HALLIBURTON

iCem® Service

SYNERGY RESOURCES CORPORATION

For: Brandon Lorenz

Date: Friday, November 06, 2015

SRC Vista 43-2C

Surface

Job Date: Wednesday, November 04, 2015

Sincerely,

Derek Trier

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **SRC Vista 43-2C** cement **Surface** 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.

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

	Date	Time	Time Zone
Called Out Time:	11/3/2015	2230	MTN
Arrived On Location At:	11/4/2015	0345	
Job Started At:		0738	
Job Completed At:		0918	
Departed Location At:		1030	

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 359915	**Ship To #:** 3700826	**Quote #:**	**Sales Order #:** 0902876368
Customer: SYNERGY RESOURCES CORPORATION		**Customer Rep:** Kevin Brakovech	
Well Name: SRC VISTA	**Well #:** 43-2C		**API/UWI #:** 05-123-41054
Field:	**City (SAP):** JOHNSTOWN	**County/Parish:** WELD	**State:** COLORADO
Legal Description:			
Contractor: ENSIGN DRLG		**Rig/Platform Name/Num:** ENSIGN 131	
Job BOM: 7521			
Well Type: GAS			
Sales Person: HALAMERICA\HX37727		**Srvc Supervisor:** Kendall Broom	

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type			**BHST**		
Job depth MD	1638ft		**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
Open Hole Section			13.5				0	1638		
Casing		9.625	8.921	36			0	1621		

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe					Top Plug	9.625	1	HES
Float Shoe	9.625	1		1621				
Float Collar								
Insert Float								
Stage Tool								

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty	Conc
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size	Qty

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	Mud Flush III (Powder)	Mud Flush III	20	bbl	8.4				
42 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	SwiftCem B2	SWIFTCEM (TM) SYSTEM	600	sack	13.4	1.79		4	9.5
9.50 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	Displacement	Displacement	122	bbl	8.33				

Cement Left In Pipe	Amount	41.78 ft	Reason	Shoe Joint
Comment				

1.2 Planned Pumping Schedule

Customer: Synergy Resources
Well Name/ Number: SRC Vista 43-2C
Job Type: SURFACE
SO#: Ensign 131

Pump Schedule

Event	Pressure (psi)	Rate (bpm)	Volume (bbl)	Sacks	Density (ppg)	Yield (ft3/sk)	WR (gal/sk)
FILL LINES			2				
PRESSURE TEST	3350						
FW SPACER	39	3	40		8.33		
LEAD CEMENT							
TAIL CEMENT	100	6	183.3	600	13.4	1.79	9.5
DROP TOP PLUG							
DISPLACEMENT		6.5	122				
SLOW RATE	462	2.5	10				
BUMP PLUG	950						
CHECK FLOATS							
END JOB							

MAX PRESSURE	950						
PRESSURE TO LAND							
PRESSURE TO LIFT	462						
MIX WATER NEEDED			130				

SPACER TO SURFACE			40				
CEMENT TO SURFACE			43				

1.3 Job Overview

Job OverView

		Units	Description
1	Surface temperature at time of job	^{o}F	45
2	Mud type (OBM, WBM, SBM, Water, Brine)	-	wbm
3	Actual mud density	lb/gal	9.6
4	Actual mud Plastic Viscosity (PV)	cP	4
5	Actual mud Yield Point (YP)	$lb_f/100ft^2$	42
6	Actual mud 3/10/30 min gel strength	$lb_f/100ft^2$	
7	Time circulated before job	HH:MM	1:00
8	Mud volume circulated	bbls	
9	Rate at which well was circulated	bpm	7
10	Pipe movement during circulation	Y/N	n
11	Rig pressure while circulating	psi	100
12	Time from end mud circulation to start of job	HH:MM	:30
13	Pipe movement during cementing	Y/N	n
14	Calculated displacement	bbls	122
15	Job displaced by	Rig/HES	HES
16	Annular before Job	Y/N	n
17	Annular flow after job	Y/N	n
18	Length of rat hole	ft	17
19	Units of gas detected while circulating	Units	

