

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS**

Date: Saturday, June 04, 2016

### **Breniman #11 Surface**

Job Date: Saturday, May 28, 2016

Sincerely,

**Julia Nichols**

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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 #11 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.

**Approximately 20 barrels of cement were 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]**

**HALLIBURTON**

*Cementing Job Summary*

*The Road to Excellence Starts with Safety*

Sold To #: 389404	Ship To #: 3815703	Quote #:	Sales Order #: 0903338451							
Customer: EXTRACTION OIL & GAS -		Customer Rep: Shane								
Well Name: BRENNIMAN	Well #: 11	API/UWI #: 05-123-40425-00								
Field: WATTENBERG	City (SAP): WINDSOR	County/Parish: WELD	State: COLORADO							
Legal Description: NE NW-16-8N-87W-708FNL-1998FWL										
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 346								
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB71271		Srcv Supervisor: Nathaniel Moore								
<b>Job</b>										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type	BHST									
Job depth MD	1534ft	Job Depth TVD								
Water Depth		Wk Ht Above Floor								
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	38			0	1534	0	1534
Open Hole Section			13.5				0	1534	0	1534
<b>Tools and Accessories</b>										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625			1534		Top Plug	9.625	1	HES	
Float Shoe	9.625			1489		Bottom Plug	9.625		HES	
Float Collar	9.625					SSR plug set	9.625		HES	
Insert Float	9.625					Plug Container	9.625		HES	
Stage Tool	9.625					Centralizers	9.625		HES	
<b>Fluid Data</b>										
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	20	bbl	8.33					
2 lbs red dye in the first 10										
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	SWIFTCEM (TM) SYSTEM	550	sack	13.5	1.74		6	9.17	
9.17 Gal		FRESH WATER								

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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	Oil Based Mud Displacement	Oil Based Mud Displacement	115	bbl	9					
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint		

