

EXXONMOBIL CORPORATION
HOUSTON, Texas

PCU 296-6B1

H&P 215

Post Job Summary

Cement Intermediate Casing

Date Prepared: January 14, 2011
Version: 1

Service Supervisor: Cody Davis
Submitted by: Simukayi Mutasa

HALLIBURTON

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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	4,523.00	0.00	4,414.00	0.00	84.00
Open Hole Section	Intermediate Open Hole		9.875		4,523.00	9,805.00	4,414.00	9,691.00	100.00	
Casing	Intermediate Casing	7.00	6.276	26.00	0.00	9,790.00	0.00	9,676.00	0.00	84.00

Pumping Schedule

Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume
Spacer	TUNED SPACER III	10.00	6.00	80.0 bbl
Cement Slurry	New Vernal Tuned Light	11.00	6.00	1335.0 sacks
Spacer	Mud	9.80	0.00	370.0 bbl

Fluids Pumped

Stage/Plug # 1 Fluid 1: TUNED SPACER III
TUNED SPACER III - SBM (483826)
59.8 lbm/bbl Barite

Fluid Density: 10.00 lbm/gal
Fluid Volume: 80.00 bbl
Pump Rate: 6.00 bbl/min

Stage/Plug # 1 Fluid 2: New Vernal Tuned Light
TUNED LIGHT (TM) SYSTEM
0.55 lbm HR-601

Fluid Weight: 11.00 lbm/gal
Slurry Yield: 2.21 ft³/sack
Total Mixing Fluid: 9.70 Gal
Surface Volume: 1335.0 sacks
Sacks: 1335.0 sacks
Calculated Fill: 6,336.00 ft
Calculated Top of Fluid: 4,528.00 ft
Pump Rate: 6.00 bbl/min

Stage/Plug # 1 Fluid 3: Mud
DUMMY MUD / FLUSH / SPACER SBC MATERIAL

Fluid Density: 9.80 lbm/gal
Fluid Volume: 370.00 bbl
Pump Rate: 0.00 bbl/min

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Job Summary

Job Information

Job Start Date	1/9/2011 3:30:00 AM
Job MD	9,805.0 ft
Job TVD	9,691.0 ft
Height of Plug Container/Swage Above Rig Floor	5.0 ft
Mud Type	Water Based Mud
Name of Mud Company	BAROID
Actual Mud Density	9.3 lbm/gal
Pipe Movement During Hole Circulation	Reciprocated
Pipe Movement During Cementing	Reciprocated
Calculated Displacement	380.60 bbl
Job Displaced by (rig/halco)	Cement Unit HP Pumps
Length of Rat Hole	15.00 ft

Cementing Equipment

Pipe Centralization	Through Entire Cement Column
Did Float Equipment Hold?	Yes
Plug set used?	Yes
Did Plugs Bump?	Yes

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
01/07/2011 16:00		Call Out				
01/07/2011 18:30		Depart Yard Safety Meeting				Journey managment
01/07/2011 18:45		Crew Leave Yard				
01/07/2011 22:30		Arrive At Loc				Rig running casing
01/07/2011 22:45		Safety Meeting - Assessment of Location				Rig running casing
01/07/2011 23:00		Other				Meet w/ CO man and go over numbers
01/07/2011 23:05		Other				Stop trucks using two spotters
01/07/2011 23:15		Safety Meeting - Pre Rig-Up				pinch points red zones line of fire
01/07/2011 23:25		Rig-Up Equipment				
01/08/2011 01:30		Rig-Up Completed				
01/08/2011 01:35		Other				Wait on rig to run casing
01/08/2011 02:00		Running In Hole				Rig running final two joints of casing
01/09/2011 03:00		Pre-Job Safety Meeting				Discussed job procedure and pressure testing and related safety topics
01/09/2011 03:15		Prime Pumps				Waited to prime pumps until job started to avoid freezing pumps
01/09/2011 03:35	1	Pressure Test			1003.0	Low pressure test is good
01/09/2011 03:44	3	Pressure Test			6000.0	High pressure test is good, lost 356 psi in 3 minutes
01/09/2011 03:51	5	Pump Spacer	4.5	120	340.0	Pump 10 ppg Tuned Spacer III. Design volume 80 bbls, Recorded volume 120 bbls
01/09/2011 04:18	6	Drop Bottom Plug				
01/09/2011 04:23	7	Pump Cement	6	577	460.0	Pump 11 ppg Tuned Light, water requirement 10.04 gal/sk (319 bbls total mix water), yield 2.25 cuft/sk, design volume 1335 sks (535 bbls); recorded slurry volume 577 bbls and recorded mix water 338 bbls
01/09/2011 06:00	8	Drop Top Plug				Drop top plug and worked with rig to establish mud boost rate to RCM
01/09/2011 06:07	9	Pump Displacement	8	380.6	880.0	Pump mud displacement, washup with 10 bbls of water on top of plug
01/09/2011 06:57	10	Bump Plug	5		1979.0	Bump plug at 880 psi and over pressure to 1979
01/09/2011 07:03	11	Check Floats				Floats held, 2.5 bbls back
01/09/2011 07:10		Pre-Rig Down Safety Meeting				Assigned jobs and discussed safety and weather conditions
01/09/2011 07:15		Rig-Down Equipment				
01/09/2011 09:00		Rig-Down Completed				
01/09/2011 09:30		Safety Meeting - Departing Location				Journey managment
01/09/2011 10:00		Depart Location for Service Center or Other Site				

