HALLIBURTON

Cementing

Caerus Oil and Gas LLC- EBUS

Puckett 41C-2D

H&P 330

Post Job Summary
Cement Surface Casing

Date Prepared: 05/20/2015
Job Date: 05/17/2015

Submitted by: Evan Russell – Grand Junction Cement Engineer

HALLIBURTON

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 360446	**Ship To #:** 3194400	**Quote #:**	**Sales Order #:** 0902404803
Customer: CAERUS OIL AND GAS LLC - EBUS		**Customer Rep:** WHITEY	
Well Name: PUCKETT	**Well #:** 41C-2 D		**API/UWI #:** 05-045-17713-00
Field: GRAND VALLEY	**City (SAP):** PARACHUTE	**County/Parish:** GARFIELD	**State:** COLORADO
Legal Description: NE NE-2-7S-97W-233FNL-576FEL			
Contractor: H & P DRLG		**Rig/Platform Name/Num:** H & P 330	
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB80977		**Srvc Supervisor:** Craig Kukus	

Job

Formation Name				
Formation Depth (MD)	**Top**		**Bottom**	
Form Type			**BHST**	
Job depth MD	2496ft		**Job Depth TVD**	2496 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		9.625	8.921	36			0	2496	0	0
Open Hole Section			14.75				0	2540	0	2540

Tools and Accessories

Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	9.625	1		2496		**Top Plug**	9.625	1	HES
Float Shoe	9.625					**Bottom Plug**	9.625		HES
Float Collar	9.625	1		2456		**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	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	Lead Cement	VARICEM (TM) CEMENT	485	sack	11	3.65		8	23.08

23.08 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	Tail Cement	VARICEM (TM) CEMENT	155	sack	12.8	2.18		7	12.11
12.11 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
4	Displacement	Displacement	190	bbl	8.34			8	

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
5	Super Flush 101	Super Flush 101	28	bbl	9.17			4	
21 gal/bbl		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
6	Annular Fill	REVERCEM (TM) CEMENT	350	sack	12.8	2.12		3.2	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/min	Total Mix Fluid Gal
7	Top Out	Type I-II Cement	0	sack	15.6	1.16		0	5.12
5.02 Gal		FRESH WATER							
94 lbm		TYPE I / II CEMENT, BULK (101439798)							
0.10 Gal		CALCIUM CHLORIDE - LIQUID, 5 GAL PAIL (100005054)							

Cement Left In Pipe	**Amount**	40 ft	**Reason**		Shoe Joint
Mix Water:	pH ##	**Mix Water Chloride:**	## ppm	**Mix Water Temperature:**	## °F °C
Cement Temperature:	## °F °C	**Plug Displaced by:**	8.33 lb/gal	**Disp. Temperature:**	## °F °C
Plug Bumped?	Yes	**Bump Pressure:**	652 psi	**Floats Held?**	Yes
Cement Returns:	3 bbl	**Returns Density:**	12.8lb/gal	**Returns Temperature:**	## °F °C

