HALLIBURTON

EXXONMOBIL CORPORATION

HOUSTON, Texas

PCU 296-6B8

H&P 215

Post Job Summary
Cement Multiple Stages

Date Prepared: September 1, 2011
Version: 1

Service Supervisor: WILLIAMS, CAMERON

Submitted by: Charli A Brown

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Wellbore Geometry

Job Tubulars					MD		TVD		Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft	
Cement Stage Tool	Multiple Stage Cementer		.000		1,704.00	1,704.00			0.00
Open Hole Section	Surface Open Hole		14.750		0.00	1,704.00	0.00	1,674.00	0.00
Open Hole Section	Surface Open Hole		14.750		1,704.00	4,555.00	1,674.00	4,366.00	0.00
Casing	Surface Casing	10.75	9.950	45.50	0.00	4,555.00	0.00	4,366.00	80.00

Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Density lbm/gal	Avg Rate bbl/min	Volume
1	Spacer	FreshWater Ahead	8.33	6.00	.0
2	Cement Slurry	First Stage Lead Cement	12.70	6.00	1200.0 sacks
3	Cement Slurry	First Stage Tail Cement	15.80	6.00	355.0 sacks
4	Spacer	Drilling Fluid / Mud	8.90	6.00	424.0 bbl
1	Spacer	Freshwater Ahead	8.33	5.00	20.0 bbl
2	Spacer	CC WATER	9.00	6.00	20.0 bbl
3	Spacer	Fresh Water Spacer	8.33	6.00	20.0 bbl
4	Spacer	Super Flush 101	10.00	6.00	40.0 bbl
5	Spacer	Fresh Wter Spacer	8.33	6.00	20.0 bbl
6	Cement Slurry	Second Stage Lead Cement	12.70	6.00	975.0 sacks
7	Spacer	Drilling Fluid / Mud	8.90	6.00	163.0 bbl
8	Cement Slurry	Top Out	15.80	2.00	400.0 sacks

Fluids Pumped

Stage/Plug # 1 **Fluid 1:** FreshWater Ahead
Fresh Water Flush

Fluid Density:	8.33 lbm/gal
Pump Rate:	6.00 bbl/min

Stage/Plug # 1 **Fluid 2:** First Stage Lead Cement
ECONOCEM (TM) SYSTEM

0.82 %	HR-7
0.25 lbm	Poly-E-Flake
0.12 %	HR-7

Fluid Weight:	12.70 lbm/gal
Slurry Yield:	1.87 ft3/sack
Total Mixing Fluid:	9.93 Gal
Volume:	1200.0 sacks
Calculated Fill:	2,351.00 ft
Calculated Top of Fluid:	1,704.00 ft
Pump Rate:	6.00 bbl/min

Stage/Plug # 1 **Fluid 3:** First Stage Tail Cement
HALCEM (TM) SYSTEM

0.08 %	HR-800
0.25 lbm	Poly-E-Flake

Fluid Weight:	15.80 lbm/gal
Slurry Yield:	1.15 ft3/sack
Total Mixing Fluid:	4.99 Gal
Volume:	355.0 sacks
Calculated Fill:	500.00 ft
Calculated Top of Fluid:	4,055.00 ft
Pump Rate:	6.00 bbl/min

Stage/Plug # 1 **Fluid 4:** Drilling Fluid / Mud
Drilling Mud

Fluid Density:	8.90 lbm/gal
Fluid Volume:	424.00 bbl
Pump Rate:	6.00 bbl/min

Stage/Plug # 2 **Fluid 1:** Freshwater Ahead
Fresh Water

Fluid Density:	8.33 lbm/gal
Fluid Volume:	20.00 bbl
Pump Rate:	5.00 bbl/min

Stage/Plug # 2 **Fluid 2:** CC WATER
Calcium Chloride Water

38.2 lbm/bbl	Calcium Chloride, Pellet

Fluid Density:	9.00 lbm/gal
Fluid Volume:	20.00 bbl
Pump Rate:	6.00 bbl/min

Stage/Plug # 2 **Fluid 3:** Fresh Water Spacer
Fresh Water

Fluid Density:	8.33 lbm/gal
Fluid Volume:	20.00 bbl
Pump Rate:	6.00 bbl/min

Stage/Plug # 2 **Fluid 4:** Super Flush 101
Super Flush 101

Fluid Density:	10.00 lbm/gal
Fluid Volume:	40.00 bbl
Pump Rate:	6.00 bbl/min

Stage/Plug # 2 **Fluid 5:** Fresh Water Spacer
Fresh Water

Fluid Density:	8.33 lbm/gal
Fluid Volume:	20.00 bbl
Pump Rate:	6.00 bbl/min

Stage/Plug # 2 **Fluid 6:** Second Stage Lead Cement

ECONOCEM (TM) SYSTEM

0.25 lbm	Poly-E-Flake
0.3 %	Versaset

Fluid Weight:	12.70 lbm/gal
Slurry Yield:	1.87 ft3/sack
Total Mixing Fluid:	9.96 Gal
Surface Volume:	975.0 sacks
Calculated Fill:	1,704.00 ft
Calculated Top of Fluid:	0.00 ft
Pump Rate:	6.00 bbl/min

Stage/Plug # 2 **Fluid 7:** Drilling Fluid / Mud

Drilling Fluid

Fluid Density:	8.90 lbm/gal
Fluid Volume:	163.00 bbl
Pump Rate:	6.00 bbl/min

Stage/Plug # 2 **Fluid 8:** Top Out

Top Out

94 lbm	Premium Cement
2 %	Calcium Chloride

Fluid Weight:	15.80 lbm/gal
Slurry Yield:	1.17 ft3/sack
Total Mixing Fluid:	5.02 Gal
Volume:	400.0 sacks
Sacks:	400.0 sacks
Pump Rate:	2.00 bbl/min

