / q 300			32 | 21						
RHEOLOGY q 200 / q 100			16 | 11						
RHEOLOGY q 6 / q 3			3 | 2						
FILTRATE API (cc's/30 min)			6.2						
HPHT FILTRATE (cc's/30 min) @	°F								
CAKE THICKNESS API : HPHT (32nd in)			1						
SOLIDS CONTENT (% by Volume)			8.9						
LIQUID CONTENT (% by Volume) OIL/WATER			91.1						
SAND CONTENT (% by Vol.)			Tr						
METHYLENE BLUE CAPACITY (ppb equiv.)			8.0						
pH			9.5						
ALKALINITY MUD (Pm)									
ALKALINITY FILTRATE (Pf / Mf)			0.15 | 0.90						
CHLORIDE (mg/L)			168,000						
TOTAL HARDNESS AS CALCIUM (mg/L)			80						
SULPHITE (mg/L)			100						
K+ (mg/L)			40,688						
KCI (% by Wt.)			7.8						
PHPA (ppb)			0.75						

Mud Accounting (bbbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	1064	Centrifuge	3	Desander		Shaker #1	4 x 310	9
Premix (recirc from sump)		Desilter				Degasser		Desilter		Shaker #2	4 x 310	9
Drill Water		Downhole	45	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped	25	- FLUID LOST	72							
Other (eg Diesel)		Centrifuge	2	+ FLUID IN STORAGE	150							
TOTAL RECEIVED		TOTAL LOST	72	FINAL VOLUME	1,142	Overflow (ppg)	10.4	Underflow (ppg)	21.0	Output (Gal/Min.)	0.47	
						Desilter		0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
Baryte	\$ 8.20	960		40	920	\$ 328.00	%	PPB	Jet Velocity	54	
Caustic Soda	\$ 48.90	16		1	15	\$ 48.90	High Grav solids	6.2	91.81	Impact force	78
Sodium Sulphite	\$ 33.30	31		1	30	\$ 33.30	Total LGS	2.6	24.7	HHP	4
							Bentonite	0.7	6.1	HSI	0.2
							Drilled Solids	1.9	17.6	Bit Press Loss	30
							Salt	10.3	97.3	CSG Seat Frac Press	2200 psi
							n @ 22.30 Hrs	0.61		Equiv. Mud Wt.	13.80 ppg
							K @ 22.30 Hrs	2.43		ECD	11.75 ppg
										Max Pressure @ Shoe :	1330 psi
							DAILY COST		CUMULATIVE COST		
							\$410.20		\$157,434.55		

RMN ENGINEER **Andre Skujins** CITY **Adelaide Office** TELEPHONE **08 8338 7266**

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	45	Date :	22-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3572	to	3612
			Metres

OPERATOR BEACH Petroleum LTD	CONTRACTOR ENSIGN Int'l Energy SVCs
REPORT FOR Brian Marriott - Ray Ell	REPORT FOR Andy Baker
WELL NAME AND No GLENAIRE # 1 ST1	FIELD PEP 160
	LOCATION OTWAY Basin
	STATE VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE 6.00	TYPE Reed DSX111	18	18	18	18	13 3/8 SURFACE SET @	997 ft 304 M	HOLE 372	PITS 466	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) 2980 psi	
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 3365 Mtrs		9 5/8 INTERMEDIATE SET @	4107 ft 1252 M	TOTAL CIRCULATING VOL. 966		PUMP MODEL 3 x NAT 8-P80		ASSUMED EFF 97 %	BOTTOMS UP (min) 51 min		
DRILL PIPE SIZE 3.50	TYPE HW	Length 86 Mtrs		7 PRODUCTION. o LINER Set @	9839 ft 2999 M	IN STORAGE 128		BBL/STK 0.0516	STK / MIN 118	TOTAL CIRC. TIME (min) 164 min			
DRILL COLLAR SIZE (") 4.75	Length 161 Mtrs	MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN 5.91	GAL / MIN 248	ANN VEL. (ft/min) 256	DP DCs	256 452		Tur Tur	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Below Shkrs	Below Shkrs	Mud Weight	11.2 - 11.25	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres	3,588	3,610	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	°C / °F	53	55	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT	ppg / SG	11.20	1.345	11.20	1.345
FUNNEL VISCOSITY (sec/qt) API @	°C	36	37		
PLASTIC VISCOSITY cP @	55 °C	11	12		
YIELD POINT (lb/100ft ²)		11	12		
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		13	25		
RHEOLOGY q 600 / q 300		33	22	36	24
RHEOLOGY q 200 / q 100		17	12	19	13
RHEOLOGY q 6 / q 3		3	1	3	2
FILTRATE API (cc's/30 min)		6.2	7.0		
HPHT FILTRATE (cc's/30 min) @	°F				
CAKE THICKNESS API : HPHT (32nd in)		1	1		
SOLIDS CONTENT (% by Volume)		8.9	8.7		
LIQUID CONTENT (% by Volume) OIL/WATER		91.1	91.3		
SAND CONTENT (% by Vol.)		Tr	Tr		
METHYLENE BLUE CAPACITY (ppb equiv.)		7.5	7.0		
pH		9.5	9.0		
ALKALINITY MUD (Pm)					
ALKALINITY FILTRATE (Pf / Mf)		0.14	0.92	0.12	0.88
CHLORIDE (mg/L)		168,000	170,000		
TOTAL HARDNESS AS CALCIUM (mg/L)		80	100		
SULPHITE (mg/L)		120	120		
K+ (mg/L)		40,688	40,688		
KCI (% by Wt.)		7.8	7.8		
PHPA (ppb)		0.81	0.81		

OBSERVATIONS

Barite used to mix slug in anticipation of bit trip that didn't occur. Is still in Pill tank and will be used for next trip.

Maintaining good volume in active system with addition of premix.

Fluid loss showing increasing trend so will be adding Pac-LV to premix.

Rheology also showing increasing trend, probably due to dehydration, as solids content and type of solids are fairly benign. Increased rheology has also increased ECD marginally.

Note that bit has 4x20 and 3x10 nozzles - due to mud report limitation of only only 6 nozzles, this configuration is equivalent to 6 x 17.8 nozzles.

Mud Accounting (bbls)					
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY	
Premix (drill water)		Desander		INITIAL VOLUME	992
Premix (recirc from sump)		Desilter			
Drill Water		Downhole	24	+ FLUID RECEIVED	
Direct Recirc Sump		Dumped		- FLUID LOST	26
Other (eg Diesel)		Other	2	+ FLUID IN STORAGE	128
TOTAL RECEIVED		TOTAL LOST	26	FINAL VOLUME	1,094

Solids Control Equipment					
Type	Hrs		Cones	Hrs	Size
Centrifuge	4	Desander			Shaker #1 4 x 310
Degasser		Desilter			Shaker #2 4 x 310
		Overflow (ppg)		Underflow (ppg)	
		Desander 10.4		21.0	
		Desilter		0	
		Output (Gal/Min.)		0.47	

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC PAC-L	\$ 159.98	39		2	37	\$ 319.96	%	PPB	Jet Velocity	54	
Baryte	\$ 8.20	920		40	880	\$ 328.00	High Grav solids	6.2	91.81	Impact force	78
Caustic Soda	\$ 48.90	15		1	14	\$ 48.90	Total LGS	2.5	23.6	HHP	4
Sodium Sulphite	\$ 33.30	30		2	28	\$ 66.60	Bentonite	0.6	5.1	HSI	0.2
							Drilled Solids	1.9	17.5	Bit Press Loss	30
							Salt	10.5	98.4	CSG Seat Frac Press	2200 psi
							n @ 22.45 Hrs	0.58		Equiv. Mud Wt.	13.80 ppg
							K @ 22.45 Hrs	3.20		ECD	11.80 ppg
										Max Pressure @ Shoe :	1330 psi
							DAILY COST		CUMULATIVE COST		
							\$763.46		\$158,198.01		

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	49	Date :	26-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3700	to	3700 Metres

OPERATOR		BEACH Petroleum LTD		CONTRACTOR		ENSIGN Int'l Energy SVCs			
REPORT FOR		Brian Marriott		REPORT FOR		Andy Baker			
WELL NAME AND No				FIELD		LOCATION		STATE	
GLENAIRE # 1 ST1				PEP 160		OTWAY Basin		VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE	18	18	18	13 3/8 SURFACE	997 ft	HOLE	PITS	PUMP SIZE		CIRCULATION	
6.00	Reed DSX111	18	18	18	SET @	304 M	380	475	5 X 8.5	Inches	PRESS (PSI) psi	
DRILL PIPE SIZE	TYPE	Length		9 5/8 INTERMEDIATE		4107 ft	TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF	
3.5	15.5 #	3453 Mtrs		SET @		1252 M	885		3 x NAT 8-P80		97 %	
DRILL PIPE SIZE	TYPE	Length		7 PRODUCTION.o		9839 ft	IN STORAGE		BBL/STK		STK / MIN	
3.50	HW	86 Mtrs		LINER Set @		2999 M	30		0.0516		TOTAL CIRC.	
DRILL COLLAR SIZE (")	Length	MUD TYPE		BBL/MIN		GAL / MIN		ANN VEL.		DP		Lam
4.75	161 Mtrs	5% KCI-PHPA-POLYMER						(ft/min)		DCs		Lam

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Pit		Mud Weight	11.1	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)		21.30		Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE		3,700		KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT		ppg / SG		11.15		OBSERVATIONS Minor losses to hole while logging.			
FUNNEL VISCOSITY (sec/qt) API @		°C		41					
PLASTIC VISCOSITY cP @		55 °C		13					
YIELD POINT (lb/100ft ²)				14					
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min				2:6					
RHEOLOGY q 600 / q 300				40 27					
RHEOLOGY q 200 / q 100				21 14					
RHEOLOGY q 6 / q 3				4 2					
FILTRATE API (cc's/30 min)				6.2					
HPHT FILTRATE (cc's/30 min) @		°F							

CAKE THICKNESS API : HPHT (32nd in)		1		OPERATIONS SUMMARY POH. Rig up and run logs - Run # 1 and # 2. Rig down loggers. Pressure test. Make up bit and RIH.			
SOLIDS CONTENT (% by Volume)		8.8					
LIQUID CONTENT (% by Volume) OIL/WATER		91.2					
SAND CONTENT (% by Vol.)		Tr					
METHYLENE BLUE CAPACITY (ppb equiv.)		6.5					
pH		9.5					
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)		0.22 1.35					
CHLORIDE (mg/L)		158,000					
TOTAL HARDNESS AS CALCIUM (mg/L)		40					

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	915	Centrifuge		Desander		Shaker #1	4 x 310	1
Premix (recirc from sump)		Desilter		+ FLUID RECEIVED		Degasser		Desilter		Shaker #2	4 x 310	1
Drill Water		Downhole				20						
Direct Recirc Sump		Dumped		- FLUID LOST	30							
Other (eg Diesel)		Other		+ FLUID IN STORAGE	30							
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME	915	Desander		0				
						Desilter		0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data			
							%	PPB	Jet Velocity			
							High Grav solids	6.7	98.61	Impact force		
							Total LGS	2.1	19.6	HHP		
							Bentonite	0.6	5.0	HSI		
							Drilled Solids	1.5	13.8	Bit Press Loss		
							Salt	9.7	91.5	CSG Seat Frac Press 2200 psi		
							n @ 21.30 Hrs	0.57		Equiv. Mud Wt. 13.80 ppg		
							K @ 21.30 Hrs	4.03		ECD 11.60 ppg		
										Max Pressure @ Shoe : 1356 psi		

DAILY COST				CUMULATIVE COST							
				\$168,362.85							
RMN ENGINEER		Andre Skujins		CITY		Adelaide Office		TELEPHONE		08 8338 7266	

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	50	Date :	27-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3700 to 3701	Metres	

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Brian Marriott	REPORT FOR	Andy Baker
WELL NAME AND No	GLENAIRE # 1 ST1	FIELD	LOCATION
		PEP 160	OTWAY Basin
			STATE
			VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA					
BIT SIZE	TYPE	18	18	18	13 3/8 SURFACE SET @	997 ft	304 M	HOLE	PITS	PUMP SIZE		CIRCULATION	
6.00	Reed DSX111	18	18	18				381	308	5 X 8.5	Inches	PRESS (PSI)	1550 psi
DRILL PIPE SIZE	TYPE	Length	CASING		TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF		BOTTOMS		
3.5	15.5 #	3454 Mtrs	9 5/8 INTERMEDIATE SET @	4107 ft	1252 M	909	3 x NAT 8-P80	97 %	69 min		UP (min)		
DRILL PIPE SIZE	TYPE	Length	7 PRODUCTION. o LINER Set @	9839 ft	2999 M	220	BBL/STK	STK / MIN	TOTAL CIRC.		TIME (min)		
3.50	HW	86 Mtrs					0.0516	90	202 min		ANN VEL. DP		
DRILL COLLAR SIZE (")	Length	MUD TYPE		BBL/MIN		GAL / MIN		ANN VEL. DCs		195 Lam		345 Lam	
4.75	161 Mtrs	5% KCI-PHPA-POLYMER		4.50		189							

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS				
TIME SAMPLE TAKEN		11.00	01.30	Mud Weight	12 - 12.2	API Filtrate	6 - 8	
DEPTH (ft) - (m)		Metres	3,701	Plastic Vis	ALAP	Yield Point	8 - 15	
FLOWLINE TEMPERATURE		°C	49	KCI	>5%	PHPA	0.75 - 1.5	
WEIGHT		ppg / SG	11.10	OBSERVATIONS Increasing mud weight led to increased downhole losses. Kwikseal Fine additions appeared to minimise the losses. Initial mud weight increases were made with barite, but when further volume was required calcium carbonate was the main additive to increase the weight to 12.1 ppg. The calcium carbonate also acted as a LCM Shakers occasionally bypassed when large amounts of LCM returned. Shaker screens changed to 84 mesh later in the day to prevent stripping out of weight material. Note that volume and material usage was through to 3.00 am 28th Oct. Mud Storage : Pill Tank has 78 bbls @ 14.4 ppg Premix Tank has 84 bbls @ 11.7 ppg Suction Tank has 58 bbls @ 12.1 ppg				
FUNNEL VISCOSITY (sec/qt) API @		°C	40					41
PLASTIC VISCOSITY cP @		55 °C	13					14
YIELD POINT (lb/100ft ²)			14					18
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			2:6					3:6
RHEOLOGY q 600 / q 300			40					27
RHEOLOGY q 200 / q 100			22					15
RHEOLOGY q 6 / q 3			3					2
FILTRATE API (cc's/30 min)			6.4					6.8
HPHT FILTRATE (cc's/30 min) @		°F						
CAKE THICKNESS API : HPHT (32nd in)			1	1				
SOLIDS CONTENT (% by Volume)			9.9	16.0				
LIQUID CONTENT (% by Volume) OIL/WATER			90.1	84.0				
SAND CONTENT (% by Vol.)			Tr	Tr				
METHYLENE BLUE CAPACITY (ppb equiv.)			6.5	7.0				
pH			9.5	8.5				
ALKALINITY MUD (Pm)								
ALKALINITY FILTRATE (Pf / Mf)			0.20	1.40				
CHLORIDE (mg/L)			144,000	140,000				
TOTAL HARDNESS AS CALCIUM (mg/L)			60	100				
SULPHITE (mg/L)			120	100				
K+ (mg/L)			42,000	52,500				
KCI (% by Wt.)			8.0	10.0				
PHPA (ppb)			0.69	0.61				

Mud Accounting (bbls)				Solids Control Equipment			
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs
Premix (drill water)	220	Desander		INITIAL VOLUME	885	Centrifuge	
Premix (recirc from sump)		Desilter		+ FLUID RECEIVED	220	Degasser	
Drill Water		Downhole	197	- FLUID LOST	197	Desander	
Direct Recirc Sump		Dumped		+ FLUID IN STORAGE	220	Desilter	
Other (eg Diesel)		Other				Desander	
TOTAL RECEIVED	220	TOTAL LOST	197	FINAL VOLUME	1,129	Desilter	
						Overflow (ppg)	Underflow (ppg)
						Output (Gal/Min.)	

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
AMC Biocide G	\$ 185.35	8		1	7	\$ 185.35	%	PPB	Jet Velocity	42	
Baryte	\$ 8.20	1240		1184	56	\$ 9,708.80	High Grav solids	9.3	136.58	Impact force	49
Calcium carbonate F	\$ 14.20	192		192		\$ 2,726.40	Total LGS	6.7	63.5	HHP	2
Calcium carbonate M	\$ 12.60	384		384		\$ 4,838.40	Bentonite	0.0	0.3	HSI	0.1
Calcium carbonate L	\$ 17.40	192		192		\$ 3,340.80	Drilled Solids	6.7	60.7	Bit Press Loss	19
Caustic Soda	\$ 48.90	22		1	21	\$ 48.90	Salt	8.7	81.1	CSG Seat Frac Press	2200 psi
KWIKSEAL - F	\$ 56.39	74		20	54	\$ 1,127.80	n @ 01.30 Hrs	0.52		Equiv. Mud Wt.	13.80 ppg
Potassium Chloride	\$ 18.95	252		252		\$ 4,775.40	K @ 01.30 Hrs	6.26		ECD	12.70 ppg
Salt	\$ 8.65	48		48		\$ 415.20			Max Pressure @ Shoe :	870 psi	
Xanthan Gum	\$ 359.25	58		8	50	\$ 2,874.00					

DAILY COST		CUMULATIVE COST	
\$30,041.05		\$198,403.90	
RMN ENGINEER	Andre Skujins	CITY	Adelaide Office
		TELEPHONE	08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	51	Date :	28-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3701 to 3701	Metres	

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Brian Marriott	REPORT FOR	Andy Baker
WELL NAME AND No	GLENAIRE # 1 ST1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA							
BIT SIZE	TYPE	18	18	18	13 3/8 SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION			
6.00	Reed DSX111	18	18	18	304	M		381	410	5	X	8.5	Inches	1820	psi
DRILL PIPE SIZE	TYPE	Length	9 5/8 INTERMEDIATE SET @		4107	ft	TOTAL CIRCULATING VOL.	PUMP MODEL		ASSUMED EFF		BOTTOMS			
3.5	15.5 #	3454	Mtrs	1252	M		894	3 x NAT 8-P80	97	%	UP (min)		69	min	
DRILL PIPE SIZE	TYPE	Length	7 PRODUCTION. o LINER Set @		9839	ft	IN STORAGE	BBL/STK		STK / MIN		TOTAL CIRC.			
3.50	HW	86	Mtrs	2999	M		103	0.0516	89	TIME (min)		201		min	
DRILL COLLAR SIZE (")	Length	MUD TYPE		5% KCI-PHPA-POLYMER		BBL/MIN		GAL / MIN		ANN VEL.		DP	193	Lam	
4.75	161	Mtrs					4.45	187			DCs	341	Lam		

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Below Shkrs	Below Shkrs	Mud Weight	12.1 => 12.4	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)	Metres	3,701	3,701	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE	⁰ C / ⁰ F	45	46	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT	ppg / SG	12.10	1.453	12.40	1.489	OBSERVATIONS Despite increasing mud weights, down hole losses have fortunately stayed very minor and are presently no cause for concern. Xanthan Gum used to increase suspension properties of heavy weight pill.			
FUNNEL VISCOSITY (sec/qt) API @	⁰ C	42	42						
PLASTIC VISCOSITY cP @	55 ⁰ C	13	15						
YIELD POINT (lb/100ft ²)		18	19						
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min		3:5	4:6						
RHEOLOGY q 600 / q 300		44	31	49	34				
RHEOLOGY q 200 / q 100		25	18	28	21				
RHEOLOGY q 6 / q 3		4	3	5	3				
FILTRATE API (cc's/30 min)		6.5	7.3						
HPHT FILTRATE (cc's/30 min) @	⁰ F								

LIQUID CONTENT (% by Volume) OIL/WATER		84.0	82.5	OPERATIONS SUMMARY Weight up mud with regular flow checks. When more barite arrived, increased mud weight from 12.1 ppg to 12.4 ppg. Circulate bottoms up. Flow check. Spot 30 bbls heavy weight pill (14.5 ppg) on bottom - top of pill ~3450 m.					
SAND CONTENT (% by Vol.)		Tr	Tr						
METHYLENE BLUE CAPACITY (ppb equiv.)		7.0	7.0						
pH		9.0	8.5						
ALKALINITY MUD (Pm)									
ALKALINITY FILTRATE (Pf / Mf)		0.14	1.10					0.10	0.90
CHLORIDE (mg/L)		140,000	140,000						
TOTAL HARDNESS AS CALCIUM (mg/L)		100	120						
SULPHITE (mg/L)		100	80						
K+ (mg/L)		52,500	52,500						
KCI (% by Wt.)		10.0	10.0						
PHPA (ppb)		0.61	0.61						

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	909	Centrifuge		Desander		Shaker #1	4 x 84	23
Premix (recirc from sump)		Desilter		+ FLUID RECEIVED		Degasser		Desilter		Shaker #2	4 x 84	23
Drill Water		Downhole	15	- FLUID LOST	15							
Direct Recirc Sump		Dumped		+ FLUID IN STORAGE	103							
Other (eg Diesel)		Other						Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)		
TOTAL RECEIVED		TOTAL LOST	15	FINAL VOLUME	997	Desander		0				
						Desilter		0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
Baryte	\$ 8.20	56	1920	332	1644	\$ 2,722.40	%	PPB	Jet Velocity	41	
Xanthan Gum	\$ 359.25	50		1	49	\$ 359.25	High Grav solids	10.7	157.01	Impact force	49
							Total LGS	6.8	64.5	HHP	2
							Bentonite	0.0	0.2	HSI	0.1
							Drilled Solids	6.8	61.8	Bit Press Loss	19
							Salt	8.7	81.1	CSG Seat Frac Press	2200 psi
							n @ 22.30 Hrs	0.53		Equiv. Mud Wt.	13.80 ppg
							K @ 22.30 Hrs	6.50		ECD	13.00 ppg
										Max Pressure @ Shoe :	716 psi

DAILY COST				CUMULATIVE COST			
\$3,081.65				\$201,485.55			
RMN ENGINEER	Andre Skujins	CITY	Adelaide Office	TELEPHONE	08 8338 7266		

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	52	Date :	29-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3701	to	3701 Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Brian Marriott - Ray Ell		REPORT FOR Andy Baker	
WELL NAME AND No GLENAIRE # 1 ST1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE	OP	EN	13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)		
6.00	Smith N32619				304	M		381	419	5	X	8.5	2000	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8	INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP (min)		
3.5	15.5 #	3454 Mtrs			1252	M		855		3 x NAT 8-P80	97 %	73 min		
DRILL PIPE SIZE	TYPE	Length		7	PRODUCTION. o LINER Set @	9839	ft	IN STORAGE		BBL/STK	STK / MIN	TOTAL CIRC. TIME (min)		
3.50	HW	86 Mtrs			2999	M		55		0.0516	85	201 min		
DRILL COLLAR SIZE (")	Length			MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP DCs	
4.75	161 Mtrs			5% KCI-PHPA-POLYMER						4.25	179	184	326 Lam	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS				
Below Shkrs		Below Shkrs	Mud Weight	12.4	API Filtrate	6 - 8	HPHT Filtrate	NA
TIME SAMPLE TAKEN		01.00	Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
DEPTH (ft) - (m)		Metres	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120
FLOWLINE TEMPERATURE		°C : °F	OBSERVATIONS					
WEIGHT		ppg / SG	As heavy weight pill that was spotted on bottom was circulated up the hole, losses to the formation increased, but stabilised once the pill was circulated out. Note that the washing to bottom was to space the pill out into the lower density mud being circulated around.					
FUNNEL VISCOSITY (sec/qt) API @		°C	Mud weight is now a bit patchy, varying from 12.5+ to 12.8 ppg, with most reading around 12.6 - 12.65 ppg. The mud is noticeably cooler, which may also be part of the reason for the higher mud weights, apart from the heavy weight slug.					
PLASTIC VISCOSITY cP @		55 °C	Mud losses seemd to have stabilised now.					
YIELD POINT (lb/100ft ²)								
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min								
RHEOLOGY q 600 / q 300								
RHEOLOGY q 200 / q 100								
RHEOLOGY q 6 / q 3								
FILTRATE API (cc's/30 min)								
HPHT FILTRATE (cc's/30 min) @		°F						
CAKE THICKNESS API : HPHT (32nd in)								
SOLIDS CONTENT (% by Volume)								
LIQUID CONTENT (% by Volume) OIL/WATER			OPERATIONS SUMMARY					
SAND CONTENT (% by Vol.)			POH with regular flow checks.					
METHYLENE BLUE CAPACITY (ppb equiv.)			Work tight hole 3672 m - 3250 m. Max Overpull 65 k.					
pH			POH.					
ALKALINITY MUD (Pm)			Run logs.					
ALKALINITY FILTRATE (Pf / Mf)			Make up bit (open jets) and RIH.					
CHLORIDE (mg/L)			Circulate bottoms up at shoe - 312 units gas.)					
TOTAL HARDNESS AS CALCIUM (mg/L)			RIH to bottom, washing from 3394 m - bottom.					
SULPHITE (mg/L)			Circulate bottoms up.					
K+ (mg/L)								
KCI (% by Wt.)								
PHPA (ppb)								

