

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS**

**For: HUGH MCGRAW**

Date: Tuesday, March 01, 2016

**Bybee #6**

Production

Job Date: Saturday, February 20, 2016

Sincerely,

**Derek Trier**

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Bybee #6** cement **Surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

**32bbl of cement and all spacer returned to surface.**

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

**Halliburton [Ft. Lupton]**

#### Job Times

	Date	Time	Time Zone
Called Out Time:	2/20/2016	1130	MTN
Arrived On Location At:		1500	
Job Started At:		1810	
Job Completed At:		1917	
Departed Location At:		2030	

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**Cementing Job Summary**

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3677757		Quote #:		Sales Order #: 0903141511					
Customer: EXTRACTION OIL & GAS -				Customer Rep: JOSE							
Well Name: BYBEE			Well #: 6			API/UWI #: 05-123-41797-00					
Field: WATTENBERG		City (SAP): FIRESTONE		County/Parish: WELD		State: COLORADO					
Legal Description: NE SE-14-2N-68W-2268FSL-1220FEL											
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 346							
Job BOM: 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB71271					Srvc Supervisor: Christopher Pickell						
<b>Job</b>											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type											
BHST											
Job depth MD		1615ft			Job Depth TVD		1615				
Water Depth											
Wk Ht Above Floor 4FT											
Perforation Depth (MD)		From			To						
<b>Well Data</b>											
Description		New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing			9.625	8.921	36			0	1597	0	1597
Open Hole Section				13.5				0	1615	0	1615
<b>Tools and Accessories</b>											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625					Top Plug	9.625	1	KLX		
Float Shoe	9.625	1	KLX	1597		Bottom Plug	9.625				
Float Collar	9.625	1	KLX	1555		SSR plug set	9.625				
Insert Float	9.625					Plug Container	9.625	1	HES		
Stage Tool	9.625					Centralizers	9.625				
<b>Fluid Data</b>											
Stage/Plug #: 1											
Fluid #	Stage Type	Fluid Name			Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Fresh Water	Fresh Water			30	bbl	8.33			5	
Fluid #	Stage Type	Fluid Name			Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	SwiftCem	SWIFTCEM (TM) SYSTEM			590	sack	13.5	1.74	9.2	8	

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*Cementing Job Summary*

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Fresh Water Displacement	Fresh Water Displacement	120.2	bbbl	8.33			10-2.5	
<b>Cement Left In Pipe</b>		<b>Amount</b>	42 ft		<b>Reason</b>			Shoe Joint	
<b>Comment</b> Returned all water spacer and 32 bbl of cement to surface. Top of cement is 0 ft									

