

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS**

United States of America

### **TC Aims C5-9-11**

Surface

Job Date: Sunday, December 04, 2016

Sincerely,

**Derek Trier**

## Legal Notice

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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 **TC Aims C5-9-11** 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, 25bbl 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]**

### *Cementing Job Summary*



## The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3762942		Quote #:		Sales Order #: 0903697534				
Customer: EXTRACTION OIL & GAS				Customer Rep: Hans Cary						
Well Name: TC AIMS		Well #: C5-9-11		API/UWI #: 05-123-43744-00						
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD		State: COLORADO				
Legal Description: SE NE-8-5N-66W-2606FNL-1192FEL										
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 341						
Job BOM: 7521										
Sales Person: HALAMERICA\HX38199				Srvc Supervisor: Nathaniel Moore						
Job										
Job depth MD		1580ft		Job Depth TVD						
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
Open Hole Section			13.5				0	1580		
Casing		9.625	8.921	36			0	1565		
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	9.625					Top Plug	9.625	1	HES	
Float Shoe	9.625			1565		Bottom Plug	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	Water with dye	Water with dye	10	bbl	8.34					
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	525	sack	13.5	1.74		5	9.2	
9.18 Gal		FRESH WATER								
94 lbm		TYPE I / II CEMENT, BULK (101439798)								
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	Displacement	Displacement	117	bbl	8.34					
Cement Left In Pipe		Amount	43 ft			Reason		Shoe Joint		
25 bbl cement to surface										

last updated on 1/11/2017 1:48:52 PM

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(v. 4.3.44)

Created: Wednesday, January 11, 2017

## 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)	Comb Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	12/5/2016	18:00:00	USER					OL time 2200. Verify equipment and materilas
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	12/5/2016	21:00:00	USER					Spot in and rig up equipment. Rig running casing
Event	3	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/5/2016	00:15:00	USER	36.00	0.07	0.00	0.00	
Event	4	Start Job	Start Job	12/5/2016	00:33:05	COM1	69.00	8.83	0.00	4.10	Fill lines 3 bbl water
Event	5	Test Lines	Test Lines	12/5/2016	00:36:42	COM1	2673.00	8.72	0.00	6.60	2500 psi pressure test with 500 psi kickout test
Event	6	Pump Spacer 1	Pump Spacer 1	12/5/2016	00:39:15	COM1	-78.00	8.60	0.00	0.00	10 bbl dye
Event	7	Pump Cement	Pump Cement	12/5/2016	00:51:30	COM1	51.00	9.60	2.90	0.00	525 sks/162 bbl 13.5 ppg 1.74 ft3/sk 9.2 gal/sk
Event	8	Drop Top Plug	Drop Top Plug	12/5/2016	01:27:03	COM1	-9.00	14.00	0.00	165.20	Witnssed by company rep. Washup on top of plug
Event	9	Pump Displacement	Pump Displacement	12/5/2016	01:27:09	COM1	-9.00	14.00	0.00	0.00	117 bbl water displacement
Event	10	Other	Spacer to surface	12/5/2016	01:38:39	COM1	691.00	8.07	8.00	76.50	80 bbl into displacement
Event	11	Other	Cement to surface	12/5/2016	01:42:33	COM1	526.00	8.08	5.00	104.70	90 bbl into displacement. 25 bbl back
Event	12	Bump Plug	Bump Plug	12/5/2016	01:46:55	COM1	915.00	8.08	0.00	117.60	500 psi final circulating pressure. Pressured up to 1500 psi for 5 minute casing test
Event	13	Other	Check floats	12/5/2016	01:51:00	USER	1569.00	8.06	0.00	117.80	1 bbl back. Floats held
Event	14	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	12/5/2016	01:52:00	USER	-2.00	8.04	0.00	117.80	
Event	15	End Job	End Job	12/5/2016	01:58:20	COM1	-19.00	7.99	0.70	118.00	

## 3.0 Attachments

### 3.1 Case 1-Custom Results (1).png

