

# HALLIBURTON

iCem<sup>®</sup> Service

**SRC ENERGY INC-EBUS**

Date: 1/14/2018

**Falken 4N-14A-S Production**

Job Date: 1/5/2018

Sincerely,  
**Justin Lansdale**

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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 **Falken 4N-14A-S** 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 #: 359915		Ship To #: 3815787		Quote #:		Sales Order #: 0904537018					
Customer: SYNERGY RESOURCES CORPORATION				Customer Rep: .							
Well Name: FALKEN			Well #: 4N-14A-S		API/UWI #: 05-123-45104-00						
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD		State: COLORADO					
Legal Description: NE SE-11-6N-66W-1694FSL-276FEL											
Contractor: PRECISION DRLG				Rig/Platform Name/Num: PRECISION 562							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB41307				Srv Supervisor: Jordan Larue							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		13052ft		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	1786	0	1786	
Casing		5.5	4.778	20		P-110	0	13052	0	7030	
Open Hole Section			8.5				1786	13052	1786	7030	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5	1	WF	13052		Top Plug	5.5	1	WF		
Float Shoe	5.5					Bottom Plug	5.5	1	WF		
Float Collar	5.5					SSR plug set	5.5		HES		
Insert Float	5.5					Plug Container	5.5	1	HES		
Stage Tool	5.5					Centralizers	5.5	280	WF		
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 Spacer III	Tuned Spacer III			40	bbl	11.5	3.8		6	
35.10 gal/bbl		FRESH WATER									
0.50 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)									
0.50 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)									
147.42 lbm/bbl		BARITE, BULK (100003681)									

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	ElastiCem Lead	ELASTICEM (TM) SYSTEM	1051	sack	13.2	1.57	7.54	8	7.54
7.54 Gal		FRESH WATER							
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	NeoCem	NeoCem TM	730	sack	13.2	2.04	9.77	8	9.77
0.08 %		SCR-100 (100003749)							
9.77 Gal		FRESH WATER							
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	MMCR Displacement	MMCR Displacement	10	bbl	8.34			10	
0.50 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
5	Cla Web Displacement	Cla Web Displacement	277	bbl	8.33			9	
Cement Left In Pipe		Amount	0 ft		Reason			WET Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride:		400 ppm		Mix Water Temperature:		65 °F
Cement Temperature:		NA	Plug Displaced by:		8.33# H2O		Disp. Temperature:		NA
Plug Bumped?		Yes	Bump Pressure:		2950 psi		Floats Held?		Yes 2BBLS BACK
Cement Returns:		27 bbl	Returns Density:		13.2#		Returns Temperature:		NA
Comment									

## 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	1/5/2018	03:00:00	USER	ON LOCATION TIME 1000
Event	2	Arrive At Loc	Arrive at location	1/5/2018	09:00:00	USER	RIG RUNNING CASING
Event	3	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	1/5/2018	09:05:00	USER	TALK TO TOOL HAND AND CO REP
Event	4	Other	Water Test	1/5/2018	09:15:00	USER	ph 7, cl <400, temp 56°F, TANN PASS...
Event	5	Pre-Rig Up Safety Meeting	PRE RIG UP SAFETY MEETING	1/5/2018	09:30:00	USER	JSA COMPLETED... HANDS SIGN JSA ON CEMENTING PROGRAM
Event	6	Rig-Up Equipment	RIG UP EQUIPMENT	1/5/2018	09:45:00	USER	NO ACCIDENTS OR INJURIES
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	1/5/2018	13:45:00	USER	JSA COMPLETED: ALL PERSONNEL SIGNED SIGN UP SHEET. REVIEW PUMP SCHEDULE AND WASH UP.
Event	8	Test Lines	Test Lines	1/5/2018	14:06:59	COM10	6000 PSI TEST GOOD
Event	9	Pump Spacer 1	Pump Spacer 1	1/5/2018	14:10:32	COM10	40 BBLS SCALED @ 11.5#
Event	10	Drop Bottom Plug	Drop Bottom Plug	1/5/2018	14:21:43	COM10	PLUG WENT ON FLY
Event	11	Pump Lead Cement	Pump Lead Cement	1/5/2018	14:21:45	COM10	1051 SKS SCALED @ 13.2#
Event	12	Pump Tail Cement	Pump Tail Cement	1/5/2018	15:05:33	COM10	730 SKS SCALED @13.2#
Event	13	Clean Lines	Clean Lines	1/5/2018	15:41:15	COM10	
Event	14	Drop Top Plug	Drop Top Plug	1/5/2018	15:48:31	COM10	
Event	15	Pump Displacement	Pump Displacement	1/5/2018	15:48:33	COM10	PUMPED 287 BBLS H2O... CMT BACK 27BBLS 40BBLS SPACER... FINAL LIFT PSI 2400PSI
Event	16	Bump Plug	Bump Plug	1/5/2018	16:28:48	COM10	BUMP TO 2950PSI HELD FOR 3 MIN
Event	17	Other	Other	1/5/2018	16:32:58	COM10	BURST WET SHOE PLUG

Event	18	Other	Other	1/5/2018	16:34:31	COM10	PUMPED 6BBLS FOR WETSHOE SUB
Event	19	Other	Other	1/5/2018	16:35:22	COM10	CHECK FLOATS THEY HELD 2BBLS BACK
Event	20	End Job	End Job	1/5/2018	16:35:28	COM10	
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/5/2018	16:40:00	USER	DISCUSS HAZARDS
Event	22	Rig-Down Equipment	Rig-Down Equipment	1/5/2018	16:45:00	USER	NO ACCIDENTS OR INJURIES
Event	23	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/6/2018	18:30:00	USER	REVIEW DIRECTIONS
Event	24	Crew Leave Location	Crew Leave Location	1/6/2018	18:45:00	USER	BULK HEADING BACK TO YARD AND PUMP CREW SLEEPING ON LOC



3.0 Attachments

3.1 Job Chart



