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# **BILL BARRETT CORPORATION E-BILL**

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**KAUFMAN 32D-25-692  
MAMM CREEK  
Garfield County , Colorado**

**Cement Surface Casing**  
**09-Dec-2011**

**Job Site Documents**

## The Road to Excellence Starts with Safety

<b>Sold To #:</b> 343492		<b>Ship To #:</b> 2894951		<b>Quote #:</b>		<b>Sales Order #:</b> 9112133	
<b>Customer:</b> BILL BARRETT CORPORATION E-BILL				<b>Customer Rep:</b> Lauer, Casey			
<b>Well Name:</b> KAUFMAN			<b>Well #:</b> 32D-25-692		<b>API/UWI #:</b> 05-045-21145		
<b>Field:</b> MAMM CREEK		<b>City (SAP):</b> UNKNOWN		<b>County/Parish:</b> Garfield		<b>State:</b> Colorado	
<b>Lat:</b> N 39.502 deg. OR N 39 deg. 30 min. 8.449 secs.				<b>Long:</b> W 107.618 deg. OR W -108 deg. 22 min. 53.738 secs.			
<b>Contractor:</b> PROPETRO			<b>Rig/Platform Name/Num:</b> PROPETRO				
<b>Job Purpose:</b> Cement Surface Casing							
<b>Well Type:</b> Development Well				<b>Job Type:</b> Cement Surface Casing			
<b>Sales Person:</b> FLING, MATTHEW				<b>Srvc Supervisor:</b> PHILLIPS, MARK		<b>MBU ID Emp #:</b> 445272	
<b>Job Personnel</b>							
<b>HES Emp Name</b>	<b>Exp Hrs</b>	<b>Emp #</b>	<b>HES Emp Name</b>	<b>Exp Hrs</b>	<b>Emp #</b>	<b>HES Emp Name</b>	<b>Exp Hrs</b>
JENSEN, JESSE Robert	5	478774	KEANE, JOHN Donovan	5	486519	PHILLIPS, MARK Bejar	445272
<b>Equipment</b>							
<b>HES Unit #</b>	<b>Distance-1 way</b>	<b>HES Unit #</b>	<b>Distance-1 way</b>	<b>HES Unit #</b>	<b>Distance-1 way</b>	<b>HES Unit #</b>	<b>Distance-1 way</b>
10784064	120 mile	10951249	120 mile	11006314	120 mile	11360871	120 mile
11542767	120 mile						
<b>Job Hours</b>							
<b>Date</b>	<b>On Location Hours</b>	<b>Operating Hours</b>	<b>Date</b>	<b>On Location Hours</b>	<b>Operating Hours</b>	<b>Date</b>	<b>On Location Hours</b>
12-09-11	24	2					
<b>TOTAL</b>		<i>Total is the sum of each column separately</i>					
<b>Job</b>				<b>Job Times</b>			
<b>Formation Name</b>				<b>Date</b>	<b>Time</b>	<b>Time Zone</b>	
<b>Formation Depth (MD)</b>	<b>Top</b>	<b>Bottom</b>		<b>Called Out</b>	09 - Dec - 2011	09:00	MST
<b>Form Type</b>	BHST			<b>On Location</b>	09 - Dec - 2011	13:00	MST
<b>Job depth MD</b>	740. ft	<b>Job Depth TVD</b>	740. ft	<b>Job Started</b>	09 - Dec - 2011	00:00	MST
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>	3. ft	<b>Job Completed</b>	09 - Dec - 2011	00:00	MST
<b>Perforation Depth (MD)</b>	<b>From</b>	<b>To</b>		<b>Departed Loc</b>			
<b>Well Data</b>							
<b>Description</b>	<b>New / Used</b>	<b>Max pressure psig</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>
							<b>Top MD ft</b>
							<b>Bottom MD ft</b>
							<b>Top TVD ft</b>
							<b>Bottom TVD ft</b>
<b>Sales/Rental/3<sup>rd</sup> Party (HES)</b>							
<b>Description</b>				<b>Qty</b>	<b>Qty uom</b>	<b>Depth</b>	<b>Supplier</b>
PLUG,CMTG,TOP,9 5/8,HWE,8.16 MIN/9.06 MA				1	EA		
R/A DENSOMETER W/CHART RECORDER,/JOB,ZI				1	JOB		
ADC (AUTO DENSITY CTRL) SYS, /JOB,ZI				1	JOB		
PORT. DATA ACQUIS. W/OPTICEM RT W/HES				1	EA		
<b>Tools and Accessories</b>							
<b>Type</b>	<b>Size</b>	<b>Qty</b>	<b>Make</b>	<b>Depth</b>	<b>Type</b>	<b>Size</b>	<b>Qty</b>
<b>Guide Shoe</b>					<b>Packer</b>		
<b>Float Shoe</b>					<b>Bridge Plug</b>		
<b>Float Collar</b>				675.91	<b>Retainer</b>		
<b>Insert Float</b>							
<b>Stage Tool</b>							
<b>Miscellaneous Materials</b>							
<b>Gelling Agt</b>		<b>Conc</b>		<b>Surfactant</b>		<b>Conc</b>	
<b>Treatment Fld</b>		<b>Conc</b>		<b>Inhibitor</b>		<b>Conc</b>	
						<b>Acid Type</b>	
						<b>Sand Type</b>	
						<b>Qty</b>	
						<b>Conc</b>	%
						<b>Size</b>	<b>Qty</b>

