

# HALLIBURTON

iCem<sup>®</sup> Service

## EXTRACTION OIL & GAS

Date: Saturday, April 15, 2017

### Extraction RBF 2 Surface

Job Date: Sunday, April 09, 2017

Sincerely,

**Bryce Hinsch**

## 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 **RBF 2** 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 51 bbls 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]**

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## Cementing Job Summary

## The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3788366		Quote #:		Sales Order #: 0903945042				
Customer: EXTRACTION OIL & GAS -				Customer Rep: Sean McIntyre						
Well Name: RBF		Well #: 2		API/UWI #: 05-123-44446-00						
Field: WATTENBERG		City (SAP): WINDSOR		County/Parish: WELD		State: COLORADO				
Legal Description: SE NE-22-6N-67W-1961FNL-300FEL										
Contractor: UNKNOWN				Rig/Platform Name/Num: WORKOVER RIG						
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA/HX38199				Srvc Supervisor: Michael Loughran						
<b>Job</b>										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1555ft		Job Depth TVD		1555ft				
Water Depth				Wk Ht Above Floor		3ft				
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	36		J-55	0	1555	0	1555
Open Hole Section			13.5				0	1555	0	1555
<b>Tools and Accessories</b>										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe						Top Plug	9.625	1	HES	
Float Shoe	9.625	1		1555		Bottom Plug				
Float Collar	9.625	1		1512		SSR plug set				
Insert Float						Plug Container	9.625	1	HES	
Stage Tool						Centralizers				
<b>Fluid Data</b>										
Stage/Plug #: 1										
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	
1	Spacer	Red Dye Spacer	10	bbl	8.33			2	420	
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	Cement	SWIFTCM (TM) SYSTEM	625	sack	13.5	1.74	9.2	7	5750	
9.20 Gal		FRESH WATER								

last updated on 4/15/2017 1:14:37 PM

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Created: Saturday, April 15, 2017

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*Cementing Job Summary*

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	Fresh Water	117	bbl	8.33			8	4914
Cement Left In Pipe		Amount	43 ft			Reason		Shoe Joint	
Mix Water:		pH 7.0	Mix Water Chloride:		0 ppm		Mix Water Temperature:		50 °F
Cement Temperature:		N/A	Plug Displaced by:		8.3 lb/gal Fresh Water		Disp. Temperature:		50 °F
Plug Bumped?		Yes	Bump Pressure:		500 psi		Floats Held?		Yes
Cement Returns:		51 bbl	Returns Density:		N/A		Returns Temperature:		N/A
Comment									

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	4/8/2017	11:00:00	USER					Crew called out, on location time of 14:00 4/9/2017.
Event	2	Crew Leave Yard	Crew Leave Yard	4/8/2017	12:00:00	USER					Started journey management. Crew left Fort Lupton, CO.
Event	3	Arrive At Loc	Arrive At Loc	4/8/2017	13:00:00	USER					Meet with customer to discuss job. Rig was drilling the surface when crew arrived on location.
Event	4	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/9/2017	14:30:00	USER					JSA and identify hazards of rigging up to well head. Discuss Iron, bulk, and water hoses to be rigged up.
Event	5	Rig-Up Equipment	Rig-Up Equipment	4/9/2017	14:45:00	USER					Rig up iron, bulk, and water hoses.
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/9/2017	15:30:00	USER	0.00	8.41	-2.00	0.00	With all associated personnel, discuss hazards of job and safety related material.
Event	7	Start Job	Start Job	4/9/2017	16:09:21	COM1					Fill lines and establish circulation with well.
Event	8	Test Lines	Test Lines	4/9/2017	16:11:25	USER	0.00	8.38	39.00	2.10	Pressure test line to 2000 psi. Kickouts set at 500 psi, kicked out at 1200 psi, 5th gear stall at 1800 psi.
Event	9	Pump Spacer 1	Pump Fresh Water Spacer	4/9/2017	16:15:26	COM1	0.00	8.40	37.00	2.10	Pump 20 bbls fresh water spacer.

Event	10	Pump Spacer 1	Pump Fresh Water Spacer	4/9/2017	16:25:49	USER	2.00	8.34	69.00	0.30	Pump 10 bbls of red dyed fresh water spacer.
Event	11	Pump Cement	Pump Cement	4/9/2017	16:30:51	USER	6.70	13.45	386.00	3.60	Pump 625 sack Swiftcem Cement. 194 bbls, Density: 13.5 ppg, Yield: 1.74 ft3/sack, Water Req: 9.2 gal/sack.
Event	12	Shutdown	Shutdown	4/9/2017	16:58:32	USER	0.00	14.05	85.00	202.20	Shutdown to drop top plug.
Event	13	Drop Top Plug	Drop Top Plug	4/9/2017	16:58:59	USER					Drop top plug.
Event	14	Pump Displacement	Pump Displacement	4/9/2017	16:59:48	USER	0.00	22.96	0.00	0.00	Pump 117 bbls fresh water displacement
Event	15	Spacer Returns to Surface	Spacer to Surface	4/9/2017	17:11:24	USER	8.00	8.22	521.00	60.80	Red dyed spacer to surface at 51 bbls into displacement.
Event	16	Cement Returns to Surface	Cement to Surface	4/9/2017	17:12:42	USER	8.00	8.22	590.00	71.20	Good cement returns to surface at 66 bbls into displacement. 51 bbls good cement to surface.
Event	17	Bump Plug	Bump Plug	4/9/2017	17:21:44	USER	3.00	8.25	360.00	123.30	Plug bumped at calculated displacement. Bumped at 500 psi, brought up to 1000 psi and shutdown.
Event	18	Shutdown	Shutdown	4/9/2017	17:21:52	USER	0.00	8.24	804.00	123.50	Shutdown for casing pressure test.
Event	19	Pressure Test	Casing Pressure Test	4/9/2017	17:23:48	USER	0.00	8.28	1457.00	123.80	Casing pressure test of 1500 psi for 5 minutes.
Event	20	Check Floats	Check Floats	4/9/2017	17:28:23	USER	0.00	8.30	1465.00	123.80	Release pressure.
Event	21	End Job	End Job	4/9/2017	17:29:36	COM1					Floats held, 1 bbls back.
Event	22	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	4/9/2017	17:35:00	USER					JSA and discuss rigging down iron, bulk, and water hoses.
Event	23	Rig Down Lines	Rig Down Lines	4/9/2017	17:45:00	USER					Rig down bulk, water hoses, and iron.



Event	24	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/9/2017	18:25:00	USER	Plan route, hazards of journey, and complete pre-trip inspections.
Event	25	Crew Leave Location	Crew Leave Location	4/9/2017	18:30:00	USER	Start Journey management. Thank you for choosing Halliburton, Mike Loughran and crew.

3.0 Attachments

3.1 Extraction RBF 2-Custom Results.png

