

# HALLIBURTON

iCem<sup>®</sup> Service

## **SYNERGY RESOURCES CORPORATION**

**For: Larry Schneider**

Date: Monday, February 08, 2016

**SRC Vista D-2N-A**

Production

5.5" Production 903099446

Job Date: Monday, February 08, 2016

Sincerely,

**Derek Trier**

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Table of Contents

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1.0    Cementing Job Summary ..... 4

    1.1    Executive Summary .....4

2.0    Real-Time Job Summary ..... 8

    2.1    Job Event Log .....8

3.0    Attachments..... 10

    3.1    Case 1-Custom Results.png.....10

    3.2    Case 1-Custom Results (1).png .....11

## 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 for this cementing services 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.

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]

**Job Times**

	<b>Date</b>	<b>Time</b>	<b>Time Zone</b>
<b>Called Out</b>	02.08.2016	04:30	MST
<b>On Location</b>	02.08.2016	08:45	MST
<b>Job Started</b>	02.08.2016	15:00	MST
<b>Job Completed</b>	02.08.2016	16:30	MST
<b>Departed Location</b>	02.08.2016	17:15	MST

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## Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 359915	Ship To #: 3700828	Quote #:	Sales Order #: 0903099446							
Customer: SYNERGY RESOURCES CORPORATION		Customer Rep:								
Well Name: SRC VISTA	Well #: D-2N-A	API/UWI #: 05-123-41061-00								
Field: WATTENBERG	City (SAP): BERTHOUD	County/Parish: WELD	State: COLORADO							
Legal Description: NW SW-2-4N-68W-2143FSL-254FWL										
Contractor: PRECISION DRLG		Rig/Platform Name/Num: PRECISION 462								
Job BOM: 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199		Srv Supervisor:								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type	BHST									
Job depth MD	11530ft	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	1623		1623
Casing		5.5	4.892	17		P-110	0	11548	0	7220
Open Hole Section			8.5				1623	11559	1623	7220
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5			11530		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 ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Tuned Spacer III	Tuned Spacer III	40	bbl	11.5	3.86		6		
145.18 lbm/bbl		BARITE, BULK (100003681)								
36.09 gal/bbl		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	

last updated on 2/8/2016 7:12:12 PM

Page 1 of 3

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(v. 4.2.393)

Created: Monday, February 08, 2016

## HALLIBURTON

## Cementing Job Summary

2	Lead ElastiCem (SCR 100)	ELASTICEM (TM) SYSTEM	600	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	Lead ElastiCem	ELASTICEM (TM) SYSTEM	385	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
4	Tail EconoCem	ECONOCEM (TM) SYSTEM	785	sack	13.5	1.65		4	7.86
0.35 %		HR-5, 50 LB SK (100005050)							
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	MMCR Displacement	MMCR Displacement	265	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
6	Water	Water	0	bbl	8.33				
Cement Left In Pipe		Amount	42 ft			Reason			Shoe Joint
Mix Water: pH ##		Mix Water Chloride: ## ppm			Mix Water Temperature: ## °F °C				
Cement Temperature: ## °F °C		Plug Displaced by: 8.33lb/gal			Disp. Temperature: ## °F °C				
Plug Bumped? Yes		Bump Pressure: 2100 psi			Floats Held? Yes				
Cement Returns: 12 bbl		Returns Density: ## lb/gal kg/m3			Returns Temperature: ## °F °C				
Comment Estimated top of tail cement at 5894'									