Job Summary

Job Information

Job Start Date	8/16/2011 2:55:00 AM
Job MD	4,555.0 ft
Mud Type	Water Based Mud
Actual Mud Density	9 lbm/gal
Did Plugs Bump?	Yes

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Service Supervisor Reports

Job Log

Date/Time	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
08/15/2011 18:00	Pre-Convoy Safety Meeting				
08/15/2011 19:00	Arrive At Loc				
08/15/2011 19:10	Safety Meeting - Assessment of Location				
08/15/2011 19:15	Rig-Up Equipment				
08/15/2011 19:30	Rig-Up Completed				
08/16/2011 00:15	Casing on Bottom				
08/16/2011 00:16	Circulate Well				
08/16/2011 02:40	Pre-Job Safety Meeting				
08/16/2011 02:55	Start Job				Start Stage 1
08/16/2011 02:57	Test Lines				
08/16/2011 03:05	Pump Water	5	50	230.0	
08/16/2011 03:14	Pump Lead Cement	6	400	260.0	
08/16/2011 04:00	Bump Plug				
08/16/2011 04:23	Pump Tail Cement	6	66.5	240.0	
08/16/2011 04:40	Shutdown				
08/16/2011 04:45	Drop Top Plug				
08/16/2011 04:46	Pump Displacement - Start	8	424	340.0	
08/16/2011 05:51	Bump Plug	3	424	1400.0	
08/16/2011 05:51	Shutdown			2000.0	
08/16/2011 05:55	Check Floats				2.5 bbls back
08/16/2011 11:15	Pre-Job Safety Meeting				
08/16/2011 11:31	Pump Water	5	20	220.0	Fresh Water Start Stage 2
08/16/2011 11:35	Pump Water	6	20	240.0	10% CC water
08/16/2011 11:39	Pump Water	6	20	240.0	Fresh Water
08/16/2011 11:42	Pump Spacer	6	40	260.0	Superflush
08/16/2011 11:50	Pump Water	6	20	220.0	Fresh Water
08/16/2011 11:55	Pump Lead Cement	6	315	320.0	
08/16/2011 12:48	Shutdown				

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Date/Time	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
08/16/2011 12:52	Clean Lines				
08/16/2011 12:56	Drop Top Plug				
08/16/2011 12:59	Pump Displacement - Start	8	160	350.0	
08/16/2011 13:20	Bump Plug	4	160	500.0	
08/16/2011 13:20	Shutdown			2000.0	
08/16/2011 13:21	Check Floats				1.5 back
08/16/2011 13:23	Pressure Up	3		2400.0	1 bbl back
08/16/2011 13:24	Shutdown				
08/17/2011 04:32	Test Lines				
08/17/2011 04:36	Pump Water	1.2	25	1500.0	1st Top Out
08/17/2011 08:54	Pump Cement	1	20	1800.0	
08/17/2011 08:54	Pump Water	1	3	1400.0	
08/17/2011 08:54	Shutdown				
08/17/2011 09:38	Pump Water	2.5	28	2600.0	2nd Top Out
08/17/2011 09:48	Pump Cement	2	30	3500.0	
08/17/2011 10:04	Pump Water	1.8	2	3000.0	
08/17/2011 10:05	Shutdown				
08/17/2011 12:20	Pump Water	2	20	400.0	3rd Top Out
08/17/2011 12:32	Pump Cement	3	26	3000.0	
08/17/2011 12:41	Shutdown				
08/17/2011 12:41	Job Complete				
08/17/2011 13:10	Post-Job Safety Meeting (Pre Rig-Down)				
08/17/2011 13:15	Rig-Down Equipment				
08/17/2011 14:45	Rig-Down Completed				
08/17/2011 14:55	Safety Meeting - Departing Location				
08/17/2011 15:00	Crew Leave Location				

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The Road to Excellence Starts with Safety

Sold To #: 331699	**Ship To #:** 331699	**Quote #:**	**Sales Order #:** 8392945
Customer: EXXONMOBIL CORPORATION		**Customer Rep:** McGourty, Alex	
Well Name: PCU	**Well #:** 296-6B8		**API/UWI #:**
Field:	**City (SAP):** HOUSTON	**County/Parish:** Rio Blanco	**State:** Colorado
Contractor: H&P	**Rig/Platform Name/Num:** H&P 215		
Job Purpose: Cement Multiple Stages			
Well Type: Development Well	**Job Type:** Cement Multiple Stages		
Sales Person: MCNARY, GEORGE	**Srvc Supervisor:** WILLIAMS, CAMERON	**MBU ID Emp #:** 438405	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BEREECE, TERRY Lee	43	222819	HERNANDEZ, AARON Matthew	43	489820	HUNTER, SAMUEL David	43	479669
THOMAS, STEPHEN Troy	43	490352	WEYERMAN, JEREMY Todd	19	477287	WHITE, KAMEREON V	43	475856
WILLIAMS, CAMERON Kent	43	438405						

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*
10829454	90 mile	10897817	90 mile	10948685	90 mile	10973575	90 mile
10994445	90 mile	10994447	90 mile	11024385	90 mile	11139326	90 mile

Job Hours

Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours
Aug 15	5	5	Aug 16	24	12	Aug 17	15	10
TOTAL		*Total is the sum of each column separately*						

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	4555. ft	**Job Depth TVD**			
Water Depth		**Wk Ht Above Floor**			
Perforation Depth (MD)	*From*		**To**		

Job Times

	Date	Time	Time Zone
Called Out	15 - Aug - 2011	00:00	MST
On Location	15 - Aug - 2011	00:00	MST
Job Started	16 - Aug - 2011	02:55	MST
Job Completed	17 - Aug - 2011	12:45	MST
Departed Loc	17 - Aug - 2011	15:00	MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Multiple Stage Cementer	Used			.				1704.	1704.		
Surface Open Hole				14.75				.	1704.	.	1674.
Surface Open Hole				14.75				1704.	4555.	1674.	4366.
Surface Casing	Unknown		10.75	9.95	45.5	BTC	J-55	.	4555.	.	4366.