The Road to Excellence Starts with Safety

Sold To #: 331699	Ship To #: 2826412	Quote #:	Sales Order #: 7870769
Customer: EXXONMOBIL CORPORATION	Customer Rep: Mendoza, RJ		
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 Intermediate Casing			
Well Type: Development Well	Job Type: Cement Intermediate Casing		
Sales Person: MCNARY, GEORGE	Srv Supervisor: DAVIS, CODY	MBU ID Emp #: 446891	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DAVIS, CODY R	29	446891	GOODRICH, BENJAMIN Franklin	29	481342	POOLE, BARCLAY	29	338188
WALSH, JAMES Ronald	29	457722	WILLIAMS, CAMERON Kent	29	438405	ELDRIGE, VANCE	29	477303
						WHORL, ISAAC	29	464968

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
1-7-11	1.5	0	1-8-11	24	0	1-9-11	10	3.5
TOTAL			Total is the sum of each column separately					

Job

Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Job Depth TVD	Water Depth	Perforation Depth (MD)	From	To	Called Out	Date	Time	Time Zone
				BHST	9805. ft	210 degF						07 - Jan - 2011	16:00	MST
						9691. ft					On Location	07 - Jan - 2011	22:00	MST
											Job Started	09 - Jan - 2011	03:30	MST
											Job Completed	09 - Jan - 2011	06:45	MST
											Departed Loc	09 - Jan - 2011	10:00	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
Intermediate Open Hole				9.875				4523.	9805.	4414.	9691.
Intermediate Casing	Unknown		7.	6.276	26.	HYDRIL - SERIES 500 TYPE 513	P-110	.	9790.	.	9676.
Surface Casing	New		10.75	9.95	45.5	BTC	J-55	.	4523.	.	4414.

