

HALLIBURTON

iCem[®] Service

SRC ENERGY INC

Bost Farm 1N-8B-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 1N-8B-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 37 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

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 359915	Ship To #: 3902141	Quote #:	Sales Order #: 0905282968							
Customer: SRC ENERGY INC-EBUS		Customer Rep:								
Well Name: BOST FARM	Well #: 1N-8B-L	API/UWI #: 05-123-47694-00								
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO							
Legal Description: SW NW-7-5N-66W-1357FNL-941FWL										
Contractor: PRECISION DRLG		Rig/Platform Name/Num: PRECISION 462								
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA/HB41307		Srv Supervisor: Nicholas Peterson								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type	BHST									
Job depth MD	17,537'	Job Depth TVD	7,239'							
Water Depth		Wk Ht Above Floor	12'							
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	1830	0	1830
Casing	0	5.5	4.778	20	TXP-BTC	P110IC	0	17537	0	0
Open Hole Section			8.5				1830	17550	1830	7239
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Float Shoe	5.5	1	Weath	17,537		Top Plug	5.5	1	Weath	
Float Collar	5.5	1	Weath	17,489		Bottom Plug	5.5	1	Weath	
Wet Shoe Sub	5.5	1	Weath	17,431						
						Plug Container	5.5	1	HES	
						Centralizers	5.5	242	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	Tuned Spacer III	40	bbl	11.5	3.84	24	4	1,403	
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	CAP	HALCEM (TM) SYSTEM	470	sack	13.2	1.55	7.59	8	3,187	

last updated on 11/29/2018 9:04:21 AM

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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	Lead	GASSTOP (TM) SYSTEM	788	sack	13.2	1.54	7.64	5	6,020
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
4	Tail	NeoCem TM	429.1	bbl	13.2	2.07	9.8	8	11,407
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
5	MMCR Displacement	MMCR Displacement	20	bbl	8.34				
0.20 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
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
6	Water	Water	297	bbl	8.33			8	
1 gal/Mgal		CLA-WEB - BULK (101985043)							
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
7	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:		55 °F
Cement Temperature:		## °F	Plug Displaced by:		8.33 lb/gal		Disp. Temperature:		55 °F
Plug Bumped?		Yes	Bump Pressure:		3,400 psi		Floats Held?		Yes
Cement Returns:		37 bbls	Returns Density:		13.2 lb/gal		Returns Temperature:		## °F
Comment: Pumped 40 bbls Tuned Spacer, 116 bbls Cap, 216 bbls Lead, 429 bbls Tail. Pumped 20 bbls MMCR Displacement, 297 bbls Biocide, claweb, 70 bbls MMCR displacement. 37 bbls cement to surface									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Pump Cap Cement	Call Out	11/21/2018	14:00:00	USER				Crew called out with on OL time of 2100
Event	2	Arrive At Loc	Arrive At Loc	11/21/2018	21:00:00	USER				Arrived OL at 2100. Pump truck - tractor 12644845, trailer 11826999. Bulk tractors - 10988836 and 11593521 with trailers 10867431 and 11527037, respectively. Soft side was brought out with cementer's truck 12900981 and engineer's truck 12034757.
Event	3	Safety Meeting	Safety Meeting	11/22/2018	00:25:51	USER	-47.00	8.36	0.00	Safety meeting with rig crew to discuss rigging up of commander head and the job.
Event	4	Start Job	Start Job	11/22/2018	02:11:47	COM6	-50.00	8.36	0.00	
Event	5	Test Lines	Test Lines	11/22/2018	02:17:37	COM6	3.00	8.32	0.00	Fill lines, test eKOs at 500psi; 5th gear stall out at 1420psi; high pressure test at 6500psi.
Stage	2	Next Stage	SRC TSIII Spacer 2511221	11/22/2018	02:25:30	USER	-37.00	8.24	1.20	
Event	6	Drop Bottom Plug	Drop Bottom Plug	11/22/2018	02:26:03	USER	356.00	10.41	3.70	Drop bottom plug remotely on commander head; passed tattle tale.
Event	7	Pump Spacer 1	Pump Spacer	11/22/2018	02:26:35	COM6	330.00	10.89	4.00	Pump 40bbls of 11.5ppg TSIII.
Event	8	Pump Cap Cement	Pump Cap Cement	11/22/2018	02:35:09	COM6	339.00	12.42	4.20	Pump 420 sks (115bbbls) of 13.2ppg cap cement at 1.55cuft/sk and 7.59gal/sk.
Stage	3	Next Stage	SRC Cap for Latex 2498333/8	11/22/2018	02:35:21	USER	326.00	12.66	4.20	
Event	9	Pump Lead Cement	Pump Lead Cement	11/22/2018	02:59:46	COM6	432.00	12.97	6.90	Pump 788sks (216bbbls) of 13.2 ppg lead cement at 1.54cuft/sk and 7.64gal/sk.

Stage	4	Next Stage	13.2 SRC Latex 2498333/7	11/22/2018	03:00:22	USER	423.00	13.08	6.90	
Event	10	Pump Tail Cement	Pump Tail Cement	11/22/2018	03:50:45	COM6				Pump 1164sk (429bbbls) of 13.2ppg tail cement at 2.07cuft/sk and 9.79gal/sk.
Stage	5	Next Stage	13.2 Thick NeoCem 2505308/6	11/22/2018	03:50:47	USER	397.00	13.24	5.00	
Event	11	Shutdown	Shutdown	11/22/2018	05:00:38	USER	89.00	12.79	1.00	Wash pumps and lines.
Event	12	Drop Top Plug	Drop Top Plug	11/22/2018	05:13:54	COM6	-21.00	1.57	0.00	
Stage	6	Next Stage	Water	11/22/2018	05:14:27	USER	-25.00	5.82	0.00	
Event	13	Pump Displacement	Pump Displacement	11/22/2018	05:15:22	COM6	107.00	7.56	9.30	Pump 387bbbls of fresh water displacement with MMCR in first 20bbbls and last 70bbbls with Clay-Web and Biocide throughout.
Event	14	Bump Plug	Bump Plug	11/22/2018	06:12:25	USER	2460.00	8.24	0.00	Bump plug at 3400psi. Saw spacer returns at 310bbbls away and they diverted. Saw cement returns at 340bbbls away with a total of 37bbbls cement to surface.
Event	15	Pressure Up Well	Pressure Up Well	11/22/2018	06:15:08	COM6				Hold pressure 500psi over for 10 min casing test.
Event	16	Other	Other	11/22/2018	06:15:14	COM6				Pump 6bbbls wet shoe after shifting wet shoe sub open.
Event	17	Check Floats	Check Floats	11/22/2018	06:15:25	USER	-32.00	8.20	0.00	Check floats; held with 3bbbls back to the truck.
Event	18	End Job	End Job	11/22/2018	06:15:38	COM6				Thank you for choosing Halliburton. Nick Peterson and Crew.

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