

# HALLIBURTON

iCem<sup>®</sup> Service

## **Extraction Oil & Gas**

Date: Tuesday, May 03, 2016

## **WESTWIND #4 PRODUCTION**

Job Date: Friday, April 08, 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 **Westwind #4** cement **Production** 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.

#### **25 barrels of cement 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 #: 369404	Ship To #: 3642709	Quote #:	Sales Order #: 0903235416
Customer: EXTRACTION OIL & GAS		Customer Rep:	
Well Name: WESTWIND	Well #: 4	API/UWI #: 05-123-41012-00	
Field: WATTENBERG	City (SAP): WINDSOR	County/Parish: WELD	State: COLORADO
Legal Description: SW L2-7-6N-67W-1046FSL-252FWL			
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 346	
Job BOM: 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Joseph Fantasia	

**Job**

**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	0	9.625	8.921	36			0	1585		
Casing	0	5.5	4.778	20			0	12360		
Open Hole Section			7.875				1585	12360		

**Tools and Accessories**

**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	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	50	bbl	11.5	3.74		6	
	36.09 gal/bbl	FRESH WATER							
	0.30 gal/bbl	MUSOL(R) A, BULK (100003696)							
	0.30 gal/bbl	DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)							
	149.34 lbm/bbl	BARITE, BULK (100003681)							

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	ElastiCem Lead	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		8	7.48
	7.48 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	ElastiCem Tail Cement	ELASTICEM (TM) SYSTEM	1425	sack	13.2	1.57		8	7.49

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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/mi n	Total Mix Fluid Gal
4	Displacement	Displacement	272	bbl	8.33			10	
7.49 Gal		FRESH WATER							
<b>Cement Left In Pipe</b>	<b>Amount</b>	44 ft	<b>Reason</b>				Shoe Joint		
<b>Comment</b> APPROX 25 BBLS CEMENT TO SURFACE									

