

Caerus Oil and Gas LLC - EBUS

Puckett 43B-2

H&P 330

Post Job Summary

Cement Surface Casing

Date Prepared: 4/12/2015

Job Date: 4/1/2015

Submitted by: Patrick Ealey – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 360446	Ship To #: 3623377	Quote #: 0022027788	Sales Order #: 0902283421
Customer: CAERUS OIL AND GAS LLC - EBUS		Customer Rep: PAT	
Well Name: PUCKETT	Well #: 43B-2	API/UWI #: 05-045-22624-00	
Field: WILDCAT	City (SAP): PARACHUTE	County/Parish: GARFIELD	State: COLORADO
Legal Description: 2-7S-97W-2226FNL-638FEL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 330	
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB80977		Srcv Supervisor: Craig Kukus	
Job			

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	2500ft Job Depth TVD 2500 FT
Water Depth	Wk Ht Above Floor 4 FT
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		20	19.166	90			0	90		
Casing		9.625	8.921	36			0	2500		
Open Hole Section			14.75				90	2553		0

Tools and Accessories									
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make	
Guide Shoe	9.625	1		2500	Top Plug	9.625	1	HES	
Float Shoe	9.625				Bottom Plug	9.625		HES	
Float Collar	9.625	1		2457	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	Conc		

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	Fresh Water	10	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	VariCem GJ1	VARICEM (TM) CEMENT	320	sack	12.3	2.38		8	13.71	

13.71 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	VariCem GJ1	VARICEM (TM) CEMENT	610	sack	12.8	2.114		8	11.77
11.77 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	Displacement	Displacement	189.9	bbl	8.34			8	
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
5	Super Flush 100	Super Flush 100	6	bbl	10				
1000 gal/Mgal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
6	Revercem	REVERCEM (TM) CEMENT	64	sack	12.8	2.12		2	11.15
11.15 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
7	Revercem	REVERCEM (TM) CEMENT	120	sack	12.8	2.12		0	11.15
11.15 Gal		FRESH WATER							
Cement Left In Pipe	Amount	43 ft			Reason			Shoe Joint	
Mix Water:	pH ##	Mix Water Chloride: ## ppm			Mix Water Temperature: ## °F °C				
Cement Temperature:	## °F °C	Plug Displaced by: 8.3 lb/gal			Disp. Temperature: ## °F °C				
Plug Bumped?	Yes	Bump Pressure: 645 psi			Floats Held? Yes				
Cement Returns:	4 bbl m3	Returns Density: ## lb/gal kg/m3			Returns Temperature: ## °F °C				
Comment GOT CEMENT RETURNS ON TOP OUT APPROX 3 BBLS GOOD CEMENT									

