

EXXONMOBIL CORPORATION
HOUSTON, Texas

PCU 296-6B1 Surface

H&P 215

Post Job Summary

Cement Multiple Stages

Date Prepared: January 17, 2011
Version: 1

Service Supervisor: Andrew Ashby
Submitted by: Simukayi Mutasa

HALLIBURTON

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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	
Open Hole Section	Surface Open Hole		14.750		0.00	1,869.56	0.00	1,846.56	
Open Hole Section	Surface Open Hole		14.750		1,869.56	5,055.00	1,846.56	4,957.00	
Casing	Surface Casing	10.75	9.950	45.50	0.00	5,045.00	0.00	4,947.00	94.53
Cement Stage Tool	Multiple Stage Cementer		.000		1,869.56	1,869.56			0.00

Pumping Schedule

Stage/Plug #	Fluid #	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume
1	1	FreshWater Ahead	8.33	6.00	50.0 bbl
1	2	First Stage Lead Cement	12.70	6.00	845.0 sacks
1	3	First Stage Tail Cement	15.80	6.00	355.0 sacks
1	4	Drilling Fluid / Mud	8.90	6.00	427.0 bbl
2	1	Freshwater Ahead	8.33	6.00	50.0 bbl
2	2	Second Stage Lead Cement	12.70	6.00	860.0 sacks
2	3	Drilling Fluid / Mud	8.90	6.00	164.0 bbl

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Fluids Pumped

Stage/Plug # 1 **Fluid 1:** FreshWater Ahead
WATER SPACER

Fluid Density: 8.33 lbm/gal
Fluid Volume: 50.00 bbl

Stage/Plug # 1 **Fluid 2:** First Stage Lead
Cement
ECONOCEM (TM) SYSTEM
0.6 % HR-7
0.25 lbm Poly-E-Flake

Fluid Weight: 12.70 lbm/gal
Slurry Yield: 1.87 ft³/sack
Total Mixing Fluid: 9.89 Gal
Surface Volume: 845.0 sacks
Sacks: 845.0 sacks
Calculated Fill: 2,608.82 ft
Calculated Top of Fluid: 1,903.00 ft

Stage/Plug # 1 **Fluid 3:** First Stage Tail Cement
HALCEM (TM) SYSTEM
0.25 % HR-800
0.25 lbm Poly-E-Flake

Fluid Weight: 15.80 lbm/gal
Slurry Yield: 1.15 ft³/sack
Total Mixing Fluid: 5.00 Gal
Surface Volume: 355.0 sacks
Sacks: 355.0 sacks
Calculated Fill: 516.18 ft
Calculated Top of Fluid: 4,511.82 ft

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

Fluid Density: 8.90 lbm/gal
Fluid Volume: 427.00 bbl

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

Fluid Density: 8.33 lbm/gal
Fluid Volume: 50.00 bbl

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: 1.87 ft³/sack
Total Mixing Fluid: 9.92 Gal
Surface Volume: 860.0 sacks
Sacks: 860.0 sacks
Calculated Fill: 1,903.00 ft
Calculated Top of Fluid: 0.00 ft

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

Fluid Density: 8.90 lbm/gal
Fluid Volume: 164.00 bbl

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Job Summary

Job Information

Job Start Date	12/25/2010 3:30:00 PM
Job MD	4,530.0 ft
Job TVD	4,523.0 ft
Height of Plug Container/Swage Above Rig Floor	5.0 ft
Surface Temperature at Time of Job	32 degF
Mud Type	Water Based Mud
Name of Mud Company	BAROID
Actual Mud Density	9 lbm/gal
Pipe Movement During Hole Circulation	Reciprocated
Pipe Movement During Cementing	Reciprocated
Calculated Displacement	426.00 bbl
Amount of Cement Returns	160.00 bbl
Job Displaced by (rig/halco)	Cement Unit HP Pumps
Length of Rat Hole	7.00 ft

Cementing Equipment

Number of Centralizers Used	52
Pipe Centralization	Through Entire Cement Column
Brand of Float Equipment Used	Weatherford
Did Float Equipment Hold?	Yes
Plug set used?	Yes
Brand of Plug set used?	Weatherford GEMOCO
Did Plugs Bump?	Yes
Calculated Pressure to Bump Plugs	643.0 psig
Brand of Stage Cementing Tools Used	Weatherford GEMOCO
Did Stage Cementing Tool Open Properly?	Yes