Fluid Data									
Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	WATER SPACER		20.00	bbl	8.34	.0	.0	6.0	
2	Lead Cement	VERSACEM (TM) SYSTEM (452010)	120.0	sacks	12.3	2.38	13.77	6.0	13.77
	0.25 lbm	POLY-E-FLAKE (101216940)							
	13.77 Gal	FRESH WATER							
3	Tail Cement	SWIFTCES (TM) SYSTEM (452990)	120.0	sacks	14.2	1.43	6.85	6.0	6.85
	0.25 lbm	POLY-E-FLAKE (101216940)							
	6.85 Gal	FRESH WATER							
4	DISPLACEMENT		52.20	bbl	8.4			6.0	
Calculated Values		Pressures		Volumes					
Displacement	52.2	Shut In: Instant		Lost Returns	0	Cement Slurry	81	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	30	Actual Displacement	52.2	Treatment	
Frac Gradient		15 Min		Spacers	20	Load and Breakdown		Total Job	153
Rates									
Circulating	0	Mixing	6	Displacement	6	Avg. Job	6		
Cement Left In Pipe	Amount	44.72 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					

*The Road to Excellence Starts with Safety*

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<b>Well Name:</b> KAUFMAN	<b>Well #:</b> 32D-25-692	<b>API/UWI #:</b> 05-045-21145	
<b>Field:</b> MAMM CREEK	<b>City (SAP):</b> UNKNOWN	<b>County/Parish:</b> Garfield	<b>State:</b> Colorado
<b>Legal Description:</b>			
<b>Lat:</b> N 39.502 deg. OR N 39 deg. 30 min. 8.449 secs.		<b>Long:</b> W 107.618 deg. OR W -108 deg. 22 min. 53.738 secs.	
<b>Contractor:</b> PROPETRO		<b>Rig/Platform Name/Num:</b> PROPETRO	
<b>Job Purpose:</b> Cement Surface Casing			<b>Ticket Amount:</b>
<b>Well Type:</b> Development Well		<b>Job Type:</b> Cement Surface Casing	
<b>Sales Person:</b> FLING, MATTHEW		<b>Srv Supervisor:</b> PHILLIPS, MARK	<b>MBU ID Emp #:</b> 445272