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	894	Centrifuge		Desander		Shaker #1	4 x 84	4
Premix (recirc from sump)		Desilter				Degasser		Desilter		Shaker #2	4 x 84	4
Drill Water		Downhole	39	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped		- FLUID LOST	39							
Other (eg Diesel)		Other		+ FLUID IN STORAGE	55							
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME		Desander		Underflow (ppg)		Output (Gal/Min.)		
		39		910				0				
						Desilter		0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
Caustic Soda	\$ 48.90	21		2	19	\$ 97.80	%	PPB	Jet Velocity		
KWIKSEAL - F	\$ 56.39	54		3	51	\$ 169.17	High Grav solids	11.5	169.60	Impact force	
							Total LGS	7.2	68.4	HHP	
							Bentonite	0.2	2.0	HSI	
							Drilled Solids	7.0	63.7	Bit Press Loss	
							Salt	8.5	78.7	CSG Seat Frac Press	2200 psi
							n @ 01.00 Hrs	0.51		Equiv. Mud Wt.	13.80 ppg
							K @ 01.00 Hrs	7.01		ECD	12.70 ppg
										Max Pressure @ Shoe :	614 psi

DAILY COST						CUMULATIVE COST					
\$266.97						\$201,752.52					
RMN ENGINEER Andre Skujins		CITY Adelaide Office				TELEPHONE 08 8338 7266					

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	53	Date :	30-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3701 to 3701	Metres	

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Brian Marriott - Ray Eil	REPORT FOR	Andy Baker
WELL NAME AND No	GLENAIRE # 1 ST1	FIELD	PEP 160
		LOCATION	OTWAY Basin
		STATE	VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE			13 3/8	SURFACE	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION		
6.00				SET @	304	M		401	386	5	X	8.5	Inches	psi
DRILL PIPE	TYPE	Length		9 5/8	INTERMEDIATE	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS		
SIZE 3.5	15.5 #	2907	Mtrs	SET @	1252	M		944		3 x NAT 8-P80	97	%	UP (min)	
DRILL PIPE	TYPE	Length		7	PRODUCTION. o	9839	ft	IN STORAGE		BBL/STK	STK / MIN	TOTAL CIRC.		
SIZE 3.50	HW	Mtrs		LINER Set @	2999	M		157		0.0516		TIME (min)	min	
Liner Size (")		Length		MUD TYPE				BBL/MIN		GAL / MIN		ANN VEL.	DP	
4.50		794	Mtrs	5% KCI-PHPA-POLYMER								(ft/min)	DCs	
													Lam	
													Lam	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
		Below Shkrs	Pit	Mud Weight	12.4	API Filtrate	6 - 8
TIME SAMPLE TAKEN			14.00	Plastic Vis	ALAP	Yield Point	8 - 15
DEPTH (ft) - (m)	Metres		3,701	KCl	>5%	PHPA	0.75 - 1.5
FLOWLINE TEMPERATURE	⁰ C / ⁰ F			OBSERVATIONS			
WEIGHT	ppg / SG		12.60 1.513	Mixed a further 118 bbls of 12.5 ppg mud - simply as extra mud in case of losses down hole. Used Xanthan gum and barite. A Halliburton "Tuned Spacer" was mixed and weighted to 13.0 ppg with barite. Severe foaming required 4 drums of defoamer to control.			
FUNNEL VISCOSITY (sec/qt) API @	⁰ C		42				
PLASTIC VISCOSITY cP @	55 ⁰ C		14				
YIELD POINT (lb/100ft ²)			20				
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min			4:6				
RHEOLOGY q 600 / q 300			48 34				
RHEOLOGY q 200 / q 100			28 21				
RHEOLOGY q 6 / q 3			6 4				
FILTRATE API (cc's/30 min)			7.6				
HPHT FILTRATE (cc's/30 min) @	⁰ F						
CAKE THICKNESS API : HPHT (32nd in)			2				
SOLIDS CONTENT (% by Volume)			18.8				
LIQUID CONTENT (% by Volume) OIL/WATER			81.2				
SAND CONTENT (% by Vol.)			Tr				
METHYLENE BLUE CAPACITY (ppb equiv.)			9.0				
pH			8.0				
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)			0 0.80				
CHLORIDE (mg/L)			136,000				
TOTAL HARDNESS AS CALCIUM (mg/L)			160				
SULPHITE (mg/L)			80				
K+ (mg/L)			52,500				
KCl (% by Wt.)			10.0				
PHPA (ppb)			0.50				

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)	118	Desander		INITIAL VOLUME	855	Centrifuge		Desander		Shaker #1	4 x 84	1
Premix (recirc from sump)		Desilter		+ FLUID RECEIVED	118	Degasser		Desilter		Shaker #2	4 x 84	
Drill Water		Downhole	29	- FLUID LOST	29							
Direct Recirc Sump		Dumped		+ FLUID IN STORAGE	157							
Other (eg Diesel)		Other						Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)		
TOTAL RECEIVED	118	TOTAL LOST	29	FINAL VOLUME	1,101	Desander			0			
						Desilter			0			

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data	
AMC Biocide G	\$ 185.35	7		1	6	\$ 185.35	%	PPB	Jet Velocity	
AMC Defoamer	\$ 146.40	6		4	2	\$ 585.60	High Grav solids	9.4	138.66	Impact force
Baryte	\$ 8.20	1644		660	984	\$ 5,412.00	Total LGS	10.7	101.6	HHP
Xanthan Gum	\$ 359.25	49		3	46	\$ 1,077.75	Bentonite	-0.2	-2.0	HSI
							Drilled Solids	10.9	99.6	Bit Press Loss
							Salt	8.5	78.7	CSG Seat Frac Press
							n @ 14.00 Hrs	0.50		Equiv. Mud Wt.
							K @ 14.00 Hrs	7.82		ECD
										Max Pressure @ Shoe :
										614 psi

DAILY COST				CUMULATIVE COST			
\$7,260.70				\$209,013.22			

RMN ENGINEER **Andre Skujins** CITY **Adelaide Office** TELEPHONE **08 8338 7266**

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	54	Date :	31-Oct-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3701 to 3701	Metres	

OPERATOR	BEACH Petroleum LTD	CONTRACTOR	ENSIGN Int'l Energy SVCs
REPORT FOR	Brian Marriott - Ray Eil	REPORT FOR	Andy Baker
WELL NAME AND No	GLENAIRE # 1 ST1	FIELD	LOCATION
		PEP 160	OTWAY Basin
			STATE
			VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA						
BIT SIZE	TYPE			13 3/8	SURFACE	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION		
6.00				SET @	304	M		388	329	5	X	8.5	Inches	psi
DRILL PIPE	TYPE	Length		9 5/8	INTERMEDIATE	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS		
SIZE 3.5	15.5 #	2907	Mtrs	SET @	1252	M		844		3 x NAT 8-P80	97	%	UP (min)	
DRILL PIPE	TYPE	Length		7	PRODUCTION. o	9839	ft	IN STORAGE		BBL/STK	STK / MIN	TOTAL CIRC.		
SIZE 3.50	HW	Mtrs		LINER Set @	2999	M		127		0.0516		TIME (min)	min	
DRILL COLLAR SIZE (")	Length			MUD TYPE						BBL/MIN	GAL / MIN	ANN VEL.	DP	
4.50	794	Mtrs		5% KCI-PHPA-POLYMER								(ft/min)	DCs	
												Lam	Lam	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
		Below Shkrs		Mud Weight	12.4	API Filtrate	6 - 8
TIME SAMPLE TAKEN		12.00		Plastic Vis	ALAP	Yield Point	8 - 15
DEPTH (ft) - (m)		Metres		KCI	>5%	PHPA	0.75 - 1.5
FLOWLINE TEMPERATURE		°C / °F		OBSERVATIONS			
		35		<p>Apart from barite and Xanthan Gum usage, all other inventory items are inventory corrections.</p> <p>Returned all mud to stores except for barite, biocide, defoamer, KCI and half pallet of Xanthan Gum.</p> <p>Due to considerable mud losses during cement job and due to flowing well a further premix of 11.4 ppg mud was built.</p>			
WEIGHT		ppg / SG					
		12.60 1.513					
FUNNEL VISCOSITY (sec/qt) API @		°C					
		46					
PLASTIC VISCOSITY cP @		55 °C					
		16					
YIELD POINT (lb/100ft ²)							
		22					
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min							
		5:7					
RHEOLOGY q 600 / q 300							
		54 38					
RHEOLOGY q 200 / q 100							
		33 24					
RHEOLOGY q 6 / q 3							
		7 6					
FILTRATE API (cc's/30 min)							
		8.6					
HPHT FILTRATE (cc's/30 min) @		°F					
CAKE THICKNESS API : HPHT (32nd in)							
		2					
SOLIDS CONTENT (% by Volume)							
		18.8					
LIQUID CONTENT (% by Volume) OIL/WATER							
		81.2					
SAND CONTENT (% by Vol.)							
		Tr					
METHYLENE BLUE CAPACITY (ppb equiv.)							
		9.0					
pH							
		8.0					
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)							
		0 0.80					
CHLORIDE (mg/L)							
		136,000					
TOTAL HARDNESS AS CALCIUM (mg/L)							
		180					
SULPHITE (mg/L)							
		60					
K+ (mg/L)							
		52,500					
KCI (% by Wt.)							
		10.0					
PHPA (ppb)							
		0.42					

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)	95	Desander		INITIAL VOLUME	944	Centrifuge		Desander		Shaker #1	4 x 84	8
Premix (recirc from sump)		Desilter		+ FLUID RECEIVED	95	Degasser		Desilter		Shaker #2	4 x 84	
Drill Water		Downhole	195			- FLUID LOST	195					
Direct Recirc Sump		Dumped		+ FLUID IN STORAGE	127							
Other (eg Diesel)		Other						Overflow (ppg)	Underflow (ppg)	Output (Gal/Min.)		
						Desander			0			
TOTAL RECEIVED	95	TOTAL LOST	195	FINAL VOLUME	971	Desilter			0			

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data	
AUS-BEN	\$ 11.25	167	-165	2		\$ 22.50	%	PPB	Jet Velocity	
Baryte	\$ 8.20	984		424	560	\$ 3,476.80	High Grav solids	7.9	116.53	Impact force
Potassium Chloride	\$ 18.95		126	0	126	\$ 0.00	Total LGS	13.2	125.3	HHP
Soda Ash	\$ 18.30	36	-34	2		\$ 36.60	Bentonite			HSI
Xanthan Gum	\$ 359.25	46	-30	2	14	\$ 718.50	Drilled Solids	13.8	125.2	Bit Press Loss
							Salt	8.5	78.7	CSG Seat Frac Press
							n @ 12.00 Hrs	0.51		Equiv. Mud Wt.
							K @ 12.00 Hrs	8.24		ECD
										Max Pressure @ Shoe :
										2200 psi
										13.80 ppg
										13.20 ppg
										614 psi
							DAILY COST		CUMULATIVE COST	
							\$4,020.18		\$213,033.40	

RMN ENGINEER	Andre Skujins	CITY	Adelaide Office	TELEPHONE	08 8338 7266
---------------------	----------------------	-------------	------------------------	------------------	---------------------

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	55	Date :	1-Nov-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3701 to 3701	Metres	

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Brian Marriott - Ray Eil		REPORT FOR David Sheeran	
WELL NAME AND No GLENAIRE # 1 ST1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA							
BIT SIZE	TYPE			13 3/8	SURFACE SET @	997	ft	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)			
					304	M		401	353	5	X	8.5	Inches	500	psi
DRILL PIPE SIZE	TYPE	Length		9 5/8	INTERMEDIATE SET @	4107	ft	TOTAL CIRCULATING VOL.		PUMP MODEL		ASSUMED EFF		BOTTOMS UP (min)	
3.5	15.5 #	3701	Mtrs		1252	M		754		3 x NAT 8-P80		97 %		192 min	
DRILL PIPE SIZE	TYPE	Length		7	PRODUCTION. o LINER Set @	9839	ft	IN STORAGE		BBL/STK		STK / MIN		TOTAL CIRC. TIME (min)	
	HW	Mtrs			2999	M		0		0.0516		35		430 min	
DRILL COLLAR SIZE (")		Length		MUD TYPE				BBL/MIN		GAL / MIN		ANN VEL. (ft/min)		DP DCS	
		Mtrs		5% KCI-PHPA-POLYMER				1.75		74				###	

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS								
Below Shkrs		Below Shkrs	Mud Weight	12.4	API Filtrate	6 - 8	HPHT Filtrate	NA				
TIME SAMPLE TAKEN			Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5				
DEPTH (ft) - (m)		Metres	KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120				
FLOWLINE TEMPERATURE		⁰ C / ⁰ F		41	OBSERVATIONS Cleaned out Suction and Pill tanks. Continued to bleed in premix tank weighing 11.4 ppg into active system, bringing weight down to 12.3 - 12.4 ppg. Once as much bled in as possible, tank was dumped and cleaned out also in preparation for perhaps mixing displacement brine							
WEIGHT		ppg / SG		12.40								
FUNNEL VISCOSITY (sec/qt) API @		⁰ C		41								
PLASTIC VISCOSITY cP @		55 ⁰ C		13								
YIELD POINT (lb/100ft ²)				22								
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min				4								
RHEOLOGY q 600 / q 300				48								
RHEOLOGY q 200 / q 100				30								
RHEOLOGY q 6 / q 3				6								
FILTRATE API (cc's/30 min)				12.4								
HPHT FILTRATE (cc's/30 min) @		⁰ F										
CAKE THICKNESS API : HPHT (32nd in)				2								
SOLIDS CONTENT (% by Volume)				17.9								
LIQUID CONTENT (% by Volume) OIL/WATER				82.1								
SAND CONTENT (% by Vol.)				Tr								
METHYLENE BLUE CAPACITY (ppb equiv.)				9.0	OPERATIONS SUMMARY Monitor pressures. Open Annular Preventer. Flow check. OK. POH from 2879 m to surface. Rig up, then rig down schlumberger. RIH with drill pipe to 2793 m. Circulate.							
pH				8.0								
ALKALINITY MUD (Pm)												
ALKALINITY FILTRATE (Pf / Mf)				0								
CHLORIDE (mg/L)				108,000								
TOTAL HARDNESS AS CALCIUM (mg/L)				200								
SULPHITE (mg/L)				40								
K+ (mg/L)				39,375								
KCI (% by Wt.)				7.5								
PHPA (ppb)				0.42								

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	857	Centrifuge		Desander		Shaker #1	4 x 84	16
Premix (recirc from sump)		Desilter		+ FLUID RECEIVED		Degasser		Desilter		Shaker #2	4 x 84	
Drill Water		Downhole	23									
Direct Recirc Sump		Dumped	80	- FLUID LOST	103							
Other (eg Diesel)		Other		+ FLUID IN STORAGE	0							
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME	754	Desander		0				
			103			Desilter		0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data		
Baryte	\$ 8.20	560		24	536	\$ 196.80	%	PPB	Jet Velocity		
							High Grav solids	8.0	116.79	Impact force	
							Total LGS	12.5	118.2	HHP	
							Bentonite	-0.4	-4.0	HSI	
							Drilled Solids	12.9	117.5	Bit Press Loss	
							Salt	6.6	62.5	CSG Seat Frac Press	2200 psi
							n @ 21.45 Hrs	0.46		Equiv. Mud Wt.	13.80 ppg
							K @ 21.45 Hrs	10.45		ECD	
										Max Pressure @ Shoe :	716 psi
							DAILY COST		CUMULATIVE COST		
							\$196.80		\$213,230.20		

RMN ENGINEER Andre Skujins CITY Adelaide Office TELEPHONE 08 8338 7266

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

DRILLING FLUID REPORT



Report #	56	Date :	2-Nov-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3701 to 3701	Metres	

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Brian Marriott		REPORT FOR David Sheeran	
WELL NAME AND No GLENAIRE # 1 ST1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE	TYPE			13 3/8 SURFACE SET @	997 ft 304 M	HOLE 401	PITS 305	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) psi	
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 3701	Mtrs	9 5/8 INTERMEDIATE SET @	4107 ft 1252 M	TOTAL CIRCULATING VOL. 721		PUMP MODEL 3 x NAT 8-P80	ASSUMED EFF 97 %	BOTTOMS UP (min) min	
DRILL PIPE SIZE	TYPE HW	Length	Mtrs	7 PRODUCTION. o LINER Set @	9839 ft 2999 M	IN STORAGE 15		BBL/STK 0.0516	STK / MIN	TOTAL CIRC. TIME (min) min	
DRILL COLLAR SIZE (")		Length	Mtrs	MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP DCs

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS					
TIME SAMPLE TAKEN		Below Shkrs Below Shkrs		Mud Weight	12.4	API Filtrate	6 - 8	HPHT Filtrate	NA
DEPTH (ft) - (m)		Metres		Plastic Vis	ALAP	Yield Point	8 - 15	pH	9.0 - 9.5
FLOWLINE TEMPERATURE		°C : °F		KCI	>5%	PHPA	0.75 - 1.5	Sulphites	80 - 120

WEIGHT		ppg / SG		12.40 1.489		OBSERVATIONS A further 880 sx barite and one pallet of Kwikseal Fine delivered just before midnight. Will commence mixing displacement brine after midnight.			
FUNNEL VISCOSITY (sec/qt) API @		°C		40					
PLASTIC VISCOSITY cP @		55 °C		11					
YIELD POINT (lb/100ft ²)				21					
GEL STRENGTHS (lb/100ft ²) 10 sec/10 min				4:5					
RHEOLOGY q 600 / q 300				43 32					
RHEOLOGY q 200 / q 100				26 19					
RHEOLOGY q 6 / q 3				5 4					
FILTRATE API (cc's/30 min)				12.6					
HPHT FILTRATE (cc's/30 min) @		°F							

CAKE THICKNESS API : HPHT (32nd in)				2		OPERATIONS SUMMARY Rig up schlumberger and run CBL's. Rig down. Circulate bottoms up - 3035 units gas. - slight flow. Circulate and then pump 50 bbls heavy weight 14.5 ppg mud and spot on bottom. Flow check and POH sideways. RIH 31 stands to 2037 m. Flow check. Well flowing slightly. Spot 40 bbl 14.7 ppg pill at 2037 m. POH 6 stands. Flow check and POH sideways.			
SOLIDS CONTENT (% by Volume)				18.0					
LIQUID CONTENT (% by Volume) OIL/WATER				82.0					
SAND CONTENT (% by Vol.)				Tr					
METHYLENE BLUE CAPACITY (ppb equiv.)				9.0					
pH				8.0					
ALKALINITY MUD (Pm)									
ALKALINITY FILTRATE (Pf / Mf)				0 0.80					
CHLORIDE (mg/L)				107,000					
TOTAL HARDNESS AS CALCIUM (mg/L)				220					

Mud Accounting (bbls)					Solids Control Equipment							
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	754	Centrifuge		Desander		Shaker #1	4 x 84	15
Premix (recirc from sump)		Desilter				Degasser		Desilter		Shaker #2	4 x 84	
Drill Water		Downhole	33	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped		- FLUID LOST	33							
Other (eg Diesel)		Other		+ FLUID IN STORAGE	15							
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME		Desander		Underflow (ppg)		Output (Gal/Min.)		
		33		736		Desilter		0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data			
AMC Biocide G	\$ 185.35	6		1	5	\$ 185.35	%	PPB	Jet Velocity			
AMC Defoamer	\$ 146.40	2		1	1	\$ 146.40	High Grav solids	8.0	116.79	Impact force		
Baryte	\$ 8.20	536	880	216	1200	\$ 1,771.20	Total LGS	12.5	118.6	HHP		
KWIKSEAL - F	\$ 56.39		32	0	32	\$ 0.00	Bentonite	-0.4	-4.0	HSI		
							Drilled Solids	13.0	118.0	Bit Press Loss		
							Salt	6.6	62.0	CSG Seat Frac Press 2200 psi		
							n @ 22.00 Hrs	0.43		Equiv. Mud Wt. 13.80 ppg		
							K @ 22.00 Hrs	11.48		ECD		
										Max Pressure @ Shoe : 716 psi		

DAILY COST						CUMULATIVE COST					
\$2,102.95						\$215,333.15					
RMN ENGINEER Andre Skujins		CITY Adelaide Office				TELEPHONE 08 8338 7266					

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

	DRILLING FLUID	Report # 57	Date : 3-Nov-2006
	REPORT	Rig No 32	Spud : 8-Sep-2006
		Depth 3701 to 3701	Metres

OPERATOR BEACH Petroleum LTD	CONTRACTOR ENSIGN Int'l Energy SVCs		
REPORT FOR Brian Marriott	REPORT FOR David Sheeran		
WELL NAME AND No GLENAIRE # 1 ST1	FIELD PEP 160	LOCATION OTWAY Basin	STATE VICTORIA

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA				
BIT SIZE	TYPE			13 3/8 SURFACE SET @	997 ft 304 M	HOLE 401	PITS 285	PUMP SIZE 5 X 8.5 Inches		CIRCULATION PRESS (PSI) psi		
DRILL PIPE SIZE 3.5	TYPE 15.5 #	Length 3701	Mtrs	9 5/8 INTERMEDIATE SET @	4107 ft 1252 M	TOTAL CIRCULATING VOL. 886		PUMP MODEL 3 x NAT 8-P80	ASSUMED EFF 97 %	BOTTOMS UP (min) min		
DRILL PIPE SIZE	TYPE HW	Length	Mtrs	7 PRODUCTION. o LINER Set @	9839 ft 2999 M	IN STORAGE 200		BBL/STK 0.0516	STK / MIN	TOTAL CIRC. TIME (min) min		
DRILL COLLAR SIZE (")		Length	Mtrs	MUD TYPE 5% KCI-PHPA-POLYMER				BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP DCs	####

SAMPLE FROM		MUD PROPERTIES		MUD PROPERTY SPECIFICATIONS			
Below Shkrs		Below Shkrs		Mud Weight 12.4	API Filtrate 6 - 8	HPHT Filtrate NA	
TIME SAMPLE TAKEN		20.30		Plastic Vis ALAP	Yield Point 8 - 15	pH 9.0 - 9.5	
DEPTH (ft) - (m)		Metres	RIH tubing	KCI >5%	PHPA 0.75 - 1.5	Sulphites 80 - 120	

FLOWLINE TEMPERATURE		WEIGHT		OBSERVATIONS All mud is being saved until the tubing has been displaced successfully. Have mixed 200 bbls 3% brine with 2000 ppm biocide into Pill and Premix tanks. Further volume will be built "on the run" while displacing.			
°C / °F		ppg / SG					
FUNNEL VISCOSITY (sec/qt) API @ °C		41					
PLASTIC VISCOSITY cP @ 55 °C		11					
YIELD POINT (lb/100ft²)		22					
GEL STRENGTHS (lb/100ft²) 10 sec/10 min		4:6					
RHEOLOGY q 600 / q 300		44 33					
RHEOLOGY q 200 / q 100		27 19					
RHEOLOGY q 6 / q 3		5 4					
FILTRATE API (cc's/30 min)		13.0					

HPHT FILTRATE (cc's/30 min) @ °F				OPERATIONS SUMMARY Lay out pipe to 1223 m. RIH 4 stands plus BHA to 1564 m. Flow check - well flowing. Shut in and monitor. Circulate bottoms up and pump 40 bbls 14.7 ppg mud and spot at 1564 m. Continue laying out pipe. Rig up and run 2-7/8" tubing.			
CAKE THICKNESS API : HPHT (32nd in)		2					
SOLIDS CONTENT (% by Volume)		18.8					
LIQUID CONTENT (% by Volume) OIL/WATER		81.2					
SAND CONTENT (% by Vol.)		Tr					
METHYLENE BLUE CAPACITY (ppb equiv.)		9.0					
pH		8.0					
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)		0 0.80					
CHLORIDE (mg/L)		107,000					
TOTAL HARDNESS AS CALCIUM (mg/L)		240					
SULPHITE (mg/L)		Tr					
K+ (mg/L)		39,375					
KCI (% by Wt.)		7.5					
PHPA (ppb)		0.28					

Mud Accounting (bbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	721	Centrifuge		Desander		Shaker #1	4 x 84	3
Premix (recirc from sump)		Desilter				Degasser		Desilter		Shaker #2	4 x 84	3
Drill Water	200	Downhole	35	+ FLUID RECEIVED	200							
Direct Recirc Sump		Dumped		- FLUID LOST	35							
Other (eg Diesel)		Other		+ FLUID IN STORAGE	200							
TOTAL RECEIVED	200	TOTAL LOST	35	FINAL VOLUME	1,086	Desander		0				
						Desilter		0				

Product	Price	Start	Received	Used	Close	Cost	Solids Analysis		Bit Hydraulics & Pressure Data			
AMC Biocide G	\$ 185.35	5		2	3	\$ 370.70	%	PPB	Jet Velocity			
Baryte	\$ 8.20	1200		112	1088	\$ 918.40	High Grav solids	5.4	79.17	Impact force		
Potassium Chloride	\$ 18.95	126		40	86	\$ 758.00	Total LGS	17.6	166.2	HHP		
							Bentonite	-1.1	-9.7	HSI		
							Drilled Solids	18.6	169.5	Bit Press Loss		
							Salt	6.6	62.0	CSG Seat Frac Press 2200 psi		
							n @ 20.30 Hrs	0.41		Equiv. Mud Wt. 13.80 ppg		
							K @ 20.30 Hrs	12.69		ECD		
										Max Pressure @ Shoe : 665 psi		

DAILY COST						CUMULATIVE COST					
\$2,047.10						\$217,380.25					
RMN ENGINEER Andre Skujins		CITY Adelaide Office				TELEPHONE 08 8338 7266					

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.



