

EXXONMOBIL CORPORATION

HOUSTON, Texas

PCU 197-36A1

**H&P 326**

# **Post Job Summary**

## **Cement Intermediate Casing**

Date Prepared: 12/17/10

Version: 1

Service Supervisor: DEARING, KEN

Submitted by: Isaac Whorl

# HALLIBURTON

## Wellbore Geometry

Job Tubulars					MD		TVD		Excess %	Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft		
Casing	Surface Casing	10.75	9.950	45.50	0.00	4,173.00	0.00	4,069.00		80.00
Open Hole Section	Intermediate Open Hole		9.875		4,173.00	9,481.00	4,069.00	9,377.00	100.00	
Casing	Intermediate Casing	7.00	6.276	26.00	0.00	9,467.00	0.00	9,363.00		78.78

## Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Density lbm/gal	Avg Rate bbl/min	Volume
1	Spacer	TUNED SPACER III	10.00	6.00	80.0 bbl
2	Cement Slurry	New Vernal Tuned Light	11.00	6.00	1325.0 sacks
3	Spacer	Treated Water Displacement	8.40	8.00	356.0 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

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

Fluid Weight: 11.00 lbm/gal  
 Slurry Yield: 2.25 ft<sup>3</sup>/sack  
 Total Mixing Fluid: 10.01 Gal  
 Volume: 1325.0 sacks  
 Calculated Fill: 5,741.00 ft  
 Calculated Top of Fluid: 3,673.00 ft

**Stage/Plug # 1 Fluid 3:** Treated Water Displacement  
 DISPLACEMENT FLUID

Fluid Density: 8.4 lbm/gal  
 Fluid Volume: 356.00 bbl

# HALLIBURTON

## Job Summary

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### Job Information

<b>Job Start Date</b>	11/12/2010 5:00:00 PM
<b>Job MD</b>	9,414.0 ft
<b>Job TVD</b>	9,341.0 ft
<b>Height of Plug Container/Swage Above Rig Floor</b>	15.0 ft
<b>Surface Temperature at Time of Job</b>	20 degF
<b>Mud Type</b>	Water Based Mud
<b>Name of Mud Company</b>	BAROID
<b>Actual Mud Density</b>	9 lbm/gal
<b>Mud loss while running Casing</b>	1,000.00 bbl
<b>Time Circulated before job</b>	3.00 hour(s)
<b>Mud Volume Circulated</b>	720.00 bbl
<b>Rate at Which Well was Circulated</b>	4.000 bbl/min
<b>Mud loss while Circulating</b>	135.00 bbl
<b>Units of Gas Detected While Circulating</b>	1800 API Gas Units
<b>Pipe Movement During Hole Circulation</b>	Reciprocated
<b>Time From End Mud Circ. to Job Start</b>	30.00 minute
<b>Mud loss during Cement Job</b>	223.00 bbl
<b>Pipe Movement During Cementing</b>	Reciprocated
<b>Calculated Displacement</b>	357.14 bbl
<b>Job Displaced by (rig/halco)</b>	Cement Unit HP Pumps
<b>Annular flow Before Job? (Water/Gas)</b>	No
<b>Annular flow After Job? (Water/Gas)</b>	No
<b>Length of Rat Hole</b>	14.00 ft

### Cementing Equipment

<b>Number of Centralizers Used</b>	52
<b>Pipe Centralization</b>	Through Entire Cement Column
<b>Brand of Float Equipment Used</b>	Weatherford
<b>Did Float Equipment Hold?</b>	Yes
<b>Plug set used?</b>	Yes
<b>Brand of Plug set used?</b>	Weatherford
<b>Did Plugs Bump?</b>	Yes
<b>Calculated Pressure to Bump Plugs</b>	993.0 psig

# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
11/11/2010 07:30	Call Out				
11/11/2010 08:30	Pre-Convoy Safety Meeting				DISCUSS SAFETY AND HAZARDS OF TRAVEL.
11/11/2010 08:45	Other				LOAD EQUIPMENT FOR JOB.
11/11/2010 09:15	Depart Yard Safety Meeting				DISCUSS SAFETY AND HAZARDS OF TRAVEL.
11/11/2010 09:30	Crew Leave Yard				
11/11/2010 15:00	Arrive At Loc				
11/11/2010 15:05	Assessment Of Location Safety Meeting				SIGN IN AT SAFETY SHACK, GET WORK PERMIT SIGNED, WALK LOCATION, DISCUSS SPOTTING OF EQUIPMENT AND RIG UP, DISCUSS SAFETY AND HAZARDS.
11/11/2010 15:10	Safety Meeting				MEET WITH CO.MAN, DISCUSS WELL CONDITIONS, GET WELL INFORMATION, DISCUSS SAFETY AND HAZARDS, CASING @ 7180.0'.
11/11/2010 15:15	Safety Huddle				DISCUSS SAFETY AND HAZARDS.
11/11/2010 15:20	Other				SPOT EQUIPMENT.
11/11/2010 15:35	Safety Meeting - Pre Rig-Up				DISCUSS SAFETY AND HAZARDS.
11/11/2010 15:40	Rig-Up Equipment				RIG UP IRON AND SUCTION HOSE, TO RED ZONE, TEST H2O.
11/11/2010 17:30	Other				CHECK OUT EQUIPMENT, MAKE SURE IT IS READY FOR JOB.
11/11/2010 18:00	Other				WAIT ON RIG AND CASING CREW TO RUN CASING, CASING @ 7770.0'.
11/11/2010 20:15	Safety Meeting				MEET WITH CO.MAN, GO OVER CALCULATIONS, DISCUSS JOB PROCEDURE, DISCUSS PRESSURE TEST AND MAX PRESSURE, DISCUSS CONTINGENCIES, DISCUSS SAFETY AND HAZARDS, CASING @ 8100.0'.