1.0 Real-Time Job Summary

1.1 Job Event Log

Type	Seq. No.	Activity	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	4/1/2015	00:10:00	USER					CREW CALL OUT
Event	2	Depart from Service Center or Other Site	4/1/2015	03:00:00	USER					DEPART SERVICE CENTER SAFETY MEETING ALLHES CREW PRESENT
Event	3	Arrive At Loc	4/1/2015	05:11:00	USER					ARRIVE EARLY ON LOC RIG RUNNING CSG / HES EQUIP ON LOC: 1 EA CMT PUMP UNIT 1 EA 66 BULK UNIT 1 EA SUPER FLUSH UNIT 1 EA 1600 BULK BIN 1 EA SERVICES PICK UP UNIT
Event	4	Assessment Of Location Safety Meeting	4/1/2015	05:17:00	USER					ASSESSMENT WALK THRU OF LOC
Event	5	Pre-Rig Up Safety Meeting	4/1/2015	05:30:00	USER					PRE-RIG UP SAFETY MEETING ALL HES CREW PRESENT
Event	6	Rig-Up Equipment	4/1/2015	05:35:00	USER					RIG UP IRON TO STAND PIPE / RIG UP BULK EQUIPMENT / RIG UP WATER SUCTION HOSES
Event	7	Pre-Job Safety Meeting	4/1/2015	07:25:00	USER	8.34	0.00	0.0	0.0	PRE-JOB SAFETY MEETING ALL RIG PERSONEL AND HES CREW PRESENT
Event	8	Start Job	4/1/2015	07:40:03	COM6	8.34	0.00	-3.00	0.0	START JOB: TD 2553 FT TP 2500 FT SJT 43 FT WF/WT 8.5# CSG 9 5/8 IN 36# J-55
Event	9	Prime Pumps	4/1/2015	07:41:02	USER	8.34	2.0	39.0	2.0	PRIME LINES WITH 2 BBL FRESH WATER AHEAD
Event	10	Test Lines	4/1/2015	07:46:04	COM6	8.34	0.00	3466.00	0.1	PRESSURE TEST LINES 5 TH GEAR STALL OUT AT 1760 PSI TEST TO 3500 PSI
Event	11	Pump Spacer 1	4/1/2015	07:48:49	COM6	8.34	4.0	112	10.0	PUMP 10 BBLS H2O AHEAD
Event	12	Pump Lead Cement	4/1/2015	07:54:53	COM6	12.3	8.0	350.0	136.0	PUMP 320 SKS LEAD CEMENT AT 12.3 PPG 2.38 Y

