HALLIBURTON

Cementing

CAERUS OIL AND GAS LLC - EBUS

Nolte 43A-14

Patterson 303

Post Job Summary
Cement Surface Casing

Date Prepared: 05/29/14
Job Date: 04/21/14

Submitted by: Tony Eschete - Cement Engineer

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 360446	**Ship To #:** 3280224	**Quote #:**	**Sales Order #:** 0901286107
Customer: CAERUS OIL AND GAS LLC - EBUS		**Customer Rep:** BOYD COTTAM	
Well Name: NOLTE	**Well #:** 43A-14		**API/UWI #:** 05-045-22312-00
Field: GRAND VALLEY	**City (SAP):** PAR	**County/Parish:** GARFIELD	**State:** COLORADO
Legal Description: SE SE-14-7S-96W-803FSL-352FEL			
Contractor: PATTERSON-UTI ENERGY		**Rig/Platform Name/Num:** PATTERSON 303	
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HAM2616		**Srvc Supervisor:** Edward Arnold	

Job

Formation Name				
Formation Depth (MD)	**Top**		**Bottom**	
Form Type			**BHST**	
Job depth MD	1010ft		**Job Depth TVD**	
Water Depth			**Wk Ht Above Floor**	
Perforation Depth (MD)	**From**		**To**	

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		16	15.124	75			0	72	0	0
Casing		9.625	8.921	36	LTC	J-55	0	988		0
Open Hole Section			13.5				72	1010	0	0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	9.625			988		**Top Plug**	9.625	1	HES
Float Shoe	9.625					**Bottom Plug**	9.625		HES
Float Collar	9.625					**SSR plug set**	9.625		HES
Insert Float	9.625					**Plug Container**	9.625	1	HES
Stage Tool	9.625					**Centralizers**	9.625		HES

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/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Fresh Water Spacer	Fresh Water Spacer	0	bbl	8.34			4	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal

2	Tail Cement	VERSACEM (TM) SYSTEM		sack	12.8	2.18		6	12.11
12.07 Gal		FRESH WATER							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Displacement	Displacement	0	bbl	8.34			8	

