HALLIBURTON

EXXONMOBIL CORPORATION

HOUSTON, Texas

PCU 296-6B10

H&P 215

Post Job Summary
Cement Multiple Stages

Date Prepared: August 16, 2011
Version: 1

Service Supervisor: BIRCHELL, DEVIN

Submitted by: Charli A Brown

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Wellbore Geometry

Job Tubulars					MD		TVD	
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft
Open Hole Section	Surface Open Hole		14.750		1,685.00	4,414.00	1,674.00	4,366.00
Casing	Surface Casing	10.75	9.950	45.50	0.00	4,414.00	0.00	4,366.00
Cement Stage Tool	Multiple Stage Cementer		.000		1,685.00	1,685.00		
Open Hole Section	Surface Open Hole		14.750		0.00	1,685.00	0.00	1,674.00

Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Density lbm/gal	Avg Rate bbl/min	Volume
1	Spacer	Gel Sweep with Tuffiber	8.40	6.00	40.0 bbl
2	Cement Slurry	First Stage Lead Cement	12.70	6.00	820.0 sacks
3	Cement Slurry	First Stage Tail Cement	15.80	6.00	355.0 sacks
4	Spacer	Drilling Fluid / Mud	8.90	6.00	413.0 bbl
1	Spacer	Freshwater Ahead	8.33	6.00	75.0 bbl
2	Cement Slurry	Second Stage Lead Cement	12.70	6.00	850.0 sacks
3	Spacer	Drilling Fluid / Mud	8.90	6.00	160.0 bbl
4	Cement Slurry	Top Out	15.80	2.00	160.0 bbl

Fluids Pumped

Stage/Plug # 1 **Fluid 1:** Gel Sweep with Tuffiber

Fluid Density: 8.40 lbm/gal
Fluid Volume: 40.00 bbl
Pump Rate: 6.00 bbl/min

GEL SWEEP
0.175 gal/bbl LGC-36 UC
0.25 lbm/bbl Tuf Fiber 594

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Stage/Plug # 1 **Fluid 2:** First Stage Lead Cement

ECONOCEM (TM) SYSTEM

5 lbm	Cal-Seal 60
0.8 %	Econolite
0.82 %	HR-7
0.25 lbm	Poly-E-Flake
3 lbm	Silicalite Compacted
1 lbm	Walnut Shells
1 lbm	Pheno Seal - Blend
2 lbm	STEELSEAL 400

Fluid Weight:	12.70 lbm/gal
Slurry Yield:	1.87 ft3/sack
Total Mixing Fluid:	10.01 Gal
Volume:	820.0 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

0.12 %	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 FLUID

Fluid Density:	8.90 lbm/gal
Fluid Volume:	413.00 bbl
Pump Rate:	6.00 bbl/min

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

DUMMY MUD / FLUSH / SPACER SBC MATERIAL

Fluid Density:	8.33 lbm/gal
Fluid Volume:	75.00 bbl
Pump Rate:	6.00 bbl/min

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

ECONOCEM (TM) SYSTEM

0.25 lbm	Poly-E-Flake

Fluid Weight:	12.70 lbm/gal
Slurry Yield:	1.88 ft3/sack
Total Mixing Fluid:	10.05 Gal
Volume:	850.0 sacks
Calculated Fill:	1,704.00 ft
Calculated Top of Fluid:	0.00 ft
Pump Rate:	6.00 bbl/min

Stage/Plug # 2 **Fluid 3:** Drilling Fluid / Mud

DRILLING MUD

Fluid Density:	8.90 lbm/gal
Fluid Volume:	160.00 bbl
Pump Rate:	6.00 bbl/min

Stage/Plug # 2 **Fluid 4:** 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
Pump Rate:	2.00 bbl/min

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Job Summary

Job Information

Job Start Date	8/6/2011 7:00:00 AM
Job MD	4,414.0 ft
Job TVD	4,390.0 ft
Height of Plug Container/Swage Above Rig Floor	5.0 ft
Surface Temperature at Time of Job	70 degF
Mud Type	Water Based Mud
Actual Mud Density	9 lbm/gal
Pipe Movement During Cementing	Reciprocated
Calculated Displacement	413.00 bbl
Job Displaced by (rig/halco)	Cement Unit HP Pumps
Annular flow After Job? (Water/Gas)	No

Cementing Equipment

Number of Centralizers Used	49
Pipe Centralization	Through Entire Cement Column
Did Float Equipment Hold?	Yes
Plug set used?	Yes
Brand of Plug set used?	Weatherford
Did Plugs Bump?	Yes
Calculated Pressure to Bump Plugs	500.0 psig
Brand of Stage Cementing Tools Used	Weatherford
Did Stage Cementing Tool Open Properly?	Yes

Job Log

Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
08/05/2011 12:30	Call Out				Called Crew For 10.73 Two Stage Surface for H&P 215 PCU 296-6B-10
08/05/2011 14:30	Pre-Convoy Safety Meeting				Discussed Hazards in Route to Location
08/05/2011 15:00	Depart from Service Center or Other Site				
08/05/2011 18:00	Arrive at Location from Service Center				Arrived on Location 18:00
08/05/2011 18:10	Assessment Of Location Safety Meeting				Assessed Location for Hazards, Where and How to Spot Equipment
08/05/2011 18:30	Rig-Up Equipment				
08/06/2011 06:30	Pre-Job Safety Meeting				Went Over Job Procedures With Cement and Rig Crews
08/06/2011 06:50	Rig-Up Completed				Finished Riigging Up Floor and to Casing
08/06/2011 07:06	Pressure Test				Low Pressure Test to 200 psi Held for 3 Minutes
08/06/2011 07:09	Pressure Test				High Pressure Test to 5000 psi Held for 5 Minutes
08/06/2011 07:14	Pump Spacer	6.0	60	280	Pumped 60 bbls Water Spacer
08/06/2011 07:26	Pump Spacer 1	6.0	40	310	Pumped 40 bbls Gel-Sweep With Tuffiber