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

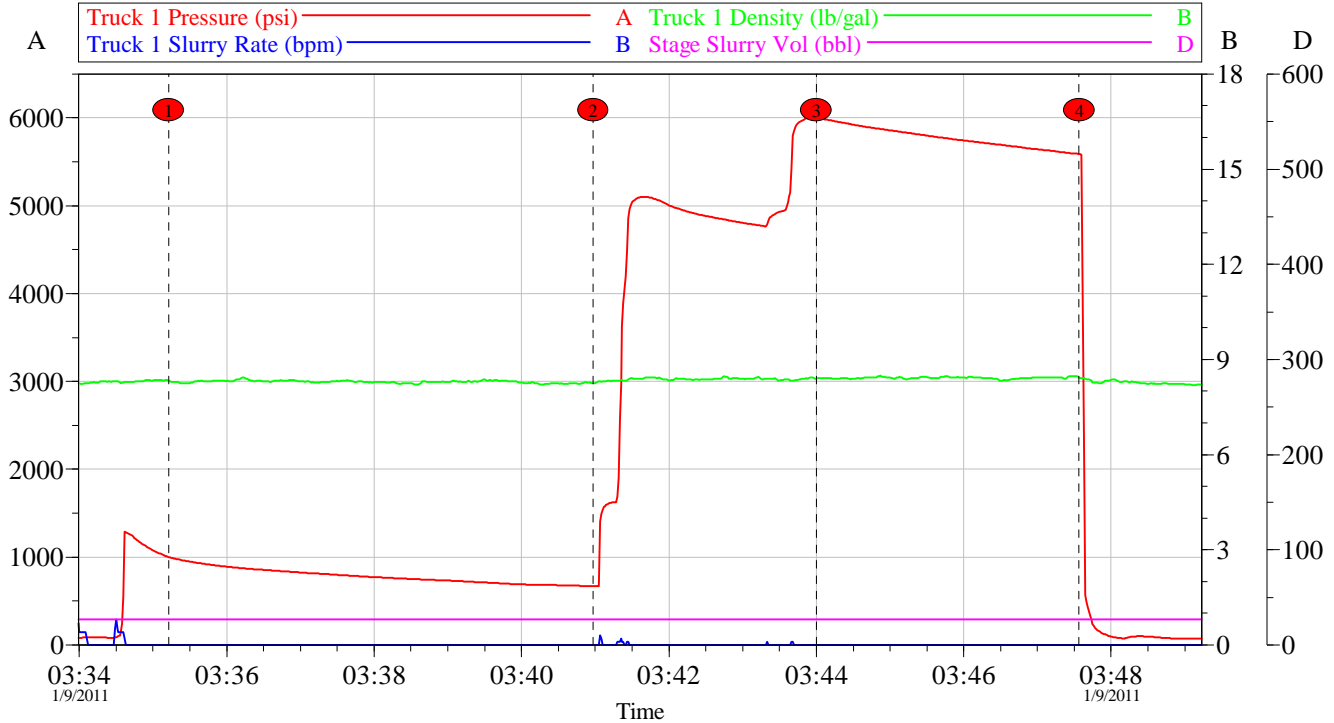
Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

Fluid Data									
Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	TUNED SPACER III	TUNED SPACER III - SBM (483826)	80.00	bbl	10.	5.05	34.36	6.0	
38.32 gal/bbl		FRESH WATER							
59.8 lbm/bbl		BARITE, 100 LB SK (100003680)							
2	New Vernal Tuned Light	TUNED LIGHT (TM) SYSTEM (452984)	1335.0	sacks	11.	2.21	9.7	6.0	9.7
0.55 lbm		HR-601, 50 LB BAG (101328348)							
9.7 Gal		FRESH WATER							
3	Mud		370.00	bbl	9.8	.0	.0	.0	
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	84 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

PCU 296-6B1 Intermediate Pressure Test



Local Event Log							
Intersection			PSI	Intersection			PSI
1	Start Low Pressure Test	03:35:13	1003	2	End Low Pressure Test	03:40:58	670.0
3	Start High Pressure Test	03:44:00	6000	4	End High Pressure Test	03:47:34	5588

Customer: EXXONMOBIL
Well Description: PCU 296-6B1

Job Date: 08-Jan-2011
UWI: 05-103-11546

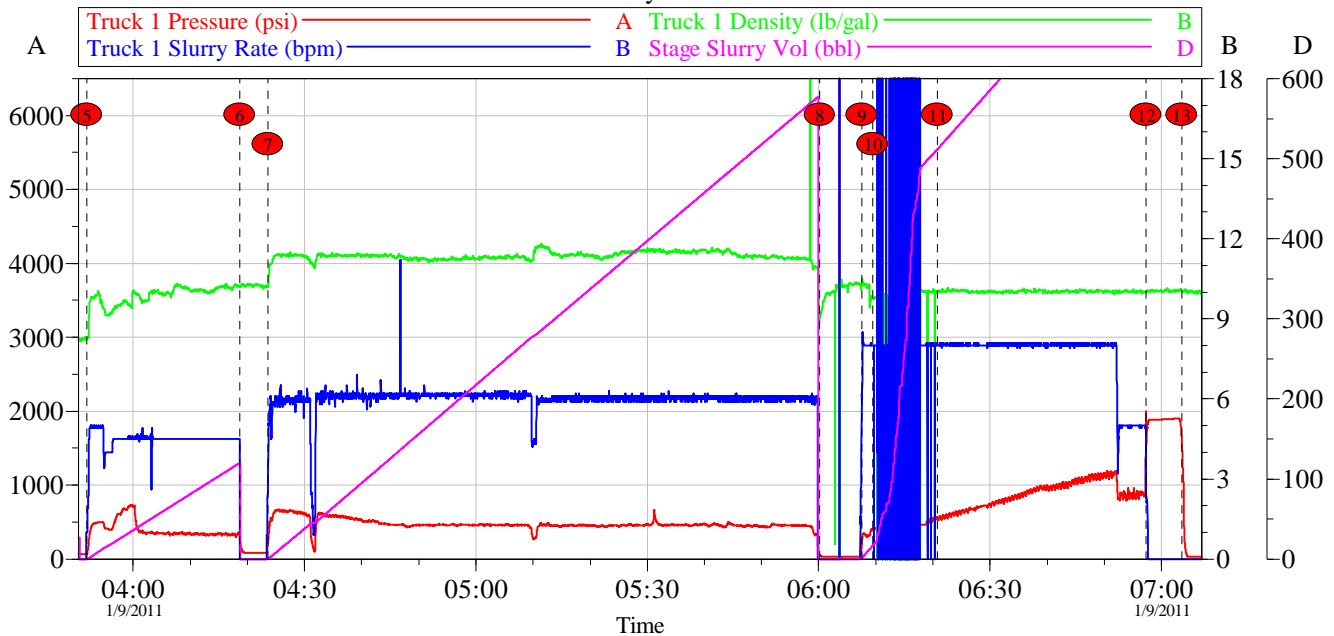
Sales Order #: 7870769
Svc Supervisor: Cody Davis

