

Black Hills Exploration & Prod -Ebiz

Homer Deep Unit 9-11CH

SST 66

Post Job Summary

Cement Surface Casing

Date Prepared: 12/09/2014

Job Date: 12/08/2014

Submitted by: Patrick Ealey – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 306454	Ship To #: 3563765	Quote #:	Sales Order #: 0901909489
Customer: BLACK HILLS EXPLORATION & PROD-EBIZ		Customer Rep: PAUL HOFF	
Well Name: HOMER DEEP	Well #: 9-11CH	API/UWI #: 05-045-22489-00	
Field: HANCOCK GULCH	City (SAP): PARACHUTE	County/Parish: GARFIELD	State: COLORADO
Legal Description: NW NW-9-8S-98W-297FNL-418FWL			
Contractor: SST DRLG		Rig/Platform Name/Num: SST 66	
Job BOM: 7521			
Well Type: HORIZONTAL GAS			
Sales Person: HALAMERICA\HAM2616		Srcv Supervisor: JAVIER CASTILLO	

Job

Formation Depth (MD)	Top	SURFACE	Bottom	1130ft
Job depth MD	1130ft			

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	NEW	20	19.124	94			0	145		0
Casing	NEW	10.75	10.05	40.5	STC	J-55	0	1130		0
Open Hole Section			14.75				145	1130		0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	10.75	1		1130	Top Plug	10.75	1	HES
Float Shoe					Bottom Plug			
Float Collar	10.75	1		1074.31	SSR plug set			
Insert Float					Plug Container	10.75	1	HES
Stage Tool					Centralizers	10.75		

Miscellaneous Materials

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Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	12.3 VariCem	VARICEM (TM) CEMENT	170	sack	12.3	2.38		6	13.77	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	12.8 VariCem	VARICEM (TM) CEMENT	250	sack	12.8	2.11		6	11.77

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	Displacement Fluid	Displacement Fluid	105.4	bbl	8.4			5	
Cement Left In Pipe		Amount	44.41ft		Reason		Shoe Joint		
Comment									

Summary Report



Sales Order #: 0901909489
WO #: 0901909489
PO/AFE #: NA

Crew: _____

Job Start Date: 12/8/2014

Customer:	BLACK HILLS EXPLORATION & PROD-EBIZ	Field:	HANCOCK GULCH	Job Type:	CMT SURFACE CASING BOM
UWI / API Number:	05-045-22489-00	County/Parish:	GARFIELD	Service Supervisor:	JAVIER CASTILLO
Well Name:	HOMER DEEP	State:	COLORADO		
Well No:	9-11CH	Latitude:	39.380250	Cust Rep Name:	PAUL HOFF
		Longitude:	-108.339530	Cust Rep Phone #:	
		Sect / Twn / Rng:	9/8/98		

