HALLIBURTON

EXXONMOBIL CORPORATION
HOUSTON, Texas

FRU 197-28A6

H&P 215

Post Job Summary
Cement Production Casing

Date Prepared: August 9, 2010
Version: 1

Service Supervisor: Zachary Sarver
Submitted by: Simukayi Mutasa

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Wellbore Geometry

Job Tubulars					MD		TVD		Excess	Shoe Joint Length
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft	%	ft
Casing	Surface Casing	10.75	9.950	45.50	0.00	3,595.00	0.00	3,550.00		80.00
Open Hole Section	Intermediate Open Hole		8.750		3,393.00	12,198.00	3,354.00	12,042.00	150.00	
Casing	Production Casing	4.50	3.826	15.10	0.00	12,189.00	0.00	12,031.00		80.00

Pumping Schedule

Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume
Tuned Spacer III^{tm}	10.20	6.00	40.0 bbl
Varicem^{TM} Cement	12.00	6.00	3110.0 sacks
NaCl Displacement	8.45	6.00	172.0 bbl

Fluids Pumped

Stage/Plug # 1 **Fluid 1:** TUNED SPACER III

117.6 lbm/bbl Barite

TUNED SPACER III - SBM (483826)
3 lbm/bbl Fe-2
0.1 gal/bbl D-AIR 3000L

Fluid Density: 10.20 lbm/gal
Fluid Volume: 40.00 bbl
Pump Rate: 6.00 bbl/min

Stage/Plug # 1 **Fluid 2:** Primary Cement

VARICEM (TM) CEMENT
0.38 % Fe-2

Fluid Weight: 12.00 lbm/gal
Slurry Yield: 2.17 ft3/sack
Total Mixing Fluid: 11.95 Gal
Surface Volume: 3110.0 sacks
Sacks: 3110.0 sacks
Calculated Fill: 8,779.00 ft
Calculated Top of Fluid: 3,593.00 ft
Pump Rate: 6.00 bbl/min

Stage/Plug # 1 **Fluid 3:** NaCl Displacement

Displacement Water
7.15 ppb Salt

Fluid Density: 8.45 lbm/gal
Fluid Volume: 172.00 bbl
Pump Rate: 6.00 bbl/min

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Job Summary

Job Information

Job Start Date	8/3/2010 2:55:00 AM
Job MD	12,189.0 ft
Job TVD	12,031.0 ft
Height of Plug Container/Swage Above Rig Floor	6.0 ft
Surface Temperature at Time of Job	75 degF (estimated)
Mud Type	Water Based Mud
Name of Mud Company	BAROID
Actual Mud Density	9.65 lbm/gal
Mud PV	10.0 cp
Mud YP	7.0 lbf/100ft^2
Time Circulated before job	1.00 hour(s)
Mud Volume Circulated	400.00 bbl
Rate at Which Well was Circulated	6.405 bbl/min
Mud loss while Circulating	60.00 bbl
Units of Gas Detected While Circulating	500 API Gas Units
Pipe Movement During Hole Circulation	Reciprocated
Pipe Movement During Cementing	Reciprocated
Calculated Displacement	174.79 bbl
Job Displaced by (rig/halco)	Cement Unit HP Pumps
Length of Rat Hole	11.00 ft

Cementing Equipment

Number of Centralizers Used	140
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
Did Plugs Bump?	Yes

