

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

R&R Farms 21-31

Midcontinent/Midcontinent/1

Post Job Summary
Cement Production Casing

Date Prepared: 12/18/2012
Version: 1

Service Supervisor: SNYDER, JONATHAN

Submitted by: MCKAY, ADAM

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Wellbore Geometry

Job Tubulars					MD		Excess %	Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft		
Casing	8 5/8" Surface Casing	8.63	8.097	24.00	0.00	642.00		
Open Hole Section	7 7/8" Open Hole Section		7.875		642.00	6,786.00	25.00	
Casing	4 1/2" Production Casing	4.50	4.000	11.60	0.00	6,783.00	40.00	

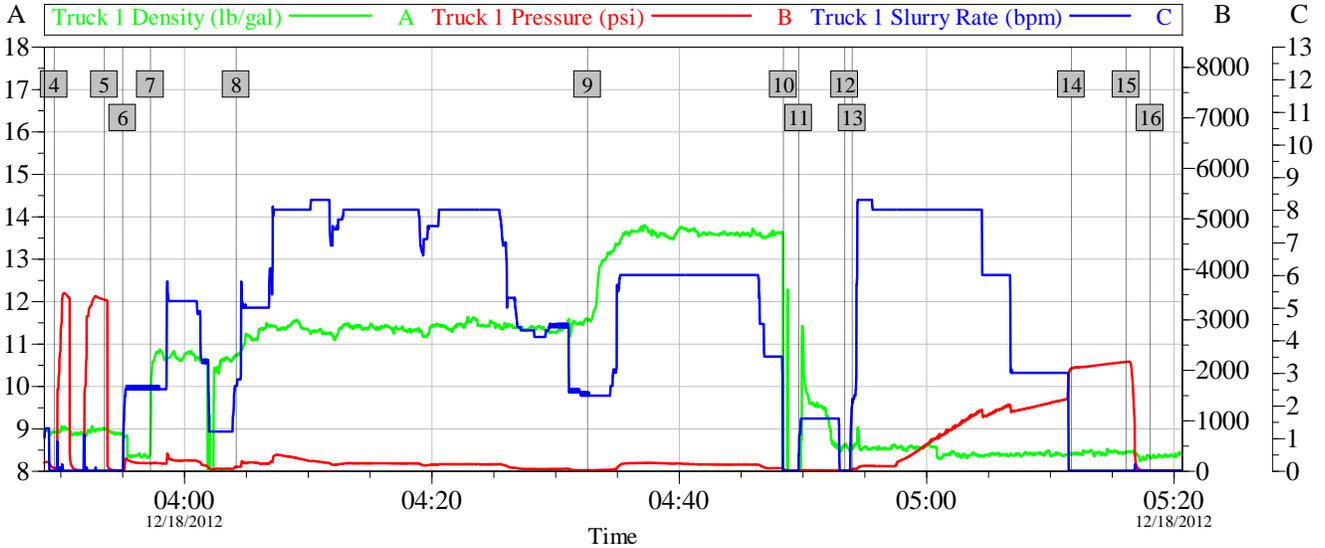
Pumping Schedule

Stage / Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	Clean Spacer III	10.50	5.00	30.0 bbl	30.0 bbl
1	2	Cement Slurry	EXTENDACEM B1	11.30	8.00	400.0 sacks	400.0 sacks
1	3	Cement Slurry	FracCem B3	13.50	6.00	275.0 sacks	275.0 sacks

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Data Acquisition

APOLLO R&R FARMS 21-31
S.O.# 900079974 4.5" PRODUCTION



Global Event Log					
Intersection		T1D	T1P	Intersection	T1D T1P
4	Start Job	03:49:31	8.915 56.94	5	Test Lines 03:53:34 8.988 3388
6	Pump Water Spacer	03:55:03	8.850 6.000	7	Pump Clean Spacer @ 10.5# 03:57:18 8.774 148.6
8	Pump Lead Cement @ 11.3#	04:04:14	10.73 82.48	9	Pump Tail Cement @ 13.5# 04:32:38 11.55 8.000
10	Shutdown	04:48:28	1.195 31.91	11	Clean Lines 04:49:42 0.245 3.000
12	Drop Top Plug	04:53:25	8.625 1.000	13	Pump Displacement 04:54:02 8.528 24.20
14	Bump Plug	05:11:45	8.379 2027	15	Check Floats 05:16:10 8.425 2155
16	End Job	05:18:07	8.315 4.000		