# HALLIBURTON

Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
11/12/2010 03:00	Other				WAIT ON RIG AND CASING CREW TO RUN CASING, REAMING AND TRYING TO HEAL LOSSES, CASING @ 8675.0'.
11/12/2010 06:15	Other				WAIT ON RIG AND CASING CREW TO RUN CASING, REAMING AND TRYING TO HEAL LOSSES, CASING @ 9345.0'.
11/12/2010 11:00	Casing on Bottom				
11/12/2010 11:15	Circulate Well	8			RIG CIRCULATES ONE BOTTOMS UP
11/12/2010 12:15	Other				RIG SHUTS DOWN AND STARTS RIGGING DOWN CRT, AND RIGGING UP BALES AND ELEVATORS.
11/12/2010 14:00	Safety Meeting - Pre Rig-Up				SAFETY MEETING WITH RIG CREW AND CO.MAN, DISCUSS SAFETY AND HAZARDS OF RIGGING UP ON THE FLOOR.
11/12/2010 14:15	Rig-Up Equipment				RIG UP CEMENT HEAD AND IRON TO RIG FLOOR, AND ONTO CASING.
11/12/2010 15:15	Circulate Well				RIG STARTS CIRCULATING WELL THROUGH HES IRON.
11/12/2010 15:20	Safety Meeting - Pre Job				SAFETY MEETING WITH RIG CREW AND CO.MAN, DISCUSS JOB PROCEDURES, DISCUSS SAFETY AND HAZARDS OF JOB. WAIT FOR RIG TO CIRCULATE GAS AND MONITOR BALLOONING WELL.
11/12/2010 15:45	Other				CHECK EQUIPMENT AND MAKE SURE ALL IS READY FOR JOB.
11/12/2010 16:35	Prime Pumps				GAS DOWN AS PER CO.MAN, PRIME UP RCM, GET READY TO PUMP JOB.
11/12/2010 16:45	Start Job				START CEMENT JOB. AIR UP BULK EQUIPMENT.
11/12/2010 16:50	Pump Water	4	5	276.0	PUMP 5 BBL OF H2O TO FILL LINES.
11/12/2010 16:54	Pressure Test			329.0	LOW PRESSURE TEST. LOST 26 PSI IN 3 MINUTES.
11/12/2010 16:59	Pressure Test			5256.0	HIGH PRESSURE TEST. LOST 62 PSI IN 3 MINUTES.
11/12/2010 17:09	Pump Spacer	4	80	362.0	START 10.0# TUNED SPACER III. DESIGN (SPACER 80 BBL, WATER 72 BBL). RECORDED (SPACER 80 BBL, WATER 70 BBL).
11/12/2010 17:12	Other	4		375.0	WELL CIRCULATING.

# HALLIBURTON

Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
11/12/2010 17:14	Other				INCREASE RATE AS PER CO.MAN.
11/12/2010 17:24	Shutdown				END SPACER-SHUT DOWN.
11/12/2010 17:26	Drop Bottom Plug	0	0	.0	SAFETY HUDDLE-DROP BOTTOM PLUG.
11/12/2010 17:29	Pump Cement	3	521.5	269.0	START PUMPING 11.0# TUNED LIGHT CEMENT, 521.5bbls, 1325sks, 2.21cf/ft, 9.68gal/sk WATER/SLURRY 58.5%. DESIGN (521.5 BBL, WATER 305 BBL). RECORDED (530 BBL, 312 BBL).
11/12/2010 17:33	Other	6	521.5	657.0	INCREASE RATE
11/12/2010 17:37	Slow Rate	1.5	521.5	73.0	SLOW RATE TO SWITCH BULK DELIVERY FROM SILO.
11/12/2010 17:42	Other	6	521.5	654.0	INCREASE RATE
11/12/2010 17:48	Slow Rate	1	521.5	64.0	SLOW RATE TO IMPROVE BULK DELIVERY.
11/12/2010 17:52	Other	6	521.5	623.0	INCREASE RATE BACK TO 6 BPM.
11/12/2010 19:05	Shutdown	0	0	.0	END CEMENT-SHUT DOWN.
11/12/2010 19:06	Drop Top Plug	0	0	.0	SAFETY HUDDLE-DROP TOP PLUG.
11/12/2010 19:09	Pump Displacement	7	358.6	290.0	START H2O DISPLACEMENT, WASHING ON TOP OF PLUG AS PER CO.MAN, WITH .3#/gal ALDACIDE G AND .5# BARACOR ADDED ON THE SIDE. DESIGN 358.8 BBL. RECORDED BBL.
11/12/2010 19:21	Displ Reached Cmmt	8		391.0	CAUGHT CEMENT. DESIGN 45 BBL. RECORDED 93 BBL.
11/12/2010 19:51	Slow Rate	6		1220.0	SLOW RATE IN ANTICIPATION OF BUMPING PLUG.
11/12/2010 19:53	Other	4	358.6	1077.0	LOST RETURNS WITH 347 BBL AWAY INTO DISPLACEMENT.
11/12/2010 19:54	Slow Rate	4		1089.0	SLOW RATE IN ANTICIPATION OF BUMPING PLUG.
11/12/2010 19:56	Bump Plug	3.3		1084.0	BUMPED PLUG. DESIGN 993 PSI. RECORDED 1085 PSI.
11/12/2010 19:56	Shutdown				PRESSURE OVER 815psi TO 1900psi-SHUT DOWN.
11/12/2010 20:00	Check Floats	0	0	1967.0	CHECK FLOATS-FLOATS HOLD, 2.75 BBL BACK.