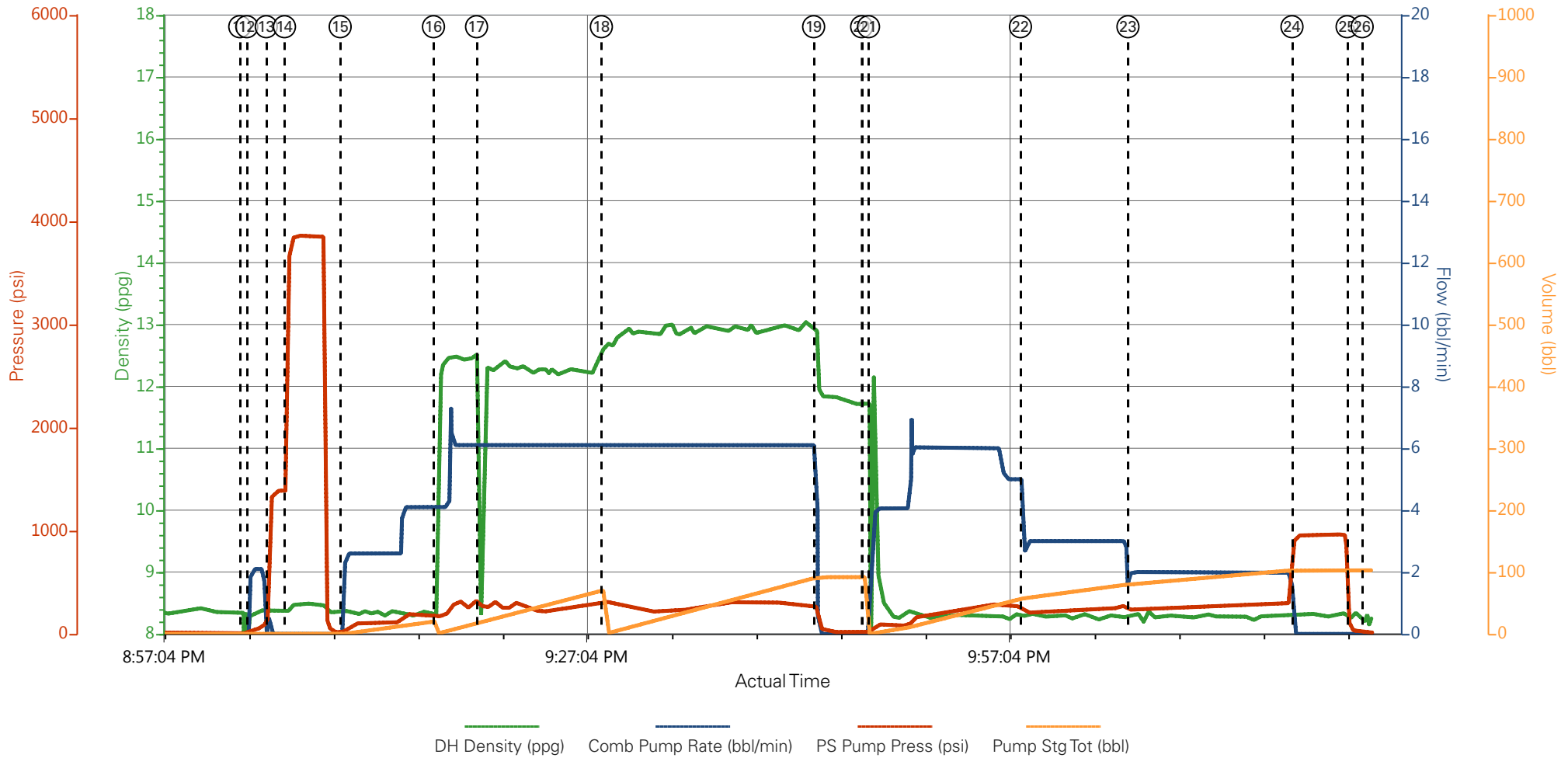
Remarks:		
The Information Stated Herein Is Correct	Customer Representative Signature	Date
	Customer Representative Printed Name	
	<i>Paul Hoff</i>	12-8-14
	PAUL F. HOFF	

