HALLIBURTON

iCem® Service

EXTRACTION OIL & GAS

United States of America

Date: Tuesday, April 04, 2017

Kiteley #10

Surface

Job Date: Sunday, January 22, 2017

Sincerely,

Justin Lansdale

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Kiteley #10** 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.

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 #:** 3770371	**Quote #:**	**Sales Order #:** 0903793474
Customer: EXTRACTION OIL & GAS -		**Customer Rep:** Shawn M	
Well Name: KITELEY	**Well #:** 10		**API/UWI #:** 05-123-43918-00
Field: WATTENBERG	**City (SAP):** LONGMONT	**County/Parish:** WELD	**State:** COLORADO
Legal Description: NW SW-21-3N-68W-1527FSL-513FWL			
Contractor:		**Rig/Platform Name/Num:** Spud Rig	
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		**Srvc Supervisor:** Bradley Hinkle	

Job

Formation Name				
Formation Depth (MD)	**Top**		**Bottom**	
Form Type			**BHST**	
Job depth MD	1573ft		**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	1573	0	1573
Open Hole Section			13.5				0	1575	0	1575

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	1		1573		**Bottom Plug**	9.625		HES
Float Collar	9.625	1		1531		**SSR plug set**	9.625		HES
Insert Float	9.625					**Plug Container**	9.625		HES
Stage Tool	9.625					**Centralizers**	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	Spacer	Red Dye Water	10	bbl	8.33			2	

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	Primary Cement	SWIFTCEM (TM) SYSTEM	550	sack	13.5	1.74		8	9.2

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	118	bbl	8.33			8	

Cement Left In Pipe	**Amount**	42 ft	Reason	**Shoe Joint**	
Mix Water:	pH 6.5	**Mix Water Chloride:**	00 ppm	Mix Water Temperature:	**80 °F °C**
Cement Temperature:	88 °F	**Plug Displaced by:**	## lb/gal kg/m3 XXXX	Disp. Temperature:	**## °F °C**
Plug Bumped?	Yes	**Bump Pressure:**	500 psi MPa	Floats Held?	**Yes**
Cement Returns:	30 bbl m3	**Returns Density:**	## lb/gal kg/m3	Returns Temperature:	**## °F °C**

Comment 30 bbls cement 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	1/22/2017	19:00:00	USER	Crew called for an on location of 2300. Crew was Bradley Hinkle, Luke Kosakewich (Pump), Siarhei Dzmitryieu and Kevin Kamplain (Crown).
Event	2	Depart Shop for Location	Depart Shop for Location	1/22/2017	21:15:00	USER	Pre-journey safety meeting.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	1/22/2017	22:00:00	USER	Perform a site assessment and pre rig-up safety meeting. Rig pulling drill pipe.
Event	4	Other	Check-in With Customer	1/22/2017	22:05:00	USER	Check-in with customer and get numbers. TD:1575. TP: 1573. FC: 1531. 9.625" 36# casing in a 13.5 OH.
Event	5	Safety Meeting	Safety Meeting	1/22/2017	05:45:00	USER	Pre-job safety meeting with all personnel on location.
Event	6	Start Job	Start Job	1/22/2017	05:56:00	COM5	
Event	7	Test Lines	Test Lines	1/22/2017	06:02:24	COM5	Pressure test lines with a 500 PSI electronic kick-out test.
Event	8	Pump Spacer 1	Pump Spacer 1	1/22/2017	06:06:23	COM5	Pump 10 bbls red dye water.
Event	9	Pump Cement	Pump Cement	1/22/2017	06:16:07	COM5	Pump 170 bbls (550 sacks) SwiftCem mixed at 13.5 ppg. Density verified by pressurized scales.
Event	10	Shutdown	Shutdown	1/22/2017	06:23:22	USER	Truck balled off then packed off. Shutdown to get flow in 6X5 and steady recirculation.
Event	11	Other	Pump Cement	1/22/2017	06:55:03	USER	Contacted an engineer and coordinator to verify that we were good to pump downhole with shutdown time. I was told to pump it as fast as we can allow (8 bbls on cement and 10 to start displacement). Did not wash on top of plug to limit additional static time.

Event	12	Other	Other	1/22/2017	06:58:24	USER	Recirc density bouncing around due to packed off cement likely in micromotion. Scaled consistenty until cement was finished and pumped off.
Event	13	Check Weight	Check weight	1/22/2017	07:05:11	COM5	Cement weighed at 13.3 ppg.
Event	14	Pump Displacement	Pump Displacement	1/22/2017	07:24:03	COM5	Pump 118 bbls fresh water. Good returns throughout. 30 bbls cement to surface.
Event	15	Bump Plug	Bump Plug	1/22/2017	07:40:54	COM5	Bump plug at 500 PSI and increased to 1000 PSI.
Event	16	Pressure Up Well	Pressure Up Well	1/22/2017	07:41:57	USER	Inrease pressure to 1500 PSI for a casing test.
Event	17	Check Floats	Check Floats	1/22/2017	07:44:43	USER	Floats held. .75 bbls back.
Event	18	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/22/2017	07:50:00	USER	Pre rig-down safety meeting.
Event	19	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	1/22/2017	09:00:00	USER	Pre-journey safety meeting.

2.2 Custom Graph