Comment

1.0 Real-Time Job Summary

1.1 Job Event Log

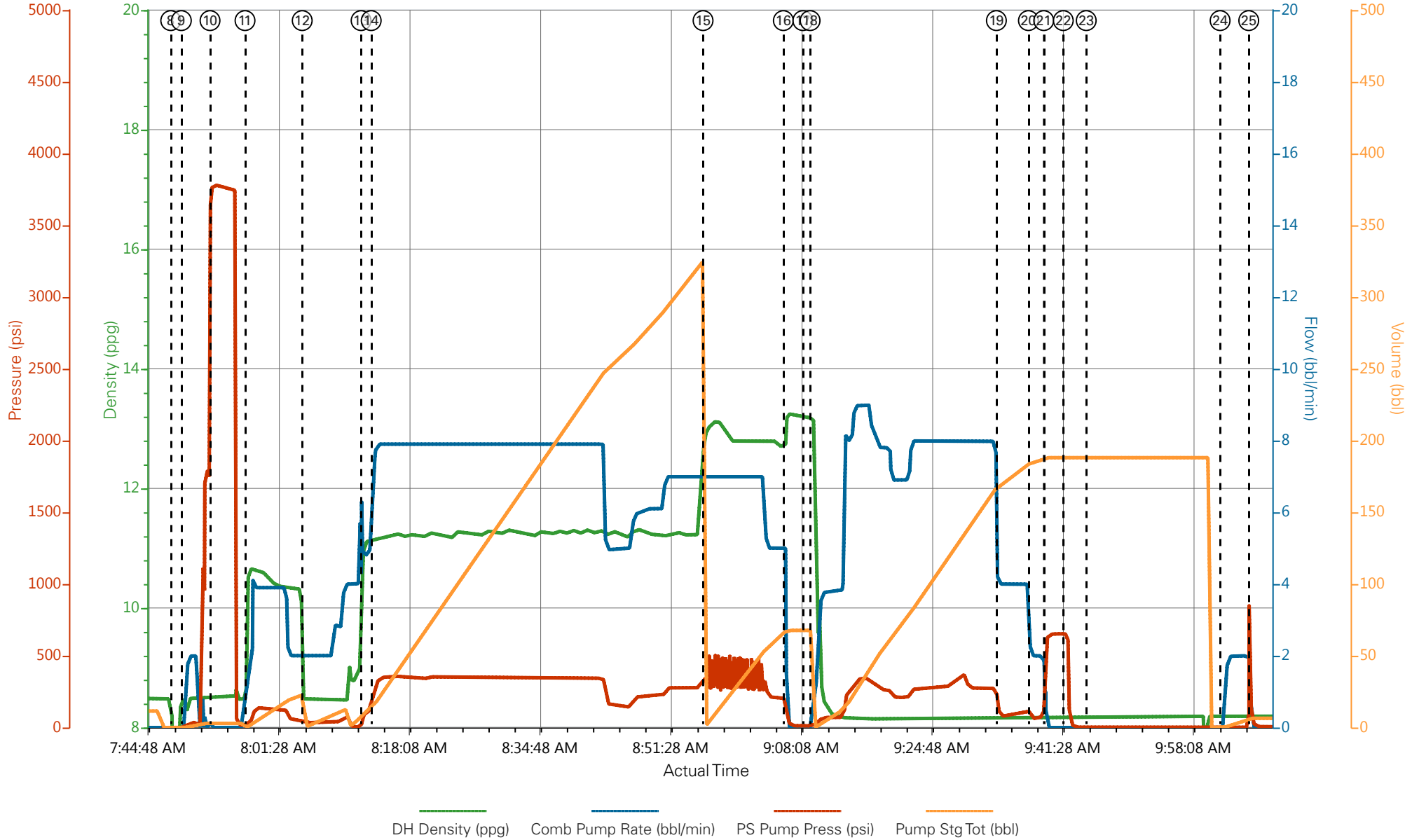
Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	5/12/2015	22:00:00	USER					CREW CALL OUT
Event	2	Depart from Service Center or Other Site	Depart from Service Center or Other Site	5/13/2015	00:37:00	USER					SAFETY MEETING DEPARTING SERVICE CENTER ALL HES CREW PRESENT
Event	3	Arrive At Loc	Arrive At Loc	5/13/2015	03:00:00	USER					ARRIVE EARLY ON LOC: RIG RUNNING CSG / HES EQUIPON LOC: 1 EA CMT PUMP UNIT 2 EA 660 BULK UNITS 1 EA SUPER FLUSH UNIT 1 EA SERVICE PICK UP UNIT 2 EA SILOS
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	5/13/2015	03:15:00	USER					ASSESMENT WALK THRU OF LOC
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/13/2015	04:10:46	USER					PRE-RIG UP SAFETY MEETING ALL HES CREW PRESENT
Event	6	Rig-Up Equipment	Rig-Up Equipment	5/13/2015	04:10:59	USER					RIG UP IRON TO RED ZONE AND STAND PIPE / RIG UP WATER SUPPLY LINE TO DAY TANK AND RIG UP BULK EQUIPMENT
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/13/2015	04:11:16	USER					PRE-JOB SAFETY MEETING ALL RIG PERSONEL AND HES CREW PRESENT
Event	8	Start Job	Start Job	5/13/2015	07:48:04	COM6	8.34	0.00	-1.00	0.0	START JOB: TD 2540 FT TP 2496.5 FT SJT 40 FT OH 14 3/4 IN WF/WT 9.2# CSG 9 5/8 IN 36# J-55