OptiCem v6.4.9
09-Jan-11 07:15

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PCU 296-6B1 Intermediate

Summary Chart



Local Event Log			
Intersection	PSI	Intersection	PSI
5 Pump Spacer	03:51:52 68.00	6 Drop Bottom Plug	04:18:41 295.1
7 Pump Cement	04:23:33 178.8	8 Drop Top Plug and Washup RCM	06:00:12 51.19
9 Pump Displacement	06:07:30 188.3	10 Connection issues with computer	06:09:27 398.0
11 Connection issues fixed	06:20:45 556.8	12 Bump Plug	06:57:17 1979
13 Check Floats	07:03:32 1614		

Customer: EXXONMOBIL
Well Description: PCU 296-6B1

Job Date: 08-Jan-2011
UWI: 05-103-11546

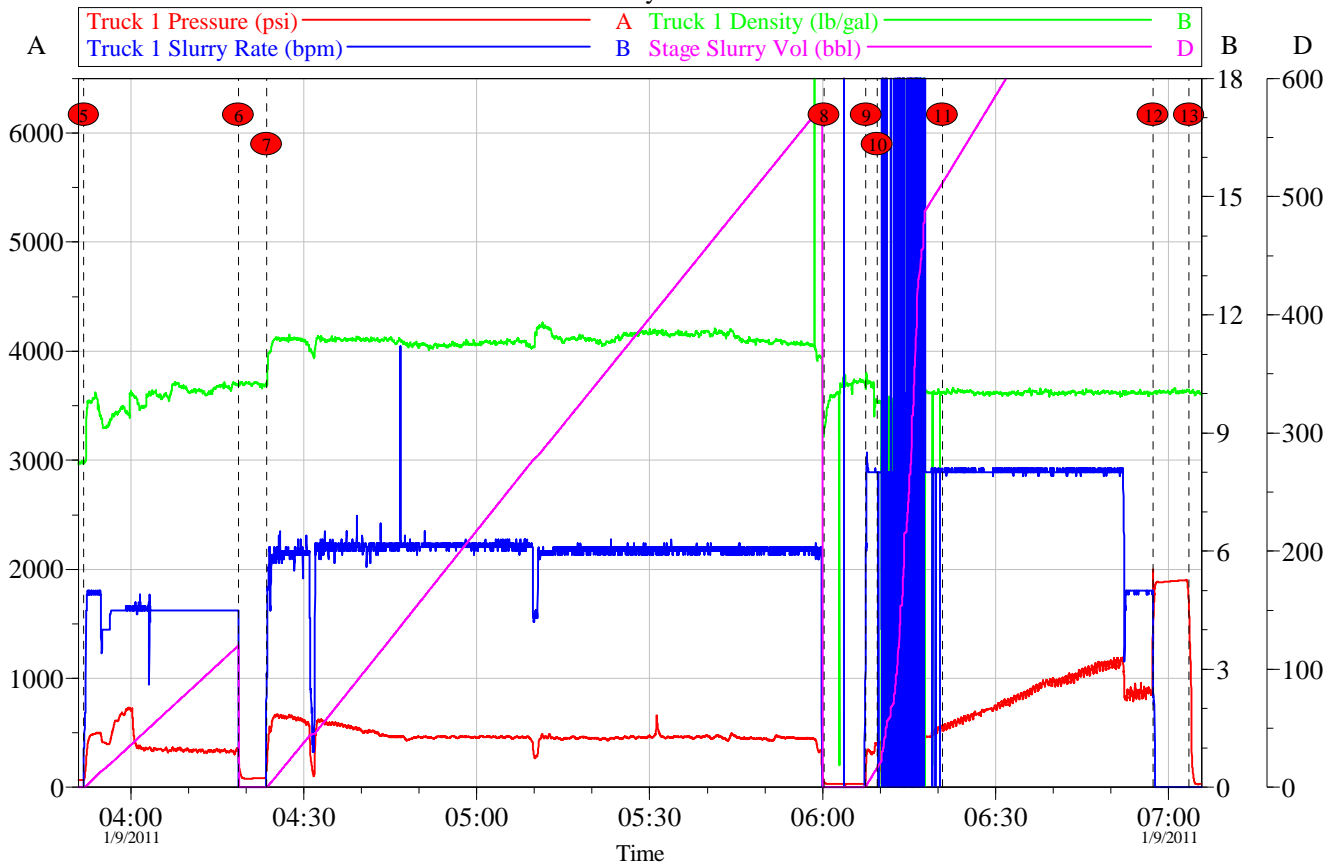
Sales Order #: 7870769
Svc Supervisor: Cody Davis