# HALLIBURTON

Date/Time	Activity Code	Pump Rate	Volume	Pressure (psig)	Comments
11/12/2010 20:05	Post-Job Safety Meeting (Pre Rig-Down)				DISCUSS JOB, GO OVER HOC AND BBP OBSERVATIONS, DISCUSS SAFETY AND HAZARDS OF RIG DOWN.
11/12/2010 20:15	Safety Meeting - Pre Rig-Down				SAFETY MEETING WITH RIG CREW, DISCUSS SAFETY AND HAZARDS OF RIGGING IRON OFF OF RIG FLOOR.
11/12/2010 20:20	Rig-Down Equipment				RIG IRON OFF OF RIG FLOOR.
11/12/2010 20:25	Safety Huddle				DISCUSS SAFETY AND HAZARDS.
11/12/2010 20:30	Other				WASH UP RCM TO PIT, BLOW OFF SILOS INTO BULK TRUCK.
11/12/2010 21:10	Safety Meeting - Pre Rig-Down				DISCUSS SAFETY AND HAZARDS.
11/12/2010 21:15	Rig-Down Equipment				RIG DOWN AND RACK UP IRON AND SUCTION HOSE.
11/12/2010 23:15	Pre-Convoy Safety Meeting				DISCUSS SAFETY AND HAZARDS OF TRAVEL.
11/12/2010 23:30	Crew Leave Location				
11/12/2010 23:30	Other				THANK YOU-KEN, KEN, JOSH, AND CREW.

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 331699	<b>Ship To #:</b> 2807173	<b>Quote #:</b>	<b>Sales Order #:</b> 7757327
<b>Customer:</b> EXXONMOBIL CORPORATION		<b>Customer Rep:</b> WOOD, JOHN	
<b>Well Name:</b> PCU		<b>Well #:</b> 197-36A1	<b>API/UWI #:</b> 05103111800000
<b>Field:</b> PICEANCE CREEK	<b>City (SAP):</b> MEEKER	<b>County/Parish:</b> Rio Blanco	<b>State:</b> Colorado
<b>Legal Description:</b> Section 36 Township 1S Range 97W			
<b>Contractor:</b> H&P		<b>Rig/Platform Name/Num:</b> 326	
<b>Job Purpose:</b> Cement Intermediate Casing			
<b>Well Type:</b> Development Well		<b>Job Type:</b> Cement Intermediate Casing	
<b>Sales Person:</b> TURNER, JAMIE		<b>Srvc Supervisor:</b> DEARING, KEN	<b>MBU ID Emp #:</b> 239372

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ANGLIN, JOSHUA B	17.5	462343	DEAN, MARK Christophe	32.5	454214	DEARING, KEN A	32.5	239372
DUBE, CRAIG	17.5	476241	ESTEP, KENNETH	32.5	121420	FUCHS, ERIC James	32.5	471203
PARTRIDGE, BRENT W	32.5	471227	PARTRIDGE, TRAVIS M	32.5	484614			

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10872435	45 mile	10897817	45 mile	10948686	45 mile	10991611	45 mile
11041164	45 mile	11062234	45 mile	11263211	45 mile	11410664	45 mile

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
11-11-2010	9	0	11-12-2010	23.5	3			
<b>TOTAL</b>			<i>Total is the sum of each column separately</i>					

### Job

### Job Times

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone	
<b>Form Type</b>		BHST	210 degF	<b>On Location</b>	11 - Nov - 2010	15:00	MST
<b>Job depth MD</b>	9414. ft	<b>Job Depth TVD</b>	9341. ft	<b>Job Started</b>	12 - Nov - 2010	17:00	MST
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>	15. ft	<b>Job Completed</b>	12 - Nov - 2010	20:00	MST
<b>Perforation Depth (MD)</b>	<i>From</i>	<i>To</i>		<b>Departed Loc</b>	12 - Nov - 2010	23:30	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				9.875				4173.	9481.	4069.	9377.
Intermediate Casing	New		7.	6.276	26.	HYDRIL - SERIES 500 TYPE 513	P-110	.	9467.	.	9363.
Surface Casing	Unknown		10.75	9.95	45.5	BTC	J-55	.	4173.	.	4069.

### Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
EZ Case Bit	8.5	1		9463.4	Packer					Top Plug	7	1	Weather
Float Collar	7	1	Weath	9461.4	Bridge Plug					Bottom Plug	7	1	Weather
Float Collar	7	1	Weath	9388.2	Retainer					SSR plug set			
Insert Float										Plug Container	7	1	HES
Stage Tool										Centralizers	7	52	Weather

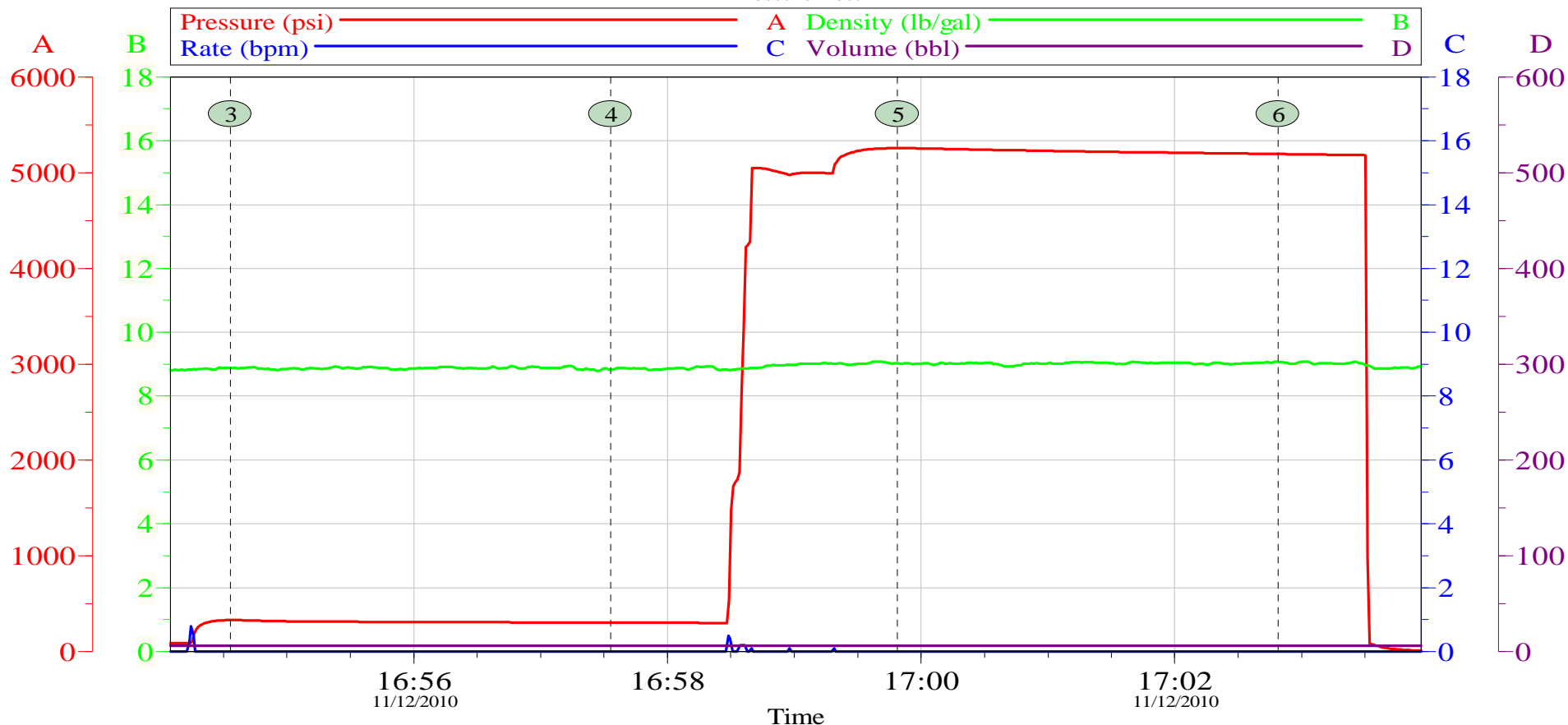
Miscellaneous Materials											
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty	Conc %
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size	Qty
Fluid Data											
Stage/Plug #: 1											
Fluid #	Stage Type	Fluid Name			Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	TUNED SPACER III	TUNED SPACER III - SBM (483826)			80.00	bbl	10.	.0	.0	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)			1325.0	sacks	11.	2.21	9.68	6.0	9.68
	0.65 lbm	HR-601, 50 LB BAG (101328348)									
	10.005 Gal	FRESH WATER									
3	Treated Water Displacement				356.00	bbl	8.4	.0	.0	8.0	
Calculated Values		Pressures			Volumes						
Displacement	358.8	Shut In: Instant	1900		Lost Returns	Y	Cement Slurry	521.5	Pad		
Top Of Cement	3761	5 Min	1950		Cement Returns	0	Actual Displacement	356	Treatment		
Frac Gradient		15 Min			Spacers	0	Load and Breakdown		Total Job		
Rates											
Circulating	6	Mixing	6			Displacement	8		Avg. Job	6.5	
Cement Left In Pipe	Amount	78.78 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						