1.1 Job Event Log

Graph Label	Date	Time	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comment
CALL OUT	12/8/2014	10:30:00					ON LOCATION AT 16:00 HRS
DEPART YARD SAFETY MEETING	12/8/2014	12:50:00					
CREW LEAVE THE YARD	12/8/2014	13:00:00					
ARRIVE ON LOCATION	12/8/2014	14:00:00					RIG WAS PULLING OUT DRILL PIPE
RIG BEGAN TO RUN CASING	12/8/2014	16:00:00					
RIG LANDED CASING	12/8/2014	18:30:00					
SPOT TRUCKS	12/8/2014	18:45:00					
RIG UP MEETING	12/8/2014	18:55:00					
RIG UP	12/8/2014	19:00:00					1-ELITE, 2-660s, 2" IRON, 10.75" PLUG CONTAINER, QUICK CONNECT, AND BALE BASKET
RIG UP COMPLETE	12/8/2014	20:00:00					
START JOB	12/8/2014	21:02:40					TD-1130', OH-14.75", TP-1118.72', SJ-44.41', FC-1074.31', CSG-10.75", 40.5#, J-55, MUD-9.2 PPG
FILL LINES	12/8/2014	21:03:10	8.33 PPG	2 BPM	87 PSI	2 BBLS	FRESH WATER
STALL OUT	12/8/2014	21:04:33					TESTED AT 1392 PSI
TEST LINES	12/8/2014	21:05:51					TESTED AT 3861 PSI
WATER SPACER	12/8/2014	21:09:48	8.33 PPG	4 BPM	170 PSI	20 BBLS	FRESH WATER
LEAD CEMENT	12/8/2014	21:16:25	12.3 PPG	6 BPM	275 PSI	72 BBLS	170 SKS, 12.3 PPG, 2.38 FT3/SK, 13.77 GAL/SK
OPERATOR/COMPUTER ERROR	12/8/2014	21:19:29					PUMP OPERATOR HIT THE WATER AUTO CAL BY ACCIDENT BUT QUICKLY CHANGED IT BACK
TAIL CEMENT	12/8/2014	21:28:20	12.8 PPG	6 BPM	300 PSI	94 BBLS	250 SKS, 12.8 PPG, 2.11 FT3/SK, 11.77 GAL/SK
SHUTDOWN	12/8/2014	21:43:24					GOOD RETURNS
DROP TOP PLUG	12/8/2014	21:46:48					
DISPLACEMENT	12/8/2014	21:47:18	8.33 PPG	6 BPM	315 PSI	50 BBLS	FRESH WATER
SLOW RATE	12/8/2014	21:58:05	8.33 PPG	3 BPM	290 PSI	30 BBLS	FRESH WATER

SLOW RATE	12/8/2014	22:05:42	8.33 PPG	2 BPM	300 PSI	25 BBLS	FRESH WATER
BUMP PLUG	12/8/2014	22:17:21			972 PSI	TOTAL DISP. 105 BBLS	GOOD RETURNS
CHECK FLOATS	12/8/2014	22:21:16					FLOATS HELD WITH 1 BBL FLOW BACK
END JOB	12/8/2014	22:22:20					CIRCULATED 20 BBLS / 58 SKS OF CEMENT TO SURFACE
RIG DOWN SAFETY MEETING	12/8/2014	22:30:01					
RIG DOWN	12/8/2014	22:40:01					BLOW DOWN CEMENT PUMP
RIG DOWN COMPLETE	12/8/2014	23:45:00					
DEPART LOCATION SAFETY MEETING	12/8/2014	23:50:00					
CREW LEAVE LOCATION	12/8/2014	23:59:01					
THANK YOU	12/8/2014	23:59:03					THANK YOU FOR YOUR BUSINESS FROM JAVIER CASTILLO AND CREW

BLACK HILL 10 3/4 SURFACE



- | | | | |
|----------------------------------------------|--------------------------------|--------------------------------------------|---------------------------------------------------|
| ① CALL OUT n/a;n/a;n/a;n/a | ⑨ RIG UP n/a;n/a;n/a;n/a | ⑰ OPERATOR/COMPUTER ERROR 8.3;6.1;294;17.5 | 25 CHECK FLOATS 8.28;0;63;102.8 |
| ② DEPART YARD SAFETY MEETING n/a;n/a;n/a;n/a | ⑩ RIG UP COMPLETE -0.1;0;7;0 | ⑱ TAIL CEMENT 12.64;6.1;308.47;71.25 | 26 END JOB 8.21;0;11;102.8 |
| ③ CREW LEAVE THE YARD n/a;n/a;n/a;n/a | ⑪ START JOB 8.34;0;6;0 | ⑲ SHUTDOWN 12.9;4;242;91.7 | 27 RIG DOWN SAFETY MEETING n/a;n/a;n/a;n/a |
| ④ ARRIVE ON LOCATION n/a;n/a;n/a;n/a | ⑫ FILL LINES 8.29;1.8;33;0.1 | 20 DROP TOP PLUG 11.68;0;19;91.8 | 28 RIG DOWN n/a;n/a;n/a;n/a |
| ⑤ RIG BEGAN TO RUN CASING n/a;n/a;n/a;n/a | ⑬ STALL OUT 8.38;0;1303;2.2 | 21 DISPLACEMENT 9.69;1.8;29;0.3 | 29 RIG DOWN COMPLETE n/a;n/a;n/a;n/a |
| ⑥ RIG LANDED CASING n/a;n/a;n/a;n/a | ⑭ TEST LINES 8.36;0;1390;2.2 | 22 SLOW RATE 8.3;2.6;226;57.7 | 30 DEPART LOCATION SAFETY MEETING n/a;n/a;n/a;n/a |
| ⑦ SPOT TRUCKS n/a;n/a;n/a;n/a | ⑮ WATER SPACER 8.38;1.8;22;0.1 | 23 SLOW RATE 8.29;2;236;80.4 | 31 CREW LEAVE LOCATION n/a;n/a;n/a;n/a |
| ⑧ RIG UP MEETING n/a;n/a;n/a;n/a | ⑯ LEAD CEMENT 8.98;4.1;155;0.7 | 24 BUMP PLUG 8.3;0;931.04;102.8 | 32 THANKYOU n/a;n/a;n/a;n/a |

