

APOLLO OPERATING

Murdock
Murdock 13-34D

Ensign/136

Post Job Summary

Cement Production Casing

Date Prepared: 11/21/2012
Version: 1

Service Supervisor: ROSALES, MATTHEW

Submitted by: MCKAY, ADAM

HALLIBURTON

Wellbore Geometry

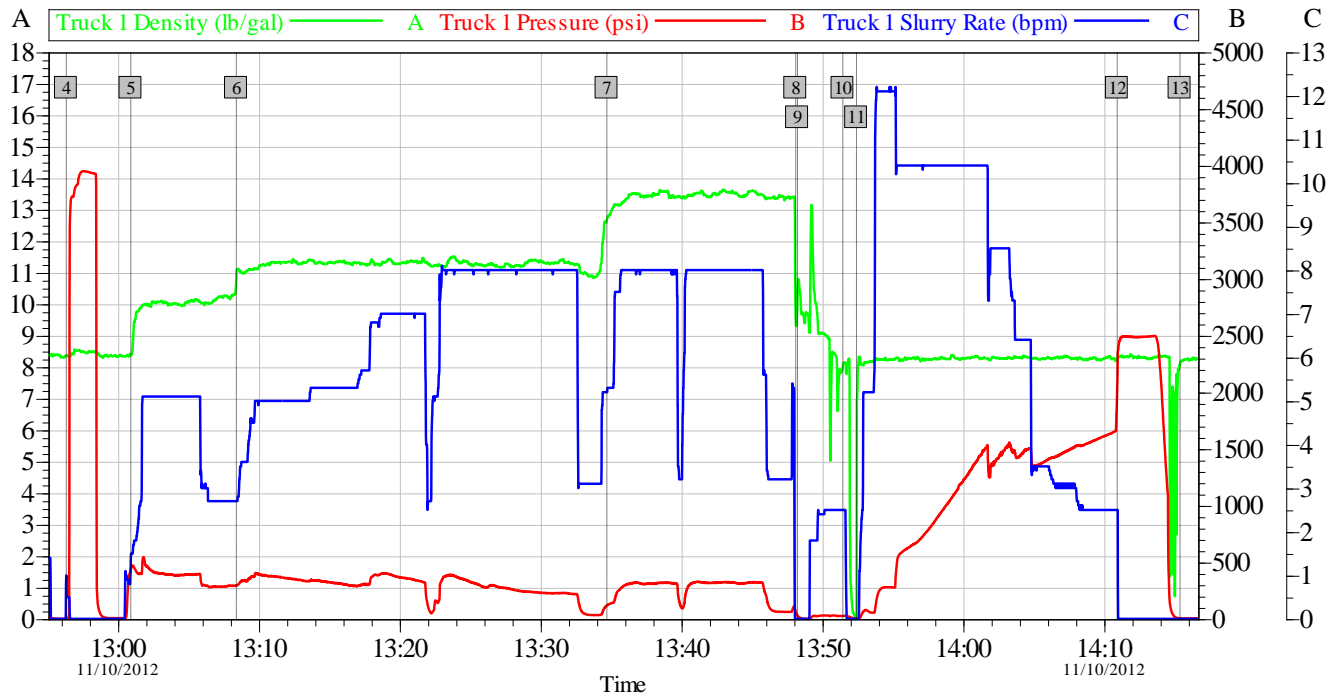
Job Tubulars					MD		TVD		Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft	
Casing	Surface Casing	8.63	8.097	24.00	0.00	650.00	0.00	650.00	
Open Hole Section	Open Hole Section		7.875		650.00	7,816.00	650.00	7,816.00	
Casing	Production Casing	4.50	4.000	11.60	0.00	7,816.00	0.00	7,816.00	16.00

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	10.00	6.00	30.0 bbl	30.0 bbl
1	2	Cement Slurry	Extendacem 11.3#	11.30	6.00	365.0 sacks	365.0 sacks
1	3	Cement Slurry	FracCem 923	13.50	8.00	300.0 sacks	300.0 sacks

Data Acquisition

Apollo - Murdock 13-34D Production



Global Event Log					
4	Test Lines	12:56:21	5	Pump 10#/gal Clean Spacer	13:00:56
6	Pump Lead 11.3#/gal	13:08:25	7	Pump Tail Cement 13.5#/gal	13:34:43
8	Shutdown	13:48:07	9	Clean Lines	13:48:15
10	Drop Top Plug	13:51:28	11	Pump Displacement	13:52:26
12	Bump Plug	14:10:56	13	End Job	14:15:24

Customer:	Apollo	Job Date:	10-Nov-2012	Sales Order #:	9959474
Well Description:	Murdock 13-34D	UWI:	05-069-06450		
Halliburton Service Supervisor:	Matthew J. Rosales	Halliburton Operator:	Vaughn Oteri		

