

**APOLLO OPERATING  
1538 WAZEE ST #200  
DENVER, Colorado**

Hoagland 43-4D

Midcontinent/55

## **Post Job Summary** **Cement Production Casing**

Date Prepared: 5/30/2012  
Version: 1

Service Supervisor: ROSALES, MATTHEW

Submitted by: KENNEDY, HERRON

**HALLIBURTON**

# HALLIBURTON

## ***Pumping Schedule***

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Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Surface Volume	Downhole Volume
1	1	Spacer	Fresh Water Spacer	8.33	20.0 bbl	20.0 bbl
1	2	Spacer	MUD FLUSH III	8.40	24.0 bbl	24.0 bbl
1	3	Spacer	Fresh Water Spacer	8.33	10.0 bbl	10.0 bbl
1	4	Cement Slurry	Extendacem 11.3#	11.30	320.0 sacks	320.0 sacks
1	5	Cement Slurry	FracCem B2 13.5#	13.50	200.0 sacks	200.0 sacks
1	6	Spacer	ClayWeb III	8.33	3.0 Gal	3.0 Gal

## Wellbore Geometry

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Job Tubulars					MD		Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	
Casing	Surface Casing	8.63	8.097	24.00	0.00	700.00	
Open Hole Section	Open Hole Section		7.875		700.00	7,816.00	
Casing	Production Casing	4.50	4.000	11.60	0.00	7,816.00	44.00

# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)	Comments
05/26/2012 14:56		Check Floats						FLOATS HELD, GOOD RETURNS THROUGHOUT JOB
05/26/2012 14:56		End Job						
05/26/2012 16:52		Start Job						
05/26/2012 16:53		Test Lines	0.5				4000.0	
05/26/2012 16:54		Pump Spacer 1	5				285.0	WATER SPACER
05/26/2012 16:59		Pump Spacer 2	4				255.0	MUD FLUSH
05/26/2012 17:07		Pump Spacer 1	4				400.0	WATER SPACER
05/26/2012 17:11		Pump Lead Cement	6				600.0	320SKS, 787.2CUFT, 2.46CUFT/SK, 14.12GAL/SK, 11.3#/GAL, MIXED WITH WATER PROVIDED BY RIG
05/26/2012 17:30		Pump Tail Cement	6				200.0	200SKS, 346CUFT, 1.73CUFT/SK, 8.24GA.L/SK, 13.5#/GAL, MIXED WITH WATER PROVIDED BY RIG
05/26/2012 17:41		Shutdown						
05/26/2012 17:42		Clean Lines						
05/26/2012 17:48		Drop Top Plug						PLUG PRELOADED WITNESSED BY COMPANY MAN
05/26/2012 17:48		Pump Displacement	8				1000.0	WATER DISPLACE WITH CLAYWEBB
05/26/2012 18:11		Shutdown						PLUG DID NOT BUMP SHUTDOWN

### The Road to Excellence Starts with Safety

<b>Sold To #:</b> 353960		<b>Ship To #:</b> 2929062		<b>Quote #:</b>		<b>Sales Order #:</b> 9538817	
<b>Customer:</b> APOLLO OPERATING				<b>Customer Rep:</b> Libhart, Don			
<b>Well Name:</b> Hoagland			<b>Well #:</b> 43-4D			<b>API/UWI #:</b> 05-123-33883	
<b>Field:</b> WATTENBURG		<b>City (SAP):</b> MEAD		<b>County/Parish:</b> Weld		<b>State:</b> Colorado	
<b>Lat:</b> N 40.25 deg. OR N 40 deg. 14 min. 58.704 secs.				<b>Long:</b> W 104.001 deg. OR W -105 deg. 59 min. 56.58 secs.			
<b>Contractor:</b> Midcontinent			<b>Rig/Platform Name/Num:</b> 55				
<b>Job Purpose:</b> Cement Production Casing							
<b>Well Type:</b> Development Well			<b>Job Type:</b> Cement Production Casing				
<b>Sales Person:</b> AARON, WESLEY			<b>Srvc Supervisor:</b> ROSALES, MATTHEW			<b>MBU ID Emp #:</b> 392095	

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BARNES, BRIAN L	5.0	485204	HOLLOWAY, DUSTIN Craig	5.0	504032	IPSON, TIMOTHY J	5.0	485018
ROSALES, MATTHEW John	5.0	392095						

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11605598	30 mile	11748359	30 mile	11764052	30 mile	11764739	30 mile
11812069C	30 mile	NA	30 mile				

### Job Hours

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

### Job

Job				Job Times			
Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
Form Type			BHST	On Location	26 - May - 2012	11:00	MST
Job depth MD	7816. ft		Job Depth TVD	Job Started	26 - May - 2012	14:30	MST
Water Depth			Wk Ht Above Floor	Job Completed	26 - May - 2012	16:53	MST
Perforation Depth (MD)	From		To	Job Completed	26 - May - 2012	18:13	MST
				Departed Loc	26 - May - 2012	19:30	MST

### Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Open Hole Section				7.875				700.	7816.	700.	7816.
Production Casing	New		4.5	4.	11.6		P-110	.	7816.	.	7816.
Surface Casing	Used		8.625	8.097	24.		J-55	.	700.	.	700.