Cement Left In Pipe	Amount	47 ft	Reason	Shoe Joint

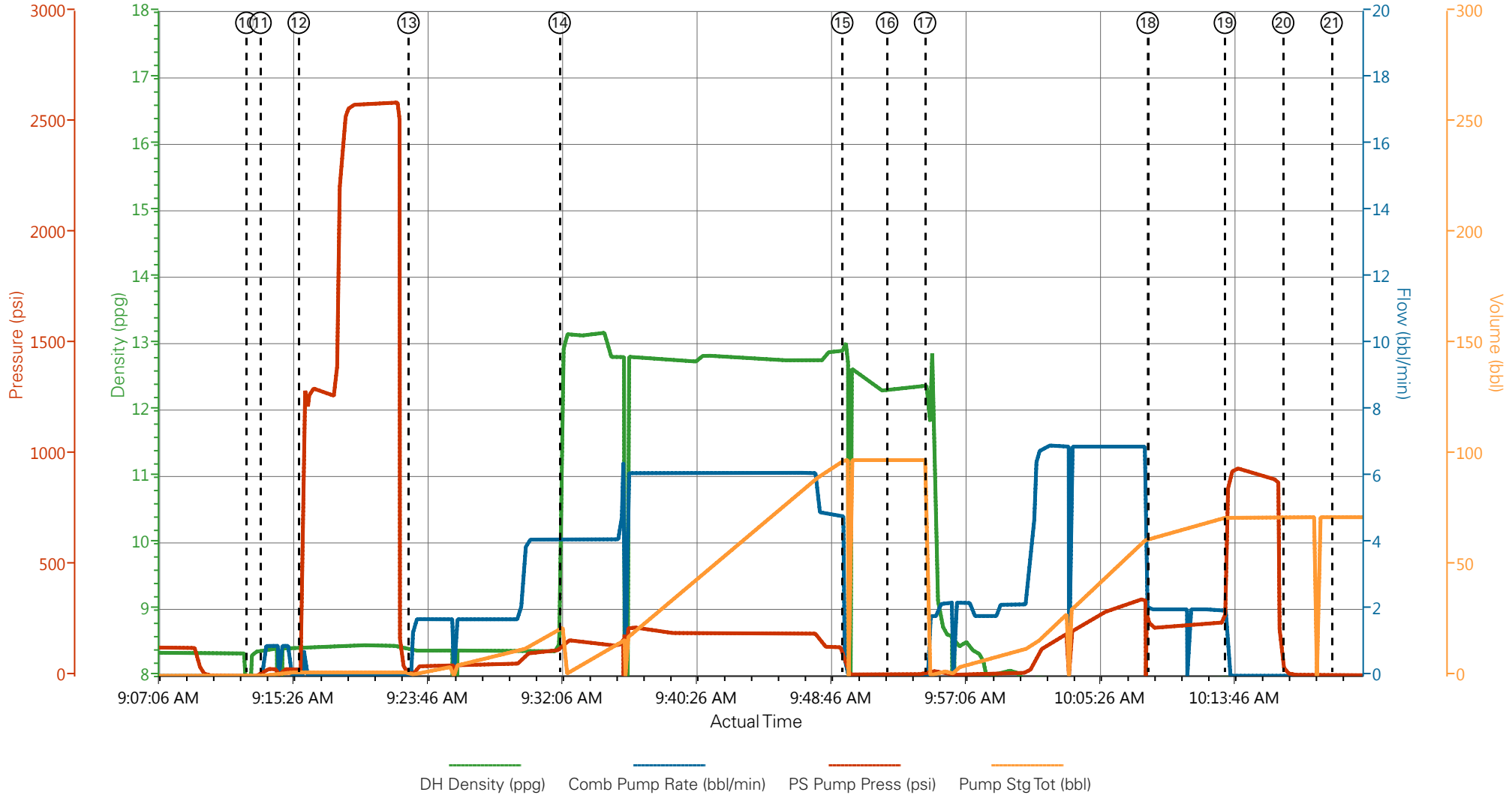
Comment

1.1 Job Event Log

Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comment
1	Call Out	Call Out	4/21/2014	00:00:00	USER					CREW WAITING IN FIELD FOR JOB TO CALL
2	Shutdown	Shutdown	4/21/2014	01:50:00	USER					
3	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/21/2014	03:30:00	USER					DISCUSSED ROUTE TO LOACTION HAZARDS AND SAFETY WHILE DRIVING.
4	Arrive At Loc	Arrive At Loc	4/21/2014	04:00:00	USER					RIG STILL DRILLING.
5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	4/21/2014	07:00:00	USER					DISCUSSED SPOTING HAZARDS AND SAFETY.
6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/21/2014	07:15:00	USER					DISCUSSED RIG UP HAZARDS AND SAFETY.
7	Rig-Up Equipment	Rig-Up Equipment	4/21/2014	07:30:00	USER					1 ELITE #4, 1 660 BULK TRUCK, 1 HARD LINE TO FLOOR, 1 LINE TO UPRIGHTS, 1 9 5/8 COMPACT HEAD.
8	Rig-Up Completed	Rig-Up Completed	4/21/2014	08:30:00	USER					
9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/21/2014	08:50:00	USER					DISCUSSED JOB PROCEDURES HAZARDS AND SAFETY DURING JOB
10	Start Job	Start Job	4/21/2014	09:12:45	COM5	8.33	0.00	0	0	TD 1010, TP 988.3, SJ 46.9, OH 13 3/4, CASING 9 5/8 36# J-55, MUD 10PPG
11	Prime Pumps	Prime Pumps	4/21/2014	09:13:37	COM5	8.33	0.90	30	2	FILL LINES WITH 2 BBL FRESH WATER
12	Test Lines	Test Lines	4/21/2014	09:15:59	COM5	8.40	0.00	2582	0	TESTED LINES TO 2582
13	Pump Spacer 1	Pump Spacer 1	4/21/2014	09:22:47	COM5	8.33	4	150	20	20 BBL FRESH WATER SPACER
14	Pump Tail Cement	Pump Tail Cement	4/21/2014	09:32:09	COM5	12.8	6	192	102.8	265 SKS CEMENT, 12.8 PPG, 2.18 CF3, 12.11 GAL/SK
15	Shutdown	Shutdown	4/21/2014	09:49:40	USER	0	0	0	0	
16	Drop Top Plug	Drop Top Plug	4/21/2014	09:52:27	COM5	0	0	0	0	PLUG LEFT CONTAINER
17	Pump Displacement	Pump Displacement	4/21/2014	09:54:48	COM5	8.33	8	350	62.7	FRESH WATER DISPLACEMENT
18	Slow Rate	Slow Rate	4/21/2014	10:08:36	USER	8.33	2	240	10	SLOW RATE 10 BBL LAST 10 BBL OF DISPLACEMENT PRIOR TO BUMPING