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Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
08/06/2011 07:35	Pump 1st Stage Lead Slurry	3.5	281	340	Pumped 281 bbls Lead @ 12.7 ppg 1.87 ft3/sk 10.01 gal/sk
08/06/2011 08:24	Pump 1st Stage Tail Slurry	6	70	330	Pumped 70 bbls Tail @ 15.8 ppg 1.15 ft3/sk 4.99 gal/sk
08/06/2011 08:32	Drop Plug				Dropped First Stage Top Plug
08/06/2011 08:37	Pump Displacement				
08/06/2011 08:38	Clean Lines				Washed Pump and Lines on top of Plug
08/06/2011 09:42	Bump Plug				Bumped Plug at 980 psi went to 1450 psi 500 Over
08/06/2011 09:48	Check Floats				Checked Floats With 3 bbls Back
08/06/2011 10:10	Drop Opening Device For Multiple Stage Cementer				Waited 10 Minutes Dropped Opening Bomb For Stage Tool
08/06/2011 10:26	Open Multiple Stage Cementer				Pressured Up to 560 psi Tool Opened
08/06/2011 10:36	Other				Turned Well Over to Rig to Circulate
08/06/2011 14:34	Other				Start of Second Stage
08/06/2011 14:45	Pump Spacer		75		Pumped 75 bbls Water Spacer
08/06/2011 14:57	Pump 2nd Stage Lead Slurry	6	264	220	Pumped 264 bbls Second Stage Lead @ 12.7 ppg 1.88 ft3/sk 10.05 gal/sk
08/06/2011 15:43	Drop Plug				Dropped Closing Plug for D.V. Tool
08/06/2011 15:59	Pump Displacement	8		350	Pumped 10 Wash Water, 140 bbls Mud, 10 bbls Water

Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
08/06/2011 16:22	Bump Plug				Bumped Plug at 180 psi Went to 1500 psi To Close Tool
08/06/2011 16:28	Check Floats				Checked Floats with 2.5 bbls Back
08/06/2011 16:45	Other				Waiting on B.L.M. for Top Out Job
08/07/2011 01:02	Pressure Test				Pressure Tested Pump and Lines to 2000 psi
08/07/2011 01:03	Circulate Well				Tried to Establish Circulation
08/07/2011 02:42	Shutdown				
08/07/2011 03:00	Other				Wait on Phone Call for Top Job
08/07/2011 09:00	End Job				
08/07/2011 09:10	Pre-Rig Down Safety Meeting				Discussed Hazards for Rigging Iron Down
08/07/2011 09:20	Rig-Down Equipment				
08/07/2011 11:30	Rig-Down Completed				
08/07/2011 11:40	Pre-Convoy Safety Meeting				Discussed Hazards in Route to Service Center
08/07/2011 12:00	Depart Location for Service Center or Other Site				

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 331699	**Ship To #:** 2869747	**Quote #:**	**Sales Order #:** 8364922
Customer: EXXONMOBIL CORPORATION		**Customer Rep:** McGourty, Alex	
Well Name: PCU	**Well #:** 296-6B10		**API/UWI #:**
Field:	**City (SAP):** MEEKER	**County/Parish:** Rio Blanco	**State:** Colorado
Contractor: H&P	**Rig/Platform Name/Num:** 215 970-942-7060		
Job Purpose: Cement Multiple Stages			
Well Type: Development Well	**Job Type:** Cement Multiple Stages		
Sales Person: MCNARY, GEORGE	**Srvc Supervisor:** BIRCHELL, DEVIN	**MBU ID Emp #:** 466993	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BIRCHELL, DEVIN Ray		466993	ESTEP, KENNETH		121420	ESTEP, KENNETH		214387
GAMBLES, BRAYDEN Kade		469413	GOODRICH, BENJAMIN Franklin		481342	ZUMWALT, RAY		398157

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*

Job Hours

Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	4414. ft	**Job Depth TVD**	4390. ft		
Water Depth		**Wk Ht Above Floor**	5. ft		
Perforation Depth (MD)	*From*		**To**		

Job Times

	Date	Time	Time Zone
Called Out			
On Location	05 - Aug - 2011	18:00	CST
Job Started	06 - Aug - 2011	07:00	CST
Job Completed	07 - Aug - 2011	09:00	CST
Departed Loc	07 - Aug - 2011	11:30	CST

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			.				1685.	1685.		
Surface Open Hole				14.75				.	1685.	.	1674.
Surface Open Hole				14.75				1685.	4414.	1674.	4366.
Surface Casing	Unknown		10.75	9.95	45.5	BTC	J-55	.	4414.	.	4366.