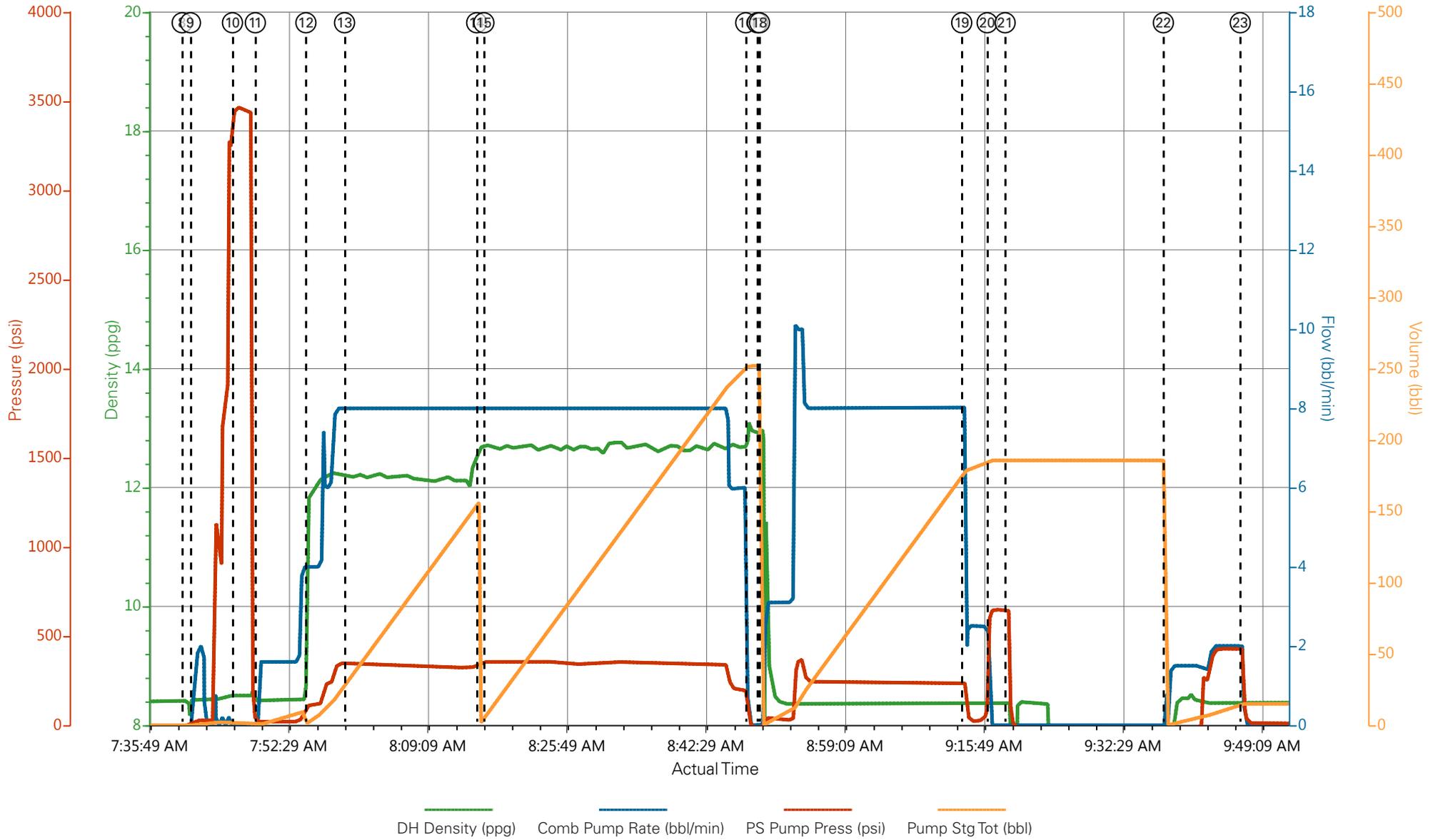
13.71 GAL/SKS W/ TUF FIBER

Event	13	Check Weight	4/1/2015	07:59:30	COM6	12.20	8.00	347.00	30.8	CMT DIP
Event	14	Pump Tail Cement	4/1/2015	08:15:20	COM6	12.8	8.00	349.00	229.0	PUMP 610 SKS TAIL CEMENT AT 12.8 PPG 2.11 Y 11.77 GAL/SKS
Event	15	Check Weight	4/1/2015	08:16:12	COM6	12.71	8.00	356.00	7.9	CMT DIP
Event	16	Shutdown	4/1/2015	08:47:35	USER	12.8	0.00	356.0	377.1	SHUT DOWN END CEMENT / READY TUB TO WASH UP ON TOP OF PLUG
Event	17	Drop Top Plug	4/1/2015	08:48:59	USER	8.34	0.00	-13.00	0.0	DROP TOP PLUG / PLUG AWAY
Event	18	Pump Displacement	4/1/2015	08:49:15	COM6	8.34	8.0	240.0	178.0	PUMP H2O DISPLACEMENT
Event	19	Slow Rate	4/1/2015	09:13:28	USER	8.34	2.5	50.0	178.2	SLOW RATE TO 2.5 BLM LAST 10 BBLS
Event	20	Bump Plug	4/1/2015	09:16:31	COM6	8.38	0.00	628.00	189.9	PLUG LANDED AT 50 PSI BUMP TO 645 PSI
Event	21	Check Floats	4/1/2015	09:18:41	USER	8.38	0.00	643.00	189.9	CHECK FLOATS / FLOATS HELD GOT 1.5 BBLS BACK TO TANKS / LAY DOWN STAND PIPE AND RUN IRON TO CELLAR TO PARISITE LINE TO PUMP 15 BBLS SUGAR WATER
Event	22	Pump Spacer 2	4/1/2015	09:37:39	COM6	8.34	2.0	240.0	15.0	PUMP 15 BBLS SUAGR WATER THRU PARISITE LINES / 1.5 BLM SEEN 240 PSI AT 2 BLM 400 PSI CSG RUN CLEAN
Event	23	Shutdown	4/1/2015	09:46:52	USER	8.37	0.0	232.00	582.0	SHUT DOWN WITH SUGAR WATER / SET UP EQUIPMENT FOR TOP OUT
Event	24	Start Job	4/1/2015	15:47:49	COM6					START TOP OUT #1
Event	25	Prime Pumps	4/1/2015	15:48:25	USER	8.37	1.0	-1.00	1.0	PRIME LINES 1 BBL AHEAD FOLLOWED BY 2 BBLS SUPERFLUSH / SHUT DOWN MIX TUB
Event	26	Pump Cement	4/1/2015	15:55:34	COM6	12.8	2.0	30.0	24.0	PUMP 64 SKS TOP OUT CEMENT AT 12.8 PPG 2.12 Y 11.15 GAL/SKS / FLOW 6 BBLS SUPER FLUSH WITH CEMENT
Event	27	Shutdown	4/1/2015	16:07:36	USER	12.8	0.0	23.00	607.0	SHUT DOWN ON TOP OUT PUMPED 24 BBLS AND 6 BBLS S/F HAD RETURNS AT 11 BBLS GONE AND

