

Australian Drilling Associates
Level 5, Rialto North Tower
525 Collins St
Melbourne, Victoria, 3000

Wardie 1
Cementing
Post Job Report

Prepared for Rajiv Tikkoo
Monday, 2 June 2008

Submitted by Andrew Stobie
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Rajiv Tikkoo
Australian Drilling Associates
Level 5, Rialto North Tower
525 Collins St
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Rajiv,

Re: Wardie#1

Included for your review is a copy of the Post Job Report of the Wardie#1 cementing operations. The PJR includes the programs, job logs, and lab reports.

I trust this PJR meets the requirements of ADA and with insight and reflection provides sufficient detail for future reference.

Yours sincerely,

Andrew Stobie
Technical Professional

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1.0 Summary of operations

Cementation on Wardie#1 well was completed as follows

- 30" Conductor casing was cemented on the 12th of May 2008
- 13 3/8" Surface Casing was cemented on the 15th of May 2008
- Plug and abandonment of the well was completed on the 21st of May 2008.

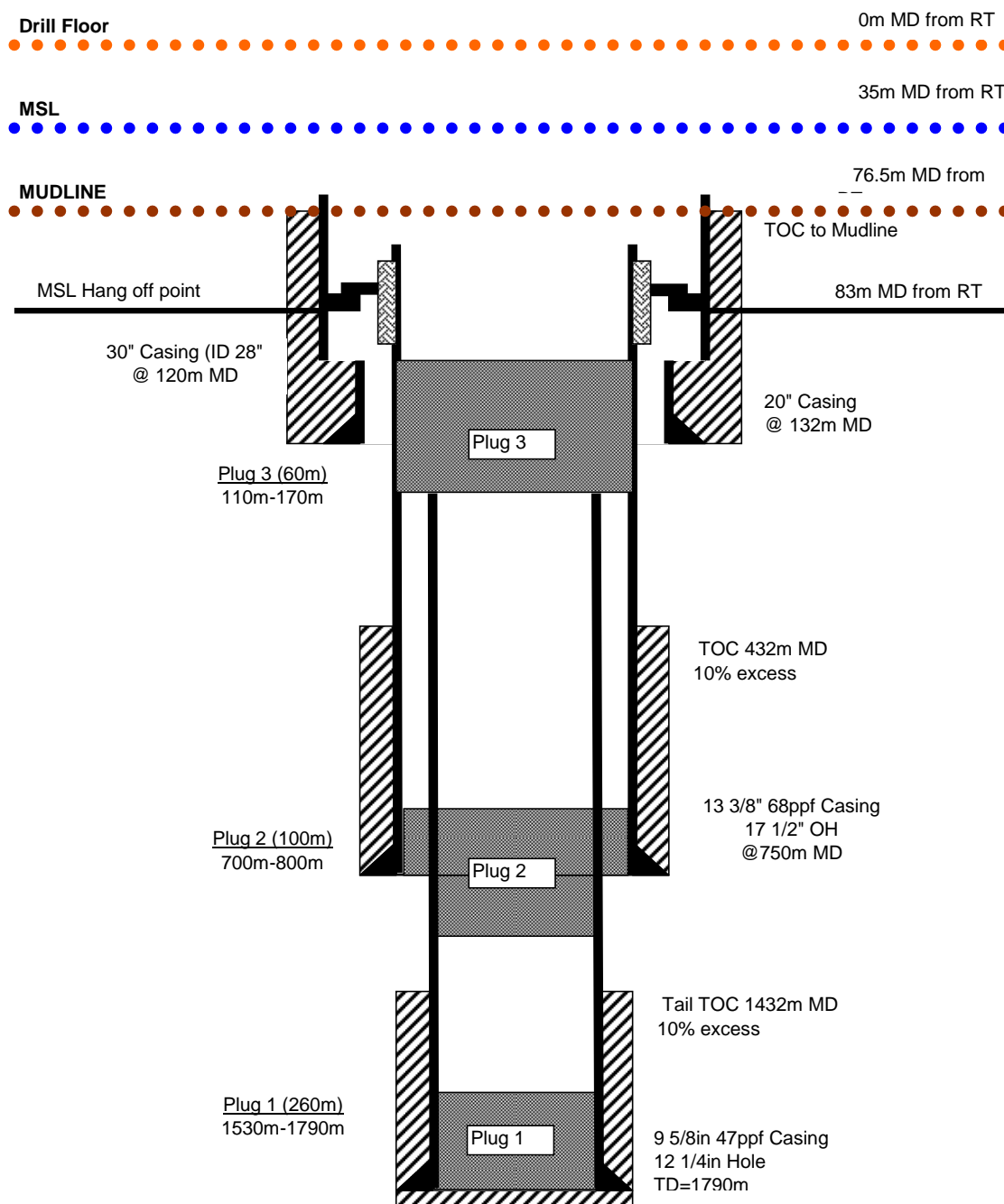
1.1 Lessons Learnt

The cementing operations on Wardie#1 were executed as planned in a safe and careful manner.

The centralisers on the 13 3/8" casing held up as they were run in hole. The hang up point occurred at a restriction in the conductor casing where the ID went from ~20inch to 17.5inch and then back out to 20inch. Under normal circumstances this restriction would be fine however there was an alignment issue with the rig which contributed to the magnitude of the drag encountered. As a result the casing was POOH and the centralisers removed. On the second run the casing went to bottom. As of the 29th of May discussions with Centek (Manufacturer of the centralisers) is still ongoing.

2.0 Cement Programs

2.1 Schematic



2.2 30in x 20in Casing Details

JOB PARAMETERS

Casing measured depth:	132m	BHST temperature:	20°C
True vertical depth:	132m	BHCT temperature:	17°C
Depth to top cement:	77m	Drilling mud type:	SW&HVBS
		Drilling mud density:	8.60ppg

WELLBORE

Casing/Tubing (Inner string job)

0-132m	5 1/2in 24.7ppf Tubing
0-120m	30in 309.7ppf Casing (X-52 D60/MT)
120-132m	20in 169ppf Casing

Annulus

0-77m	RKB-ML
77-132m	36in open hole (200% excess)

SPACERS

Spacer #1 - 100.0bbl Seawater at 8.55ppg

Seawater	42.00 gal/bbl	(12m OH annular fill / 13min contact time)
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Spacer #2 - 20.0bbl Seawater + Dye at 8.57ppg

Seawater	41.98 gal/bbl	(2m OH annular fill / 3min contact time)
Fluorescein Dye	0.20 lb/bbl	

Contact times are based on the displacement rate.

CEMENT

Composition

Adelaide Brighton Class G	
Calcium Chloride 1%	1.00 %BWOC
Seawater	5.16 gal/sk
NF-6	0.25 gal/10bblMF

Properties

Surface density:	15.90 ppg
Surface yield:	1.17 ft ³ /sk
Total mixing fluid:	5.20 gal/sk
Thickening time (70 Bc):	3:30
Free water vert at 17°C:	<1 %
Comp strength at 19°C	50 psi in 4 hrs
Comp strength at 19°C	500 psi in 6 hrs
Comp strength at 19°C	2,000 psi in 24 hrs

Note that %BWOC are based on a 94 lb sack

VOLUME CALCULATIONS

Cement

30in Casing / 36in hole volume	44 m x 1.2620 bbl/m	54.9 bbl
30in Casing / 36in hole excess	2.00 x 54.9 bbl	109.8 bbl
20in Casing / 36in hole volume	12 m x 2.8555 bbl/m	34.3 bbl
20in Casing / 36in hole excess	2.00 x 34.3 bbl	68.5 bbl

Total slurry volume =267.5 bbl

Quantity of cement	267.5 bbl x 5.6146 / 1.17 ft ³ /sk	1284 sks
Quantity of mix fluid	1284 sks x 5.20 gal/sk	159.0 bbl

Displacement

5 1/2in Tubing volume 132 m x 0.0695 bbl/m 9.2 bbl
Total displacement volume =9.2 bbl

PUMPING SCHEDULE & TIMES

	Volume (bbl)	Rate (bbl/min)	Time (min)
Make up lines & pressure test:	N/A	N/A	30
Circulate 1.5 x Casing volume:	13.8	10.0	1
Pump spacers:	120.0	10.0	12
Mix & pump cement:	267.5	6.0	45
Release dart/top plug:	N/A	N/A	5
Pump displacement:	9.2	8.0	1
Total job time (including circulation):			94 min 1hr 34min
Minimum cement thickening time (with 2hr safety factor):			171 min 2hr 51min

MINIMUM MATERIAL REQUIREMENTS (Double for loadout)**Spacer #1 - Seawater**

Seawater 100 bbl

Spacer #2 - Seawater + Dye

Seawater 20 bbl

Fluorescein Dye 4 lb

Cement

Adelaide Brighton Class G 55 MT(1,290 ft³)

Calcium Chloride 1% 1,207 lbs

Seawater 157.7 bbl

NF-6 4 gals

These are estimates calculated on the information given. Calculations should be confirmed on the job site well in advance.