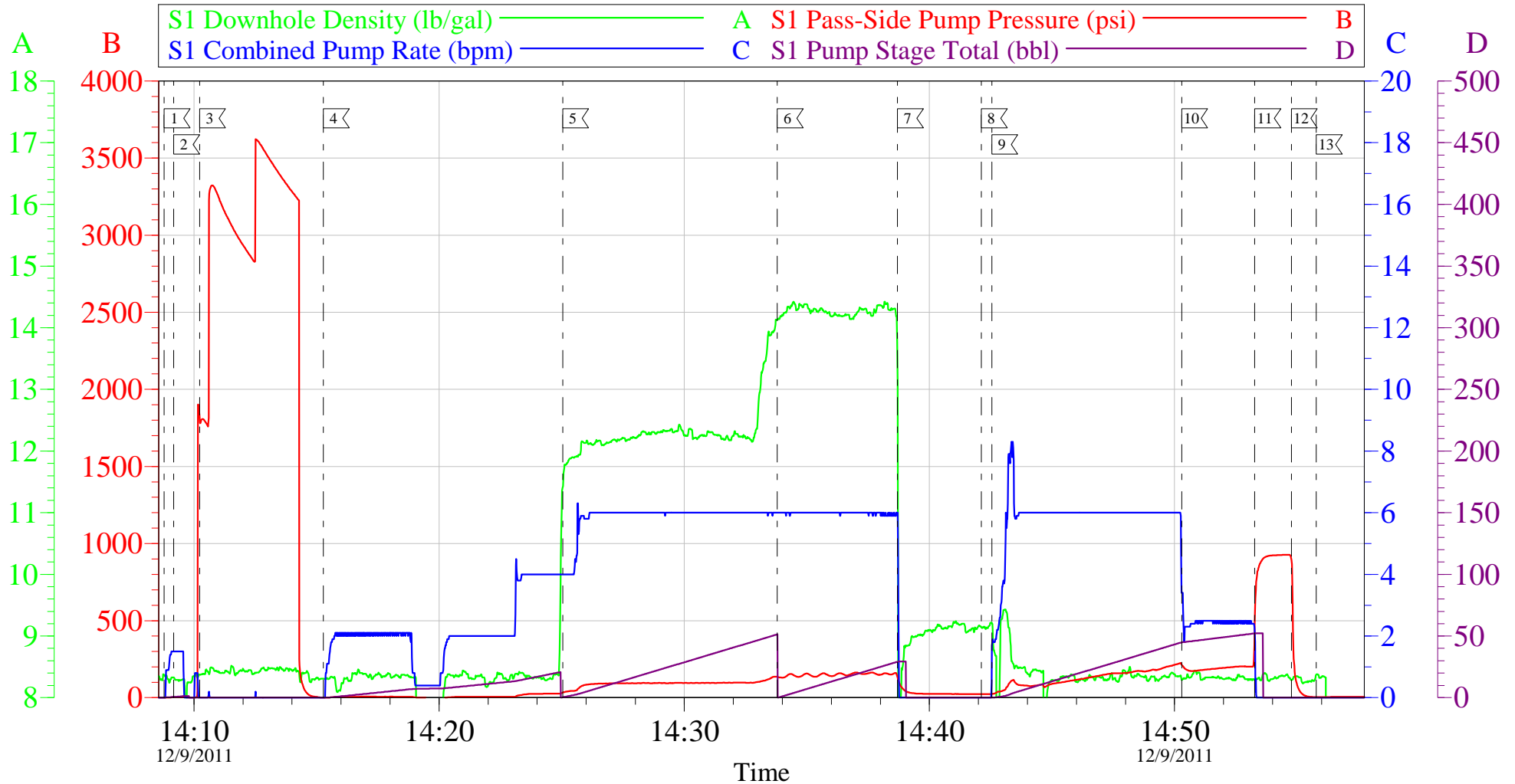
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	12/09/2011 10:00							CREW ALREADY ON LOCATION, BULK TRUCK DRIVER WILL BE ROUND TRIPPING FOR CEMENT POST EACH JOB.
Pre-Convoy Safety Meeting	12/09/2011 11:30							BULK DRIVER ONLY
Arrive At Loc	12/09/2011 12:30							RIG CREW DRILLING
Assessment Of Location Safety Meeting	12/09/2011 12:35							ALL HES EMPLOYEES, LOCATION ASSESED BEFORE START OF EACH JOB.
Rig-Up Equipment	12/09/2011 12:40							1 HT-400 CEMENT PUMP, 1 660FT3 BULK TRUCK, 1 9.625" SCREW ON PLUG CONTAINER
Pre-Job Safety Meeting	12/09/2011 13:45							ALL HES EMPLOYEES, RIG CREW, COMPANY REP, 3RD PARTY VENDORS
Start Job	12/09/2011 14:08							TD:740 FT TP:720.63 FT SJ:44.72 , OPEN HOLE: 12.375" CASING: 9.625", J55 8RD, 36 LB/FT
Pump Water	12/09/2011 14:09		1.5	2			10.0	FRESH WATER
Pressure Test	12/09/2011 14:10		0.5			3500.0		BAD 1" VALVE WITH NO REPLACEMENT WILL TRAVEL TO YARD TO RETRIEVE A NEW ONE BEFORE NEXT JOB.