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Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
08/02/2010 01:00		Call Out				CREW CALLED OUT TO LOCATION
08/02/2010 02:00		Pre-Convoy Safety Meeting				SAFETY MEETING WITH CREW ABOUT TRAVEL TO LOCATION
08/02/2010 06:15		Arrive At Loc				CREW ARRIVES ON LOCATION, RIG IS RUNNING CASING
08/02/2010 07:00		Assessment Of Location Safety Meeting				CREW WALKS AROUND LOCATION LOOKING FOR RISKS AND ASSESSMENT OF LOCATION
08/02/2010 07:15		Pre-Rig Up Safety Meeting				SAFETY MEETING WITH CREW ABOUT RIGGING UP, SPOTTING EQUIPMENT
08/02/2010 11:00		Other				RIGGED UP AS MUCH IRON AS POSSIBLE, IRON IS RAN TO RIG FLOOR, STILL WAITING ON RIG TO FINISH RUNNING CASING
08/02/2010 23:30		Pre-Rig Up Safety Meeting				SAFETY MEETING WITH RIG CREW ABOUT RIGGING UP THE FLOOR AND BRINGING UP ALL EQUIPMENT TO RIG FLOOR
08/03/2010 01:30		Pre-Job Safety Meeting				SAFETY MEETING WITH RIG CREW ABOUT PUMPING CEMENT JOB, COVER ALL RISKS AND THE JOB PLANS
08/03/2010 02:50		Other				WELL WAS TURNED OVER TO HALLIBURTON TO PERFORM SERVICES ON WELL
08/03/2010 02:55	1	Pump Water	2.5	5	.0	START PUMPING FRESH WATER TO FILL LINES FOR PRESSURE TESTING
08/03/2010 02:57	2	Shutdown		5	202.0	END PUMPING FRESH WATER TO FILL LINES FOR PRESSURE TESTING
08/03/2010 03:00	3	Pressure Test			246.0	START LOW PRESSURE TEST
08/03/2010 03:03	4	Pressure Test			244.0	END LOW PRESSURE TEST
08/03/2010 03:05	5	Pressure Test			5463.0	START HIGH PRESSURE TEST
08/03/2010 03:10	6	Pressure Test			5283.0	END HIGH PRESSURE TEST
08/03/2010 03:14	7	Pump Spacer	5	40	35.0	START PUMPING TUNED SPACER @ 10.2 LBS/GAL
08/03/2010 03:23	8	Shutdown	5	40	48.0	SHUTDOWN TO DROP BOTTOM PLUG, CUSTOMER WAS ON RIG FLOOR TO WITNESS
08/03/2010 03:28	9	Pump Cement	5	1207	807.0	START PUMPING CEMENT @ 12.0 LBS/GAL, 2.17 YLD, 11.95 WR (3110 SKS), TOTAL CEMENT VOLUME PUMPED 1200 TOTAL BBLS
08/03/2010 06:24	10	Shutdown	5	1207	48.0	END PUMPING CEMENT TOTAL VOLUME PUMPED 1200 BBLS OF CEMENT
08/03/2010 06:27	11	Clean Lines				START CLEANING PUMPING LINES TO PIT
08/03/2010 06:32	12	Drop Top Plug				DROP TOP PLUG, CUSTOMER WAS ON RIG FLOOR TO WITNESS
08/03/2010 06:34	13	Pump Displacement	8	172	18.0	START PUMPING FRESH WATER DISPLACEMENT WITH 2% SALT ADDED.
08/03/2010 06:51	14	Slow Rate	6	172	1970.0	SLOW RATE TO 6.0 BPM
08/03/2010 06:56	15	Slow Rate	5	172	2210.0	SLOW RATE TO 5.0 BPM
08/03/2010 06:58	16	Slow Rate	2	172	2038.0	SLOW RATE TO 2.0 BPM
08/03/2010 07:01	17	Bump Plug	2	172	1875.0	BUMP PLUG @ 1875 PSI, TOOK PRESSURE TO 2500 PSI BEFORE KICKING OUT TRUCK. DURING DISPLACEMENT RETURNS WERE GOOD BUT NO CEMENT OR SPACER WAS RETURNED TO PIT DURING DISPLACEMENT
08/03/2010 07:04	18	Check Floats				CHECK FLOATS. FLOATS HELD WITH 1.5 BBLS RETURNED BACK

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Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
08/03/2010 07:15		Pre-Rig Down Safety Meeting				SAFETY MEETING WITH CREW ABOUT RIGGING DOWN FLOOR AND IRON
08/03/2010 07:30		Rig-Down Equipment				START RIGGING DOWN EQUIPMENT
08/03/2010 10:30		Rig-Down Completed				RIG DOWN COMPLETE
08/03/2010 10:45		Pre-Convoy Safety Meeting				PRE CONVOY SAFETY MEETING WITH CREWS TO TELL EVERYONE WHAT YARD THEY WERE TRAVELING TO, AND TO TALK ABOUT RISKS OF TRAVEL
08/03/2010 11:00		Crew Leave Location				CREWS DEPART LOCATION

Observations

Significant Points

Company man decided to pump Tuned Spacer III at 10.2 lb/gal instead of the designed density of 11.0 lb/gal. The spacer is designed for a specific density and changing it after its been loaded is not reccomended.