Tools and Accessories

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

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Cementing Job Summary

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	**Gel Sweep with Tuffiber**		**40.00**	**bbl**	**8.4**	**.0**	**.0**	**.0**	
0.175 gal/bbl		LGC-36 UC, BULK (101582749)							
0.25 lbm/bbl		TUF FIBER 594, 15 LB BOX (101350514)							
2	**First Stage Lead Cement**	**ECONOCEM (TM) SYSTEM (452992)**	**820.0**	**sacks**	**12.7**	**1.87**	**10.01**	**6.0**	**10.01**
5 lbm		CAL-SEAL 60, 100 LB BAG (100005051)							
0.8 %		ECONOLITE (100001580)							
0.82 %		HR-7 (100005055)							
0.25 lbm		POLY-E-FLAKE (101216940)							
3 lbm		SILICALITE - COMPACTED, 50 LB SK (100012223)							
1 lbm		WALNUT SHELLS, 50 LB BAG (100014081)							
1 lbm		PHENO SEAL - BLEND - 40 LB (101342230)							
2 lbm		STEELSEAL 400 - 50 LB BAG (101618889) (101618889)							
10.01 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**
0.12 %		HR-800, 50 LB SACK (101619742)							
0.25 lbm		POLY-E-FLAKE (101216940)							
4.99 Gal		FRESH WATER							
4	**Drilling Fluid / Mud**		**413.00**	**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**		**75.00**	**bbl**	**8.33**	**.0**	**.0**	**6.0**	
2	**Second Stage Lead Cement**	**ECONOCEM (TM) SYSTEM (452992)**	**850.0**	**sacks**	**12.7**	**1.88**	**10.05**	**6.0**	**10.05**
0.25 lbm		POLY-E-FLAKE (101216940)							
10.05 Gal		FRESH WATER							
3	**Drilling Fluid / Mud**		**160.00**	**bbl**	**8.9**	**.0**	**.0**	**6.0**	
4	**Top Out**	**CMT - PREMIUM - CLASS G, 94 LB SK (100003685)**		**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					
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

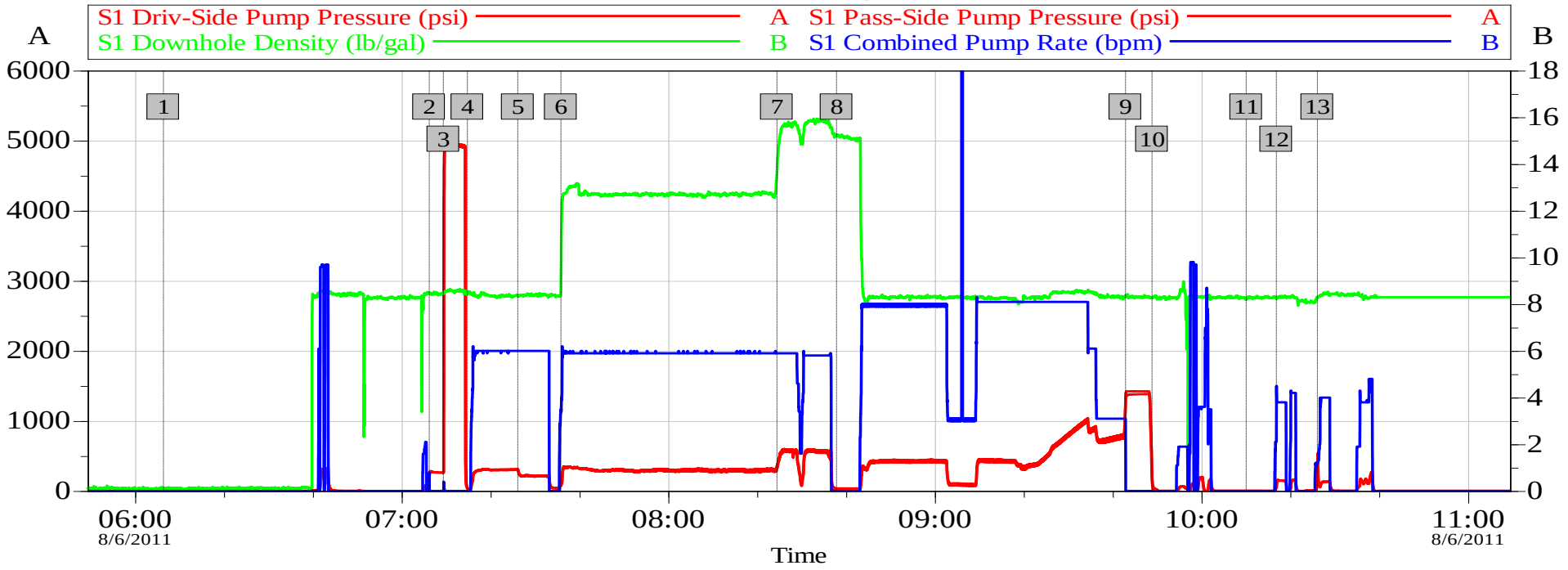
Circulating		*Mixing*		*Displacement*		**Avg. Job**	

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***

ExxonMobil PCU 296-6B10 Surface
First Stage



Global Event Log

1	Starting Job	06:06:22	2	Low Pressure Test	07:06:11	3	High Pressure Test	07:09:23
4	Pump Spacer 1	07:14:48	5	Pump Spacer 2	07:26:08	6	Pump Lead Cement	07:35:50
7	Pump Tail Cement	08:24:27	8	Pump Displacement	08:37:53	9	Bump Plug	09:42:54
10	Check Floats	09:48:53	11	Dropped Opening Bomb	10:10:05	12	Washed Pump and Lines	10:16:51
13	Opened D.V. Tool	10:26:06						