Event	9	Prime Pumps	PRIME LINES	5/13/2015	07:49:25	USER	8.34	2.0	39.0	3.0	PRIME LINES WITH FRESH WATER
Event	10	Test Lines	Test Lines	5/13/2015	07:53:05	COM6	8.34	0.8	3783.00	0.1	PRESSURE TEST LINES 5 TH GEAR STALL OUT AT 1800 PSI TEST TO 3784 PSI TEST GOOD
Event	11	Pump Spacer 1	Pump Spacer 1	5/13/2015	07:57:33	COM6	10.56	4.0	132.0	20.0	PUMP 20 BBLS SUPER FLUSH SPACER AHEAD
Event	12	Pump Spacer 2	Pump Spacer 2	5/13/2015	08:04:50	COM6	8.34	4.0	82.0	10.0	PUMP 10 FRESH WATER BEHIND
Event	13	Pump Lead Cement	Pump Lead Cement	5/13/2015	08:12:21	COM6	11.11	8.0	356.0	316.0	PUMP 485 SKS LEAD CMT AT 11.0 PPG 3.65Y 23.08 GAL/SKS NO RETURNS AT THIS TIME
Event	14	Check Weight	Check weight	5/13/2015	08:13:38	COM6	11.14	8.0	251.00	16.3	CHECK CMT WT
Event	15	Pump Tail Cement	Pump Tail Cement	5/13/2015	08:55:58	COM6	12.85	7.00	400.00	61.0	PUMP 155 SKS TAIL CEMENT AT 12.8 PPG 2.18 Y 12.11 GAL/SKS NO RETURNS AT THIS TIME
Event	16	Shutdown	Shutdown	5/13/2015	09:06:12	USER	12.96	0.00	400.00	61.0	SHUT DOWN END CEMENT / READY TUB TO WASH UP ON TOP OF PLUG
Event	17	Drop Top Plug	Drop Top Plug	5/13/2015	09:08:42	USER	8.34	0.0	0.0	0.0	DROP PLUG / PLUG AWAY
Event	18	Pump Displacement	Pump Displacement	5/13/2015	09:09:37	COM6	8.34	8.0	380.0	168.0	PUMP H20 DISPLACEMENT
Event	19	Slow Rate	Slow Rate	5/13/2015	09:33:23	USER	8.34	4.00	275.0	169.1	SLOW RATE TO 4 BBL MIN
Event	20	Slow Rate	Slow Rate	5/13/2015	09:37:28	USER	8.34	2.00	125.0	180.0	SLOW RATE TO 2 BBL MIN LAST 10 BBLS
Event	21	Bump Plug	Bump Plug	5/13/2015	09:39:25	COM6	8.34	0.00	627.00	189.0	PLUG LANDED AT 80 PSI / BUMP TO 652 PSI
Event	22	Check Floats	Check Floats	5/13/2015	09:41:55	USER	8.18	0.00	653.00	189.0	CHECK FLOATS GOT BACK 1 BBL TO TANKS FLOATS HELD / NO RETURNS THRU OUT THE JOB

Event	23	Rig-Down Equipment	Rig-Down Equipment	5/13/2015	09:44:50	USER	8.34	0.00	0.0	0.0	RIG DOWN FLOOR AND BAILS / LAY DOWN STAND PIPE TO RUN INTO CELLAR TO PUMP THRU PARISITE LINE
Event	24	Pump Spacer 1	Pump Sugar Water	5/13/2015	10:01:55	COM6	8.34	2.0	180-717	6.5	PUMP 10 BBLS SUGAR WATER THRU PARISITE LINE
Event	25	Shutdown	Shutdown	5/13/2015	10:05:34	USER	8.34	0.00	72.00	6.5	SHUT DOWN 6.5 BBLS GONE PER CO-MAN / RIG LINE DOWN / READY TOP OUT IRON / WOC AND BOP PRESSURE TEST
Event	26	Start Pumping	Start Pumping	5/13/2015	15:12:33	USER	8.34	0.00	-1.00	0.0	START TOP OUT JOB
Event	27	Prime Pumps	Prime lines	5/13/2015	15:13:00	USER	8.34	1.5	-2.00	2.0	PUMP H20 AHEAD CHECK FLOW
Event	28	Pump Cement	Rev er Cem Cmt	5/13/2015	15:27:54	COM6	12.8	3.2	160.0	133.9	PUMP 350 SKS REV ER CEM AT 12.8 PPG 2.12 Y 11.15 GAL/SKS
Event	29	Shutdown	Shutdown	5/13/2015	16:17:22	USER	12.8	0.00	24.00	133.9	SHUT DOWN CEMENT TO SURFACE 133 BBLS REV ER CEM GONE / 3 BBLS TO SURFACE / CALCULATED TOC WAS 1095 FT
Event	30	Clean Lines	Clean Lines	5/13/2015	16:21:09	USER	12.8	0.0	0.0	20.0	SWAP LINES TO CHIP TANK WASH PUMPS AND LINES
Event	31	End Job	End Job	5/13/2015	17:00:21	COM6					END JOB / CEMENT DID NOT FALL BACK
Event	32	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	5/13/2015	17:04:18	USER					RIG DOWN CELLAR IRON AND EQUIPMENT SAFETY MEETING ALL HES CREW PRESENT
Event	33	Rig-Down Equipment	Rig-Down Equipment	5/13/2015	17:10:00	USER					FINSH WASHING UP AND RIG DOWN EQUIPMENT
Event	34	Safety Meeting -	Safety Meeting -	5/13/2015	18:00:00	USER					SAFETY MEETING

