

HALLIBURTON

iCem[®] Service

SYNERGY RESOURCES CORP-EBUS

Date: Thursday, August 03, 2017

Leffler 1C-23-L Production

Job Date: Tuesday, August 01, 2017

Sincerely,

Julia Nichols

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Leffler 1C-23-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 17.5 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 [Ft. Lupton]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 359915		Ship To #: 3800299		Quote #:		Sales Order #: 0904192147					
Customer: SYNERGY RESOURCES CORPORATION				Customer Rep: Tim Jones							
Well Name: LEFFLER			Well #: 1C-23-L			API/UWI #: 05-123-44833-00					
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD		State: COLORADO					
Legal Description: SE NE-21-6N-66W-1881FNL-275FEL											
Contractor: PRECISION DRLG					Rig/Platform Name/Num: PRECISION 562						
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB41307					Srcv Supervisor: Steven Markovich						
Job											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type					BHST						
Job depth MD		17855ft			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	1783	0	1783	
Casing		5.5	4.778	20		P-110	0	17855	0	7169	
Open Hole Section			8.5				1783	17858	1783	7169	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5			17834		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 ft ³ /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)									

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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/mi n	Total Mix Fluid Gal
2	ElastiCem Lead	ELASTICEM (TM) SYSTEM	1028	sack	13.2	1.57		6	7.52
7.52 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	NeoCem	NeoCem TM	1259	sack	13.2	2.09		4	10.08
10.08 Gal		FRESH WATER							
0.30 %		SCR-100 (100003749)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	MMCR Displacement	MMCR Displacement	20	bbl	8.34				
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/mi n	Total Mix Fluid Gal
5	Cla Web Displacement	Cla Web Displacement	373	bbl	8.33				
0.0549 gal/bbl		CLA-WEB - TOTE (101985045)							
Comment Spacer to surface at 338bbbls away, cement to surface at 378 bringing 17.5bbbls of cement to surface. Estimated top of Tail cement 11582'									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	DS Pump Press <i>(psi)</i>	Comb Pump Rate <i>(bbl/min)</i>	Comments
Event	1	Call Out	Call Out	7/31/2017	14:30:00	USER				Job called out at 2:30 with an on location time of 9:00 pm. On location at 8:15 pm rig was still running casing. approx 2800'
Event	2	Start Job	Start Job	8/1/2017	03:10:19	COM4	8.41	53.00	0.00	TD 17858' TP 17855' FC 17807.08' 5 1/2" 20# csg 8 1/2" oph 1783' 9 5/8" 36#surfcsg. Estimated top of Tail cement 11582'
Event	3	Test Lines	Test Lines	8/1/2017	03:21:13	COM4	8.42	4767.00	0.00	Perform 500psi kick out test, then bring up to 4500psi and hold for 3 mins
Event	4	Pump Spacer 1	Pump Spacer 1	8/1/2017	03:24:48	COM4	11.27	100.00	3.00	Pump 40bbls of 11.5ppg 3.8yield Tuned Spacer. Added 20 gallons of both Musol A and Dual surf B on the fly. Pumped at 4bbl/min 140psi
Event	5	Pump Lead Cement	Pump Lead Cement	8/1/2017	03:36:16	COM4	11.62	109.00	5.60	Pump 287.45bbls (1028sks) of 13.2ppg 1.57yield Lead Cement. Pumped at 8bbl/min 407psi.
Event	6	Check Weight	Check Weight	8/1/2017	03:37:45	COM4	13.24	401.00	8.00	Weight verified by pressurized scales.
Event	7	Check Weight	Check Weight	8/1/2017	03:39:27	COM4	13.18	552.00	8.00	Weight verified by pressurized scales.
Event	8	Check Weight	Check Weight	8/1/2017	03:40:31	COM4	13.14	559.00	8.00	Weight verified by pressurized scales.
Event	9	Pump Tail Cement	Pump Tail Cement	8/1/2017	04:12:27	COM4	13.08	395.00	8.00	Pump 468.64bbls (1259sks) of 13.2ppg 2.09yield Tail Cement. Pumped at 8bbl/min 368psi
Event	10	Check Weight	Check Weight	8/1/2017	04:17:56	COM4	13.23	345.00	6.10	Weight verified by pressurized scales.
Event	11	Shutdown	Shutdown	8/1/2017	05:15:40	COM4	13.14	169.00	0.00	Shutdown and clean pumps and lines
Event	12	Drop Top Plug	Drop Top Plug	8/1/2017	05:24:56	COM4	8.30	53.00	0.00	Plug pre loaded in HES head, Company rep verified plug drop.
Event	13	Pump Displacement	Pump Displacement	8/1/2017	05:26:20	COM4	8.32	49.00	0.00	Pump 393.5bbls. First 20bbls with MMCR then 373.5bbls with Clayweb and biocide added. Pumped at 10bbls/min and slowed down with pressure increase. Spacer to surface

at 336bbbls away. Cement to surface at 376bbbls away bringing 17.5bbbls to surface.