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

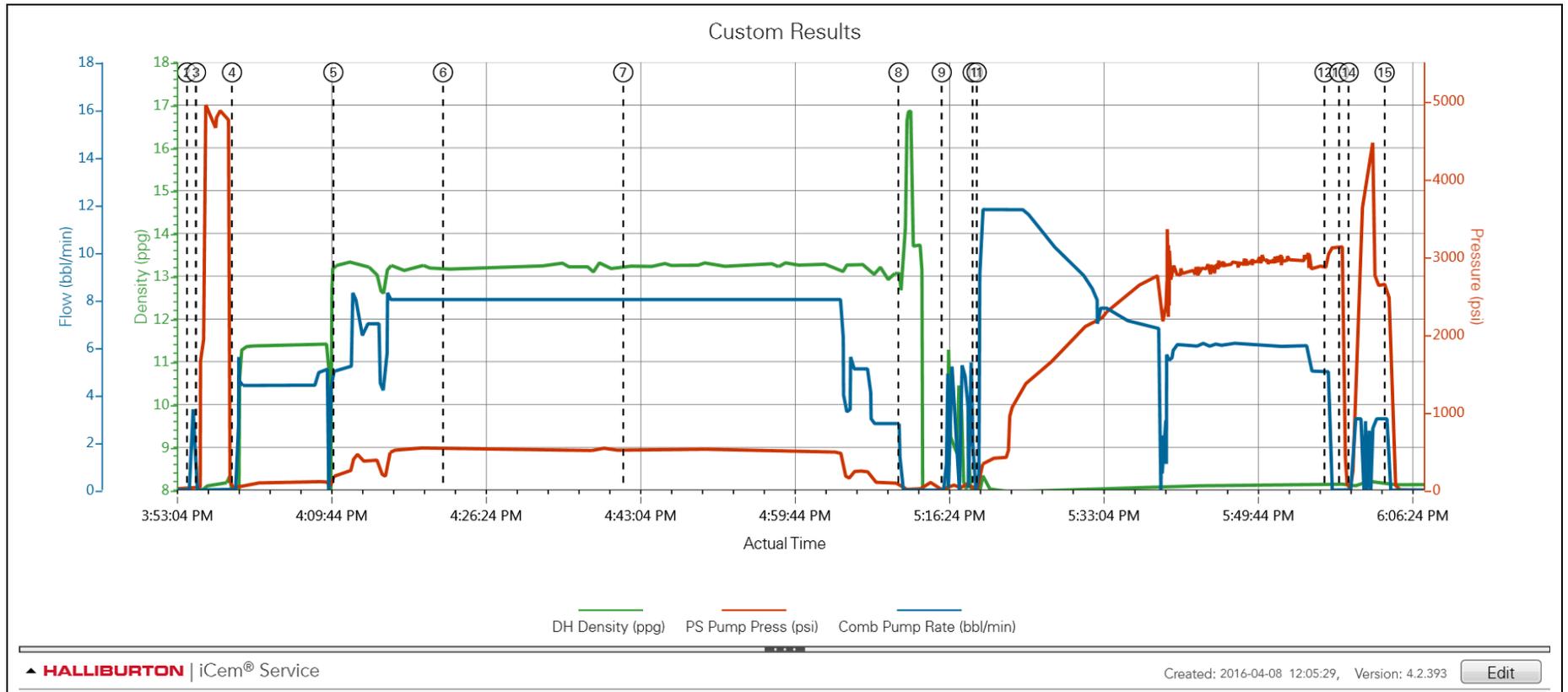
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Pass-Side Pump Pressure (psi)	Combined Pump Rate (bbl/min)	Comments
Event	1	Arrive at Location from Service Center	Arrive at Location from Service Center	4/8/2016	13:00:00	USER				CALL OUT 0800. REQUESTED ON LOCATION @ 1430. ARRIVE AT LOCATION @ 1300. HELD SITE ASSESSMENT AND PRE RIG UP SAFTEY MEETING WITH CREW PRIOR TO RIGGING UP EQUIPMENT.
Event	2	Start Job	Start Job	4/8/2016	15:54:29	COM5				HELD PRE JOB SAFETY MEETING WITH ALL PRESENT PERSONNEL PRIOR TO STARTING JOB.
Event	3	Test Lines	Test Lines	4/8/2016	15:55:26	COM5	7.96	29.00	0.00	PRESSURE TEST LINES TO 4850 PSI.
Event	4	Pump Spacer 1	Pump Spacer 1	4/8/2016	15:59:19	COM5	8.05	15.00	0.00	PUMP 50 BBLS TUNED SPACER MIXED AT 11.5 PPG. DENSITY VERIFIED BY SCALE. 15 GALLONS MUSOL A AND 15 GALLONS DUAL SPACER B ADDED. MIXED ON BATCH MIXER. 5 GALLONS D AIR USED TO COMBAT FOAMING.
Event	5	Pump Cement	Pump Cement	4/8/2016	16:10:15	COM5	13.27	209.00	5.00	PUMP 440 BBLS (1575 SKS) ELASTICEM MIXED AT 13.2 PPG. DENSITY VERIFIED BY SCALE. FIRST 150 SKS WITHOUT SUPER CBL.
Event	6	Check Weight	Check weight	4/8/2016	16:22:05	COM5	13.15	536.00	8.10	DENSITY VERIFIED BY SCALE
Event	7	Check Weight	Check weight	4/8/2016	16:41:33	COM5	13.24	519.00	8.00	DENSITY VERIFIED BY SCALE.
Event	8	Shutdown	Shutdown	4/8/2016	17:11:15	COM5	13.04	33.00	0.00	
Event	9	Clean Lines	Clean Lines	4/8/2016	17:15:55	COM5	-0.05	4.00	0.00	CLEAN LINES TO WASH UP TANK.
Event	10	Drop Top Plug	Drop Top Plug	4/8/2016	17:19:15	COM5	8.17	11.00	0.00	3RD PARTY TOP PLUG LOADED AND DROPPED DURING SHUTDOWN.
Event	11	Pump Displacement	Pump Displacement	4/8/2016	17:19:41	COM5	7.96	271.00	11.90	DISPLACE USING 272 BBLS WATER. GOOD RETURNS THROUGHOUT. APPROX 20 BBLS CEMENT TO SURFACE.
Event	12	Bump Plug	Bump Plug	4/8/2016	17:57:14	USER	8.12	2860.00	5.00	PLUG LANDED AT 2860 PSI. PRESSURE BROUGHT TO 3100 PSI AND HELD 1 MIN.
Event	13	Check Floats	Check Floats	4/8/2016	17:58:49	USER	8.13	2504.00	0.00	FLOATS HELD. 2.5 BBLS BACK TO TRUCK.
Event	14	Pump Water	Pump Water	4/8/2016	17:59:50	USER	8.09	28.00	0.00	PRESSURE UP TO 4250 TO RUPTURE DISK AND PUMP 7.5

BBLS FRESH WATER.

Event	15	Check Floats	Check Floats	4/8/2016	18:03:43	USER	8.16	2559.00	0.00	FLOATS HELD. 2.5 BBLS BACK TO TRUCK. 25 BBLS TOTAL CEMENT TO SURFACE AFTER 5 BBL WET SHOE.
Event	16	End Job	End Job	4/8/2016	18:30:00	USER				HELD PRE RIG DOWN SAFETY MEETING WITH CREW PRIOR TO RIGGING DOWN EQUIPMENT.
Event	17	Depart Location	Depart Location	4/8/2016	19:00:00	USER				DEPART LOCATION.

3.0 Attachments

3.1 EXTRACTION WESTWIND #4 PRODUCTION-Custom Results (1).png



3.2 EXTRACTION WESTWIND #4 PRODUCTION-Custom Results.png

Custom Results