## 2.0 Real-Time Job Summary

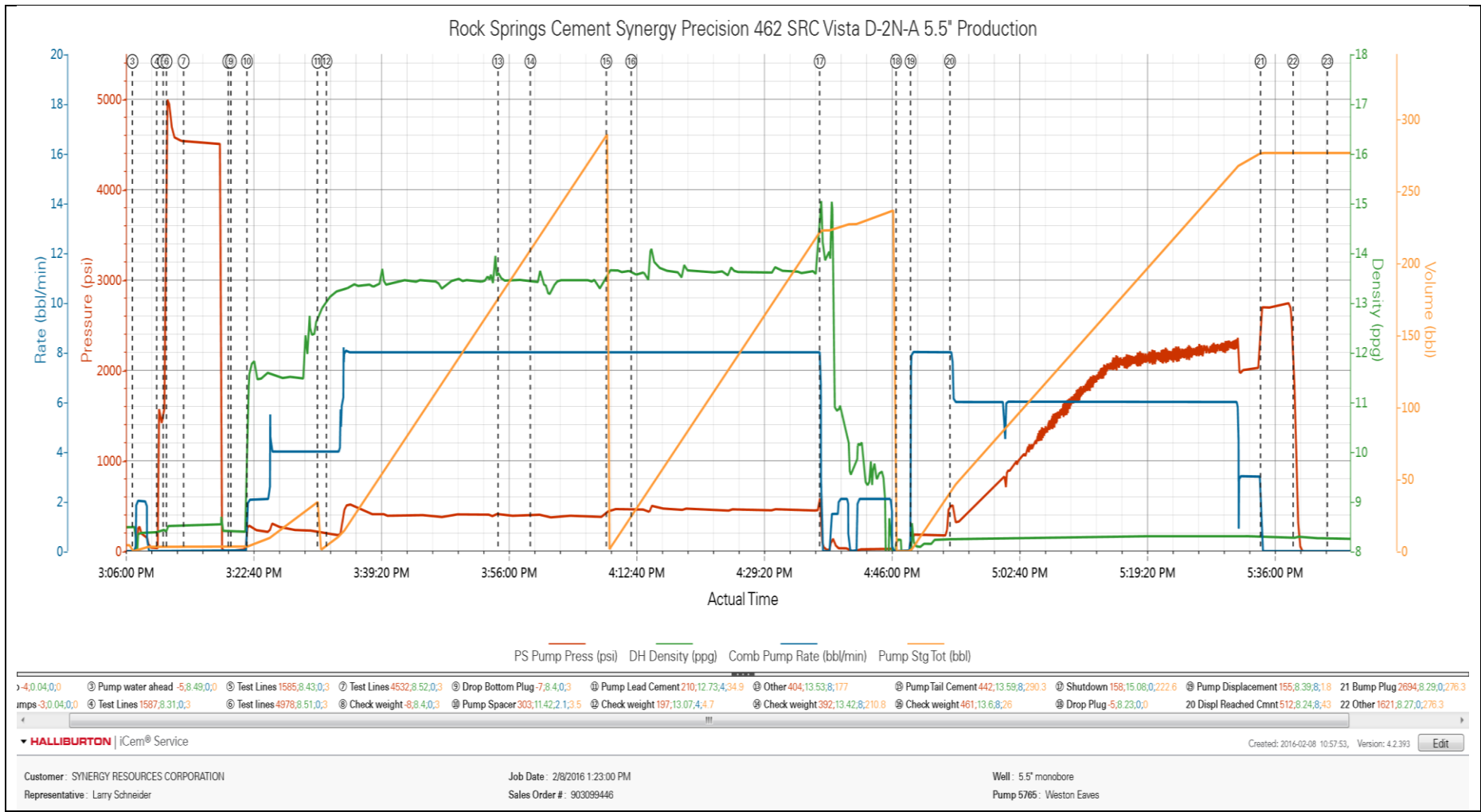
## 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	1	Start Job	Start Job	2/8/2016	14:20:57	COM1	-4.00	0.04	0.00	0.0	Customer well information: Total depth 11559'. Total 5.5" 17lb/ft P-110 casing 11548'. Shoe track 92.89'. 105 centralizers. 8.5" open hole. Mud weight 10.2 lb/gal. PV-18. YP- 15. Previous casing 9.625" 36 lb/ft J-55 1622'.
Event	2	Prime Pumps	Prime Pumps	2/8/2016	14:21:06	COM1	-3.00	0.04	0.00	0.0	
Event	3	Other	Pump water ahead	2/8/2016	15:07:03	COM1	-5.00	8.49	0.00	0.0	Pump 3 bbl water ahead to fill lines.
Event	4	Test Lines	Test Lines	2/8/2016	15:10:13	COM1	1587.00	8.31	0.00	3.0	Low pressure electronic kick out test.
Event	5	Test Lines	Test Lines	2/8/2016	15:11:04	COM1	1585.00	8.43	0.00	3.0	5th gear stall out.
Event	6	Test Lines	Test lines	2/8/2016	15:11:30	COM1	4978.00	8.51	0.00	3.0	High pressure test
Event	7	Test Lines	Test Lines	2/8/2016	15:13:44	COM1	4532.00	8.52	0.00	3.0	Test lines to 4600 psi.
Event	8	Check Weight	Check weight	2/8/2016	15:19:34	COM1	-8.00	8.40	0.00	3.0	Density of Tuned Spacer 11.5 lb/gal.
Event	9	Drop Bottom Plug	Drop Bottom Plug	2/8/2016	15:19:55	USER	-7.00	8.40	0.00	3.0	Driller witnessed plug leave plug container.
Event	10	Pump Spacer	Pump Spacer	2/8/2016	15:22:00	USER	303.00	11.42	2.10	3.5	Pump 40 bbl Tuned Spacer at 11.5 lb/gal.
Event	11	Pump Lead Cement	Pump Lead Cement	2/8/2016	15:31:12	COM1	210.00	12.73	4.00	34.9	Pump 167.78 bbl Elasticem Lead cement at 13.2 lb/gal - 1.57 ft3/sk - 7.54 gal/sk. at 8 bpm a total of 600 sks.
Event	12	Check Weight	Check weight	2/8/2016	15:32:22	COM1	197.00	13.07	4.00	4.7	Density 13.2 lb/gal.
Event	13	Other	Other	2/8/2016	15:54:47	COM1	404.00	13.53	8.00	177.0	Pump remaining Elasticem Lead cement at 13.2 lb/gal - 1.57 ft3/sk - 7.54 gal/sk. a total of 385 sks.
Event	14	Check Weight	Check weight	2/8/2016	15:59:00	COM1	392.00	13.42	8.00	210.8	Density 13.2 lb/gal.