GOOD CEMENT CAME BACK

Event	28	Clean Lines	4/1/2015	16:12:07	COM6	SWAP LINES AND WASH UP TO CELLAR / SHUT WOC
Event	29	End Job	4/1/2015	16:48:06	COM6	END JOB CEMENT NOT FALLING BACK
Event	30	Pre-Rig Down Safety Meeting	4/1/2015	16:52:26	USER	PRE-RIG DOWNSAFETY MEETING ALL HES CREW PRESENT
Event	31	Rig-Down Equipment	4/1/2015	17:15:00	USER	RIG DOWN CELLAR AND WASH UP AND RIG IRON DOWN
Event	32	Depart Location	4/1/2015	17:55:00	USER	DEPART LOC SAFETY MEETING ALL HES CREW PRESENT
Event	33	Comment	4/1/2015	18:00:00	USER	THANK YOU FOR USING HALLIBURTON CEMENTING SERVICES AND THE CREW OF CRAIG KUKUS

CAERUS OIL AND GAS HP 330 PUCKETT 43B-2 CEMENT SURFACE CSG JOB



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

- | | | | | |
|--------------------------------------------|--------------------------|--------------------|---------------------|---------------------|
| ① Call Out | ⑥ Rig-Up Equipment | ⑪ Pump Spacer 1 | ⑯ Shutdown | 21 Check Floats |
| ② Depart from Service Center or Other Site | ⑦ Pre-Job Safety Meeting | ⑫ Pump Lead Cement | ⑰ Drop Top Plug | 22 Pump Sugar Water |
| ③ Arrive At Loc | ⑧ Start Job | ⑬ Check weight | ⑱ Pump Displacement | 23 Shutdown |
| ④ Assessment Of Location Safety Meeting | ⑨ Prime Pumps | ⑭ Pump Tail Cement | ⑲ Slow Rate | |
| ⑤ Pre-Rig Up Safety Meeting | ⑩ Test Lines | ⑮ Check weight | 20 Bump Plug | |