OptiCem v6.4.9
09-Jan-11 07:14

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PCU 296-6B1 Intermediate

Summary Chart



Customer: EXXONMOBIL
Well Description: PCU 296-6B1

Job Date: 08-Jan-2011
UWI: 05-103-11546

Sales Order #: 7870769
Svc Supervisor: Cody Davis

OptiCem v6.4.9
09-Jan-11 07:16

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Laboratory Data

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Cementing Rockies, Vernal

LAB RESULTS - Primary

Job Information

Request/Slurry	119312	Rig Name	H&P 215	Date	29/DEC/2010
Submitted By	Simukayi Mutasa	Job Type	Intermediate Casing	Bulk Plant	Vernal
Customer	ExxonMobil	Location	Rio Blanco	Well	PCU 296-6B1

Well Information

Casing/Liner Size	7"	Depth MD	9805 ft	BHST	210 F
Hole Size	9 7/8"	Depth TVD	9691 ft	BHCT	154 F

Cement Information - Primary Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		Tuned Light				Slurry Density	11.00	PPG
36.88	%	> Boral Craig Pozmix	Bulk	Jan 04, 2011		Slurry Yield	2.21	ft3/sk
11	%	> HGS 6000 dry blended	Bulk	Jan 04, 2011		Water Requirement	9.69	GPS
53.19	%	> Holcim Type V	Bulk	Jan 04, 2011				
13	%	> Silicalite - Compacted	Bulk	Jan 04, 2011				
100.00	% BWOC	Cement Blend						
0.550	lb/sk	HR-601	Bulk	Jan 04, 2011	HR07X-0953GW	Water Source	Field (Fresh) Water	
0.500	lb/sk	D-Air 3000	Bulk	Jan 04, 2011	2010340 AC	Water Chloride	N/A	ppm
0.200	lb/sk	FWCA	Bulk	Jan 04, 2011				
9.69	gal/sack	Field (Fresh) Water	Lab	Dec 11, 2010	12-10-2010			

Operation Test Results Request ID 119312

UCA Comp. Strength

End Temp (°F)	Pressure (psi)	50 psi (hh:mm)	500 psi (hh:mm)	12 hr CS (psi)	24 hr CS (psi)	48 hr CS (psi)	End CS (psi)	End Time (hrs)
191	3,000	07:19	10:39	1,086	1,611	1,516	1,522	72

Thickening Time

Temp (°F)	Pressure (psi)	Reached in (min)	Start BC	30 Bc (hh:mm)	50 Bc (hh:mm)	70 Bc (hh:mm)	100 Bc (hh:mm)
154	6,084	65	7	04:05	04:26	04:53	05:32

