

**QUICKSILVER RESOURCES INC-EBUSINESS
DO NOT MAIL-801 CHERRY ST
FORT WORTH, Texas**

Weber 32-4

DHS-6

Post Job Summary **Cement Surface Casing**

Prepared for:
Date Prepared: 29 July, 2011
Version: 1

Service Supervisor: PAUU, SEMISI

Submitted by: M.C.Dube

HALLIBURTON

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Wellbore Geometry

Job Tubulars					MD		Excess %	Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft		
Open Hole Section	Surface Open Hole		12.250		0.00	1,200.00	100.00	0.00
Casing	Surface Casing	9.63	8.921	36.00	0.00	1,200.00		40.00

Pumping Schedule

Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	Spacer	SUPER FLUSH 101	10.00	0.00	20.0 bbl	20.0 bbl
2	Cement Slurry	VariCem V1	12.30		200.0 sacks	200.0 sacks
3	Cement Slurry	VariCem V1	13.50		195.0 sacks	195.0 sacks
4	Spacer	Water Based Mud	8.40	0.00	90.0 bbl	90.0 bbl
5	Cement Slurry	HalCem Top Out	15.60			90.0 bbl

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Fluids Pumped

Stage/Plug # 1 **Fluid 1:** SUPER FLUSH 101
SUPER FLUSH 101

Fluid Density: 10.00 lbm/gal
Fluid Volume: 20.00 bbl
Pump Rate: 0.00 bbl/min

Stage/Plug # 1 **Fluid 2:** VariCem V1
 VARICEM (TM) CEMENT
0.125 lbm Poly-E-Flake

Fluid Weight: 12.30 lbm/gal
Slurry Yield: 2.24 ft³/sack
Total Mixing Fluid: 12.95 Gal
Surface Volume: 200.0 sacks
Sacks: 200.0 sacks
Calculated Fill: 700.00 ft
Calculated Top of Fluid: 0.00 ft
Estimated Top of Fluid:

Stage/Plug # 1 **Fluid 3:** VariCem V1
 VARICEM (TM) CEMENT
0.125 lbm Poly-E-Flake

Fluid Weight: 13.50 lbm/gal
Slurry Yield: 1.72 ft³/sack
Total Mixing Fluid: 9.07 Gal
Surface Volume: 195.0 sacks
Sacks: 195.0 sacks
Calculated Fill: 500.00 ft
Calculated Top of Fluid: 700.00 ft
Estimated Top of Fluid:

Stage/Plug # 1 **Fluid 4:** Water Based Mud
FLUSH / SPACER

Fluid Density: 8.40 lbm/gal
Fluid Volume: 90.00 bbl
Pump Rate: 0.00 bbl/min

Stage/Plug # 1 **Fluid 5:** HalCem Top Out
 HALCEM (TM) SYSTEM
2 % Calcium Chloride

Fluid Weight: 15.60 lbm/gal
Slurry Yield: 1.20 ft³/sack
Total Mixing Fluid: 5.26 Gal
Estimated Top of Fluid:

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Job Summary

Job Information

Job Start Date	6/16/2011 1:30:00 AM
Job MD	1,215.0 ft
Job TVD	1,215.0 ft
Height of Plug Container/Swage Above Rig Floor	5.0 ft
Surface Temperature at Time of Job	85 degF
Mud Type	LSND
Actual Mud Density	9 lbm/gal
Time Circulated before job	2.00 hour(s)
Rate at Which Well was Circulated	4.000 bbl/min
Pipe Movement During Hole Circulation	Reciprocated
Time From End Mud Circ. to Job Start	120.00 minute
Pipe Movement During Cementing	None
Calculated Displacement	90.60 bbl
Amount of Cement Returns	50.00 bbl
Job Displaced by (rig/halco)	Cement Unit HP Pumps

Cementing Equipment

Pipe Centralization	Through Entire Cement Column
Brand of Float Equipment Used	Weatherford
Did Float Equipment Hold?	Yes
Plug set used?	Yes
Did Plugs Bump?	Yes
Calculated Pressure to Bump Plugs	279.0 psig