2.2.1 30Inch Casing Job Procedure

- 1) Run 30" casing to TD with innerstring pipe.
- 2) Rig up surface equipment including a releasing tool for the latch in dart if one is required
- 3) Establish circulation
- 4) Test lines to 3000psi
- 5) Pump 100bbls Seawater
- 6) Pump 20bbls Seawater with Fluorescein Dye
- 7) Mix and pump 268bbls of 15.9ppg cement or until returns are evident on the seafloor
- 8) Drop top plug/latch in plug if one is being used
- 9) Displace with 9.2bbls of WBM
- 10) Slow pump rate down for final 10bbls. Bump plug 500psi over and hold for 10mins. Bleed back and check floats

2.3 13 3/8 inch Casing Details

JOB PARAMETERS

Casing measured depth:	750m	BHST temperature:	48°C
True vertical depth:	706m	BHCT temperature:	34°C
Depth to top cement:	432m	Drilling mud type:	SW +Sweeps
		Drilling mud density:	9.50ppg

WELLBORE

Casing/Tubing

0-750m 13 3/8in 68ppf Casing (N-80 BTC)

Annulus

0-77m RKB-ML
 77-120m 30in 309.7ppf casing (28in ID)
 120-132m 20in 169ppf casing (18.376in ID)
 132-750m 17.5in open hole (10% excess)

SPACERS

Spacer #1 - 70.0bbl Seawater at 8.55ppg

Seawater 42.00 gal/bbl (157m OH annular fill / 9min contact time)

Spacer #2 - 30.0bbl Tuned Spacer E+ at 11.00ppg

Freshwater 37.31 gal/bbl (67m OH annular fill / 4min contact time)
 Tuned Spacer 16.80 lb/bbl
 Barite 133.78 lb/bbl

Contact times are based on the displacement rate.

CEMENT

Composition

Adelaide Brighton Class G

CFR-3L 3.00 gal/10bblMF
 HR-6L 2.00 gal/10bblMF
 Seawater 5.07 gal/sk
 NF-6 0.25 gal/10bblMF

Properties

Surface density: 15.90 ppg
 Surface yield: 1.16 ft³/sk
 Total mixing fluid: 5.13 gal/sk
 Thickening time (70 Bc): 4:00
 Free water vert at 34°C: Trace %
 Comp strength at 43°C 50 psi in 4.5 hrs
 Comp strength at 43°C 500 psi in 7 hrs
 Comp strength at 43°C 2,000 psi in 24 hrs

VOLUME CALCULATIONS

Cement

13 3/8in Casing / 17.5in hole volume	318 m x 0.4059 bbl/m	129.1 bbl
13 3/8in Casing / 17.5in hole excess	0.10 x 129.1 bbl	12.9 bbl
Shoe track volume	12 m x 0.4912 bbl/m	5.9 bbl

Total slurry volume =147.9 bbl

Quantity of cement	147.9 bbl x 5.6146 / 1.16 ft³/sk	716 sks
Quantity of mix fluid	716 sks x 5.13 gal/sk	87.5 bbl

Total displacement volume = 362.5 bbl

	Volume (bbl)	Rate (bbl/min)	Time (min)
Make up lines & pressure test:	N/A	N/A	30
Circulate 1.5 x Casing volume:	552.6	10.0	55
Pump spacers:	100.0	10.0	10
Mix & pump cement:	147.9	5.0	30
Release dart/top plug:	N/A	N/A	5
Pump displacement:	362.5	8.0	45

<i>Total job time (including circulation):</i>	<i>175 min</i>	<i>2hr 55min</i>
<i>Minimum cement thickening time (with 2hr safety factor):</i>	<i>200 min</i>	<i>3hr 20min</i>

Seawater	70 bbl
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Freshwater	26.6 bbl
Tuned Spacer	504 lb
Barite	4,013 lb

Adelaide Brighton Class G	31 MT(727 ft³)
CFR-3L	26 gals
HR-6L	17 gals
Seawater	86.4 bbl
NF-6	3 gals

These are estimates calculated on the information given. Calculations should be confirmed on the job site well in advance.

- 11) Run 13 3/8" casing to TD
- 12) Establish circulation by pumping 10bbl sea water
- 13) Test lines to 3000psi
- 14) Pump 60bbls Seawater
- 15) Pump 30bbls Tuned spacer
- 16) Mix and pump 148bbls of single 15.9ppg slurry
- 17) Drop releasing dart on the releasing sleeve and apply about 2500 ± 500 psi to release the top plug.
- 18) Displace with 362.5bbls of mud. Use calliper volumes if possible
- 19) **Slow pump rate down to 1bbl/min** for final 10bbls. Bump plug 500psi over and hold for 10mins. Bleed back and check floats
- 20) End job

2.4 Plug#1a Details - 12.25in hole

JOB PARAMETERS

Plug bottom MD:	1,766m	BHST temperature:	76°C
Plug bottom TVD:	1,616m	BHCT temperature:	62°C
Plug top MD:	1,616m	Drilling mud type:	6-8% KCl/PHKA
Plug length:	150m	Drilling mud density:	9.50ppg
Plug length with DP in:	157m		

WELLBORE

Workstring

0-1,766m 5 1/2in 21.9ppf tubing (XT 57)

Annulus

0-1,766m 12.25in open hole (10% excess)

SPACERS

Spacer - Freshwater at 8.33ppg

Freshwater 42.00 gal/bbl 20.0bbl ahead and 3.4bbl behind to balance
(42m annular fill / 3min contact time)

Contact times are based on the displacement rate.

CEMENT SLURRY

Composition

Adelaide Brighton Class G

SCR-100L 2.00 gal/10bblMF

CFR-3L 3.00 gal/10bblMF

Freshwater 5.06 gal/sk

NF-6 0.25 gal/10bblMF

Properties

Surface density: 15.80 ppg

Surface yield: 1.16 ft³/sk

Total mixing fluid: 5.12 gal/sk

Thickening time (70 Bc): 3:30

Comp strength at 72°C 50 psi in 4 hrs

Comp strength at 72°C 500 psi in 6 hrs

Comp strength at 72°C 2,500 psi in 24 hrs

VOLUME CALCULATIONS

Cement

12.25in hole volume 150 m x 0.4782 bbl/m 71.7 bbl

12.25in hole excess 0.10 x 71.7 bbl 7.2 bbl

Slurry volume =78.9 bbl

Quantity of cement 78.9 bbl x 5.6146 / 1.16 ft³/sk 382 sacks

Quantity of mix fluid 382 sacks x 5.12 gal/sk 46.6 bbl

Displacement

5 1/2in tubing volume 1,562 m x 0.0728 bbl/m 113.7 bbl

Total displacement volume =113.7 bbl

PUMPING SCHEDULE & TIMES

	Volume (bbl)	Rate (bbl/min)	Time (min)
Make up lines & pressure test:	N/A	N/A	30
Circulate 1 x bottoms up:	758.8	6.0	126
Pump spacers ahead:	20.0	6.0	3
Mix & pump cement:	78.9	5.0	16
Drop wiper ball:	N/A	N/A	5
Pump spacers behind:	3.4	6.0	1
Pump displacement:	113.7	6.0	19
Pull workstring 27 m above TOC:	177m	9.0m/min	20
Circulate workstring clean:	116.0	6.0	19

<i>Total job time (including circulation):</i>	239 min	3hr 59min
<i>Minimum cement thickening time (with 2hr safety factor):</i>	200 min	3hr 20min

MINIMUM MATERIAL REQUIREMENTS (Double for loadout)**Spacer - Freshwater**

Freshwater 23.4 bbl

Cement

Adelaide Brighton Class G 16 MT(375 ft³)
 SCR-100L 10 gals
 CFR-3L 14 gals
 Freshwater 46 bbl
 NF-6 2 gals

These are estimates calculated on the information given. Calculations should be confirmed on the job site well in advance.

2.4.1 Plug #1a` Job Procedure – Plug 1

1. RIH to 1766m with work string
2. Rig up surface lines.
3. Establish circulation, Pump 10bbls Fresh water.
4. Test lines 2000psi.
5. Pump 10bbls Fresh water.
6. Mix and pump 80bbls of 15.8ppg cement slurry.
7. Displace with 3.5bbls of fresh water to balance
8. Continue to displace with 113bbls of well fluid to create a balanced plug

Note 1bbl under displace to aid in dryPOOH

9. Pick up workstring to top of cement
10. Reverse circulate 1 1/2 times tubing volumes clean before POOH
11. Pick up and prepare for 1b plug

2.5 Plug#1b Details - 12.25in hole

JOB PARAMETERS

Plug bottom MD:	1,616m	BHST temperature:	72°C
Plug bottom TVD:	1,468m	BHCT temperature:	58°C
Plug top MD:	1,466m	Drilling mud type:	6-8% KCl/PHKA
Plug length:	150m	Drilling mud density:	9.50ppg
Plug length with DP in:	157m		

WELLBORE

Workstring

0-1,616m 5 1/2in 21.9ppf tubing (XT 57)

Annulus

0-1,616m 12.25in open hole (10% excess)

SPACERS

Spacer - Freshwater at 8.33ppg

Freshwater 42.00 gal/bbl 20.0bbl ahead and 3.4bbl behind to balance
(42m annular fill / 3min contact time)

Contact times are based on the displacement rate.