## 2.0 Real-Time Job Summary

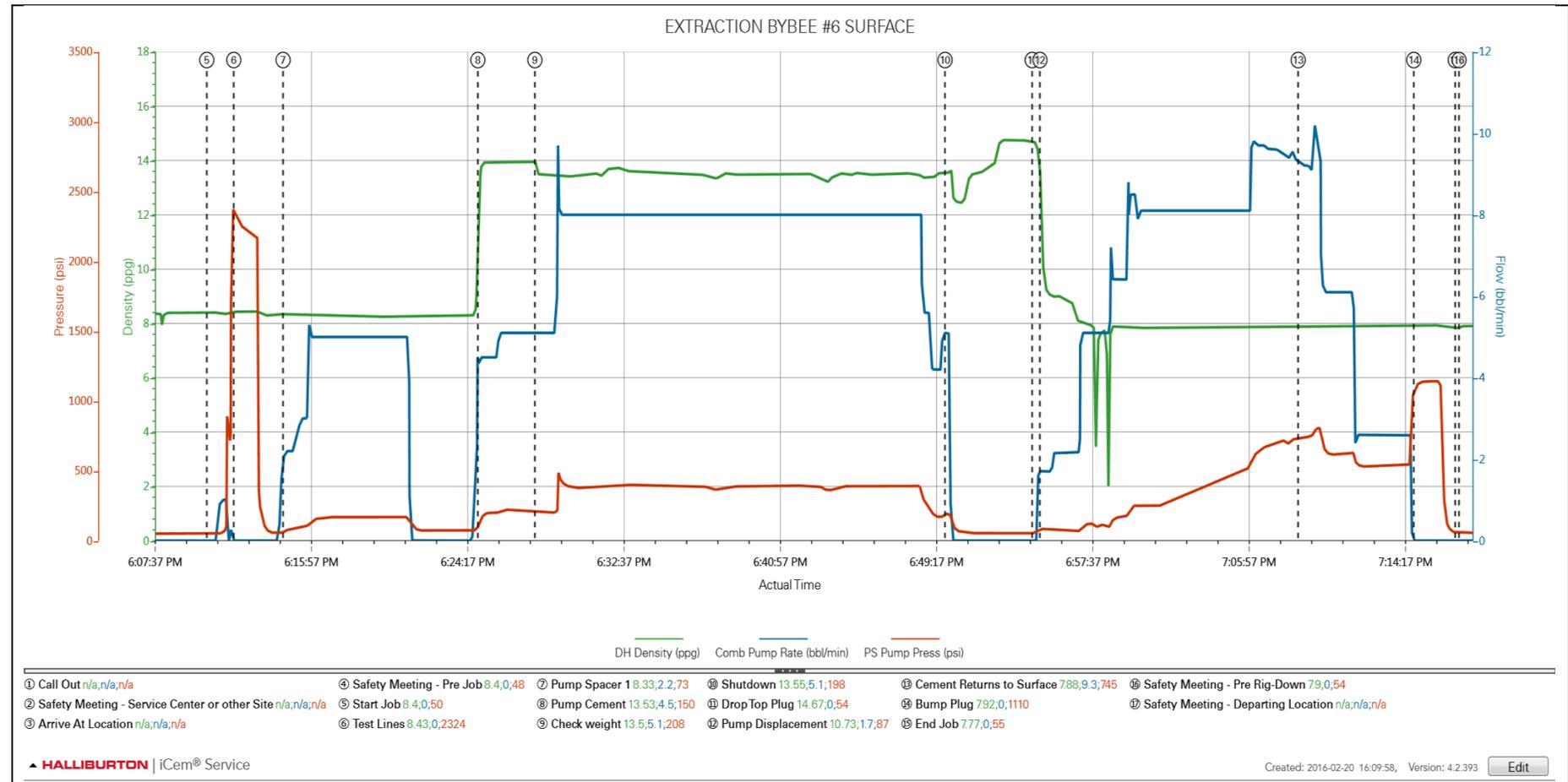
### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Downhole Density <i>(ppg)</i>	Combined Pump Rate <i>(bbl/min)</i>	Pass-Side Pump Pressure <i>(psi)</i>	Comments
Event	1	Call Out	Call Out	2/20/2016	11:30:00	USER				Crew called out at 11:30 to be on location at 15:30. Crew was Chris Pickell, Nick Roles, Joe Scileppi
Event	2	Safety Meeting - Service Center or other Site	Safety Meeting - Service Center or other Site	2/20/2016	14:30:00	USER				Safety meeting held for journey, equipment double checked. Left the yard for Patterson 346
Event	3	Arrive At Loc	Arrive At Location	2/20/2016	15:00:00	USER				Arrive on location 30 minutes early. Rig had 1200 ft of casing left to run
Event	4	Safety Meeting - Pre Job	Safety Meeting - Pre Job	2/20/2016	17:55:00	USER				Safety meeting held with rig crew to discuss job safety and procedure
Event	5	Start Job	Start Job	2/20/2016	18:10:30	COM6				
Event	6	Test Lines	Test Lines	2/20/2016	18:11:56	COM6	8.43	0.00	2324.00	Pressure test lines to 2500 psi. Checked for visible leaks and pressure loss
Event	7	Pump Spacer 1	Pump Spacer 1	2/20/2016	18:14:34	COM6	8.33	2.20	73.00	Pump 30 bbl of water spacer
Event	8	Pump Cement	Pump Cement	2/20/2016	18:24:57	COM6	13.53	4.50	150.00	Pump 590 sks 183 bbl of Swiftcem cement 13.5 ppg 1.74 yield 9.2 gal/sk
Event	9	Check Weight	Check weight	2/20/2016	18:28:00	COM6	13.50	5.10	208.00	Cement scaled at 13.5 ppg
Event	10	Shutdown	Shutdown	2/20/2016	18:49:52	USER	13.55	5.10	198.00	
Event	11	Drop Top Plug	Drop Top Plug	2/20/2016	18:54:31	COM6	14.67	0.00	54.00	Top plug loaded and dropped while shutdown
Event	12	Pump Displacement	Pump Displacement	2/20/2016	18:54:55	COM6	10.73	1.70	87.00	Pump displacement using water. Pumps and lines washed on top of the plug
Event	13	Cement Returns to Surface	Cement Returns to Surface	2/20/2016	19:08:42	USER	7.88	9.30	745.00	Cement returns to surface with 88 bbl away
Event	14	Bump Plug	Bump Plug	2/20/2016	19:14:52	COM6	7.92	0.00	1110.00	Plug landed at calculated 120.2 bbl. Plug landed with 580 psi shutting down with 1125 psi

Event	15	End Job	End Job	2/20/2016	19:17:04	COM6	7.77	0.00	55.00	Returned all spacer and 32 bbl of cement to surface
Event	16	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	2/20/2016	19:17:16	USER				Safety meeting held for rig down. Rigged down all equipment
Event	17	Safety Meeting - Departing Location	Safety Meeting - Departing Location	2/20/2016	20:30:00	USER				Safety meeting held for journey. Left location for the yard

3.0 Attachments

3.1 BYBEE #6-Custom Results (1).png



3.2 BYBEE #6-Custom Results (2).png