DRILLING FLUID REPORT

Report #	58	Date :	4-Nov-2006
Rig No	32	Spud :	8-Sep-2006
Depth	3701	to	3701 Metres

OPERATOR BEACH Petroleum LTD		CONTRACTOR ENSIGN Int'l Energy SVCs	
REPORT FOR Brian Marriott		REPORT FOR David Sheeran	
WELL NAME AND No GLENAIRE # 1 ST1		FIELD PEP 160	LOCATION OTWAY Basin
		STATE VICTORIA	

DRILLING ASSEMBLY		JET SIZE		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE	TYPE			13 3/8 SURFACE SET @	997 ft 304 M	HOLE	PITS	PUMP SIZE		CIRCULATION PRESS (PSI)	
						457		5 X 8.5	Inches		psi
DRILL PIPE SIZE	TYPE	Length	Mtrs	9 5/8 INTERMEDIATE SET @	4107 ft 1252 M	TOTAL CIRCULATING VOL.		PUMP MODEL	ASSUMED EFF	BOTTOMS UP (min)	
	#					457		3 x NAT 8-P80	97 %	min	
DRILL PIPE SIZE	TYPE	Length	Mtrs	7 PRODUCTION. o LINER Set @	9839 ft 2999 M	IN STORAGE		BBL/STK	STK / MIN	TOTAL CIRC. TIME (min)	
	HW							0.0516		min	
DRILL COLLAR SIZE (")		Length	Mtrs	MUD TYPE				BBL/MIN	GAL / MIN	ANN VEL. (ft/min)	DP DCs
				5% KCI-PHPA-POLYMER							

MUD PROPERTIES				MUD PROPERTY SPECIFICATIONS			
SAMPLE FROM				Mud Weight	12.4	API Filtrate	6 - 8
TIME SAMPLE TAKEN				Plastic Vis	ALAP	Yield Point	8 - 15
DEPTH (ft) - (m)				KCI	>5%	PHPA	0.75 - 1.5
FLOWLINE TEMPERATURE				HPHT Filtrate			NA
WEIGHT							
FUNNEL VISCOSITY (sec/qt) API @							
PLASTIC VISCOSITY cP @							
YIELD POINT (lb/100ft²)							
GEL STRENGTHS (lb/100ft²) 10 sec/10 min							
RHEOLOGY q 600 / q 300							
RHEOLOGY q 200 / q 100							
RHEOLOGY q 6 / q 3							
FILTRATE API (cc's/30 min)							
HPHT FILTRATE (cc's/30 min) @							
CAKE THICKNESS API : HPHT (32nd in)							
SOLIDS CONTENT (% by Volume)							
LIQUID CONTENT (% by Volume) OIL/WATER							
SAND CONTENT (% by Vol.)							
METHYLENE BLUE CAPACITY (ppb equiv.)							
pH							
ALKALINITY MUD (Pm)							
ALKALINITY FILTRATE (Pf / Mf)							
CHLORIDE (mg/L)							
TOTAL HARDNESS AS CALCIUM (mg/L)							
SULPHITE (mg/L)							
K+ (mg/L)							
KCI (% by Wt.)							
PHPA (ppb)						0.28	

OBSERVATIONS			
<p style="text-align: center;">OPERATIONS SUMMARY</p> <p>Run 2-7/8" tubing. Pressure test - ok. Displace hole to brine. Once completed, mud tanks were dumped and cleaned.</p>			

Mud Accounting (bbbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	886	Centrifuge		Desander		Shaker #1	4 x 84	3
Premix (recirc from sump)		Desilter				Degasser		Desilter		Shaker #2	4 x 84	
Drill Water		Downhole	-65	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped	494	- FLUID LOST	429							
Other (eg Diesel)		Other		+ FLUID IN STORAGE								
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME								
			429		457	Desander		0				
						Desilter		0				

Mud Accounting (bbbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	886	Centrifuge		Desander		Shaker #1	4 x 84	3
Premix (recirc from sump)		Desilter				Degasser		Desilter		Shaker #2	4 x 84	
Drill Water		Downhole	-65	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped	494	- FLUID LOST	429							
Other (eg Diesel)		Other		+ FLUID IN STORAGE								
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME								
			429		457	Desander		0				
						Desilter		0				

Mud Accounting (bbbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	886	Centrifuge		Desander		Shaker #1	4 x 84	3
Premix (recirc from sump)		Desilter				Degasser		Desilter		Shaker #2	4 x 84	
Drill Water		Downhole	-65	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped	494	- FLUID LOST	429							
Other (eg Diesel)		Other		+ FLUID IN STORAGE								
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME								
			429		457	Desander		0				
						Desilter		0				

Mud Accounting (bbbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	886	Centrifuge		Desander		Shaker #1	4 x 84	3
Premix (recirc from sump)		Desilter				Degasser		Desilter		Shaker #2	4 x 84	
Drill Water		Downhole	-65	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped	494	- FLUID LOST	429							
Other (eg Diesel)		Other		+ FLUID IN STORAGE								
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME								
			429		457	Desander		0				
						Desilter		0				

Mud Accounting (bbbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	886	Centrifuge		Desander		Shaker #1	4 x 84	3
Premix (recirc from sump)		Desilter				Degasser		Desilter		Shaker #2	4 x 84	
Drill Water		Downhole	-65	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped	494	- FLUID LOST	429							
Other (eg Diesel)		Other		+ FLUID IN STORAGE								
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME								
			429		457	Desander		0				
						Desilter		0				

Mud Accounting (bbbls)				Solids Control Equipment								
FLUID BUILT & RECEIVED		FLUID DISPOSED		SUMMARY		Type	Hrs	Cones	Hrs	Size	Hrs	
Premix (drill water)		Desander		INITIAL VOLUME	886	Centrifuge		Desander		Shaker #1	4 x 84	3
Premix (recirc from sump)		Desilter				Degasser		Desilter		Shaker #2	4 x 84	
Drill Water		Downhole	-65	+ FLUID RECEIVED								
Direct Recirc Sump		Dumped	494	- FLUID LOST	429							
Other (eg Diesel)		Other		+ FLUID IN STORAGE								
TOTAL RECEIVED		TOTAL LOST		FINAL VOLUME								
			429		457	Desander		0				
						Desilter		0				

RMN ENGINEER Andre Skujins	CITY Adelaide Office	TELEPHONE 08 8338 7266
DAILY COST \$2,139.43		CUMULATIVE COST \$219,519.68

Any opinion and/or recommendation, expressed orally or written herein, has been prepared carefully and may be used if the user so elects, however, no representation or warranty is made by ourselves or our agents as to its correctness or completeness, and no liability is assumed for any damages resulting from the use of same.

CASING AND CEMENTING REPORT

WELL: Glenaire 01 SUPERVISOR: #N/A DATE: 15-9-06

CASING DETAILS

Size (")	<u>9 5/8</u>	Weight (ppf)	<u>36</u>	Grade	<u>K-55</u>	Landed depth (mRT)	<u>1252.0</u>	Av. Length	<u>11.93</u>	Collapse (psi)	<u>2020</u>	Burst (psi)	<u>3520</u>
Joints on location	<u>105</u>	No. of joints run	<u>105</u>	Joints in shoe track	<u>1</u>	Float shoe (Y/N)	<u>Y</u>	Float collar (Y/N)	<u>Y</u>				
Final displ. (psi)	<u>#N/A</u>	Buoyed wt. (kLb)	<u>#N/A</u>	Set weight (kLb)	<u>#N/A</u>	Displ. (Bbbls)	<u>54</u>	Coupling	<u>BTC</u>				

PRE JOB CIRCULATION

Pump 1 (spm)	<u>120</u>	Pump 2 (spm)	<u> </u>	Pressure	<u>250</u>	Time (mins)	<u>60</u>	Vol. Pumped (Bbbls)	<u>488</u>	Mud wt (ppg)	<u>#N/A</u>
--------------	------------	--------------	-------------	----------	------------	-------------	-----------	---------------------	------------	--------------	-------------

PRE-FLUSH

Volume (Bbbls)	<u>50</u>	Wt(ppg)	<u>8.34</u>	Hyd. Loss (psi)	<u>#N/A</u>	Additives:	<u> </u>	Kg	<u> </u>	Kg	<u> </u>
----------------	-----------	---------	-------------	-----------------	-------------	------------	-------------	----	-------------	----	-------------

TAIL SLURRY

Wt(ppg)	<u>15.8</u>	Class	<u>G</u>	Volume (Bbbls)	<u>31</u>	Yield	<u>1.15</u>	Sacks	<u>150</u>	Water (g/sx)	<u>5.10</u>	Water (Bbbls)	<u>18</u>	Design top	<u>1150</u>
OH/Cal	<u>OH</u>	Excess (%)	<u>50</u>	Hole size (")	<u>12.25</u>	Mix (bpm)	<u>4.0</u>	Mix (psi)	<u>130</u>	Start	<u>04:08</u>	Finish	<u>04:15</u>		
Additives:	<u>CFR-3</u>	%	<u>0.2bwoc</u>							lb	<u> </u>				
	<u>NF-6</u>	%	<u> </u>	<u>25/10b</u>						lb	<u> </u>				

LEAD SLURRY

Wt(ppg)	<u>12.5</u>	Class	<u>G</u>	Volume (Bbbls)	<u>296</u>	Yield	<u>2.13</u>	Sacks	<u>780</u>	Water (g/sx)	<u>11.83</u>	Water (Bbbls)	<u>220</u>	Design top	<u>0</u>
OH/Cal	<u>OH</u>	Excess (%)	<u>50</u>	Hole size (")	<u>12.25</u>	Mix (bpm)	<u>5.3</u>	Mix (psi)	<u>130</u>	Start	<u>03:05</u>	Finish	<u>04:05</u>		
Additives:	<u>Conolit</u>	%	<u> </u>	<u>10bbl</u>						lb	<u> </u>				
	<u>NF-6</u>	%	<u> </u>	<u>/10bbl</u>						lb	<u> </u>				

DISPLACEMENT

Fluid type	<u>Mud</u>	Wt	<u>9.30</u>	Calculated (Bbbls)	<u>313</u>	Pumped (Bbbls)	<u>314</u>	Bump pressure (psi)	<u>2800</u>	Used (Rig/Unit)	<u>Halliburton</u>				
Time: Start	<u>04:20</u>	Finish	<u>05:05</u>	Returns (%)	<u>100</u>	Top plug (Y/N)	<u>Y</u>	Bottom plug (Y/N)	<u>Y</u>	Floats held (Y/N)	<u>Y</u>				
Pressure (psi) Initial	<u>130</u>	final	<u>750</u>	max	<u>2800</u>	min	<u> </u>	Rate (bpm) Initial	<u>5.78</u>	final	<u>3.6</u>	max	<u> </u>	min	<u>3.6</u>

LOT / FIT

OMW (ppg)	<u>9.30</u>	FIT (ppg)	<u> </u>	FIT Pressure (psi)	<u>-1986</u>	Test pressure (psi)	<u> </u>	EMW (ppg)	<u>9.30</u>
-----------	-------------	-----------	-------------	--------------------	--------------	---------------------	-------------	-----------	-------------

CASING RUN LIST

	QTY	DESCRIPTION	LENGTH	FROM	TO
0.00 m	104	Jnt. 9-5/8" csg	1239.17	12.83	1252.00
13.375" 54.5#	1	Float collar	0.35	12.48	12.83
9.625" 36#	1	Jnt. 9-5/8" csg	12.05	0.43	12.48
Top= 0 m	1	Shoe	0.43	0.00	0.43
304 m					
12.5# Lead					
17.5" Hole					
Top= 1150 m					
15.8# Tail					
1239.17 m					
1252 m					
T.D. m					

COMMENTS	
	Mixed & pumped 297bbls (783sx) Lead "G" cmt., followed by 31bbls (148sx) Tail "G" cmt.
	Displace with rig pump 314bbls mud, bump w/ 2000psi, close in mud pump lo-torque, open Howco lo-torque & press. up to 2800psi for 10 min., good test, bleed back 3bbls mud, float holding
	Good cmt. Job & slurry wt's w/ full returns.
	Pre-flush water to surface w/ a trace of cement

CASING AND CEMENTING REPORT

WELL: **Glenaire 01 ST 01**

SUPERVISOR: **#N/A**

DATE: **30/10/2006**

CASING DETAILS

Size (") **4 1/2** Weight (ppf) **13.5** Grade **P-110** Landed depth (mRT) **3701.0** Av. Length **54.47** Collapse (psi) **10670** Burst (psi) **12410**

Joints on location **68** No. of joints run **68** Joints in shoe track **2** Float shoe (Y/N) **Y** Float collar (Y/N) **Y**

Final displ. (psi) **#N/A** Buoyed wt. (kLb) **#N/A** Set weight (kLb) **#N/A** Displ. (Bbls) **60** Coupling **BTC**

PRE JOB CIRCULATION

Pump 1 (spm) **38** Pump 2 (spm) Pressure **580** Time (mins) **210** Vol. Pumped (Bbls) **399** Mud wt (ppg) **#N/A**

PRE-FLUSH

Volume (Bbls) **20** Wt(ppg) **13.00** Hyd. Loss (psi) **#N/A** Additives: **200** Kg tuned spacer **2000** Kg Barite

TAIL SLURRY

Wt(ppg) **15.6** Class **HTB** Volume (Bbls) **20** Yield **1.17** Sacks **95** Water (g/sx) **4.91** Water (Bbls) **11** Design top **3440**

OH/Cal **OH** Excess (%) **10** Hole size (") **6.4** Mix (bpm) **4** Mix (psi) **1468** Start **18:10** Finish **18:20**

Additives:	%	NF6 (5gal)	20.0	gals	Gascon	60	lb	Halad413
	%			gals	HR25 (18lbs)	24	lb	HR12

LEAD SLURRY

Wt(ppg) **13.5** Class **HTB** Volume (Bbls) **41** Yield **1.65** Sacks **140** Water (g/sx) **8.50** Water (Bbls) **28** Design top **2850**

OH/Cal **OH** Excess (%) **10** Hole size (") **6.4** Mix (bpm) **4** Mix (psi) **1468** Start **18:00** Finish **18:10**

Additives:	%	HR25 (50lbs)	200.0	gals	Gascon	135	lb	Halad413
	%			gals	HR12 (70lbs)	35	lb	Halad344

DISPLACEMENT

Fluid type **Mud** Wt **12.60** Calculated (Bbls) **179** Pumped (Bbls) **101** Bump pressure (psi) **3000** Used (Rig/Unit) **Rig**

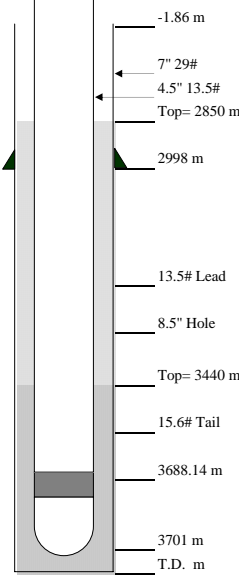
Time: Start **18:20** Finish **18:55** Returns (%) Top plug (Y/N) **Y** Bottom plug (Y/N) **N** Floats held (Y/N) **Y**

Pressure (psi) Initial **1400** final **3000** max **3000** min **1400** Rate (bpm) Initial final max min

LOT / FIT

OMW (ppg) **9.50** FIT (ppg) **13.90** FIT Pressure (psi) **2778** Test pressure (psi) **2275** EMW (ppg) **13.10**

CASING RUN LIST



QTY	DESCRIPTION	LENGTH	FROM	TO
1	shoe	0.40	3700.60	3701.00
1	joint 4 1/2" tubing	12.45	3688.15	3700.60
1	float	0.01	3688.14	3688.15
66	joints 4 1/2" Tubing	802.08	2886.06	3688.14
1	hanger	8.07	2877.99	2886.06
100	stands 3 1/2" drillpipe	2879.85	-1.86	2877.99

COMMENTS

Mix & pump 42bbls lead @ 13.5ppg followed by 22bbls Tail @ 15.6ppg. (pumped 64bbls, only 13bbls returned)

Displaced 101bbls, only 18bbls returned = 18%

Plug bumped @ 1400psi, increase to 3000psi, good test, bleed back 1.25bbls, floats holding

CASING AND CEMENTING REPORT

WELL: **Glenaire 01 ST 01**

SUPERVISOR: **#N/A**

DATE: **26/09/2006**

CASING DETAILS

Size (") Weight (ppf) Grade Landed depth (mRT) Av. Length Collapse (psi) Burst (psi)

Joints on location No. of joints run Joints in shoe track Float shoe (Y/N) Float collar (Y/N)

Final displ. (psi) Buoyed wt. (kLb) Set weight (kLb) Displ. (Bbls) Coupling

PRE JOB CIRCULATION

Pump 1 (spm) Pump 2 (spm) Pressure Time (mins) Vol. Pumped (Bbls) Mud wt (ppg)

PRE-FLUSH

Volume (Bbls) Wt(ppg) Hyd. Loss (psi) Additives: Kg

TAIL SLURRY

Wt(ppg) Class Volume (Bbls) Yield Sacks Water (g/sx) Water (Bbls) Design top

OH/Cal Excess (%) Hole size (") Mix (bpm) Mix (psi) Start Finish

Additives:	<input type="text" value="0.2"/>	%	<input type="text" value="CFR3"/>	<input type="text" value="5"/>	gals	<input type="text" value="NF6"/>	<input type="text" value="96"/>	lb	<input type="text" value="HALAD413"/>
	<input type="text" value="0.1"/>	%	<input type="text" value="HR12"/>		gals		<input type="text" value="24"/>	lb	<input type="text" value="HALAD344"/>

LEAD SLURRY

Wt(ppg) Class Volume (Bbls) Yield Sacks Water (g/sx) Water (Bbls) Design top

OH/Cal Excess (%) Hole size (") Mix (bpm) Mix (psi) Start Finish

Additives:	<input type="text" value="0.8"/>	%	<input type="text" value="HR12"/>	<input type="text" value="651"/>	gals	<input type="text" value="GASCON469"/>		lb	
		%			gals			lb	

DISPLACEMENT

Fluid type Wt Calculated (Bbls) Pumped (Bbls) Bump pressure (psi) Used (Rig/Unit)

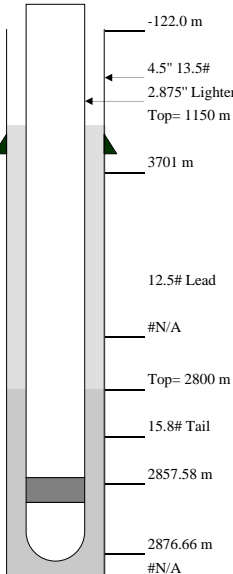
Time: Start Finish Returns (%) Top plug (Y/N) Bottom plug (Y/N) Floats held (Y/N)

Pressure (psi) Initial final max min Rate (bpm) Initial final max min

LOT / FIT

OMW (ppg) FIT (ppg) FIT Pressure (psi) Test pressure (psi) EMW (ppg)

CASING RUN LIST



QTY	DESCRIPTION	LENGTH	FROM	TO
1	Howco Float shoe	0.41	2876.25	2876.66
1	Joint 7" x 29# L80 casing	11.65	2864.60	2876.25
1	Howco float collar	0.31	2864.29	2864.60
109	jts 7" x 29#L80 casing	1265.26	1599.03	2864.29
119	Jt 7" x 26#L80 casing	1430.59	168.44	1599.03
25	jts 7" x 29#L80 casing	290.43	-121.99	168.44

COMMENTS

PLUG DIDN'T BUMP. GOOD CIRCULATION THROUGHOUT CEMENT JOB

Single shot Survey

Report Date: October 19, 2006	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: Beach Petroleum	Vertical Section Azimuth: 0.000°
Field: Beach Petroleum	Vertical Section Origin: N 0.000 m, E 0.000 m
Structure / Slot: Glenaire / 1	TVD Reference Datum:
Well: Glenaire 1	TVD Reference Elevation: 0.0 m relative to MSL
Borehole: Glenaire 1 ST1	Sea Bed / Ground Level Elevation: 0.000 m relative to MSL
UWI/API#:	Magnetic Declination: 9.855°
Survey Name / Date: Glenaire 1 ST / October 18, 2006	Total Field Strength: 60481.725 nT
Tort / AHD / DDI / ERD ratio: 64.751° / 160.53 m / 4.534 / 0.046	Magnetic Dip: -69.161°
Grid Coordinate System: GDA94/MGA94 Zone 54	Declination Date: October 18, 2006
Location Lat/Long: S 37 34 47.033, E 140 59 52.253	Magnetic Declination Model: BGGM 2004
Location Grid N/E Y/X: N 5840813.000 m, E 499810.000 m	North Reference: Grid North
Grid Convergence Angle: +0.00131234°	Total Corr Mag North -> Grid North: +9.854°
Grid Scale Factor: 0.99960000	Local Coordinates Referenced To: Well Head

Comments	Measured Depth (m)	Inclination (deg)	Azimuth (deg)	TVD (m)	Vertical Section (m)	NS (m)	EW (m)	DLS (deg/30 m)	Tool Face (deg)
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.74M
	48.00	0.50	34.74	48.00	0.17	0.17	0.12	0.31	-90.26M
	131.00	1.00	269.74	131.00	0.47	0.47	-0.40	0.49	-11.26M
	259.00	1.00	348.74	258.98	1.56	1.56	-1.73	0.30	29.74M
	400.00	1.25	29.74	399.96	4.10	4.10	-1.21	0.17	-110.26M
	544.00	0.75	249.74	543.95	5.14	5.14	-1.32	0.39	-50.26M
	690.00	0.50	309.74	689.94	5.21	5.21	-2.70	0.14	79.74M
	834.00	0.25	79.74	833.94	5.67	5.67	-2.88	0.14	69.74M
	978.00	1.00	69.74	977.93	6.16	6.16	-1.39	0.16	27.74M
	1094.00	1.75	27.74	1093.90	8.08	8.08	0.39	0.31	34.74M
	1200.00	1.50	34.74	1199.85	10.65	10.65	1.93	0.09	79.74M
	1362.00	1.00	79.74	1361.82	12.65	12.65	4.53	0.20	74.74M
	1507.00	0.75	74.74	1506.80	13.12	13.12	6.69	0.05	34.74M
	1652.00	2.25	34.74	1651.75	15.71	15.71	9.23	0.36	24.74M
	1767.00	3.00	24.74	1766.63	20.30	20.30	11.77	0.23	19.74M
	1854.00	3.25	19.74	1853.50	24.69	24.69	13.56	0.13	44.74M
	1999.00	3.75	44.74	1998.24	31.93	31.93	18.29	0.33	44.74M
	2142.00	4.25	44.74	2140.89	39.01	39.01	25.31	0.10	19.74M
	2288.00	5.00	19.74	2286.43	48.84	48.84	31.26	0.44	11.74M
	2374.00	6.00	11.74	2372.03	56.77	56.77	33.44	0.44	-128.40G
	2517.00	5.25	359.74	2514.35	70.63	70.63	34.94	0.29	-76.76G
	2633.00	6.50	334.74	2629.75	81.88	81.88	32.11	0.73	-107.63G
	2719.00	6.25	324.74	2715.22	90.10	90.10	27.33	0.40	-145.22G
	2805.00	5.25	316.74	2800.79	96.79	96.79	21.93	0.45	153.88G
	2893.00	4.75	319.74	2888.46	102.50	102.50	16.82	0.19	-35.26M
	2989.00	6.25	324.74	2984.01	109.81	109.81	11.23	0.49	71.19G
Tie-In	3020.00	6.75	334.74	3014.81	112.83	112.83	9.48	1.20	53.65G
	3054.28	7.67	343.28	3048.82	116.84	116.84	7.96	1.23	150.56G
	3082.26	4.78	5.89	3076.64	119.79	119.79	7.54	4.01	30.28M
	3104.18	2.52	30.28	3098.51	121.12	121.12	7.88	3.69	111.74M
	3120.27	2.04	111.74	3114.60	121.32	121.32	8.32	5.59	152.37M
	3148.67	2.72	152.37	3142.97	120.53	120.53	9.11	1.87	168.37M
	3177.31	3.53	168.37	3171.57	119.07	119.07	9.60	1.24	172.45M
	3206.34	1.00	172.45	3200.58	117.94	117.94	9.81	2.62	-9.07M
	3234.67	0.69	350.93	3228.90	117.86	117.86	9.82	1.79	-117.94M
	3249.34	0.92	242.06	3243.57	117.90	117.90	9.70	2.69	-127.73M

3263.57	1.48	232.27	3257.80	117.73	117.73	9.45	1.25	-131.40M
3282.64	2.60	228.60	3276.86	117.29	117.29	8.94	1.77	-100.85M
3292.43	1.86	259.15	3286.64	117.12	117.12	8.61	4.21	-136.40M
3311.56	2.89	223.60	3305.76	116.71	116.71	7.98	2.74	-132.29M
3321.13	2.66	227.71	3315.31	116.38	116.38	7.64	0.95	-103.02M
3341.07	1.99	256.98	3335.24	116.00	116.00	6.97	2.02	-84.31M
3349.72	1.86	275.69	3343.88	115.98	115.98	6.68	2.22	-127.23M
3370.03	3.00	232.77	3364.18	115.69	115.69	5.93	3.06	-115.16M
3378.51	2.48	244.84	3372.65	115.47	115.47	5.59	2.74	-155.55M
3398.34	3.21	204.45	3392.45	114.79	114.79	4.97	3.15	-148.42M
3407.21	2.92	211.58	3401.31	114.37	114.37	4.75	1.62	169.22M
3427.02	2.99	169.22	3421.10	113.43	113.43	4.58	3.23	157.28M
3464.60	1.56	157.28	3458.65	112.00	112.00	4.96	1.20	0.00M

Survey Type: Non-Def Survey

Survey Error Model: SLB ISCWSA version 24 *** 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog:

<u>MD From (m)</u>	<u>MD To (m)</u>	<u>EOU Freq</u>	<u>Survey Tool Type</u>	<u>Borehole -> Survey</u>
0.00	3020.00		Act-Stns SLB_UNKNOWN (default tool used)	Glenaire 1 -> Glenaire 1
3020.00	3464.60		Act-Stns SLB_UNKNOWN (default tool used)	Glenaire 1 ST1 -> Glenaire 1 ST



Pressure Report



GENERAL

Well:	Glenaire 1	Date:	29 Sept 2006	Drilling Day:	21
Interval	3002m - 3230m	Total Footage drilled		228 m	
TVD	2997.6m - 3223.2m	Change in Vertical Depth		225.6 m	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP ft/hr
4	6.0"	REED	DSX519M	PDC	5x14	12.72	17.9

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	9.8	15	18	44	4	16

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	9.8 ppg
Pumps On - Pick up	2940 psi	EMW on Bottom	10.0 ppg
Pumps On - On Bottom	3150 psi	EMW on Bottom	10.6 ppg
Down hole motor	Yes	Flow Rate	260-265 gpm
Revolutions/Gallon	0.288	Local PRESSURE Gradient	8.59 ppg

GEOLOGY

Current Formation	Silty Claystone with minor Sandstone interbedding and trace interbedded coal lenses
--------------------------	---

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3002m-3230m	60-80	-	-	3181	1318
				3230	574

CUTTINGS (Size, Angularity, Sphericity): predoinantly < 5 mm, mnr 5mm to 1mm, Sbfiss to fiss, Slightly elongated to very angular.

