

HALLIBURTON

iCem[®] Service

SYNERGY RESOURCES

Date: Wednesday, November 15, 2017

FALKEN 33N-9A-L PRODUCTION

Job Date: Thursday, November 09, 2017

Sincerely,

Julia Nichols

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 **Falken 33N-9A-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 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 [Fort Lupton]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 359915		Ship To #: 3815826		Quote #:		Sales Order #: 0904420508					
Customer: SYNERGY RESOURCES CORPORATION				Customer Rep: KEVIN BRAKOVEC							
Well Name: FALKEN			Well #: 33N-9A-L			API/UWI #: 05-123-45107-00					
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD		State: COLORADO					
Legal Description: NE SE-11-8N-86W-1829FSL-278FEL											
Contractor: PRECISION DRLG					Rig/Platform Name/Num: PRECISION 562						
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB41307					Srcv Supervisor: Jason Welton						
Job											
Formation Name											
Formation Depth (MD)		Top			Bottom						
Form Type											
BHST											
Job depth MD		16659ft			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	1800	0	1800	
Casing		5.5	4.778	20		P-110	0	16680	0	6990	
Open Hole Section			8.5				1800	16680	1800	6990	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5			16659		Top Plug	5.5	1	WF		
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/min	Total Mix Fluid Gal
2	ElastiCem Lead	ELASTICEM (TM) SYSTEM	992	sack	13.2	1.57		6	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	1195	sack	13.2	2.04		4	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	40	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/min	Total Mix Fluid Gal
5	Cla Web Displacement	Cla Web Displacement	327	bbl	8.33				
1 gal/bbl		CLA-WEB - TOTE (101985045)							
Cement Left In Pipe		Amount	95 ft			Reason			Shoe Joint
Mix Water: pH		##	Mix Water Chloride: ## ppm			Mix Water Temperature: ## °F °C			
Cement Temperature: ## °F °C		Plug Displaced by: ## lb/gal kg/m3 XXXX			Disp. Temperature: ## °F °C				
Plug Bumped? Yes/No		Bump Pressure: ##### psi MPa			Floats Held? Yes/No				
Cement Returns: ## bbl m3		Returns Density: ## lb/gal kg/m3			Returns Temperature: ## °F °C				
Comment JOB COMPLETED AS PER DESIGN.									