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					**Packer**					**Top Plug**			

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Float Shoe					**Bridge Plug**					**Bottom Plug**				
Float Collar					**Retainer**					**SSR plug set**				
Insert Float										**Plug Container**				
Stage Tool										**Centralizers**				

Miscellaneous Materials														
Gelling Agt		**Conc**		**Surfactant**		**Conc**		**Acid Type**		**Qty**		*Conc*	*%*	
Treatment Fld		**Conc**		*Inhibitor*		**Conc**		**Sand Type**		*Size*		*Qty*		

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	**FreshWater Ahead**			**bbl**	**8.33**	**.0**	**.0**	**6.0**	
2	**First Stage Lead Cement**	**ECONOCEM (TM) SYSTEM (452992)**	**1200.0**	**sacks**	**12.7**	**1.87**	**9.93**	**6.0**	**9.93**
0.82 %		HR-7 (100005055)							
0.25 lbm		POLY-E-FLAKE (101216940)							
0.12 %		HR-7 (100005055)							
9.93 Gal		FRESH WATER							
3	**First Stage Tail Cement**	**HALCEM (TM) SYSTEM (452986)**	**355.0**	**sacks**	**15.8**	**1.15**	**4.99**	**6.0**	**4.99**
0.08 %		HR-800, 50 LB SACK (101619742)							
0.25 lbm		POLY-E-FLAKE (101216940)							
4.99 Gal		FRESH WATER							
4	**Drilling Fluid / Mud**		**424.00**	**bbl**	**8.9**	**.0**	**.0**	**6.0**	

Stage/Plug #: 2

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
1	**Freshwater Ahead**		**20.00**	**bbl**	**8.33**	**.0**	**.0**	**6.0**	
2	**CC WATER**		**20.00**	**bbl**	**9.**	**.0**	**.0**	**.0**	
38.2 lbm/bbl		CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
3	**Fresh Water Spacer**		**20.00**	**bbl**	**8.33**	**.0**	**.0**	**.0**	
4	**Super Flush 101**		**40.00**	**bbl**	**10.**	**.0**	**.0**	**.0**	
5	**Fresh Wter Spacer**		**20.00**	**bbl**	**8.33**	**.0**	**.0**	**.0**	
6	**Second Stage Lead Cement**	**ECONOCEM (TM) SYSTEM (452992)**	**975.0**	**sacks**	**12.7**	**1.87**	**9.96**	**6.0**	**9.96**
0.25 lbm		POLY-E-FLAKE (101216940)							
0.3 %		VERSASET, 55 LB SK (101376573)							
9.96 Gal		FRESH WATER							
7	**Drilling Fluid / Mud**		**163.00**	**bbl**	**8.9**	**.0**	**.0**	**6.0**	
8	**Top Out**	**CMT - PREMIUM - CLASS G, 94 LB SK (100003685)**	**400.0**	**sacks**	**15.8**	**1.17**	**5.02**	**2.0**	**5.02**
94 lbm		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
2 %		CALCIUM CHLORIDE - HI TEST PELLET (100005053)							
5.02 Gal		FRESH WATER							

Calculated Values	Pressures	Volumes

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Displacement		**Shut In: Instant**		**Lost Returns**		*Cement Slurry*		**Pad**	
Top Of Cement		**5 Min**		**Cement Returns**		**Actual Displacement**		**Treatment**	
Frac Gradient		**15 Min**		**Spacers**		**Load and Breakdown**		**Total Job**	

Rates

Circulating		*Mixing*		*Displacement*		**Avg. Job**									
Cement Left In Pipe	**Amount**	***80 ft***	*Reason*	***Shoe Joint***											
Frac Ring # 1 @		*ID*		*Frac ring # 2 @*		*ID*		*Frac Ring # 3 @*		*ID*		*Frac Ring # 4 @*		*ID*	

The Information Stated Herein Is Correct	***Customer Representative Signature***

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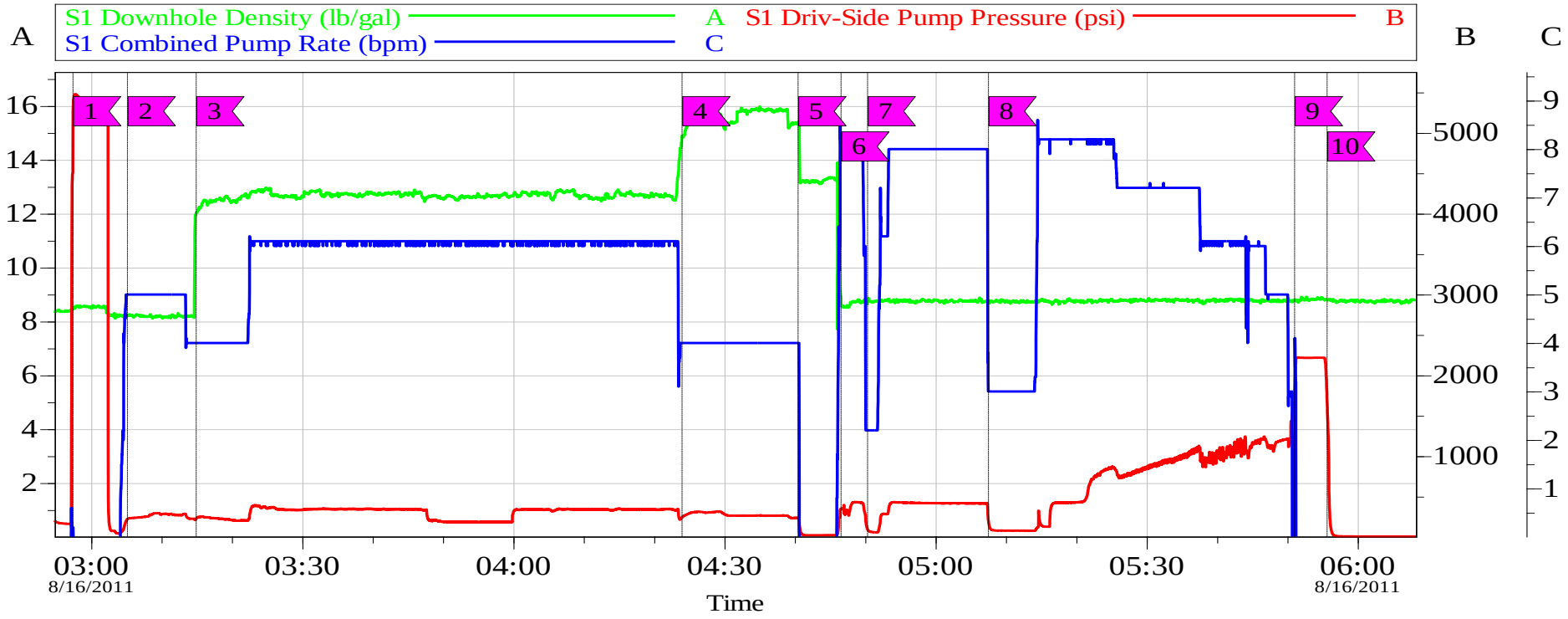
Data Acquisition

