

HALLIBURTON

iCem[®] Service

SRC ENERGY INC - EBUS

Bost Farm 31N-11B-L Production

Sincerely,
Meghan Jacobs

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 **Bost Farm 31N-11B-L 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.

Approximately 15 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 Fort Lupton

The Road to Excellence Starts with Safety

Sold To #: 359915		Ship To #: 3901201		Quote #:		Sales Order #: 0905796595				
Customer: SRC ENERGY INC-EBUS					Customer Rep: Tony					
Well Name: BOST FARM			Well #: 31N-11B-L			API/UWI #: 05-123-47665-00				
Field: WATTENBERG		City (SAP): WINDSOR		County/Parish: WELD			State: COLORADO			
Legal Description: SW NW-7-5N-66W-1415FNL-1120FWL										
Contractor: PRECISION DRLG					Rig/Platform Name/Num: PRECISION 462					
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA/HB41307					Srvc Supervisor: Steven Markovich					
Job										
Formation Name										
Formation Depth (MD)		Top			Bottom					
Form Type					BHST					
Job depth MD		17082ft			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	LTC	J-55	0	1819	0	1819
Casing		5.5	4.778	20	TXP-BTC	P110IC	0	17082	0	0
Open Hole Section			8.5				1819	17097	1819	6949
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5			17082		Top Plug	5.5		HES	
Float Shoe	5.5					Bottom Plug	5.5		HES	
Float Collar	5.5					SSR plug set	5.5		HES	
Insert Float	5.5					Plug Container	5.5		HES	
Stage Tool	5.5					Centralizers	5.5		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	Tuned Prime Cement Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS	80	bbl	11.5	3.84			
2	ElastiCem	ELASTICEM (TM) SYSTEM	1170	sack	13.2	1.57		8	7.54
3	NeoCem	NeoCem TM	1081	sack	13.2	2.04		8	9.75
4	MMCR Displacement	MMCR Displacement	20	bbl	8.34			8	
0.20 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
5	Water	Water	285	bbl	8.33			8	
1 gal/Mgal		CLA-WEB - BULK (101985043)							
6	MMCR Displacement	MMCR Displacement	70	bbl	8.34			8	
0.20 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
Cement Left In Pipe		Amount	0 ft			Reason			Wet Shoe
Mix Water:		pH 7	Mix Water Chloride: 0 ppm			Mix Water Temperature: 71 °F °C			
<p>Comment Pump 375bbl of H2O. First 20bbls with MMCR then 285bbls of H2O with biocide and clay web then the final 70bbls with MMCR. Pumped at 10bbl/min and slowed rate with pressure increase. Spacer to surface at 280bbls away, cement to surface at 260bbls away bringing 15bbls to surface. Bumped plug at 375bbls away. Final lift pressure was 2403psi. Took pressure 500psi over and held. WSS burst at 5709psi. Increased rate to 4.5bbl/min and pumped a 6bbl wet shoe. When checking floats we got 3bbls back. Estimated Top of Tail Cement 7513'</p>									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	DS Pump Press (psi)	Comb Pump Rate (bbl/min)	Comments
Event	1	Check Floats	Call Out	6/30/2019	14:00:00	USER				Job called out with an on location time of 20:00
Event	2	Crew Leave Yard	Crew Leave Yard	6/30/2019	18:00:00	USER				JSA with HES on driving safety and route to rig.
Event	3	Arrive at Location from Service Center	Arrive at Location from Service Center	6/30/2019	19:00:00	USER				Arrived on location, rig was still running casing. 2000' to run.
Event	4	Assessment Of Location Safety Meeting	Assesment Of Location Safety Meeting	6/30/2019	19:15:00	USER				JSA and hazard hunt with HES crew.
Event	5	Start Job	Start Job	6/30/2019	21:22:24	COM4	0.00	4.00	0.00	TD 17097' TP 17082' WSS 16976' 5 1/2" 20# Production Casing, 8 1/2" Open Hole, 9 5/8" 36# Surface Casing set at 1819', TVD 6949', mud 10.3ppg
Event	6	Check Weight	Check Weight	6/30/2019	23:02:21	COM4	8.33	2.00	0.00	Weight verified by pressurized scales.
Event	7	Test Lines	Test Lines	7/1/2019	00:35:16	COM4	8.72	1.00	0.00	Set kick outs to 500psi and check low pressure kick outs. Bring pressure up to 6500psi and hold.
Event	8	Drop Bottom Plug	Drop Bottom Plug	7/1/2019	00:44:50	COM4	7.61	8.00	0.00	Plug pre-loaded into HES head. Plugs loaded and dropped in front of company rep.
Event	9	Pump Spacer 1	Pump Spacer 1	7/1/2019	00:44:54	COM4	7.61	8.00	0.00	Pump 80bbbls of 11.5ppg 3.84 Tuned Prime Spacer. Added 40gallons of musol and dual b on the fly. Pumped at 4bbl/min 150psi.
Event	10	Check Weight	Check Weight	7/1/2019	00:47:12	COM4	11.27	176.00	3.30	Weight verified by pressurized scales.
Event	11	Pump Lead Cement	Pump Lead Cement	7/1/2019	01:02:46	COM4	12.33	253.00	6.10	Pump 327bbs (1170sks) of 13.2ppg 1.57yield Lead Cement. Pumped at 8bbl/min 692psi.
Event	12	Check Weight	Check Weight	7/1/2019	01:03:05	COM4	13.11	306.00	6.10	Weight verified by pressurized scales.
Event	13	Check Weight	Check Weight	7/1/2019	01:03:26	COM4	13.32	338.00	6.10	Weight verified by pressurized scales.
Event	14	Pump Tail Cement	Pump Tail Cement	7/1/2019	01:47:24	COM4	13.27	565.00	8.00	Pump 393bbbls (1081sks) of 13.2ppg 2.04yield Tail Cement. Pumped at 8bbl/min 785psi.