CEMENT SLURRY

Composition

Adelaide Brighton Class G	
SCR-100L	2.00 gal/10bblMF
CFR-3L	3.00 gal/10bblMF
Freshwater	5.05 gal/sk
NF-6	0.25 gal/10bblMF

Properties

Surface density:	15.80 ppg
Surface yield:	1.16 ft³/sk
Total mixing fluid:	5.12 gal/sk
Thickening time (70 Bc):	3:30
Comp strength at 67°C	50 psi in 4 hrs
Comp strength at 67°C	500 psi in 6 hrs
Comp strength at 67°C	2,500 psi in 24 hrs

VOLUME CALCULATIONS

Cement

12.25in hole volume	150 m x 0.4782 bbl/m	71.7 bbl
12.25in hole excess	0.10 x 71.7 bbl	7.2 bbl

Slurry volume = 78.9 bbl

Quantity of cement	78.9 bbl x 5.6146 / 1.16 ft³/sk	382 sacks
Quantity of mix fluid	382 sacks x 5.12 gal/sk	46.6 bbl

Displacement

5 1/2in tubing volume	1,412 m x 0.0728 bbl/m	102.8 bbl
Total displacement volume = 102.8 bbl		

PUMPING SCHEDULE & TIMES

	Volume (bbl)	Rate (bbl/min)	Time (min)
Make up lines & pressure test:	N/A	N/A	30
Circulate 1 x bottoms up:	694.3	6.0	116
Pump spacers ahead:	20.0	6.0	3
Mix & pump cement:	78.9	5.0	16
Drop wiper ball:	N/A	N/A	5
Pump spacers behind:	3.4	6.0	1
Pump displacement:	102.8	6.0	17
Pull workstring 27 m above TOC:	177m	9.0m/min	20
Circulate workstring clean:	105.0	6.0	18

<i>Total job time (including circulation):</i>	226 min	3hr 46min
<i>Minimum cement thickening time (with 2hr safety factor):</i>	197 min	3hr 17min

MINIMUM MATERIAL REQUIREMENTS (Double for loadout)**Spacer - Freshwater**

Freshwater 23.4 bbl

Cement

Adelaide Brighton Class G 16 MT(375 ft³)
 SCR-100L 9 gals
 CFR-3L 14 gals
 Freshwater 46 bbl
 NF-6 2 gals

These are estimates calculated on the information given. Calculations should be confirmed on the job site well in advance.

2.5.1 Plug #1b`Job Procedure – Plug 1

1. RIH to 1616m with work string
2. Rig up surface lines.
3. Establish circulation, Pump 10bbls Fresh water.
4. Test lines 2000psi.
5. Pump 10bbls Fresh water.
6. Mix and pump 80bbls of 15.8ppg cement slurry.
7. Displace with 3.5bbls of fresh water to balance
8. Continue to displace with 103bbls of well fluid to create a balanced plug

Note 1bbl under displace to aid in dry POOH

9. Pick up workstring to top of cement
10. Reverse circulate 1 1/2 times tubing volumes clean before POOH
11. Pick up and prepare for second plug

2.6 Plug#2 Details - 13 3/8in casing x 12.25in hole

JOB PARAMETERS

Plug bottom MD:	800m	BHST temperature:	49°C
Plug bottom TVD:	752m	BHCT temperature:	39°C
Plug top MD:	700m	Drilling mud type:	6-8% KCL/PHKA
Plug length:	100m	Drilling mud density:	9.50ppg
Plug length with DP in:	105m		

WELLBORE

Workstring

0-800m 5 1/2in 21.9ppf tubing (XT-57)

Annulus

0-750m 13 3/8in 68ppf casing (12.415in ID)
750-800m 12.25in open hole (20% excess)

SPACERS

Spacer - Freshwater at 8.33ppg

Freshwater 42.00 gal/bbl 20.0bbl ahead and 3.7bbl behind to balance
(35m annular fill / 3min contact time)

Contact times are based on the displacement rate.

CEMENT SLURRY

Composition

Adelaide Brighton Class G

CFR-3L 3.00 gal/10bblMF
HR-6L 2.00 gal/10bblMF
Seawater 5.07 gal/sk
NF-6 0.25 gal/10bblMF

Properties

Surface density: 15.90 ppg
Surface yield: 1.16 ft³/sk
Total mixing fluid: 5.13 gal/sk
Thickening time (70 Bc): 3:00
Comp strength at 46°C 50 psi in 4 hrs
Comp strength at 46°C 500 psi in 6 hrs
Comp strength at 46°C 2,500 psi in 24 hrs

VOLUME CALCULATIONS

Cement

13 3/8in casing volume 50 m x 0.4912 bbl/m 24.6 bbl
12.25in hole volume 50 m x 0.4782 bbl/m 23.9 bbl
12.25in hole excess 0.20 x 23.9 bbl 4.8 bbl

Slurry volume =53.3 bbl

Quantity of cement 53.3 bbl x 5.6146 / 1.16 ft³/sk 258 sacks
Quantity of mix fluid 258 sacks x 5.13 gal/sk 31.5 bbl

Displacement

5 1/2in tubing volume 644 m x 0.0728 bbl/m 46.9 bbl
Total displacement volume =46.9 bbl

PUMPING SCHEDULE & TIMES

	Volume (bbl)	Rate (bbl/min)	Time (min)
Make up lines & pressure test:	N/A	N/A	30
Circulate 1 x bottoms up:	320.0	6.0	53
Pump spacers ahead:	20.0	6.0	3
Mix & pump cement:	53.3	5.0	11
Drop wiper ball:	N/A	N/A	5
Pump spacers behind:	3.7	6.0	1
Pump displacement:	46.9	6.0	8
Pull workstring 27 m above TOC:	127m	9.0m/min	14
Circulate workstring clean:	49.0	6.0	8

<i>Total job time (including circulation):</i>	<i>133 min</i>	<i>2hr 13min</i>
<i>Minimum cement thickening time (with 2hr safety factor):</i>	<i>167 min</i>	<i>2hr 47min</i>

MINIMUM MATERIAL REQUIREMENTS (Double for loadout)**Spacer - Freshwater**

Freshwater 23.7 bbl

Cement

Adelaide Brighton Class G 11 MT(258 ft³)
 CFR-3L 9 gals
 HR-6L 6 gals
 Seawater 31.1 bbl
 NF-6 1 gals

These are estimates calculated on the information given. Calculations should be confirmed on the job site well in advance.

2.6.1 Plug 2 Job Procedure

- 21) RIH with workstring to 800m MD
- 22) Rig up surface lines, prime and test to 200/2000psi
- 23) Pump 10bbls Fresh water
- 24) Mix and pump 53.5bbls of 15.9ppg cement slurry.
- 25) Displace with 1.5bbls of fresh water to balance
- 26) Continue to displace with 46bbls of well fluid to create a balanced plug

Note 1bbl under displace to aid in dry POOH

- 27) Pick up work string at least one stand above top of cement
- 28) Reverse circulate 1 1/2 times tubing volumes clean before POOH
- 29) End Job

2.7 Plug#3 Details - 13 3/8in casing

JOB PARAMETERS

Plug bottom MD:	155m	BHST temperature:	28°C
Plug bottom TVD:	155m	BHCT temperature:	23°C
Plug top MD:	95m	Drilling mud type:	seawater
Plug length:	60m	Drilling mud density:	8.55ppg
Plug length with DP in:	61m		

WELLBORE

Workstring

0-155m 5 1/2in 21.9ppf tubing (XT-57)

Annulus

0-125m 30in 309.7ppf casing (28in ID)
125-155m 13 3/8in 68ppf casing (12.415in ID)

SPACERS

Spacer - Seawater at 8.33ppg

Seawater 42.00 gal/bbl 20.0bbl ahead and 0.6bbl behind to balance
(8m annular fill / 3min contact time)

Contact times are based on the displacement rate.

CEMENT SLURRY

Composition

Adelaide Brighton Class G
Calcium Chloride 1% 1.00 %BWOC
Seawater 5.16 gal/sk
NF-6 0.125 gal/10bblMF

Properties

Surface density: 15.90 ppg
Surface yield: 1.17 ft³/sk
Total mixing fluid: 5.20 gal/sk
Thickening time (70 Bc): 3:00
Comp strength at 26°C 50 psi in 4 hrs
Comp strength at 26°C 500 psi in 6 hrs
Comp strength at 26°C 2,400 psi in 24 hrs

Note that %BWOC are based on a 94 lb sack

VOLUME CALCULATIONS

Cement

30in casing volume 30 m x 2.4986 bbl/m 75.0 bbl
13 3/8in casing volume 30 m x 0.4912 bbl/m 14.7 bbl

Slurry volume =89.7 bbl

Quantity of cement 89.7 bbl x 5.6146 / 1.17 ft³/sk 430 sacks
Quantity of mix fluid 430 sacks x 5.20 gal/sk 53.2 bbl

Displacement

5 1/2in tubing volume 86 m x 0.0728 bbl/m 6.3 bbl
Total displacement volume =6.3 bbl

PUMPING SCHEDULE & TIMES

	Volume (bbl)	Rate (bbl/min)	Time (min)
Make up lines & pressure test:	N/A	N/A	30
Circulate 1 x bottoms up:	312.1	6.0	52
Pump spacers ahead:	20.0	6.0	3
Mix & pump cement:	89.7	5.0	18
Drop wiper ball:	N/A	N/A	5
Pump spacers behind:	0.6	6.0	0
Pump displacement:	6.3	6.0	1
Pull workstring 27 m above TOC:	87m	9.0m/min	10
Circulate workstring clean:	5.0	6.0	1

<i>Total job time (including circulation):</i>	<i>120 min</i>	<i>2hr 00min</i>
<i>Minimum cement thickening time (with 2hr safety factor):</i>	<i>155 min</i>	<i>2hr 35min</i>

MINIMUM MATERIAL REQUIREMENTS (Double for loadout)**Spacer - Seawater**

Seawater 20.6 bbl

Cement

Adelaide Brighton Class G 18 MT(422 ft³)

Calcium Chloride 1% 404 lbs

Seawater 52.8 bbl

NF-6 1 gals

These are estimates calculated on the information given. Calculations should be confirmed on the job site well in advance.