Exxon 215 Surface Stage 1



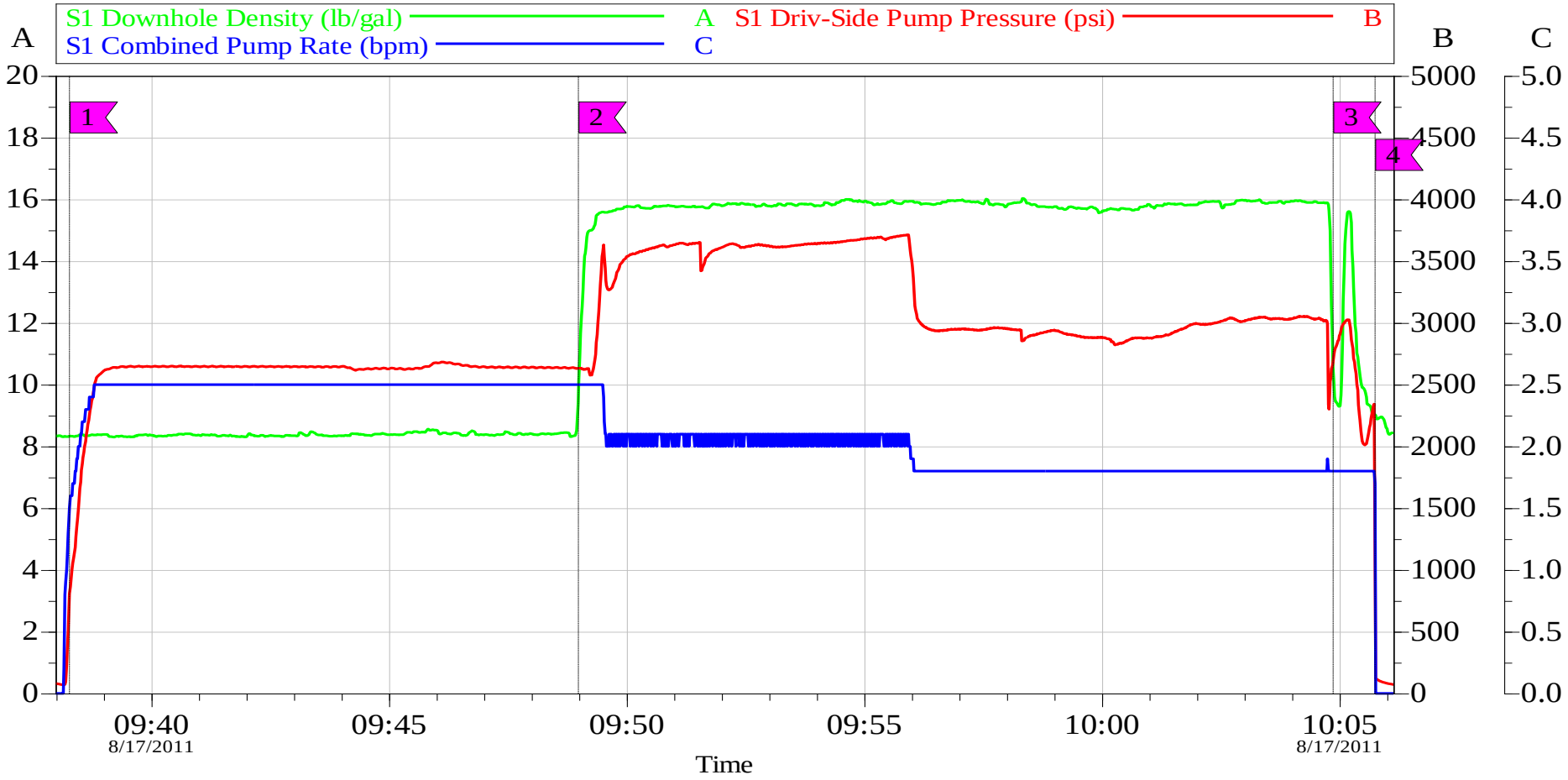
Local Event Log

1	Pressure Test	02:57:25	2	Start Water	03:05:10
3	Swap to Lead	03:14:56	4	Swap tp Tail	04:23:59
5	Shutdown	04:40:28	6	Start Displacement	04:46:34
7	Slow for mud	04:50:20	8	Slow to pump hru stage tool	05:07:31
9	Bumped Plug	05:51:02	10	Check Floats	05:55:38