40 barrels of spacer were delivered to location, the design called for 70 barrels.

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 331699	**Ship To #:** 2793129	**Quote #:**	**Sales Order #:** 7511601
Customer: EXXONMOBIL CORPORATION		**Customer Rep:** OWENS, RICKY	
Well Name: FRU	**Well #:** 197-28A6	**API/UWI #:** 05-103-11634	
Field: PICEANCE CREEK	**City (SAP):** MEEKER	**County/Parish:** Rio Blanco	**State:** Colorado
Legal Description: Section 16 Township 2S Range 97W			
Job Purpose: Cement Production Casing			
Well Type: Development Well	**Job Type:** Cement Production Casing		
Sales Person: TURNER, JAMIE	**Srvc Supervisor:** SARVER, ZACHARY	**MBU ID Emp #:** 219539	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ALLRED, JARED Don		471751	ARIZOLA, EDWARD Alan		468545	FUCHS, ERIC		471203
HAMMOND, QUINN R		472403	PACE, JEREMY J		452201	REYNOLDS, COREY W		212159
SARVER, ZACHARY S		219539						

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*
10574660C	120 mile	10804581	120 mile	10829452	120 mile	10872113	120 mile
10948689	120 mile	10982756	120 mile	10991613	120 mile	10994447	120 mile
11078258	120 mile	11149201	120 mile	11305584	120 mile	11410666	120 mile
6603	120 mile	6641	120 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

Formation Name			
Formation Depth (MD)	**Top**	**Bottom**	
Form Type		**BHST**	270 degF
Job depth MD	12189. ft	**Job Depth TVD**	12031. ft
Water Depth		**Wk Ht Above Floor**	6. ft
Perforation Depth (MD)	*From*	**To**	

Job Times

	Date	Time	Time Zone
Called Out	02 - Aug - 2010	01:00	MST
On Location	02 - Aug - 2010	06:15	MST
Job Started	03 - Aug - 2010	02:55	MST
Job Completed	03 - Aug - 2010	07:04	MST
Departed Loc	03 - Aug - 2010	10:30	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
Intermediate Open Hole				8.75				3393.	12198.	3354.	12042.
Production Casing	Unknown		4.5	3.826	15.1	LTC	P-110	.	12189.	.	12031.
Surface Casing	Unknown		10.75	9.95	45.5		J-55	.	3595.	.	3550.

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**			

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Cementing Job Summary

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	**TUNED SPACER III**	**TUNED SPACER III - SBM (483826)**	**40.00**	**bbl**	**10.2**	**.0**	**.0**	**6.0**	
36.83 gal/bbl		FRESH WATER							
3 lbm/bbl		FE-2 (100001615)							
0.1 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)							
117.6 lbm/bbl		BARITE, 100 LB SK (100003680)							
2	**Primary Cement**	**VARICEM (TM) CEMENT (452009)**	**3110.0**	**sacks**	**12.**	**2.17**	**11.95**	**6.0**	**11.95**
11.95 Gal		FRESH WATER							
0.38 %		FE-2 (100001615)							
3	**NaCl Displacement**		**172.00**	**bbl**	**8.45**	**.0**	**.0**	**6.0**	
7.15 ppb		SALT, 100 LB BAG (100003652)							