HALLIBURTON | iCem® Service

Created: 2014-12-08 19:19:05, Version: 4.0.248

Edit

Customer: BLACK HILLS EXPLORATION & PROD-EBIZ

Job Date: 12/8/2014 7:21:42 PM

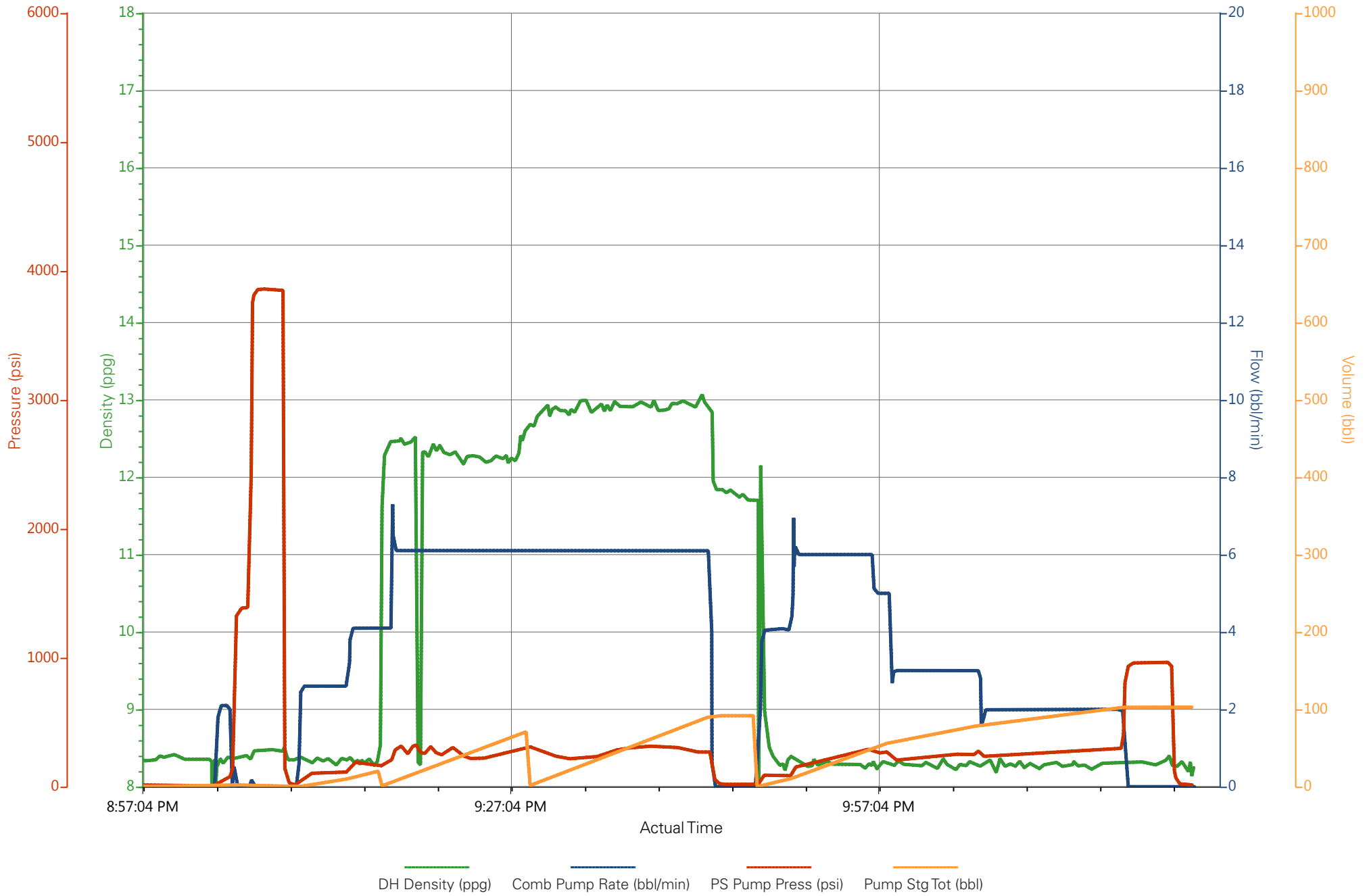
Well: HOMER DEEP 9-11CH

Representative: PAUL HOFF

Sales Order #: 901909489

ELITE #9: J. CASTILLO / PAUL SALAZAR

BLACK HILL 10 3/4 SURFACE



HALLIBURTON

Water Analysis Report

Company: BLACK HILLS

Date: 12/8/2014

Submitted by: JAVIER CASTILLO

Date Rec.: 12/8/2014

Attention: Chuck Ross

S.O.# 901909489

Lease HOMER DEEP

Job Type: SURFACE

Well # 9-11CH

Specific Gravity	<i>MAX</i>	1
pH	<i>8</i>	7
Potassium (K)	<i>5000</i>	200 Mg / L
Calcium (Ca)	<i>500</i>	120 Mg / L
Iron (FE2)	<i>300</i>	0 Mg / L
Chlorides (Cl)	<i>3000</i>	0 Mg / L
Sulfates (SO ₄)	<i>1500</i>	200 Mg / L
Chlorine (Cl ₂)		0 Mg / L
Temp	<i>40-80</i>	60 Deg
Total Dissolved Solids		510 Mg / L

Respectfully: JAVIER CASTILLO

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

NOTICE:

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its u

Sales Order #: 0901909489	Line Item: 10	Survey Conducted Date: 12/8/2014
Customer: BLACK HILLS EXPLORATION & PROD-EBIZ		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: PAUL HOFF		API / UWI: (leave blank if unknown) 05-045-22489-00
Well Name: HOMER DEEP		Well Number: 0080643625
Well Type: HORIZONTAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: 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	12/8/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB85312
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	PAUL HOFF
HSE	Was our HSE performance satisfactory? Circle Y or N	Yes
Equipment	Were you satisfied with our Equipment? Circle Y or N	Yes