Customer: Well Description:	Job Date: 16-Aug-2011 UWI:	Sales Order #: 8393945

OptiCem v6.4.9
16-Aug-11 06:48

Exxon 215 Surface Top Out 2



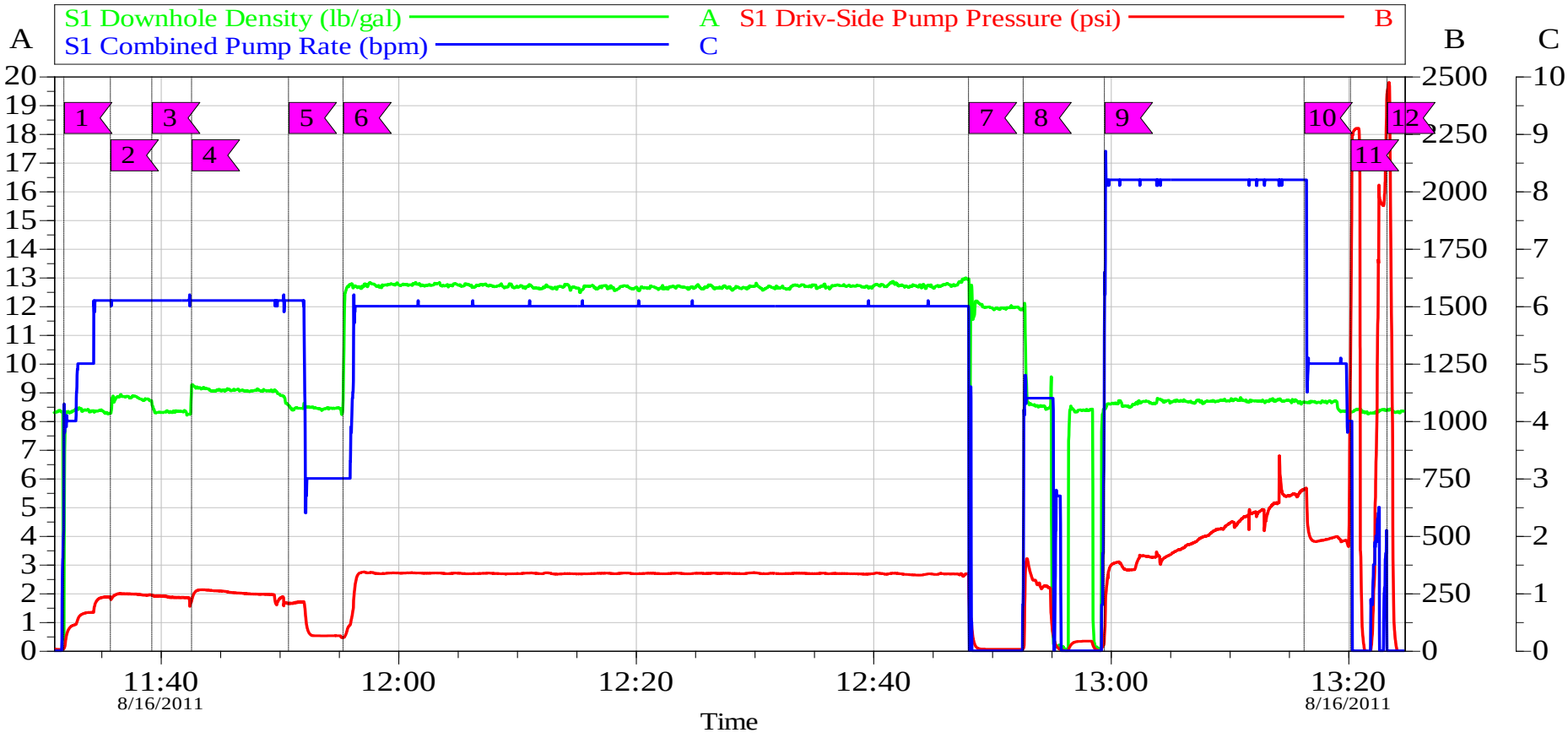
Local Event Log

1	Water 28 bbls	09:38:16	2	Cement 30	09:48:59
3	Water 2bbls	10:04:52	4	Shutdown	10:05:45

Customer: Well Description:	Job Date: 17-Aug-2011 UWI:	Sales Order #: 8382165

OptiCem v6.4.9
17-Aug-11 11:41

Exxon 215 Surface Top Out 3 Aug 17



Local Event Log

1	Water 20bbls	11:31:51	2	10% CC Water 20 bbls	11:35:46	3	Water 20 bbls	11:39:15
4	Superflush 40 bbls	11:42:36	5	Water 20 bbls	11:50:46	6	Lead Cement 315 bbls	11:55:21
7	Shutdown	12:48:02	8	Clean Lines	12:52:38	9	Start displacment	12:59:28
10	Slowed rate	13:16:17	11	Bumped Plug 160 bbls	13:20:11	12	Bumped Plug again	13:23:16

Customer: Well Description:	Job Date: 16-Aug-2011 UWI:	Sales Order #: 8382165

OptiCem v6.4.9
16-Aug-11 14:44

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Lab Data

LAB RESULTS - Lead

Cementing Rockies, Meeker

Job Information

Request/Slurry	168719/3	**Rig Name**	H&P 215	**Date**	12/AUG/2011
Submitted By	Craig Dube	**Job Type**	Surface Casing	**Bulk Plant**	Meeker
Customer	ExxonMobil	**Location**	Rio Blanco	**Well**	PCU 296-6B8

Well Information

Casing/Liner Size	10 3/4"	**Depth MD**	4555 ft	**BHST**	143 F
Hole Size	14 3/4"	**Depth TVD**	0 ft	**BHCT**	97 F

Cement Information - Lead Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.
		EconoCem			
35	%	> Boral Craig Pozmix	Bulk	Aug 13, 2011	
65	%	> Holcim Type V	Bulk	Aug 13, 2011	
100.00	% BWOC	Cement Blend			
5.000	lb/sk	Cal-Seal 60	Bulk	Aug 13, 2011	89050131
3.000	lb/sk	Silicalite - Compacted	Bulk	Aug 13, 2011	OG1801242
0.800	% BWOC	Econolite (Powder - PB)	Bulk	Aug 13, 2011	U050111
0.820	% BWOC	HR-7	Bulk	Aug 13, 2011	ND06X05S3JP
0.250	lb/sk	Pol-E-Flake	Bulk	Aug 13, 2011	07-29-11
10.01	gal/sack	Field (Fresh) Water	Lab	Apr 08, 2011	

Cement Properties

Slurry Density	12.70	PPG
Slurry Yield	1.88	ft3/sk
Water Requirement	10.01	GPS
Total Mix Fluid	10.01	GPS
Water Source	Field (Fresh) Water	
Water Chloride	N/A	ppm

Operation Test Results Request ID 168719/3

Thickening Time, Request Test ID:1686733, Historical Data

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)
97	2,633	60	6	03:48	03:48	05:18

Bc's deflected from 7 to 49 after first shutdown(Bc's settled at 15). Bc's witnessed to deflect from 25 to 60 before pin sheared after second shutdown.