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Spacer 1	12/09/2011 14:15		2	20			20.0	FRESH WATER
Pump Lead Cement	12/09/2011 14:25		6	51			90.0	120SKS VERSACEM MIXED @ 12.3PPG, 2.38FT3/SK, 13.75GALS/SK, WEIGHED VIA PRESSURE BALANCED MUD SCALES, WET AND DRY SAMPLES SUBMITTED
Pump Tail Cement	12/09/2011 14:33		6	31			180.0	120SKS SWIFTCM MIXED @ 14.2PPG, 1.43FT3/SK, 6.88GALS/SK, WEIGHED VIA PRESSURE BALANCED MUD SCALES, WET AND DRY SAMPLES SUBMITTED, RETURNS NOTED TO SURFACE WITH 20 BBLs AWAY ON TAIL CMT.
Shutdown	12/09/2011 14:38							
Drop Plug	12/09/2011 14:42							PLUG LAUNCHED
Pump Displacement	12/09/2011 14:42		6	52.2			204.0	FRESH WATER
Cement Returns to Surface	12/09/2011 14:46		6	22			160.0	30 BBLs CMT RETURNED TO SURFACE
Slow Rate	12/09/2011 14:50		2.5	42			220.0	SLOW RATE 10BBL PRIOR TO CALCULATED DISPLACEMENT
Bump Plug	12/09/2011 14:53		2.5	52.2			980.0	PLUG LANDED
Check Floats	12/09/2011 14:54							FLOATS HELD, HES TO SHUT IN 2" VALVE AT HEAD PER CO REP, NO PRESSURE APPLIED.

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
End Job	12/09/2011 14:55							THANK YOU FOR USING HALLIBURTON ENERGY SERVICES FROM MARK PHILLIPS AND CREW
Post-Job Safety Meeting (Pre Rig-Down)	12/09/2011 15:00							ALL HES EMPLOYEES
Pre-Convoy Safety Meeting	12/09/2011 15:40							ALL HES EMPLOYEES
Crew Leave Location	12/09/2011 15:40							CREW TO ROUND TRIP FOR BULK TRUCK AND NEW 1" IVALVE .