20 bbl spacer and 20 bbl cement to surface

## 2.0 Real-Time Job Summary

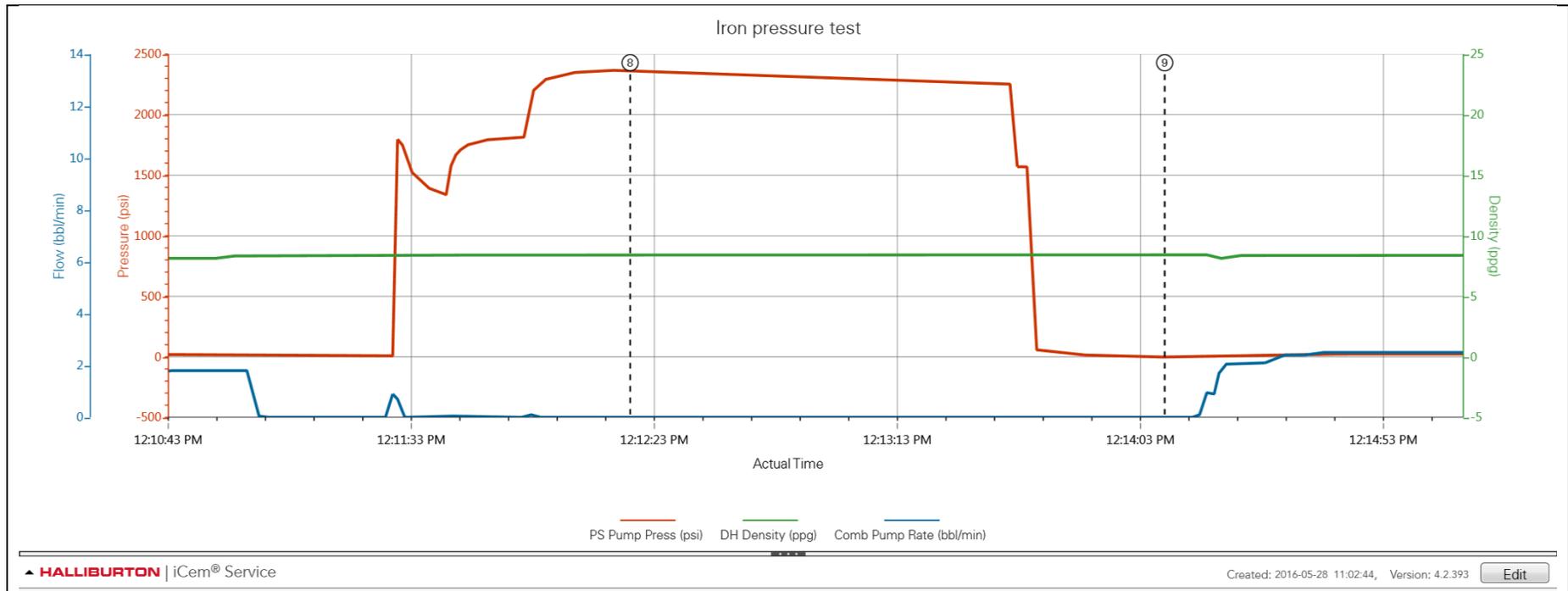
### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	5/28/2016	06:00:00	USER				OL time 1100. Verify equipment and materials
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	5/28/2016	09:00:00	USER				Journey management conducted with crew
Event	3	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	5/28/2016	10:30:00	USER				Arrive at location. Discuss spotting procedure. Rig running casing
Event	4	Other	Meet with customer rep	5/28/2016	10:40:00	USER				Shane. TD 1534' 13.5" open hole. 1534' 9.625" 36# J-55 surface casing with 45' shoe joint. 40' 16" conductor. Water based mud 8.33 ppg.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/28/2016	10:45:00	USER				Spot in and rig up equipment
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/28/2016	12:00:00	USER				Safety meeting with HES and third party to discuss job procedure.
Event	7	Start Job	Start Job	5/28/2016	12:06:22	COM1				Fil lines with 3 bbl water. Power end oil pressure 140. Temp 120.
Event	8	Test Lines	Test Lines	5/28/2016	12:12:19	COM1	2365.00	8.41	0.00	2000 psi pressure test
Event	9	Pump Spacer 1	Pump Spacer 1	5/28/2016	12:14:09	COM1	-2.00	8.41	0.00	10 bbl dyed water
Event	10	Pump Spacer 2	Pump Spacer 2	5/28/2016	12:18:05	COM1	22.00	8.36	2.90	10 bbl water
Event	11	Pump Cement	Pump Cement	5/28/2016	12:22:12	COM1	-1.00	8.40	0.00	550 sks/170 bbl 13.5 ppg 1.74 ft3/sk 9.17 gal/sk
Event	12	Check Weight	Check weight	5/28/2016	12:35:17	COM1	144.00	13.61	8.90	13.5 ppg verified with pressurized mud scales
Event	13	Check Weight	Check weight	5/28/2016	12:38:13	COM1	160.00	13.39	9.00	13.5 ppg
Event	14	Shutdown	Shutdown	5/28/2016	12:49:39	COM1	-4.00	14.43	1.00	washup on top of the plug
Event	15	Drop Top Plug	Drop Top Plug	5/28/2016	12:50:53	COM1	-11.00	19.09	0.00	Top plug drop witnessed by company rep
Event	16	Pump Displacement	Pump Displacement	5/28/2016	12:51:10	COM1	-11.00	18.89	0.00	115 bbl water displacement

