

# HALLIBURTON

iCem<sup>®</sup> Service

**SRC ENERGY INC-EBUS**

Date: Monday, December 04, 2017

**FALKEN 16C-9-L PRODUCTION**

Job Date: Saturday, November 25, 2017

Sincerely,

**JULIA NICHOLS**

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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 16C-9-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 18 barrels 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 #: 3815780	Quote #:	Sales Order #: 0904451455							
Customer: SYNERGY RESOURCES CORPORATION		Customer Rep: CALIB FORD								
Well Name: FALKEN	Well #: 16C-9-L	API/UWI #: 05-123-45127-00								
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO							
Legal Description: NE SE-11-8N-86W-1784FSL-278FEL										
Contractor: PRECISION DRLG		Rig/Platform Name/Num: PRECISION 562								
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB41307		Srvc Supervisor: Vitali Neverdasov								
<b>Job</b>										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type	BHST									
Job depth MD	19073ft	Job Depth TVD	7275							
Water Depth	Wk Ht Above Floor									
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	LTC	J-55	0	1801	0	1801
Casing	0	5.5	4.778	20		P-110	0	19073	0	7275
Open Hole Section			8.5				1801	19093	1801	7275
<b>Tools and Accessories</b>										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	5.5				Top Plug	5.5	1	WTRD		
Float Shoe	5.5	1	WTRD	19073	Bottom Plug	5.5	1	WTRD		
Float Collar	5.5	1	WTRD	18962	SSR plug set	5.5				
Insert Float	5.5				Plug Container	5.5	1	HES		
Stage Tool	5.5				Centralizers	5.5	320	WTRD		
<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	Tuned Spacer III	Tuned Spacer III	40	bbl	11.5	3.8		4		
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)								

## HALLIBURTON

*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
2	ElastiCem Lead	ELASTICEM (TM) SYSTEM	1043	sack	13.2	1.57		7	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	1434	sack	13.2	2.04		7	9.77
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	40	bbl	8.34			7	
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	420	bbl	8.33			4	
1 gal/bbl		CLA-WEB - TOTE (101985045)							
Cement Left In Pipe		Amount	0 ft	Reason				WET SHOE	
Comment : 18 BBLs OF CEMENT BACK TO SURFACE. ESTIMATED TOP OF TAIL @ 6206									

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

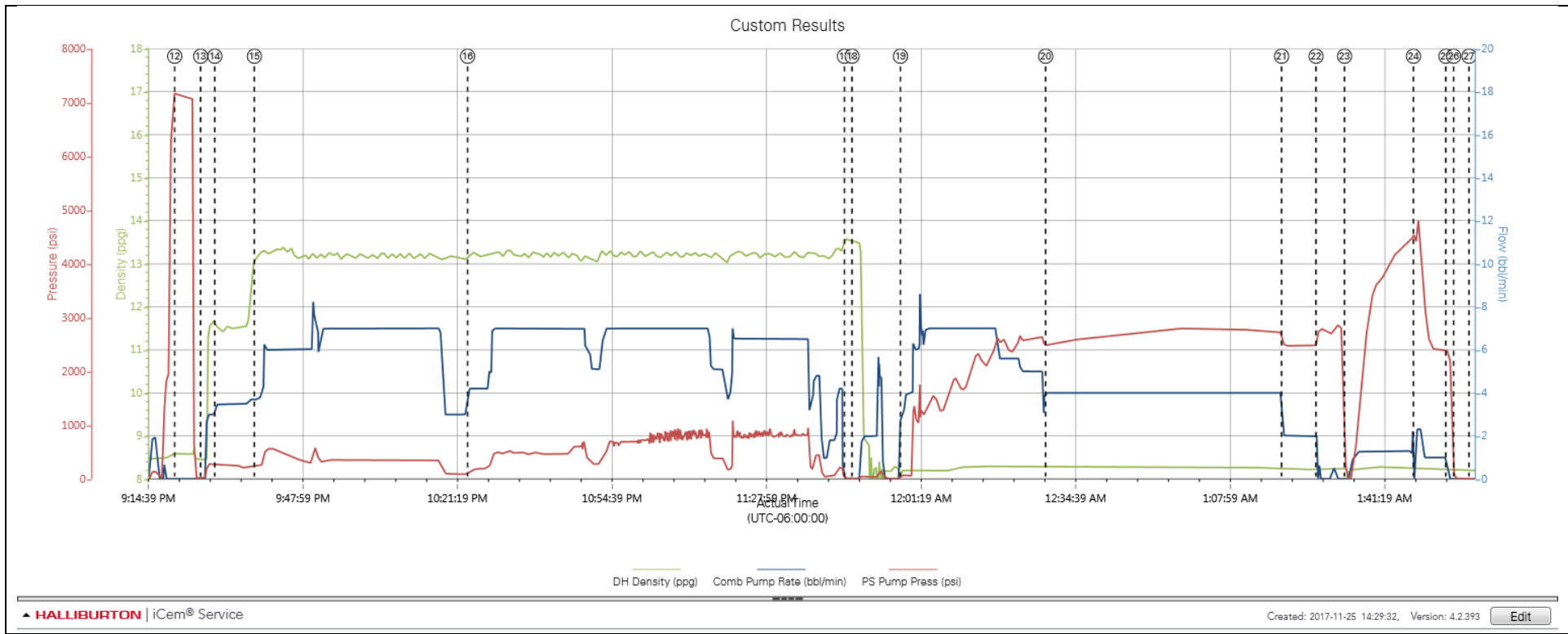
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	11/25/2017	13:00:00	USER				FOR ON LOCATION @ 17:00
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	11/25/2017	15:30:00	USER				CREW DISCUSSED HAZARDS ALONG ROUTE OF TRAVEL. BEGAIN JOURNEY MANAGEMENT
Event	3	Depart Shop for Location	Depart Shop for Location	11/25/2017	15:50:00	USER				LEAVE THE YARD
Event	4	Other	Other	11/25/2017	16:10:00	USER				SPOT TRUCKS
Event	5	Arrive at Location from Service Center	Arrive at Location from Service Center	11/25/2017	16:40:00	USER				38 MILES. DISCUSS NUMBERS AND JOB PROCEDURE WITH CUSTOMER. RIG IS RUNNING CASING
Event	6	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	11/25/2017	16:55:00	USER				HELD PRE RIG UP JSA
Event	7	Rig-up Lines	Rig-up Lines	11/25/2017	17:02:00	USER				RIG UP ALL SURFACE LINES TO THE BUFFER ZONE
Event	8	Casing on Bottom	Casing on Bottom	11/25/2017	18:05:00	USER				CASING ON BUTTOM/ RIG IS RIGGING DOWN CASING CREW
Event	9	Other	Other	11/25/2017	18:25:00	USER				RIG UP FLOOR FOR RIG TO CIRCULATE
Event	10	Safety Meeting - Pre Job	Safety Meeting - Pre Job	11/25/2017	21:00:00	USER	8.44	0.00	5.00	PRE JOB SAFETY MEETING WITH ALL PERSONAL INVOLVED/ RIG CIRCULATING
Event	11	Start Job	Start Job	11/25/2017	21:03:50	COM4				
Event	12	Test Lines	Test Lines	11/25/2017	21:20:52	COM4	8.59	0.00	7134.00	
Event	13	Drop Bottom Plug	Drop Bottom Plug	11/25/2017	21:26:27	USER	8.45	0.00	22.00	DROP BUTTOM PLUG
Event	14	Pump Spacer	Pump Spacer	11/25/2017	21:29:30	USER	11.53	3.40	288.00	BATCH/ WEIGH/PUMP 40 BBLS OF TUNED SPACER WITH SURFACTANS @ 11.5 PPG
Event	15	Pump Lead Cement	Pump Lead Cement	11/25/2017	21:38:02	USER	13.14	3.70	256.00	WEIGH/ PUMP 1043 SKS (291.6 BBLS) OF ELASTICEM @ 13.2 PPG