										THE PLUG
19	Bump Plug	Bump Plug	4/21/2014	10:13:23	COM5	8.33	0	950	72.7 TOTAL	PLUG BUMPED
20	Check Floats	Check Floats	4/21/2014	10:17:00	USER					1/2 BBL BACK. GOOD RETURNS THROUGHOUT JOB, 10 BBL GOOD CEMENT TO SURFACE
21	End Job	End Job	4/21/2014	10:20:00	USER					
22	Post-Job Safety Meeting (Pre Rig-Down)	Post-Job Safety Meeting (Pre Rig-Down)	4/21/2014	10:30:00	USER					DISCUSSED JOB RIG DOWN HAZARDS AND SAFETY.
23	Rig-Down Equipment	Rig-Down Equipment	4/21/2014	10:35:00	USER					
24	Rig-Down Completed	Rig-Down Completed	4/21/2014	11:15:00	USER					
25	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/21/2014	11:20:00	USER					DISCUSSED ROUTE HAZARDS AND SAFETY WHILE DRIVING
26	Crew Leave Location	Crew Leave Location	4/21/2014	11:30:00	USER					THANKYOU FOR USING HALLIBURTON, ED ARNOLD AND CREW

CAERUS - NOLTE 43A-14 - 9 5/8 SURFACE



① Call Out n/a;n/a;n/a;n/a
② Shutdown n/a;n/a;n/a;n/a
③ Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a
④ Arrive At Loc n/a;n/a;n/a;n/a
⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a
⑥ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a
⑦ Rig-Up Equipment n/a;n/a;n/a;n/a
⑧ Rig-Up Completed 8.31;0;127;10.7
⑨ Pre-Job Safety Meeting 8.32;0;127;10.7
⑩ Start Job 7.52;0;-2;0
⑪ Prime Pumps 8.38;0.9;26;0.1
⑫ Test Lines 8.4;0;29;1.5
⑬ Pump Spacer 1 8.4;0;5;0
⑭ Pump Tail Cement 12.88;4.1;145;21.8
⑮ Shutdown 13;0;56;97.4
⑯ Drop Top Plug 12.3;0;7;97.4
⑰ Pump Displacement 12.37;0.2;8;0
⑱ Slow Rate 7.95;2;223;62.3
⑲ Bump Plug 7.99;0;870;71.6
20 Check Floats 7.97;0;14;71.6
21 End Job 7.98;0;4;71.6
22 Post-Job Safety Meeting (Pre Rig-Down) 7.99;0;3;71.6
23 Rig-Down Equipment 7.99;0;1;92.9
24 Rig-Down Completed n/a;n/a;n/a;n/a
25 Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a
26 Crew Leave Location n/a;n/a;n/a;n/a

