

# HALLIBURTON

iCem<sup>®</sup> Service

## EXTRACTION OIL & GAS

### **Breniman 7**

Surface

Job Date: Tuesday, May 31, 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 **Breniman 7** 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.

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**

	<b>Date</b>	<b>Time</b>	<b>Time Zone</b>
Called Out Time:	5/31/2016	0500	MTN
Arrived On Location At:		0800	
Job Started At:		1233	
Job Completed At:		1359	
Departed Location At:		1500	

Sold To #: 369404		Ship To #: 3615653		Quote #:		Sales Order #: 0903334869				
Customer: EXTRACTION OIL & GAS -				Customer Rep: Shane						
Well Name: BRENNIMAN			Well #: 7		API/UWI #: 05-123-40419-00					
Field: WATTENBERG		City (SAP): WINDSOR		County/Parish: WELD		State: COLORADO				
Legal Description: NE NW-16-6N-67W-607FNL-2056FWL										
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 346						
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB71271				Srvc Supervisor: Vaughn Oteri						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1553ft		Job Depth TVD						
Water Depth				Wk Ht Above Floor						
Perforation Depth (MD)		From		To						
Well Data										
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	1552	0	1552
Open Hole Section			13.5				0	1553	0	1553
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625					Top Plug	9.625		HES	
Float Shoe	9.625			1552		Bottom Plug	9.625	1	HES	
Float Collar	9.625			1511		SSR plug set	9.625		HES	
Insert Float	9.625					Plug Container	9.625	1	HES	
Stage Tool	9.625					Centralizers	9.625		HES	
Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Fresh Water	Fresh Water/Red tracer dye	20	bbl	8.33					
Fluid Data										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	SwiftCem	SWIFTCM (TM) SYSTEM	550	sack	13.5	1.74		6	9.17	

9.17 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Fresh water	Fresh water	117	bbl	9				
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	
Comment 17bbl of cement back to surface									