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***

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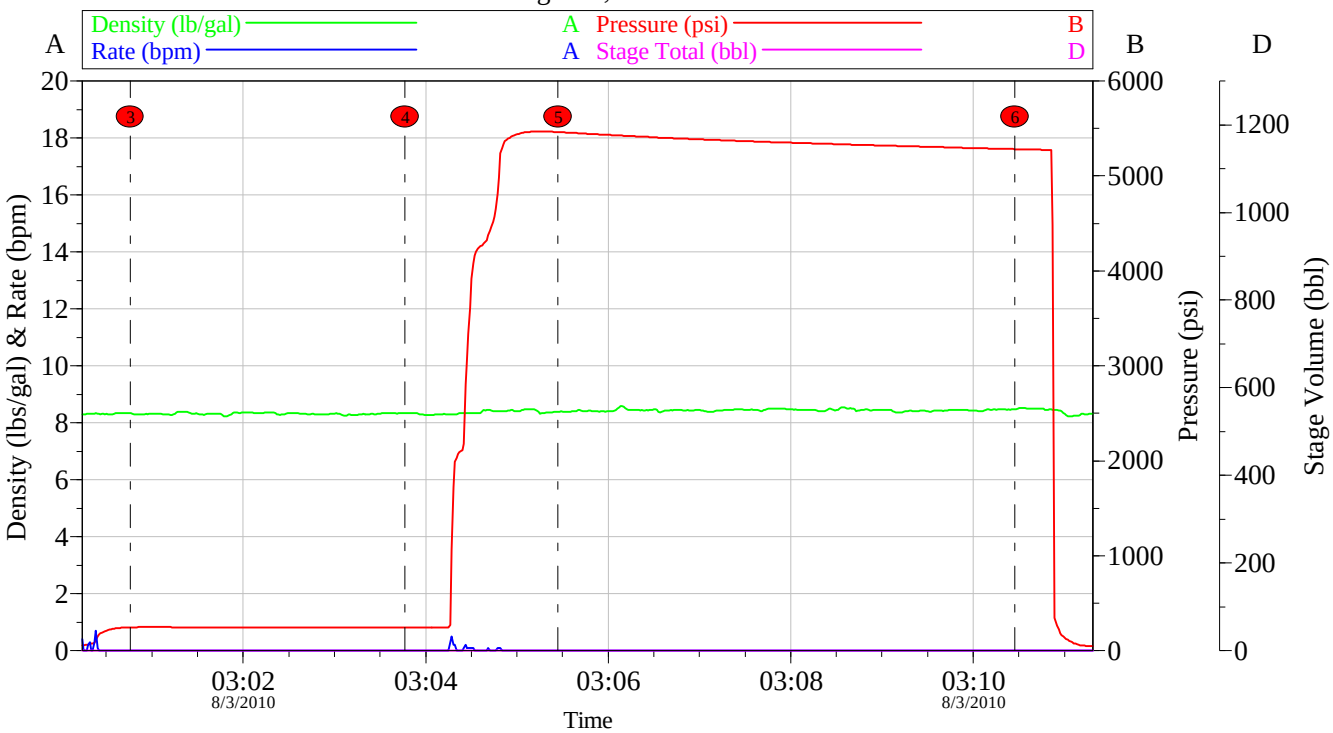
Data Acquisition

ExxonMobil Corporation
FRU 197-28A6 4 1/2" Produciton
August 2, 2010



Local Event Log

	Intersection		P	ST		Intersection		P	ST
3	Start Low Pressure Test	03:00:46	246.0	0.100	4	End Low Pressure Test	03:03:46	244.0	0.100
5	Start High Pressure Test	03:05:27	5463	0.100	6	End High Pressure Test	03:10:27	5283	0.100

Customer: XOM	Job Date: 02-Aug-2010	Sales Order #: 7511598
Well Description: FRU 197-28A6	Job Type: 4 1/2" Production	