2.7.1 Plug # 3 Job Procedure

- 30) RIH to 155m with workstring
- 31) Rig up surface lines.
- 32) Establish circulation, Pump 10bbls Fresh water.
- 33) Test lines 2000psi.
- 34) Pump 10bbls Fresh water.
- 35) Mix and pump 90bbls of 15.9ppg cement slurry.
- 36) Displace with 0.5bbls of fresh water to balance
- 37) Continue to displace with 5bbls of well fluid to create a balanced plug

Note 1bbl under displace to aid in dry POOH

- 38) Pick up work string at least one stand above top of cement
- 39) Reverse circulate 1 1/2 times tubing volumes clean before POOH
- 40) End Job

3.0 LAB REPORTS

HALLIBURTON

CEMENT SLURRY REPORT

JOB INFORMATION					
Customer	: 3D Oil	Date	: 9/05/2008		
Well Name	: Wardie-1	Reference	: WAR-08-01A		
Casing Size	: 30inch				
Job Type	: Casing				
Slurry Type	: Single				
Time to Temp	: 13min				
WELL PROPERTIES					
Depth(MD from RKB)	: 132	Meters	Depth(TVD from RKB)	: 132	Meters
Surface Temperature	: 25.00	Deg.C.	Temperature Gradient	: -3.79	Deg.C./100M
BHST	: 20.00	Deg.C.	BHCT (per API Spec 10)	: 17.00	Deg.C.
Mud Weight	: 8.60	PPG	Water Source	: Seawater	
SLURRY PROPERTIES					
ABC Class G	: 94.00	Lbs/sk	From Yard		
NF-6	: 0.25	gal/10bbl of Mix Fluid		0.003	gal/sk
Calcium Chloride 1%	: 1.00	%BWOC		0.012	gal/sk
Slurry Weight	: 15.90	PPG	Slurry Yield	: 1.17	CuFt/Sack
Mixing Water	: 5.23	Gals/Sack	Total Mixing Fluid	: 5.24	Gals/Sack
THICKENING TIME					
Reading (BC)	: Initial BC	30 BC	50 BC	70 BC	443 psi
Time(hrs:mins)	: 33	2:07	2:30	2:41	25 Deg.C.
COMPRESSIVE STRENGTH					
UCA Summary	: 50psi	2:57	UCA Max Temp	: 25 Deg C	
	: 500psi	6:43	UCA Pressure	: 3000 psi	
	: 3930psi	65:36			

Notes : The test was conducted to the specifications provided.

Lab Test Conducted By : Daniel Gibbons

Approved By : Prem kumar Salibendla/Andrew Stobie

The above report is based on sound engineering practices, but because of variable well conditions and other information which must be relied upon, Halliburton makes no warranty, express or implied, as to the accuracy of the data or any of the calculations or opinions expressed herein. You agree that Halliburton shall not be liable for any loss or damage whether due to negligence or otherwise arising out of or in connection with such data, calculations or opinions.

HALLIBURTON

CEMENT SLURRY REPORT

JOB INFORMATION

Customer	: 3D Oil	Date	: 13/05/2008
Well Name	: Wardie-1	Reference	: WAR-08-02A
Casing Size	: 13 3/8inch		
Job Type	: Casing		
Slurry Type	: Single		
Time to Temp	: 19min		

WELL PROPERTIES

Depth(MD from RKB)	: 750	Meters	Depth(TVD from RKB)	: 706	Meters
Surface Temperature	: 25.00	Deg.C.	Temperature Gradient	: 3.26	Deg.C./100M
BHST	: 48.00	Deg.C.	BHCT (per API Spec 10)	: 34.00	Deg.C.
Mud Weight	: 9.50	PPG	Water Source	: Seawater	

SLURRY PROPERTIES

ABC Class G	: 94.00	Lbs/sk	From Yard		
NF-6	: 0.25	gal/10bbl of Mix Fluid		0.003	gal/sk
CFR-3L	: 3.00	gal/10bbl of Mix Fluid		0.037	gal/sk
HR-6L	: 2.00	gal/10bbl of Mix Fluid		0.025	gal/sk
Slurry Weight	: 15.90	PPG	Slurry Yield	: 1.16	CuFt/Sack
Mixing Water	: 5.10	Gals/Sack	Total Mixing Fluid	: 5.16	Gals/Sack

THICKENING TIME

Reading (BC)	: Initial BC	30 BC	50 BC	70 BC	1,455 psi
Time(hrs:mins)	: 30	2:28	2:51	2:57	34 Deg.C.

Notes : The test was conducted to the specifications provided.

Lab Test Conducted By : Daniel Gibbons

Approved By : Prem kumar Salibendla/Andrew Stobie

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HALLIBURTON

CEMENT SLURRY REPORT

JOB INFORMATION

Customer	: 3D Oil	Date	: 19/05/2008
Well Name	: Wardie-1	Reference	: WAR-08-03A
Casing Size	: 9 5/8inch		
Job Type	: Casing and Plug 1a&1b		
Slurry Type	: Single		
Time to Temp	: 19min		

WELL PROPERTIES

Depth(MD from RKB)	: 1790	Meters	Depth(TVD from RKB)	: 1638	Meters
Surface Temperature	: 25.00	Deg.C.	Temperature Gradient	: 3.17	Deg.C./100M
BHST	: 77.00	Deg.C.	BHCT (per API Spec 10)	: 48.00	Deg.C.
Mud Weight	: 9.50	PPG	Water Source	: West Triton Drill Water	

SLURRY PROPERTIES

ABC Class G	: 94.00	Lbs/sk	From Yard		
NF-6	: 0.25	gal/10bbl of Mix Fluid	0.003	gal/sk	
CFR-3L	: 3.00	gal/10bbl of Mix Fluid	0.037	gal/sk	
SCR-100L	: 2.00	gal/10bbl of Mix Fluid	0.025	gal/sk	
Slurry Weight	: 15.80	PPG	Slurry Yield	: 1.16	CuFt/Sack
Mixing Water	: 4.75	Gals/Sack	Total Mixing Fluid	: 5.17	Gals/Sack

THICKENING TIME

Reading (BC)	: Initial BC	30 BC	50 BC	70 BC	1,455 psi
Time(hrs:mins)	: 0	3:19	3:23	3:26	34 Deg.C.

Notes : The test was conducted to the specifications provided.

Lab Test Conducted By : Prem Kumar Salibendla

Approved By : Prem kumar Salibendla/Andrew Stobie

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4.0 Job Summary, EJCS, Job Logs

4.1 30 inch Conductor Casing

4.1.1 Job Summary

HALLIBURTON				CUSTOMER 3D Oil		SALES ORDER No. 0		DATE 12 May 2008			
CEMENT/PUMPING JOB SUMMARY											
WELL Wardie # 1		LOCATION/FIELD NAME Bass Strait		COUNTRY Australia		HES REP R.Bridgman		CUSTOMER REP Rocco Rossouw			
JOB TYPE Zonal Isolation		JOB PURPOSE CODE CEMENT CONDUCTOR CASING 14161				BDA Perth		RIG West Triton			
PERSONNEL / EXPOSURE		HRS	PERSONNEL / EXPOSURE		HRS	PERSONNEL / EXPOSURE		HRS	PERSONNEL / EXPOSURE		
386793 Robert Bridgman		12									
127046 Rod Stares		12									
EQUIPMENT											
SAP#		PUMPING / MIXING			HOURS	SAP#		VEHICLES / TRAILERS			
0		SKID PUMP CMT TWIN HT400 ADVANTAGE 10851913			24						
0		Electric Hydraulic Package 10851913			24						
0		4 Tank Electric CMS 109658			24						
SAP#		BULK SUPPLY / TANKS			HOURS	SAP#		OTHER EQUIPMENT			
#N/A		Rig supplied Bulk system									
FLOAT EQUIPMENT AND CASING EQUIPMENT											
SAP#		FLOAT EQUIPMENT			QTY	SAP#		PLUGS			
SAP#		CASING ATTACHMENTS			QTY	SAP#		OTHER			
WELL PROFILE											
NEW CASING		OPEN HOLE + EXCESS OR CALIPER DATA			PREVIOUS CASING ONE			PREVIOUS CASING TWO			
30x20in 309.7ppf		36in + 200% excess 77.5m to 136m									
0m to 132.87m MD, m TVD											
FOR PLUG AND LINER JOBS PLEASE INDICATE WORKSTRING 5.5in 24.7ppf S135 XT 57											
CEMENT DESIGN											
SLURRY 1 - Single											
DENSITY	15.9ppg	WATER REQ	5.16gal/sk	DENSITY		WATER REQ		DENSITY		WATER REQ	
YIELD	1.17cuft/sk	MIX FLUID REQ	5.2gal/sk	YIELD		MIX FLUID REQ		YIELD		MIX FLUID REQ	
WATER SOURCE : Sea,			WATER SOURCE :			WATER SOURCE :					
CEMENT TYPE: ABC Class 'G' @ 94 lb/sk			CEMENT TYPE: ABC Class 'G' @ 94 lb/sk			CEMENT TYPE:					
Total Cement Used 1454 sks			Total Cement Used			Total Cement Used					
Estimated TOC 77.5 m			Estimated TOC			Estimated TOC					
Additive	Concentration	Total Used	Additive	Concentration	Total Used	Additive	Concentration	Total Used	Additive	Concentration	Total Used
Calcium Chloride	1 %BWOC	28 sx lbs									
NF-6		2 gals									
PUMPING SCHEDULE											
FLUID DESCRIPTION	VOLUME bbls	DENSITY ppg	RATE bpm	FLUID DESCRIPTION	VOLUME bbls	DENSITY ppg	RATE bpm	FLUID DESCRIPTION	VOLUME bbls	DENSITY ppg	RATE bpm
1) sea water	10	8.54	8	5) seawater	10	8.54	5				
2) Sea water	90	8.54	8								
3) sea water + Dye	20	8.54	6								

