

**SYNERGY RESOURCES CORPORATION  
20203 HIGHWAY 60  
PLATTEVILLE, Colorado**

Avex 35D

Ensign 226

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 11/14/2012  
Version: 1

Service Supervisor: WHEELER, JUSTIN

Submitted by: KENNEDY, HERRON

# HALLIBURTON

## Wellbore Geometry

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Job Tubulars					MD		Excess	Shoe Joint Length
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	%	ft
Open Hole Section	Open Hole		12.250		0.00	615.00		
Casing	Surface Casing	8.63	8.097	24.00	0.00	608.00		44.00

# HALLIBURTON

## ***Pumping Schedule***

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Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	Fresh Water Spacer	8.33	0.00	30.0 bbl	30.0 bbl
1	2	Cement Slurry	SwiftCem B2	13.40		175.0 sacks	175.0 sacks

## ***Fluids Pumped***

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**Stage/Plug # 1    Fluid 1:**    Fresh Water Spacer

Fluid Density: 8.33 lbm/gal  
Fluid Volume: 30.00 bbl

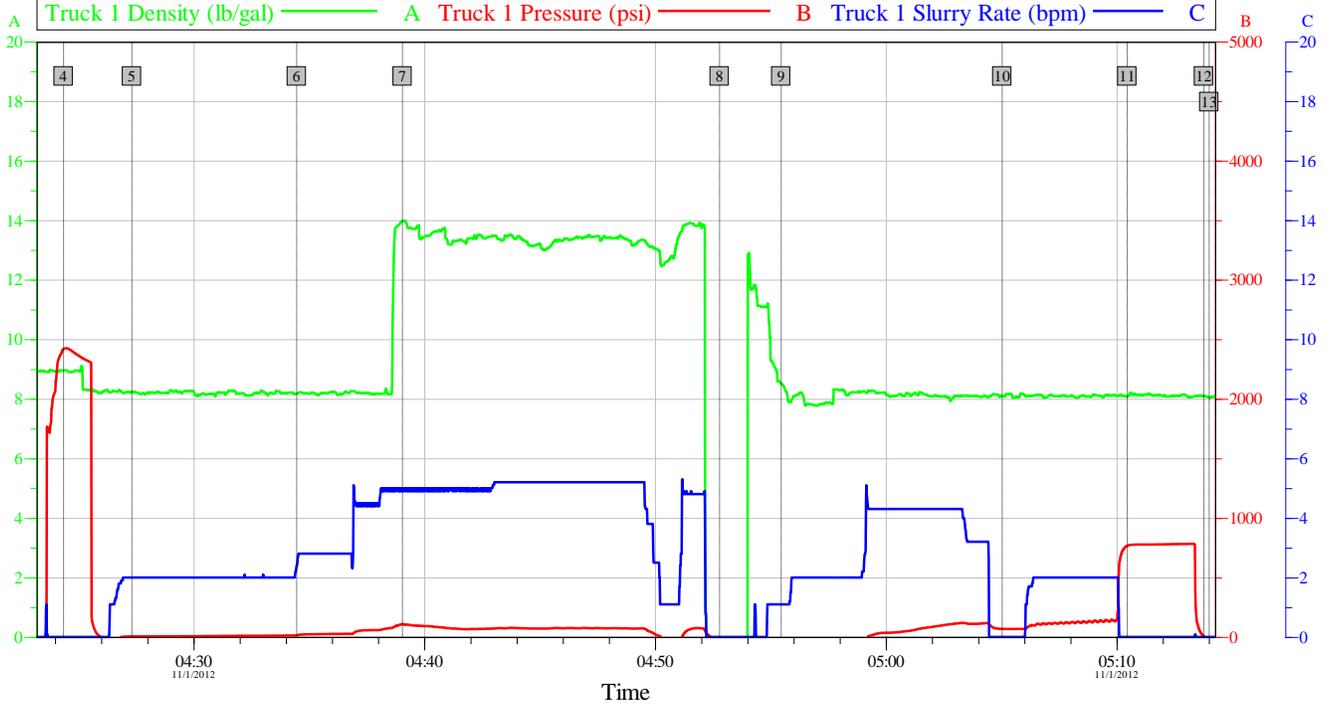
**Stage/Plug # 1    Fluid 2:**    SwiftCem B2  
SWIFTCEM (TM) SYSTEM

Fluid Weight: 13.40 lbm/gal  
Slurry Yield: 1.79 ft<sup>3</sup>/sack  
Total Mixing Fluid: 9.52 Gal  
Surface Volume: 175.0 sacks  
Sacks: 175.0 sacks  
Calculated Fill: 650.00 ft  
Calculated Top of Fluid: 0.00 ft