1.4 Water Field Test

Supervisor: 902876368 **Date Recorded:** 42312

Customer: Synergy Resources **Well Name/Number:** SRC Vista 43-2C

SO#: Ensign 131 **Job Type:** SURFACE

Cement Mix Water Requirements

Item	Recorded Test Value	Max Acceptable Limin	Potential Problems in Exceeding Limit
pH	6	6.0 to 8.0	Chemicals in water can cause severe retardation
Chlorides	0	3000 mg/L	Can shorten thickening time of cement
Sulfates	>200	1500 mg/L	Will greatly decrease its strength of cement
Total Hardness	425	500 mg/L	High concentrations will accelerate the set of cement
Calcium		500 mg/L	High concentrations will accelerate the set of cement
Total Alkalinity		1000 mg/L	Cement is greatly retarded to the point where it may not set up at all (typically occus @ pH ≥ 8.3)
Bicarbonates		1000 mg/L	Cement is greatly retarded to the point where it may not set up at all
Potassium		5000 ppm	High concentrations will shorten the pump time of cement (indicates the presence of chlorides, therefore if Potassium levels are measured as high, so should the chlorides)
Iron	0	300 mg/L	High concentrations will accelerate the set of cement
Temperature	60	50F to 80F	High temps will accelerate; Low temps may risk freezing in cold weather

Notes:

1. High concentrations of Carbonates and Bicarbonates may also cause slurry gelation in some situations

2. If the water's pH is greater than or equal to 8, avoid using it since Magnesium may be present (there are not field test strips for Magnesium)