Event	16	Pump Tail Cement	Pump Tail Cement	11/25/2017	22:24:02	USER	13.24	4.20	159.00	WEIGHT/ PUMP 1434 SKS (521 BBLS ) OF NEOCEM @ 13.2 PPG
Event	17	Shutdown	Shutdown	11/25/2017	23:45:18	USER	13.56	0.00	10.00	SHUTDOWN/ DROP TOP PLUG
Event	18	Clean Lines	Clean Lines	11/25/2017	23:46:56	USER	13.50	0.00	8.00	WASH PUMPS AND LINES
Event	19	Pump Displacement	Pump Displacement	11/25/2017	23:57:22	USER	8.20	3.00	72.00	PUMP FRESH WATER DISPLACEMENT WITH CLA-WEB AND BIOCID. PER CUSTOMER REQUEST FIRST 40 BBLS WITH MMCR. DUE TO HIGH PRESSURE HAD TO DISPLACE @ 4 BPM NOT TO BURST THE DISC.
Event	20	Slow Rate	Slow Rate	11/26/2017	00:28:41	USER	8.28	4.00	2509.00	SLOW RATE
Event	21	Slow Rate	Slow Rate	11/26/2017	01:19:34	USER	8.23	2.00	2475.00	
Event	22	Bump Plug	Bump Plug	11/26/2017	01:27:00	USER	8.23	0.00	2742.00	BUMP PLUG AND HOLD PRESSURE FOR 10 MIN FOR CASING TEST
Event	23	Check Floats	Check Floats	11/26/2017	01:33:08	USER	8.23	0.00	45.00	FLOATS HELD
Event	24	Other	Other	11/26/2017	01:48:01	USER	8.27	2.30	4393.00	PRESSURE UP TO BURST DISC AND PUMP 6 BBLS OF WET SHOE. DISC BURST @ 4850 PSI.
Event	25	Shutdown	Shutdown	11/26/2017	01:55:00	USER	8.23	0.00	2359.00	BLEED OFF PRESSURE / JOB IS COMPLETE
Event	26	End Job	End Job	11/26/2017	01:56:40	COM4				
Event	27	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	11/26/2017	02:00:00	USER	8.19	0.00	-2.00	RIG DOWN SAFETY MEETING
Event	28	Other	Other	11/26/2017	02:40:00	USER				CREW FINISHED RIGGING DOWN
Event	29	Depart Location Safety Meeting	Depart Location Safety Meeting	11/26/2017	02:50:00	USER				
Event	30	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	11/26/2017	03:10:00	USER				



3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