# HALLIBURTON

## Data Acquisition

### XOM PCU 197-36A1 7" Intermediate Cement Job

#### Pressure Test



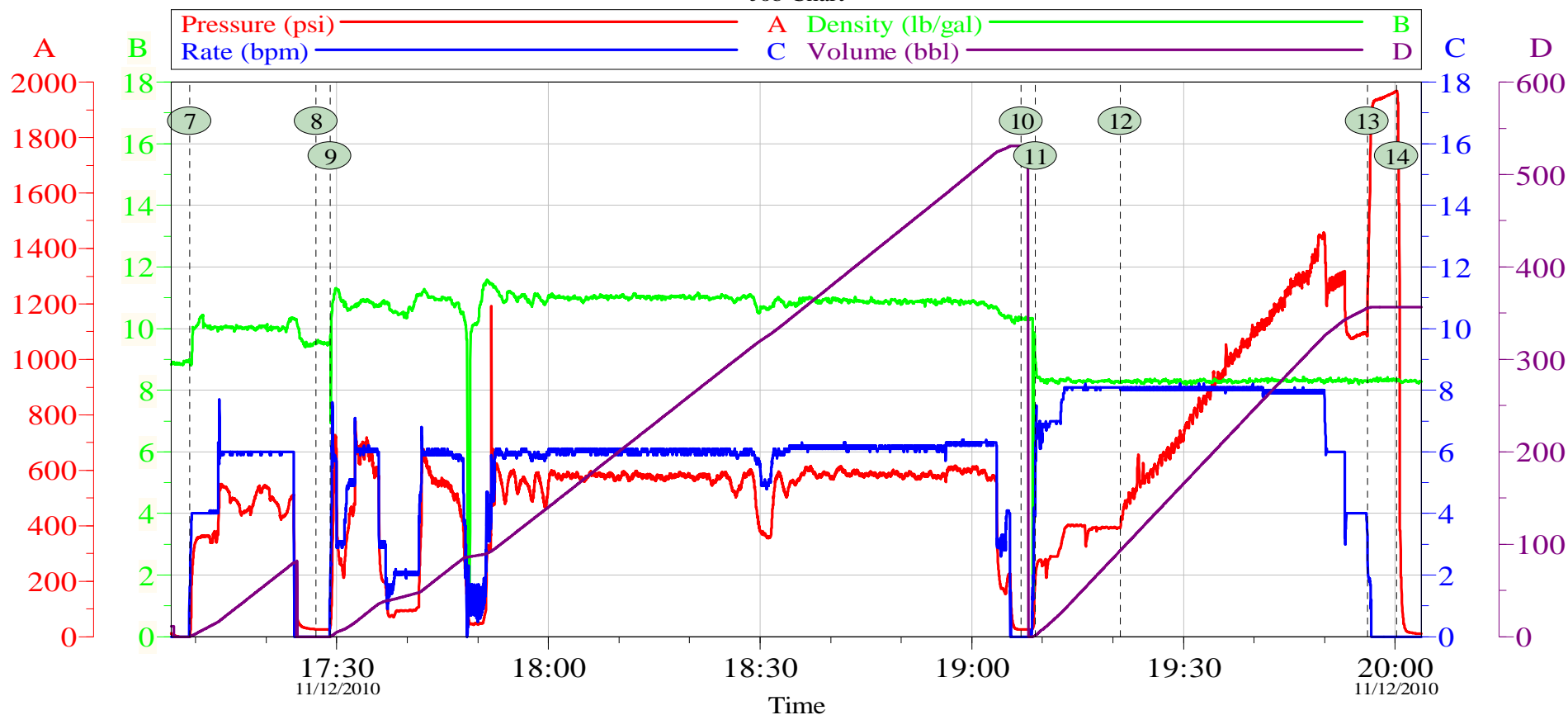
	psi	psi
(3) Start Low Pressure Test 16:54:33	329.0	(4) End Low Pressure Test 16:57:33 303.0
(5) Start High Pressure Test 16:59:49	5256	(6) End High Pressure Test 17:02:49 5194

Customer: EXXONMOBIL	Job Date: 12-Nov-2010	Sales Order #: 7757327
Well Description: PCU 197-36A1	UWI: 051031118	String: Intermediate
Service Lead: Ken Dearing	Service Sup: Ken Estep Sr.	Engineer: Joshua Anglin