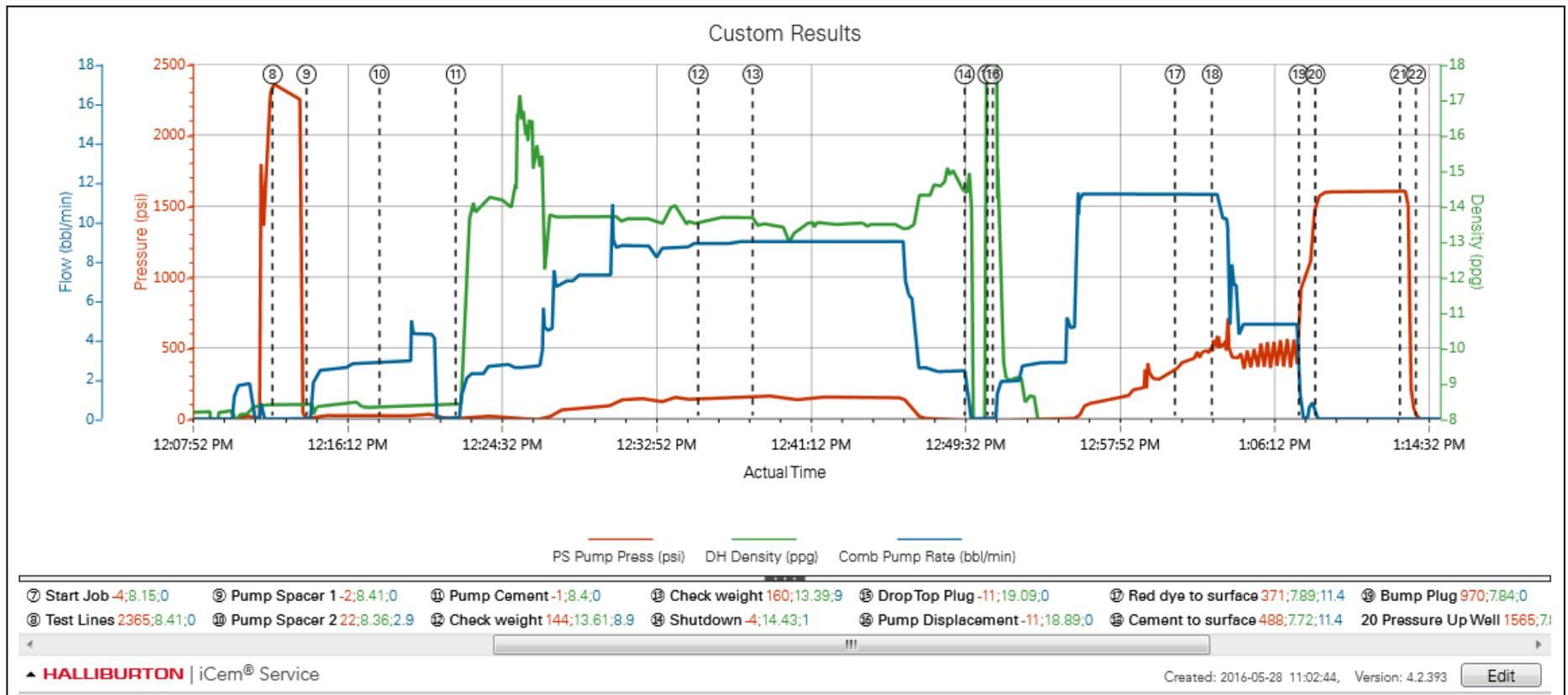
Event	17	Other	Red dye to surface	5/28/2016	13:01:00	USER	371.00	7.89	11.40	70 bbl into displacement
Event	18	Other	Cement to surface	5/28/2016	13:03:00	USER	488.00	7.72	11.40	95 bbl into displacement 20 bbl cement to surface
Event	19	Bump Plug	Bump Plug	5/28/2016	13:07:41	COM1	970.00	7.84	0.00	540 psi final circulating pressure. Pressured up to 900 psi
Event	20	Pressure Up Well	Pressure Up Well	5/28/2016	13:08:34	COM1	1565.00	7.85	0.00	1500 psi casing pressure test for 5 minutes
Event	21	Other	Check floats	5/28/2016	13:13:08	COM1	1606.00	7.90	0.00	1 bbl back
Event	22	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	5/28/2016	13:14:00	USER				Safety meeting with crew
Event	23	End Job	End Job	5/28/2016	13:21:59	COM1				Washup into the cellar with 10 bbl water
Event	24	Depart Location Safety Meeting	Depart Location Safety Meeting	5/28/2016	14:00:00	USER				Journey management with crew