Event	15	Pump Tail Cement	Pump Tail Cement	2/8/2016	16:08:55	COM1	442.00	13.59	8.00	290.3	Pump 230.68 bbl Econo Cem tail cement at 13.5 lb/gal - 1.65 ft3/sk - 7.86 gal/sk. A total of 785 sks.
Event	16	Check Weight	Check weight	2/8/2016	16:12:10	COM1	461.00	13.60	8.00	26.0	Density 13.5 lb/gal.
Event	17	Shutdown	Shutdown	2/8/2016	16:36:46	COM1	158.00	15.08	0.00	222.6	Wash pumps and lines to pits.
Event	18	Drop Plug	Drop Plug	2/8/2016	16:46:45	COM1	-5.00	8.23	0.00	0.0	Company man witnessed plug leave plug container via tattle tale on cement head.
Event	19	Pump Displacement	Pump Displacement	2/8/2016	16:48:38	COM1	155.00	8.39	8.00	1.8	Pump 265.71 bbl Cla Web displacement.
Event	20	Displ Reached Cmnt	Displ Reached Cmnt	2/8/2016	16:53:47	COM1	512.00	8.24	8.00	43.0	
Event	21	Bump Plug	Bump Plug	2/8/2016	17:34:19	COM1	2694.00	8.29	0.00	276.3	Final circulating pressure 2100 psi. Brought pressure up to 2750 psi. 12 bbl cement to surface and 40 bbl spacer to surface.
Event	22	Other	Other	2/8/2016	17:38:35	COM1	1621.00	8.27	0.00	276.3	Check floats 3 bbl back.
Event	23	End Job	End Job	2/8/2016	17:43:03	COM1	-10.00	8.25	0.00	276.3	

3.0 Attachments

3.1 Case 1-Custom Results.png



## 3.2 Case 1-Custom Results (1).png