Service Supervisor Reports

Job Log

Date/Time	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
12/24/2010 21:30	Pre-Convoy Safety Meeting				Met w/crew to discuss the safety and hazards of travel to location.
12/24/2010 21:45	Depart from Service Center or Other Site				Entered into Journey Management, stop at the White River Man Camp to pick up the bulk trucks.
12/25/2010 04:30	Arrive At Loc				Ended Journey Management. Signed in at the Safety Shack. 80 Joints of casing to go.
12/25/2010 04:40	Assessment Of Location Safety Meeting				Met w/crew to discuss the best layout for spotting equipment and verifying materials on location
12/25/2010 04:50	Other				Met w/Company Rep to get numbers and verify information. Co. Rep. said to wait off location until he sends someone to get us.
12/25/2010 08:30	Other				Ready for us to spot equipment on Location
12/25/2010 09:00	Pre-Rig Up Safety Meeting				Met w/crew to discuss the safety and hazards of rigging up, Iron layout, water lines and product hoses.
12/25/2010 09:10	Rig-Up Equipment				Rig up Iron as fas as safe, water lines, buddy lines, and product lines.
12/25/2010 13:30	Rig-Up Equipment				Finish rigging up the standpipe, and the floor.
12/25/2010 15:00	Pre-Job Safety Meeting				Met w/crew, Co. Rep., Rig Crew, Tool Pusher, Mud engineer, and Medic to discuss the job proceedure, hazards involved, and safety measures.
12/25/2010 15:30	Start Job				
12/25/2010 15:33	Other	1.5	5	92.0	Fill Lines w/Fresh Water for pressure test
12/25/2010 15:38	Pressure Test			381.0	Low Pressure Test (250 psi)
12/25/2010 15:44	Pressure Test			5252.0	High Pressure Test (5000 psi)
12/25/2010 15:51	Pump Spacer	3	50	55.0	Fresh Water Spacer
12/25/2010 15:56	Other				Calibrate downhole densometer to water (8.33 ppg)
12/25/2010 16:00	Other	5		218.0	Increase Rate
12/25/2010 16:10	Slow Rate	3		229.0	Slow Rate while bringing cement up to weight.
12/25/2010 16:12	Pump Lead Cement	3	283	181.0	845 sks EconoCem 12.7 ppg, 1.87 cuft/sk, 9.89 gps (Design Volume 282.9 bbl, Recorded Volume 300 bbl)
12/25/2010 16:19	Other	6		342.0	Increase Rate per Co. Rep.
12/25/2010 16:24	Other	7		402.0	Increase Rate per Co. Rep.
12/25/2010 17:01	Pump Tail Cement	5	73	221.0	355 sks HalCem 15.8 ppg, 1.15 cuft/sk, 4.95 gps (Design Volume 72.7 bbl, Recorded Volume 73.8)
12/25/2010 17:02	Other	6	10	428.0	Increase Rate
12/25/2010 17:05	Slow Rate	5	28	334.0	Slow Rate to swap pods
12/25/2010 17:09	Other	6	45	384.0	Resume Rate
12/25/2010 17:14	Shutdown				Shutdown to drop plug.
12/25/2010 17:21	Drop Top Plug				Washup on top of plug per Co. Rep.
12/25/2010 17:24	Pump Displacement	4	426.5	151.0	Displacement = 20 bbls H2O, 230 bbls Mud, 20 bbls H2O, 156.5 bbls Mud

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Date/Time	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
12/25/2010 17:26	Other	7		190.0	Increase Rate
12/25/2010 17:29	Pump Well Fluid	7		305.0	230 bbls Mud
12/25/2010 17:47	Slow Rate	3		71.0	Slow Rate past the DV tool for 20 bbls
12/25/2010 17:53	Other	7		302.0	Resume Pump Rate
12/25/2010 18:04	Pump Water	7		352.0	Pump 20 bbls water to spot around the DV tool.
12/25/2010 18:07	Pump Well Fluid	7		350.0	Resume displacing w/Mud
12/25/2010 18:24	Slow Rate	5		958.0	Slow Rate to bump plug
12/25/2010 18:27	Slow Rate	4		898.0	Slow Rate to bump plug
12/25/2010 18:29	Slow Rate	3		846.0	Slow Rate to bump plug
12/25/2010 18:34	Bump Plug	3		1320.0	Calculated psi = 643.3, Final Circ psi = 868, Bump 500 psi over.
12/25/2010 18:39	Check Floats				Floats held, 2.5 bbls back
12/25/2010 18:51	Drop Opening Device For Multiple Stage Cementer				Drop the Openeing Tool w/Weatherford - Wait 15 min before pumping on it.
12/25/2010 19:09	Open Multiple Stage Cementer	1.5		600.0	MSC opened @ 600 psi w/1.5 bbls away
12/25/2010 19:12	Pump Well Fluid	3.5	15	264.0	Pump 10+ bbls of mud to verify MSC is opened.
12/25/2010 19:16	Shutdown				Shutdown and turn the well over to the rig to circulate - Wait for the second stage.
12/25/2010 19:30	Call Out				Crew called out. Plug Container# D1624
12/25/2010 21:40	Other				2ND STAGE
12/25/2010 21:44	Other	2		10.0	Fill Lines
12/25/2010 21:52	Test Lines			4937.0	High Pressure Test (5000 psi)
12/25/2010 21:55	Other				Losing too much pressure, checked the lines for leaks - retest
12/25/2010 22:00	Test Lines			4608.0	Hight Pressure Test (5000 psi) - Lost 100 psi over 5 min.
12/25/2010 22:06	Pump Water	5	50	131.0	Fresh Water Spacer
12/25/2010 22:17	Pump Cement	5	286	285.0	860 sks EconoCem 12.7 ppg, 1.87 cuft/sk, 10.0 gps
12/25/2010 22:44	Other	6		207.0	Increase Rate
12/25/2010 22:59	Slow Rate	3		352.0	Slowed Rate to keep Density up, (Swapped Water Tanks)
12/25/2010 23:04	Other	5		200.0	Increase Rate
12/25/2010 23:09	Shutdown				Shutdown / Drop Plug
12/25/2010 23:23	Pump Displacement	7	163.5	310.0	Disp. = 10 bbls H2O, 153.5 Mud - Cement to Surface
12/25/2010 23:43	Slow Rate	5		530.0	Slow Rate to bump plug
12/25/2010 23:45	Slow Rate	3		442.0	Slow Rate to bump plug
12/25/2010 23:50	Bump Plug	3		1658.0	Calculated psi = 286.4, Final Circ. psi = 375 psi, Bump 1200 psi over
12/25/2010 23:54	Check Floats				floats held, 1.5 bbls back (Cement Returns during all of displacement = 163.5 bbls back)

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Date/Time	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
12/26/2010 00:00	End Job				Job Complete per Company Rep. No Top Out needed.
12/26/2010 00:05	Post-Job Safety Meeting (Pre Rig-Down)				Met w/crew & Rig crew to discuss rig-down process, hazards involved, and safety measures.
12/26/2010 00:15	Rig-Down Equipment				Rig down iron, product & water lines.
12/26/2010 02:15	Pre-Convoy Safety Meeting				Met w/crew to discuss safety and hazards of travel home, fit for duty and DOT hours.
12/26/2010 02:30	Depart Location for Service Center or Other Site				Entered into Journey Management.
12/26/2010 02:30	Other				Thanks for using Halliburton!!!