Mixability (0 - 5) - 0 is not mixable, Request Test ID:1686735, Historical Data

Mixability rating (0 - 5)
5

API Rheology, Request Test ID:1686734, Historical Data

Temp (°F)	600	300	200	100	60	30	6	3	PV/YP
80	38	23	20	16	14	13	12	12	11 / 12.7

Additional Comments

1st Stage Lead

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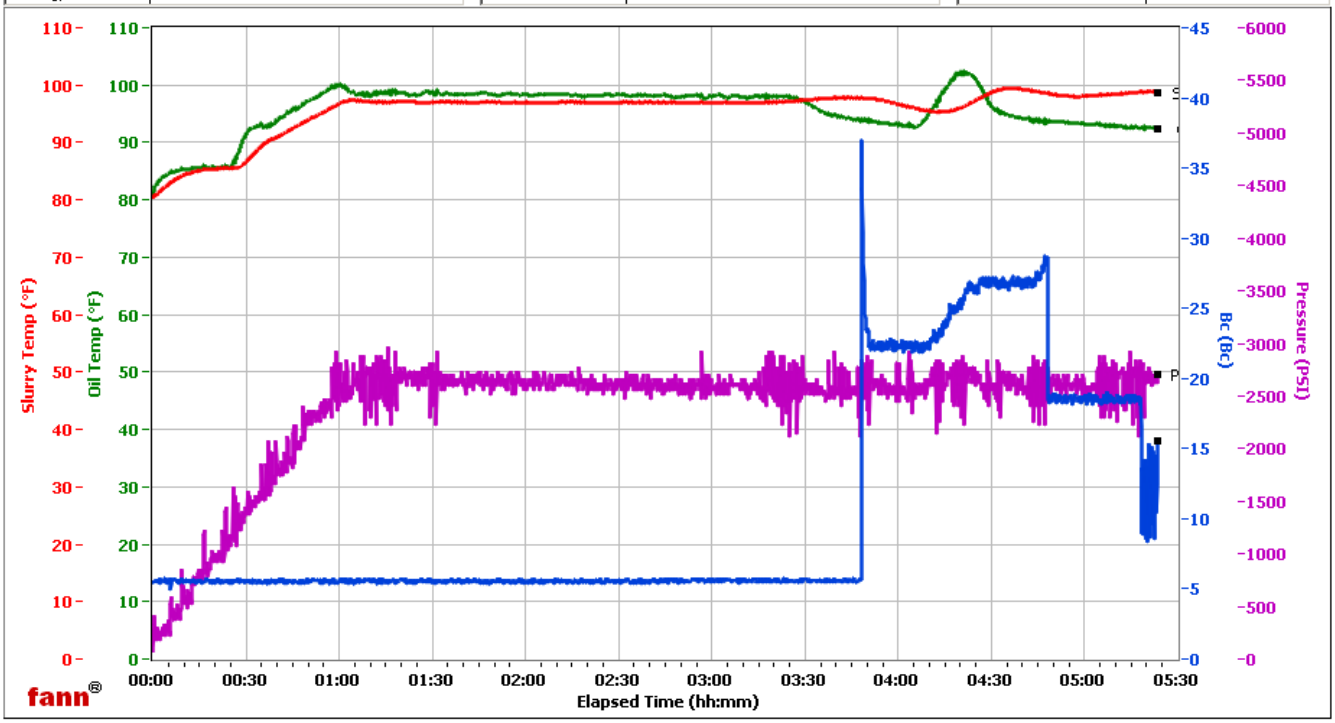
WRCR

Fields	Values
Project Name	ExxonMobil 168719-3A
Test ID	168719-3A
Request ID	HPHT 1
Tested by	ac
Customer	ExxonMobil
Well No	PCU 296-6B8
Rig	H&P 215
Casing/Liner Size	

Fields	Values
Job Type	Surf Lead (1st)
Cement Type	V/Poz
Cement Weight	Light Weight
Test Date	08/14/11
Test Time	05:28 AM
Temp. Units	degF
Pressure Units	PSI

Events	Results
30.00 Bc	03h:48m
40.00 Bc	NaN
50.00 Bc	NaN
70.00 Bc	NaN
100.00 Bc	NaN
200.00 Bc	NaN
03h:00m	5.52
06h:00m	NaN



Data File: O:\HPHT Data Files WRCR\WRCR Consistometer #1\ExxonMobil 168719-3A.tdms

Comments: 65/35% V/Poz, 0.820% HR-7, 1.88 Yield, 2.702 Den

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Cementing Rockies, Meeker

LAB RESULTS - Tail

Job Information

Request/Slurry	168720/2	**Rig Name**	H&P 215	**Date**	12/AUG/2011
Submitted By	Craig Dube	**Job Type**	Surface Casing	**Bulk Plant**	Meeker
Customer	ExxonMobil	**Location**	Rio Blanco	**Well**	PCU 296-6B8

Well Information

Casing/Liner Size	10 3/4"	**Depth MD**	4555 ft	**BHST**	143 F
Hole Size	14 3/4"	**Depth TVD**	0 ft	**BHCT**	97 F