2.0 Real-Time Job Summary

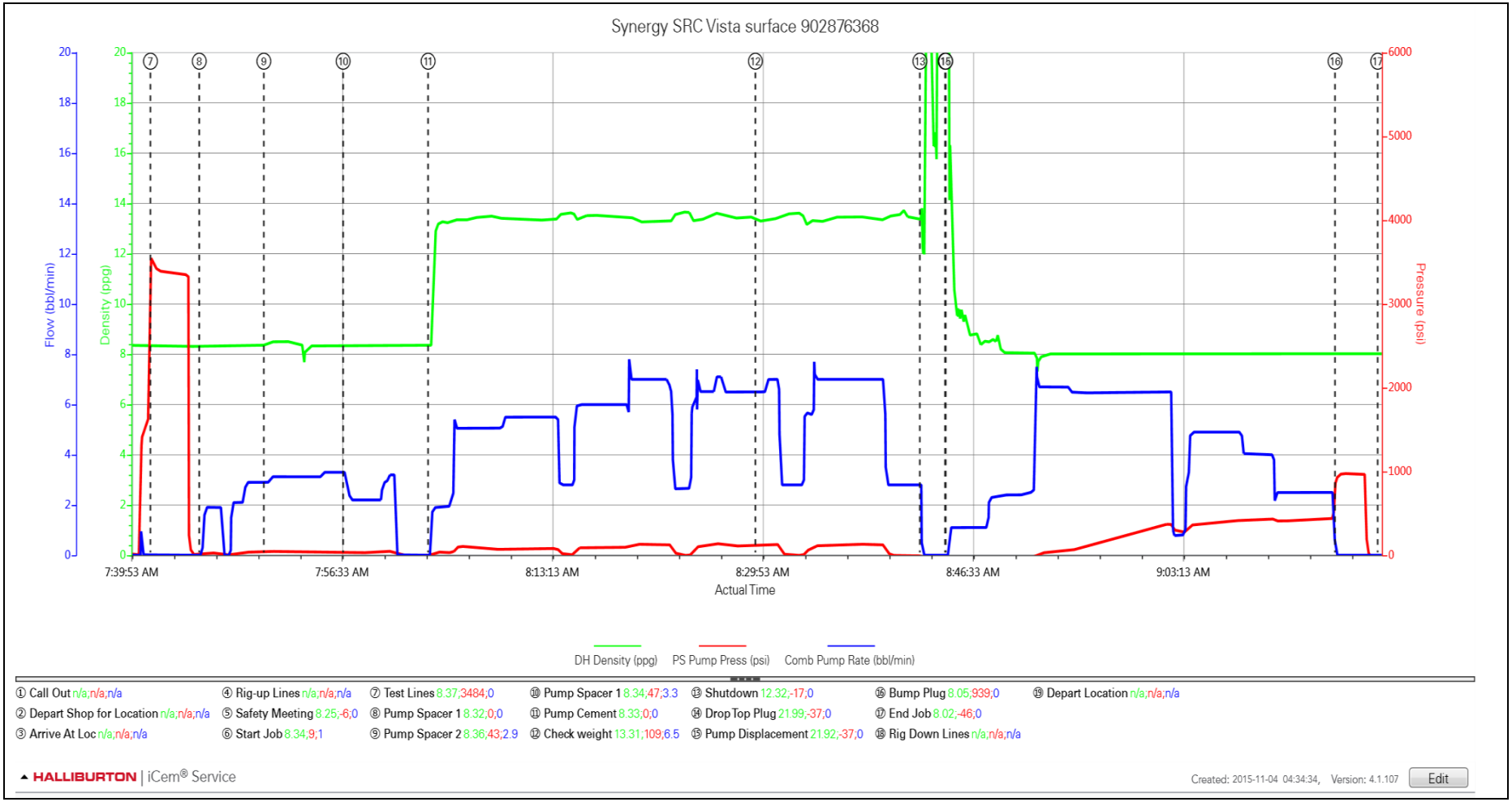
2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	PS Pump Press (psi)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	11/3/2015	22:30:00	USER				Called crew out to be on location at 0430
Event	2	Depart Shop for Location	Depart Shop for Location	11/4/2015	03:00:00	USER				Held a safety meeting before leaving for location
Event	3	Arrive At Loc	Arrive At Loc	11/4/2015	03:45:00	USER				Arrived on location and met with the company man
Event	4	Rig-up Lines	Rig-up Lines	11/4/2015	04:00:00	USER				Held a hazard hunt before spotting in trucks and rigging up
Event	5	Safety Meeting	Safety Meeting	11/4/2015	07:15:00	USER				Held a safety meeting with the rig crew to discuss the operation and safety
Event	6	Start Job	Start Job	11/4/2015	07:38:24	COM4	8.34	9.00	1.00	Filled lines with 2 bbl water
Event	7	Test Lines	Test Lines	11/4/2015	07:41:31	COM4	8.37	3490.00	0.00	Pressure tested lines to 3350 psi
Event	8	Pump Spacer 1	Pump Spacer 1	11/4/2015	07:45:23	COM4	8.32	1.00	0.00	Pumped 10 bbl water with red dye
Event	9	Pump Spacer 2	Pump Spacer 2	11/4/2015	07:50:30	COM4	8.36	44.00	2.90	Pumped 20 bbl Mudd Flush
Event	10	Pump Spacer 1	Pump Spacer 1	11/4/2015	07:56:47	COM4	8.34	47.00	3.30	Pumped 10 bbl fresh water
Event	11	Pump Cement	Pump Cement	11/4/2015	08:04:24	COM4	13.31	38.00	1.90	Pumped 191 bbl Swiftcem 13.4#, 1.79Yield, 9.5 Gal/sks
Event	12	Check Weight	Check weight	11/4/2015	08:29:27	COM4	13.31	110.00	6.50	Verified weight with pressurized scales
Event	13	Shutdown	Shutdown	11/4/2015	08:42:29	COM4				Shut down and washed up cement head
Event	14	Drop Top Plug	Drop Top Plug	11/4/2015	08:44:29	COM4	22.04	-37.00	0.00	Dropped plug preloaded and witnessed by the company man
Event	15	Pump Displacement	Pump Displacement	11/4/2015	08:44:32	COM4	21.93	37.00	0.00	Pumped 122 bbl water displacement. Got all 40 bbl spacer back and 43 bbl cement back to surface

Event	16	Bump Plug	Bump Plug	11/4/2015	09:15:23	COM4	8.05	935.00	0.00	Final lift was 462 psi bumped at 950 psi. checked floats and got 1 bbl back on truck
Event	17	End Job	End Job	11/4/2015	09:18:46	COM4				
Event	18	Rig Down Lines	Rig Down Lines	11/4/2015	09:25:00	USER				Held a safety meeting before rigging down
Event	19	Depart Location	Depart Location	11/4/2015	10:30:00	USER				Held a safety huddle before leaving location

3.0 Attachments

3.1 Synergy SRC Vista surface 902876368-Custom Results.png



3.2 Synergy SRC Vista surface 902876368-Custom Results (2).png