COMMENTS: Using Dex to accurately monitor overpressure relies on the presence of a clean Claystone. However within nonuniform lithology which was present in this section, Dex was used as an indicator in conjunction with the above parameters.

The rock cutting's within this section were indicative of a localised tectonic influence, evident by fractures encountered @ 3155m, 3182m & 3230m. Pick up and slack off weights and Torque were normal

However connection gases @ 3181m and 3230m were the only indication of an abnormal pressure influence. This could be explained in theory by the presence of a locally pressured gas zone with communication through the faults present. No signs of abnormally pressured formation were evident

DATA ENGINEER: Phil Rady



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	09 Oct 2006	Drilling Day:	30
Interval	3042m - 3083m	Total Footage drilled		41 m	
TVD	3037m - 3077m	Change in Vertical Depth		40 m	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP ft/hr
6	6.0"	Security	NC46	TriCone	3x20	26.99	6.56

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	10.15	12	7	39	1	14

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	10.4 ppg
Pumps On - Pick up	2720 psi	EMW on Bottom	10.4 ppg
Pumps On - On Bottom	2930 psi	EMW on Bottom	11.0 ppg
Down hole motor	Yes	Flow Rate	252 gpm
Revolutions/Gallon	0.533	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with minor Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3042m-3083m	5-10	-	-		

CUTTINGS

(Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Using Dexr to acurately monitor overpressure relies on the presence of a clean Claystone. However within nonuniform lithology which was present in this section, Dexr was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Dmitriy Ilyin



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	10 Oct 2006	Days from Spud:	31
Interval	3083m-3119.22m	Total Footage drilled		36.22	
TVD	3077m-3113.81m	Change in Vertical Depth		36.81	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP m/hr
6	6.0"	Security	NC46	TriCone	3x20	41	2

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	10.05	11	6	37	1	1

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	11.0 ppg
Pumps On - Pick up	2870 psi	EMW on Bottom	11.0 ppg
Pumps On - On Bottom	2996 psi	EMW on Bottom	11.4 ppg
Down hole motor	Yes	Flow Rate	252 gpm
Revolutions/Gallon	0.533	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with minor Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3119.22 m	1.5-6	-	-		

CUTTINGS

(Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Using Dexp to acurately monitor overpressure relies on the presence of a clean Claystone. However within nonuniform lithology which was present in this section, Dexp was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Dmitry Ilyin



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	13 Oct 2006	Days from Spud:	35
Interval	3119.22m-3127.67m	Total Footage drilled		8.45m	
TVD	3113.81m-3122.28m	Change in Vertical Depth		8.47m	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP m/hr
7	6.0"	SMITH PB	9348	TriCone	3x24	2.65	2

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	10.05	11	6	39	1	1

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	11.1 ppg
Pumps On - Pick up	2865 psi	EMW on Bottom	11.1 ppg
Pumps On - On Bottom	2942 psi	EMW on Bottom	11.5 ppg
Down hole motor	Yes	Flow Rate	250 gpm
Revolutions/Gallon	0.533	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with minor Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3127.67	5-15	3119	89		

CUTTINGS

(Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Using Dexp to acurately monitor overpressure relies on the presence of a clean Claystone. However within nonuniform lithology which was present in this section, Dexp was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Dmitry Ilyin



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	11 Oct 2006	Days from Spud:	36
Interval	3127.67m-3180m	Total Footage drilled		52.33m	
TVD	3122.28m-3174m	Change in Vertical Depth		51.72m	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP m/hr
7	6.0"	SMITH PB	9348	TriCone	3x24	24.72	2

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	10.3	10	5	36	1	3

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	11.3 ppg
Pumps On - Pick up	2970 psi	EMW on Bottom	11.3 ppg
Pumps On - On Bottom	3060 psi	EMW on Bottom	11.8 ppg
Down hole motor	Yes	Flow Rate	250 gpm
Revolutions/Gallon	0.533	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with minor Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3180 m	30-60				

CUTTINGS

(Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Using Dexp to acurately monitor overpressure relies on the presence of a clean Claystone. However within nonuniform lithology which was present in this section, Dexp was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Dmitry Ilyin



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	15 Oct 2006	Days from Spud:	37
Interval	3180m-3193m	Total Footage drilled		13m	
TVD	3174m-3186m	Change in Vertical Depth		12m	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP m/hr
8	6.0"	HYCALOG	DSX 516M/D1	PDC	5X15	0.45	25

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	10.55	10	5	36	1	3

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	11.5 ppg
Pumps On - Pick up	3080psi	EMW on Bottom	11.5 ppg
Pumps On - On Bottom	3189psi	EMW on Bottom	11.9 ppg
Down hole motor	Yes	Flow Rate	250 gpm
Revolutions/Gallon	0.533	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with minor Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3193m	20				

CUTTINGS

(Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Using Dexp to acurately monitor overpressure relies on the presence of a clean Claystone. However within nonuniform lithology which was present in this section, Dexp was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Dmitry Ilyin



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	16 Oct 2006	Days from Spud:	38
Interval	3193m-3207m	Total Footage drilled		14	
TVD	3186m-3201m	Change in Vertical Depth		15	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP m/hr
8	6.0"	HYCALOG	DSX 516M/B1	PDC	5X15	0.97	25

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	10.55	10	5	36	1	3

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	11.5 ppg
Pumps On - Pick up	3080psi	EMW on Bottom	11.5 ppg
Pumps On - On Bottom	3189psi	EMW on Bottom	11.9 ppg
Down hole motor	Yes	Flow Rate	250 gpm
Revolutions/Gallon	0.533	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with minor Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3207	50				

CUTTINGS

(Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Using Dexp to acurately monitor overpressure relies on the presence of a clean Claystone. However within nonuniform lithology which was present in this section, Dexp was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Dmitry Ilyin



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	17 Oct 2006	Days from Spud:	39
Interval	3207m - 3267m	Total Footage drilled		60	
TVD	3201m - 3261.2m	Change in Vertical Depth		60	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP m/hr
8	6.0"	HYCLOG	DSX 516M/B1	PDC	5X15	0.97	2

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	11.1	8	6	34	1	1

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	11.5 ppg
Pumps On - Pick up	2921psi	EMW on Bottom	11.5 ppg
Pumps On - On Bottom	3070psi	EMW on Bottom	11.9 ppg
Down hole motor	Yes	Flow Rate	250 gpm
Revolutions/Gallon	0.533	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with minor Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3207-3267	280-400				

CUTTINGS

(Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Using Dexp to acurately monitor overpressure relies on the presence of a clean Claystone. However within nonuniform lithology which was present in this section, Dexp was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Boris Beranek



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	18 Oct 2006	Days from Spud:	40
Interval	3267m - 3361m	Total Footage drilled		94m	
TVD	3261.2m - 3355.16m	Change in Vertical Depth		93.9 m	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP m/hr
8	6.0"	HYCALOG	DSX 516M/B1	PDC	5X15	33.9	5.9

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	11.2	10	8	36	1	2

CONNECTIONS

Overpull	40 k @ 3385m	Torque	Normal	Fill	Nil
-----------------	--------------	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	11.7 ppg
Pumps On - Pick up	3920 psi	EMW on Bottom	11.7 ppg
Pumps On - On Bottom	3221 psi	EMW on Bottom	11.85 ppg
Down hole motor	Yes	Flow Rate	244 gpm
Revolutions/Gallon	0.533	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with minor Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3267m -3361 m	150-200			3279	4458
				3308	4570
				3336	4235
				3365	4426

CUTTINGS

(Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Drill and slide from 3267 m to 3385 m. Connection gas in range from 4235 to 4570 units
At 3385 m pick up string for survey and 40 k overpull. Work the pipe and circulate. Bottoms up gas 4497 units.

.Using Dexp to accurately monitor overpressure relies on the presence of a clean Claystone.
However within nonuniform lithology which was present in this section, Dexp was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Boris Beranek



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	19 Oct 2006	Days from Spud:	41
Interval	3361m - 3418m	Total Footage drilled		57m	
TVD	3355.16m - 3412.07	Change in Vertical Depth		56.9 m	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP m/hr
8	6.0"	HYCALOG	DSX 516M/B1	PDC	5X15	50.3	5.3

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	11.3	10	9	35	1	2

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	11.7 ppg
Pumps On - Pick up	3165 psi	EMW on Bottom	11.75 ppg
Pumps On - On Bottom	3055 psi	EMW on Bottom	11.85 ppg
Down hole motor	Yes	Flow Rate	244 gpm
Revolutions/Gallon	0.533	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with minor Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3361m - 3418m	150-200	3386	4233	3394	4624

CUTTINGS

(Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Make a wiper trip to the shoe at 3386m. RIH and drill and slide to 3418m
At 3445m start losing mud at rate of 20 bbls/hr.

.Using Dexp to accurately monitor overpressure relies on the presence of a clean Claystone.
However within nonuniform lithology which was present in this section, Dexp was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Boris Beranek



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	20 Oct 2006	Days from Spud:	42
Interval	3418m - 3507m	Total Footage drilled		89m	
TVD	3412.07m - 3501.1m	Change in Vertical Depth		89m	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP m/hr
8	6.0"	HYCALOG	DSX 516M/B1	PDC	5X15	56.4	5.76

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	11.3	10	9	35	1	2

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	11.7 ppg
Pumps On - Pick up	3165 psi	EMW on Bottom	11.75 ppg
Pumps On - On Bottom	3255 psi	EMW on Bottom	11.9 ppg
Down hole motor	Yes	Flow Rate	244 gpm
Revolutions/Gallon	0.533	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with minor Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3418m-3507m	150-200			3422	2400
				3451	2585
				3480	2548

CUTTINGS

(Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Drill and slide from 3418m to 3507m. Circulate and POOH.
Remove MWD tool, put an axtra DC stand and RIH with the same bit.

.Using Dexp to accurately monitor overpressure relies on the presence of a clean Claystone.
However within nonuniform lithology which was present in this section, Dexp was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Boris Beranek



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	21 Oct 2006	Days from Spud:	43
Interval	3507m -3563m	Total Footage drilled		56m	
TVD	3501.1m - 3557.1m	Change in Vertical Depth		56m	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP m/hr
9 RR	6.0"	HYCALOG	DSX 516M/B1	PDC	5X15	12.7	4.48

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	11.2	11	9	36	1	2

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	11.3 ppg
Pumps On - Pick up	2900 psi	EMW on Bottom	11.6 ppg
Pumps On - On Bottom	2980 psi	EMW on Bottom	11.7 ppg
Down hole motor	No	Flow Rate	249 gpm
Revolutions/Gallon	0	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3507m - 3563m	75-150	3507	3162	3515m	1358
				Dmmy conn 3525m	2096
				Dmmy conn 3535m	1892
				3543m	3231

CUTTINGS (Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Drill 3507m to 3563m. Circulate and POOH.

.Using Dexp to accurately monitor overpressure relies on the presence of a clean Claystone.
However within nonuniform lithology which was present in this section, Dexp was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Boris Beranek

CUTTINGS

(Size, Angularity, Sphericity): predominantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Drill 3564m. Circulate and POOH. Change the bit and RIH. Trip gas @3564 TG 3610 units. .

Drill to 3572m.

.Using DexP to accurately monitor overpressure relies on the presence of a clean Claystone.

However within nonuniform lithology which was present in this section, DexP was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Boris Beranek



Pressure Report



GENERAL

Well:	Glenaire 1 ST 1	Date:	23 Oct 2006	Days from Spud:	45
Interval	3572m - 3612m	Total Footage drilled		40m	
TVD	3566m - 3606m	Change in Vertical Depth		40m	

BIT DATA

No.	size	Manufacturer	Model	Type	Jets	On Btm hrs	Av ROP m/hr
10	6.0"	HYCLOG	DSX 111	PDC	4x20,3x10	35.6	1.34

MUD DATA

Type	MW	PV	YP	FV	Gel, 10 sec,	10 min.
KCL-PHPA-POLYMER	11.2	12	12	37	3	2

CONNECTIONS

Overpull	Nil	Torque	Normal	Fill	Nil
-----------------	-----	---------------	--------	-------------	-----

PUMP PRESSURES

Pumps Off	0 psi	EMW on Bottom	11.3 ppg
Pumps On - Pick up	2980psi	EMW on Bottom	11.6 ppg
Pumps On - On Bottom	3080psi	EMW on Bottom	11.7 ppg
Down hole motor	No	Flow Rate	246 gpm
Revolutions/Gallon	0	Local PRESSURE Gradient	9.6 ppg

GEOLOGY

Current Formation	Silty Claystone with Sandstone interbedding.
--------------------------	--

GAS DATA

Background Gas		Trip Gas		Connection Gas	
Depth	Gas Units	Depth	Gas Units	Depth	Gas Units
3572m - 3612m	50-75			3573m	2120
				3601m	3010

CUTTINGS

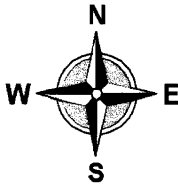
(Size, Angularity, Sphericity): predoinantly < 5 mm, com bloky, slightly elongated, slightly angular i/p.

COMMENTS:

Drill from 3572m to 3612m.

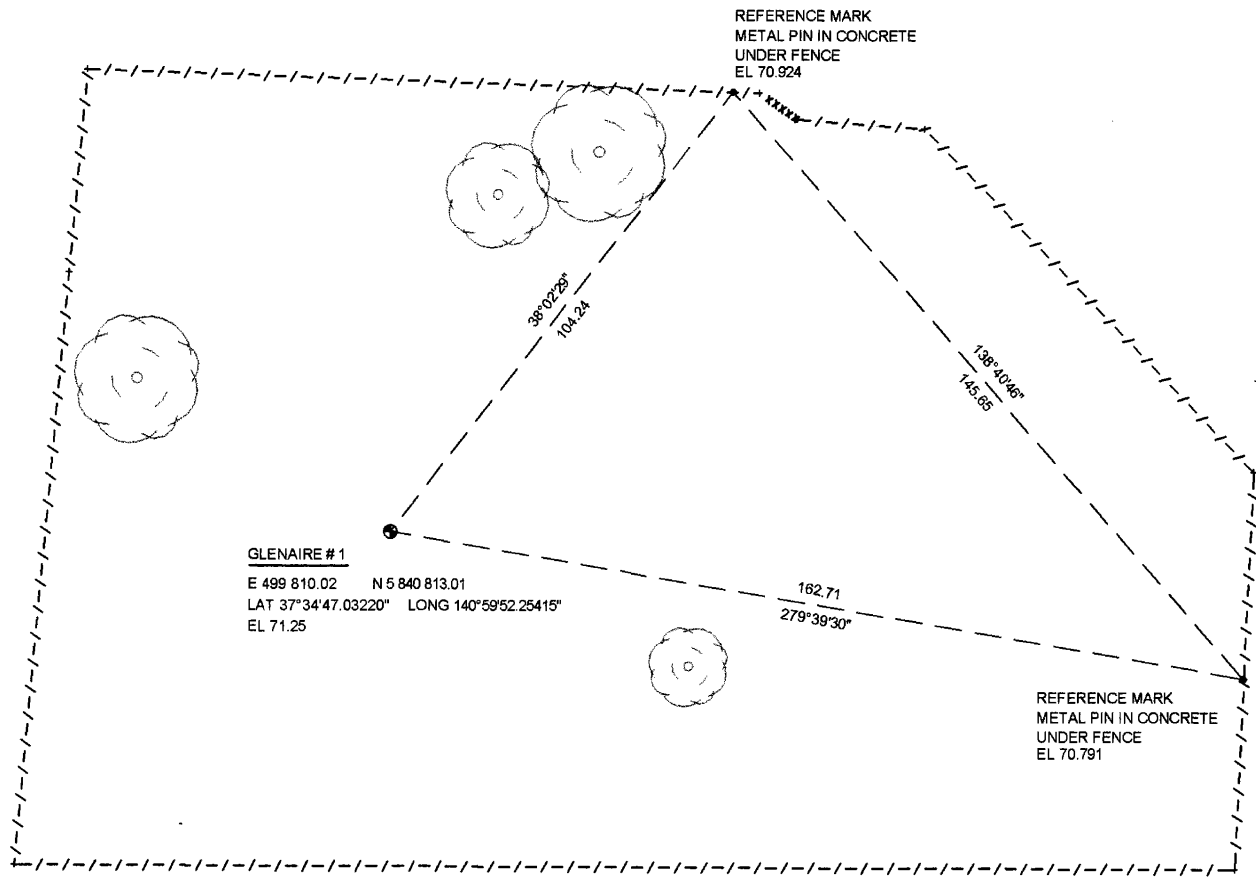
.Using Dexp to accurately monitor overpressure relies on the presence of a clean Claystone.
However within nonuniform lithology which was present in this section, Dexp was used as an indicator in conjunction with the above parameters.

DATA ENGINEER: Boris Beranek



LOCATION SURVEY

GLENAIRE # 1

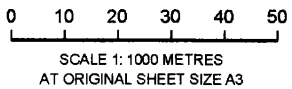


GLENAIRE # 1
 E 499 810.02 N 5 840 813.01
 LAT 37°34'47.03220" LONG 140°59'52.25415"
 EL 71.25

REFERENCE MARK
 METAL PIN IN CONCRETE
 UNDER FENCE
 EL 70.924

REFERENCE MARK
 METAL PIN IN CONCRETE
 UNDER FENCE
 EL 70.791

LEGEND	
⊕	MN DENOTES BOREHOLE
●	MP DENOTES METAL PIN
⦿	SPK DENOTES SPIKE
□	PM DENOTES PERMANENT MARK
FD	DENOTES FOUND
CT	DENOTES CERTIFICATE OF TITLE
- - - -	DENOTES FENCE
· · · · ·	DENOTES GATE



LICENSED SURVEYOR 4/4/07

Alexander & Symonds Pty Ltd
 29 Ferrers Street
 Mount Gambier
 South Australia 5290
 DX 29007
 ABN 93 007 753 988

SURVEYING CONSULTANTS

Alexander Symonds

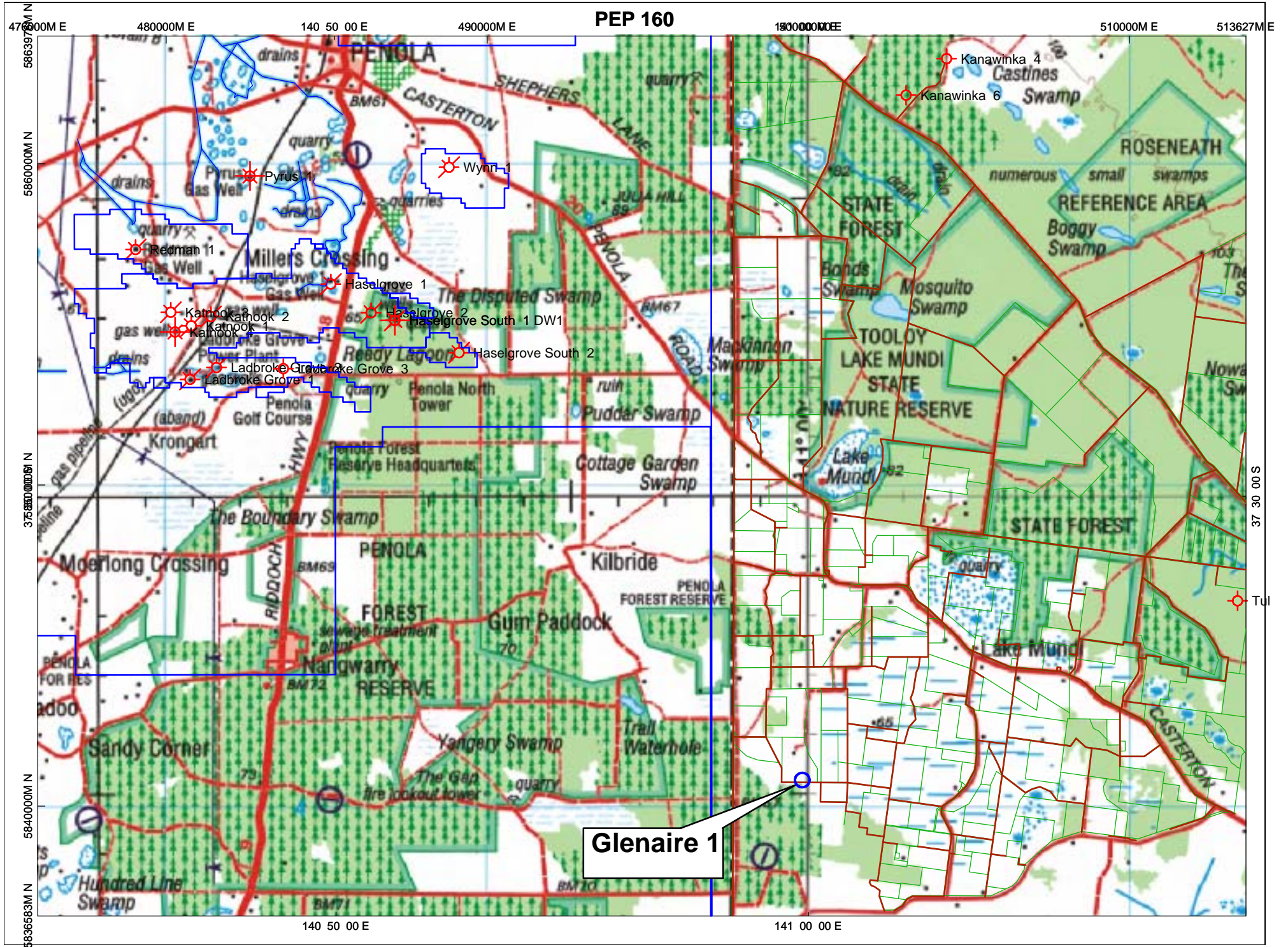
*Property, Engineering,
 Topographic, Mining and
 GPS Surveying,
 Spatial Information
 Management.*

www.alexander.com.au
 mtgam@alexander.com.au

Telephone (08) 8725 5299
 Facsimile (08) 8724 9193

REFERENCE G001106.10
 DWG No G001106.10bore.dwg
 FIELD BOOK 527/54
 LJM 17/4/07

PEP 160



Glenaire 1

Depth (ROP avg)	%	Lithology	Gas
		Glenaire-1 spudded 0800 Hrs 08/09/06. 340mm casing shoe set at 303.5m, samples described below 307m.	TG u %
310 (18)	100	SILTY CLAYSTONE, medium dark brown, moderately carbonaceous, trace fine black coaly detritus, trace pyrite, very soft, non fissile, sticky.	Nil
320 (14)	80	SANDSTONE, off white to light grey, silty to very coarse, dominantly very fine, subangular to rounded, very poorly sorted, very weak silica cement, abundant white argillaceous and silt matrix – matrix supported, friable, poor visual porosity.	Nil
	20	SILTSTONE, off white, very argillaceous, trace micromica, soft, non fissile.	
330 (28)	100	SILTY CLAYSTONE, dark brown, common to abundant dispersed very fine to very coarse quartz sand grains often with brown staining, moderately carbonaceous, trace pyrite, rare glauconite, trace fossil fragments, soft, non fissile.	Nil
340 (27)	100	SILTY CLAYSTONE, dark brown, common dispersed very fine to very coarse quartz sand grains often with brown staining, moderately carbonaceous, trace pyrite, rare glauconite, trace fossil fragments, soft, non fissile.	Nil
350 (24)	100	SILTY CLAYSTONE, as above.	Nil
360 (22)	100	SILTY CLAYSTONE, dark brown, trace dispersed very fine to very coarse quartz sand grains often with brown staining, moderately carbonaceous, trace pyrite, rare glauconite, soft, non fissile.	Nil
370 (23)	100	SILTY CLAYSTONE, as above.	Nil
380 (22)	100	SILTY CLAYSTONE, medium to dark brown to ark grey, abundant dispersed very fine to very coarse quartz sand grains often with brown staining, moderately carbonaceous, trace pyrite, rare glauconite, common fossil fragments, soft, non fissile.	Nil
390 (35)	80	SANDSTONE, light brown, very fine to pebble, dominantly coarse, subangular to rounded, very poorly sorted, weak silica cement, common to abundant dark brown argillaceous matrix, opaque to milky quartz grains often with brown staining, trace pyrite, unconsolidated to friable, good inferred porosity, no oil fluorescence.	Nil
	20	SILTY CLAYSTONE, as above.	
400 (48)	100	SANDSTONE, light brown, very fine to pebble, dominantly very coarse, subangular to rounded, very poorly sorted, weak silica cement, common dark brown argillaceous matrix, opaque to milky quartz grains often with brown staining, trace pyrite, unconsolidated to friable, good inferred porosity, no oil fluorescence.	Nil
410 (100)	100	SANDSTONE, light brown, very fine to pebble, dominantly very coarse, subangular to rounded, very poorly sorted, weak silica cement, common dark brown argillaceous matrix, opaque to milky quartz grains often with brown staining, trace pyrite, unconsolidated to friable, very good inferred porosity, no oil fluorescence.	Nil
420 (70)	100	SANDSTONE, as above.	Nil
430 (50)	100	SANDSTONE, as above.	Nil
440 (180)	100	SANDSTONE, light brown, very fine to pebble, dominantly very coarse, subangular to rounded, very poorly sorted, weak silica cement, trace dark brown argillaceous matrix, opaque to milky quartz grains often with brown staining, trace pyrite, unconsolidated to friable, very good inferred porosity, no oil fluorescence.	Nil
450 (90)	100	SANDSTONE, light brown, very fine to pebble, dominantly coarse to very coarse, subangular to rounded, very poorly sorted, weak silica cement, trace dark brown argillaceous matrix, opaque to milky quartz grains occasionally with yellow to brown staining, trace pyrite, friable, very good inferred porosity, no oil fluorescence.	Nil
460 (100)	100	SANDSTONE, as above.	Nil
470 (85)	100	SANDSTONE, as above.	Nil