# BILL BARRETT CORP

## KAUFMAN 32D-25-692 SURFACE

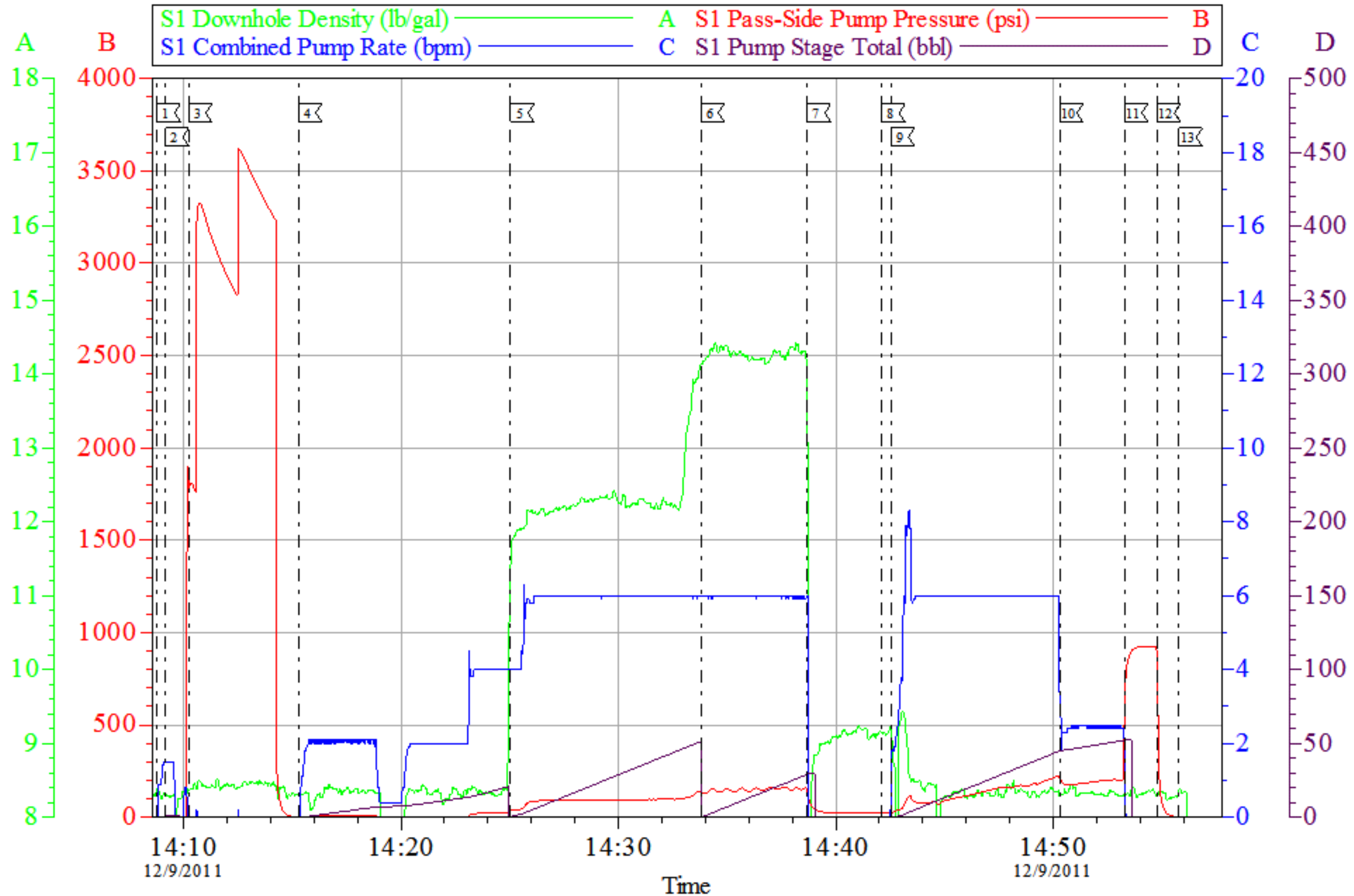


Local Event Log			
1	START JOB	14:08:47	2
2	FILL LINES	14:09:10	3
3	PRESSURE TEST	14:10:13	
4	H2O SPACER	14:15:17	5
5	LEAD CEMENT	14:25:02	6
6	TAIL CEMENT	14:33:48	
7	SHUT DOWN	14:38:42	8
8	DROP PLUG	14:42:07	9
9	START DISPLACEMENT	14:42:33	
10	SLOW RATE	14:50:18	11
11	BUMP PLUG	14:53:17	12
12	CHECK FLOATS	14:54:46	
13	END JOB	14:55:47	

Customer: BILL BARRETT	Job Date: 09-Dec-2011	Sales Order #: 9112133
Well Description: KAUFMAN 32D-25-692	Job Type: SURFACE	ADC Used: YES
Company Rep: CASEY LAUER	Cement Supervisor: MARK PHILLIPS	Elite #:1 JOHN KEANE

# BILL BARRETT CORP

## KAUFMAN 32D-25-692 SURFACE



Customer: BILL BARRETT  
Well Description: KAUFMAN 32D-25-692  
Company Rep: CASEY LAUER

Job Date: 09-Dec-2011  
Job Type: SURFACE  
Cement Supervisor: MARK PHILLIPS

Sales Order #: 9112133  
ADC Used: YES  
Elite #:1 JOHN KEANE

OptiCem v6.4.10  
09-Dec-11 15:37

# HALLIBURTON

## Water Analysis Report

Company: BBC  
Submitted by: MARK PHILLIPS  
Attention: LAB  
Lease: KAUFMAN  
Well #: 32D-25-692