Customer: Exxon Mobil	Job Date: 06-Aug-2011	Sales Order #: 8364460
Well Description: PCU 296-6B10	Job Type: Surface	
	Service Supervisor: D. Birchell	Service Operator: B. Gambles

OptiCem v6.4.9
16-Aug-11 13:51

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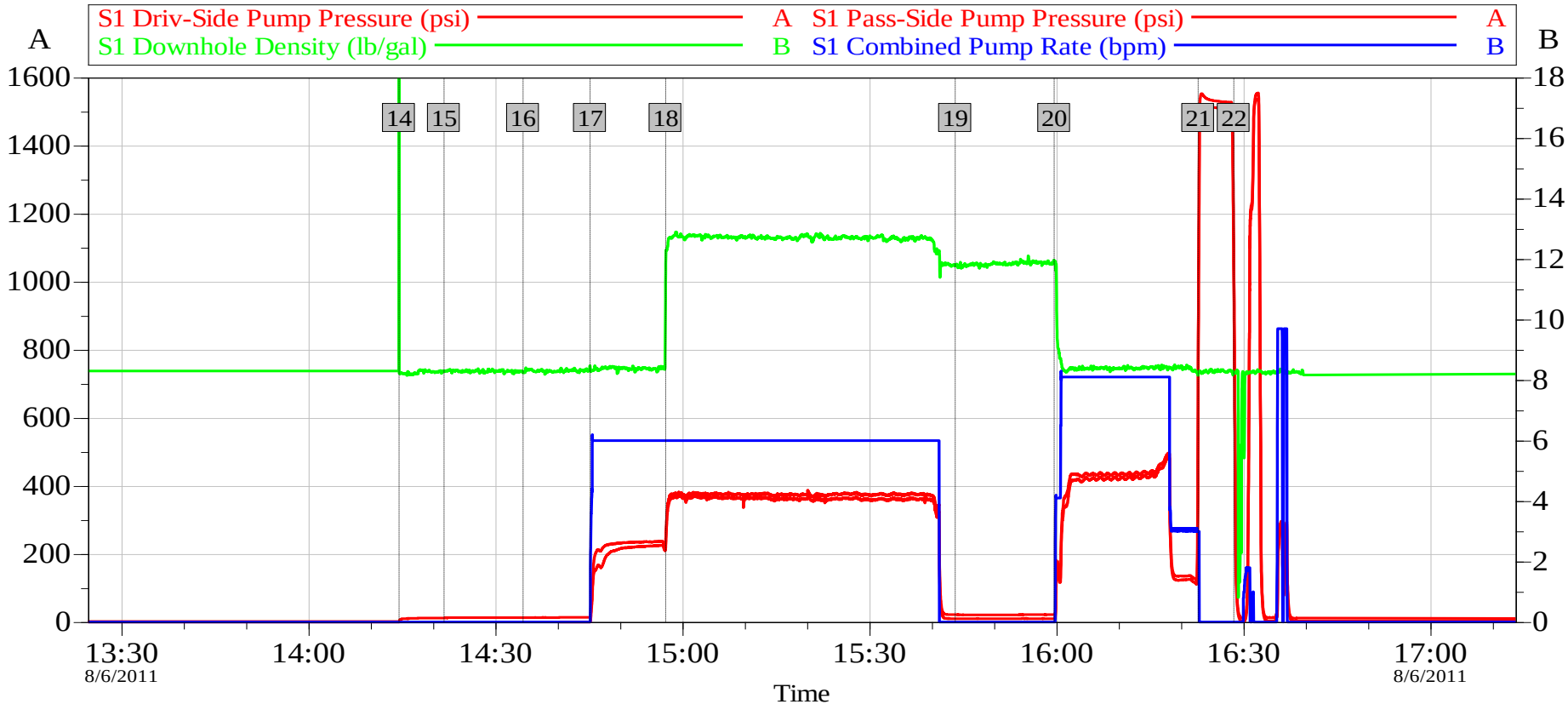
ExxonMobil PCU 296-6B10 Surface
Second Stage



Global Event Log

14	Start Job	14:14:32	15	Start Job	14:21:45	16	Start 2nd Stage	14:34:26
17	Pump Spacer	14:45:10	18	Pump Lead Cement	14:57:18	19	Dropped Top Plug	15:43:46
20	Pump Displacement	15:59:39	21	Bump Plug	16:22:45	22	Check Floats	16:28:27

Customer: Exxon Mobil	Job Date: 06-Aug-2011	Sales Order #: 8364460
Well Description: PCU 296-6B10	Job Type: Surface	
	Service Supervisor: D. Birchell	Service Operator: B. Gambles