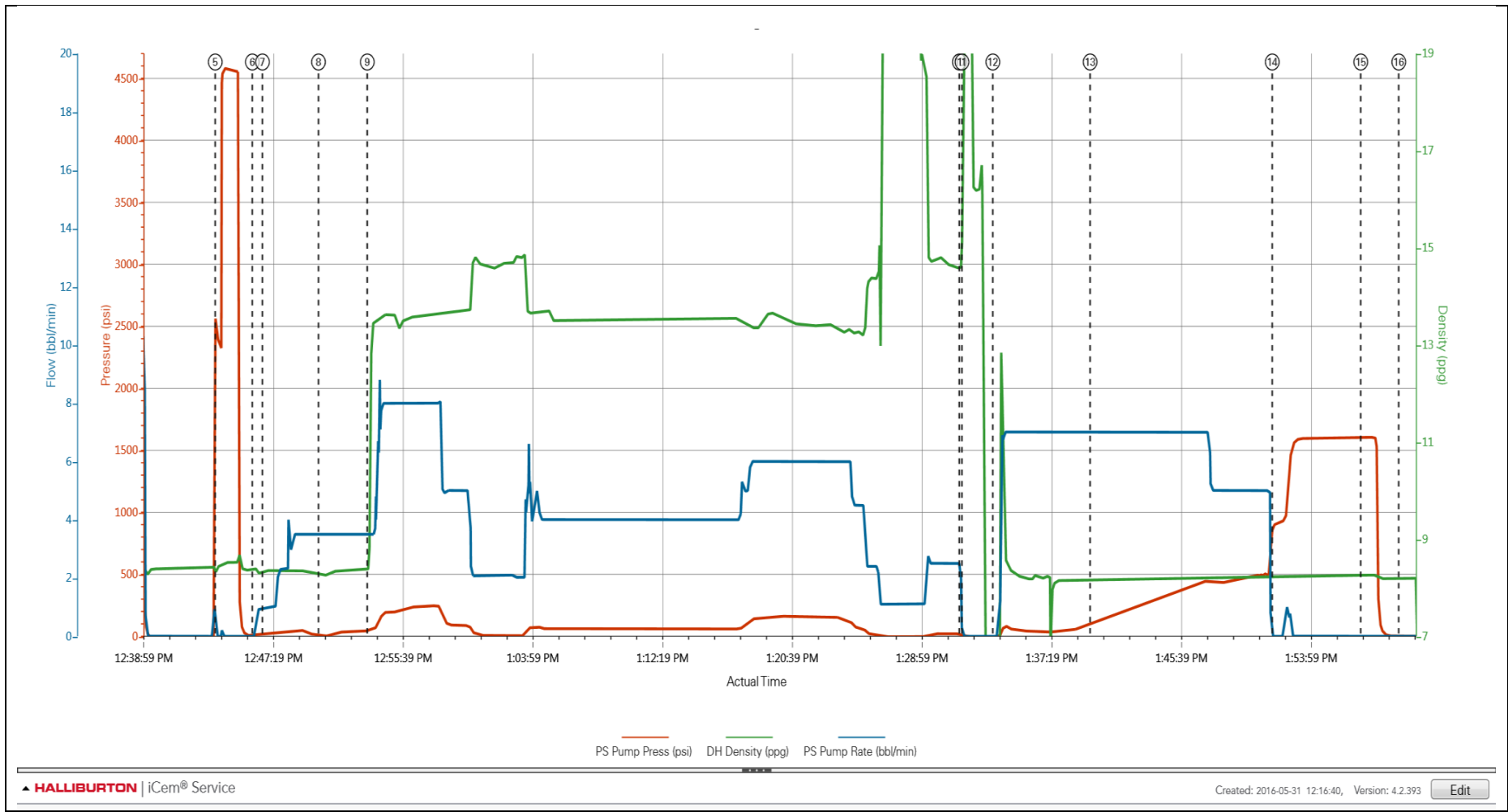
## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	PS Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	5/31/2016	05:00:00	USER				Call out from Arc hub
Event	2	Arrive At Loc	Arrive At Loc	5/31/2016	08:00:00	USER				Requested on location @1000 Arrived on location @0800 met with compny rep to discuss job process and concerns advised due to all the activity on location to stage out on main road till rig was ready for HES
Event	3	Start Job	Start Job	5/31/2016	12:33:45	COM4				Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	4	Prime Pumps	Prime Pumps	5/31/2016	12:37:08	COM4				Primed pumps and lines with fresh water
Event	5	Test Lines	Test Lines	5/31/2016	12:43:43	COM4	2425.00	8.44	0.00	Pressure tested pumps and lines found no leaks and pressure held good
Event	6	Pump Spacer 1	Pump Spacer 1	5/31/2016	12:46:06	COM4	3.00	8.39	0.00	Pumped 10bbl of Red Tracer Dye 3.5bpm 40psi
Event	7	Check Weight	Check weight	5/31/2016	12:46:45	COM4	17.00	8.34	1.00	Confirm weight of cement of 13.5ppg
Event	8	Pump Spacer 2	Pump Spacer 2	5/31/2016	12:50:22	COM4	6.00	8.31	3.50	Pumped 10bbl of fresh water at 3.5bpm 40psi
Event	9	Pump Cement	Pump Cement	5/31/2016	12:53:29	COM4	46.00	9.20	3.50	Mixed 550sk or 170bbl of 13.5ppg Y-1.74 G/sk-9.17 Swiftcem at 8.0bpm 220psi
Event	10	Shutdown	Shutdown	5/31/2016	13:31:32	COM4				
Event	11	Drop Top Plug	Drop Top Plug	5/31/2016	13:31:42	COM4				Released plug witnessed by company rep
Event	12	Pump Displacement	Pump Displacement	5/31/2016	13:33:41	COM4	4.00	0.43	0.00	Pumped 117bbl of fresh water to dispalce cement
Event	13	Displ Reached Cmnt	Displ Reached Cmnt	5/31/2016	13:39:56	COM4	103.00	8.15	7.00	Caught cement
Event	14	Bump Plug	Bump Plug	5/31/2016	13:51:38	COM4	904.00	8.22	0.00	Bump plug 500psi over final pump pressure
Event	15	Other	Other	5/31/2016	13:57:19	COM4	1604.00	8.26	0.00	Released pressure back to pump truck to check floats . Floats held good 1.0bbl back
Event	16	End Job	End Job	5/31/2016	13:59:45	COM4				17bbl of cement back to surface

3.0 Attachments

3.1 Case 1-Custom Results (3).png





## 3.2 Case 1-Custom Results (4).png