Date: 12/9/2011  
Date Rec.: 12/9/2011  
S.O.#: 9112133  
Job Type: SURFACE

Specific Gravity	<i>MAX</i>	<i>1</i>
pH	<i>8</i>	<i>7</i>
Potassium (K)	<i>5000</i>	<i>250</i> Mg / L
Calcium (Ca)	<i>500</i>	<i>250</i> Mg / L
Iron (FE2)	<i>300</i>	<i>0</i> Mg / L
Chlorides (Cl)	<i>3000</i>	<i>200</i> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<i>200</i> Mg / L
Chlorine (Cl <sub>2</sub> )		<i>0</i> Mg / L
Temp	<i>40-80</i>	<i>42</i> Deg
Total Dissolved Solids		<i>700</i> Mg / L

Respectfully: MARK PHILLIPS

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

NOTICE:

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report c

<b>Sales Order #:</b> 9112133	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 12/9/2011
<b>Customer:</b> BILL BARRETT CORPORATION E-BILL		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> CASEY LAUER		<b>API / UWI: (leave blank if unknown)</b> 05-045-21145
<b>Well Name:</b> KAUFMAN		<b>Well Number:</b> 32D-25-692
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b> No	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

Dear Customer,

We hope that you were satisfied with the service quality of this job performed by Halliburton. It is the aim of our management and service personnel to deliver equipment and service of a standard unmatched in the service sector of the energy industry.

Please take the time to let us know if our performance met with your satisfaction. Please be as critical as possible to ensure we constantly improve our service. Your comments are of great value to us and are intended for the exclusive use of Halliburton.

### CUSTOMER SATISFACTION SURVEY

CATEGORY	CUSTOMER SATISFACTION RESPONSE	
Survey Conducted Date	The date the survey was conducted	12/9/2011
Survey Interviewer	The survey interviewer is the person who initiated the survey.	MARK PHILLIPS (HB13261)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	CASEY LAUER
HSE	Was our HSE performance satisfactory? Circle Y or N	Yes
Equipment	Were you satisfied with our Equipment? Circle Y or N	Yes
Personnel	Were you satisfied with our people? Circle Y or N	Yes
Customer Comment	Customer's Comment	

CUSTOMER SIGNATURE

<b>Sales Order #:</b> 9112133	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 12/9/2011
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<b>H2S Present:</b> No	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b> The date the survey was conducted	12/9/2011

Cementing KPI Survey	
<b>Type of Job</b> Select the type of job. (Cementing or Non-Cementing)	0
<b>Select the Maximum Deviation range for this Job</b> What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	Vertical
<b>Total Operating Time (hours)</b> Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	2
<b>HSE Incident, Accident, Injury</b> HSE Incident, Accident, Injury. This should be recordable incidents only.	No
<b>Was the job purpose achieved?</b> Was the job delivered correctly as per customer agreed design?	Yes
<b>Operating Hours (Pumping Hours)</b> Total number of hours pumping fluid on this job. Enter in decimal format.	1
<b>Customer Non-Productive Rig Time (hrs)</b> Lost time due to Halliburton in the start, execution, or completion of an ordered service or product, or delays in a follow-on service. Enter in decimal format. 0 if none.	0
<b>Type of Rig Classification Job Was Performed</b> Type Of Rig (classification) Job Was Performed On	Drilling Rig (Portable)
<b>Number Of JSAs Performed</b> Number Of Jsas Performed	6
<b>Number of Unplanned Shutdowns</b> Unplanned shutdown is when injection stops for any period of time.	0
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes

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<b>Well Name:</b> KAUFMAN		<b>Well Number:</b> 32D-25-692
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<b>H2S Present:</b> No	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
<b>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Top
<b>Mixing Density of Job Stayed in Designed Density Range (0-100%)</b> Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	98
<b>Was Automated Density Control Used?</b> Was Automated Density Control (ADC) Used ?	Yes
<b>Pump Rate (percent) of Job Stayed At Designed Pump Rate</b> Pump Rate range defined as +/- 1bbl/min. Calculation: Total BBLs of fluid pumped at the designed rate divided by Total BBLs of fluid pumped, multiplied by 100	98
<b>Nbr of Remedial Sqz Jobs Rqd - Competition</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
<b>Nbr of Remedial Plug Jobs Rqd - HES</b> Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
<b>Nbr of Remedial Sqz Jobs Rqd - HES</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0