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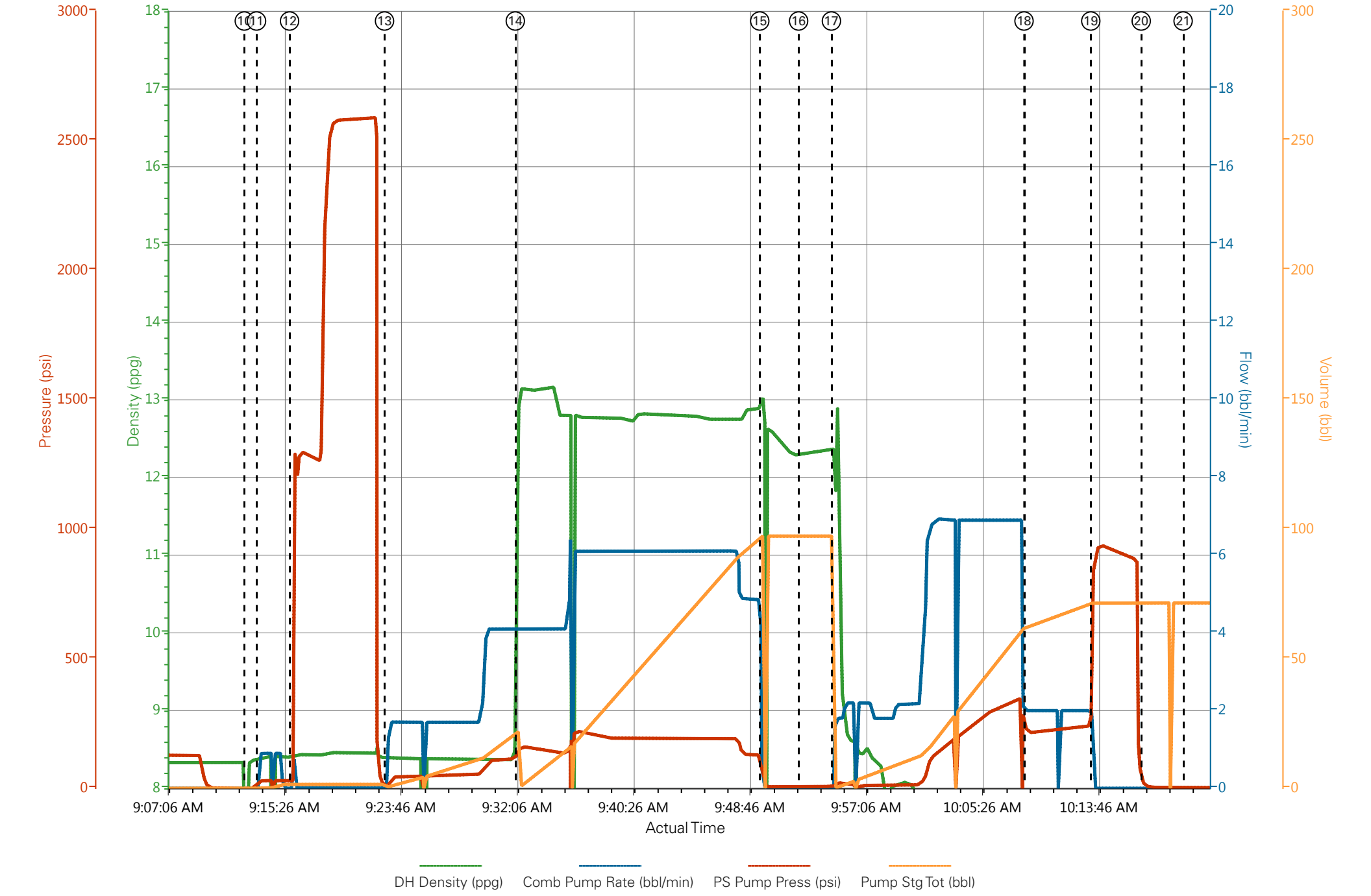
Created: 2014-04-21 07:10:52, Version: 3.0.121 Edit

Customer : CAERUS OIL AND GAS LLC - EBUS
Representative : BOYD COTTAM
Job Date : 4/21/2014 7:43:21 AM
Sales Order # : 901286107
Well : NOLTE 43A-14
ELITE #4 : ED ARNOLD / ANDREW SCHANZ

CAERUS - NOLTE 43A-14 - 9 5/8 SURFACE



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Representative: BOYD COTTAM
Job Date: 4/21/2014 7:43:21 AM
Sales Order #: 901286107
Well: NOLTE 43A-14
ELITE #4: ED ARNOLD / ANDREW SCHANZ

HALLIBURTON

Water Analysis Report

Company:	CAERUS	**Date:**	4/21/2014
Submitted by:	ED ARNOLD	**Date Rec.:**	4/21/2014
Attention:		**S.O.#**	901286107
Lease	NOLTE	**Job Type:**	SURFACE
Well #	43A-14		

Specific Gravity	*MAX*	1	
pH	*8*	7	
Potassium (K)	*5000*	200	Mg / L
Calcium (Ca)	*500*	120	Mg / L
Iron (FE2)	*300*	0	Mg / L
Chlorides (Cl)	*3000*	0	Mg / L
Sulfates (SO_4)	*1500*	<200	Mg / L
Chlorine (Cl_2)		0	Mg / L
Temp	*40-80*	55	Deg
Total Dissolved Solids		0	Mg / L

Respectfully: ED ARNOLD

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

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CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
0901286107	10	4/21/2014
Customer:		**Job Type (BOM):**
CAERUS OIL AND GAS LLC - EBUS		CMT SURFACE CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
		05-045-22312-00
Well Name:		**Well Number:**
NOLTE		0080361734
Well Type:	**Well Country:**	
DIRECTIONAL GAS	USA	
H2S Present:	**Well State:**	**Well County:**
No	COLORADO	GARFIELD

Dear Customer,

We hope that you were satisfied with the service quality of this job performed by Halliburton. It is the aim of our management and service personnel to deliver equipment and service of a standard unmatched in the service sector of the energy industry.