▼ **HALLIBURTON** | iCem[®] Service

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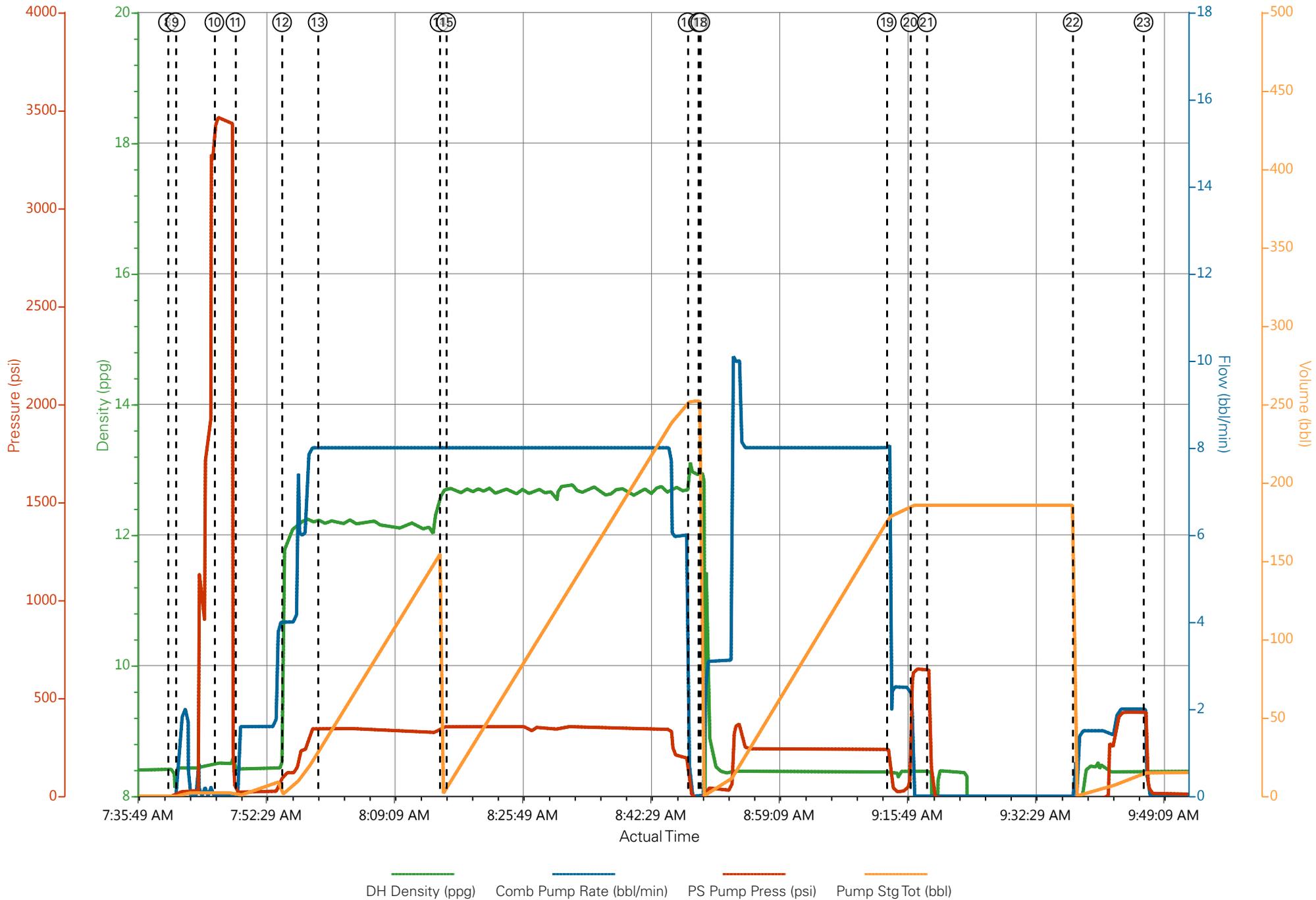
Edit

