

**ENSIGN UNITED STATES DRILLING EBUSI  
PO BOX 17805 - DO NOT MAIL  
DENVER, Colorado**

Phelps  
Phelps A-32NHZ

Ensign/ Ensign/17

## **Post Job Summary** **Cement Surface Casing**

Date Prepared: 04/07/2014  
Version: 1

Service Supervisor: PICKELL, CHRISTOPHER

Submitted by: MCKAY, ADAM

**HALLIBURTON**

# HALLIBURTON

## 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	
Open Hole Section	Open Hole		13.500		0.00	1,215.00	
Casing	Surface Casing	9.63	8.921	36.00	0.00	1,208.00	43.00

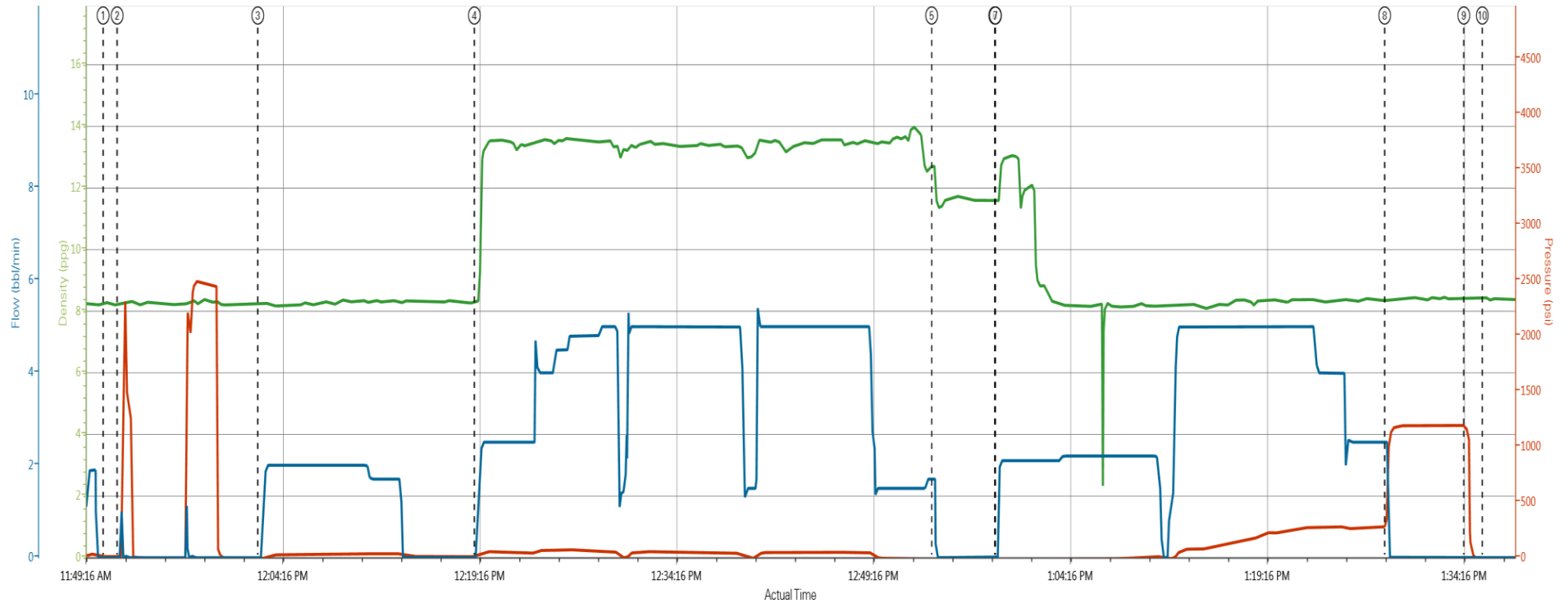
## Pumping Schedule

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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	2.00	30.0 bbl	30.0 bbl
1	2	Cement Slurry	SwiftCem B2	13.40	5.00	430 sks	430 sks
1	3	Spacer	Displacement	8.33	5.00	91.6 bbls	91.6 bbls

## Data Acquisition

PHELPS A-32NHZ (9 5/8" SURFACE)



DH Density (ppg) PS Pump Press (psi) Comb Pump Rate (bbl/min)

① Start Job 8:31;10,0 ④ Pump Swiftcem 13.4# 8:31;9,0 ⑦ Pump Displacement 11.62;-18,0 ⑩ End Job 8:46;21,0  
 ② Test Lines 8:26;8,0 ⑤ Shutdown 12:66;-8;1.7 ⑧ Bump Plug 8:37;415;2.5  
 ③ Pump Water 8:26;-8,0 ⑥ Drop Top Plug 11:58;-18,0 ⑨ Check Floats 8:38;1180,0