OptiCem v6.3.3
03-Aug-10 03:12

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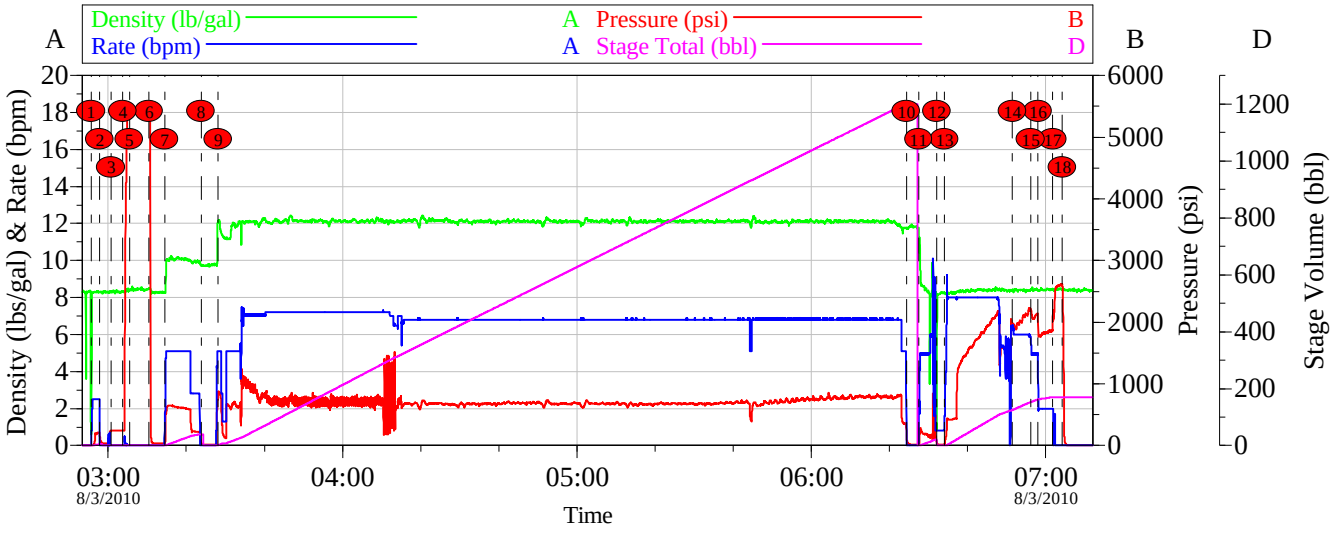
ExxonMobil Corporation
FRU 197-28A6 4 1/2" Produciton
August 2, 2010



Local Event Log

	Intersection		P	ST		Intersection		P	ST
1	Start Fill Lines For Pressure Test	02:55:39	0.000	0.000	2	End Fill Lines For Pressure Test	02:57:51	202.8	5.100
3	Start Low Pressure Test	03:00:46	246.0	0.100	4	End Low Pressure Test	03:03:46	244.0	0.100
5	Start High Pressure Test	03:05:27	5463	0.100	6	End High Pressure Test	03:10:27	5283	0.100
7	Start Tuned Spacer @ 10.2 lbs/gal	03:14:29	35.59	0.000	8	Shutdown to Drop Bottom Plug	03:23:48	48.66	39.80
9	Start Cement @ 12.0 lbs/gal (3110 sks)	03:28:08	807.1	1.757	10	End Cement @ 12.0 lbs/gal	06:24:18	256.4	1200
11	Clean Pumping Lines to Pit	06:27:27	25.00	0.100	12	Drop Top Plug	06:32:05	48.69	0.000
13	Start Displacement w/ 2% Salt	06:34:03	18.18	0.200	14	Slow Rate to 6.0 bpm (130 away)	06:51:28	1970	125.1
15	Slow Rate to 5.0 bpm (150 away)	06:56:07	2210	153.0	16	Slow Rate to 2.0 bpm (160 away)	06:58:02	2038	162.5
17	Bump Plug	07:01:47	1875	170.1	18	Check Floats	07:04:14	2610	170.5

Customer: XOM	Job Date: 02-Aug-2010	Sales Order #: 7511598
Well Description: FRU 197-28A6	Job Type: 4 1/2" Production	