OptiCem v6.4.9  
12-Nov-10 20:24

# HALLIBURTON

## XOM PCU 197-36A1 7" Intermediate Cement Job Job Chart



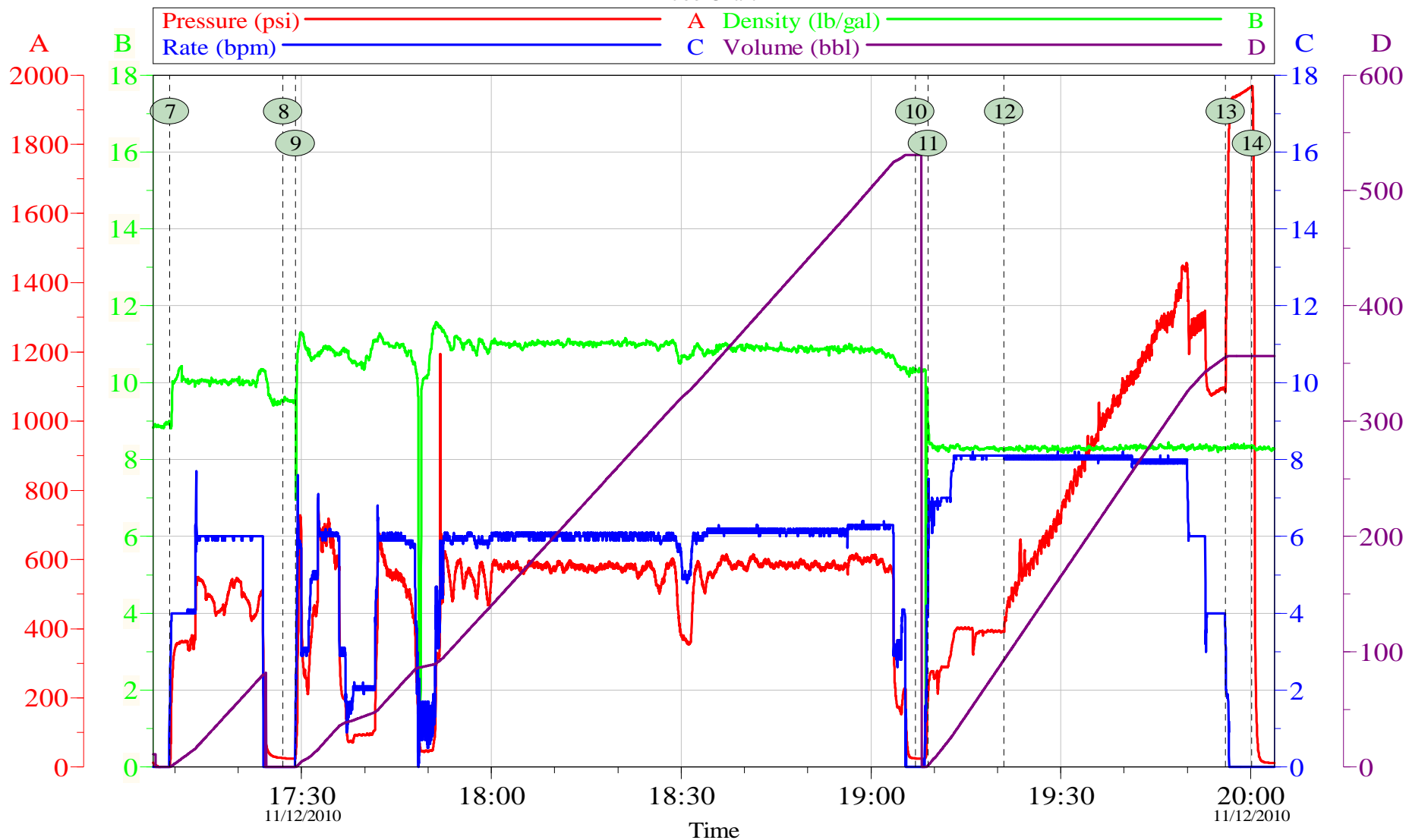
7	Pump 10# Tuned Spacer III	17:09:10	8	Drop Bottom Plug	17:27:04
9	Pump 11# Tuned Light Cement	17:29:02	10	Drop Top Plug	19:06:59
11	Pump Treated Water Displacement	19:09:00	12	Caught Cement	19:21:01
13	Bump Plug	19:56:02	14	Check Floats	20:00:11

Customer:	EXXONMOBIL	Job Date:	12-Nov-2010	Sales Order #:	7757327
Well Description:	PCU 197-36A1	UWI:	051031118	String:	Intermediate
Service Lead:	Ken Dearing	Service Sup:	Ken Estep Sr.	Engineer:	Joshua Anglin

OptiCem v6.4.9  
12-Nov-10 20:24

# HALLIBURTON

## XOM PCU 197-36A1 7" Intermediate Cement Job Job Chart



Customer: EXXONMOBIL	Job Date: 12-Nov-2010	Sales Order #: 7757327
Well Description: PCU 197-36A1	UWI: 051031118	String: Intermediate
Service Lead: Ken Dearing	Service Sup: Ken Estep Sr.	Engineer: Joshua Anglin

OptiCem v6.4.9  
12-Nov-10 20:25

# HALLIBURTON

## Lab Data

# HALLIBURTON

## Cementing Rockies, Vernal

## LAB RESULTS - Primary

### Job Information

Request/Slurry	109348/3	Rig Name	H&P 326	Date	November 5th 2010
Submitted By	Joshua Anglin	Job Type	Intermediate Casing	Bulk Plant	Vernal
Customer	ExxonMobil	Location	Rio Blanco	Well	PCU 197-36A1