▲ HALLIBURTON | iCem® Service

Created: 2013-12-22 10:47:18, Version: 3.0.121

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## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)	Comments
12/22/2013 05:30		Call Out						CREW CALLED OUT AT 0530 TO BE ON LOCATION AT 0930. CREW WAS CHRIS PICKELL, ROY NESBITT, WILLIAM JEWELL, JOSEPH SCILLEPI
12/22/2013 09:00		Depart from Service Center or Other Site						SAFETY MEETING HELD FOR JOURNEY THEN LEFT THE YARD FOR ENSIGN 17
12/22/2013 09:30		Arrive At Loc						ARRIVE AT LOCATION WITH RIG HAVING 1 JOINT LEFT
12/22/2013 09:45		Rig-Up Equipment						HAZARD HUNT PERFORMED. WATER TEST DONE. RIG UP PLANNED AND EXECUTED
12/22/2013 11:10		Pre-Job Safety Meeting						SAFETY MEETING WITH ALL PERSONEL ON LOCATION TO DISCUSS JOB SAFETY AND PROCEDURE
12/22/2013 11:50		Start Job						50 SKS OF PREMIUM G BROUGHT TO LOCATION FOR TOP OUT BUT DID NOT NEED TO TOP OUT
12/22/2013 11:51		Test Lines	1	2			2500.0	PRESSURE TEST LINES TO 2500 PSI. CHECK FOR VISIBLE LEAKS AND PRESSURE LOSS
12/22/2013 12:02		Pump Spacer 1	2	30			60.0	PUMP WATER. RETURNS WITH 1 BBL AWAY
12/22/2013 12:19		Pump Cement	5	137			50.0	PUMP SWIFTCM CEMENT 430 SKS 13.4 PPG 1.79 CUFT/SK 9.51 GAL/SK
12/22/2013 12:53		Shutdown						WASH PUMPS AND LINES ON TOP OF THE PLUG
12/22/2013 12:58		Drop Top Plug						PLUG PRELOADED. WITNESSED BY COMPANY MAN
12/22/2013 12:58		Pump Displacement	5	91.6			450.0	PUMP DISPLACEMENT USING WATER
12/22/2013 13:28		Bump Plug	2.5				415.0	CALCULATED PRESSURE TO LAND WAS 307. PLUG LANDED WITH 415 PSI GOING 500 OVER TO 1015
12/22/2013 13:34		Check Floats					1180.0	PRESSURE WAS HELD FOR 5 MINUTES THEN RELEASED. FLOATS HELD. 1 BBL BACK TO TANKS
12/22/2013 13:35		End Job						30 BBL OF CEMENT TO SURFACE
12/22/2013 13:40		Pre-Rig Down Safety Meeting						SAFETY MEETING HELD TO DISCUSS RIG DOWN SAFETY AND PROCEDURE
12/22/2013 13:45		Rig-Down Equipment						RIG DOWN ALL EQUIPMENT
12/22/2013 14:30		Depart Location for Service Center or Other Site						LEAVE LOCATION FOR THE YARD

# HALLIBURTON

## The Road to Excellence Starts with Safety

Sold To #: 301256	Ship To #: 3274106	Quote #:	Sales Order #: 900988785
Customer: ENSIGN UNITED STATES DRILLING EBUSI		Customer Rep: Martinez, Mike	
Well Name: Phelps		Well #: A-32NHZ	API/UWI #: 05-123-37872
Field: WATTENBERG	City (SAP): FORT LUPTON	County/Parish: Weld	State: Colorado
Contractor: Ensign		Rig/Platform Name/Num: Ensign 17	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: PLIENESS, RYAN		Srv Supervisor: PICKELL, CHRISTOPHER	MBU ID Emp #: 396838

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
JEWELL, WILLIAM Uris	0.0	503358	NESBITT, ROY Iverson	0.0	537416	PICKELL, CHRISTOPHER Lee	0.0	396838
SCILEPPI, JOSEPH D	0.0	555492						

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10994445	4 mile	11036295C	4 mile	11410470C	4 mile	11410662	4 mile
11605597	4 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

Formation Name					<b>Job Times</b>			
Formation Depth (MD)	Top	Bottom			Called Out	Date	Time	Time Zone
<b>Form Type</b>			<b>BHST</b>		<b>On Location</b>	22 - Dec - 2013	09:30	MST
<b>Job depth MD</b>	1215. ft	<b>Job Depth TVD</b>	1215. ft	<b>Job Started</b>	22 - Dec - 2013	11:50	MST	
<b>Water Depth</b>			<b>Wk Ht Above Floor</b>	5. ft	<b>Job Completed</b>	22 - Dec - 2013	13:35	MST
<b>Perforation Depth (MD)</b>	From	To			<b>Departed Loc</b>	22 - Dec - 2013	14:30	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				13.5				.	1215.		
Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1208.		

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

Description	Qty	Qty uom	Depth	Supplier
CMT CASING EQUIPMENT BOM	1	JOB		
BASKET - CEMENT - 9-5/8 CSG X 12-1/4	2	EA		
CENTRALIZER-9-5/8"-CSG-12 1/4"-HINGED	10	EA		
CLR,FLT,9-5/8 8RD 29.3-40PPF,2-3/4	1	EA		
SHOE,FLT,9-5/8 8RD,2-3/4 SUPER SEAL	1	EA		
Description	Qty	Qty uom	Depth	Supplier
KIT,HALL WELD-A	1	EA		
COLLAR-STOP-9 5/8"-FRICTION-HINGED	4	EA		
PLUG,CMTG,TOP,9 5/8,HWE,8.16 MIN/9.06 MA	1	EA		

# HALLIBURTON

MILEAGE FOR CEMENTING CREW,ZI	10	MI		
ZI FUEL SURCHG-CARS/PICKUPS<1 1/2TON	10	MI		

## 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		30.00	bbl	8.33			2	
2	SwiftCem B2	SWIFTCM (TM) SYSTEM (452990)	430	sacks	13.4	1.79	9.51	5	9.51
	0.25 lbm	POLY-E-FLAKE (101216940)							
	9.51 Gal	FRESH WATER							
3	Displacement	Water	91.6	bbl	8.33			5	

### Calculated Values

### Pressures

### Volumes

Displacement	91.6	Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement	91.6	Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

### Rates

Circulating		Mixing		Displacement		Avg. Job	
Cement Left In Pipe	Amount	43 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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