Customer: APOLLO	Job Date: 18-Dec-2012	Sales Order #: 900079974
Well Description: 4.5" PRODUCTION	UWI: 05-069-06450	
SERVICE SUPERVISOR JONATHAN SNYDER	SERVICE OPERATOR BOB HALE	

OptiCem v6.4.10
18-Dec-12 05:25

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Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
12/18/2012 00:30		Arrive at Location from Service Center					ARRIVED AND CONDUCTED A HAZARD HUNT AND FOUND NO HAZARDS THAT CONFLICT WITH US RIGGING UP EQUIPMENT.
12/18/2012 03:00		Pre-Job Safety Meeting					HELD SAFETY MEETING WITH ALL EMPLOYEES AND ALL THIRD PARTY PERSONEL PRIOR TO PUMPING THE CEMENT JOB.
12/18/2012 03:49		Start Job					
12/18/2012 03:53		Test Lines					PRESSURE TEST LINES TO 3779 PSI
12/18/2012 03:55		Pump Spacer 1	3	5		131.3	W/ RIG WATER
12/18/2012 03:57		Pump Spacer 2	5	30		233.3	CLEAN SPACER MIXED @ 10.5 PPG W/ RIG WATER
12/18/2012 04:04		Pump Lead Cement	8	175		127.3	400 SKS EXTENDACEM B1 MIXED @ 11.3 PPG W/ RIG WATER
12/18/2012 04:32		Pump Tail Cement	6	90		118.3	275 SKS FRACCEM 9W23
12/18/2012 04:48		Shutdown					
12/18/2012 04:49		Clean Lines					
12/18/2012 04:53		Drop Top Plug					PLUG PRELOADED, DROPPED PLUG WHILE OPERATOR WAS CLEANING PUMPS AND LINES
12/18/2012 04:54		Pump Displacement	8	105		811.3	RIG WATER MIXED W/ CLAYFIX III
12/18/2012 05:11		Bump Plug	3			1347.3	WE GOT SPACER BACK TO SURFACE WITH 90 BBLS OF DISPLACEMENT AWAY, SO WE GOT 15 BBLS OF SPACER BACK TO SURFACE.
12/18/2012 05:16		Check Floats				2139.3	FLOATS HELD, GOOD RETURNS THROUGHOUT THE JOB. WE GOT 1 BBL OF WATER BACK IN THE DISPLACEMENT TANKS WHEN WE CHECKED FLOATS.
12/18/2012 05:18		End Job					
12/18/2012 05:25		Pre-Rig Down Safety Meeting					HELD SAFETY MEETING WITH ALL EMPLOYEES PRIOR TO RIGGING DOWN AND DISCUSSED ALL HAZARDS WHILE RIGGING DOWN EQUIPMENT.
12/18/2012 06:30		Depart Location for Service Center or Other Site					HELD SAFETY MEETING PRIOR TO LEAVING LOCATION AND DISCUSSED ALL POTENTIAL HAZARDS WHILE DRIVING BACK TO THE SERVICE CENTER.

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The Road to Excellence Starts with Safety

Sold To #: 353960		Ship To #: 2970051		Quote #:		Sales Order #: 900079974	
Customer: APOLLO OPERATING				Customer Rep: Wheat, Randy			
Well Name: R&R Farms			Well #: 21-31		API/UWI #: 05-069-06450		
Field:		City (SAP): KERSEY		County/Parish: Weld		State: Colorado	
Legal Description: Section 31 Township 5N Range 63W							
Contractor: Midcontinent				Rig/Platform Name/Num: Midcontinent 1			
Job Purpose: Cement Production Casing							
Well Type: Development Well				Job Type: Cement Production Casing			
Sales Person: AARON, WESLEY			Srvc Supervisor: SNYDER, JONATHAN			MBU ID Emp #: 435616	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BANUELOS, GUADALUPE	6.0	372277	EDWARDS, MICHEAL H	6.0	522592	HALE, ROBERT E	6.0	470588
ROMERO, JOSEPH M	6.0	512137	SNYDER, JONATHAN Leroy	6.0	435616			