HALLIBURTON

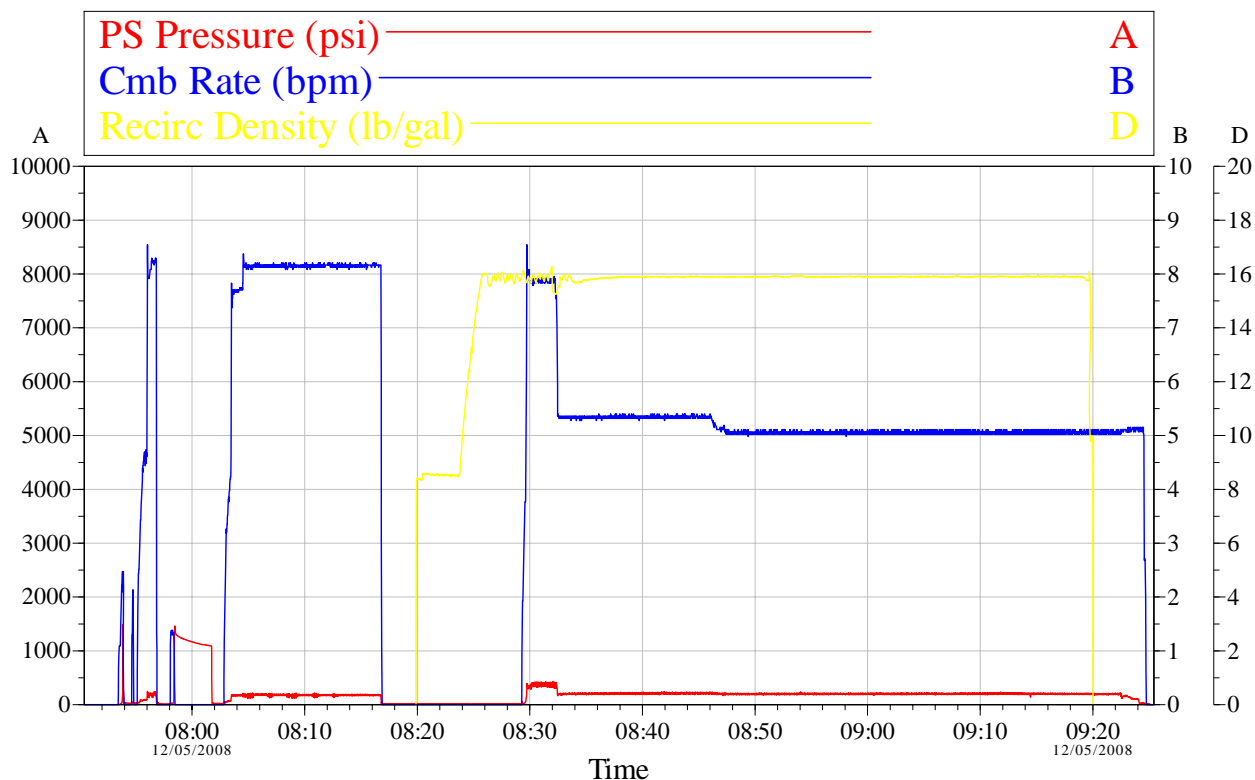
CEMENT/PUMPING JOB LOGS & DETAILS

4.1.3 KPI & EJCS

[illegible]

4.1.4 Technical Graph

Wardie # 1 30 " Conductor



Customer: ADA	Job Date: 12/5/08	CemWin v1.7.2 12-May-08 16:12
Well Description: Wardie # 1	Job: 30 "	

4.2 13 3/8" SSR CASING

4.2.1 Job Summary

HALLIBURTON		CUSTOMER	SALES ORDER No.	DATE
		3D Oil		15 May 2008
CEMENT/PUMPING JOB SUMMARY				
WELL	LOCATION/FIELD NAME	COUNTRY	HES REP	CUSTOMER REP
Wardie -1	Bass Strait	Australia	Robert Bridgman	Shaughan Corless
JOB TYPE	JOB PURPOSE CODE		BDA	RIG
Zonal Isolation	SURFACE CASING 7521			West Triton

KEY PERFORMANCE INDICATORS

TYPE OF JOB (Cementing or Non-Cementing):

Cementing

Select the job type (Cementing or Non-Cementing)

TOTAL OPERATING TIME (hrs)

12.0 hrs

Rig up/ Pumping/ Rig Down

HSE INCIDENT, ACCIDENT, INJURY:

NO

This should be recordable incidents only

WAS THE JOB DELIVERED CORRECTLY AS PER JOB DESIGN:

YES

This will be dictated by the customer

TOTAL TIME PUMPING (hrs)

3.0 hrs

Total number of hours pumping fluid on this job

NON -PRODUCTIVE RIG TIME:

As a result of Halliburton cementing PSL

NUMBER OF JSA'S PERFORMED:

1

NUMBER OF UNPLANNED SHUTDOWNS (After starting to pump)

TYPE OF RIG(CLASSIFICATION) JOB WAS PERFORMED ON:

JACKUP

REASON FOR UNPLANNED SHUTDOWNS (After starting to pump)

Add details in job logs

REASON FOR NON-PRODUCTIVE RIG TIME (Cementing PSL responsibility):

Add details in job logs

WAS THIS A PRIMARY CEMENT JOB (YES / NO)

YES

Primary cement job = Casing job, Liner Job, tie back

DID WE RUN WIPER PLUGS?

None

WAS THIS A PLUG OR SQUEEZE JOB?

Neither

WAS THIS A PRIMARY OR REMEDIAL JOB?

Primary

Remedial = Repeated attempts or corrections of initial cement job

MIXING DENSITY OF JOB STAYED IN DESIGNED RANGE

95%

Density defined as +/- 0.2ppg. Calculation: Total bbls cement mixed at designed

density divided by total bbls of cement multiplied by 100

WAS AUTOMATED DENSITY CONTROL USED

YES

JOB WAS PUMPED AT DESIGNED PUMP RATE

100%

Pump rate ranged defined as +/- bpm. Calculation: total bbls of fluid pumped at

the designed rate divided by total bbls of fluid pumped multiplied by 100

NUMBER OF REMEDIAL SQUEEZE JOBS REQUIRED - HES

Number of remedial squeeze jobs required after primary job performed by HES

NUMBER OF REMEDIAL SQUEEZE JOBS REQUIRED - COMPETITION

Number of remedial squeeze jobs required after primary job performed by competition

NUMBER OF REMEDIAL PLUG JOBS REQUIRED - HES

Number of remedial plug jobs required after primary plug pumped by HES

EJCS / CUSTOMER COMMENTS

Dear Customer,

We hope you were happy with the service quality of this job performed by Halliburton. It is the aim of our management and service personnel to deliver equipment and services of a standard unmatched in the service sector of the energy industry

Please take the time to let us know if our performance met your expectations. Please be as critical as possible to ensure we constantly improve our service. Your comments are of great value to us and are intended for the exclusive use of

Did our personnel perform the job to your satisfaction?

Did our equipment perform the job to your satisfaction?

Did we perform the job to the agreed upon design?

Did our products and materials perform as you expected?

Did we perform in a safe & careful manner? PPE, Pre/Post mtgs, JSA

Did we perform in an environmentally sound manner? Spills, discharges, clean up

Was the job performed as scheduled? On time, as designed/discussed

Did the equipment condition & appearance meet your expectations?

How well did our personnel communicate during mobilisation, rig up and job execution

Overall, I was satisfied with Halliburton's job performance

Customer Comments? (What can we do to improve/maintain our services?)