### Well Information

Casing/Liner Size	7"	Depth MD	9414 ft	BHST	210 F
Hole Size	9 7/8"	Depth TVD	9310 ft	BHCT	154 F

### Cement Information - Primary Design

Conc	UOM	Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
		<b>Tuned Light</b>				Slurry Density	11.00	PPG
100.00	% BWOC	Cement Blend	Bulk	Nov 09, 2010		Slurry Yield	2.21	FT3
36.88	%	> Boral Craig Pozmix	Bulk	Nov 09, 2010		Water Requirement	9.68	GPS
11	%	> HGS 6000 dry blended	Bulk	Nov 09, 2010		Water Source	Field (Fresh) Water	
53.19	%	> Holcim Type V	Bulk	Nov 09, 2010				
13	%	> Silicalite - Compacted	Bulk	Nov 09, 2010				
0.65	lb/sk	HR-601	Bulk	Nov 09, 2010	23HR07X-09S3JP			
0.50	lb/sk	D-Air 3000	Bulk	Nov 09, 2010	2010284AC			
0.20	lb/sk	FWCA	Bulk	Nov 09, 2010	89050131			
80.76	L/100kg	Field (Fresh) Water	Lab	Aug 19, 2010	8-19-2010			

### Operation Test Results Request ID 109348/3

#### UCA Comp. Strength, Request Test ID:1140469

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)
190	3,000	06:41	08:45	1,571	1,786	1,799	1,845	72

#### Thickening Time, Request Test ID:1139765

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	4,499	60	3	03:35	03:52	04:10	04:20

#### Free Water, Request Test ID:1140466

Test Temp (°F)	% FW Vert	% FW 45 Inc
154	0	0

#### API Rheology, Request Test ID:1140468

Temp (°F)	600	300	200	100	60	30	6	3	Cond Time (min)	PV/YP
80	173	76	56	36	28	22	19	18	0	58.4 / 18

#### API Fluid Loss, Request Test ID:1140467

Test Temp (°F)	Test Pressure (psi)	Test Time (min)	Meas. Vol (< 30 min, cc)	Extr. ISO FL (cc/30 min)
154	1,000	7.93	45	175

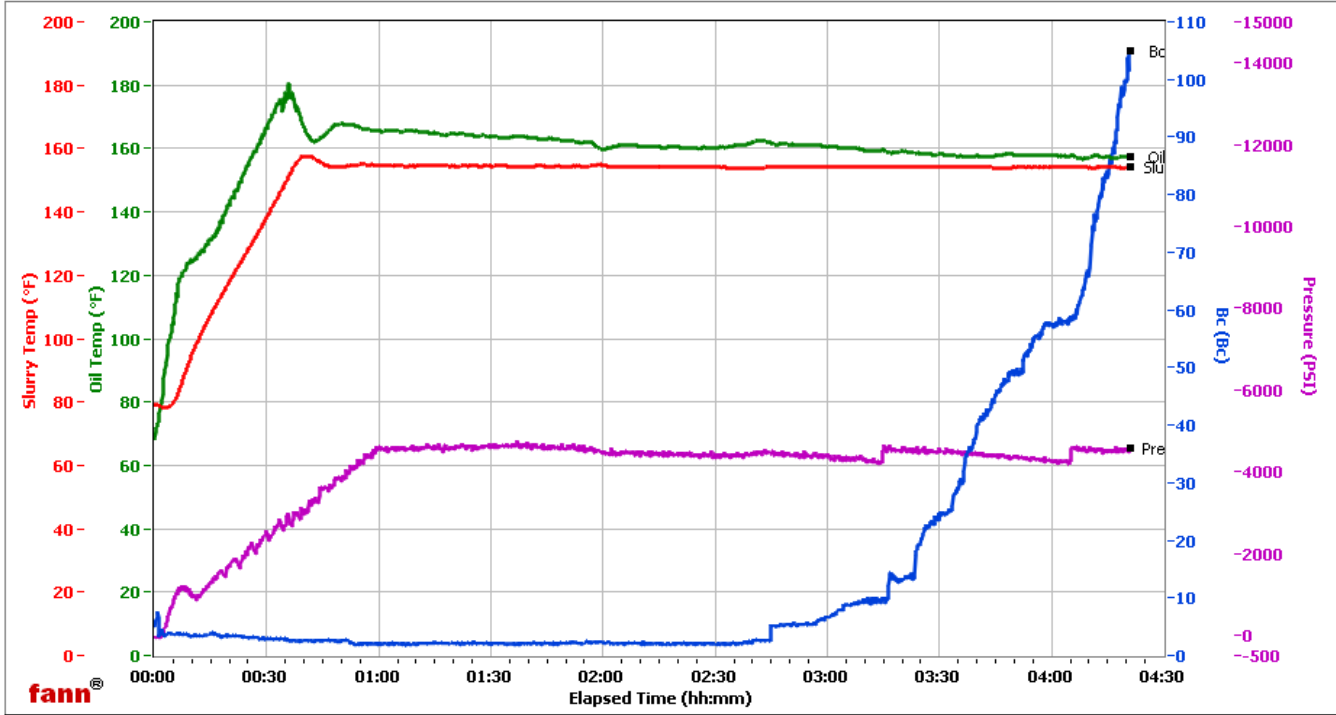
# HALLIBURTON

## Vernal

Fields	Values
Project Name	ExxonMobil 109348-3
Test ID	109348-3
Request ID	
Tested by	ADF
Customer	ExxonMobil
Well No	PCU 196-36A1
Rig	326
Casing/Liner Size	7