# HALLIBURTON

## Data Acquisition

Synergy - Avex 35D  
8 5/8" Surface Casing



Global Event Log							
Intersection	TIP	TISR	Intersection	TIP	TISR		
4 Test Lines	04:24:22	2418	0.000	5 Pump Fresh Water Spacer	04:27:20	5.000	2.000
7 Pump Cement	04:39:03	108.4	4.942	8 Drop Top Plug	04:52:48	-16.50	0.000
10 Shutdown	05:05:02	68.00	0.000	11 Bump Plug	05:10:27	766.7	0.000
13 End Job	05:14:01	-11.07	0.000	6 Pump Dyed Water Spacer	04:34:28	15.00	2.400
				9 Pump Displacement	04:55:28	-18.45	1.100
				12 Check Floats, Floats Holding	05:13:47	6.205	0.000

Customer: Synergy	Job Date: 01-Nov-2012	Sales Order #: 9936566
Well Description: Avex 35D	UWI:	

OptiCem v6.4.9  
01-Nov-12 05:52

# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
11/01/2012 01:30		Depart from Service Center or Other Site					
11/01/2012 02:30		Arrive At Loc					
11/01/2012 02:45		Safety Meeting - Pre Rig-Up					Water Provided By Rig, Tested Ok For Mixing Cement
11/01/2012 04:24		Test Lines					Pressure Test Lines to 2500 PSI
11/01/2012 04:27		Pump Spacer	2	20		5.0	Pump 20 bbls Fresh Water Spacer
11/01/2012 04:34		Pump Spacer	2.5	10		15.0	Pump 10 bbls Dyed Water Spacer (2 lb. Bottle of Red Dye Used in 10 bbls)
11/01/2012 04:39		Pump Cement	5	55.8		110.0	Mix and Pump 175 sks SwiftCem Cement @ 13.4 lb/gal (Density Verified By Pressurized Scales)
11/01/2012 04:52		Drop Top Plug					Shut-Down, Drop Top Plug (Top Plug Pre-Loaded In Plug Container)
11/01/2012 04:55		Pump Displacement - Start	1	0		.0	Pump Fresh Water Displacement (Wash-Up on Top of Plug)
11/01/2012 05:00		Spacer Returns to Surface		18			Dyed Water Spacer Returns to Surface
11/01/2012 05:05		Cement Returns to Surface	3			115.0	8 bbls Cement to Surface
11/01/2012 05:05		Shutdown				70.0	Shut-Down, to Allow Rig Crew To Divert Cement Returns
11/01/2012 05:06		Resume	2			100.0	Resume Displacement
11/01/2012 05:10		Pump Displacement - End	2	35.9		160.0	Good Returns Throughout Job
11/01/2012 05:10		Bump Plug	2	35.9		775.0	
11/01/2012 05:13		Check Floats					Floats Holding, Returned 1 bbl Back to Truck
11/01/2012 06:00		Safety Meeting - Pre Rig-Down					Wet and Dry Samples of Cement Left On Location
11/01/2012 06:30		Safety Meeting - Departing Location					

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 359915		<b>Ship To #:</b> 2961315		<b>Quote #:</b>		<b>Sales Order #:</b> 9936566	
<b>Customer:</b> SYNERGY RESOURCES CORPORATION				<b>Customer Rep:</b> HOPE, CRAIG			
<b>Well Name:</b> Avex			<b>Well #:</b> 35D			<b>API/UWI #:</b>	
<b>Field:</b> Wattenberg		<b>City (SAP):</b> JOHNSTOWN		<b>County/Parish:</b> Weld		<b>State:</b> Colorado	
<b>Contractor:</b> Ensign			<b>Rig/Platform Name/Num:</b> 226				
<b>Job Purpose:</b> Cement Surface Casing							
<b>Well Type:</b> Development Well				<b>Job Type:</b> Cement Surface Casing			
<b>Sales Person:</b> AARON, WESLEY			<b>Srvc Supervisor:</b> WHEELER, JUSTIN			<b>MBU ID Emp #:</b> 196470	

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
HOLLOWAY, DUSTIN Craig	0.0	504032	IPSON, TIMOTHY J	0.0	485018	WHEELER, JUSTIN W	0.0	196470

### Equipment

HES Unit #	Distance-1 way						
10248062C	31 mile	11542778	31 mile	11605599	31 mile		

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
<b>TOTAL</b>								
<i>Total is the sum of each column separately</i>								

### Job

### Job Times

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
<b>Form Type</b>		BHST	<b>On Location</b>	01 - Nov - 2012	02:30	MST
<b>Job depth MD</b>	608. ft	<b>Job Depth TVD</b>	<b>Job Started</b>	01 - Nov - 2012	04:23	MST
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>	<b>Job Completed</b>	01 - Nov - 2012	05:14	MST
<b>Perforation Depth (MD)</b>	<i>From</i>	<i>To</i>	<b>Departed Loc</b>	01 - Nov - 2012	06:30	MST

### Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbf/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Open Hole				12.25				.	615.	.	615.
Surface Casing	Mixed		8.625	8.097	24.			.	608.	.	608.

### Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

### 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 ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water Spacer		30.00	bbl	8.33	.0	.0	.0	
2	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)	175.0	sacks	13.4	1.79	9.52		9.52
9.52 Gal		FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe		Amount	44 ft	Reason	Shoe Joint				
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
The Information Stated Herein Is Correct				Customer Representative Signature					