Please indicate your response by placing a tick in the box underneath the rating that best matches your opinion.

Standards	Performance (Establish new quality performance)	Exceeded Expectations (Provided more than what was expected)	Met expectations (Did what was expected)	Below expectations (Did not do what was expected, recovery made) Create CPI	Poor (Job problems / failures occurred) Create CPI
5	4	3	2	1	

YES NO

Customer Signature:

Date:

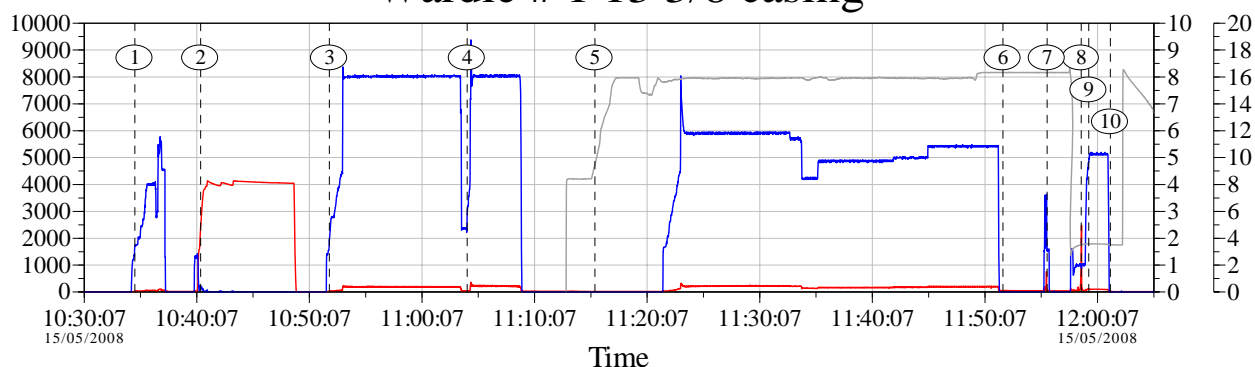
HALLIBURTON				CUSTOMER	SALES ORDER No.	DATE
				3D Oil		15 May 2008
CEMENT/PUMPING JOB SUMMARY						
WELL	LOCATION/FIELD NAME	COUNTRY	HES REP	CUSTOMER REP	WELL TYPE	
Wardie -1	Bass Strait	Australia	Robert Bridgman	Shaughan Corless	Exploration	
JOB TYPE	JOB PURPOSE CODE		BDA		RIG	
Zonal Isolation	SURFACE CASING 7521				West Triton	
PERSONELL						
PERSONNEL / EXPOSURE		hrs	PERSONNEL / EXPOSURE		hrs	PERSONNEL / EXPOSURE
386793 Robert Bridgman		12	126997 Nigel Lucas		12	
EQUIPMENT						
SAP#	PUMPING / MIXING		HOURS	SAP#	BULK SUPPLY / TANKS	
10951913	SKD ADVANTAGE 25D22 - WEST TRITON		12			
FLOAT EQUIPMENT AND CASING EQUIPMENT						
SAP#	FLOAT EQUIPMENT		QTY	SAP#	PLUGS	
	13 3/8 NR Buttress Float Collar		1			
	13 3/8 Buttress Float shoe		1			
WELL PROFILE						
NEW CASING			OPEN HOLE + EXCESS OR CALIPER DATA		PREVIOUS CASINGS	
Tapered Casing , SSR, m shoe track						
13.375in 68ppf N80 Butt : 23m to 747.06m MD, m TVD					30"x20" in, 309.7ppf, 18.88m to 132.87m	
CEMENT DESIGN						
Tuned Spacer E+				Single		
DENSITY	11.0ppg	WATER	0.00gal/sk	DENSITY	15.9ppg	WATER
YIELD	0.00cuft/ft	MIX FLUID	0.00gal/sk	YIELD	1.16cuft/ft	MIX FLUID
WATER SOURCE				WATER SOURCE		WATER SOURCE
CEMENT TYPE at lb/sk				CEMENT TYPE ABC Class 'G' at 94lb/sk		CEMENT TYPE at lb/sk
Total Cement Used sks				Total Cement Used 726sks		Total Cement Used MT
Estimated TOC m				Estimated TOC 432m		Estimated TOC m
Additive	Concentration	Total Used		Additive	Concentration	Total Used
END OF JOB DETAILS						

4.2.2 JOB LOGS

[illegible]

4.2.3 Pumping Chart

Wardie # 1 13 3/8 casing



①	Pump 10 BBL sea water	10:34:37
②	Pressure test Line 4000 PSI	10:40:27
③	Pump 90 BBL sea water	10:51:54
④	Pump 30 BBL tune spacer	11:04:08
⑤	Mix and pump Cement 150 BBL @ 15.9ppg	11:15:28
⑥	Release Top dart	11:51:43
⑦	Pump Dart away with 1.5 BBL sea water	11:55:38
⑧	Plug Land and shear top plug	11:58:40
⑨	Displace with 10 BBL sea water	11:59:20
⑩	switch to rig Pumps and displace with 340 BBL of sea water	12:01:15

Customer: 3 D Oil	Job Date: 15/5/08
Well Description: Wardie # 1	Job: 13 3/8 Casing

TG Version G3.4.1
15-May-08 15:53

4.3 P&A Plugs

4.3.1 *Summary*

HALLIBURTON		CUSTOMER	SALES ORDER No.	DATE	
		3D Oil		21 May 2008	
CEMENT/PUMPING JOB SUMMARY					
WELL	LOCATION/FIELD NAME	COUNTRY	HES REP	CUSTOMER REP	WELL TYPE
Wardie # 1	Bass Strait	Australia	Anthony Kelly	S. Schmidt	Exploration
JOB TYPE		JOB PURPOSE CODE		BDA	RIG
P&A Plugs		PLUG TO ABANDON 7528		Perth	West Triton
KEY PERFORMANCE INDICATORS					

TYPE OF JOB (Cementing or Non-Cementing):	Cementing	WAS THIS A PRIMARY CEMENT JOB (YES / NO)	YES
Select the job type (Cementing or Non-Cementing)		Primary cement job = Casing job, Liner Job, tie back	
TOTAL OPERATING TIME (hrs)	48.0 hrs	DID WE RUN WIPER PLUGS?	None
Rig up/ Pumping/ Rig Down			
HSE INCIDENT, ACCIDENT, INJURY:	NO	WAS THIS A PLUG OR SQUEEZE JOB?	Plug Job
This should be recordable incidents only			
WAS THE JOB DELIVERED CORRECTLY AS PERJOB DESIGN'	YES	WAS THIS A PRIMARY OR REMEDIAL JOB?	Primary
This will be dictated by the customer		Remedial = Repeated attempts or corrections of initial cement job	
TOTAL TIME PUMPING (hrs)	12.0 hrs	MIXING DENSITY OF JOB STAYED IN DESIGNED RANGE	99%
Total number of hours pumping fluid on this job		Density defined as +/- 0.2ppg. Calculation: Total bbls cement mixed at designed density divided by total bbls of cement multiplied by 100	
NON -PRODUCTIVE RIG TIME:	nil	WAS AUTOMATED DENSITY CONTROL USED	YES
As a result of Halliburton cementing PSL			
NUMBER OF JSA'S PERFORMED:	5	JOB WAS PUMPED AT DESIGNED PUMP RATE	yes
		Pump rate ranged defined as +/- bpm. Calculation : total bbls of fluid pumped at the designed rate divided by total bbls of fluid pumped multiplied by 100	
NUMBER OF UNPLANNED SHUTDOWNS (After starting to pump)	nil	NUMBER OF REMEDIAL SQUEEZE JOBS REQUIRED - HES	nil
		Number of remedial squeeze jobs required after primary job performed by HES	
TYPE OF RIG(CLASSIFICATION) JOB WAS PERFORMED ON:	JACKUP	NUMBER OF REMEDIAL AQEEZE JOBS REQUIRED - COMPETITION	nil
		Number of remedial squeeze jobs required after primary job performed by competition	
<u>REASON FOR UNPLANNED SHUTDOWNS (After starting to pump)</u>		NUMBER OF REMEDIAL PLUG JOBS REQUIRED - HES	nil
Add details in job logs		Number of remedial plug jobs required after primary plug pumped by HES	
<u>REASON FOR NON-PRODUCTIVE RIG TIME (Cementing PSL responsibility):</u>			
Add details in job logs			

Poor / Job problems / failures occurred	Create CPI	Below expectations (Did not do what was expected; recovery made)	Create CPI	Met expectations (Did what was expected)	Exceeded Expectations (Provided more than what was expected)	Superior Performance (Establish new quality performance standards)
	1	2	3	4	5	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did our personnel perform the job to your satisfaction?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did our equipment perform the job to your satisfaction?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did we perform the job to the agreed upon design?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did our products and materials perform as you expected?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did we perform in a safe & careful manner? PPE, Pre/Post mtgs, JSA
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did we perform in an environmentally sound manner? Spills, discharges, clean up
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Was the job performed as scheduled? On time, as designed/discussed
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did the equipment condition & appearance meet your expectations?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	How well did our personnel communicate during mobilisation, rig up and job execution

YES NO

Overall, I was satisfied with Halliburton's job performance.