Equipment

HES Unit #	Distance-1 way						
11036295C	50 mile	11338223	50 mile	11362287C	50 mile	11518548	50 mile
11748359	50 mile	11764052	50 mile	NA	50 mile		

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours

TOTAL Total is the sum of each column separately

Job

Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
					17 - Dec - 2012	20:00	MST
					18 - Dec - 2012	00:30	MST
	6783. ft		6800. ft		18 - Dec - 2012	03:49	MST
			4. ft		18 - Dec - 2012	05:18	MST
					18 - Dec - 2012	06:30	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
7 7/8" Open Hole Section				7.875				642.	6786.		.
4 1/2" Production Casing	Unknown		4.5	4.	11.6			.	6783.		.
8 5/8" Surface Casing	Unknown		8.625	8.097	24.			.	642.		

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	Conc	Qty

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Fluid Data										
Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	
1	Clean Spacer III		30.00	bbl	10.5					
2	EXTENDACEM B1	EXTENDACEM (TM) SYSTEM (452981)	400.0	sacks	11.3	2.4	13.79		13.79	
13.79 Gal		FRESH WATER								
3	FracCem B3	FRACCEM (TM) SYSTEM (452963)	275.0	sacks	13.5	1.69	8.05		8.05	
8.05 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	40 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						

Field Ticket

Field Ticket Number: 900079974 **Field Ticket Date:** Tuesday, December 18, 2012

Bill To:
 APOLLO OPERATING
 1538 WAZEE ST #200
 DENVER, CO 80202

Job Name: R&R Farms 21-31 FracCem B3
Order Type: Streamline Order (ZOH)
Well Name: R&R Farms 21-31
Company Code: 1100
Customer PO No.: NA
Shipping Point: Brighton, CO, USA
Sales Office: Rocky Mountains BD
Well Type: Gas
Well Category: Development

Ship To:
 APOLLO R&R FARMS 21-31,WELD
 R&R FARMS 21-31
 2970051
 S31 T5N R63W
 KERSEY, CO 80644

Material	Description	QTY	UOM	Base Amt	Unit Amt	Gross Amount	Discount	Net Amount
7523	CMT PRODUCTION CASING BOM	1	JOB	0.00	0.00	0.00		0.00
16091	ZI - PUMPING CHARGE	1	EA	0.00	7,962.00	7,962.00	61%	3,105.18
	DEPTH	6783						
	FEET/METERS (FT/M)		FT					
432904	CMT, ROCKIES SG SETUP	1	EA			12,168.00	47.81%	6,350.43
	NUMBER OF UNITS	1						
432905	CMT, ROCKIES SG MILEAGE	86	MI			1,413.84	57.7%	598.09
	Number of Units	1						
432906	CMT, ROCKIES SG DELIVERY	34.45	TNM			11,948.00	59.34%	4,858.51
	NUMBER OF TONS	34.45						
719269	SBM, CMT CleanSpacer III	30	BBL	0.00	279.25	8,377.50	61%	3,267.22
452981	EXTENDACEM (TM) SYSTEM	400	SK			20,964.77	61.9%	8,176.26
452963	FRACCEM (TM) SYSTEM	275	SK			17,361.59	61.9%	6,771.01
				Totals	USD	80,195.70	47,069.00	33,126.70

Halliburton Rep: JONATHAN SNYDER
 Customer Agent: Randy Wheat
 Halliburton Approval

THIS OUTPUT DOES NOT INCLUDE TAXES. APPLICABLE SALES TAX WILL BE BILLED ON THE FINAL INVOICE.
 CUSTOMER HEREBY ACKNOWLEDGES RECEIPT OF THE MATERIALS AND SERVICES DESCRIBED ABOVE AND ON THE ATTACHED DOCUMENTS.

X _____ FIELD TICKET TOTAL: USD 33,126.70
 Customer Signature

Was our HSE performance satisfactory? **Y or N** Were you satisfied with our Equipment? **Y or N** Were you satisfied with our people? **Y or N**
 (Health, Safety, Environment)

Comments