3.0 Attachments

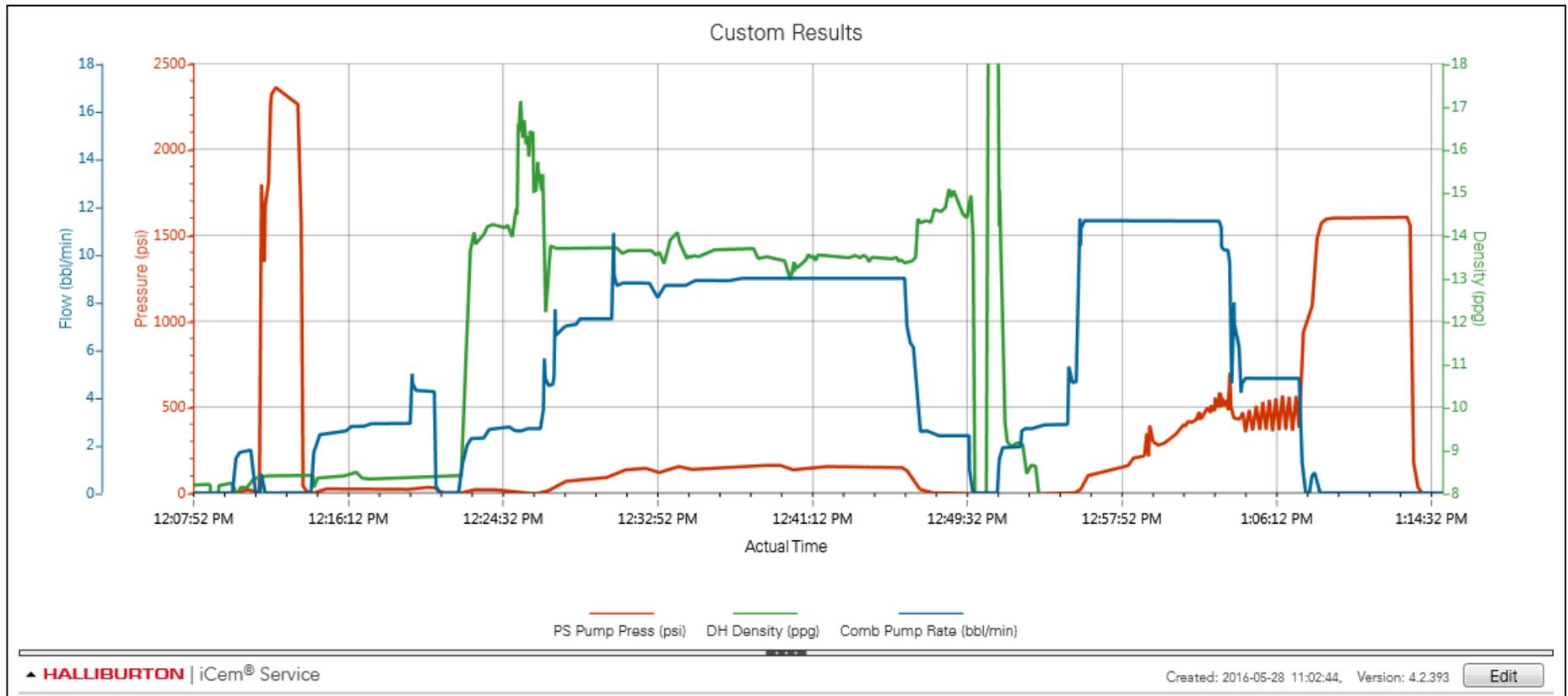
3.1 903338451 Extraction Breniman # 11 Surface-Custom Results (2).png



### 3.2 Breniman # 11 Surface-Custom Results: Job Chart with Events



3.3 Breniman # 11 Surface-Custom Results: Job Chart without Events



3.4 Breniman # 11 Surface-Custom Results: Casing Pressure Test