Customer Comments? (What can we do to improve/maintain our services?)

All cement plugs jobs were carried out safely and without equipment failure.
Good work by crew.
Good input/info safety!!

Customer Signature: _____ Date: 23/5/08.

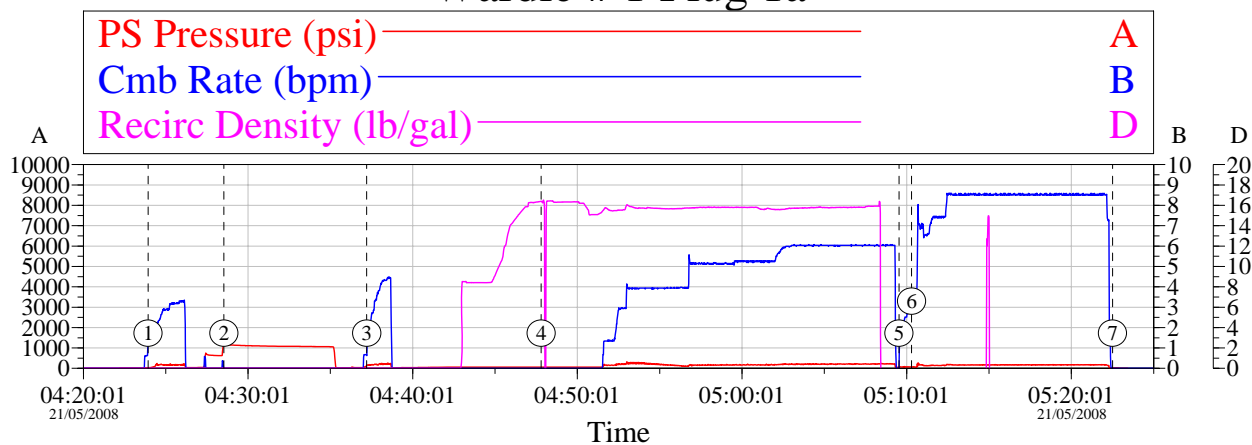
HALLIBURTON				CUSTOMER	SALES ORDER No.	DATE					
				3D Oil		21 May 2008					
CEMENT/PUMPING JOB SUMMARY											
WELL	LOCATION/FIELD NAME	COUNTRY	HES REP	CUSTOMER REP	WELL TYPE						
Wardie # 1	Bass Strait	Australia	Anthony Kelly	S. Schmidt	Exploration						
JOB TYPE	JOB PURPOSE CODE			BDA	RIG						
P&A Plugs	PLUG TO ABANDON 7528			Perth	West Triton						
PERSONNEL											
PERSONNEL / EXPOSURE		hrs	PERSONNEL / EXPOSURE		hrs	PERSONNEL / EXPOSURE					
331198 Anthony Kelly		48	126997 Nigel Lucas		48						
EQUIPMENT											
SAP#	PUMPING / MIXING			HOURS	SAP#	BULK SUPPLY / TANKS					
10951913	SKD ADVANTAGE 25DZ2 - WEST TRITAN										
WELL PROFILE											
NEW CASING			OPEN HOLE + EXCESS OR CALIPER DATA		PREVIOUS CASINGS						
					13.375in, 68ppf, 0m to 749m						
CEMENT DESIGN											
Single			Single			Single					
DENSITY	15.8ppg	WATER	4.70gal/sk	DENSITY	15.8ppg	WATER	4.70gal/sk	DENSITY	15.9ppg	WATER	4.70gal/sk
YIELD	1.16cuft/ft	MIX FLUID	5.16gal/sk	YIELD	1.16cuft/ft	MIX FLUID	5.12gal/sk	YIELD	1.16cuft/ft	MIX FLUID	5.12gal/sk
WATER SOURCE			Drillwater	WATER SOURCE			Drillwater	WATER SOURCE			Drillwater
CEMENT TYPE			ABC Class 'G' at 94lb/sk	CEMENT TYPE			ABC Class 'G' at 94lb/sk	CEMENT TYPE			ABC Class 'G' at 94lb/sk
Total Cement Used			411sks	Total Cement Used			320sks	Total Cement Used			290sks
Estimated TOC			1616m	Estimated TOC			1516m	Estimated TOC			700m
Additive	Concentration	Total Used		Additive	Concentration	Total Used		Additive	Concentration	Total Used	
CFR-3L	3gal gal/10bbl	15		CFR-3L	3 gal/10bbl	12gals		CFR-3L	3 gal/10bbl	12gals	
SCR-100L	2 gal/10bbl	10		SCR-100L	2 gal/10bbl	8gals		HR-6L	2 gal/10bbl	8gals	
NF-6L	0.02 gal/10bbl	1		NF-6L	0.02 gal/10bbl	1gals		NF-6L	0.02 gal/10bbl	1gals	
Single				0				0			
DENSITY	15.9ppg	WATER	5.16gal/sk	DENSITY	0.0ppg	WATER	0.00gal/sk	DENSITY	0.0ppg	WATER	0.00gal/sk
YIELD	1.16cuft/ft	MIX FLUID	5.16gal/sk	YIELD	0.00cuft/ft	MIX FLUID	0.00gal/sk	YIELD	0.00cuft/ft	MIX FLUID	0.00gal/sk
WATER SOURCE			Seawater	WATER SOURCE				WATER SOURCE			
CEMENT TYPE			ABC Class 'G' at 94lb/sk	CEMENT TYPE			at lb/sk	CEMENT TYPE			at lb/sk
Total Cement Used			19MT	Total Cement Used			MT	Total Cement Used			MT
Estimated TOC			95m	Estimated TOC			m	Estimated TOC			m
Additive	Concentration	Total Used		Additive	Concentration	Total Used		Additive	Concentration	Total Used	
Calcium Chloride	0.5 %BWOC	150lbs									
END OF JOB DETAILS											

4.3.2 JOB LOGS

HALLIBURTON				CUSTOMER		SALES ORDER No.		DATE			
				3D Oil				21 May 2008			
CEMENT/PUMPING JOB SUMMARY											
WELL		LOCATION/FIELD NAME		COUNTRY		HES REP		CUSTOMER REP		WELL TYPE	
Exploration		Bass Strait		Australia		Anthony Kelly		S. Schmidt		Exploration	
JOB TYPE				JOB PURPOSE CODE				BDA		RIG	
P&A Plugs				PLUG TO ABANDON 7528				Perth		West Triton	
JOB LOGS											
DATE	TIME	VOLUME	PRESSURE (psi)		RATE	JOB DESCRIPTION					
DAY-MTH-YR	HRS:MIN	BBLS	HIGH	LOW	BPM	REMARKS/DETAILS					
21/05/2008	4:00					JSA Safety Meeting					
Plug 1a	4:23	6		27	4	Pump 6 BBl Drill Water					
	4:28	0.02	1232		0.25	Pressure Test Lines					
	4:37	5		143	4	Pump 5 BBls Drill Water					
	4:47	85		60	6	Mix and pump 85 bbls 15.8 ppg slurry					
	5:09	2		53	4	Pump 2 BBls Drill Water					
	5:10	98		67	8.5	Displace with 98 BBls Mud					
	5:22					End Job					
Plug 1b	7:00					JSA Safety Meeting					
	7:13	6		31	4	Pump 6 BBls Drill Water					
	7:16		849		0.25	Pressure Test Lines					
	7:21	5		123	4	Pump 5 BBls Drill Water					
	7:28	66		46	6	Mix and pump 66 bbls 15.8 ppg slurry					
	7:43	2		82		Pump 2 BBls Drill Water					
	7:44	90		180	10	Displace with 90 BBls Mud					
	7:53					End Job					
						Tag Top of plug 1b, 1407mts , (high) 5k tag					
Plug # 2	19:03	6		40	4	Pump 6 bbls Sea Water					
	19:07		1045			Pressure Test Lines					
	19:12	6		159	4	Pump 6 bbls Sea Water					
	19:20	58		53	5	Pump 58 bbls 15.9 ppg slurry					
	19:38	2		51		Pump 2 bbls Sea Water					
	19:39	37		66	9.5	Displace 37 bbls Mud					
	19:43					End Displace and check flow back					
22-May-08	2:15		1000			Pressure test Plug 2 1000 psi,					
23-May-08	2:25	5		55	4	Pump 5 bbls Sea Water					
	2:28	0.02	500			Pressure Test Lines					
	2:33	10		78	7	Pump 10 bbls Sea Water					
	2:40	93		120	7	Mix and Pump 93 bbls 15.9 ppg Slurry					
	2:57	6		150	6	Displace with 6 bbls Sea Water					
						Materials used for P & A of Wardie #1					
						Cement Class "G" 63 MT					
						CFR -3L 40 Gallons, (Friction reducer)					
						SCR-100L, 20 Gallons, (Retarder)					
						HR -6L- 10 Gallons, (Retarder)					
						NF-6L- 5 Gallons, (DE foamer)					