OptiCem v6.4.9
16-Aug-11 13:55

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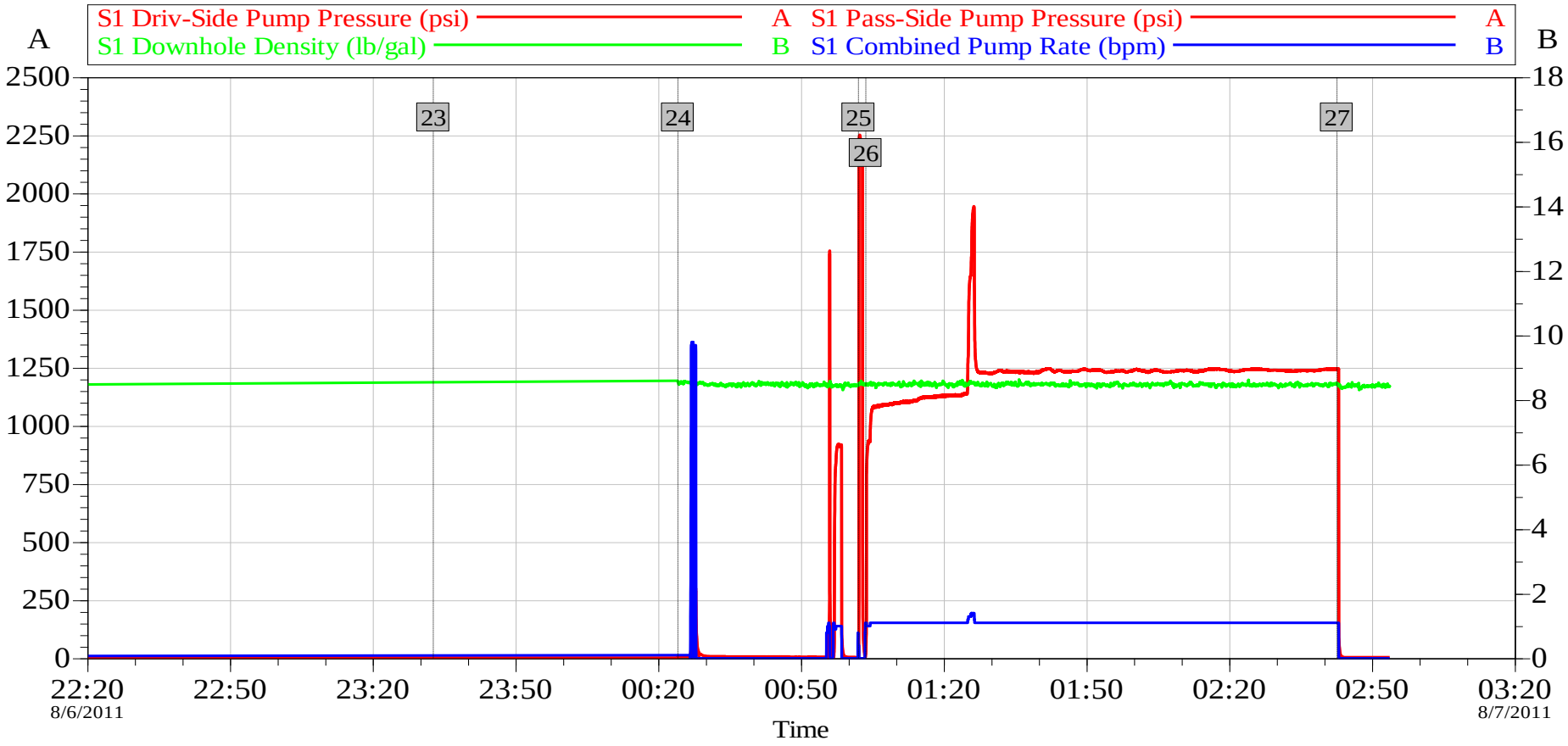
ExxonMobil PCU 296-6B10 Surface

Circulation



Global Event Log

23	Starting Job	8/6/2011 23:32:43	24	Start Job	8/7/2011 00:24:08	25	Test Lines	8/7/2011 01:02:05
26	Circulate Well	8/7/2011 01:03:37	27	Shutdown	8/7/2011 02:42:38			

Customer:	Exxon Mobil	Job Date:	06-Aug-2011	Sales Order #:	8364460
Well Description:	PCU 296-6B10	Job Type:	Surface		
		Service Supervisor:	D. Birchell	Service Operator:	B. Gambles

OptiCem v6.4.9
16-Aug-11 13:56

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Lab Data

LAB RESULTS – 1st Stage Lead

Cementing Rockies, Meeker

Job Information

Request/Slurry	166271/6	**Rig Name**	H&P 215	**Date**	01/AUG/2011
Submitted By	Joshua Anglin	**Job Type**	Surface Casing	**Bulk Plant**	Meeker
Customer	ExxonMobil	**Location**	Rio Blanco	**Well**	PCU 296-6B10

Well Information

Casing/Liner Size	10 3/4"	**Depth MD**	4414 ft	**BHST**	140 F
Hole Size	14 3/4"	**Depth TVD**	4381 ft	**BHCT**	106 F

Cement Information - Lead Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.
		EconoCem			
35	%	> Boral Craig Pozmix	Bulk	Aug 03, 2011	
65	%	> Holcim Type V	Bulk	Aug 03, 2011	
100.00	% BWOC	Cement Blend			
5.000	lb/sk	Cal-Seal 60	Bulk	Aug 03, 2011	89050131
3.000	lb/sk	Silicalite - Compacted	Bulk	Aug 03, 2011	OG1801242
0.800	% BWOC	Econolite (Powder - PB)	Bulk	Aug 03, 2011	U050111
0.820	% BWOC	HR-7	Bulk	Aug 03, 2011	ND06X05S3JP
0.250	lb/sk	Pol-E-Flake	Bulk	Aug 03, 2011	07-13-11
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
Water Source	Field (Fresh) Water	

Operation Test Results Request ID 166271/6

Thickening Time, Request Test ID:1666154

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)
106	2,530	60	2	03:46	03:46	05:12	05:12	05:12

Testing Instructions: 30 minute shutdown after 3:12, another at 4:42

Bc's deflected from 2 to 25 after first shutdown. Bc's deflected from 22 to 73 Bc's after second shutdown and pin sheared. Spike at 3:46 is due to lab tech opening HPHT to check for pin shear after first shutdown. See graph.