Drilling Fluid Information

Mud Company	**Type**	**Density**	9.0 PPG	**PV/YP**

Cement Information - Tail Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.
		HalCem			
100.00	% BWOC	Mountain G	Bulk	Aug 13, 2011	
0.080	% BWOC	HR-800	Bulk	Aug 13, 2011	02241001
5.00	gal/sack	Field (Fresh) Water	Lab	Apr 08, 2011	04-08-11

Cement Properties

Slurry Density	15.80	PPG
Slurry Yield	1.15	ft3/sk
Water Requirement	5	GPS
Total Mix Fluid	5	GPS
Water Source	Field (Fresh) Water	
Water Chloride	N/A	ppm

Operation Test Results Request ID 168720/2

Thickening Time, Request Test ID:1687070, Historical Data

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
97	2,633	60	9	02:52	03:02	03:09	03:19	03:38

Mixability (0 - 5) - 0 is not mixable, Request Test ID:1687074, Historical Data

Mixability rating (0 - 5)
5

API Rheology, Request Test ID:1687073, Historical Data

Temp (°F)	600	300	200	100	60	30	6	3	PV/YP
80	91	50	40	28	24	20	14	10	37.2 / 15.1

Additional Comments

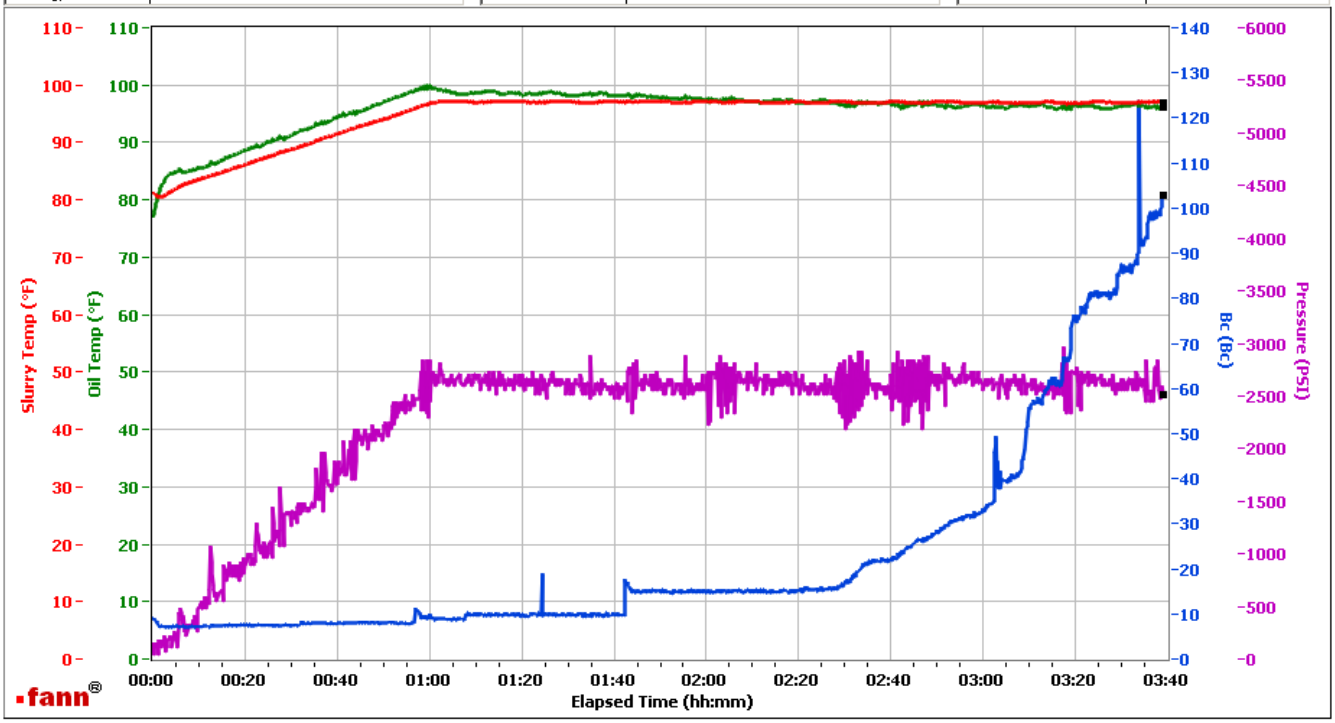
HALLIBURTON

WRCR

Fields	Values
Project Name	ExxonMobil 168720-2
Test ID	168720-2
Request ID	HPHT 1
Tested by	ac
Customer	ExxonMobil
Well No	PCU 296-6B8
Rig	H&P 215
Casing/Liner Size	

Fields	Values
Job Type	Surf Tail
Cement Type	G
Cement Weight	Standard
Test Date	08/13/11
Test Time	10:17 PM
Temp. Units	degF
Pressure Units	PSI

Events	Results
30.00 Bc	02h:52m
40.00 Bc	03h:02m
50.00 Bc	03h:09m
70.00 Bc	03h:19m
100.00 Bc	03h:38m
200.00 Bc	NaN
03h:00m	33.21
06h:00m	NaN



Data File: O:\HPHT Data Files WRCR\WRCR Consistometer #1\ExxonMobil 168720-2.tdms

Comments: 100% G, 0.80% HR-800, 1.15 Yield, 15.798 Den

HALLIBURTON

Cementing Rockies, Meeker

LAB RESULTS - Lead

Job Information

Request/Slurry	169063/1	**Rig Name**	H&P 215	**Date**	13/AUG/2011
Submitted By	Craig Dube	**Job Type**	Surface Casing	**Bulk Plant**	Meeker
Customer	ExxonMobil	**Location**	Rio Blanco	**Well**	PCU 296-6B8

Well Information

Casing/Liner Size	10 3/4"	**Depth MD**	1707 ft	**BHST**	107 F
Hole Size	14 3/4"	**Depth TVD**	1707 ft	**BHCT**	87 F

