

APOLLO OPERATING
1538 WAZEE ST #200
DENVER, Colorado

E.L. Minch
E.L. Minch 14-4D

Ensign/Ensign/55

Post Job Summary

Cement Production Casing

Date Prepared: 04/28/12
Version: 1

Service Supervisor: SNYDER, JONATHAN

Submitted by: MCKAY, ADAM

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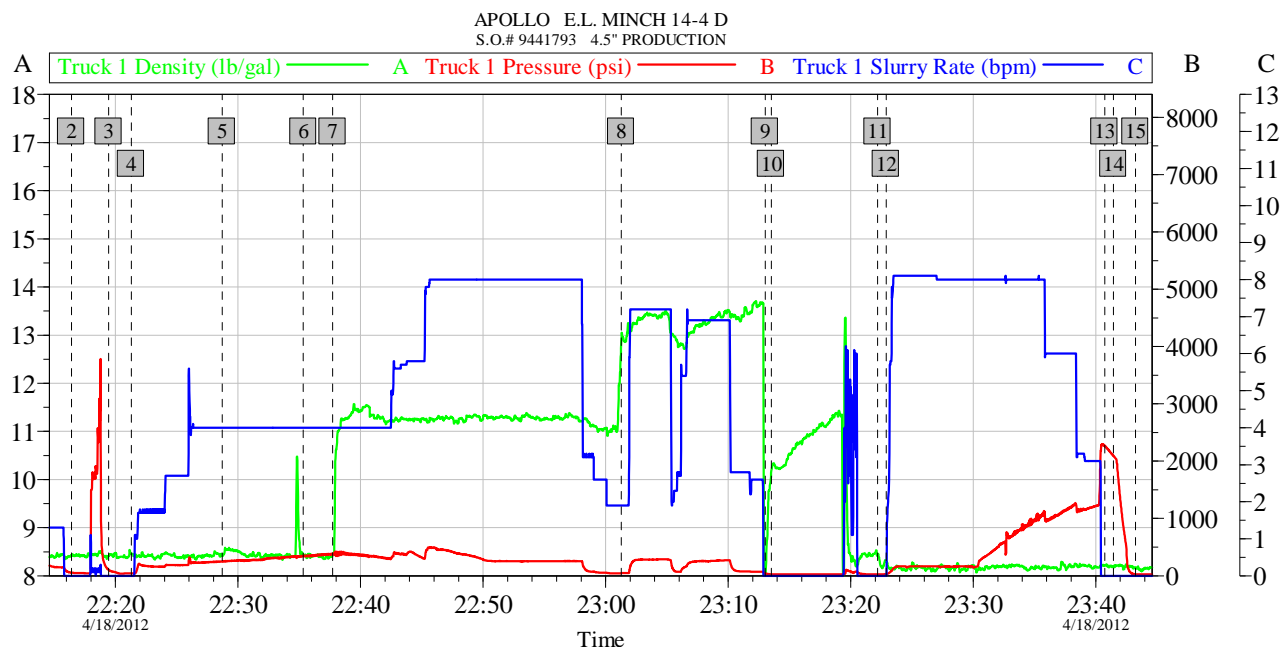
Wellbore Geometry

Job Tubulars					MD		TVD		Excess	Shoe Joint Length
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft	%	ft
Casing	Surface Casing	8.63	8.097	24.00	0.00	724.00				
Open Hole Section	Open Hole		7.875		700.00	7,755.00				
Casing	Production Casing	4.50	4.000	11.60	0.00	7,645.00				15.00

Pumping Schedule

Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	Fresh Water Spacer	8.33	4.00	20.0 bbl	20.0 bbl
1	2	Spacer	MUD FLUSH III	8.40	4.00	24.0 bbl	24.0 bbl
1	3	Spacer	Fresh Water Spacer	8.33	4.00	10.0 bbl	10.0 bbl
1	4	Cement Slurry	Extendacem 11.3#	11.30	8.00	340.0 sacks	340.0 sacks
1	5	Cement Slurry	FracCem B2 13.5#	13.50	7.00	200.0 sacks	200.0 sacks
1	6	Spacer	ClayWeb III	8.33	8.00	-	119

Data Acquisition



Global Event Log														
Intersection		TID	TIP	Intersection		TID	TIP	Intersection		TID	TIP			
2	Start Job	22:16:24	8.430	56.00	3	Test Lines	22:19:26	8.410	105.8	4	Pump Spacer 1	22:21:17	8.453	42.00
5	Pump Spacer 2	22:28:42	8.425	253.5	6	Pump Spacer 1	22:35:20	8.420	338.5	7	Pump Lead Cement	22:37:43	8.425	373.1
8	Pump Tail Cement	23:01:16	12.87	45.07	9	Shutdown	23:13:01	7.840	43.27	10	Clean Lines	23:13:31	10.17	29.00
11	Drop Top Plug	23:22:12	8.420	28.00	12	Pump Displacement	23:22:54	8.300	29.47	13	Bump Plug	23:40:43	8.220	2273
14	Other	23:41:26	8.194	2095	15	End Job	23:43:14	8.175	28.49					