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
06/15/2011 17:00		Call Out				
06/15/2011 18:45		Pre-Convoy Safety Meeting				
06/15/2011 21:00		Arrive at Location from Service Center				
06/15/2011 23:45		Pre-Rig Up Safety Meeting				
06/16/2011 00:00		Rig-Up Equipment				
06/16/2011 01:35		Pre-Job Safety Meeting				
06/16/2011 02:09		Test Lines	2		2000.0	Tested surface lines to 2000 psi. Held for 3 min with no leaks
06/16/2011 02:13		Pump Spacer	3		5.0	Pumped 20 bbl Super Flush
06/16/2011 02:21		Pump Spacer	3		5.0	Pumped 10 bbl Fresh water spacer
06/16/2011 02:24		Pump Lead Cement	4		50.0	Pumped 80 bbl Lead Cement at 12.3#/gal 2.24 Yield 1.15 Mix water
06/16/2011 02:45		Pump Tail Cement	5		135.0	Pumped 60 bbl Tail Cement at 13.5#/gal 1.72 Yield 9.07 Mix water
06/16/2011 02:56		Drop Top Plug				9.625" HWE Top plug dropped by Mike Still
06/16/2011 02:58		Pump Displacement	4	30	150.0	Started Displacement. (Washed pump and lines on top of plug)
06/16/2011 03:07		Slow Rate	3	40	150.0	Slowed rate to 3 bbl a minute due to pressure coming up
06/16/2011 03:11		Slow Rate	2	50	350.0	Slowed rate to 2 bbl a minute due to pressure coming up
06/16/2011 03:44		Bump Plug	2	90	380.0	Bumped Plug at 380 psi came up to 500 psi held for 2 min
06/16/2011 03:45		Check Floats				Checked floats back to truck. Floats held with 0.5 bbl back to truck
06/16/2011 03:47		Pressure Up	1		500.0	Pressured back up on plug, Held for 30 min as per company man's request
06/16/2011 04:44		Other				Bled pressure off of plug

HALLIBURTON

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pressure (psig)	Comments
06/16/2011 04:45		Post-Job Safety Meeting (Pre Rig-Down)				
06/16/2011 05:00		Rig-Down Equipment				
06/16/2011 06:15		Pre-Convoy Safety Meeting				
06/16/2011 06:30		Depart Location for Service Center or Other Site				

The Road to Excellence Starts with Safety

Sold To #: 346707		Ship To #: 346707		Quote #:		Sales Order #: 8247608	
Customer: QUICKSILVER RESOURCES INC-EBUSINESS				Customer Rep: Hord, Ryan			
Well Name: Weber			Well #: 32-4			API/UWI #:	
Field:		City (SAP): FORT WORTH		County/Parish: Moffat		State: Colorado	
Legal Description: Section 4 Township 6N Range 92W							
Contractor: DHS			Rig/Platform Name/Num: 6				
Job Purpose: Cement Surface Casing							
Well Type: Exploratory / Wildcat			Job Type: Cement Surface Casing				
Sales Person: SCOTT, KYLE			Srvc Supervisor: PAUU, SEMISI			MBU ID Emp #: 445202	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BONE, JEFFERSON Eldon	9.5	491216	DEAN, MARK Christophe	9.5	454214	FUCHS, ERIC James	9.5	471203
PAUU, SEMISI Tu'a	9.5	445202	PORTER, MIKE	9.5	491145	STILL, MICHEAL Wayne	9.5	258213

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10994445	80 mile	10994447	80 mile	11056349	80 mile	11338215	80 mile
11410666	80 mile	11526496	80 mile	10872113	80 mile	11710579	80 mile

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
6/15/2011	3	1.5	6/16/2011	6.5	6.5			

TOTAL Total is the sum of each column separately

Job

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	15 - Jun - 2011	05:00	CST
Form Type	BHST		Job Started	15 - Jun - 2011	21:00	CST
Job depth MD	1215. ft	Job Depth TVD	Job Completed	16 - Jun - 2011	01:30	CST
Water Depth		Wk Ht Above Floor	Departed Loc	16 - Jun - 2011	00:00	CST
Perforation Depth (MD)	From	To		16 - Jun - 2011	06:30	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
Surface Open Hole				12.25				.	1200.		
Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1200.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,TOP,9 5/8,HWE,8.16 MIN/9.06 MA	1	EA		
SUGAR - GRANULATED	150	LB		