The Road to Excellence Starts with Safety

Sold To #: 331699	Ship To #: 2826412	Quote #:	Sales Order #: 7849576
Customer: EXXONMOBIL CORPORATION		Customer Rep: STURM, NICHOLAS	
Well Name: PCU		Well #: 296-6B1	API/UWI #: 05-103-11546
Field:	City (SAP): MEEKER	County/Parish: Rio Blanco	State: Colorado
Contractor: H&P		Rig/Platform Name/Num: 215	
Job Purpose: Cement Multiple Stages			
Well Type: Development Well		Job Type: Cement Multiple Stages	
Sales Person: MCNARY, GEORGE		Srvc Supervisor: ASHBY, ANDREW	MBU ID Emp #: 450544

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ASHBY, ANDREW A		450544	BURKE, RYAN A		480688	DE OLIVEIRA, GABRIEL Antonio		466988
SYLVESTER, MATTHEW P		484649	TEICHERT, RONDO Chad		476071			

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10867527	45 mile	10994447	45 mile	11127525	45 mile	11139326	45 mile
11189139	45 mile	11410666	45 mile	11526496	45 mile	6603	45 mile
6641	45 mile	D1641	45 mile				

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

Job Times

Formation Name					Date	Time	Time Zone
Formation Depth (MD)	Top		Bottom		Called Out	24 - Dec - 2010	19:30 MST
Form Type	BHST				On Location	25 - Dec - 2010	04:30 MST
Job depth MD	4530. ft	Job Depth TVD	4523. ft	Job Started	25 - Dec - 2010	15:30	MST
Water Depth		Wk Ht Above Floor	5. ft	Job Completed	26 - Dec - 2010	00:00	MST
Perforation Depth (MD)	From		To	Departed Loc	26 - Dec - 2010	02:30	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			.				1869.6	1869.6		
Surface Open Hole				14.75				.	1869.6	.	1846.6
Surface Open Hole				14.75				1869.6	5055.	1846.6	4957.
Surface Casing	New		10.75	9.95	45.5	BTC	J-55	.	5045.	.	4947.

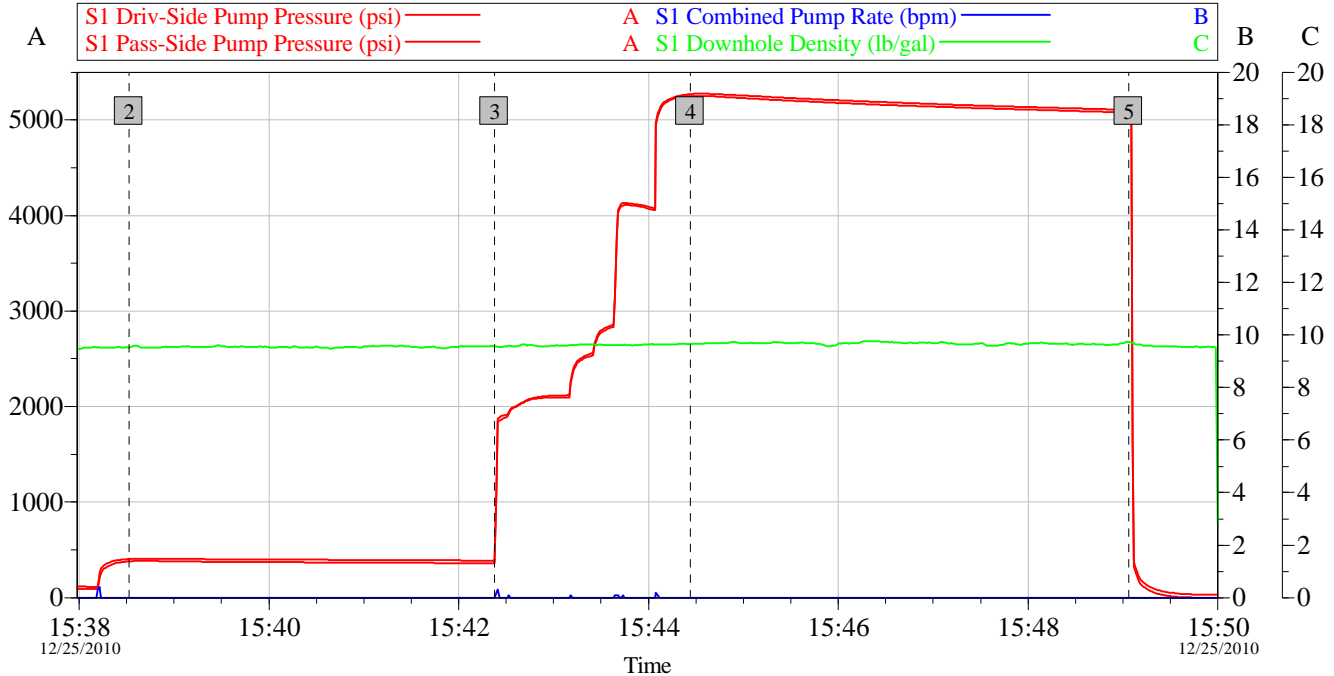
Tools and Accessories

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			
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				50.00	bbl	8.33	.0	.0	6.0		
2	First Stage Lead Cement	ECONOCEM (TM) SYSTEM (452992)			845.0	sacks	12.7	1.87	9.89	6.0	9.89	
0.6 %		HR-7 (100005055)										
0.25 lbm		POLY-E-FLAKE (101216940)										
9.889 Gal		FRESH WATER										
3	First Stage Tail Cement	HALCEM (TM) SYSTEM (452986)			355.0	sacks	15.8	1.15	5.0	6.0	5.0	
0.25 %		HR-800, 50 LB SACK (101619742)										
0.25 lbm		POLY-E-FLAKE (101216940)										
5 Gal		FRESH WATER										
4	Drilling Fluid / Mud				427.00	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				50.00	bbl	8.33	.0	.0	6.0		
2	Second Stage Lead Cement	ECONOCEM (TM) SYSTEM (452992)			860.0	sacks	12.7	1.87	9.92	6.0	9.92	
0.25 lbm		POLY-E-FLAKE (101216940)										
9.915 Gal		FRESH WATER										
3	Drilling Fluid / Mud				164.00	bbl	8.9	.0	.0	6.0		
4	Top Out	CMT - PREMIUM - CLASS G, 94 LB SK (100003685)				sacks	15.8	1.16	5.01	2.0	5.01	
94 lbm		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)										
2 %		CALCIUM CHLORIDE - HI TEST PELLET (100005053)										
5.019 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	94.53 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							