API Rheology, Request Test ID:1666155

Temp (°F)	600	300	200	100	60	30	6	3	PV/YP
80	36	23	19	15	14	12	12	12	11.2 / 12.4

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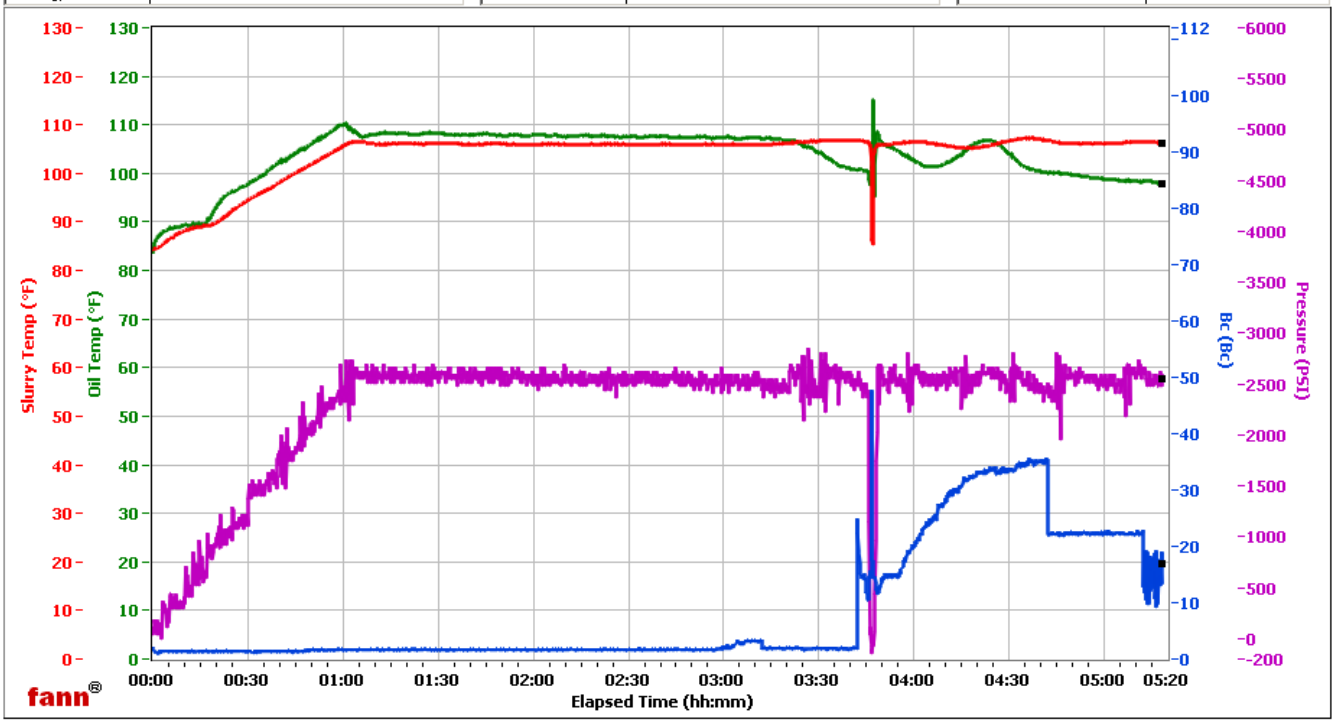
WRCR

Fields	Values
Project Name	ExxonMobil 166271-6
Test ID	166271-6
Request ID	HPHT 1
Tested by	ac
Customer	ExxonMobil
Well No	PCU 296-6B10
Rig	H&P 215
Casing/Liner Size	

Fields	Values
Job Type	Surf Lead (1st)
Cement Type	V/Poz
Cement Weight	Light Weight
Test Date	08/04/11
Test Time	02:35 AM
Temp. Units	degF
Pressure Units	PSI

Events	Results
30.00 Bc	03h:46m
40.00 Bc	03h:46m
50.00 Bc	NaN
70.00 Bc	NaN
100.00 Bc	NaN
200.00 Bc	NaN
03h:00m	1.73
06h:00m	NaN



Data File: O:\HPHT Data Files WRCR\WRCR Consistometer #1\ExxonMobil 166271-6.tdms

Comments: 65/35% V/Poz, 0.820% HR-7, 1.88 Yield, 12.702 Den

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Cementing Rockies, Meeker

LAB RESULTS – 1st Stage Tail

Job Information

Request/Slurry	166273/2	**Rig Name**	H&P 215	**Date**	01/AUG/2011
Submitted By	Joshua Anglin	**Job Type**	Surface Casing	**Bulk Plant**	Meeker
Customer	ExxonMobil	**Location**	Rio Blanco	**Well**	PCU 296-6B10

Well Information

Casing/Liner Size	10 3/4"	**Depth MD**	4414 ft	**BHST**	140 F
Hole Size	14 3/4"	**Depth TVD**	4381 ft	**BHCT**	106 F