Depth (ROP avg)	%	Lithology	Gas
480 (80)	100	SANDSTONE, as above.	Nil
490 (75)	100	SANDSTONE, as above.	Nil
500 (55)	100 Trace	SANDSTONE, light brown, very fine to occasionally pebble, dominantly coarse, subangular to rounded, very poorly sorted, weak silica cement, trace dark brown argillaceous matrix, opaque to milky quartz grains occasionally with yellow to brown staining, trace pyrite, friable, very good inferred porosity, no oil fluorescence. SILTSTONE, medium brown, very argillaceous, trace very fine off white altered feldspar grains, trace medium brown cryptocrystalline dolomite, trace black carbonaceous flecks, trace pyrite, trace micromica, soft, very dispersive, non fissile.	Nil
510 (50)	100 Trace	SANDSTONE, as above. SILTSTONE, as above.	Nil
520 (50)	100 Trace	SANDSTONE, as above. SILTSTONE, as above.	Nil
530 (55)	100	SANDSTONE, light brown, very fine to very coarse, dominantly medium to coarse, subangular to rounded, very poorly sorted, weak silica cement, trace dark brown argillaceous matrix, opaque to milky quartz grains occasionally with yellow to brown staining, trace pyrite, friable, very good inferred porosity, no oil fluorescence.	Nil
540 (50)	100	SANDSTONE, as above.	Nil
550 (30)	100 Trace	SANDSTONE, light brown, very fine to very coarse, dominantly medium to coarse, subangular to rounded, very poorly sorted, weak silica cement, trace dark brown argillaceous matrix, opaque to milky quartz grains occasionally with yellow to brown staining, trace green and red lithics, trace pyrite, friable, very good inferred porosity, no oil fluorescence. SILTSTONE, medium brown, very argillaceous, trace very fine off white altered feldspar grains, trace medium brown cryptocrystalline dolomite, trace black carbonaceous flecks, trace pyrite, trace micromica, soft, very dispersive, non fissile.	Nil
560 (85)	100 Trace	SANDSTONE, as above. SILTSTONE, as above.	Nil
570 (50)	95 5	SANDSTONE, as above. SILTSTONE, as above.	Nil
580 (55)	100	SANDSTONE, as above.	Nil
590 (45)	90 10	SANDSTONE, light brown, very fine to pebble, dominantly coarse, subangular to rounded, very poorly sorted, weak silica cement, trace dark brown argillaceous matrix, opaque to milky quartz grains occasionally with yellow to brown staining, trace green and red lithics, trace pyrite, friable, very good inferred porosity, no oil fluorescence. SILTSTONE, as above.	Nil
600 (35)	100	SANDSTONE, light brown, very fine to pebble, dominantly very coarse, subangular to rounded, very poorly sorted, weak silica cement, trace light to dark brown argillaceous matrix, opaque to milky quartz grains occasionally with yellow to brown staining, trace green and red lithics, trace pyrite, friable, very good inferred porosity, no oil fluorescence.	Nil
610 (28)	95 5	SANDSTONE, as above. SILTSTONE, medium brown, very argillaceous, trace very fine off white altered feldspar grains, trace medium brown cryptocrystalline dolomite, trace black carbonaceous flecks, trace pyrite, rare glauconite, trace micromica, soft, very dispersive, non fissile.	Nil

Depth (ROP avg)	%	Lithology	Gas
620 (46)	10	SANDSTONE, as above.	Nil
	10	SANDSTONE, light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, abundant green grey brown red and black volcanogenic lithics, rare pyrite, trace black carbonaceous detritus, friable, no visual porosity, no oil fluorescence.	
	80	SILTY CLAYSTONE, off white to light to medium green grey to light to medium brown grey, trace very fine altered feldspar grains, trace black carbonaceous flecks, trace micromica, soft, non fissile.	
630 (47)	90	SILTY CLAYSTONE, as above.	Nil
	10	SANDSTONE, light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common to abundant green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, friable, no visual porosity, no oil fluorescence.	
640 (55)	90	SILTY CLAYSTONE, as above.	Nil
	10	SANDSTONE, as above.	
650 (50)	100	SILTY CLAYSTONE, as above.	Nil
	Trace	SANDSTONE, as above.	
660 (50)	100	SILTY CLAYSTONE, as above.	Nil
	Trace	SANDSTONE, as above.	
670 (65)	100	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey to medium brown, trace very fine altered feldspar grains, trace black carbonaceous flecks, trace micromica, soft, non fissile.	Nil
680 (55)	100	SILTY CLAYSTONE, light to medium grey to light to medium green grey to light to medium brown grey, trace very fine altered feldspar grains, trace black carbonaceous flecks, trace micromica, soft, non fissile.	Nil
690 (48)	100	SILTY SANDSTONE, as above.	Nil
	Trace	SANDSTONE, as above.	
700 (70)	100	SILTY CLAYSTONE, as above.	Nil
710 (95)	50	SILTY CLAYSTONE, as above.	Nil
	50	SANDSTONE, light green grey, very fine to medium, dominantly fine, subangular to subrounded, moderately sorted, weak silica cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common to abundant green grey brown red and black volcanogenic lithics, trace quartz grains, trace brown mica flakes, trace pyrite, trace black carbonaceous detritus, friable, no visual porosity, no oil fluorescence.	
720 (50)	70	SILTY CLAYSTONE, as above.	Nil
	30	SANDSTONE, light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, very weak calcareous cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common to abundant green grey brown red and black volcanogenic lithics, trace quartz grains, trace brown mica flakes, trace pyrite, trace black carbonaceous detritus, friable to moderately hard, no visual porosity, no oil fluorescence.	
730 (60)	70	SILTY CLAYSTONE, as above.	Nil
	30	SANDSTONE, as above.	
740 (65)	100	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace very fine altered feldspar grains, trace black carbonaceous flecks, trace micromica, soft, non fissile.	0.1 (100:0:0:0)
	Trace	SANDSTONE, as above.	
750 (40)	100	SILTY CLAYSTONE, as above.	0.1 (100:0:0:0)
	Trace	SANDSTONE, as above.	

Depth (ROP avg)	%	Lithology	Gas
760 (40)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, light green grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, abundant green grey brown red and black volcanogenic lithics, trace quartz grains, trace brown mica flakes, trace pyrite, trace black carbonaceous detritus, friable to moderately hard, no visual porosity, no oil fluorescence.	0.1 (100:0:0:0)
770 (38)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	0.1 (100:0:0:0)
780 (40)	100	SILTY CLAYSTONE, as above.	0.1 (100:0:0:0)
790 (38)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	0.1 (100:0:0:0)
800 (36)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, abundant green grey brown red and black volcanogenic lithics, trace quartz grains, trace brown and clear mica flakes, trace pyrite, trace black carbonaceous detritus, friable to moderately hard, no visual porosity, no oil fluorescence.	0.1 (100:0:0:0)
810 (65)	20 80	SILTY CLAYSTONE, as above. SANDSTONE, as above.	0.1 (100:0:0:0)
820 (45)	70 30	SILTY CLAYSTONE, off white to light to medium green grey to light to medium brown grey, trace very fine altered feldspar grains, trace black carbonaceous flecks, trace micromica, soft, non fissile. SANDSTONE, as above.	0.2 (100:0:0:0)
830 (65)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	0.1 (100:0:0:0)
840 (43)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	0.1 (100:0:0:0)
850 (43)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	0.1 (100:0:0:0)
860 (40)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	0.1 (100:0:0:0)
870 (55)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	Nil
880 (60)	70 30	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace very fine altered feldspar grains, trace black carbonaceous flecks, trace micromica, soft, non fissile. SANDSTONE, as above.	Nil
890 (40)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, abundant green grey brown and red volcanogenic lithics, trace quartz grains, trace brown and clear mica flakes, trace pyrite, trace black carbonaceous detritus, friable to moderately hard, no visual porosity, no oil fluorescence.	0.1 (100:0:0:0)
900 (55)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	Nil
910 (43)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	0.1 (100:0:0:0)
920 (37)	90 10	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft, non fissile. SANDSTONE, as above.	0.7 (100:0:0:0)
930 (35)	100	SILTY CLAYSTONE, as above.	0.9 (100:0:0:0)
940 (50)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	1.8 (100:0:0:0)
950 (33)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	2.2 (100:0:0:0)

Depth (ROP avg)	%	Lithology	Gas
960 (35)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	3.2 (100:0:0:0)
970 (33)	100	SILTY CLAYSTONE, as above.	3.5 (100:0:0:0)
980 (40)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	5.5 (100:0:0:0)
990 (25)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	5.4 (100:0:0:0)
1000 (28)	90 10	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, trace micromica, common pyrite, soft, non fissile. SANDSTONE, light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, trace brown and clear mica flakes, trace pyrite, trace black carbonaceous detritus, friable to moderately hard, no visual porosity, no oil fluorescence.	7.4 (100:0:0:0)
1010 (32)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	6.2 (100:0:0:0)
1020 (35)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	14.1 (100:0:0:0)
1030 (32)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	7.8 (100:0:0:0)
1040 (35)	100	SILTY CLAYSTONE, as above.	9.1 (100:0:0:0)
1050 (35)	100	SILTY CLAYSTONE, as above.	8.4 (100:0:0:0)
1060 (43)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	7.6 (100:0:0:0)
1070 (35)	70 30	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, trace pyrite, soft, non fissile. SANDSTONE, light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, trace brown and clear mica flakes, trace pyrite, trace black carbonaceous detritus, friable to moderately hard, no visual porosity, no oil fluorescence.	23.7 (100:0:0:0)
1080 (25)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	13.1 (100:0:0:0)
1090 (23)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	11.7 (95:0:0:0)
1100 (25)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	12.0 (97:2:1:0:0)
1110 (23)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	9.7 (97:2:1:0:0)
1120 (18)	70 30	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, slightly calcareous where arenaceous, trace black carbonaceous flecks and detritus, trace micromica, trace pyrite, soft, non fissile. SANDSTONE, light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, trace weak calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace pyrite, trace black carbonaceous detritus, friable to moderately hard, no visual porosity, no oil fluorescence.	6.6 (94:5:1:0:0)
1130 (23)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	9.9 (95:3:2:0:0)

Depth (ROP avg)	%	Lithology	Gas
1140 (18)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	8.5 (96:3:1:0:0)
1150 (15)	100 Trace	SILTY CLAYSTONE, light to medium brown grey to light to medium green grey, trace to common very fine altered feldspar grains, slightly calcareous where arenaceous, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft, non fissile. SANDSTONE, as above.	12 (97:2:1:0:0)
1160 (13)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	9.8 (97:2:1:0:0)
1170 (15)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	20.1 (97:2:1:0:0)
1180 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	7.5 (99:1:0:0:0)
1190 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	10.1 (99:1:0:0:0)
1200 (12)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	19.6 (99:1:tr:0:0)
1210 (13)	100 Trace	SILTY CLAYSTONE, off white to light to medium brown grey to light to medium green grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft, non fissile. SANDSTONE, as above.	16 (99:1:tr:0:0)
1220 (13)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	15.4 (96:3:1:tr:0)
1230 (13)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	14.4 (98:1:tr:tr:0)
1240 (14)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	15.5 (98:1:tr:tr:0)
1250 (11)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to occasionally medium, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	12 (98:1:tr:tr:0)
1255 (9)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	12 (98:1:tr:tr:0)
1270 (16)	90 10	SILTY CLAYSTONE, off white to light to medium brown grey to light to medium green grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft, non fissile. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black coaly detritus, moderately hard, no visual porosity, no oil fluorescence.	32.7 (95:3:1:1:0)
1280 (24)	30 70	SILTY CLAYSTONE, off white to light to medium brown grey to light to medium green grey, common to abundant very fine altered feldspar grains, trace black carbonaceous flecks and coaly detritus, trace micromica, rare pyrite, soft, non fissile. SANDSTONE, off white to light green grey, very fine to medium, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, common black coaly detritus, moderately hard, no visual porosity, no oil fluorescence.	45.8 (96:2:1:1:0)
1290 (28)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	31.2 (96:2:1:1:0)