OptiCem v6.3.3
03-Aug-10 08:38

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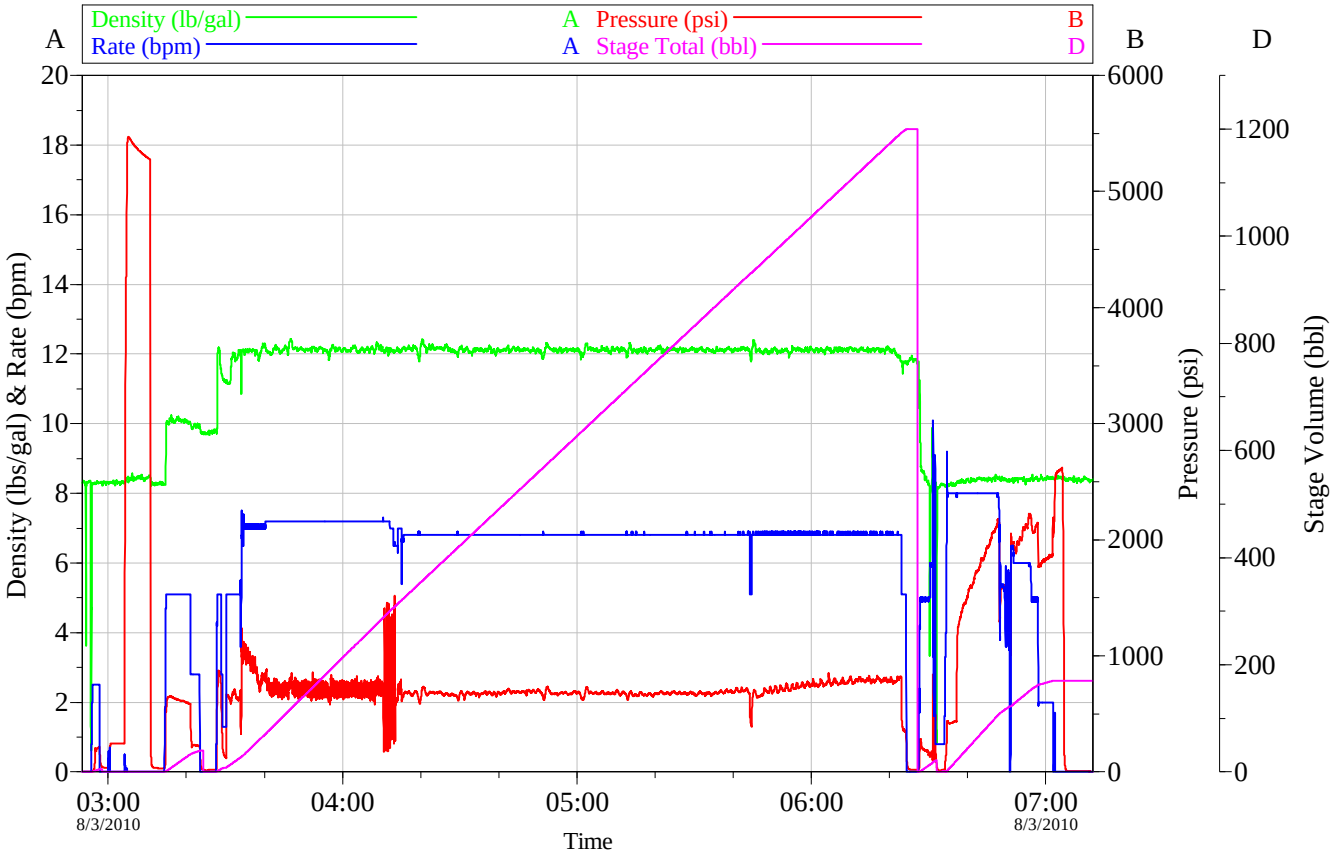
ExxonMobil Corporation
FRU 197-28A6 4 1/2" Produciton
August 2, 2010



Customer: XOM	Job Date: 02-Aug-2010	Sales Order #: 7511598
Well Description: FRU 197-28A6	Job Type: 4 1/2" Production	