Mixability (0 - 5) - 0 is not mixable

Mixability rating (0 - 5)

5

Marsh Funnel

Volume [ml]	Time [Sec]	Foam Quality
180	110	0

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Free Water

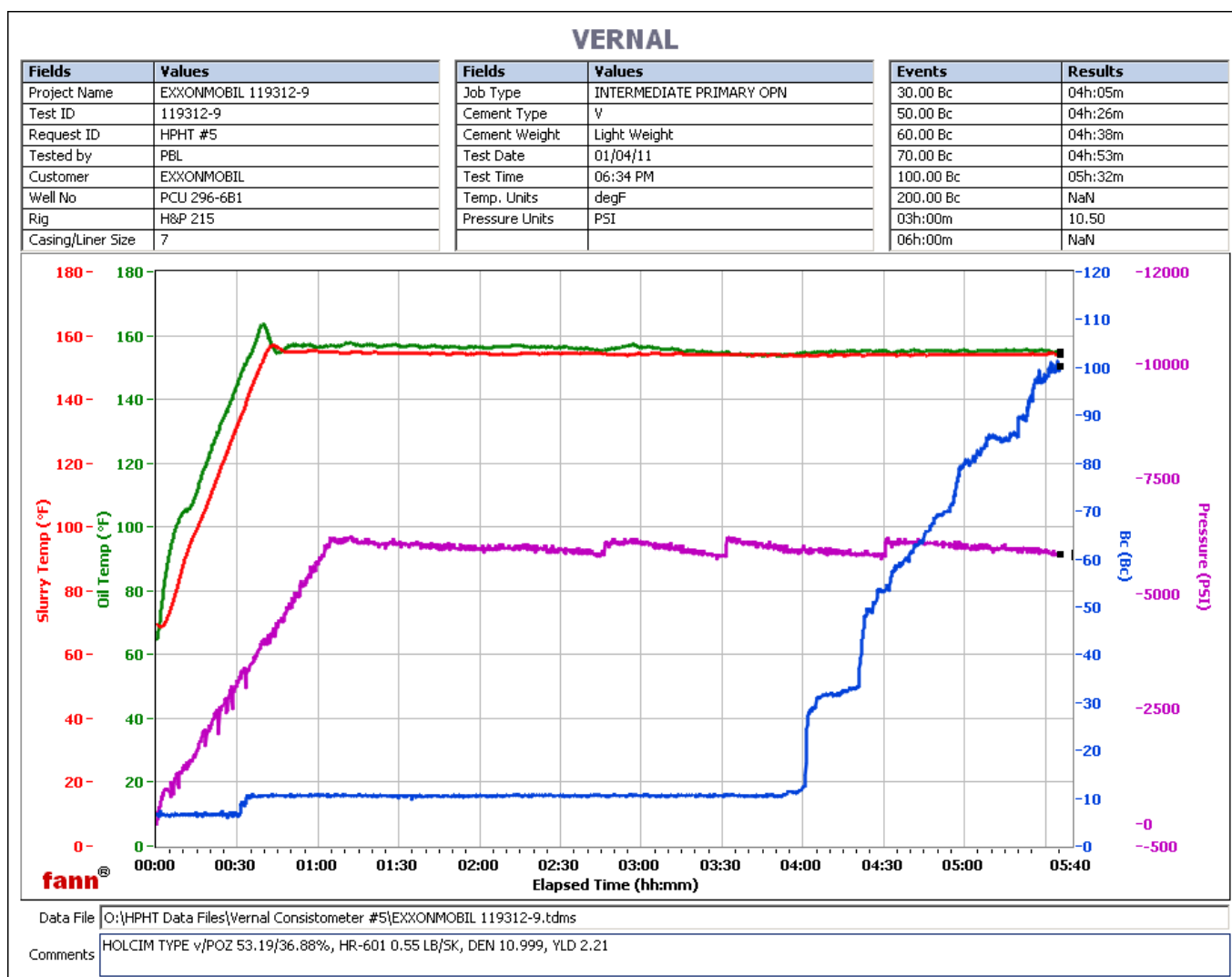
Test Temp (°F)	% FW 45 Inc
154	0

API Rheology

Temp (°F)	600	300	200	100	60	30	6	3	Cond Time (min)	PV/YP
80	221	138	108	70	55	32	36	24	20	113.8 / 29.8