Customer: APOLLO	Job Date: 18-Apr-2012	Sales Order #: 9441793	OptiCem v6.4.9 19-Apr-12 00:22
Well Description: E.L. MINCH 14-4 D	UWI: 05-123-33654-00		
SERVICE SUPERVISOR JONATHAN SNYDER	SERVICE OPERATOR TIM IPSON		

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)	Comments
04/18/2012 20:00		Arrive at Location from Service Center						ARRIVED AND CONDUCTED A HAZARD HUNT AND FOUND NO HAZARDS THAT CONFLICT WITH US RIGGING UP EQUIPMENT.
04/18/2012 21:45		Pre-Job Safety Meeting						HELD SAFETY MEETING WITH ALL EMPLOYEES AND ALL THIRD PARTY PERSONEL PRIOR TO PUMPING THE CEMENT JOB.
04/18/2012 22:16		Start Job						
04/18/2012 22:19		Test Lines						PRESSURE TEST FAILED, 1 INCH RELEASE LINE VALVE WAS BAD, CHECKED AND FOUND NO VISIBLE LEAKS SO PROCEEDED WITH THE JOB.
04/18/2012 22:21		Pump Spacer 1	4	20			248.0	W/ RIG WATER
04/18/2012 22:28		Pump Spacer 2	4	24			308.0	RIG WATER MIXED W/ MUDFLUSH III
04/18/2012 22:35		Pump Spacer 1	4	10			272.0	W/ RIG WATER
04/18/2012 22:37		Pump Lead Cement	8	149			265.0	340 SKS EXTENDCEM MIXED @ 11.3 PPG W/ RIG WATER
04/18/2012 23:01		Pump Tail Cement	7	62			325.0	150 SKS FRACCEM MIXED @ 13.5 PPG W/ RIG WATER
04/18/2012 23:13		Shutdown						
04/18/2012 23:13		Clean Lines						
04/18/2012 23:22		Drop Top Plug						DROPPED PLUG WHILE OPERATOR WAS CLEANING PUMPS AND LINES
04/18/2012 23:22		Pump Displacement	8	119			876.0	RIG WATER MIXED W/ CLAY WEB
04/18/2012 23:40		Bump Plug	3				2345.0	
04/18/2012 23:41		Check Floats					2422.0	FLOATS HELD, GOOD RETURNS THROUGHOUT THE JOB
04/18/2012 23:43		End Job						
04/19/2012 00:00		Pre-Rig Down Safety Meeting						HELD SAFETY MEETING WITH ALL EMPLOYEES PRIOR TO RIGGING DOWN AND DISCUSSED ALL HAZARDS WHILE RIGGING DOWN EQUIPMENT.
04/19/2012 01:00		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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Sold To #: 353960		Ship To #: 2921603		Quote #:		Sales Order #: 9441793	
Customer: APOLLO OPERATING				Customer Rep: LIBHART, DON			
Well Name: E.L. Minch			Well #: 14-4D			API/UWI #: 05-123-33654	
Field: WATTENBURG		City (SAP): MEAD		County/Parish: Weld		State: Colorado	
Lat: N 40.249 deg. OR N 40 deg. 14 min. 58.164 secs.				Long: W 105.011 deg. OR W -106 deg. 59 min. 21.48 secs.			
Contractor: Ensign			Rig/Platform Name/Num: Ensign 55				
Job Purpose: Cement Production Casing							
Well Type: Development Well			Job Type: Cement Production Casing				
Sales Person: FLING, MATTHEW			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 #
BARTOSEK, KEVIN	0.0	516167	CARPENTER, JACOB P	0.0	499500	IPSON, TIMOTHY J	0.0	485018
SANSONI, NICHOLAS Sterling J	0.0	502962	SNYDER, JONATHAN Leroy	0.0	435616			

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11064046C	27 mile	11410470C	27 mile	11764054C	27 mile	11764737	27 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

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Job Depth TVD	Water Depth	Perforation Depth (MD)	From	To
				BHST	7755. ft	7645. ft				
							Wk Ht Above Floor			
						4. ft				
								Deparied Loc		

Job Times

Date	Time	Time Zone
18 - Apr - 2012	16:00	MST
18 - Apr - 2012	20:00	MST
18 - Apr - 2012	22:16	MST
18 - Apr - 2012	23:43	MST
19 - Apr - 2012	00:00	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				7.875				700.	7755.		
Production Casing	Unknown		4.5	4.	11.6			.	7645.		
Surface Casing	Unknown		8.625	8.097	24.		J-55	.	724.		

Sales/Rental/3rd 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		
KIT,HALL WELD-A	1	EA		
Description	Qty	Qty uom	Depth	Supplier
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			

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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)	340.0	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		6.00	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		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	15 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
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