

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS**

Date: Sunday, June 04, 2017

### **TC Country Club West #2-9-11 Production**

Job Date: Tuesday, May 23, 2017

Sincerely,

**Justin Lansdale**

## 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 Country Club West #2-9-11** 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.

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 [Fort Lupton]**

*The Road to Excellence Starts with Safety*

Sold To #: 369404	Ship To #: 3754151	Quote #:	Sales Order #: 0904044026
Customer: EXTRACTION OIL & GAS		Customer Rep: Kaylen Holgate/Larry Segal	
Well Name: TC COUNTRY CLUB WEST		Well #: 2-9-11	API/UWI #: 05-123-43511-00
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: SE NE-8-5N-66W-2462FNL-1195FEL			
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 341	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Vaughn Oteri	

**Job**

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	20260ft	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	1587	0	0
Casing		5.5	4.67	23			0	20248	0	0
Open Hole Section			8.5				1587	20260	0	0

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	KLX
Float Shoe	5.5			20248	Bottom Plug	5.5		
Float Collar	5.5			20243	SSR plug set	5.5		
Insert Float	5.5				Plug Container	5.5	1	HES
Stage Tool	5.5				Centralizers	5.5		

**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	

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	ElastiCem Lead	ELASTICEM (TM) SYSTEM	3175	sack	13.2	1.57		8	7.54
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	Displacement	Displacement	427	bbl	8.33			8	

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Cement Left In Pipe	<b>Amount</b>	5 ft	<b>Reason</b>	<b>Shoe Joint</b>
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**Comment** 50bbl 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	Comments
Event	1	Call Out	Call Out	5/22/2017	14:00:00	USER	Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	5/22/2017	20:00:00	USER	Requested on location @ 2200 Arrived on location @2000 met with company rep to discuss job process and concerns
Event	3	Other	Other	5/22/2017	20:10:10	USER	TD-20260 TP-20248 FC-20243 Surf-1587 mud-10.0ppg OH-8.5 Casing 5.5 23#
Event	4	Start Job	Start Job	5/23/2017	02:28:11	COM4	Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	5	Test Lines	Test Lines	5/23/2017	02:49:38	COM4	Pressure tested pump and lines found no leaks and pressure held good 4810psi
Event	6	Pump Spacer 1	Pump Spacer 1	5/23/2017	02:52:39	COM4	Mixed 50bbl of 11.5ppg Tuned spacer III at 6.0bpm 565psi
Event	7	Pump Cement	Pump Cement	5/23/2017	03:02:48	COM4	Mixed 3175sks or 887bbl of 13.2ppg Y-1.57 G/sk-7.53 Elasticem at 8.0bpm 833psi
Event	8	Shutdown	Shutdown	5/23/2017	04:56:40	COM4	
Event	9	Clean Lines	Clean Lines	5/23/2017	04:56:48	COM4	Washed pumps and lines with fresh water
Event	10	Drop Top Plug	Drop Top Plug	5/23/2017	04:56:51	COM4	KLX released plug witnessed by company rep and HES supervisor
Event	11	Pump Displacement	Pump Displacement	5/23/2017	05:02:50	COM4	Pumped 427bbl of fresh water to displace cement
Event	12	Bump Plug	Bump Plug	5/23/2017	05:57:31	COM4	Bumped plug 500psi over final pump pressure

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Event	13	Other	Other	5/23/2017	05:59:23	COM4	Released pressure back to pump truck to check floats, Floats held good 5.0bbl back
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Event	14	End Job	End Job	5/23/2017	06:06:12	COM4	50bbl of cement back to surface
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Custom Results