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	SUPER FLUSH 101	SUPER FLUSH 101 - SBM (12199)			20.00	bbl	10.	.0	.0	.0						
2	VariCem V1	VARICEM (TM) CEMENT (452009)			200.0	sacks	12.3	2.24	12.95		12.95					
	0.125 lbm	POLY-E-FLAKE (101216940)														
	12.954 Gal	FRESH WATER														
3	VariCem V1	VARICEM (TM) CEMENT (452009)			195.0	sacks	13.5	1.72	9.07		9.07					
	0.125 lbm	POLY-E-FLAKE (101216940)														
	9.065 Gal	FRESH WATER														
4	Water Based Mud				90.00	bbl	8.4	.0	.0	.0						
5	HalCem Top Out	HALCEM (TM) SYSTEM (452986)				sacks	15.6	1.2	5.26		5.26					
	2 %	CALCIUM CHLORIDE - HI TEST PELLET (100005053)														
	5.258 Gal	FRESH WATER														
Calculated Values		Pressures			Volumes											
Displacement	90	Shut In: Instant			Lost Returns	0	Cement Slurry	150	Pad							
Top Of Cement	Surface	5 Min			Cement Returns	50	Actual Displacement	90	Treatment							
Frac Gradient		15 Min			Spacers	30	Load and Breakdown		Total Job							
Rates																
Circulating	4	Mixing		3	Displacement		2	Avg. Job		3						
Cement Left In Pipe	Amount	40 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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Lab Data

Job Information

Request/Slurry	154972/1	Rig Name	DHS DRILLING #6	Date	13/JUN/2011
Submitted By	Craig Dube	Job Type	Surface Casing	Bulk Plant	Vernal
Customer	Quicksilver Resources Inc.	Location	Moffat	Well	Weber 32-4

Well Information

Casing/Liner Size	9 5/8"	Depth MD	1200 ft	BHST	99 F
Hole Size	12 1/4"	Depth TVD	1200 ft	BHCT	82 F

Cement Information - Lead Design

<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	<u>Cement Properties</u>	
		VariCem				Slurry Density	12.50 PPG
						Slurry Yield	2.15 ft3/sk
100.00	% BWOC	Holcim Type III	Bulk	Jun 14, 2011		Water Requirement	12.31 GPS
12.31	gal/sack	Fresh Water	Lab	May 29, 2011			
0.125	% BWOC	Pol-E-Flake	Bulk	Jun 14, 2011			

Operation Test Results Request ID 154972/1

Thickening Time, Request Test ID:1555261

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)
82	800	14	8	02:28	02:56	03:33	04:00