Data Acquisition

ExxonMobil - PCU# 296-6B1 10.75" Multi Stage Surface - Pressure Test



Global Event Log									
Intersection			PSI	RATE	Intersection			PSI	RATE
2	START LOW TEST	15:38:31	380.7	0.000	3	End Low Test	15:42:23	361.0	0.000
4	Start High Test	15:44:27	5252	0.000	5	End High Test	15:49:04	5078	0.000

Customer: ExxonMobil
Well Description: PCU# 296-6B1

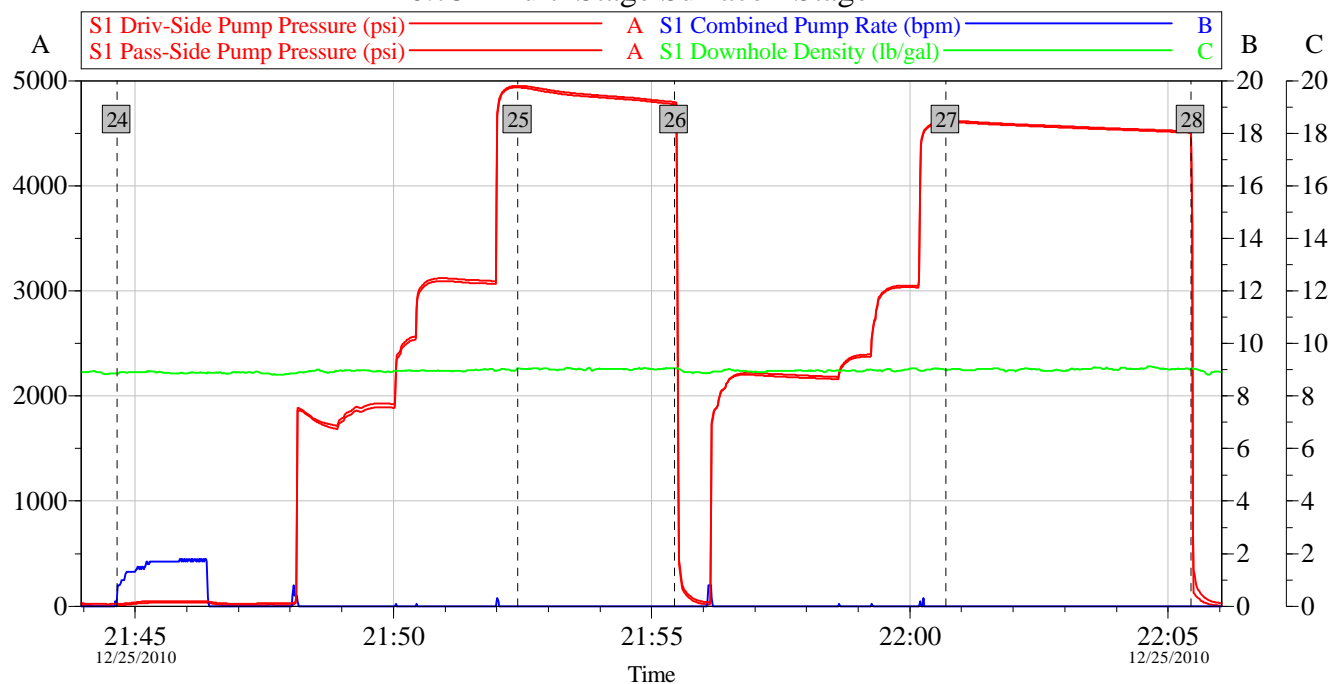
Job Date: 25-Dec-2010
UWI: 05-103-11546

Sales Order #: 7849575

OptiCem v6.4.9
25-Dec-10 20:58

HALLIBURTON

ExxonMobil - PCU# 296-6B1 10.75" Multi Stage Surface - Stage #2



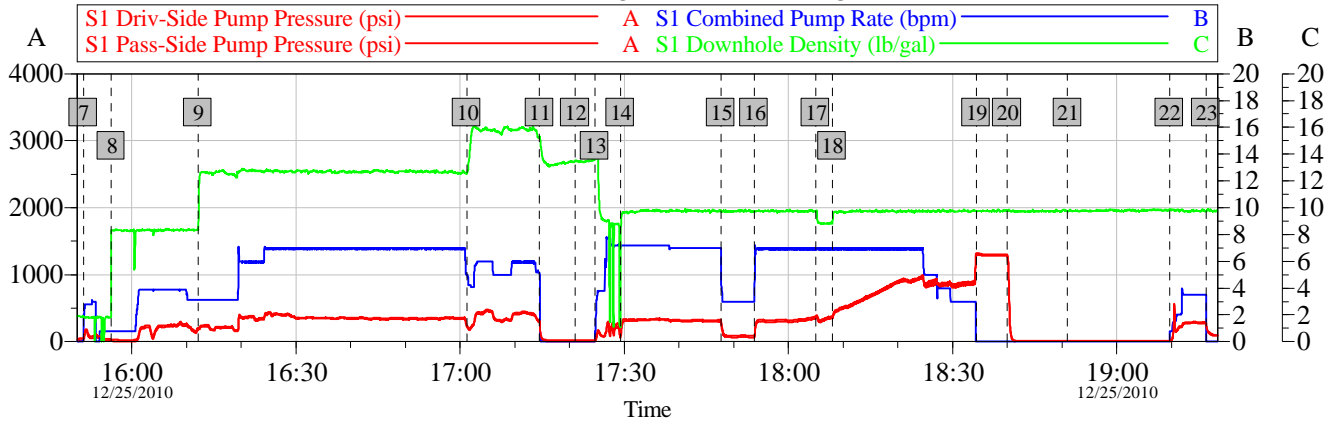
Global Event Log							
Intersection		PSI	RATE	Intersection		PSI	RATE
24	Fill Lines	21:44:38	6.617 0.247	25	Start High Test	21:52:25	4937 0.000
27	Start High Test	22:00:42	4608 0.000	28	End High Test	22:05:27	4779 0.000