Depth (ROP avg)	%	Lithology	Gas
1300 (22)	80 20	SILTY CLAYSTONE, off white to light to medium brown grey to light to medium green grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and coaly detritus, trace micromica, rare pyrite, soft, non fissile. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black coaly detritus, moderately hard, no visual porosity, no oil fluorescence.	51 (96:2:1:1:0)
1310 (25)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black coaly detritus, moderately hard, no visual porosity, no oil fluorescence.	23.8 (96:2:1:1:0)
1320 (30)	90 10	SILTY CLAYSTONE, off white to light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and coaly detritus, trace micromica, rare pyrite, soft, non fissile. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black coaly detritus, moderately hard, no visual porosity, no oil fluorescence.	30.9 (96:2:1:1:0)
1330 (42)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to medium, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, trace weak calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black coaly detritus, moderately hard, no visual porosity, no oil fluorescence.	38.2 (96:2:1:1:0)
1340 (60)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	37.6 (97:2:tr:tr:0)
1350 (55)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	27.6 (98:1:tr:tr:0)
1360 (60)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	31.7 (97:2:tr:tr:0)
1370 (55)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, trace weak calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black coaly detritus, moderately hard, no visual porosity, no oil fluorescence.	39.2 (97:2:1:tr:0)
1380 (50)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	40.4 (97:2:1:tr:0)
1390 (45)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	39.4
1400 (50)	70 30	SILTY CLAYSTONE, off white to light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft to firm, non fissile. SANDSTONE, off white to light green grey, very fine to occasionally medium, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	37.4 (97:2:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
1410 (45)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	42.4 (97:2:1:tr:tr)
1420 (55)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	36.1 (97:2:1:tr:tr)
1430 (53)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	46.8 (97:2:1:tr:0)
1440 (55)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	46.8 (97:2:1:tr:0)
1450 (60)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	76.2 (97:2:1:tr:0)
1460 (57)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	34.4 (97:2:1:tr:0)
1470 (48)	90 10	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft to firm, non fissile. SANDSTONE, as above.	50.9 (97:2:1:tr:0)
1480 (45)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	49.4 (97:2:1:tr:0)
1490 (60)	40 60	SILTY CLAYSTONE, as above. SANDSTONE, as above.	50.9 (97:2:1:tr:tr)
1500 (62)	40 60	SILTY CLAYSTONE, as above. SANDSTONE, as above.	45.4 (97:2:1:tr:tr)
1510 (40)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	65.0 (97:2:1:tr:tr)
1520 (52)	80 20	SILTY CLAYSTONE, light to medium green grey to light to medium brown, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft to firm, non fissile. SANDSTONE, as above.	89.2 (95:3:1:1:tr)
1530 (33)	70 30	SILTY CLAYSTONE, light to medium green grey to light to medium brown, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft to firm, non fissile. SANDSTONE, as above.	77.0 (97:2:1:tr:tr)
1540 (52)	20 80	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, common quartz grains, rare pyrite, trace black carbonaceous detritus, common coarse crystalline vein quartz, moderately hard, no visual intergranular porosity, no oil fluorescence.	69.5 (96:2:1:tr:tr)
1550 (60)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	120.8 (96:2:1:tr:tr)
1560 (40)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	120.0 (96:2:1:tr:tr)
1570 (65)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	78.2 (96:2:1:tr:tr)
1580 (70)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, as above.	83.2 (96:2:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
1590 (45)	70 30	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and common coaly detritus, trace micromica, rare pyrite, soft to firm, non fissile. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, common black coaly detritus, moderately hard, no visual porosity, no oil fluorescence.	136 (95:3:1:tr:tr)
1600 (55)	90 10	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, soft to firm, non fissile. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	155 (95:3:1:tr:tr)
1610 (53)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	75.2 (95:3:1:tr:tr)
1620 (40)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	80.5 (95:3:1:tr:tr)
1630 (37)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	98.4 (95:3:1:tr:tr)
1640 (37)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	90.0 (95:3:1:tr:tr)
1650 (54)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to occasionally fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	107 (95:3:1:tr:tr)
1660 (55)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	164 (95:3:1:tr:tr)
1670 (37)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	254 (95:3:1:tr:tr)
1680 (30)	80 20 Trace Fluor	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, common black carbonaceous flecks and coaly detritus, trace micromica, rare pyrite, firm, subfissile. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, common black coaly detritus, moderately hard, no visual porosity, no oil fluorescence. COAL, (detrital) black, earthy to subvitreous luster, platy fracture, very argillaceous in part, moderately hard, brittle. FLUORESCENCE: The coal has no fluorescence but gives a very dull yellow crush cut.	160 (95:3:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
1690 (20)	70 30	SILTY CLAYSTONE, light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, firm, subfissile. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, abundant green grey and common brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	118 (95:3:1:tr:tr)
1700 (17)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	154 (95:3:1:tr:tr)
1710 (15)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	125 (95:3:1:tr:tr)
1720 (22)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	149 (95:3:1:tr:tr)
1730 (18)	100 Trace Fluor	SILTY CLAYSTONE, off white to light to medium green grey to light to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, firm, subfissile. COAL, (detrital) black, earthy to subvitreous luster, platy fracture, very argillaceous in part, moderately hard, brittle. FLUORESCENCE: The coal has no fluorescence but gives a very dull yellow crush cut.	432 (95:3:1:tr:tr)
1740 (23)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	102 (95:3:1:tr:tr)
1750 (23)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	136 (95:3:1:tr:tr)
1760 (24)	20 80	SILTY CLAYSTONE, as above. SANDSTONE, as above.	138 (95:3:1:tr:tr)
1770 (22)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	105 (95:3:1:tr:tr)
1780 (26)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	109 (95:3:1:tr:tr)
1790 (14)	100 Trace	SILTY CLAYSTONE, off white to medium green grey to medium brown grey, trace to common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, trace micromica, rare pyrite, firm, subfissile. SANDSTONE, as above.	75.6 (96:3:1:tr:tr)
1800 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	192 (96:3:1:tr:tr)
1803 (15)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	238 (96:3:1:tr:tr)
1806 (20)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	75.0 (96:3:1:tr:tr)
1809 (21)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	78.7 (96:3:1:tr:tr)
1812 (20)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	86.1 (96:3:1:tr:tr)
1815 (14)	50 50	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	59.6 (96:3:1:tr:tr)
1818 (23)	60 40 Trace Fluor	SILTY CLAYSTONE, off white to medium green grey to medium brown grey, trace to common very fine altered feldspar grains, common black carbonaceous flecks and detritus, trace micromica, rare pyrite, firm, subfissile. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	82.7 (96:3:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
1821 (12)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to occasionally fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	153 (96:3:1:tr:tr)
1824 (15)	90 10 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	66.8 (96:3:1:tr:tr)
1827 (16)	90 Trace 10 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	138 (96:3:1:tr:tr)
1830 (11)	100 Trace	SILTY CLAYSTONE, off white to medium green grey to medium brown grey, trace to common very fine altered feldspar grains, trace to common black carbonaceous flecks and detritus, trace micromica, rare pyrite, firm, subfissile. SANDSTONE, as above.	112 (96:3:1:tr:tr)
1833 (12)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	46.4 (96:3:1:tr:tr)
1836 (14)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	53.5 (96:3:1:tr:tr)
1839 (9)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	37.8 (96:3:1:tr:tr)
1842 (14)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	76.6 (96:3:1:tr:tr)
1845 (18)	60 10 30 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, black to very dark brown grey, earthy to subvitreous, blocky to platy to subconchoidal fracture, very argillaceous in part, hard, brittle. FLUORESCENCE: The coal has no fluorescence but gives a weak dull yellow crush cut.	705 (96:3:1:tr:tr)
1848 (13)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	74 (96:3:1:tr:tr)
1851 (12)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	46.0 (96:3:1:tr:tr)
1854 (14)	90 10	SILTY CLAYSTONE, off white to medium green grey to medium brown grey, trace to common very fine altered feldspar grains, trace to common black carbonaceous flecks and detritus, trace medium brown cryptocrystalline dolomite, trace micromica, rare pyrite, firm, subfissile. SANDSTONE, off white to light green grey, very fine to occasionally fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to occasionally moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	47.2 (96:3:1:tr:tr)
1857 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	77.4 (96:3:1:tr:tr)
1860 (9)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	42.7 (96:3:1:tr:tr)
1863 (12)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	44.2 (96:3:1:tr:tr)
1866 (6)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	53.0 (96:3:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
1869 (15)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to occasionally moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	80.3 (96:3:1:tr:tr)
1872 (18)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	76.6 (96:3:1:tr:tr)
1875 (10)	50 50	SILTY CLAYSTONE, as above. SANDSTONE, as above.	51.3 (96:3:1:tr:tr)
1878 (12)	70 30 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, black to very dark brown grey, earthy to subvitreous, blocky to platy to subconchoidal fracture, very argillaceous in part, hard, brittle. FLUORESCENCE: The coal has no fluorescence but gives a weak dull yellow crush cut.	103.6 (96:3:1:tr:tr)
1881 (15)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	39.4 (96:3:1:tr:tr)
1884 (20)	70 10 20 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	302 (96:3:1:tr:tr)
1887 (22)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	300 (97:2:1:tr:tr)
1890 (29)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	107 (97:2:1:tr:tr)
1893 (35)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	205 (97:2:1:tr:tr)
1896 (37)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	249 (97:2:1:tr:tr)
1899 (18)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	104 (97:2:1:tr:tr)
1902 (16)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	66.6 (97:2:1:tr:tr)
1905 (30)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to occasionally medium, dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to occasionally moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	118 (97:2:1:tr:tr)
1908 (32)	50 50	SILTY CLAYSTONE, as above. SANDSTONE, as above.	115 (97:2:1:tr:tr)
1911 (30)	70 30 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	220 (97:2:1:tr:tr)
1914 (39)	80 10 10 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to occasionally moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, trace black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence. COAL, as above. FLUORESCENCE, cut from coal as above.	394 (97:2:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
1917 (33)	80 10 10 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	327 (97:2:1:tr:tr)
1920 (48)	80 10 10 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	820 (97:2:1:tr:tr)
1923 (40)	80 10 10 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	795 (97:2:1:tr:tr)
1926 (30)	90 10 Trace Fluor	SILTY CLAYSTONE, off white to medium grey to medium brown grey to medium green grey, often common to abundant very fine altered feldspar grains, common black carbonaceous flecks and detritus, trace medium brown cryptocrystalline dolomite, trace to common micromica, rare pyrite, firm, subfissile. SANDSTONE, off white to light green grey, very fine to dominantly fine, subangular to subrounded, moderately sorted, moderate silica cement, weak to occasionally moderate calcareous cement, abundant off white argillaceous and silt matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, common black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence. COAL, as above. FLUORESCENCE, cut from coal as above.	121 (97:2:1:tr:tr)
1929 (27)	90 10 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	424 (97:2:1:tr:tr)
1932 (25)	90 10 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	260 (97:2:1:tr:tr)
1935 (34)	90 10 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	404 (97:2:1:tr:tr)
1938 (33)	80 20 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	481 (97:2:1:tr:tr)
1941 (28)	80 10 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	201 (97:2:1:tr:tr)
1944 (35)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	224 (97:2:1:tr:tr)
1947 (28)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	445 (97:2:1:tr:tr)
1950 (45)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	923 (97:2:1:tr:tr)
1953 (44)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	1128 (97:2:1:tr:tr)
1956 (31)	100 Trace Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	222 (97:2:1:tr:tr)
1959 (28)	100 Trace Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	220 (97:2:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
1962 (25)	90 10 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	410 (97:2:1:tr:tr)
1965 (23)	90 10 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	196 (97:2:1:tr:tr)
1968 (32)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	169 (97:2:1:tr:tr)
1971 (30)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	192 (97:2:1:tr:tr)
1974 (25)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	197 (97:2:1:tr:tr)
1977 (41)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	192 (97:2:1:tr:tr)
1980 (45)	90 10	SILTY CLAYSTONE, off white to medium grey to medium brown to medium green grey, often common to abundant very fine altered feldspar grains, trace to common black carbonaceous flecks and detritus, trace medium brown cryptocrystalline dolomite, common micromica, firm, subfissile. SANDSTONE, off white to light green grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica cement, weak calcareous cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, rare pyrite, common black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	210 (97:2:1:tr:tr)
1983 (30)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	156 (97:2:1:tr:tr)
1986 (41)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	155 (97:2:1:tr:tr)
1989 (32)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	156 (97:2:1:tr:tr)
1992 (25)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	133 (97:2:1:tr:tr)
1995 (17)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	102 (97:2:1:tr:tr)
1998 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	96 (97:2:1:tr:tr)
2001 (17)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	149 (97:2:1:tr:tr)
2004 (20)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	150 (97:2:1:tr:tr)
2007 (21)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	91 (97:2:1:tr:tr)
2010 (18)	50 50	SILTY CLAYSTONE, as above. SANDSTONE, off white to light green grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica cement, weak calcareous cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, rare pyrite, common black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	80 (97:2:1:tr:tr)
2013 (19)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	93 (97:2:1:tr:tr)
2016 (15)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	97 (97:2:1:tr:tr)
2019 (18)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	74 (97:2:1:tr:tr)
2022 (16)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	72 (97:2:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
2025 (16)	80 20	SILTY CLAYSTONE, off white to medium green grey to medium brown grey, often common to abundant very fine altered feldspar grains, trace to common black carbonaceous flecks and fine detritus, common micromica, firm, subfissile. SANDSTONE, as above.	74 (97:2:1:tr:tr)
2028 (16)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	61 (97:2:1:tr:tr)
2031 (19)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	73 (97:2:1:tr:tr)
2034 (15)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	55 (97:2:1:tr:tr)
2037 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	60 (97:2:1:tr:tr)
2040 (14)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	57 (97:2:1:tr:tr)
2043 (19)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	69 (97:2:1:tr:tr)
2046 (13)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	51 (97:2:1:tr:tr)
2049 (13)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	59 (97:2:1:tr:tr)
2052 (13)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	66 (97:2:1:tr:tr)
2055 (14)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	60 (97:2:1:tr:tr)
2058 (12)	70 30	SILTY CLAYSTONE, off white to medium brown grey to medium green grey, often common to abundant very fine altered feldspar grains, trace to common black carbonaceous flecks and fine detritus, common micromica, firm, subfissile. SANDSTONE, off white to light brown grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica cement, weak calcareous cement, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, rare pyrite, trace to common black carbonaceous detritus, moderately hard, no visual porosity, no oil fluorescence.	56 (97:2:1:tr:tr)
2061 (16)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	91 (97:2:1:tr:tr)
2064 (12)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	57 (97:2:1:tr:tr)
2067 (12)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	55 (97:2:1:tr:tr)
2070 (12)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	124 (97:2:1:tr:tr)
2073 (15)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	49 (97:2:1:tr:tr)
2076 (14)	90 10	SILTY CLAYSTONE, off white to medium grey to medium brown grey to medium green grey, often common to abundant very fine altered feldspar grains, trace to common black carbonaceous flecks and fine detritus, common micromica, firm, subfissile. SANDSTONE, as above.	49 (97:2:1:tr:tr)
2079 (12)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	43 (97:2:1:tr:tr)
2082 (11)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	50 (97:2:1:tr:tr)
2085 (10)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	42 (97:2:1:tr:tr)
2088 (14)	100 Trace	SILTY CLAYSTONE, light to medium brown grey to medium grey to medium green grey, common very fine altered feldspar grains in part, trace to common black carbonaceous flecks and fine detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	47 (97:2:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
2091 (17)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	53 (97:2:1:tr:tr)
2094 (16)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown grey, very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace to common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace to common black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	52 (97:2:1:tr:tr)
2097 (16)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	56 (97:2:1:tr:tr)
2100 (20)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	57 (97:2:1:tr:tr)
2103 (20)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	59 (97:2:1:tr:tr)
2106 (25)	100 Trace	SILTY CLAYSTONE, light to medium brown grey to medium grey to medium green grey, common very fine altered feldspar grains in part, trace to common black carbonaceous flecks and fine detritus, common micromica, common crystalline calcite vein infill, moderately hard, subfissile. SANDSTONE, as above.	85 (97:2:1:tr:tr)
2109 (27)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	83 (97:2:1:tr:tr)
2112 (27)	100 Trace	SILTY CLAYSTONE, medium to dark brown grey to medium grey to medium green grey, trace very fine altered feldspar grains in part, moderately carbonaceous in part, trace black carbonaceous flecks and fine detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	75 (97:2:1:tr:tr)
2115 (32)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	88 (97:2:1:tr:tr)
2118 (34)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	94 (97:2:1:tr:tr)
2121 (32)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	82 (97:2:1:tr:tr)
2124 (29)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	67 (97:2:1:tr:tr)
2127 (24)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	81 (97:2:1:tr:tr)
2130 (21)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	66 (97:2:1:tr:tr)
2133 (21)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	73 (97:2:1:tr:tr)
2136 (17)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	84 (97:2:1:tr:tr)
2139 (17)	100 Trace	SILTY CLAYSTONE, medium to dark brown grey to occasionally medium grey to medium green grey, trace very fine altered feldspar grains in part, moderately carbonaceous in part, trace black carbonaceous flecks and fine detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	59 (97:2:1:tr:tr)
2142 (16)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	62 (97:2:1:tr:tr)
2145 (15)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	53 (97:2:1:tr:tr)
2148 (14)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	55 (97:2:1:tr:tr)
2151 (18)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown grey, very fine to fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace to common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace to common black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	69 (97:2:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
2154 (18)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	66 (97:2:1:tr:tr)
2157 (27)	90 10	SILTY CLAYSTONE, medium brown grey to medium grey to medium green grey, trace very fine altered feldspar grains in part, trace black carbonaceous flecks and fine detritus, trace to common micromica, moderately hard, subfissile. SANDSTONE, off white to light brown grey, very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace to common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace to common black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	50 (97:2:1:tr:tr)
2160 (32)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	66 (97:2:1:tr:tr)
2163 (35)	90 10	SILTY CLAYSTONE, medium brown grey to medium grey to medium green grey, trace very fine altered feldspar grains in part, trace black carbonaceous flecks and fine detritus, trace crystalline calcite veining, trace to common micromica, moderately hard, subfissile. SANDSTONE, as above.	69 (97:2:1:tr:tr)
2166 (39)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	67 (97:2:1:tr:tr)
2169 (34)	80 20	SILTY CLAYSTONE, medium brown grey to medium grey to medium green grey, trace very fine altered feldspar grains in part, trace black carbonaceous flecks and fine detritus, trace to common micromica, moderately hard, subfissile. SANDSTONE, off white to light brown grey, very fine to fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace to common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace to common black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	57 (97:2:1:tr:tr)
2172 (34)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	50 (97:2:1:tr:tr)
2175 (34)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	55 (97:2:1:tr:tr)
2178 (38)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	124 (97:2:1:tr:tr)
2181 (35)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	75 (97:2:1:tr:tr)
2184 (30)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	61 (97:2:1:tr:tr)
2187 20)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	50 (97:2:1:tr:tr)
2190 (24)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	52 (97:2:1:tr:tr)
2193 (30)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	63 (97:2:1:tr:tr)
2196 (35)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	65 (97:2:1:tr:tr)
2199 (35)	60 40	SILTY CLAYSTONE, light to medium grey to medium brown grey to medium green grey, trace to common very fine altered feldspar grains in part, trace black carbonaceous flecks and fine detritus, trace to common micromica, moderately hard, subfissile. SANDSTONE, as above.	81 (97:2:1:tr:tr)
2202 (30)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	79 (97:2:1:tr:tr)
2205 (34)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	96 (97:2:1:tr:tr)
2208 (30)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	93 (97:2:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
2211 (15)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	48 (97:2:1:tr:tr)
2214 (15)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	49 (97:2:1:tr:tr)
2217 (20)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	45 (97:2:1:tr:tr)
2220 (26)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	52 (97:2:1:tr:tr)
2223 (26)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	52 (97:2:1:tr:tr)
2226 (30)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	51 (97:2:1:tr:tr)
2229 (33)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	49 (97:2:1:tr:tr)
2232 (37)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	47 (97:2:1:tr:tr)
2235 (32)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	46 (97:2:1:tr:tr)
2238 (33)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	49 (97:2:1:tr:tr)
2241 (32)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	51
2244 (20)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	43(97:2:1:tr:tr)
2247 (21)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	47 (97:2:1:tr:tr)
2250 (20)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	50 (97:2:1:tr:tr)
2253 (20)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	48 (97:2:1:tr:tr)
2256 (23)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	48 (97:2:1:tr:tr)
2259 (22)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	53 (97:2:1:tr:tr)
2262 (24)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	73 (97:2:1:tr:tr)
2265 (22)	90 10	SILTY CLAYSTONE, light to medium brown grey to medium grey to medium green grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, trace to common micromica, moderately hard, subfissile. SANDSTONE, off white to light brown grey, very fine to fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace to common black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	55 (97:2:1:tr:tr)
2268 (23)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	52 (97:2:1:tr:tr)
2271 (15)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	44 (97:2:1:tr:tr)
2274 (14)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	43 (97:2:1:tr:tr)
2277 (18)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	46 (97:2:1:tr:tr)
2280 (18)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	54 (97:2:1:tr:tr)

Depth (ROP avg)	%	Lithology	Gas
2283 (19)	90	SILTY CLAYSTONE, light to medium grey to medium brown grey to medium green grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.	52 (97:2:1:tr:tr)
	10	SANDSTONE, off white to light brown grey, very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace to common black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	
2286 (14)	90	SILTY CLAYSTONE, as above.	44 (97:2:1:tr:tr)
	10	SANDSTONE, as above.	
2289 (11)	80	SILTY CLAYSTONE, as above.	39 (97:2:1:tr:tr)
	20	SANDSTONE, as above.	
2292 (8.5)	80	SILTY CLAYSTONE, as above.	34 (97:2:1:tr:tr)
	20	SANDSTONE, as above.	
2295 (8.1)	70	SILTY CLAYSTONE, as above.	32 (97:2:1:tr:tr)
	30	SANDSTONE, as above.	
2298 (8.0)	70	SILTY CLAYSTONE, as above.	33 (97:2:1:tr:tr)
	30	SANDSTONE, as above.	
2301 (9)	80	SILTY CLAYSTONE, as above.	32 (97:2:1:tr:tr)
	20	SANDSTONE, as above.	
2304 (14)	80	SILTY CLAYSTONE, as above.	28 (97:2:1:tr:tr)
	20	SANDSTONE, as above.	
2307 (12)	90	SILTY CLAYSTONE, as above.	27 (97:2:1:tr:tr)
	10	SANDSTONE, as above.	
2310 (10)	90	SILTY CLAYSTONE, as above.	20 (96:2:1:1:tr)
	10	SANDSTONE, as above.	
2313 (12)	90	SILTY CLAYSTONE, as above.	25 (96:2:1:1:tr)
	10	SANDSTONE, as above.	
2316 (8)	90	SILTY CLAYSTONE, as above.	19 (96:2:1:1:tr)
	10	SANDSTONE, as above.	
2319 (12)	90	SILTY CLAYSTONE, light to medium grey to medium brown grey to slightly medium green grey, often common very fine altered feldspar grains, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.	21 (96:2:1:1:tr)
	10	SANDSTONE, off white to light brown grey, silty to very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace to common black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	
2322 (15)	90	SILTY CLAYSTONE, as above.	21 (96:2:1:1:tr)
	10	SANDSTONE, as above.	
2325 (13)	90	SILTY CLAYSTONE, as above.	25 (96:2:1:1:tr)
	10	SANDSTONE, as above.	
2328 (12)	90	SILTY CLAYSTONE, as above.	41 (96:2:1:1:tr)
	10	SANDSTONE, as above.	
2331 (8)	60	SILTY CLAYSTONE, as above.	28 (96:2:1:1:tr)
	40	SANDSTONE, as above.	
2334 (8)	100	SILTY CLAYSTONE, as above.	19 (96:2:1:1:tr)
	Trace	SANDSTONE, as above.	
2337 (9)	100	SILTY CLAYSTONE, medium grey to medium brown grey to slightly medium green grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.	20 (96:2:1:1:tr)
	Trace	SANDSTONE, as above.	
2340 (8)	100	SILTY CLAYSTONE, as above.	21 (96:2:1:1:tr)
	Trace	SANDSTONE, as above.	
2343 (7)	100	SILTY CLAYSTONE, as above.	20 (94:2:2:2:tr)
	Trace	SANDSTONE, as above.	
2346 (9)	100	SILTY CLAYSTONE, as above.	19 (94:2:2:2:tr)
	Trace	SANDSTONE, as above.	

Depth (ROP avg)	%	Lithology	Gas
2349 (8)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	27 (94:2:2:2:tr)
2352 (8)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	18 (94:2:2:2:tr)
2355 (8)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	21 (94:2:2:2:tr)
2358 (8)	80 20	SILTY CLAYSTONE, medium grey to medium brown grey to medium green grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	23 (94:2:2:2:tr)
2361 (12)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (94:2:2:2:tr)
2364 (9)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown grey, very fine to fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	18 (95:2:2:1:tr)
2367 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown grey, silty to very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	16 (95:2:2:1:tr)
2370 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	21 (95:2:2:1:tr)
2373 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	23 (95:2:2:1:tr)
2376 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	24 (95:2:2:1:tr)
2379 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above. (95:2:2:1:tr)	21 (95:2:2:1:tr)
2382 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (95:2:2:1:tr)
2385 (12)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	35 (95:2:2:1:tr)
2388 (15)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	14
2391 (21)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	9(95:2:2:1:tr)
2394 (25)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	12 (95:2:2:1:tr)
2397 (19)	80 20	SILTY CLAYSTONE, light to medium grey to medium brown grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, off white to light brown grey, very fine to occasionally fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	20 (95:2:2:1:tr)
2400 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	19 (95:2:2:1:tr)
2403 (20)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	23 (95:2:2:1:tr)
2406 (16)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	35 (95:2:2:1:tr)
2409 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	18 (95:2:2:1:tr)

Depth (ROP avg)	%	Lithology	Gas
2412 (14)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	60 (95:2:2:1:tr)
2415 (10)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	21 (95:2:2:1:tr)
2418 (13)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	22 (95:2:2:1:tr)
2421 (12)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	18 (95:2:2:1:tr)
2424 (19)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	24 (95:2:2:1:tr)
2427 (17)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	65 (95:2:2:1:tr)
2430 (12)	80 20 Fluor	SILTY CLAYSTONE, light to medium grey to medium brown grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and abundant detritus, common micromica, moderately hard, subfissile. SANDSTONE, off white to light brown grey, very fine to occasionally fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, common black carbonaceous detritus, hard, no visual porosity, no oil fluorescence. FLUORESCENCE, the carbonaceous/coaly detrital material has no fluorescence but gives a very weak dull yellow crush cut.	34 (95:2:2:1:tr)
2433 (14)	90 10	SILTY CLAYSTONE, light to medium grey to medium brown grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, off white to light brown grey, very fine to occasionally fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	23 (95:2:2:1:tr)
2436 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	22 (95:2:2:1:tr)
2439 (14)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	25 (95:2:2:1:tr)
2442 (12)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	33 (95:2:2:1:tr)
2445 (15)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	28 (95:2:2:1:tr)
2448 (15)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	26 (95:2:2:1:tr)
2451 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	25 (95:2:2:1:tr)
2454 (13)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	23 (95:2:2:1:tr)
2457 (14)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	24 (95:2:2:1:tr)
2460 (14)	100 Trace	SILTY CLAYSTONE, light to medium grey to medium brown grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, trace medium brown cryptocrystalline dolomite, common micromica, moderately hard, subfissile. SANDSTONE, as above.	40 (95:2:2:1:tr)
2463 (11)	100 Trace	SILTY CLAYSTONE, light to medium grey to medium brown grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	28 (95:2:2:1:tr)
2466 (9)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (95:2:2:1:tr)

Depth (ROP avg)	%	Lithology	Gas
2469 (6)	40 60	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown grey, very fine to fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	25 (95:2:2:1:tr)
2472 (16)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, as above.	34 (95:2:2:1:tr)
2475 (14)	50 50	SILTY CLAYSTONE, as above. SANDSTONE, as above.	23 (95:2:2:1:tr)
2478 (16)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	24 (95:2:2:1:tr)
2481 (14)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	22 (95:2:2:1:tr)
2484 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	25 (95:2:2:1:tr)
2487 (20)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	28 (95:3:1:1:tr)
2490 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	34 (95:3:1:1:tr)
2493 (19)	80 20	SILTY CLAYSTONE, light to medium grey to medium brown grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and common detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	98 (95:3:1:1:tr)
2496 (16)	80 20	SILTY CLAYSTONE, light to medium grey to medium brown grey, common very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	39 (95:3:1:1:tr)
2499 (16)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	50 (95:3:1:1:tr)
2502 (18)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	31 (95:3:1:1:tr)
2505 (24)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown grey, very fine to occasionally fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	30 (95:3:1:1:tr)
2508 (18)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	34 (95:3:1:1:tr)
2511 (18)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	31 (95:3:1:1:tr)
2514 (16)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	38 (95:3:1:1:tr)
2517 (16)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown grey, very fine to fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	33 (95:3:1:1:tr)
2520 (16)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	34 (94:3:2:1:tr)
2523 (19)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown grey, silty to very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	33 (94:3:2:1:tr)

Depth (ROP avg)	%	Lithology	Gas
2526 (14)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	34 (94:3:2:1:tr)
2529 (13)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	33 (94:3:2:1:tr)
2532 (12)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	27 (94:3:2:1:tr)
2535 (12)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (94:3:2:1:tr)
2538 (11)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	24 (94:3:2:1:tr)
2541 (10)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	22 (94:3:2:1:tr)
2544 (9)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	19 (94:3:2:1:tr)
2547 (12)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown grey, very fine to occasionally fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	25 (92:3:3:1:1)
2550 (12)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	29 (92:3:3:1:1)
2553 (13)	100 Trace	SILTY CLAYSTONE, light to medium grey to medium brown grey, common very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	24 (91:3:3:2:1)
2556 (13)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	32 (91:3:3:2:1)
2559 (11)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	24 (91:3:3:2:1)
2562 (12)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	22 (93:3:3:1:tr)
2565 (11)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	24 (93:3:3:1:tr)
2568 (13)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	29 (93:3:3:1:tr)
2571 (16)	100 Trace	SILTY CLAYSTONE, light to medium grey to medium brown grey, dark brown and very carbonaceous in part, common very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	45 (93:3:3:1:tr)
2574 (17)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	38 (93:3:3:1:tr)
2577 (20)	90 10	SILTY CLAYSTONE, light to medium grey to medium brown grey, common very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	28 (93:3:3:1:tr)
2580 (24)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	32 (93:3:3:1:tr)
2583 (25)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown grey, silty to very fine, rarely fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	35 (93:3:3:1:tr)
2586 (22)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	33 (93:3:3:1:tr)
2589 (20)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	38 (93:3:3:1:tr)
2592 (18)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	31 (93:3:3:1:tr)

Depth (ROP avg)	%	Lithology	Gas
2595 (16)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	28 (93:3:3:1:tr)
2598 (21)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	36 (93:3:3:1:tr)
2601 (22)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	42 (93:3:3:1:tr)
2604 (22)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	63 (93:3:3:1:tr)
2607 (24)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	46 (93:3:3:1:tr)
2610 (26)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	48 (93:3:3:1:tr)
2613 (18)	90 10	SILTY CLAYSTONE, light to medium grey to medium brown grey, abundant very fine altered feldspar grains in part, very silty, common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	62 (93:3:3:1:tr)
2616 (17)	90 10	SILTY CLAYSTONE, light to medium grey to medium brown grey, abundant very fine altered feldspar grains in part, very silty, common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	38 (93:3:3:1:tr)
2619 (13)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	35 (93:3:3:1:tr)
2622 (17)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	38 (93:3:3:1:tr)
2625 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	31 (93:3:3:1:tr)
2628 (15)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	31 (93:3:3:1:tr)
2631 (17)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	32 (93:3:3:1:tr)
2634 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	44 (93:3:3:1:tr)
2637 (17)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	34 (93:3:3:1:tr)
2640 (14)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (92:3:3:2:tr)
2643 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	45 (92:3:3:2:tr)
2646 (12)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	32 (92:3:3:2:tr)
2649 (14)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	30 (92:3:3:2:tr)
2652 (12)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	43 (92:3:3:2:tr)
2655 (24)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	35 (93:3:2:2:tr)
2658 (19)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	36(93:3:2:2:tr)
2661 (20)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	45 (93:3:2:2:tr)
2664 (21)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	49 (93:3:2:2:tr)
2667 (22)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	40(93:3:2:2:tr) (93:3:2:2:tr)

Depth (ROP avg)	%	Lithology	Gas
2670 (16)	100 Trace	SILTY CLAYSTONE, light to medium grey to medium brown grey, dark brown grey and moderately argillaceous in part, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	28 (89:5:2:2:1)
2673 (18)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, off white to light grey, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	51 (89:5:2:2:1)
2676 (15)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (90:4:3:2:1)
2679 (16)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	35 (91:4:3:2:tr)
2682 (19)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	52
2685 (12)	100 Trace	SILTY CLAYSTONE, light to medium grey to medium brown grey, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	33 (91:4:3:2:tr)
2688 (11)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (91:4:3:2:tr)
2691 (14)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	31 (91:4:3:2:tr)
2694 (15)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	43 (91:4:3:2:tr)
2697 (12)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (92:4:3:1:tr)
2700 (10)	90 10	SILTY CLAYSTONE, light to medium grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and common coaly detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	94 (92:4:3:1:tr)
2703 (11)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	27 (92:4:3:1:tr)
2706 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	79 (92:4:3:1:tr)
2709 (12)	100 Trace	SILTY CLAYSTONE, light to medium grey to medium brown grey, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	29 (92:4:3:1:tr)
2712 (14)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	40 (92:4:3:1:tr)
2715 (19)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	49 (92:4:3:1:tr)
2718 (12)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	38 (92:4:3:1:tr)
2721 (10)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	87 (90:4:4:2:tr)
2724 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	40 (90:4:4:2:tr)
2727 (8)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light grey, silty to rarely fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	40 (90:4:4:2:tr)

Depth (ROP avg)	%	Lithology	Gas
2730 (10)	100 Trace	SILTY CLAYSTONE, light to medium dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	52 (90:4:3:2:1)
2733 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	51
2736 (8)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30(90:4:3:2:1)
2739 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	115 (90:4:3:2:1)
2742 (13)	100 Trace	SILTY CLAYSTONE, light to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	42 (90:4:3:2:1)
2745 (12)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (90:4:3:2:1)
2748 (15)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	35 (90:4:3:2:1)
2751 (16)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	85 (89:4:4:2:1)
2754 (17)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	38 (89:4:4:2:1)
2757 (12)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	36 (89:4:4:2:1)
2760 (11)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	43 (89:4:4:2:1)
2763 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	33 (89:4:4:2:1)
2766 (10)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, off white to light grey, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, common green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	31 (89:4:4:2:1)
2769 (10)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	28 (89:4:4:2:1)
2772 (13)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	36 (88:5:4:2:1)
2775 (10)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	26 (88:5:4:2:1)
2778 (9)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	33 (88:5:4:2:1)
2781 (15)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	40 (89:4:4:2:1)
2784 (7)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	38 (89:4:4:2:1)
2787 (6)	80 20	SILTY CLAYSTONE, light to dark grey to medium brown grey, often abundant very fine altered feldspar grains – grades to silty sandstone, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, off white to light grey, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	24 (89:4:4:2:1)
2790 (7)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	20 (88:5:5:2:tr)
2793 (8)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (88:5:5:2:tr)