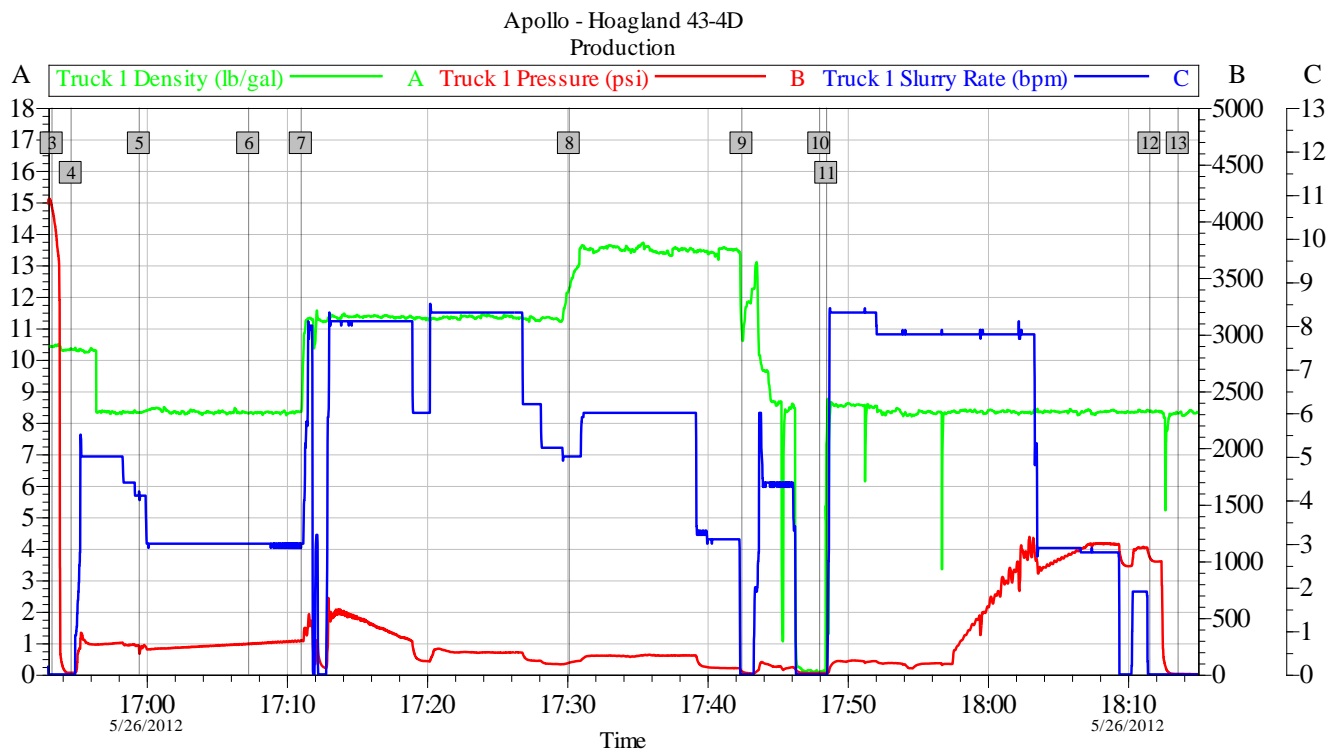
### Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
SHOE,FLT,4-1/2 8RD,2-3/4 SSII	1	EA		
CENTRALIZER ASSY - API - 4-1/2 CSG X	30	EA		
CLAMP - LIMIT - 4-1/2 - HINGED -	1	EA		
Description	Qty	Qty uom	Depth	Supplier

KIT,HALL WELD-A										1	EA				
CLR,FLT,4-1/2 LG 8RD 9.5-13.5,2-3/4 SSII										1	EA				
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 ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk			
1	Fresh Water Spacer					20.00	bbl	8.33	.0	.0	.0				
2	MUD FLUSH III	MUD FLUSH III - SBM (528788)				24.00	bbl	8.4	.0	.0	.0				
3	Fresh Water Spacer					10.00	bbl	8.33	.0	.0	.0				
4	Extendacem 11.3#	EXTENDACEM (TM) SYSTEM (452981)				320.0	sacks	11.3	2.46	14.17	6.0	14.17			
14.17 Gal		FRESH WATER													
5	FracCem B2 13.5#	FRACCEM (TM) SYSTEM (452963)				200.0	sacks	13.5	1.73	8.24	6.0	8.24			
8.24 Gal		FRESH WATER													
6	ClayWeb III					3.00	Gal	8.33	.0	.0	.0				
2.5 gal/Mgal		CLA-WEB - TOTE (101985045)													
Calculated Values				Pressures				Volumes							
Displacement				Shut In: Instant				Lost Returns				Cement Slurry			
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							

# HALLIBURTON

## Data Acquisition



Global Event Log					
3	Test Lines	16:53:17	4	Water Spacer	16:54:38
5	Mudflush	16:59:30	6	Water Spacer	17:07:18
7	Pump Lead Cement 11.3#/gal	17:11:03	8	Pump Tail Cement 13.5#/gal	17:30:10
9	Clean Lines	17:42:28	10	Drop Top Plug	17:48:01
11	Pump Displacement	17:48:31	12	Shutdown Plug Did Not Pump	18:11:34
13	End Job	18:13:35			

Customer: Apollo	Job Date: 26-May-2012	Sales Order #: 9538817
Well Description: Hoagland 43-4D	UWI: 05-123-3383	
Halliburton Service Supervisor: Matthew J. Rosales	Halliburton Operator: Tim Ipson	

OptiCem v6.4.10  
26-May-12 18:23