Customer: ExxonMobil	Job Date: 25-Dec-2010	Sales Order #: 7849575
Well Description: PCU# 296-6B1	UWI: 05-103-11546	

OptiCem v6.4.9
26-Dec-10 10:36

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ExxonMobil - PCU# 296-6B1 10.75" Multi Stage Surface - Stage #1



Global Event Log

Intersection			PSI	RATE	Intersection			PSI	RATE
7	Pump Water Spacer	15:51:11	26.00	0.413	8	Calibrate Downhole	15:56:17	9.000	0.800
9	Pump Lead Cement	16:12:09	181.0	3.100	10	Pump Tail Cement	17:01:17	221.1	5.000
11	Shutdown	17:14:32	296.0	5.200	12	Drop Plug	17:21:03	5.000	0.000
13	Pump Displacement	17:24:38	5.000	0.456	14	Pump Well Fluid	17:29:18	60.98	7.151
15	Slow Rate	17:47:40	307.0	7.000	16	Increase Rate	17:53:46	63.09	3.028
17	Pump Water	18:04:59	352.3	6.914	18	Pump Well Fluid	18:07:59	350.7	6.926
19	Bump Plug	18:34:17	1283	0.000	20	Check Floats	18:39:59	1266	0.000
21	Drop Opening Device	18:51:00	10.000	0.000	22	Open Multiple Stage Cementer	19:09:37	-4.000	0.000
23	Shutdown / Turnover to Rig	19:16:21	215.7	0.000					

Customer: ExxonMobil
Well Description: PCU# 296-6B1

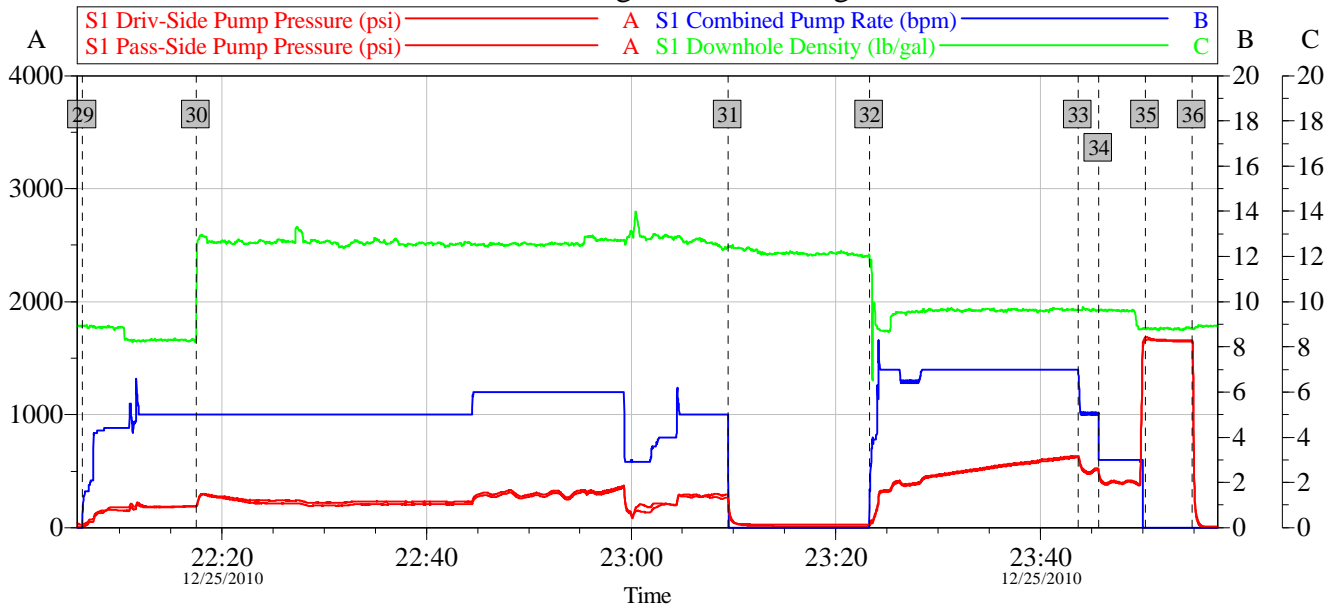
Job Date: 25-Dec-2010
UWI: 05-103-11546

Sales Order #: 7849575

OptiCem v6.4.9
26-Dec-10 10:26

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ExxonMobil - PCU# 296-6B1 10.75" Multi Stage Surface - Stage #2



Global Event Log									
Intersection			PSI	RATE	Intersection			PSI	RATE
29	Pump Water Spacer	22:06:23	3.875	0.525	30	Pump Cement	22:17:28	186.3	5.000
31	Shutdown	23:09:28	289.5	5.000	32	Pump Displacement	23:23:17	15.21	0.983
33	Slow Rate	23:43:41	621.0	7.000	34	Slow Rate	23:45:40	506.0	5.097
35	Bump Plug	23:50:15	1658	0.000	36	Check Floats	23:54:50	1650	0.000

