

# HALLIBURTON

iCem<sup>®</sup> Service

## **SYNERGY RESOURCES CORPORATION**

Date: Friday, March 16, 2018

## **Precision 462 Boomerang 34C-6-M**

Sincerely,  
**Meghan Jacobs**

## Legal Notice

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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 **Boomerang 34C-6-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 35bbls of cement 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 #: 3823603	Quote #:	Sales Order #: 0904626189
Customer: SRC ENERGY INC-EBUS		Customer Rep: Steve Wilson	
Well Name: BOOMERANG	Well #: 34C-6-M	API/UWI #: 05-123-45400-00	
Field: WATTENBERG	City (SAP): GREELEY	County/Parish: WELD	State: COLORADO
Legal Description: SE NW-5-5N-66W-1496FNL-2327FWL			
Contractor: Precision		Rig/Platform Name/Num: Precision 462	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB41307		Srcv Supervisor: Nicholas Roles	
Job			

Job depth MD	15742ft	Job Depth TVD	7043'
Water Depth		Wk Ht Above Floor	4'
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	1826		1826
Casing		5.5	4.778	20		P-110	0	15742	0	7043
Open Hole Section			8.5				1826	15755	1826	7043

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5			15742	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	1	HES
Stage Tool	5.5				Centralizers	5.5		HES

**Fluid Data**

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		4	
		147.42 lbm/bbl	BARITE, BULK (100003681)						
		35.10 gal/bbl	FRESH WATER						
		0.50 gal/bbl	MUSOL A, 330 GAL TOTE - (790828)						
		0.50 gal/bbl	DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)						
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

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*Cementing Job Summary*

2	ElastiCem LEAD	ELASTICEM (TM) SYSTEM	1023	sack	13.2	1.57		8	7.54
0.15 %		FE-2 (100001615)							
0.30 %		SCR-100 (100003749)							
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	1057	sack	13.2	2.04		8	9.77
9.77 Gal		FRESH WATER							
0.08 %		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	20	bbl	8.34			10	
0.1250 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
0.50 gal/bbl		CLA-WEB - BULK (101985043)							
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	Water	Water	327	bbl	8.33			6	
Cement Left In Pipe	Amount	0 ft			Reason			Wet Shoe	
Comment Got 35bbls cement to surface. Estimated TOT-6012'									

## 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>	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	Comments
Event	1	Call Out	Call Out	2/9/2018	18:00:00	USER				Called out by Service Coordinator for O/L at 0000
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	2/9/2018	21:45:00	USER				Held meeting with all personnel in convoy to discuss directions and hazards associated with drive, all fit to drive.
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	2/9/2018	22:00:00	USER				Journey Management prior to departure
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	2/9/2018	23:00:00	USER				Upon arrival met with company man to discuss job details and calculations, performed hazard hunt and site assessment.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/9/2018	23:15:00	USER				Discussed rigging up hazards and procedure according to HMS.
Event	6	Other	Other	2/9/2018	23:30:00	USER				Water test- PH-6, Chlor-0, Temp-60.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	2/10/2018	02:30:00	USER	8.29	0.00	-33.00	Held safety meeting with all job associated personnel to discuss job procedure, hazards and stop work authority.
Event	8	Start Job	Start Job	2/10/2018	02:55:42	USER	8.03	0.00	-29.00	TD-15755', TP-15742' 5.5" 20#, WS Sub-15629', TVD-7043', OH-8.5", SURF-1826' 9.625" 36#, MUD-10.7#
Event	9	Start Job	Start Job	2/10/2018	04:02:15	COM4	8.57	0.00	0.00	Ice plug in stand pipe and pump downhole, needed to run steam line through iron before starting job.
Event	10	Test Lines	Test Lines	2/10/2018	04:05:11	COM4	8.63	0.00	205.00	Pumped 5bbls fresh water to fill lines, closed manifold and performed 500psi k/o function test, proceeded to perform 5th gear stall at 1852psi, continued to bring pressure up to 6000psi. Pressure stabilized and held with no leaks
Event	11	Pump Spacer 1	Pump Spacer 1	2/10/2018	04:12:20	COM4	8.75	0.00	87.00	Pumped 40bbls 11.5# 3.8y 23.8g/s Tuned Spacer

III with 20g Musol A, 20g Dual Spacer B and 10g D-Air at 4bpm 425psi.