4.3.3 PUMPING CHARTS

Wardie # 1 Plug 1a

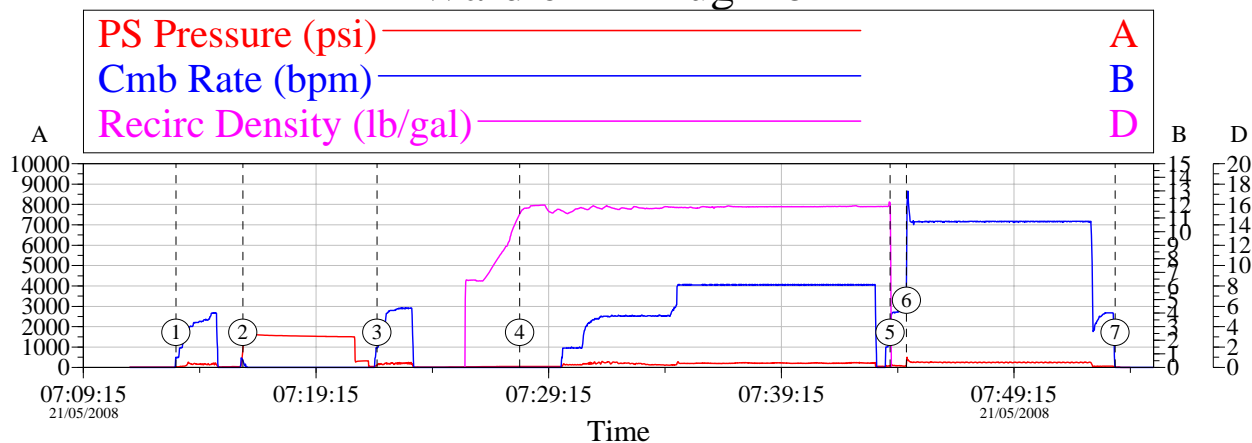


Event Log			
	Intersection	PP	RD
①	Pump 6 BBL drill water	04:23:57	27.51 0.021
②	Pressure Test lines 1200	04:28:33	1232 0.019
③	Pump 5 BBL Drill water	04:37:14	143.6 0.020
④	Mix and pump 85 BBL cement @ 15.8 ppg	04:47:49	60.08 16.38
⑤	Pump 2 BBL drill water	05:09:33	53.39 -0.223
⑥	Displace with 98 BBL drill mud	05:10:19	67.92 -0.224
⑦	End displacing and check flow back	05:22:31	17.54 -0.224

Customer: ADA	Job Date: 21/5/08
Well Description: Wardie # 1	Job: Plug 1a

TG Version G3.4.1
21-May-08 10:11

Wardie # 1 Plug 1 b

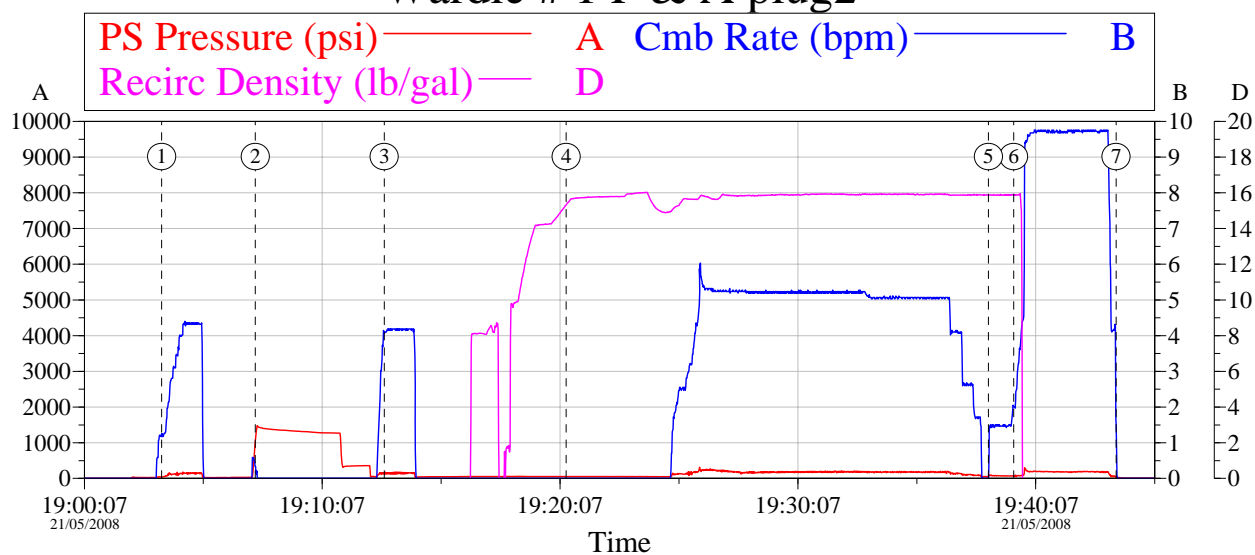


Event Log		PP	C	RD
Intersection				
①	Pump 6 BBls Drill water	07:13:14	31.52	0.016 -0.223
②	Pressure Test Lines	07:16:06	849.1	5.271 -0.223
③	Pump 5 BBls Drill Water	07:21:52	123.2	5.409 -0.226
④	Mix and Pump 66 BBls at 15.8ppg	07:28:00	46.63	0.000 15.05
⑤	Pump 2 BBls Drill water	07:43:55	82.37	0.382 16.18
⑥	Displace with 90 BBls Drilling Mud	07:44:38	180.9	0.933 -0.298
⑦	Open 1" Lo-torq and Check for flow back	07:53:36	18.44	90.27 -0.300

Customer: ADA	Job Date: 21/5/08
Well Description: Wardie # 1	Job: PLug 1b

TG Version G3.4.1
23-May-08 05:15

Wardie # 1 P & A plug2

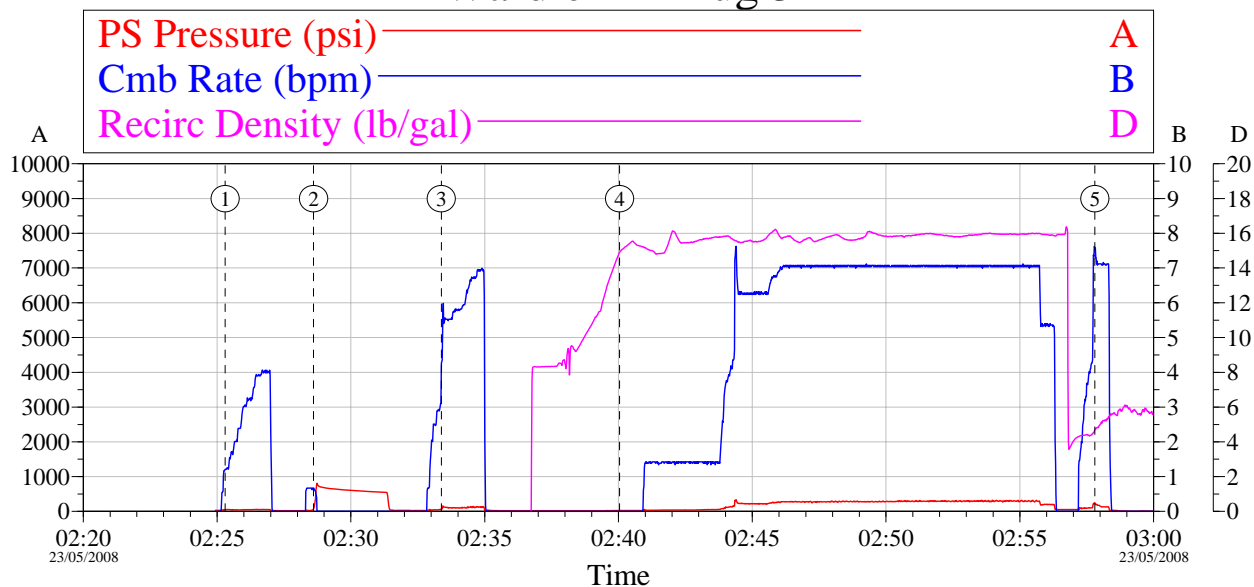


Event Log					
Intersection		PP	RD	Intersection	PP RD
① Pump 6 bbls of Sea Water	19:03:22	40.18	-0.300	② Pressure Test Lines	19:07:18 1045 -0.299
③ Pump 6 bbls of Sea Water	19:12:44	159.4	-0.298	④ Mix and Pupm 58 bbls 15.9 ppg Slurry	19:20:23 53.67 15.32
⑤ Pump 2 bbls Sea Water	19:38:08	51.97	15.87	⑥ Displace 37 bbls Mud	19:39:11 66.55 15.89
⑦ End Displace and Check floats	19:43:30	23.20	-0.298		

Customer: ADA	Job Date: 21/5/08
Well Description: Wardie # 1	Job: Plug 2

 TG Version G3.4.1
 23-May-08 05:18

Wardie # 1 Plug 3



Event Log			
Intersection	PP	Intersection	PP
① Pump 5 bbls Sea Water	02:25:18 55.58	② Pressure Test	02:28:36 71.37
③ Pump 10 bbls	02:33:23 78.21	④ Mix and Pump 93 bbls 15.9ppg Slurry	02:40:02 25.94
⑤ Displace with 6 bbls Sea Water	02:57:48 242.3		

Customer: ADA
Well Description: Wardie # 1

Job Date: 23/5/08
Job: plug #3

TG Version G3.4.1
23-May-08 05:13