OptiCem v6.4.10
10-Nov-12 14:24

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
11/10/2012 12:56		Start Job					
11/10/2012 12:56		Test Lines	0.5	0.5		4000.0	SET AUTOMATIC KICKOUT TO 4900PSI, CLOSE VALVE ON PUMP MANIFOLD, ENGAGE HT400 BRING PRESSURE UP TO 4000PSI, NEUTRAL OUT HOLD AND MONITOR PRESSURE RELEASE PRESSURE
11/10/2012 12:59		Drop Bottom Plug					PLUG PRELOADED WITNESSED BY COMPANY MAN
11/10/2012 13:00		Pump Spacer 1	5.5	30		500.0	10#/GAL CLEAN SPACER
11/10/2012 13:08		Pump Lead Cement	8	160		400.0	LEAD CEMENT: 365SKS, 897.9CUFT, 2.46CUFT/SK, 14.12GAL/SK, 11.3#/GAL
11/10/2012 13:34		Pump Tail Cement	8	93		300.0	TAIL CEMENT: 300SKS, 522CUFT, 1.73CUFT/SK, 8.24GAL/SK, 13.5#/GAL
11/10/2012 13:48		Shutdown					
11/10/2012 13:48		Clean Lines	3	10		20.0	LOAD TOP PLUG WHILE WASHING PUMPS AND LINES
11/10/2012 13:51		Drop Top Plug					
11/10/2012 13:52		Pump Displacement	10	125.5		1570.0	FRESH WATER DISPLACEMENT
11/10/2012 14:10		Bump Plug	2.5			2560.0	
11/10/2012 14:13		Check Floats					FLOATS HELD, GOOD RETURNS THROUGH OUT JOB
11/10/2012 14:15		End Job					

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The Road to Excellence Starts with Safety

Sold To #: 353960		Ship To #: 2963163		Quote #:		Sales Order #: 9959474	
Customer: APOLLO OPERATING				Customer Rep: Montoya, Chris			
Well Name: Murdock			Well #: 13-34D			API/UWI #: 05-069-06450	
Field: Wattenberg		City (SAP): MOAB		County/Parish: Grand		State: Colorado	
Contractor: Ensign			Rig/Platform Name/Num: 136				
Job Purpose: Cement Production Casing							
Well Type: Development Well			Job Type: Cement Production Casing				
Sales Person: AARON, WESLEY			Srvc Supervisor: ROSALES, MATTHEW			MBU ID Emp #: 392095	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BAMMER, JORDAN Blaine	5.0	526575	BURGESS, CODY Alan	5.0	511446	CONGDON, RICHARD S.	0.0	320306
DODSON, JERRY Lee	5.0	477082	OTERI, VAUGHN Steeves	5.0	443828	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
10246780C	40 mile	10988836C	40 mile	11064535	40 mile	11605598	40 mile
11667703C	40 mile	11748359	40 mile	NA	40 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							
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Job

Formation Name					Job Times			
Formation Depth (MD)	Top	Bottom			Called Out	Date	Time	Time Zone
Form Type	BHST				On Location	10 - Nov - 2012	10:00	MST
Job depth MD	8200. ft		Job Depth TVD	8200. ft	Job Started	10 - Nov - 2012	12:56	MST
Water Depth			Wk Ht Above Floor		Job Completed	10 - Nov - 2012	14:15	MST
Perforation Depth (MD)	From	To			Departed Loc	10 - Nov - 2012	15:00	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				650.	7816.	650.	7816.
Production Casing	New		4.5	4.	11.6		P-110	.	7816.	.	7816.
Surface Casing	Used		8.625	8.097	24.		J-55	.	650.	.	650.

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

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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.	5.03	32.93	.0	
2	Extendacem 11.3#	EXTENDACEM (TM) SYSTEM (452981)	365.0	sacks	11.3	2.46	14.12	6.0	14.12
14.12 Gal		FRESH WATER							
3	FracCem 923	FRACCEM (TM) SYSTEM (452963)	300.0	sacks	13.5	1.74	8.3	6.0	8.3
8.3 Gal		FRESH WATER							
4	ClayWeb III		4.00	Gal	8.33	.0	.0	.0	
2.5 gal/Mgal		CLA-WEB - TOTE (101985045)							
Calculated Values		Pressures		Volumes					
<i>Displacement</i>		Shut In: Instant		Lost Returns		<i>Cement Slurry</i>		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
<i>Circulating</i>		<i>Mixing</i>		<i>Displacement</i>		Avg. Job			
<i>Cement Left In Pipe</i>	Amount	16 ft	<i>Reason</i>	Shoe Joint					
<i>Frac Ring # 1 @</i>	<i>ID</i>	<i>Frac ring # 2 @</i>	<i>ID</i>	<i>Frac Ring # 3 @</i>	<i>ID</i>	<i>Frac Ring # 4 @</i>	<i>ID</i>		
The Information Stated Herein Is Correct				Customer Representative Signature					