Mixability (0 - 5) - 0 is not mixable, Request Test ID:1555257

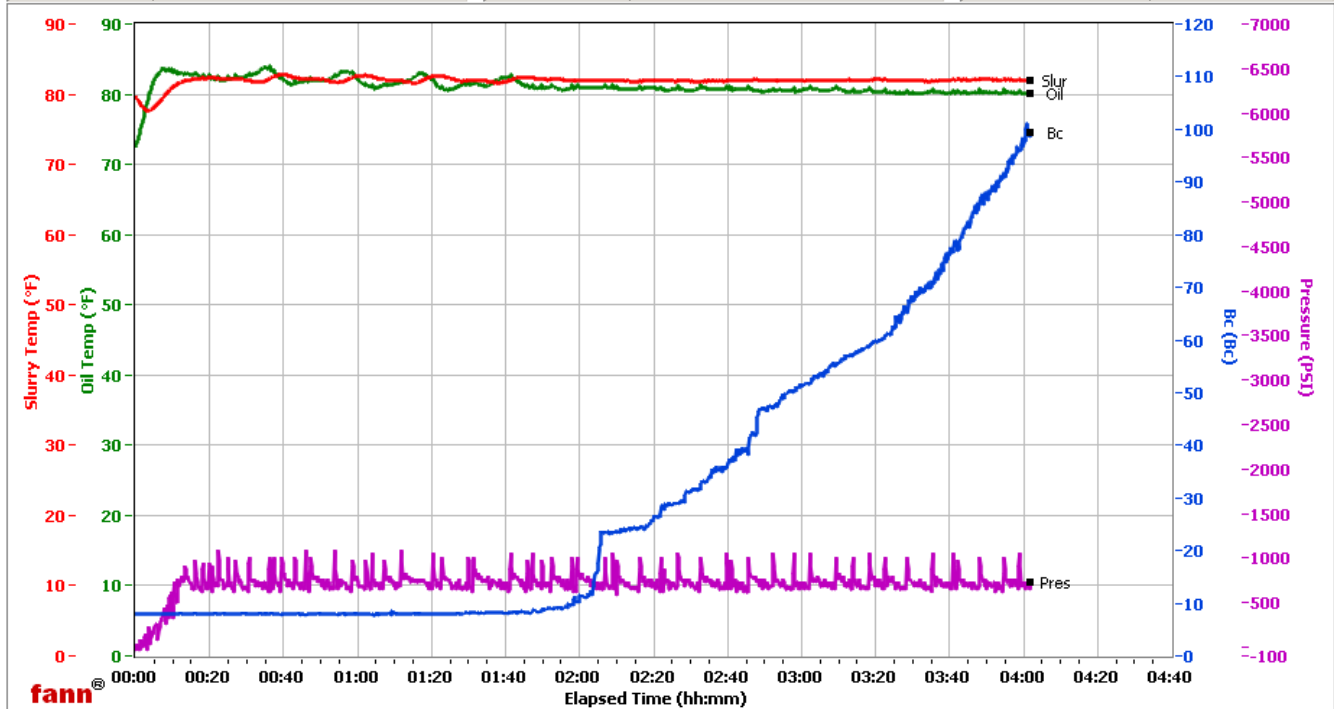
Mixability rating (0 - 5)

5

Additional Comments

Vernal

Fields	Values	Fields	Values	Events	Results
Project Name	Quicksilver 154972-1	Job Type	Surface Lead	30.00 Bc	02h:28m
Test ID	154972-1	Cement Type	III	50.00 Bc	02h:56m
Request ID	HPHT 1	Cement Weight	Light Weight	60.00 Bc	03h:21m
Tested by	vmc	Test Date	06/14/11	70.00 Bc	03h:33m
Customer	Quicksilver	Test Time	07:53 AM	100.00 Bc	04h:00m
Well No	Weber 32-4	Temp. Units	degF	200.00 Bc	NaN
Rig	DHS 6	Pressure Units	PSI	03h:00m	51.57
Casing/Liner Size	9.625			06h:00m	NaN



Data File O:\HPHT Data Files\Vernal Consistometer #1\Quicksilver 154972-1.tdms

Comments III, 12.5 Den, 2.15 Yd

Job Information

Request/Slurry	154973/1	Rig Name	DHS DRILLING #6	Date	13/JUN/2011
Submitted By	Craig Dube	Job Type	Surface Casing	Bulk Plant	Vernal
Customer	Quicksilver Resources Inc.	Location	Moffat	Well	Weber 32-4

Well Information

Casing/Liner Size	9 5/8"	Depth MD	1200 ft	BHST	99 F
Hole Size	12 1/4"	Depth TVD	1200 ft	BHCT	82 F

Cement Information - Tail Design

<u>Conc</u>	<u>UOM</u>	<u>Cement/Additive</u>	<u>Sample Type</u>	<u>Sample Date</u>	<u>Lot No.</u>	<u>Cement Properties</u>	
		VariCem				Slurry Density	13.50 PPG
						Slurry Yield	1.73 ft3/sk
100.00	% BWOC	Holcim Type III	Bulk	Jun 14, 2011		Water Requirement	9.2 GPS
9.20	gal/sack	Fresh Water	Lab	May 29, 2011			
0.125	lb/sk	Pol-E-Flake	Bulk	Jun 14, 2011			

Operation Test Results Request ID 154973/1

Thickening Time, Request Test ID:1555262

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)
82	800	14	22	01:34	01:52	02:12	02:27