Please take the time to let us know if our performance met with your satisfaction. Please be as critical as possible to ensure we constantly improve our service. Your comments are of great value to us and are intended for the exclusive use of Halliburton.

CUSTOMER SATISFACTION SURVEY

CATEGORY	CUSTOMER SATISFACTION RESPONSE	
Survey Conducted Date	**The date the survey was conducted**	**4/21/2014**
Survey Interviewer	**The survey interviewer is the person who initiated the survey.**	**HX46731**
Customer Participation	**Did the customer partipcipate in this survey? (Y/N)**	**No**
Customer Representative	**Enter the Customer representative name**	
HSE	**Was our HSE performance satisfactory? Circle Y or N**	
Equipment	**Were you satisfied with our Equipment? Circle Y or N**	
Personnel	**Were you satisfied with our people? Circle Y or N**	
Customer Comment	**Customer's Comment**	

CUSTOMER SIGNATURE

HALLIBURTON

CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
0901286107	10	4/21/2014
Customer:		**Job Type (BOM):**
CAERUS OIL AND GAS LLC - EBUS		CMT SURFACE CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
		05-045-22312-00
Well Name:		**Well Number:**
NOLTE		0080361734
Well Type:	**Well Country:**	
DIRECTIONAL GAS	USA	
H2S Present:	**Well State:**	**Well County:**
No	COLORADO	GARFIELD

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date The date the survey was conducted	4/21/2014

Cementing KPI Survey	
Type of Job Select the type of job. (Cementing or Non-Cementing)	0
Select the Maximum Deviation range for this Job What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	Deviated
Total Operating Time (hours) Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	4
HSE Incident, Accident, Injury HSE Incident, Accident, Injury. This should be recordable incidents only.	No
Was the job purpose achieved? Was the job delivered correctly as per customer agreed design?	Yes
Operating Hours (Pumping Hours) Total number of hours pumping fluid on this job. Enter in decimal format.	1
Customer Non-Productive Rig Time (hrs) Lost time due to Halliburton in the start, execution, or completion of an ordered service or product, or delays in a follow-on service. Enter in decimal format. 0 if none.	0
Type of Rig Classification Job Was Performed Type Of Rig (classification) Job Was Performed On	Drilling Rig (Portable)
Number Of JSAs Performed Number Of Jsas Performed	5
Number of Unplanned Shutdowns Unplanned shutdown is when injection stops for any period of time.	0
Was this a Primary Cement Job (Yes / No)	Yes

HALLIBURTON

CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
0901286107	10	4/21/2014
Customer:		**Job Type (BOM):**
CAERUS OIL AND GAS LLC - EBUS		CMT SURFACE CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
		05-045-22312-00
Well Name:		**Well Number:**
NOLTE		0080361734
Well Type:	**Well Country:**	
DIRECTIONAL GAS	USA	
H2S Present:	**Well State:**	**Well County:**
No	COLORADO	GARFIELD

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
Did We Run Wiper Plugs? Did We Run Top And Bottom Casing Wiper Plugs?	Top
Mixing Density of Job Stayed in Designed Density Range (0-100%) Density Range defined as +/- .20 ppg. Calculation: Total BBLs cment mixed at designed density divided by total BBLs of cement multiplied by 100	99
Was Automated Density Control Used? Was Automated Density Control (ADC) Used ?	Yes
Pump Rate (percent) of Job Stayed At Designed Pump Rate Pump Rate range defined as +/- 1bbl/min. Calculation: Total BBLs of fluid pumped at the designed rate divided by Total BBLs of fluid pumped, multiplied by 100	99
Nbr of Remedial Sqz Jobs Rqd - Competition Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
Nbr of Remedial Plug Jobs Rqd - HES Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
Nbr of Remedial Sqz Jobs Rqd - HES Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0