Event	12	Pump Lead Cement	Pump Lead Cement	2/10/2018	04:33:00	COM4	11.72	4.80	469.00	Pumped 1023sks or 286bbls 13.2# 1.57y 7.54g/s Elasticem at 8bpm 400psi.
Event	13	Check Weight	Check weight	2/10/2018	04:35:34	COM4	13.31	4.80	496.00	Weight verified with pressurized mud scales.
Event	14	Check Weight	Check weight	2/10/2018	04:49:12	COM4	13.38	8.00	552.00	Weight verified with pressurized mud scales.
Event	15	Pump Tail Cement	Pump Tail Cement	2/10/2018	05:15:14	COM4	13.15	8.20	501.00	Pumped 1057sks or 384bbls 13.2# 2.04y 9.77g/s Neocem at 8bpm 475psi.
Event	16	Check Weight	Check weight	2/10/2018	05:22:31	COM4	13.24	8.00	709.00	Weight verified with pressurized mud scales.
Event	17	Shutdown	Shutdown	2/10/2018	06:09:45	USER	0.01	0.00	27.00	Shutdown, pumped 5bbls fresh water through pumps and lines to wash up.
Event	18	Drop Top Plug	Drop Top Plug	2/10/2018	06:20:30	COM4	7.24	0.00	20.00	Dropped by HES supervisor, witnessed by company man.
Event	19	Pump Displacement	Pump Displacement	2/10/2018	06:21:29	COM4	7.96	0.00	28.00	Pumped 347bbls fresh water with 5g MMCR in first 20bbls, 20g clayweb and 3# biocide throughout.
Event	20	Bump Plug	Bump Plug	2/10/2018	07:21:15	COM4	8.17	0.00	2882.00	Slowed down to 3bpm at 325bbls away, final circulating pressure-2290psi, bump pressure-2900psi.
Event	21	Pressure Up Well	Pressure Up Well	2/10/2018	07:22:14	COM4	8.16	0.00	2927.00	Pumped fresh water to burst at 4700psi, continued to pump 6bbls fresh water at 3bpm 2280psi.
Event	22	Check Floats	Check Floats	2/10/2018	07:25:53	USER	8.14	0.00	1985.00	Released pressure and got 2.5bbls back to pump. Floats held.
Event	23	End Job	End Job	2/10/2018	07:27:40	COM4	8.10	0.00	10.00	Got 35bbls cement to surface. Estimated TOT-6012'
Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/10/2018	07:45:00	USER	6.76	0.00	7.00	Discussed rigging down hazards and procedure according to HMS.
Event	25	Depart Location Safety Meeting	Depart Location Safety Meeting	2/10/2018	09:15:00	USER				Held meeting with all personnel in convoy to discuss directions and hazards associated with drive, all fit to drive.

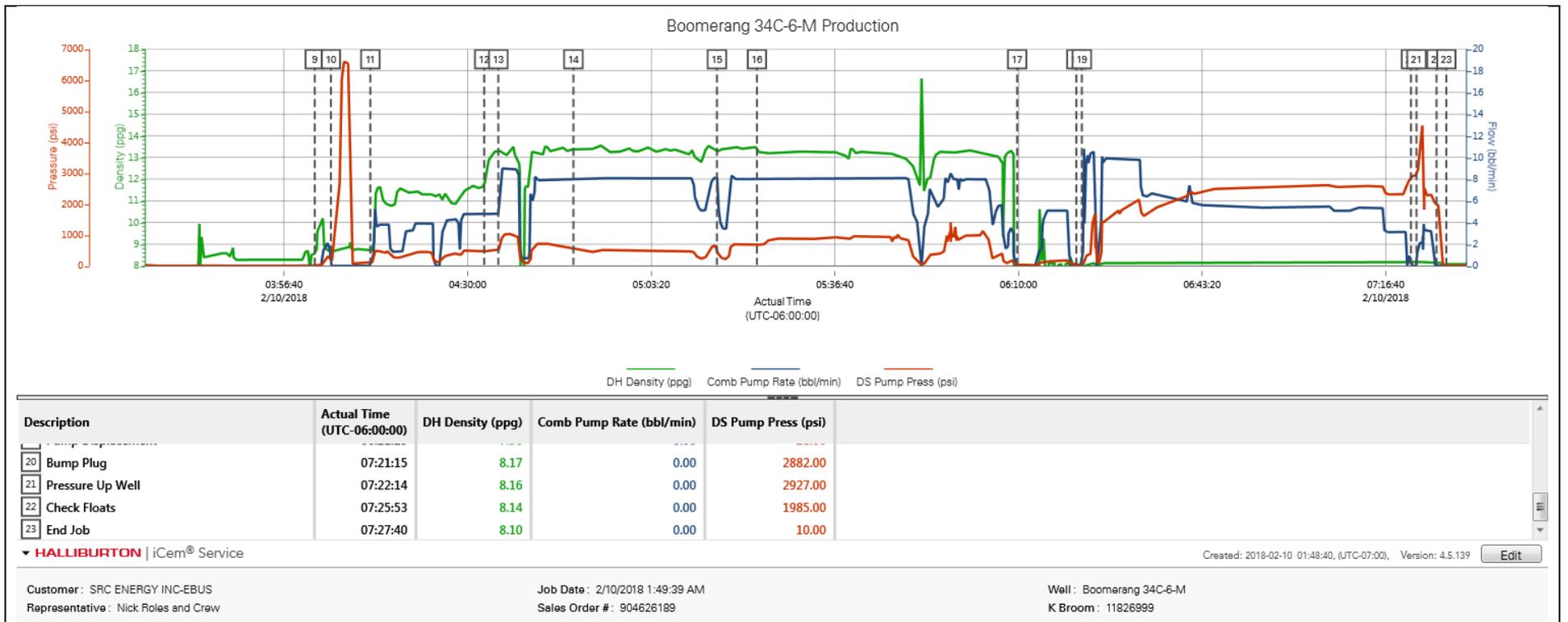
Event	26	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	2/10/2018	09:30:00	USER
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Pre journey management prior to departure.

## 3.0 Attachments

### 3.1 Precision 462 Boomerang 34C-6-M Job Chart with Events



3.2 Precision 462 Boomerang 34C-6-M Job Chart without Events