Bumped plug at 393 away. Final lifting pressure was 2276 took it 500psi over to 2889psi and held. While holding pressure slowly started to fall off and at 2862psi pressure fell off. Kicked pump on and pumped a bbl to see if we didn't latch the plug and we had flow. Shut down and checked floats. after 2 1/2bbbls back floats held.

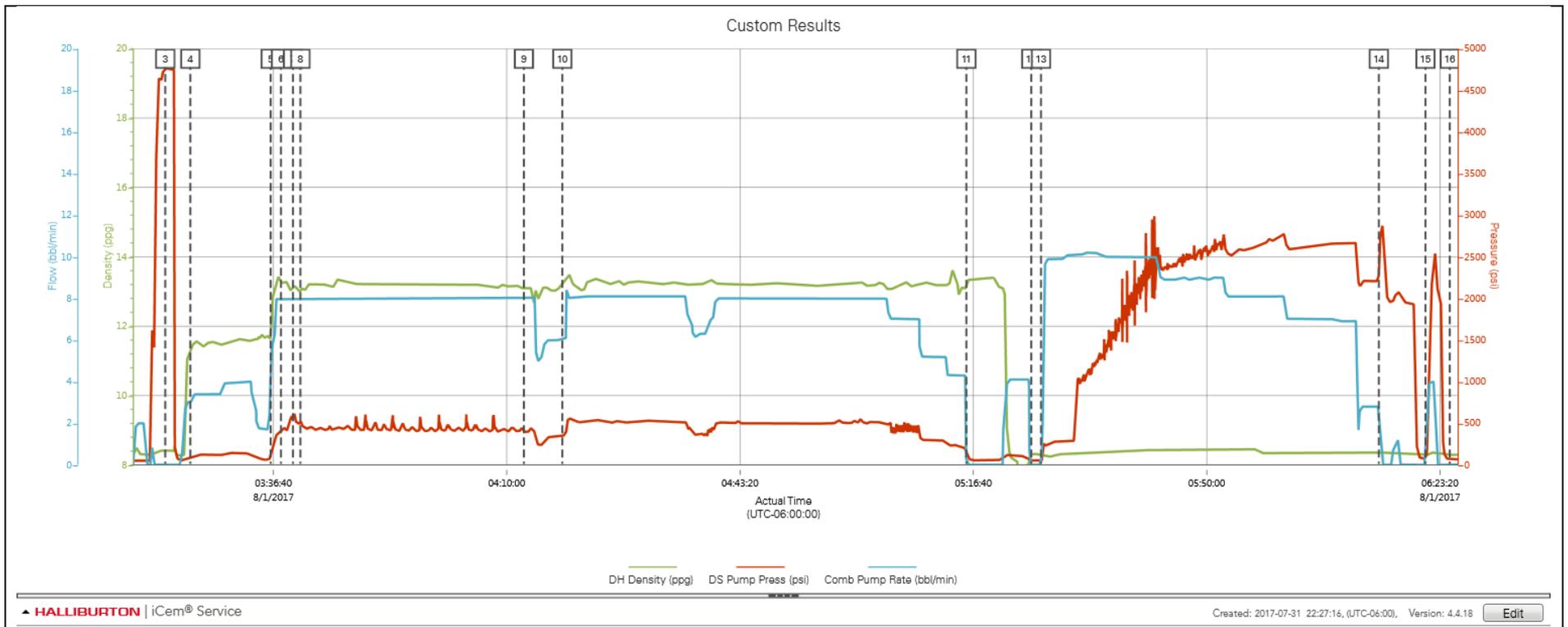
Kicked pumps on and pumped 5bbbls for a total of 6bbl wet shoe.

Thank you Steve Markovich and crew.

Event	14	Bump Plug	Bump Plug	8/1/2017	06:14:35	COM4	8.34	2276.00	2.80	at 336bbbls away. Cement to surface at 376bbbls away bringing 17.5bbbls to surface.
Event	15	Pump Displacement	Pump Displacement	8/1/2017	06:21:15	COM4	8.30	77.00	0.00	Bumped plug at 393 away. Final lifting pressure was 2276 took it 500psi over to 2889psi and held. While holding pressure slowly started to fall off and at 2862psi pressure fell off. Kicked pump on and pumped a bbl to see if we didn't latch the plug and we had flow. Shut down and checked floats. after 2 1/2bbbls back floats held.
Event	16	End Job	End Job	8/1/2017	06:24:44	COM4				Kicked pumps on and pumped 5bbbls for a total of 6bbl wet shoe.
										Thank you Steve Markovich and crew.

3.0 Attachments

3.1 Custom Results – Job Chart with Events



3.2 Custom Results – Job Chart without Events