Cement Information - Tail Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.
		HalCem			
100.00	% BWOC	Mountain G	Bulk	Aug 02, 2011	
0.120	% BWOC	HR-800	Bulk	Aug 02, 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
Water Source	Field (Fresh) Water	

Operation Test Results Request ID 166273/2

Thickening Time, Request Test ID:1663665

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)
106	2,530	60	6	02:46	02:06	02:47	02:52	03:07

API Rheology, Request Test ID:1663666

Temp (°F)	600	300	200	100	60	30	6	3	PV/YP
80	96	56	47	38	33	29	21	14	36.8 / 23.1

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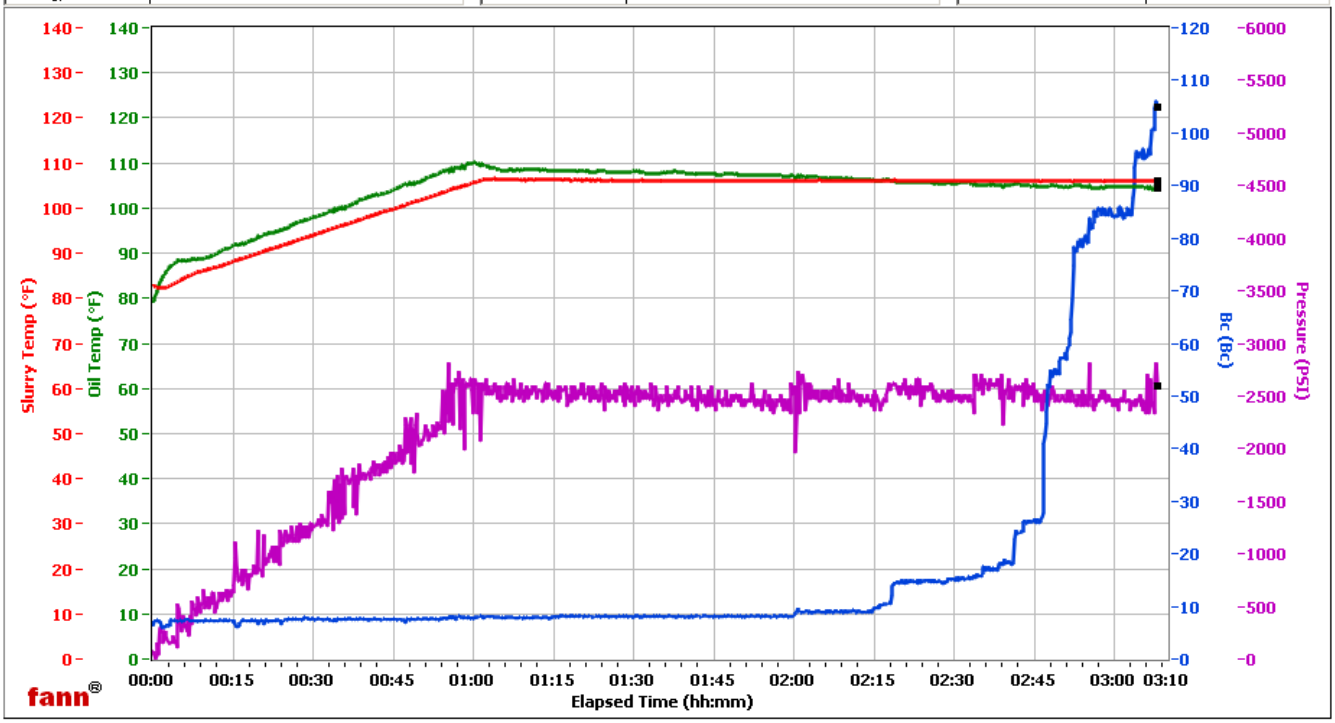
WRCR

Fields	Values
Project Name	ExxonMobil 166273-2
Test ID	166273-2
Request ID	HPHT 1
Tested by	ac
Customer	ExxonMobil
Well No	PCU 296-6B10
Rig	H&P 215
Casing/Liner Size	

Fields	Values
Job Type	Surf Tail
Cement Type	G
Cement Weight	Standard
Test Date	08/03/11
Test Time	03:35 AM
Temp. Units	degF
Pressure Units	PSI

Events	Results
30.00 Bc	02h:46m
40.00 Bc	02h:46m
50.00 Bc	02h:47m
70.00 Bc	02h:52m
100.00 Bc	03h:07m
200.00 Bc	NaN
03h:00m	84.10
06h:00m	NaN



Data File: O:\HPHT Data Files WRCR\WRCR Consistometer #1\ExxonMobil 166273-2.tdms

Comments: 100% G, 0.120% HR-800

HALLIBURTON

Cementing Rockies, Meeker

LAB RESULTS – 2nd Stage Lead

Job Information

Request/Slurry	166074/1	**Rig Name**	H&P 215	**Date**	31/JUL/2011
Submitted By	Joshua Anglin	**Job Type**	Surface Casing	**Bulk Plant**	Meeker
Customer	ExxonMobil	**Location**	Rio Blanco	**Well**	PCU 296-6B10

Well Information

Casing/Liner Size	10 3/4"	**Depth MD**	1685 ft	**BHST**	97 F
Hole Size	14 3/4"	**Depth TVD**	1674 ft	**BHCT**	87 F