Depth (ROP avg)	%	Lithology	Gas
2796 (11)	60 40	SILTY CLAYSTONE: as above. SANDSTONE, off white to light grey, silty to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	27 (88:5:5:2:tr)
2799 (8)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	29 (88:5:5:2:tr)
2802 (6)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	25 (88:5:5:2:tr)
2805 (6)	10 90	SILTY CLAYSTONE: as above. SANDSTONE, off white to light grey, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	21 (88:5:5:2:tr)
2808 (10)	20 80	SILTY CLAYSTONE, as above. SANDSTONE, as above.	33 (89:5:4:2:tr)
2811 (13)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	36 (89:5:4:2:tr)
2814 (11)	90 10	SILTY CLAYSTONE, light to medium dark grey to medium brown grey, often abundant very fine altered feldspar grains, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, off white to light grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	30 (89:5:4:2:tr)
2817 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	35 (89:5:4:2:tr)
2820 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	48 (89:5:4:2:tr)
2820 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	32 (89:5:4:2:tr)
2826 (8)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	34 (89:5:4:2:tr)
2829 (8)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	34 (89:5:4:2:tr)
2832 (9)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	56 (89:5:4:2:tr)
2835 (9)	100	SILTY CLAYSTONE, as above.	27 (89:5:4:2:tr)
2838 (7)	100	SILTY CLAYSTONE, as above.	28 (89:5:4:2:tr)
2841 (8)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light grey, very fine, subangular to subrounded, moderately sorted, moderate silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	40 (87:5:5:2:1)
2844 (6)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	43 (88:5:4:2:1)
2847 (8)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	24 (88:5:4:2:1)
2850 (13)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	38 (88:5:4:2:1)
2853 (7)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	22 (88:5:4:2:1)

Depth (ROP avg)	%	Lithology	Gas
2856 (13)	100 Trace	SILTY CLAYSTONE, light to medium dark grey to medium brown grey, medium brown in part, often abundant very fine altered feldspar grains, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above	36 (89:5:4:2:tr)
2859 (14)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	35 (89:5:4:2:tr)
2862 (13)	100	SILTY CLAYSTONE, light to medium dark grey to medium brown grey, often abundant very fine altered feldspar grains, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.	35 (89:5:4:2:tr)
2865 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (89:5:4:2:tr)
2868 (6)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	35 (89:5:4:2:tr)
2871 (10)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	40 (89:5:4:2:tr)
2874 (12)	100 Trace	SILTY CLAYSTONE, light to medium dark grey to medium brown grey, often abundant very fine altered feldspar grains, common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	50 (88:5:5:2:tr)
2877 (7)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	27 (88:5:5:2:tr)
2880 (5)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	28 (88:5:5:2:tr)
2883 (7)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, off white to light grey, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate to strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	28 (88:5:5:2:tr)
2886 (8)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	30 (88:5:5:2:tr)
2889 (6)	40 60	SILTY CLAYSTONE, as above. SANDSTONE, as above.	24 (88:5:5:2:tr)
2892 (13)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	48 (88:5:5:2:tr)
2895 (16)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	88 (86:7:5:2:tr)
2898 (13)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	45 (86:7:5:2:tr)
2901 (16)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	50 (86:7:5:2:tr)
2904 (12)	100 Trace	SILTY CLAYSTONE, light to medium dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	42 (86:7:5:2:tr)
2907 (13)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	40 (86:7:5:2:tr)
2910 (11)	50 50	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	36 (86:7:5:2:tr)
2913 (12)	40 60	SILTY CLAYSTONE, as above. SANDSTONE, as above.	50 (88:5:4:2:1)
2916 (15)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, as above.	54 (88:5:4:2:1)
2919 (9)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, as above.	39 (88:5:4:2:1)

Depth (ROP avg)	%	Lithology	Gas
2922 (24)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	64 (88:5:4:2:tr)
2925 (20)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	59 (88:5:4:2:tr)
2928 (26)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	72 (88:5:4:2:tr)
2931 (14)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	152 (82:6:6:4:2)
2934 (10)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	110 (82:6:6:4:2)
2937 (8)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	45 (82:6:6:4:2)
2940 (7)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	164 (77:7:8:5:3)
2943 (13)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	38 (77:7:8:5:3)
2946 (12)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	44 (77:7:8:5:3)
2949 (13)	100 Trace	SILTY CLAYSTONE, light to dominantly medium dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, as above.	47 (77:7:8:5:3)
2952 (12)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	48 (77:7:8:5:3)
2955 (11)	100	SILTY CLAYSTONE, as above.	66 (77:7:8:5:3)
2958 (11)	100	SILTY CLAYSTONE, as above.	56 (84:6:6:3:1)
2961 (5)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	87 (77:7:8:5:3)
2964 (7)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	55 (77:7:8:5:3)
2967 (9)	100	SILTY CLAYSTONE, light to dominantly medium dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.	112 (77:7:8:5:3)
2970 (9)	100	SILTY CLAYSTONE, as above.	146 (77:7:8:5:3)
2973 (8)	100	SILTY CLAYSTONE, as above.	43 (77:7:8:5:3)
2976 (10)	100	SILTY CLAYSTONE, as above.	55 (77:7:8:5:3)
2979 (6)	100	SILTY CLAYSTONE, light to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.	52 (77:7:8:5:3)
2982 (6)	100	SILTY CLAYSTONE, as above.	46 (77:7:8:5:3)

Depth (ROP avg)	%	Lithology	Gas
2985 (6)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	52 (83:7:6:3:1)
2988 (7)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	37
2991 (9)	100	SILTY CLAYSTONE, as above.	215 (77:8:9:4:2)
2994 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	44 (77:8:9:4:2)
2997 (11)	100 Trace	SILTY CLAYSTONE, light to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile.	46 (77:8:9:4:2)
3000 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	73 (77:8:9:4:2)
3002 (17)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	66 (77:8:9:4:2)
3003 (15)	90 10	SILTY CLAYSTONE, light to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, moderately hard, subfissile. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown and clear mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	65 (83:6:5:3:3)
3006 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	240 (83:6:5:3:3)
3009 (9)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	101 (83:6:5:3:3)
3012 (14)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	81 (83:6:5:3:3)
3015 (17)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, grey black and very carbonaceous in part, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, as above.	105 (84:7:5:3:1)
3018 (24)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	109 (84:7:5:3:1)
3021 (30)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	99 (84:7:5:3:1)
3024 (26)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	99 (84:7:5:3:1)
3027 (27)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	103 (84:7:5:3:1)
3030 (30)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	76 (84:7:5:3:1)
3033 (23)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	83 (84:7:5:3:1)
3036 (30)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	120 (83:7:5:3:2)
3039 (25)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	113 (83:7:5:3:2)
3042 (11)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	81 (83:7:5:3:2)

Depth (ROP avg)	%	Lithology	Gas
3045 (14)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	71 (83:7:5:3:2)
3048 (14)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	91 (83:7:5:3:2)
3051 (11)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	77 (83:7:5:3:2)
3054 (14)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	67 (83:7:5:3:2)
3057 (13)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, as above.	76 (83:7:5:3:2)
3060 (14)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	69 (83:7:5:3:2)
3063 (13)	100	SILTY CLAYSTONE, as above.	98 (83:7:5:3:2)
3066 (10)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	75 (83:7:5:3:2)
3069 (12)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	66 (82:7:6:3:2)
3072 (21)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	105 (82:7:6:3:2)
3075 (13)	100	SILTY CLAYSTONE, as above.	68 (82:7:6:3:2)
3078 (9)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	68 (82:7:6:3:2)
3081 (6)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	52 (82:7:6:3:2)
3084 (14)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, grey black and very carbonaceous in part, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, as above.	88 (80:8:8:3:1)
3087 (17)	100	SILTY CLAYSTONE, as above.	119 (80:8:8:3:1)
3090 (14)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	104 (80:8:8:3:1)
3093 (17)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	87 (80:8:8:3:1)
3096 (14)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, as above.	77 (80:8:8:3:1)
3099 (17)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	75 (80:8:8:3:1)
3102 (23)	100	SILTY CLAYSTONE, as above.	97 (80:8:8:3:1)
3105 (6)	100	SILTY CLAYSTONE, as above.	69 (80:8:8:3:1)
3108 (22)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	51 (80:8:8:3:1)
3111 (30)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	116 (84:8:5:3:tr)
3114 (33)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	140 (84:8:5:3:tr)
3117 (50)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	180 (84:8:5:3:tr)

Depth (ROP avg)	%	Lithology	Gas
3120 (43)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	193 (83:8:6:2:1)
3123 (28)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	220 (83:8:6:2:1)
3126 (30)	50 50	SILTY CLAYSTONE, as above. SANDSTONE, as above.	530 (83:8:6:2:1)
3129 (37)	80 20	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, slightly calcareous where arenaceous, trace black carbonaceous flecks and detritus, trace vein calcite, common micromica, hard, subfissile. SANDSTONE, as above.	255 (83:8:6:2:1)
3132 (38)	70 30	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, slightly calcareous where arenaceous, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, as above.	314 (79:8:7:4:1)
3135 (32)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	232 (79:8:7:4:1)
3138 (31)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	178 (79:8:7:4:1)
3141 (36)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	167 (79:8:7:4:1)
3144 (45)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	160 (82:8:6:3:1)
3147 (36)	50 50 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and very strong calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence. COAL, black, subvitreous to vitreous, subconchoidal fracture, hard, brittle. FLUORESCENCE, the sandstone has dull orange mineral fluorescence, no cut, the coal has no fluorescence but gives a weak pale yellow crush cut.	217 (82:8:6:3:1)
3150 (54)	50 50 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, as above.	280 (70:10:11:6:3)
3153 (56)	40 60	SILTY CLAYSTONE, as above. SANDSTONE, as above.	940 (70:10:11:6:3)
3156 (15)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	4251 (70:10:11:6:3)
3159 (17)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	90 (70:10:11:6:3)
3162 (16)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	174 (77:9:8:4:2)
3165 (13)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, moderately calcareous where arenaceous, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, as above.	165 (77:9:8:4:2)
3168 (14)	100	SILTY CLAYSTONE, as above.	155 (77:9:8:4:2)

Depth (ROP avg)	%	Lithology	Gas
3171 (15)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, moderate silica and strong calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	249 (77:9:8:4:2)
3174 (20)	90 10	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, moderately calcareous where arenaceous, trace black carbonaceous flecks and detritus, trace calcite veining, common micromica, hard, subfissile. SANDSTONE, as above.	89 (77:9:8:4:2)
3177 (21)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	89 (77:9:8:4:2)
3180 (25)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	1172 (78:8:8:4:2)
3183 (27)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	1424 (78:8:8:4:2)
3186 (28)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	1300 (78:8:8:4:2)
3189 (33)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	240 (77:8:8:5:2)
3192 (28)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	133 (77:8:8:5:2)
3195 (30)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	121 (77:8:8:5:2)
3198 (43)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	138 (77:8:8:5:2)
3201 (40)	100	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and coaly detritus, trace calcite veining, common micromica, hard, subfissile.	170 (77:8:8:5:2)
3204 (44)	100	SILTY CLAYSTONE, as above.	150 (77:8:8:5:2)
3207 (54)	100	SILTY CLAYSTONE, as above.	300 (77:8:8:5:2)
3210 (45)	100	SILTY CLAYSTONE, as above.	296 (77:8:8:5:2)
3213 (38)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	578 (77:8:8:5:2)
3216 (34)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	284 (77:8:8:5:2)
3219 (37)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, moderate silica and strong calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	170 (77:8:8:5:2)
3222 (52)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	180 (77:8:8:5:2)
3225 (38)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	151 (77:8:8:5:2)
3228 (43)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	676 (77:9:8:4:2)
3231 (44)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	2766 (77:9:8:4:2)

Depth (ROP avg)	%	Lithology	Gas
3234 (5)	90 10	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace fine black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	206 (78:9:8:4:1)
3237 (5)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	95 (78:9:8:4:1)
3240 (4)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	288 (80:8:7:4:1)
3243 (5)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	462 (79:8:7:4:2)
3246 (5)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	56 (79:8:7:4:2)
3249 (5)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	56 (79:8:7:4:2)
3252 (5)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	66 (75:8:8:6:3)
3255 (4)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	163 (75:8:8:6:3)
3258 (4)	90 Trace 10 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. CARBONACEOUS CLAYSTONE, grey black, earthy texture, blocky to platy fracture, trace micromica, moderately hard. FLUORESCENCE, the carbonaceous claystone has no fluorescence but gives a very weak dull yellow crush cut.	76 (81:7:6:4:2)
3261 (4)	90 10 Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. CARBONACEOUS CLAYSTONE, as above. FLUORESCENCE, as above.	68 (81:7:6:4:2)
3264 (5)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	83 (81:7:6:4:2)
3267 (4)	70 30	SILTY CLAYSTONE, medium to dark grey to medium brown grey, occasionally very dark grey and moderately carbonaceous, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace fine black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	68 (81:7:6:4:2)
3270 (4)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace fine black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	61 (81:7:6:4:2)
3273 (4)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	62 (78:8:7:5:2)
3276 (4)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	66 (78:8:7:5:2)
3279 (3)	100	SILTY CLAYSTONE, as above.	55 (78:8:7:5:2)
3282 (3)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	48 (78:8:7:5:2)
3285 (2)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	98 (78:8:7:5:2)

Depth (ROP avg)	%	Lithology	Gas
3288 (3.5)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	59 (79:9:8:3:1)
3291 (2.5)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	138 (79:9:8:3:1)
3294 (2.2)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, occasionally very dark grey and moderately carbonaceous, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common calcite and trace quartz lined fractures, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace fine black carbonaceous detritus, common calcite and trace quartz lined fractures, hard, no visual porosity, no oil fluorescence.	136 (60:8:13:12:7)
3297 (3.5)	40 60	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace fine black carbonaceous detritus, common calcite and trace quartz lined fractures, hard, no visual porosity, no oil fluorescence.	4337 (60:8:13:12:7)
3300 (4.5)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, occasionally very dark grey and moderately carbonaceous, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common calcite lined fractures, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace fine black carbonaceous detritus, common calcite lined fractures, hard, no visual porosity, no oil fluorescence.	80 (60:8:13:12:7)
3303 (4.5)	100 Trace	SILTY CLAYSTONE, as above, with common calcite lined fractures as above. SANDSTONE, as above, with common calcite lined fractures as above.	78 (60:8:13:12:7)
3306 (4.5)	100 Trace	SILTY CLAYSTONE, as above, with common calcite lined fractures as above. SANDSTONE, as above, with common calcite lined fractures as above.	79 (60:8:13:12:7)
		Glenaire-1 Plugged back for sidetrack due to excessive deviation. T.D. 3306m.	

Depth m/hr	Lith %	Glenaire-1A (Sidetrack) 152mm hole. Glenaire-1 was plugged back from 3306m (T.D.) to 3041m for sidetrack due to excessive deviation.	TG u %
3045 (3)	100	Cement.	6 (80:6:5:4:5)
3048 (2.5)	100	Cement.	8 (80:6:5:4:5)
3051 (1.5)	100	Cement.	8 (80:6:5:4:5)
3054 (11)	100	Cement.	11 (80:6:5:4:5)
3057 (20)	100	Cement.	14 (80:6:5:4:5)
3060 (5)	100	Cement.	15 (82:7:5:2:3)
3063 (0.6)	100 Trace	Cement. SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile.	8 (82:7:5:2:3) (82:7:5:2:3)

Depth (ROP avg)	%	Lithology	Gas
3066 (0.7)	Trace 60 40	Cement. SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	5 (82:7:5:2:3)
3069 (1.1)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, as above.	1 (82:7:5:2:3)
3072 (1.6)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	10.5 (82:8:5:5:tr)
3075 (1.2)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	3.0 (82:8:5:5:tr)
3078 (2.1)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	4.2 (84:8:6:2:tr)
3081 (2.3)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	10.5 (84:8:6:2:tr)
3084 (2.4)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	17.5 (83:9:5:2:1)
3087 (2.9)	100	SILTY CLAYSTONE, as above.	10.9 (83:9:5:2:1)
3090 (3.1)	90 10	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, as above.	14.1 (83:9:5:2:1)
3093 (3.2)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	14.6 (83:9:5:2:1)
3096 (3.0)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	19.2 (85:8:4:2:1)
3099 (2.5)	90 10	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common black coal detritus, common micromica, hard, subfissile. SANDSTONE, as above.	28 (85:8:4:2:1)
3102 (2.3)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, as above.	16.7 (85:8:4:2:1)
3105 (2.8)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	10.5 (85:7:5:3:tr)
3108 (3.2)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	5.2 (85:7:5:3:tr)
3111 (3.0)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to occasionally fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	5.4 (80:8:5:4:3)
3114 (2.1)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	4.6 (80:8:5:4:3)
3117 (2.2)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	5.3 (82:8:7:3:tr)
3120 (2.1)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	4.0 (82:8:7:3:tr)

Depth (ROP avg)	%	Lithology	Gas
3123 (2.8)	90 10	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	56 (82:8:6:3:1)
3126 (3.1)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	881 (80:9:8:2:1)
3129 (3.0)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	75 (80:9:8:2:1)
3132 (3.5)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	42 (80:9:8:2:1)
3135 (3.2)	100	SILTY CLAYSTONE, as above.	26 (80:9:8:2:1)
3138 (3.0)	100	SILTY CLAYSTONE, as above.	7 (81:8:6:3:2)
3141 (2.7)	100	SILTY CLAYSTONE, as above.	5 (81:8:6:3:2)
3144 (2.5)	100	SILTY CLAYSTONE, as above.	20 (84:7:5:3:tr)
3147 (2.6)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	46 (84:7:5:3:tr)
3150 (2.5)	30 70	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, off white to light brown, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	235 (80:8:7:3:2)
3153 (2.5)	80 20 Trace Fluor	SILTY CLAYSTONE, medium to dark grey to medium brown grey, very carbonaceous in part – grades to coal, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, as above. COAL, black, subvitreous to vitreous, subconchoidal fracture, hard, brittle. FLUORESCENCE, the sandstone has dull orange mineral fluorescence, no cut, the coal has no fluorescence but gives a weak pale yellow crush cut.	2538 (77:9:8:4:2)
3156 (2.2)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	1320 (75:9:9:5:2)
3159 (2.2)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	209 (75:9:9:5:2)
3162 (2.1)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	163 (75:9:8:5:3)
3165 (2.5)	100	SILTY CLAYSTONE, as above.	948 (76:9:8:5:2)
3168 (3.0)	100	SILTY CLAYSTONE, as above.	73 (76:9:8:5:2)

Depth (ROP avg)	%	Lithology	Gas
3171 (2.5)	90 10	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, trace calcite lined fractures, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, trace calcite lined fractures, hard, no visual porosity, no oil fluorescence.	84 (76:9:8:5:2)
3174 (2.0)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	101 (81:8:6:3:2)
3177 (1.8)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	40 (81:8:6:3:2)
3180 (2.0)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	330 (80:9:6:3:2)
3183 (2.4)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	74 (80:9:6:3:2)
3186 (22)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	81 (80:9:6:3:2)
3189 (24)	70 30	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	194 (80:9:6:3:2)
3192 (40)	40 30 30 Fluor	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, very carbonaceous in part, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace fine black carbonaceous detritus, hard, no visual porosity, no oil fluorescence. COAL, black to very dark grey, very argillaceous in part, earthy to subvitreous lustre, irregular/contused fracture, hard, brittle. FLUORESCENCE, the sandstone has dull orange mineral fluorescence, no cut, the coal has no fluorescence but gives a weak pale yellow crush cut. Well flowing oil/gas cut mud – probably from fractures associated with the sand/coal. Crude is green, waxy, on the heavier end of a light crude, Gives a bright pale greenish yellow fluorescence with a milky white cut.	159 (61:12:13:9:5)
3195 (26)	70 30	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to occasionally fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	4561 (61:12:13:9:5)
3198 (28)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	3519 (61:12:13:9:5)

Depth (ROP avg)	%	Lithology	Gas
3201 (28)	80	SILTY CLAYSTONE, as above.	3199
	20	SANDSTONE, as above.	(61:12:13:9:5)
3204 (35)	80	SILTY CLAYSTONE, as above.	2248
	20	SANDSTONE, as above.	(61:12:13:9:5)
3207 (33)	70	SILTY CLAYSTONE, as above.	780
	30	SANDSTONE, as above.	(61:12:13:9:5)
3210 (21)	100	SILTY CLAYSTONE, as above.	877 (77:8:6:5:4)
3213 (24)	100	SILTY CLAYSTONE, as above.	542 (77:8:6:5:4)
3216 (27)	100	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and coaly detritus, common micromica, hard, subfissile.	4056 (60:12:15:9:4)
	Trace	SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	
3219 (22)	100	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile.	2003 (60:12:15:9:4)
	Trace	SANDSTONE, as above.	
3222 (18)	90	SILTY CLAYSTONE, as above.	220
	10	SANDSTONE, as above.	(60:12:15:9:4)
3225 (3.0)	90	SILTY CLAYSTONE, as above.	290
	10	SANDSTONE, as above.	(57:11:14:11:7)
3228 (6.0)	90	SILTY CLAYSTONE, as above.	3131
	10	SANDSTONE, off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	(59:11:14:10:6)
3231 (16)	90	SILTY CLAYSTONE, as above.	180
	10	SANDSTONE, as above.	(83:7:5:2:3)
3234 (18)	70	SILTY CLAYSTONE, as above.	453
	30	SANDSTONE, as above.	(79:8:6:4:3)
3237 (19)	60	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, very carbonaceous in part – grades to coal, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile.	1503 (79:8:6:4:3)
	10	SANDSTONE, as above.	
	30	COAL, black to very dark grey, very argillaceous in part, earthy to subvitreous lustre, irregular to blocky fracture, hard, brittle.	
	Fluor	FLUORESCENCE, the sandstone has dull orange mineral fluorescence, no cut, the coal has no fluorescence but gives a weak pale yellow crush cut.	
3240 (11)	90	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile.	173 (79:8:6:4:3)
	10	SANDSTONE, as above.	
3243 (8.0)	100	SILTY CLAYSTONE, as above.	123
	Trace	SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	(85:6:3:8:3)
3246 (2.5)	90	SILTY CLAYSTONE, as above.	4436
	10	SANDSTONE, as above.	(58:11:14:11:6)
3249 (1.2)	90	SILTY CLAYSTONE, as above.	1513
	10	SANDSTONE, as above.	(77:8:6:5:4)

Depth (ROP avg)	%	Lithology	Gas
3252 (9)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	4521 (60:11:13:10:6)
3255 (16)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	185 (79:8:6:4:3)
3258 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	150 (79:8:6:4:3)
3261 (11)	90 Trace 10 Fluor	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, very carbonaceous in part – grades to coal, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile SANDSTONE, as above. COAL, black to very dark grey, very argillaceous in part, earthy to subvitreous lustre, irregular to blocky fracture, hard, brittle. FLUORESCENCE, the sandstone has dull orange mineral fluorescence, no cut, the coal has no fluorescence but gives a weak pale yellow crush cut.	598 (64:10:11:9:6)
3264 (7)	40 60	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	4381 (64:10:11:9:6)
3267 (2.5)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	4451 (60:12:16:9:4)
3270 (1.3)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	1306 (60:12:16:9:4)
3273 (1.6)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	1337 (60:12:16:9:4)
3276 (20)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	124 (81:7:5:4:3)
3279 (24)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, common micromica, hard, subfissile SANDSTONE, as above.	145 (81:7:5:4:3)
3282 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	641 (81:6:6:4:3)
3285 (19)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	295 (81:6:6:4:3)
3288 (31)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	287 (81:6:6:4:3)