Customer: ExxonMobil
Well Description: PCU# 296-6B1

Job Date: 25-Dec-2010
UWI: 05-103-11546

Sales Order #: 7849575

OptiCem v6.4.9
26-Dec-10 10:32

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Cementing Rockies, Meeker

LAB RESULTS – 1st Stage Lead

Job Information

Request/Slurry	117653/1	Rig Name	H&P 215	Date	December 20th 2010
Submitted By	Isaac Whorl	Job Type	Surface Casing	Bulk Plant	Meeker
Customer	ExxonMobil	Location	Rio Blanco	Well	PCU 296-6B1

Well Information

Casing/Liner Size	10 3/4"	Depth MD	4495 ft	BHST	137 F
Hole Size	14 3/4"	Depth TVD	4381 ft	BHCT	103 F

Cement Information - Lead Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		EconoCem				Slurry Density	12.70	PPG
						Slurry Yield	1.88	FT3
100.00	% BWOC	Cement Blend				Water Requirement	10.02	GPS
35	%	> Boral Craig Pozmix	Bulk	Dec 19, 2010		Water Source	Field (Fresh) Water	
65	%	> Holcim Type V	Bulk	Dec 19, 2010				
5.00	lb/sk	Cal-Seal 60	Bulk	Dec 19, 2010	10			
3.00	lb/sk	Silicalite - Compacted	Bulk	Dec 19, 2010	0G170719-2			
0.80	% BWOC	Econolite (Powder - PB)	Bulk	Dec 19, 2010	U100110			
0.60	% BWOC	HR-7	Bulk	Dec 19, 2010	Lot68ND06X053 SM			
0.25	lb/sk	Pol-E-Flake	Bulk	Dec 19, 2010				
97.49	L/100kg	Field (Fresh) Water	Lab	Dec 10, 2010				

Operation Test Results Request ID 117653/1

Thickening Time, Request Test ID:1208192

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)
103	2,099	60	2	04:06	04:46	05:30	05:30	05:30

Shutdown for 30 minutes after 2 hours, then again after 5 hours

-1st sd 4 bc to 30 bc 2nd sheared the pin

Mixability (0 - 5) - 0 is not mixable, Request Test ID:1207645

Mixability rating (0 - 5)

5

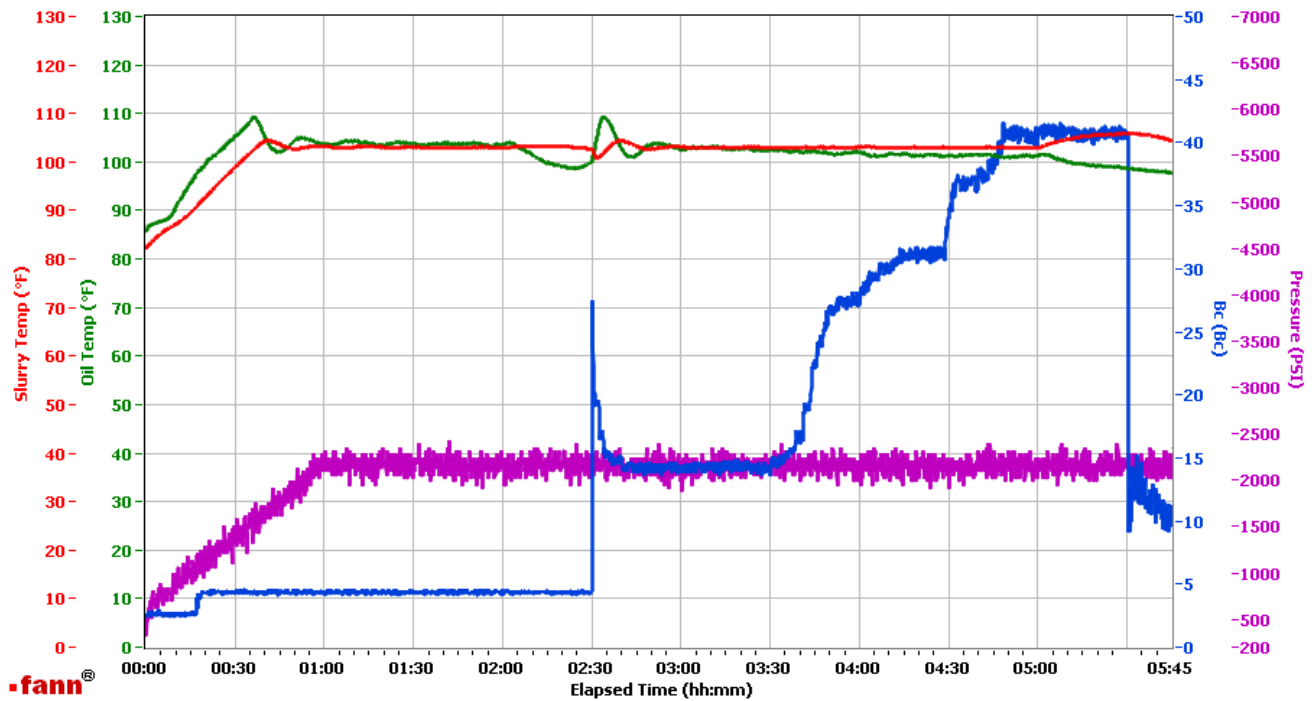
API Rheology, Request Test ID:1207644

Temp (°F)	600	300	200	100	60	30	6	3	Cond Time (min)	PV/YP
80	40	29	24	21	19	18	17	15	0	12.6 / 17.3

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WRCR

Fields	Values	Fields	Values	Events	Results
Project Name	EXXONMOBIL 117653-1A	Job Type	1ST STAGE LEAD	30.00 Bc	04h:06m
Test ID	117653-1A	Cement Type	HOLCIM V	40.00 Bc	04h:46m
Request ID	1	Cement Weight	Light Weight	50.00 Bc	05h:30m
Tested by	RR	Test Date	12/20/10	70.00 Bc	05h:30m
Customer	EXXONMOBIL	Test Time	10:37 AM	100.00 Bc	05h:30m
Well No	PCU 296-6B1	Temp. Units	degF	200.00 Bc	NaN
Rig	H&P 215	Pressure Units	PSI	03h:00m	14.25
Casing/Liner Size				06h:00m	10.83