Cement Information - Lead Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.
		EconoCem			
35	%	> Boral Craig Pozmix	Bulk	Aug 01, 2011	
65	%	> Holcim Type V	Bulk	Aug 01, 2011	
100.00	% BWOC	Cement Blend			
5.000	lb/sk	Cal-Seal 60	Bulk	Aug 01, 2011	06-28-11
3.000	lb/sk	Silicalite - Compacted	Bulk	Aug 01, 2011	OG1801242
0.800	% BWOC	Econolite (Powder - PB)	Bulk	Aug 01, 2011	U050111
10.05	gal/sack	Field (Fresh) Water	Lab	Apr 08, 2011	

Cement Properties

Slurry Density	12.70	PPG
Slurry Yield	1.88	ft3/sk
Water Requirement	10.05	GPS
Water Source	Field (Fresh) Water	

Operation Test Results Request ID 166074/1

Thickening Time, Request Test ID:1660899

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	809	42	7	03:30	03:30	03:30	03:30	03:30

Testing Instructions: shutdown for 30 minutes at 3:00

API Rheology, Request Test ID:1659549

Temp (°F)	600	300	200	100	60	30	6	3	PV/YP
80	68	46	42	37	34	34	23	18	23 / 27.5

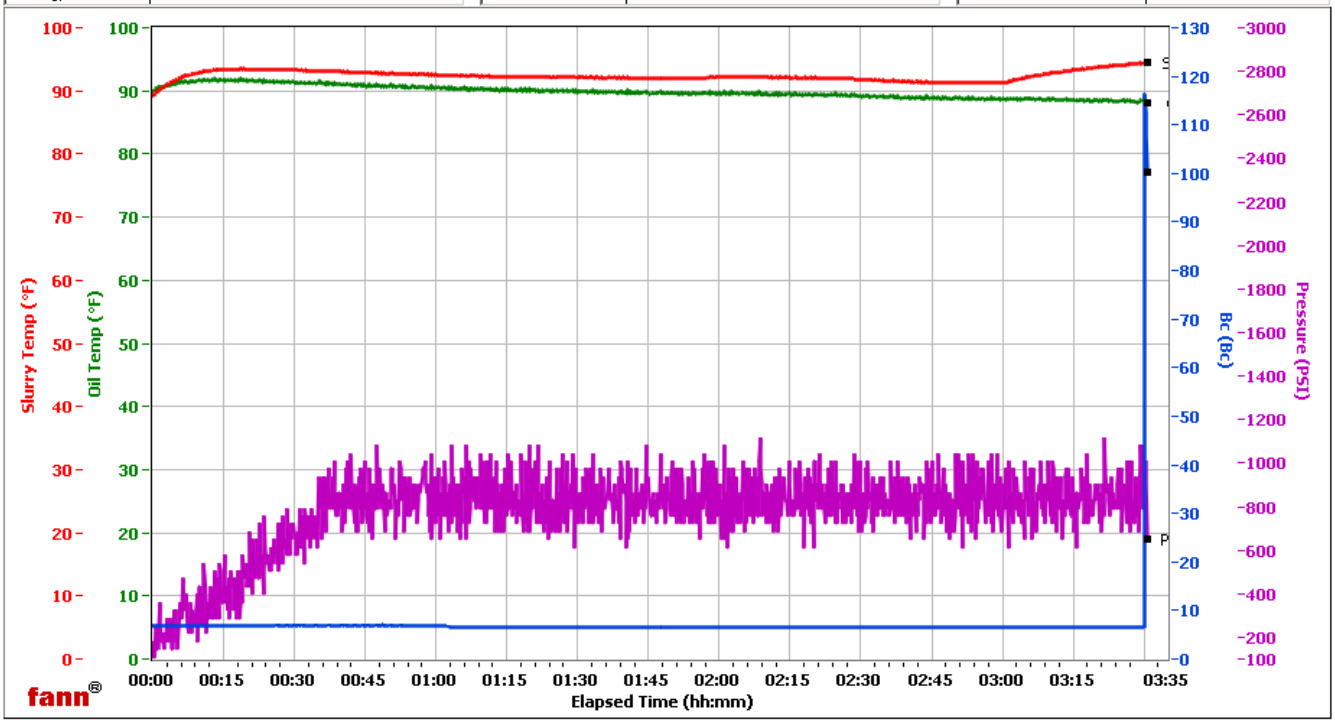
HALLIBURTON

WRCR

Fields	Values
Project Name	ExxonMobil 166074-1A
Test ID	166074-1A
Request ID	HPHT 2
Tested by	ac
Customer	ExxonMobil
Well No	PCU 296-6B10
Rig	H&P 215
Casing/Liner Size	

Fields	Values
Job Type	Surf Lead (2nd)
Cement Type	V/Poz
Cement Weight	Light Weight
Test Date	08/01/11
Test Time	03:16 PM
Temp. Units	degF
Pressure Units	PSI

Events	Results
30.00 Bc	03h:30m
40.00 Bc	03h:30m
50.00 Bc	03h:30m
70.00 Bc	03h:30m
100.00 Bc	03h:30m
200.00 Bc	NaN
03h:00m	6.48
06h:00m	NaN



Data File: O:\HPHT Data Files WRCR\WRCR Consistometer #2\ExxonMobil 166074-1A.tdms

Comments: 65/35 V/Poz, 1.88 Yield, 12.702 Den