API Fluid Loss

Test Temp (°F)	Test Pressure (psi)	Test Time (min)	Meas. Vol (< 30 min, cc)	Extr. ISO FL (cc/30 min)
154	1,000	3.15	38	235



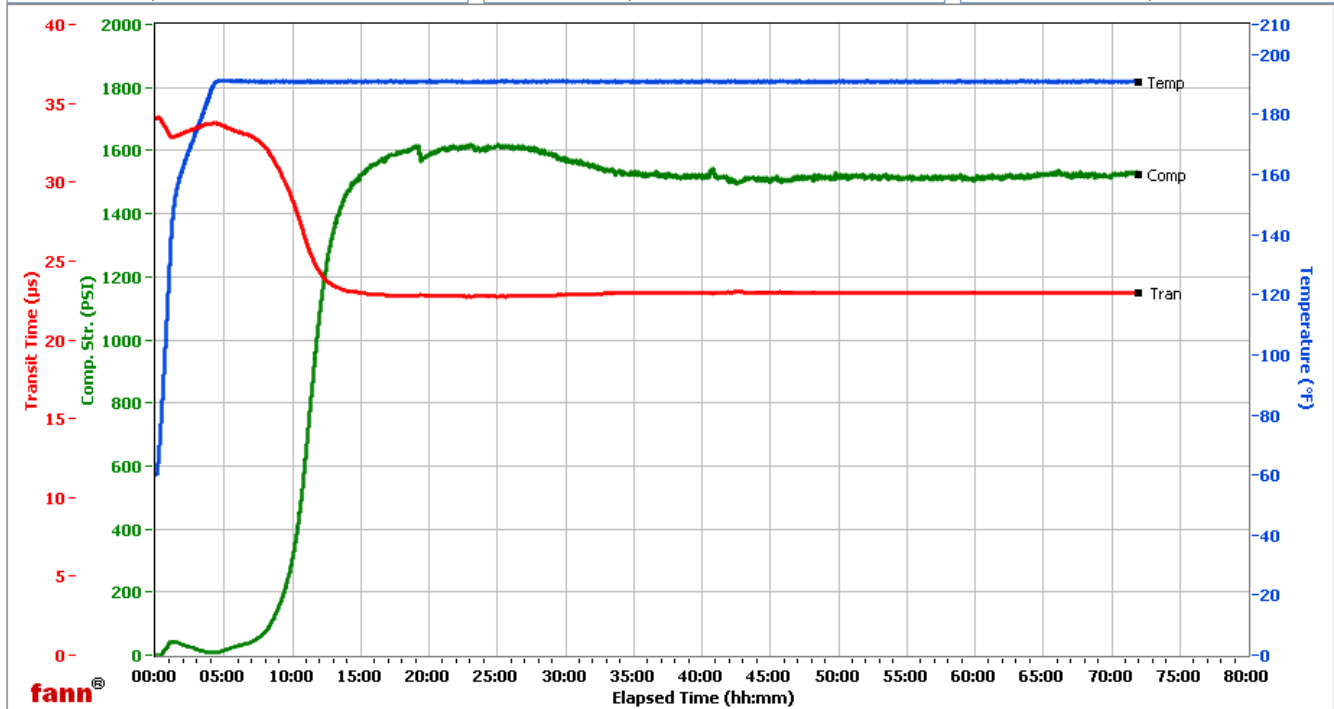
HALLIBURTON

Verna ^

Fields	Values
Project Name	ExxonMobil 119312-9
Test ID	119312-9
Request ID	UCA 4
Tested by	vmc
Customer	ExxonMobil
Well No	PCU 296-6B1
Rig	H&P 215
Casing/Liner Size	7

Fields	Values
Job Type	Intermediate Primary
Cement Type	Tuned Light
Cement Weight	Light Weight
Test Date	1/4/2011
Test Time	4:14 PM
Temp. Units	degF
Pressure Units	PSI

Events	Results
50.00 PSI	07h:19m
100.00 PSI	08h:25m
500.00 PSI	10h:39m
1000.00 PSI	11h:47m
12h:00m	1085.33
24h:00m	1610.98
48h:00m	1515.80
72h:00m	1521.76



Data File C:\Documents and Settings\UCA\Desktop\TESTS\119312-9.tdms

Comments Tuned Light, 0.55# HR-601, 11 Den, 2.21 Yd