Event	15	Check Weight	Check Weight	7/1/2019	01:48:58	COM4	13.12	749.00	8.00	Weight verified by pressurized scales.
Event	16	Shutdown	Shutdown	7/1/2019	02:41:41	COM4	13.22	122.00	0.00	Shutdown, and clean pumps and lines.
Event	17	Drop Top Plug	Drop Top Plug	7/1/2019	02:54:21	COM4	8.13	9.00	0.00	Plug pre-loaded into HES head. Plugs loaded and dropped in front of company rep.
Event	18	Pump Displacement	Pump Displacement	7/1/2019	02:54:24	COM4	8.14	8.00	0.00	Pump 375bbl of H2O. First 20bbls with MMCR then 285bbls of H2O with biocide and clayweb then the final 70bbls with MMCR. Pumped at 10bbl/min and slowed rate with pressure increase. Spacer to surface at 280bbls away, cement to surface at 260bbls away bringing 15bbls to surface.
Event	19	Bump Plug	Bump Plug	7/1/2019	03:36:58	COM4	8.38	2460.00	3.90	Bumped plug at 375bbls away. Final lift pressure was 2403psi. Took pressure 500psi over and held.
Event	20	Other	Other	7/1/2019	03:37:59	COM4	8.39	2899.00	0.00	Kicked in pumps at 2bbl/min to burst WSS.
Event	21	Other	Other	7/1/2019	03:40:12	COM4	8.48	5709.00	2.00	WSS burst at 5709psi. Increased rate to 4.5bbl/min and pumped a 6bbl wet shoe.
Event	22	Check Floats	Check Floats	7/1/2019	03:41:29	USER	8.39	2580.00	4.70	Opened release line to check floats, after 3bbls back floats held.
Event	23	End Job	End Job	7/1/2019	03:43:47	COM4	8.32	8.00	0.00	Thank you, Steve Markovich and crew.

3.0 Attachments

3.1 Bost Farm 31N-11B-L Production – Job Chart