Data File O:\HPHT Data Files WRCR\WRCR Consistometer #1\EXXONMOBIL 117653-1A.tdms

Comments 65\35, HR-7 .600%, DENSITY 12.7, YIELD 1.88 YARD

Job Information

Request/Slurry	117654/1	Rig Name	H&P 215	Date	December 20th 2010
Submitted By	Isaac Whorl	Job Type	Surface Casing	Bulk Plant	Meeker
Customer	ExxonMobil	Location	Rio Blanco	Well	PCU 296-6B1

Well Information

Casing/Liner Size	10 3/4"	Depth MD	4495 ft	BHST	137 F
Hole Size	14 3/4"	Depth TVD	4381 ft	BHCT	103 F

Cement Information - Tail Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		HalCem				Slurry Density	15.80	PPG
100.00	% BWOC	Mountain G	Bulk	Dec 19, 2010		Slurry Yield	1.15	FT3
0.25	% BWOC	HR-800	Bulk	Dec 19, 2010	02241001	Water Requirement	5	GPS
44.37	L/100kg	Field (Fresh) Water	Lab	Dec 10, 2010	12-10-10	Water Source	Field (Fresh) Water	

Operation Test Results Request ID 117654/1

Thickening Time, Request Test ID:1207646

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)
103	2,099	60	9	03:17	03:25	03:36	03:56	04:14

Mixability (0 - 5) - 0 is not mixable, Request Test ID:1207649

Mixability rating (0 - 5)

5

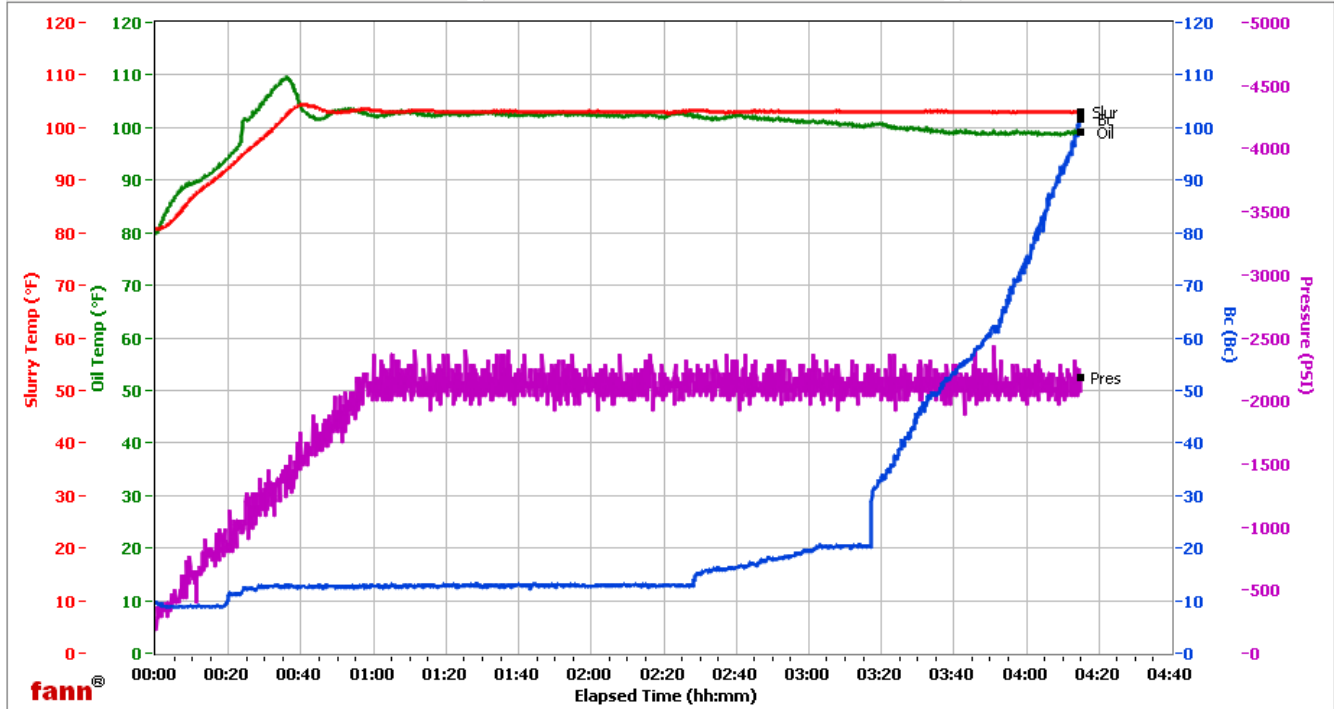
API Rheology, Request Test ID:1207648

Temp (°F)	600	300	200	100	60	30	6	3	Cond Time (min)	PV/YP
80	131	81	73	61	56	48	26	19	0	54.4 / 36.1

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Fields	Values	Fields	Values	Events	Results
Project Name	EXXONMOBIL 117654-1	Job Type	SURFACE TAIL	30.00 Bc	03h:17m
Test ID	117654-1	Cement Type		40.00 Bc	03h:25m
Request ID	4	Cement Weight	Standard	50.00 Bc	03h:36m
Tested by	RR	Test Date	01/01/70	70.00 Bc	03h:56m
Customer	EXXONMOBIL	Test Time	04:40 AM	100.00 Bc	04h:14m
Well No	PCU 296-6B1	Temp. Units	degF	200.00 Bc	NaN
Rig	H&P 215	Pressure Units	PSI	03h:00m	19.11
Casing/Liner Size				06h:00m	NaN



Data File O:\HPHT Data Files WRCR\WRCR Consistometer #4\EXXONMOBIL 117654-1.tdms

Comments MOUNTAIN G, HR-800 .250%, DENSITYARDTY 15.7, YIELD 1.15

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Cementing Rockies, Meeker

LAB RESULTS – 2nd Stage Primary

Job Information

Request/Slurry	117655/1	Rig Name	H&P 215	Date	December 20th 2010
Submitted By	Isaac Whorl	Job Type	Surface Casing	Bulk Plant	Meeker
Customer	ExxonMobil	Location	Rio Blanco	Well	PCU 296-6B1