Mixability (0 - 5) - 0 is not mixable, Request Test ID:1555260

Mixability rating (0 - 5)

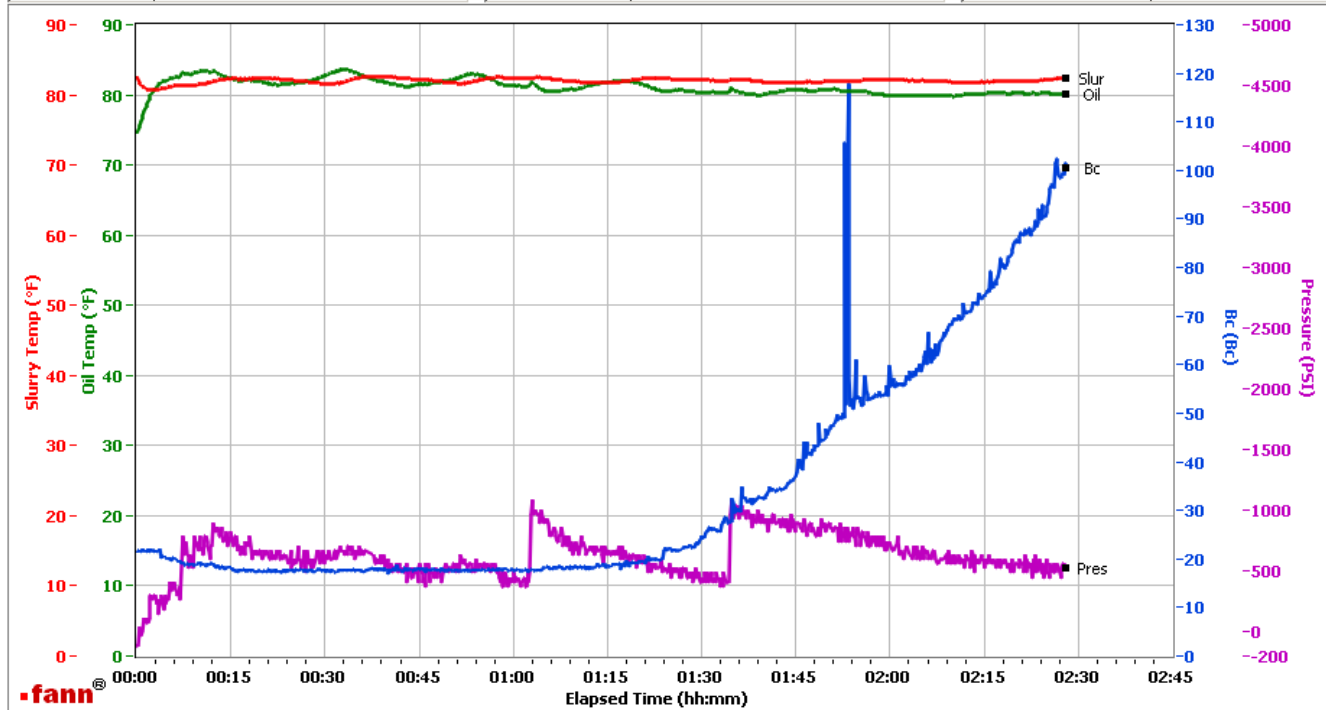
5

HALLIBURTON

Additional Comments

Vernal

Fields	Values	Fields	Values	Events	Results
Project Name	Quicksilver 154973-1	Job Type	Surface Tail	30.00 Bc	01h:34m
Test ID	154973-1	Cement Type	III	50.00 Bc	01h:52m
Request ID	HPHT 2	Cement Weight	Light Weight	60.00 Bc	01h:52m
Tested by	vmc	Test Date	06/14/11	70.00 Bc	02h:12m
Customer	Quicksilver	Test Time	03:20 PM	100.00 Bc	02h:27m
Well No	Weber 32-	Temp. Units	degF	200.00 Bc	NaN
Rig	DHS 6	Pressure Units	PSI	03h:00m	NaN
Casing/Liner Size	9.625			06h:00m	NaN