Drilling Fluid Information

Mud Company	**Type**	**Density**	9.0 PPG	**PV/YP**

Cement Information - Lead Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
						Slurry Density	12.70	PPG
		EconoCem				Slurry Yield	1.89	ft3/sk
35	%	> Boral Craig Pozmix	Lab	Jul 27, 2011		Water Requirement	10.08	GPS
65	%	> Holcim Type V	Lab	Aug 07, 2011		Total Mix Fluid	10.08	GPS
100.00	% BWOC	Cement Blend						
5.000	lb/sk	Cal-Seal 60	Lab	Aug 10, 2011	89050131			
3.000	lb/sk	Silicalite - Compacted	Lab	Jul 22, 2011	OG180124-2	Water Source	Field (Fresh) Water	
1.000	% BWOC	Econolite (Powder - PB)	Lab	Aug 10, 2011	U050111	Water Chloride	N/A	ppm
0.250	lb/sk	Pol-E-Flake						
10.08	gal/sack	Field (Fresh) Water	Lab	Apr 08, 2011				
0.300	% BWOC	VERSASET (PB)	Lab	Aug 10, 2011	11-4-2			

Pilot Test Results Request ID 169063/1

Thickening Time, Request Test ID:1687083, Historical Data

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	40 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
87	1,054	42	8	03:00	03:00	03:30	03:30	03:56

S.D. 1 Bc's deflected from 11 to 45. S.D. 2 Bc's deflected from 28 to 105, and fell to 55. S.D. 3, Bc's deflected from 34 to 112.

Mixability (0 - 5) - 0 is not mixable, Request Test ID:1687085, Historical Data

Mixability rating (0 - 5)
5

API Rheology, Request Test ID:1687084, Historical Data

Temp (°F)	600	300	200	100	60	30	6	3	PV/YP
80	72	52	49	45	42	40	29	22	24 / 33.8

Additional Comments

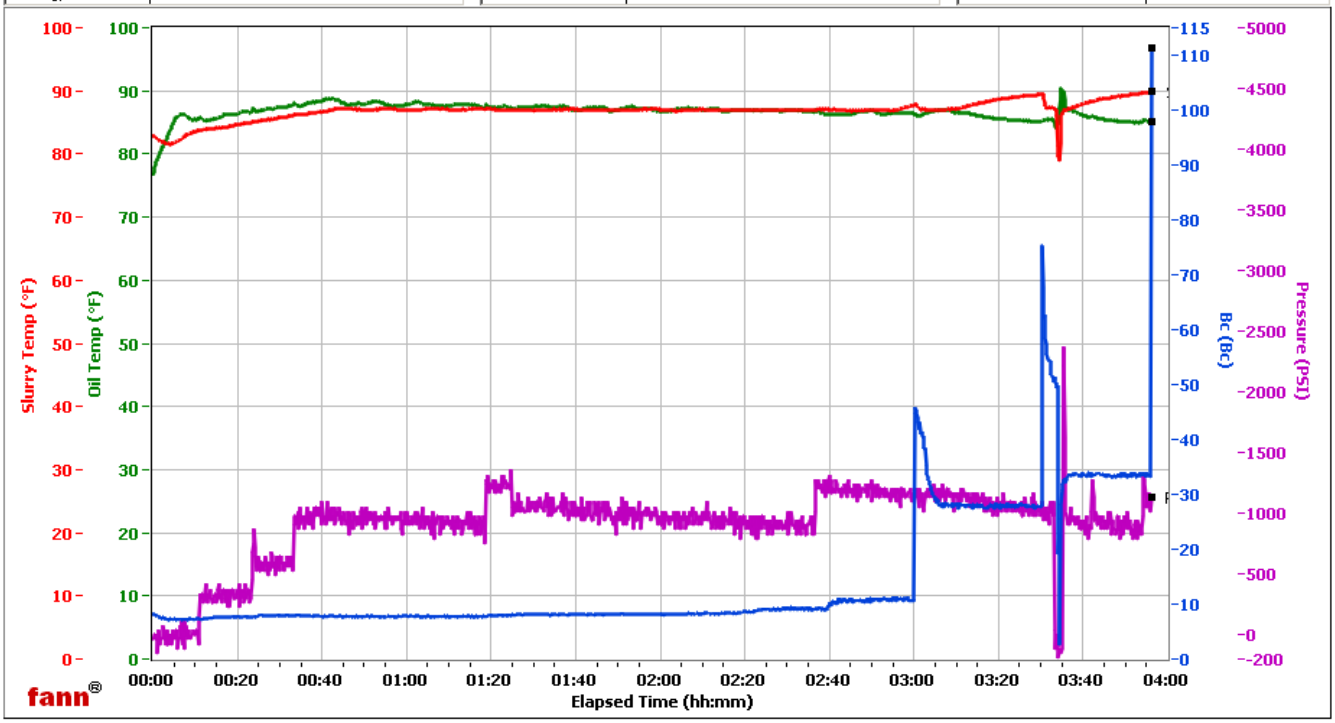
HALLIBURTON

WRCR

Fields	Values
Project Name	ExxonMobil 169063-1
Test ID	169063-1
Request ID	HPHT 3
Tested by	ac
Customer	ExxonMobil
Well No	PCU 296-6B8
Rig	H&P 215
Casing/Liner Size	

Fields	Values
Job Type	Surf Lead 2nd
Cement Type	V/Poz
Cement Weight	Light Weight
Test Date	08/13/11
Test Time	09:28 PM
Temp. Units	degF
Pressure Units	PSI

Events	Results
30.00 Bc	03h:00m
40.00 Bc	03h:00m
50.00 Bc	03h:30m
70.00 Bc	03h:30m
100.00 Bc	03h:56m
200.00 Bc	NaN
03h:00m	10.63
06h:00m	NaN



Data File: O:\HPHT Data Files WRCR\WRCR Consistometer #3\ExxonMobil 169063-1.tdms

Comments: 65/35% V/Poz, 1.89 Yield, 12.702 Den