Depth (ROP avg)	%	Lithology	Gas
3291 (28)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	280 (81:6:6:4:3)
3294 (35)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	4305 (70:10:8:7:5)
3297 (32)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	3485 (70:10:8:7:5)
3300 (33)	50 50	SILTY CLAYSTONE, as above. SANDSTONE, as above.	2011 (62:11:13:16:4)
3303 (2.0)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	727 (62:11:13:16:4)
3306 (1.4)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	587 (76:7:6:6:5)
3309 (18)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	4572 (57:11:15:12:5)
3312 (12)	100	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, trace calcite lined fractures, common micromica, hard, subfissile	1197 (62:11:13:16:4)
3315 (11)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, common micromica, hard, subfissile SANDSTONE, as above.	347 (83:7:4:3:3)
3318 (9)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	1324 (87:6:3:2:2)
3321 (8)	90 Trace 10 Fluor	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, very carbonaceous in part – grades to coal, common micromica, hard, subfissile. SANDSTONE, as above. COAL, black to very dark grey, very argillaceous – grades to carbonaceous claystone, earthy lustre, irregular to blocky fracture, hard. FLUORESCENCE, the sandstone has dull orange mineral fluorescence, no cut, the coal has no fluorescence but gives a weak pale yellow crush cut.	639 (87:6:3:2:2)
3324 (10)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, common micromica, hard, subfissile SANDSTONE, as above.	390 (70:8:10:7:5)
3327 (8)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	273 (59:12:15:7:6)
3330 (9)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	4578 (59:12:15:7:6)
3333 (11)	100	SILTY CLAYSTONE, as above	443 (76:7:6:6:5)
3336 (13)	100	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, very carbonaceous in part – grades to coal, common micromica, hard, subfissile.	157 (63:11:13:9:4)
3339 (32)	100	SILTY CLAYSTONE, as above	4287 (63:11:13:9:4)
3342 (20)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, common micromica, hard, subfissile SANDSTONE, as above.	319 (65:10:11:9:5)
3345 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	4237 (65:10:11:9:5)
3348 (7)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	120 (65:10:11:9:5)
3351 (6)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	85 (80:7:5:4:3)

Depth (ROP avg)	%	Lithology	Gas
3354 (8)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	115 (80:7:5:4:3)
3357 (8)	80 20	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, common black carbonaceous flecks and detritus, trace calcite lined fractures, common micromica, hard, subfissile SANDSTONE, as above.	3908 (75:9:7:5:4)
3360 (1.5)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	4583 (75:8:6:6:5)
3363 (1.4)	100	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common micromica, hard, subfissile.	472 (75:8:6:6:5)
3366 (4.8)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, silty to very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, trace fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	4426 (59:11:14:11:5)
3369 (10)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	211 (75:8:6:6:5)
3372 (8)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	150 (75:8:6:6:5)
3375 (18)	100	SILTY CLAYSTONE, as above.	145 (75:8:6:6:5)
3378 (15)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	170 (75:8:6:6:5)
3381 (14)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, off white to light brown, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, rare fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence.	190 (75:8:6:6:5)
3384 (8)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	155 (75:8:6:6:5)
3387 (2.5)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	403 (76:7:7:6:4)
3390 (1.3)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	334 (76:7:7:6:4)
3393 (5)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, as above.	201 (76:7:7:6:4)
3396 (6)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	364 (83:6:3:5:3)
3399 (8)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	240 (83:6:3:5:3)
3402 (11)	70 10 20 Fluor	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, off white to light brown, very fine to fine, dominantly very fine, subangular to subrounded, moderately sorted, strong silica and calcareous cements, abundant off white argillaceous matrix – matrix supported, abundant altered feldspar grains, trace green grey brown red and black volcanogenic lithics, trace quartz grains, rare fine brown mica flakes, trace black carbonaceous detritus, hard, no visual porosity, no oil fluorescence. COAL, black to very dark grey, very argillaceous in part, earthy to subvitreous lustre, irregular to blocky fracture often contused and striated, hard, brittle. FLUORESCENCE, the sandstone has dull orange mineral fluorescence, no cut, the coal has no fluorescence but gives a weak pale yellow crush cut.	317 (90:4:2:5:1)

Depth (ROP avg)	%	Lithology	Gas
3405 (11)	80 10 10 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, as above.	409 (87:6:3:3:1)
3408 (7)	70 10 20 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, from coal as above.	319 (85:6:4:3:2)
3411 (8)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, trace calcite lined fractures, common micromica, hard, subfissile. SANDSTONE, as above.	201 (85:6:4:3:2)
3414 (9)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	210 (85:6:4:3:2)
3417 (1.3)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	207 (85:6:4:3:2)
3420 (2.5)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	494 (89:4:2:3:2)
3423 (7)	90 10 Fluor	SILTY CLAYSTONE, as above. COAL, as above. FLUORESCENCE, from coal as above.	214 (89:4:2:3:2)
3426 (14)	90 10 Fluor	SILTY CLAYSTONE, as above. COAL, as above. FLUORESCENCE, from coal as above.	256 (89:4:2:3:2)
3429 (7)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	240 (89:4:2:3:2) (89:4:2:3:2)
3432 (6)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	386 (91:4:1:2:2)
3435 (8)	90 10	SILTY CLAYSTONE, medium to dark grey to medium brown grey, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, abundant calcite lined fractures, common micromica, hard, subfissile. SANDSTONE, as above, with common calcite lined fractures.	157 (91:4:1:2:2)
3438 (6)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	319 (91:4:2:2:1)
3441 (9)	40 60 OIL	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to medium, dominantly fine, subangular to subrounded, moderately sorted, abundant white argillaceous matrix – matrix supported, very strong calcite cement, moderate silica cement, trace multicoloured lithics, common quartz grains, trace black coaly detritus, abundant calcite lined fractures, very hard, no visible intergranular porosity, no intergranular oil fluorescence. FLUORESCENCE, the fracture infill material has dull yellow mineral fluorescence and 10% dull to moderately bright very pale yellow white oil fluorescence giving a weak dull milky white crush cut fluorescence.	309 (91:4:2:2:1)
3444 (10)	40 60 OIL	SILTY CLAYSTONE, as above. SANDSTONE, as above. FLUORESCENCE, as above.	1647 (86:7:3:2:2)
3447 (9)	30 70 OIL	SILTY CLAYSTONE, medium to dark grey to medium brown, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, abundant calcite lined fractures, common micromica, hard, subfissile. SANDSTONE, off white, very fine to medium, dominantly fine, subangular to subrounded, moderately sorted, abundant white argillaceous matrix – matrix supported, very strong calcite cement, moderate silica cement, trace multicoloured lithics, common quartz grains, trace black coaly detritus, abundant calcite lined fractures, very hard, no visible intergranular porosity, no intergranular oil fluorescence. FLUORESCENCE, the fracture infill material has dull yellow mineral fluorescence and trace dull to moderately bright very pale yellow white oil fluorescence giving a weak dull milky white crush cut fluorescence.	204 (86:7:3:2:2)

Depth (ROP avg)	%	Lithology	Gas
3450 (5)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to fine, dominantly fine, subangular to subrounded, moderately sorted, abundant white argillaceous matrix – matrix supported, very strong calcite cement, moderate silica cement, trace multicoloured lithics, trace to common quartz grains, trace black coaly detritus, abundant calcite lined fractures, very hard, no visible intergranular porosity, no oil fluorescence.	146 (86:7:3:2:2)
3453 (8)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	504
3456 (8)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	2 (86:7:3:2:2)09
3459 (9)	80 20	SILTY CLAYSTONE, medium to dark grey to medium brown, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common calcite lined fractures, common micromica, hard, subfissile. SANDSTONE, off white, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, abundant white argillaceous matrix – matrix supported, very strong calcite cement, moderate silica cement, trace multicoloured lithics, common quartz grains, trace black coaly detritus, common calcite lined fractures, very hard, no visible porosity, no intergranular oil fluorescence.	210 (86:7:3:2:2)
3462 (10)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	207 (86:7:3:2:2)
3465 (15)	90 Trace 10 Fluor	SILTY CLAYSTONE, medium to dark grey to medium brown, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, trace calcite lined fractures, common micromica, hard, subfissile. SANDSTONE, off white, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, abundant white argillaceous matrix – matrix supported, very strong calcite cement, moderate silica cement, trace multicoloured lithics, common quartz grains, trace black coaly detritus, trace calcite lined fractures, very hard, no visible porosity, no intergranular oil fluorescence. COAL, black to very dark grey, very argillaceous in part, earthy to subvitreous lustre, irregular to blocky fracture often contused and striated, hard, brittle. FLUORESCENCE, the sandstone has dull orange mineral fluorescence, no cut, the coal has no fluorescence but gives a weak pale yellow crush cut.	1089 (90:6:2:1:1)
3468 (6)	80 10 10 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, as above.	220 (90:6:2:1:1)
3471 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white, silty to occasionally fine, dominantly very fine, subangular to subrounded, moderately sorted, abundant white argillaceous matrix – matrix supported, very strong calcite cement, moderate silica cement, trace multicoloured lithics, common quartz grains, trace black coaly detritus, trace calcite lined fractures, very hard, no visible porosity, no intergranular oil fluorescence.	227 (90:6:2:1:1)
3474 (13)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	228 (90:6:2:1:1)
3477 (11)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	214 (90:6:2:1:1)
3480 (4)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, off white, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, abundant white argillaceous matrix – matrix supported, very strong calcite cement, moderate silica cement, trace multicoloured lithics, common quartz grains, trace black coaly detritus, trace calcite lined fractures, very hard, no visible porosity, no intergranular oil fluorescence.	190 (90:6:2:1:1)
3483 (7)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, off white, silty to very fine, subangular to subrounded, moderately sorted, abundant white argillaceous matrix – matrix supported, very strong calcite cement, moderate silica cement, trace multicoloured lithics, common quartz grains, trace black coaly detritus, trace calcite lined fractures, very hard, no visible porosity, no intergranular oil fluorescence.	197 (90:6:2:1:1)

Depth (ROP avg)	%	Lithology	Gas
3486 (10)	100 Trace	SILTY CLAYSTONE, medium to dark grey to medium brown, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, rare calcite lined fractures, common micromica, hard, subfissile. SANDSTONE, off white, silty to fine, dominantly very fine, subangular to subrounded, moderately sorted, abundant white argillaceous matrix – matrix supported, very strong calcite cement, moderate silica cement, trace multicoloured lithics, common quartz grains, trace black coaly detritus, rare calcite lined fractures, very hard, no visible porosity, no intergranular oil fluorescence.	1084 (89:6:3:1:1)
3489 (10)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	172 (89:6:3:1:1)
3492 (9)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	170 (89:6:3:1:1)
3495 (8)	100 Trace Trace Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. COAL, as above. FLUORESCENCE, cut from coal as above.	172 (89:6:3:1:1)
3498 (9)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	190 (89:6:3:1:1)
3501 (6)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	219 (89:6:3:1:1)
3504 (7)	100	SILTY CLAYSTONE, as above.	234 (89:6:3:1:1)
3507 (5)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	219 (89:6:3:1:1)
3510 (17)	30 70	SILTY CLAYSTONE, medium to dark grey to medium brown, abundant very fine altered feldspar grains in part, trace to common black carbonaceous flecks and detritus, common micromica, hard, subfissile. SANDSTONE, off white, very fine to fine, dominantly fine, angular to subrounded, moderately to well sorted, strong silica and weak calcareous cements, abundant white argillaceous matrix, quartzose, abundant altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, hard, no visual porosity, no oil fluorescence.	130 (89:6:3:1:1)
3513 (22)	100	SANDSTONE, off white, very fine to medium, dominantly fine, angular to subrounded, moderately to well sorted, strong silica and weak calcareous cements, abundant white argillaceous matrix, quartzose, abundant altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, hard, no visual porosity, no oil fluorescence.	68 (89:6:3:1:1)
3516 (15)	100	SANDSTONE, as above.	458 (93:3:2:1:1)
3519 (18)	100	SANDSTONE, off white, very fine to medium, dominantly fine, angular to subrounded, moderately to well sorted, moderate silica and weak calcareous cements, common white argillaceous matrix, quartzose, abundant altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, hard, poor visual porosity, no oil fluorescence.	628 (93:3:2:1:1)
3522 (7)	100	SANDSTONE, off white, very fine to medium, dominantly fine, angular to subrounded, moderately to well sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, abundant altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, hard, very poor visual porosity, no oil fluorescence.	1809 (93:3:2:1:1)
3525 (16)	100	SANDSTONE, off white, very fine to occasionally coarse, dominantly fine to medium, angular to subrounded, moderately to well sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, hard, very poor visual porosity, no oil fluorescence.	739 (94:4:1:1:tr)
3528 (15)	100	SANDSTONE, off white, very fine to coarse, dominantly medium, angular to subrounded, moderately sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, hard, very poor visual porosity, no oil fluorescence.	2088 (94:4:1:1:tr)

Depth (ROP avg)	%	Lithology	Gas
3531 (7)	100	SANDSTONE, off white, very fine to occasionally very coarse, dominantly medium to coarse, angular to subrounded, poorly sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, hard, poor visual porosity, no oil fluorescence.	2332 (95:4:1:tr:tr)
3534 (4)	70	SILTY CLAYSTONE, medium to dark brown to medium to dark grey, occasional very fine altered feldspar grains in part, slightly carbonaceous, trace fine black carbonaceous flecks and detritus in part, common micromica, hard, subfissile.	214 (92:4:2:1:1)
	30	SANDSTONE, as above.	
3537 (6)	90	SILTY CLAYSTONE, as above.	128
	10	SANDSTONE, as above.	(92:4:2:1:1)
3540 (6)	90	SILTY CLAYSTONE, as above.	132
	10	SANDSTONE, off white, very fine to fine, dominantly fine, angular to subrounded, moderately to well sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, abundant altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, very hard, no visual porosity, no oil fluorescence.	(92:4:2:1:1)
3543 (3)	90	SILTY CLAYSTONE, medium to dark grey to medium brown, common very fine altered feldspar grains in part, slightly carbonaceous, trace fine black carbonaceous flecks and detritus in part, common micromica, hard, subfissile.	129
	10	SANDSTONE, as above.	(92:4:2:1:1)
3546 (2)	60	SILTY CLAYSTONE, as above.	104
	40	SANDSTONE, off white, very fine to very coarse, dominantly fine, angular to subrounded, poorly sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, very hard, no visual porosity, no oil fluorescence.	(92:4:2:1:1)
3549 (4)	100	SILTY CLAYSTONE, as above.	97
	Trace	SANDSTONE, as above.	(92:4:2:1:1)
3552 (3)	70	SILTY CLAYSTONE, as above.	106
	30	SANDSTONE, as above.	(92:4:2:1:1)
3555 (5)	40	SILTY CLAYSTONE, medium to dark grey to medium brown, trace very fine altered feldspar grains in part, moderately carbonaceous, trace fine black carbonaceous flecks and detritus in part, common micromica, hard, subfissile.	96
	60	SANDSTONE, off white, very fine to rarely coarse, dominantly medium, angular to subrounded, poorly sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, trace to common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, very hard, no visual porosity, no oil fluorescence.	(92:4:2:1:1)
3558 (7)	10	SILTY CLAYSTONE, as above.	256
	90	SANDSTONE, as above.	(92:4:2:1:1)
3561 (2)	20	SILTY CLAYSTONE, as above.	149
	80	SANDSTONE, as above.	(88:5:3:2:2)
3564 (1)	40	SILTY CLAYSTONE, as above.	110
	60	SANDSTONE, as above.	(88:5:3:2:2)
3567 (2)	30	SILTY CLAYSTONE, medium to dark grey to medium brown grey, trace very fine altered feldspar grains in part, moderately carbonaceous, trace fine black carbonaceous flecks and detritus, common micromica, hard, subfissile.	110
	70	SANDSTONE, off white, very fine to rarely very coarse, dominantly medium, angular to subrounded, poorly sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, trace to common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, very hard, no visual porosity, no oil fluorescence, dull orange mineral fluorescence.	(72:8:7:7:6)

Depth (ROP avg)	%	Lithology	Gas
3570 (1)	50	SILTY CLAYSTONE, medium to dark grey to rarely medium brown grey, moderately carbonaceous, trace fine black carbonaceous flecks and detritus, common micromica, hard, subfissile.	86 (72:8:7:7:6)
	50	SANDSTONE, off white, very fine to medium, dominantly fine, angular to subrounded, poorly sorted, strong silica and weak calcareous cements, common white argillaceous matrix, quartzose, trace to common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, very hard, no visual porosity, no oil fluorescence, dull orange mineral fluorescence.	
3573 (1)	50	SILTY CLAYSTONE, as above.	58 (72:8:7:7:6)
	50	SANDSTONE, as above.	
3576 (1)	50	SILTY CLAYSTONE, as above.	98 (72:8:7:7:6)
	50	SANDSTONE, as above.	
3579 (1.2)	90	SILTY CLAYSTONE, medium to dark grey to medium brown grey, moderately carbonaceous, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile.	80 (77:7:6:9:7)
	10	SANDSTONE, as above.	
3582 (1.7)	70	SILTY CLAYSTONE, as above.	98 (77:7:6:9:7)
	30	SANDSTONE, off white, very fine to medium, dominantly fine, angular to subrounded, poorly sorted, strong silica and moderate calcareous cements, common white argillaceous matrix, quartzose, common altered feldspars, trace green grey black and brown lithics, trace fine black coaly detritus, very hard, no visual porosity, no oil fluorescence, dull orange mineral fluorescence.	
3585 (1.6)	90	SILTY CLAYSTONE, as above.	95 (77:7:6:9:7)
	10	SANDSTONE, as above.	
3588 (1.9)	100	SILTY CLAYSTONE, medium grey to black, rarely medium brown, very carbonaceous in part, trace black carbonaceous flecks and detritus, trace micromica, hard to very hard, subfissile.	83 (77:7:6:9:7)
3591 (1.9)	100	SILTY CLAYSTONE, as above.	57 (72:6:5:8:9)
3594 (3.0)	30	SILTY CLAYSTONE, as above.	41 (72:6:5:8:9)
	70	KAOLINITIC SANDY CLAYSTONE, off white, moderately calcareous, common to abundant very fine to occasionally fine quartz sand grains, trace black coaly laminates, firm, non fissile, very poor inferred porosity.	
	OIL	FLUORESCENCE, the kaolinite has 50% dull patchy medium yellow oil fluorescence giving a very weak dull pale yellow crush cut.	
3597 (5.0)	10	SILTY CLAYSTONE, as above.	35 (72:6:5:8:9)
	90	KAOLINITIC SANDSTONE, off white, moderately calcareous, abundant very fine to fine quartz sand grains dispersed through a white kaolin clay matrix, common black coaly laminates, moderately hard, very poor intergranular porosity.	
	OIL	FLUORESCENCE, the kaolinite has 50% very dull patchy medium yellow oil fluorescence giving a very weak dull pale yellow crush cut.	
3600 (3.8)	10	SILTY CLAYSTONE, as above.	56 (72:6:5:8:9)
	90	KAOLINITIC SANDSTONE, off white, moderately calcareous, abundant very fine to fine quartz sand grains dispersed through a white kaolin clay matrix, common black coaly laminates, trace grey banded cryptocrystalline chert – possible fracture infill?, moderately hard, very poor intergranular porosity.	
	OIL	FLUORESCENCE, the kaolinite has 5% very dull patchy medium yellow oil fluorescence giving a very weak dull pale yellow crush cut.	
3603 (4.2)	100	SANDSTONE, off white, very fine to medium, dominantly fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, common to abundant white argillaceous matrix, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, trace grey banded cryptocrystalline chert – possible fracture infill?, very hard, no visual porosity.	78 (84:6:4:3:3)
OIL	FLUORESCENCE, the kaolinite has trace very dull patchy medium yellow oil fluorescence giving a very weak dull pale yellow crush cut.		
3606 (1.4)	60	SILTY CLAYSTONE, medium grey to black to medium brown, moderately carbonaceous, trace black carbonaceous flecks and detritus, common micromica, hard, subfissile.	77 (84:6:4:3:3)
	40	SANDSTONE, as above.	

Depth (ROP avg)	%	Lithology	Gas
3609 (1.3)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to fine, dominantly very fine, angular to subrounded, moderately sorted, very strong silica and moderate calcareous cements, common white argillaceous matrix, quartzose, common to abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, very hard, no visual porosity, no oil fluorescence.	39 (84:6:4:3:3)
3612 (1.4)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	28 (84:6:4:3:3)
3615 (1.3)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	21 (84:6:4:3:3)
3618 (1.2)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	13 (84:6:4:3:3)
3621 (1.8)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	29 (80:7:4:4:5)
3624 (1.7)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	41 (80:7:4:4:5)
3627 (1.8)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	37 (80:7:4:4:5)
3630 (1.7)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to fine, dominantly very fine, angular to subrounded, moderately sorted, very strong silica and moderate calcareous cements, abundant white argillaceous matrix, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, very hard, no visual porosity, no oil fluorescence.	43 (80:7:4:4:5)
3633 (1.8)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	2692 (80:7:4:4:5)
3636 (2.3)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to fine, dominantly very fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, abundant white argillaceous matrix –matrix supported, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, hard, no visual porosity, no oil fluorescence.	135 (82:7:5:3:3)
3639 (2.5)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	25 (82:7:5:3:3)
3642 (1.5)	80 20	SILTY CLAYSTONE, medium grey to black to medium brown grey, moderately carbonaceous, trace black carbonaceous flecks and coaly detritus, trace to common micromica, hard, subfissile. SANDSTONE, off white, very fine to occasionally fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, abundant white argillaceous matrix –matrix supported, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, hard, no visual porosity, no oil fluorescence.	26 (82:7:5:3:3)
3645 (3.1)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, as above.	86 (82:7:5:3:3)
3648 (1.3)	80 20	SILTY CLAYSTONE, as above. SANDSTONE, as above.	44 (82:7:5:3:3)
3651 (1.3)	100 Trace	SILTY CLAYSTONE, as above. SANDSTONE, as above.	14 (82:7:5:3:3)
3654 (1.4)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	8 (82:7:5:3:3)
3657 (1.2)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, as above.	31 (81:5:6:5:3)
3660 (1.9)	70 30	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to occasionally fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, abundant white argillaceous matrix –matrix supported, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, trace grey banded cryptocrystalline chert, hard, no visual porosity, no oil fluorescence.	64 (81:5:6:5:3)

Depth (ROP avg)	%	Lithology	Gas
3663 (3.3)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to occasionally fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, abundant white argillaceous matrix –matrix supported, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, abundant grey banded cryptocrystalline chert, hard, no visual porosity, no oil fluorescence.	51 (81:5:6:5:3)
3666 (2.1)	30 70	SILTY CLAYSTONE, as above. SANDSTONE, as above.	61 (81:5:6:5:3)
3669 (2.2)	20 80	SILTY CLAYSTONE, as above. SANDSTONE, as above.	56 (86:6:3:3:2)
3672 (2.6)	100	KAOLINITIC SANDSTONE, off white, very fine to occasionally fine, angular to subrounded, moderately sorted, moderate silica and weak calcareous cements, abundant white argillaceous matrix –matrix supported, quartzose, abundant altered feldspar grains, trace black coaly detritus, trace grey banded cryptocrystalline chert, moderately hard, no visual porosity, no oil fluorescence.	47 (86:6:3:3:2)
3675 (4.6)	10 90	SILTY CLAYSTONE, medium grey to black to medium brown grey, moderately carbonaceous, trace black carbonaceous flecks and coaly detritus, trace to common micromica, hard, subfissile. SANDSTONE, off white, very fine to occasionally fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, abundant white argillaceous matrix –matrix supported, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, abundant grey banded cryptocrystalline chert, hard, no visual porosity, no oil fluorescence.	51 (86:6:3:3:2)
3678 (1.9)	60 40	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to occasionally fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, abundant white argillaceous matrix –matrix supported, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, hard, no visual porosity, no oil fluorescence.	41 (84:6:4:3:3)
3681 (4.1)	10 90	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to fine, dominantly fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, abundant white argillaceous matrix –matrix supported, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, hard, very poor visual porosity, no oil fluorescence.	190 (95:3:1:tr:tr)
3684 (1.2)	10 90	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to medium, dominantly fine, angular to subrounded, moderately sorted, strong silica and moderate calcareous cements, abundant white argillaceous matrix, quartzose, abundant altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, very hard, no visual porosity, no oil fluorescence.	55 (95:3:1:tr:tr)
3687 (1.1)	40 60	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to medium, dominantly medium, angular to subrounded, moderately sorted, very strong silica and moderate calcareous cements, common white argillaceous matrix, quartzose, common altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, very hard, no visual porosity, no oil fluorescence.	40 (95:3:1:tr:tr)
3690 (1.2)	40 60	SILTY CLAYSTONE, medium grey to black to medium brown, moderately to very carbonaceous, trace black carbonaceous flecks and coaly detritus, trace very fine altered feldspar where brown, trace to common micromica, hard, subfissile. SANDSTONE, as above	51 (95:3:1:tr:tr)
3693 (1.6)	90 10 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. FLUORESCENCE, the carbonaceous material has no fluorescence but gives a very dull yellow crush cut.	94 (88:7:5:3:2)
3696 (1.8)	90 10 Fluor	SILTY CLAYSTONE, as above. SANDSTONE, as above. FLUORESCENCE, the carbonaceous material has no fluorescence but gives a very dull yellow crush cut.	73 (88:7:5:3:2)

Depth (ROP avg)	%	Lithology	Gas
3699 (1.2)	50 50	SILTY CLAYSTONE, as above. SANDSTONE, off white, very fine to fine, dominantly fine, angular to subrounded, moderately sorted, very strong silica and moderate calcareous cements, common white argillaceous matrix, quartzose, common altered feldspar grains, trace green, orange and grey lithics, trace black coaly detritus, very hard, no visual porosity, no oil fluorescence.	51 (88:7:5:3:2)
3700 (1.2)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	125 (88:7:5:3:2)
		TOTAL DEPTH: 3700m. Reached 1430 hrs 25-10-2006	
3701 (0.9)	90 10	SILTY CLAYSTONE, as above. SANDSTONE, as above.	45 (90:6:2:1:1)
		3700-3701m drilled to evaluate torque.	