Well Information

Casing/Liner Size	10 3/4"	Depth MD	1700 ft	BHST	102 F
Hole Size	14 3/4"	Depth TVD	1674 ft	BHCT	86 F

Cement Information - Lead Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		EconoCem				Slurry Density	12.70	PPG
						Slurry Yield	1.88	FT3
100.00	% BWO	Cement Blend				Water Requirement	10.05	GPS
35	%	> Boral Craig Pozmix	Bulk	Dec 19, 2010		Water Source	Field (Fresh) Water	
65	%	> Holcim Type V	Bulk	Dec 19, 2010				
5.00	lb/sk	Cal-Seal 60	Bulk	Dec 19, 2010	10\25\10			
3.00	lb/sk	Silicalite - Compacted	Bulk	Dec 19, 2010	0G1707071 9-2			
0.80	% BWO	Econolite (Powder - PB)	Bulk	Dec 19, 2010	U10010			
97.82	L/100kg	Field (Fresh) Water	Lab	Dec 10, 2010	12-10-10			

Operation Test Results Request ID 117655/1

Thickening Time, Request Test ID:1207650

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)
86	868	30	6	05:00	05:00	05:00	05:00	05:00

Shutdown for 30 minutes after 4.5 hours

-1 st sd 23 bc to 117.3 bc shearing pin

Mixability (0 - 5) - 0 is not mixable, Request Test ID:1207652

Mixability rating (0 - 5)

5

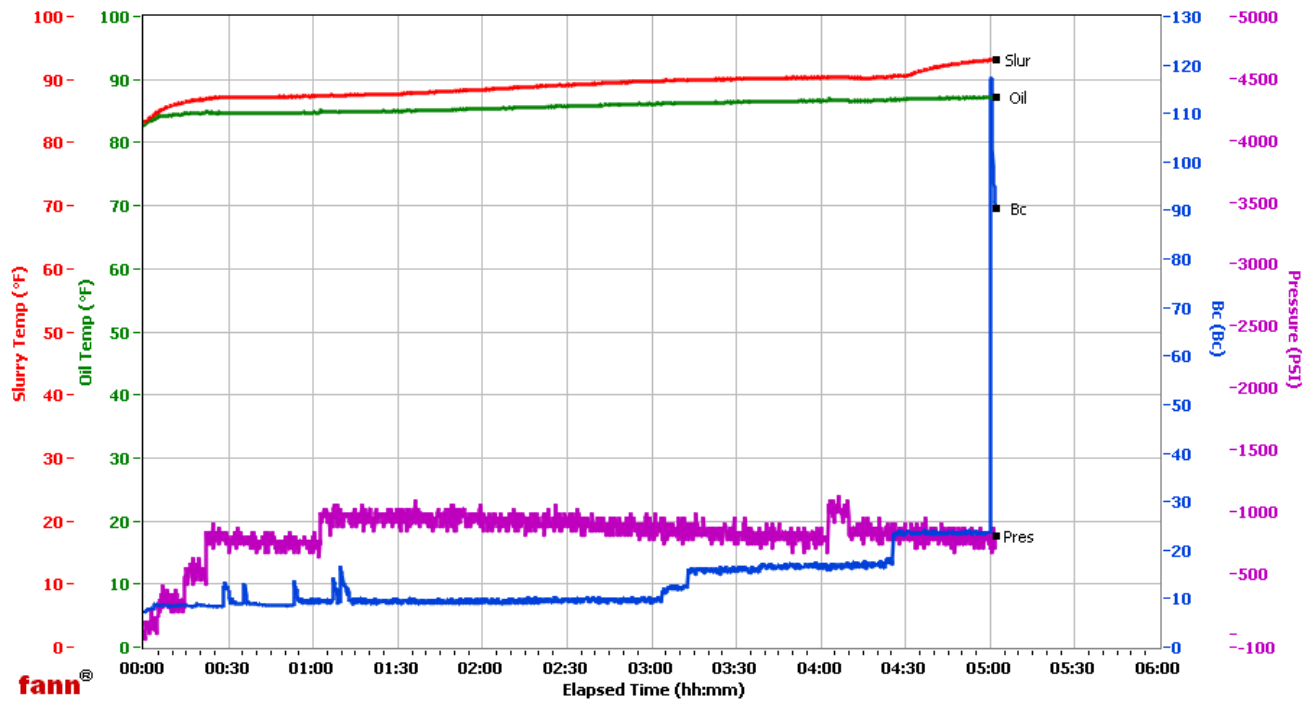
API Rheology, Request Test ID:1207651

Temp (°F)	600	300	200	100	60	30	6	3	Cond Time (min)	PV/YP
80	58	43	40	34	32	30	26	16	0	21.1 / 26

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Fields	Values	Fields	Values	Events	Results
Project Name	EXXONMOBIL 117655-1	Job Type	2ND STAGE LEAD	30.00 Bc	05h:00m
Test ID	117655-1	Cement Type	HOLCIM V	40.00 Bc	05h:00m
Request ID	3	Cement Weight	Light Weight	50.00 Bc	05h:00m
Tested by	RR	Test Date	12/20/10	70.00 Bc	05h:00m
Customer	EXXONMOBIL	Test Time	06:43 AM	100.00 Bc	05h:00m
Well No	PCU296-6B1	Temp. Units	degF	200.00 Bc	NaN
Rig	H&P 215	Pressure Units	PSI	03h:00m	9.37
Casing/Liner Size				06h:00m	NaN



Data File O:\HPHT Data Files WRCR\WRCR Consistometer #3\EXXONMOBIL 117655-1.tdms

Comments 65\35, DENSITY 12.7, YIELD 1.88 YARD