2.0 Real-Time Job Summary

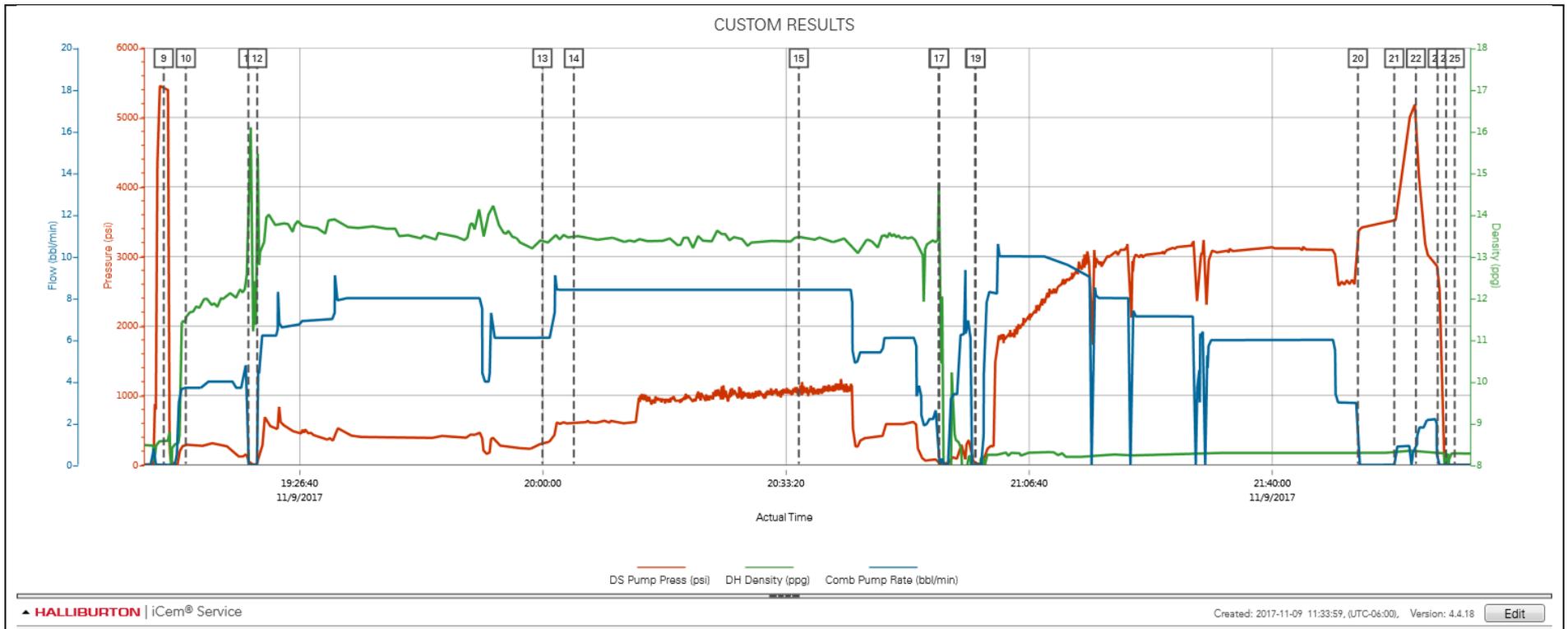
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Comments
Event	1	Arrive At Loc	Arrive At Loc	11/9/2017	10:00:00	USER				CREW CALLED OUT AT 0500/REQUESTED ON LOCATION AT 1100/RIG RUNNING CASING 2500' OFF BOTTOM
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	11/9/2017	10:05:00	USER				TEST WATER/SPOT IN HES EQUIPMENT
Event	3	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	11/9/2017	10:15:00	USER				TRIP HAZZARDS/RED ZONE AWARENESS
Event	4	Rig-Up Equipment	Rig-Up Equipment	11/9/2017	10:20:00	USER				
Event	5	Rig-Up Completed	Rig-Up Completed	11/9/2017	11:00:00	USER				HES READY
Event	6	Wait on Customer or Customer Sub-Contractor Equip - Start Time	Wait on Customer or Customer Sub-Contractor Equip - Start Time	11/9/2017	11:05:00	USER				RIG FINISH RUNNING CASING/CONDITION WELL
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/9/2017	17:40:00	USER	88.00	8.50	0.00	REVIEW JOB AND SAFETY PROCEDURES
Event	8	Start Job	Start Job	11/9/2017	18:46:38	COM4	83.00	8.51	0.00	
Event	9	Test Lines	Test Lines	11/9/2017	19:08:02	COM4	5421.00	8.59	0.00	500PSI LOW/5000PSI HIGH/TESTS GOOD
Event	10	Pump Spacer 1	Pump Spacer 1	11/9/2017	19:11:03	COM4	293.00	11.52	3.70	40BBLS TUNED SPACER III @ 11.5PPG/4BPM/250PSI
Event	11	Drop Bottom Plug	Drop Bottom Plug	11/9/2017	19:19:38	COM4	59.00	14.16	0.00	WF BOTTOM PLUG
Event	12	Pump Lead Cement	Pump Lead Cement	11/9/2017	19:20:51	COM4	3.00	14.50	0.00	992SKS/277BBLS @ 13.5PPG/8BPM/500PSI
Event	13	Pump Tail Cement	Pump Tail Cement	11/9/2017	19:59:56	COM4	316.00	13.37	6.10	1195SKS/434BBLS @ 13.2PPG/8BPM/950PSI
Event	14	Check Weight	Check weight	11/9/2017	20:04:15	COM4	590.00	13.47	8.40	DENSITY VERIFIED
Event	15	Check Weight	Check weight	11/9/2017	20:35:05	COM4	1041.00	13.47	8.40	DENSITY VERIFIED
Event	16	Shutdown	Shutdown	11/9/2017	20:54:15	COM4	43.00	14.37	0.00	

Event	17	Clean Lines	Clean Lines	11/9/2017	20:54:20	COM4	32.00	13.97	0.00	THROUGH FLOW LINE
Event	18	Drop Plug	Drop Plug	11/9/2017	20:59:15	COM4	29.00	0.69	0.00	WF TOP PLUG
Event	19	Pump Displacement	Pump Displacement	11/9/2017	20:59:19	COM4	26.00	1.00	0.00	367BBLS FRESHWATER/10BPM/250PSI/FIRST 20 w/MMCR, REMAINDER w/BIOCIDES & CLA WEB
Event	20	Bump Plug	Bump Plug	11/9/2017	21:51:44	COM4	3334.00	8.27	0.00	PLUG LANDED AT 367BBLS PUMPED/3400PSI/CIRCULATED 40BBLS SPACER/5BBLS CEMENT TO SURFACE
Event	21	Other	Other	11/9/2017	21:56:43	COM4	3507.00	8.31	0.00	OPEN WET SHOE SUB @ 5220PSI
Event	22	Pump Spacer 1	Pump Spacer 1	11/9/2017	21:59:41	COM4	5028.00	8.33	0.90	PUMP 6BBLS FRESHWATER PER WET SHOE PROCESS
Event	23	Other	Other	11/9/2017	22:02:39	COM4	2830.00	8.29	0.00	CHECK FLOATS/HELD/3BBLS BACK
Event	24	End Job	End Job	11/9/2017	22:03:49	COM4				
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	11/9/2017	22:05:00	USER	0.00	8.25	0.00	
Event	26	Rig-Down Equipment	Rig-Down Equipment	11/9/2017	22:10:00	USER	0.00	8.27	0.00	
Event	27	Rig-Down Completed	Rig-Down Completed	11/9/2017	23:10:00	USER				
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/9/2017	23:30:00	USER				
Event	29	Depart Location	Depart Location	11/9/2017	23:45:00	USER				THANK YOU

3.0 Attachments

3.1 CUSTOM RESULTS – JOB CHART WITH EVENTS



3.2 CUSTOM RESULTS – JOB CHART WITHOUT EVENTS