Personnel	Were you satisfied with our people? Circle Y or N	Yes
Customer Comment	Customer's Comment	

CUSTOMER SIGNATURE

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KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	12/8/2014
The date the survey was conducted	

Cementing KPI Survey	
Type of Job	0
Select the type of job. (Cementing or Non-Cementing)	
Select the Maximum Deviation range for this Job	Vertical
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
Total Operating Time (hours)	10
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
HSE Incident, Accident, Injury	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
Was the job purpose achieved?	Yes
Was the job delivered correctly as per customer agreed design?	
Operating Hours (Pumping Hours)	1
Total number of hours pumping fluid on this job. Enter in decimal format.	
Customer Non-Productive Rig Time (hrs)	0
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.	
Type of Rig Classification Job Was Performed	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
Number Of JSAs Performed	5
Number Of Jsas Performed	
Number of Unplanned Shutdowns	0
Unplanned shutdown is when injection stops for any period of time.	
Was this a Primary Cement Job (Yes / No)	Yes

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Customer Representative: PAUL HOFF		API / UWI: (leave blank if unknown) 05-045-22489-00
Well Name: HOMER DEEP		Well Number: 0080643625
Well Type: HORIZONTAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: 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 cement mixed at designed density divided by total BBLs of cement multiplied by 100	95
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	95
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