

HALLIBURTON

iCem[®] Service

SYNERGY RESOURCES CORPORATION

Date: Thursday, May 04, 2017

Hood 23C-22-M Production

Job Date: Tuesday, May 02, 2017

Sincerely,

Bryce Hinsch

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 **Hood 23C-22-M** 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 16 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 [Ft. Lupton]

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 359915	Ship To #: 3786187	Quote #:	Sales Order #: 0904001482							
Customer: SYNERGY RESOURCES CORPORATION		Customer Rep: Kent Priddy								
Well Name: HOOD	Well #: 23C-22-M	API/UWI #: 05-123-44373-00								
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO							
Legal Description: SE SE-20-6N-66W-585FSL-1122FEL										
Contractor: Precision		Rig/Platform Name/Num: Precision 562								
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB41307		Srv Supervisor: Nicholas Roles								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type		BHST								
Job depth MD	15406ft	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	1761	0	1761
Casing		5.5	4.778	20		P-110	0	15406	0	7184
Open Hole Section			8.5				1761	15425	1761	7184
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	5.5				Top Plug	5.5		HES		
Float Shoe	5.5			15406	Bottom Plug	5.5		HES		
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		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	3.75		4		
0.50 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
0.50 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)								
149.34 lbm/bbl		BARITE, BULK (100003681)								
35.10 gal/bbl		FRESH WATER								

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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	1033	sack	13.2	1.57		8	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/min	Total Mix Fluid Gal
3	NeoCem Tail	NeoCem TM	989	sack	13.17	2.09		8	10.08
10.08 Gal		FRESH WATER							
0.35 %		SCR-100 (100003749)							
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			9	
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	299	bbl	8.33			9	
0.0571 gal/bbl		CLA-WEB - BULK (101985043)							
Cement Left In Pipe		Amount		0 ft		Reason		Wet shoe	
Comment Got 16bbls cement back to surface. Estimated TOC-6292'									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	5/1/2017	15:30:00	USER				Crew call out for o/l at 2030
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/1/2017	18:45:00	USER				All crew aware of hazards and directions. All fit to drive.
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	5/1/2017	19:00:00	USER				Started journey management.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	5/1/2017	20:00:00	USER				Met with company man to discuss job details and procedure. Performed hazard hunt and site assessment. Rig just landed and began circulating through CRT.
Event	5	Other	Other	5/1/2017	20:15:00	USER				Water Test- PH-6 Chlo-0 Temp-60 Cement temp-70
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/1/2017	20:30:00	USER				All hse present. Discussed bulk and iron placement and all red zone areas. Caution taped high pressure zones.
Event	7	Safety Meeting - Pre Job	Safety Meeting - Pre Job	5/1/2017	22:30:00	USER	0.00	8.43	3.00	Discussed job associated hazards, contingencies and job procedure with all job associated personnel.
Event	8	Start Job	Start Job	5/1/2017	23:10:00	COM1	0.00	8.45	11.00	TD-15425', TP-15406' 5.5" 20#, FC-15311', TVD-7184', OH-8.5", SURF-1761' 9.625" 36#, MUD-9.6#
Event	9	Test Lines	Test Lines	5/1/2017	23:13:10	COM1	0.00	8.33	5.00	Pumped 5bbls fresh water

										to fill lines, closed manifold and performed 500psi k/o function test, proceeded to perform 5th gear stall at 1800psi, continued to bring pressure up to 5000psi. Pressure stabilized and held with no leaks.
Event	10	Pump Spacer 1	Pump Spacer 1	5/1/2017	23:18:25	COM1	0.00	8.33	6.00	Pumped 40bbls 11.5# 3.75y 23.5g/s Tuned Spacer III with 20g Musol A, 20g Dual Spacer B and 10g D-air at 4bpm 185psi.
Event	11	Check Weight	Check Weight	5/1/2017	23:22:17	COM1	4.00	11.21	178.00	Weight verified with pressurized mud scales.
Event	12	Drop Bottom Plug	Drop Bottom Plug	5/1/2017	23:33:23	COM1	0.00	11.65	7.00	Dropped by HES supervisor, witnessed by company man.
Event	13	Pump Lead Cement	Pump Lead Cement	5/1/2017	23:34:08	COM1	0.00	11.66	7.00	Pumped 1033sks or 288.8bbls 132# 1.57y 7.52g/s Elasticem at 8bpm 370psi.
Event	14	Check Weight	Check Weight	5/1/2017	23:34:51	COM1	3.90	13.28	106.00	Weight verified with pressurized mud scales.
Event	15	Check Weight	Check Weight	5/2/2017	00:10:01	COM1				Weight verified with pressurized mud scales.
Event	16	Pump Tail Cement	Pump Tail Cement	5/2/2017	00:12:39	COM1	8.00	13.20	361.00	Pumped 989sks or 368bbls 13.2# 2.09y 10.08g/s Neocem at 8bpm 425psi.
Event	17	Check Weight	Check Weight	5/2/2017	00:14:57	COM1				Weight verified with pressurized mud scales.
Event	18	Standby - Other - see comments	Standby - Other - see comments	5/2/2017	00:43:32	USER	0.00	0.14	9.00	Lost water and shutdown briefly, resumed once back to weight.
Event	19	Check Weight	Check Weight	5/2/2017	00:53:52	COM1				Weight verified with pressurized mud scales.

Event	20	Other	Other	5/2/2017	01:18:49	COM1				Shutdown and pumped 5bbls fresh water to clean through pumps and lines.
Event	21	Drop Top Plug	Drop Top Plug	5/2/2017	01:23:12	COM1				Dropped by HES supervisor, witnessed by company man.
Event	22	Pump Displacement	Pump Displacement	5/2/2017	01:23:15	COM1				Pumped 339bbls fresh water with 5g MMCR in first 40bbls, 20g clayweb and 20g biocide throughout.
Event	23	Bump Plug	Bump Plug	5/2/2017	02:14:17	COM1	3.30	8.35	2282.00	Slowed down to 3bpm at 310bbls away, final circulating pressure- 2056psi, Bump pressure- 2790psi.
Event	24	Other	Other	5/2/2017	02:14:31	COM1	0.00	8.37	2689.00	Held 2800psi on casing for a 10min test.
Event	25	Check Floats	Check Floats	5/2/2017	02:17:58	USER	0.00	8.36	2745.00	Released pressure and got 2bbls back.
Event	26	Pressure Up Well	Pressure Up Well	5/2/2017	02:20:07	COM1	1.20	8.29	47.00	Pressured up well to burst disc-4bpm and burst at 2850psi. Continued to pump 6bbls fresh water for wet shoe at 4bpm 2619psi.
Event	27	Standby - Other - see comments	Standby - Other - see comments	5/2/2017	02:21:18	USER	4.00	8.37	2937.00	released pressure and got 2bbls back.
Event	28	End Job	End Job	5/2/2017	02:26:06	COM1				Got 16bbls cement back to surface. Estimated TOC- 6292'
Event	29	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	5/2/2017	02:30:00	USER	0.00	8.28	2.00	All HSE present. Discussed red zone areas and trapped pressure hazards. Watch for suspended loads and rig down procedures, including hand placement, lifting techniques, and swing radius.

Event	30	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/2/2017	03:30:00	USER	All HSE present and fit to drive. Aware of directions and hazards.
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3.0 Attachments

3.1 Hood 23C-22-M Production Job Chart.png