Customer : CAERUS OIL AND GAS LLC - EBUS
 Representative : CRAIG KUKUS

Job Date : 4/1/2015 6:12:34 AM
 Sales Order # : 0902283421

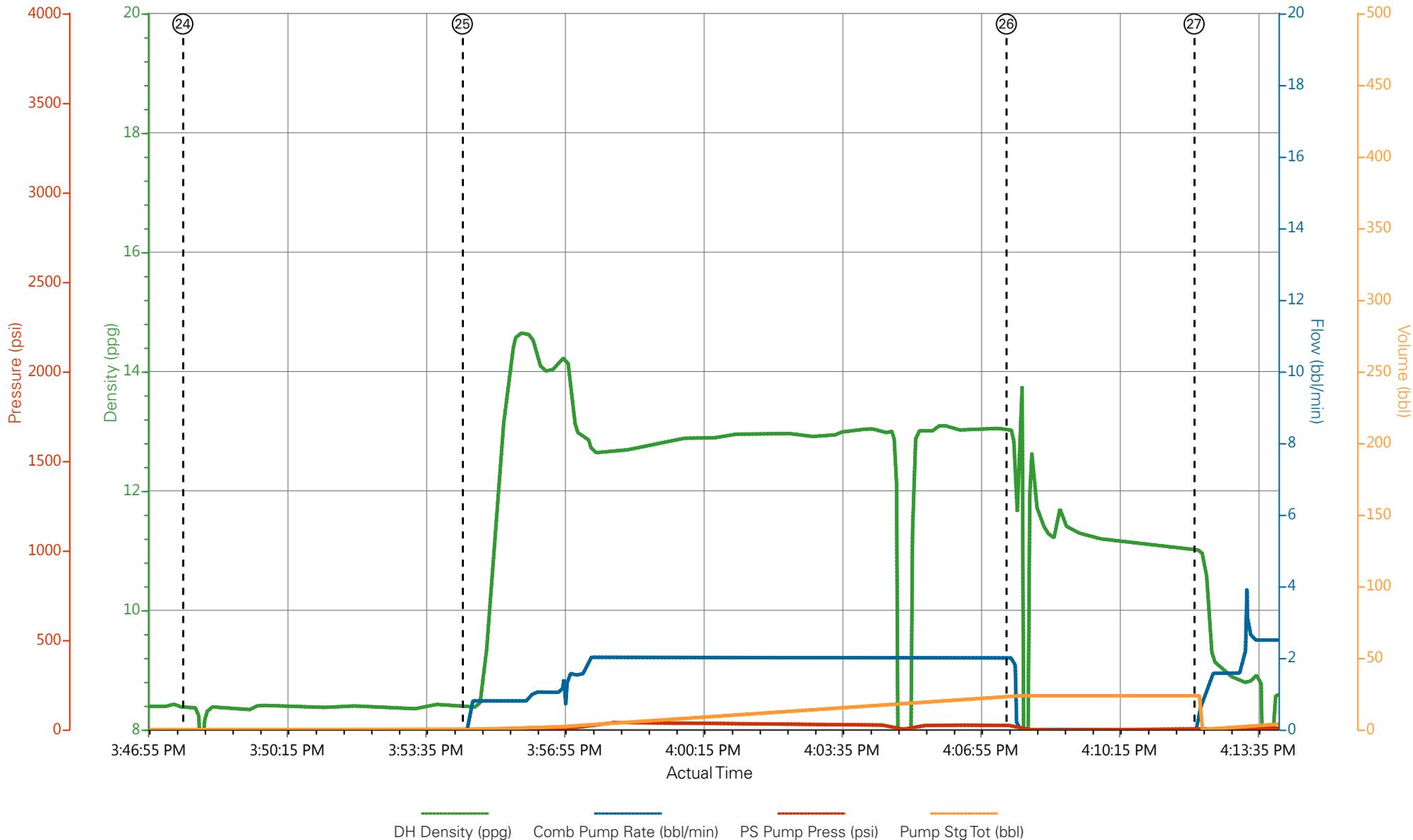
Well : 43B-2
 ELITE 7 / OPERATOR : ADAM ANGELO

CAERUS OIL AND GAS HP 330 PUCKETT 43B-2 CEMENT SURFACE CSG JOB



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

CAERUS OIL AND GAS HP 330 PUCKETT 43B-2 CEMENT SURFACE CSG JOB



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

- | | | | | | |
|--------------------------------------------|--------------------------|--------------------|---------------------|---------------------|----------------|
| ① Call Out | ⑥ Rig-Up Equipment | ⑪ Pump Spacer 1 | ⑯ Shutdown | 21 Check Floats | 26 Shutdown |
| ② Depart from Service Center or Other Site | ⑦ Pre-Job Safety Meeting | ⑫ Pump Lead Cement | ⑰ Drop Top Plug | 22 Pump Sugar Water | 27 Clean Lines |
| ③ Arrive At Loc | ⑧ Start Job | ⑬ Check weight | ⑱ Pump Displacement | 23 Shutdown | |
| ④ Assessment Of Location Safety Meeting | ⑨ Prime Pumps | ⑭ Pump Tail Cement | ⑲ Slow Rate | 24 Start Job | |
| ⑤ Pre-Rig Up Safety Meeting | ⑩ Test Lines | ⑮ Check weight | 20 Bump Plug | 25 Pump Cement | |