Fields	Values
Job Type	int primary
Cement Type	V
Cement Weight	Standard
Test Date	11/10/10
Test Time	01:06 AM
Temp. Units	degF
Pressure Units	PSI

Events	Results
30.00 Bc	03h:35m
50.00 Bc	03h:52m
60.00 Bc	04h:06m
70.00 Bc	04h:10m
100.00 Bc	04h:20m
200.00 Bc	NaN
03h:00m	6.68
06h:00m	NaN



fann®

Data File O:\HPHT Data Files\Vernal Consistometer #4\ExxonMobil 109348-3.tdms  
 Comments 11 D, 2.21 Y, 0.65% HR601

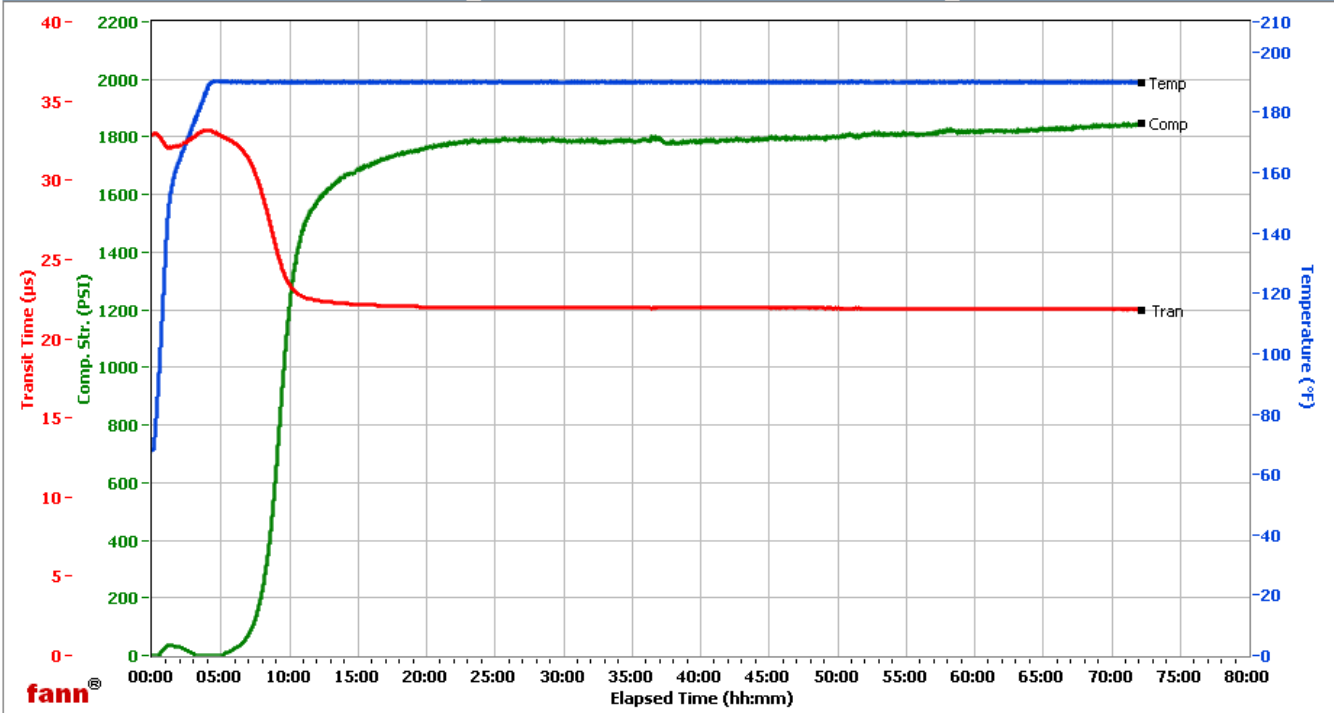
# HALLIBURTON

## Vernal

Fields	Values
Project Name	ExxonMobil 109348-3
Test ID	109348-3
Request ID	UCA 8
Tested by	vnc
Customer	ExxonMobil
Well No	PCU 196-36A1
Rig	H&P 326
Casing/Liner Size	7

Fields	Values
Job Type	Intermediate Primary
Cement Type	Tuned Light
Cement Weight	Light Weight
Test Date	11/10/2010
Test Time	8:12 AM
Temp. Units	degF
Pressure Units	PSI

Events	Results
50.00 PSI	06h:41m
100.00 PSI	07h:17m
500.00 PSI	08h:45m
1000.00 PSI	09h:35m
12h:00m	1571.24
24h:00m	1786.35
48h:00m	1798.79
72h:00m	1844.51



Data File C:\Data Files\109348-3.tdms

Comments Tuned Light, 0.65# HR-601, 11 Den, 2.21 Yd