Data File O:\HPHT Data Files\Vernal Consistometer #2\Quicksilver 154973-1.tdms

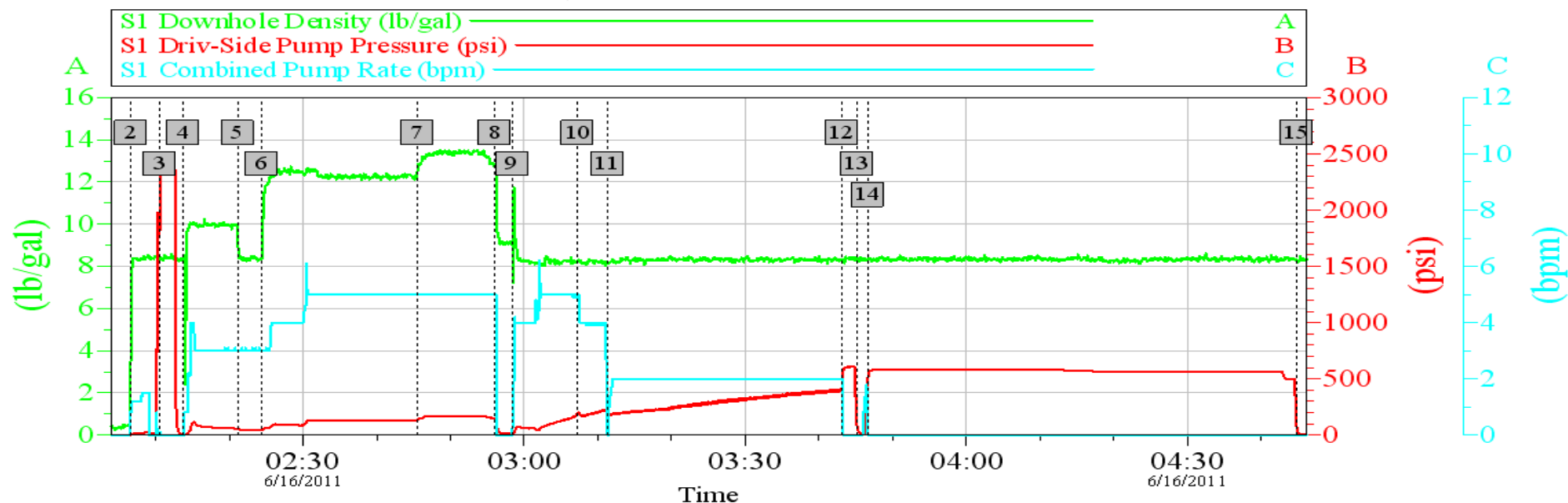
Comments III, 13.5 Den, 1.73 Yd

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Data Acquisition

QUIKSILVER RESOURCES 9.625" SURFACE

JUNE-16-2011 SO# 8247608



Intersection		SDPP	Intersection		SDPP
2	Fill Lines	02:06:41 2.000	3	Test Lines	02:10:37 1935
4	Pump 20 bbl SuperFlush	02:13:44 4.000	5	Pump 10 bbl fresh spacer	02:21:10 55.00
6	Pump 80 bbl Lead Cement	02:24:26 48.00	7	Pump 60 bbl Tail Cement	02:45:30 135.0
8	Shut Down/Drop Plug	02:56:01 148.5	9	Pump Displacement wash on top plug	02:58:23 12.00
10	Slow Rate to 3bbl/min	03:07:17 195.7	11	Slow Rate to 2bbl/min	03:11:17 222.4
12	Bump Plug	03:43:05 398.9	13	Check Floats	03:45:08 89.07
14	Pressure Back up on plug	03:46:35 446.7	15	Bleed pressure off plug	04:44:46 88.59

Customer: QUIKSILVER	Job Date: 16-Jun-2011	Sales Order #: 8247608
Well Description: WEBER 32-4	RIG NAME: DHS 6	PUMP TRUCK: 10872113
SVC LDR: SEMISI PAUU	SVC SUP: SEMISI PAUU	SVC OPR: MARK DEAN

OptiCem v6.4.10
16-Jun-11 05:28