▼ **HALLIBURTON** | iCem[®] Service

Created: 2015-04-01 06:06:35, Version: 4.1.107

Edit

Customer : CAERUS OIL AND GAS LLC - EBUS
 Representative : CRAIG KUKUS

Job Date : 4/1/2015 6:12:34 AM
 Sales Order # : 0902283421

Well : 43B-2
 ELITE 7 / OPERATOR : ADAM ANGELO

HALLIBURTON

Water Analysis Report

Company: CAERUS OIL AND GAS
Submitted by: CRAIG KUKUS
Attention: _____
Lease: PUCKETT
Well #: 43B-2

Date: 4/1/2015
Date Rec.: 4/1/2015
S.O.#: 902283421
Job Type: 8 5/8 SURFACE

Specific Gravity	<i>MAX</i>	0
pH	<i>8</i>	7
Potassium (K)	<i>5000</i>	200 Mg / L
HARDNESS	<i>500</i>	425 Mg / L
Iron (FE2)	<i>300</i>	0 Mg / L
Chlorides (Cl)	<i>3000</i>	250 Mg / L
Sulfates (SO ₄)	<i>1500</i>	<200 Mg / L
Chlorine (Cl ₂)		0 Mg / L
Temp	<i>40-80</i>	58 Deg
Total Dissolved Solids		410 Mg / L

Respectfully: CRAIG KUKUS

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

Sales Order #: 0902283421	Line Item: 10	Survey Conducted Date: 4/1/2015
Customer: CAERUS OIL AND GAS LLC - EBUS		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: PAT BLACKMER		API / UWI: (leave blank if unknown) 05-045-22624-00
Well Name: PUCKETT		Well Number: 0080702189
Well Type: DIRECTIONAL 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	4/1/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HX19742
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	PAT BLACKMER
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

Sales Order #: 0902283421	Line Item: 10	Survey Conducted Date: 4/1/2015
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Customer Representative: PAT BLACKMER		API / UWI: (leave blank if unknown) 05-045-22624-00
Well Name: PUCKETT		Well Number: 0080702189
Well Type: DIRECTIONAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: GARFIELD

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	4/1/2015
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?	
Pumping Hours	7
Total number of hours pumping fluid on this job. Enter in decimal format.	
Type of Rig Classification Job Was Performed	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
Number Of JSAs Performed	6
Number Of Jsas Performed	
Was this a Primary Cement Job (Yes / No)	Yes
Primary Cement Job= Casing job, Liner job, or Tie-back job.	
Number of Unplanned Shutdowns	0
Unplanned shutdown is when injection stops for any period of time.	
Customer Non-Productive Rig Time (hrs)	0

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Customer Representative: PAT BLACKMER		API / UWI: (leave blank if unknown) 05-045-22624-00
Well Name: PUCKETT		Well Number: 0080702189
Well Type: DIRECTIONAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: GARFIELD

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.	
Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment? Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment?	No
Did We Run Wiper Plugs? Did We Run Top And Bottom Casing Wiper Plugs?	Top
If a top plug was run, was the plug bumped? (Yes/No/N/A) If a top plug was run, was the plug bumped? (Yes/No/N/A)	Yes
If applicable, was Halliburton float equipment used? (Yes/No/N/A) If applicable, was Halliburton float equipment used? (Yes/No/N/A)	Yes
If applicable, did the floats hold? (Yes/No/N/A) If applicable, did the floats hold? (Yes/No/N/A)	Yes
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	99
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
If applicable, were there returns throughout the job? (Yes/No/N/A) If applicable, were there returns throughout the job? (Yes/No/N/A)	No
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