OptiCem v6.3.3
03-Aug-10 08:39

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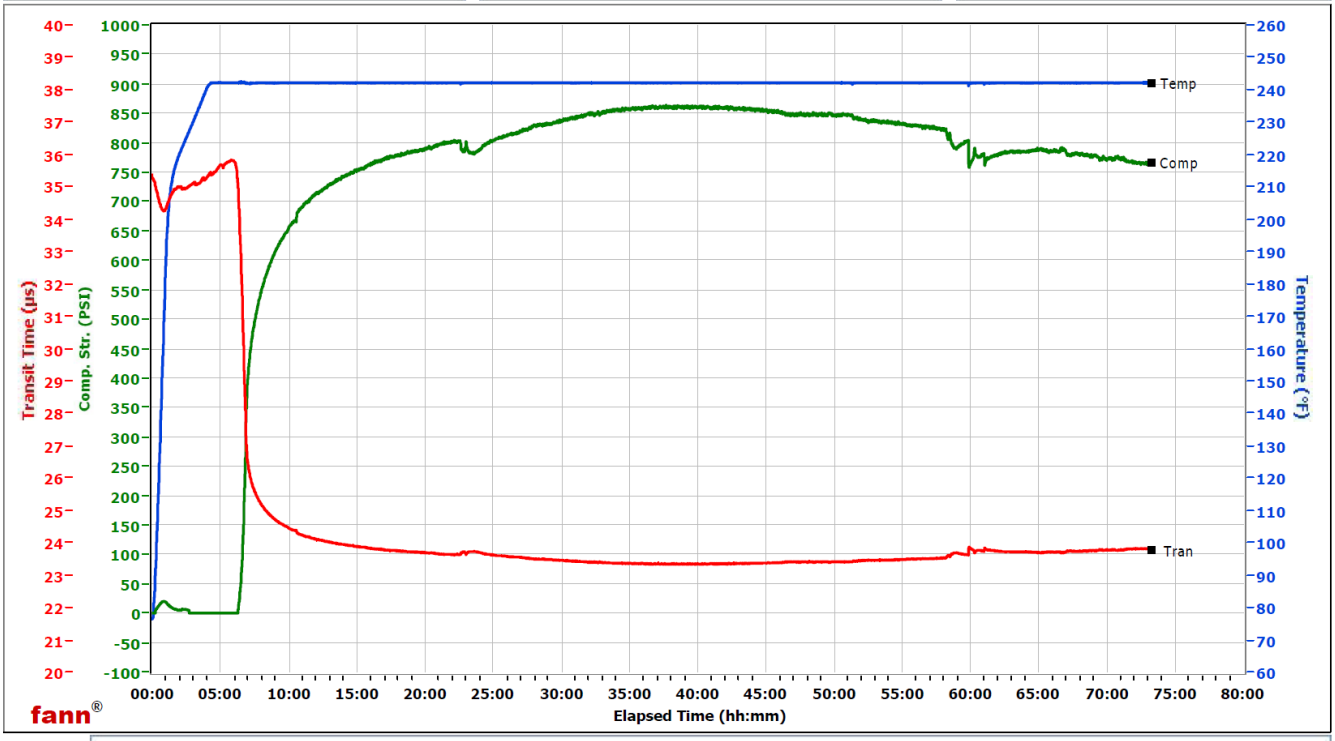
UCA Lab Data

White River City Ranch

Fields	Values
Project Name	Exxonmobil 89280-1
Test ID	89280-1
Request ID	UCA # 2
Tested by	D.P.
Customer	ExxonMobil
Well No	FRU 197-28A6
Rig	H&P 215
Casing/Liner Size	4.5
Job Type	Primary

Fields	Values
Cement Type	TXI
Cement Weight	Standard
Comments	100 % TXI, .38 FE-2, 12.001 DEN, 2.17 YD.
Test Date	7/20/2010
Test Time	10:41 AM
Temp. Units	degF
Pressure Units	PSI

Events	Results
50.00 PSI	06h:30m
100.00 PSI	06h:38m
500.00 PSI	07h:33m
1000.00 PSI	NaN
12h:00m	713.03
24h:00m	788.09
48h:00m	848.03
72h:00m	766.53



Data File C:\UCA Data\89280-1.tdms