		Departing Location	Departing Location					DEPARTING LOC ALL HES CREW PRESENT
Event	35	Comment	Comment	5/13/2015	18:10:00	USER		THANK YOU FOR USING HALLIBURTON CEMENTING SERVICES AND THE CREW OF CRAIG KUKUS

CEARUS OIL & GAS PUCKETT 41C-2D SURFACE CSG CMT JOB HP 330



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

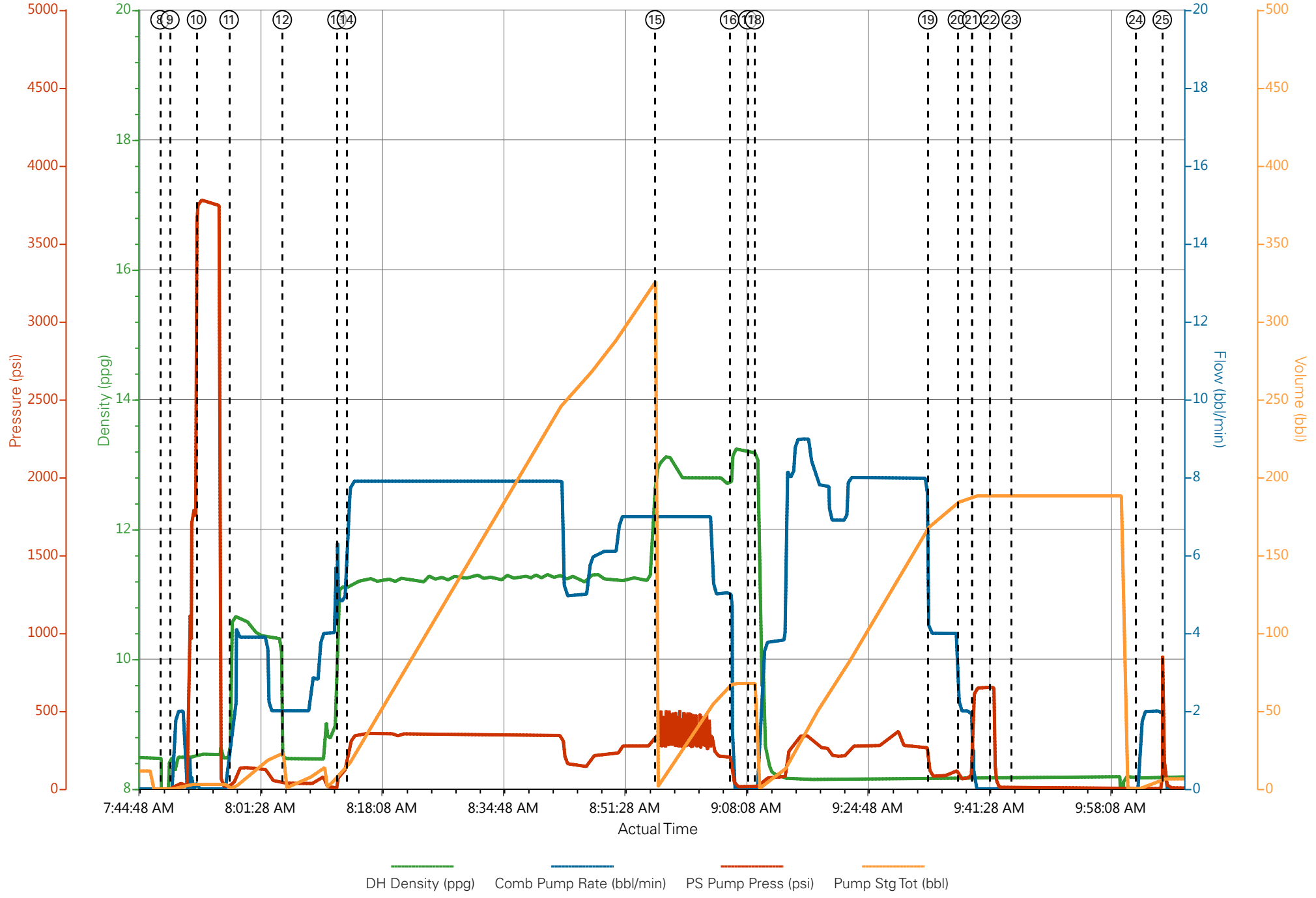
HALLIBURTON | iCem® Service

Created: 2015-05-13 03:57:44, Version: 4.1.107

Edit

Customer : CAERUS OIL AND GAS LLC - EBUS
Representative : CRAIG KUKUS
Job Date : 5/13/2015 6:16:18 AM
Sales Order # : 0902404803
Well : 41C-2D
E-1 / OPERATOR : DIRK BRENNECKE

CEARUS OIL & GAS PUCKETT 41C-2D SURFACE CSG CMT JOB HP 330



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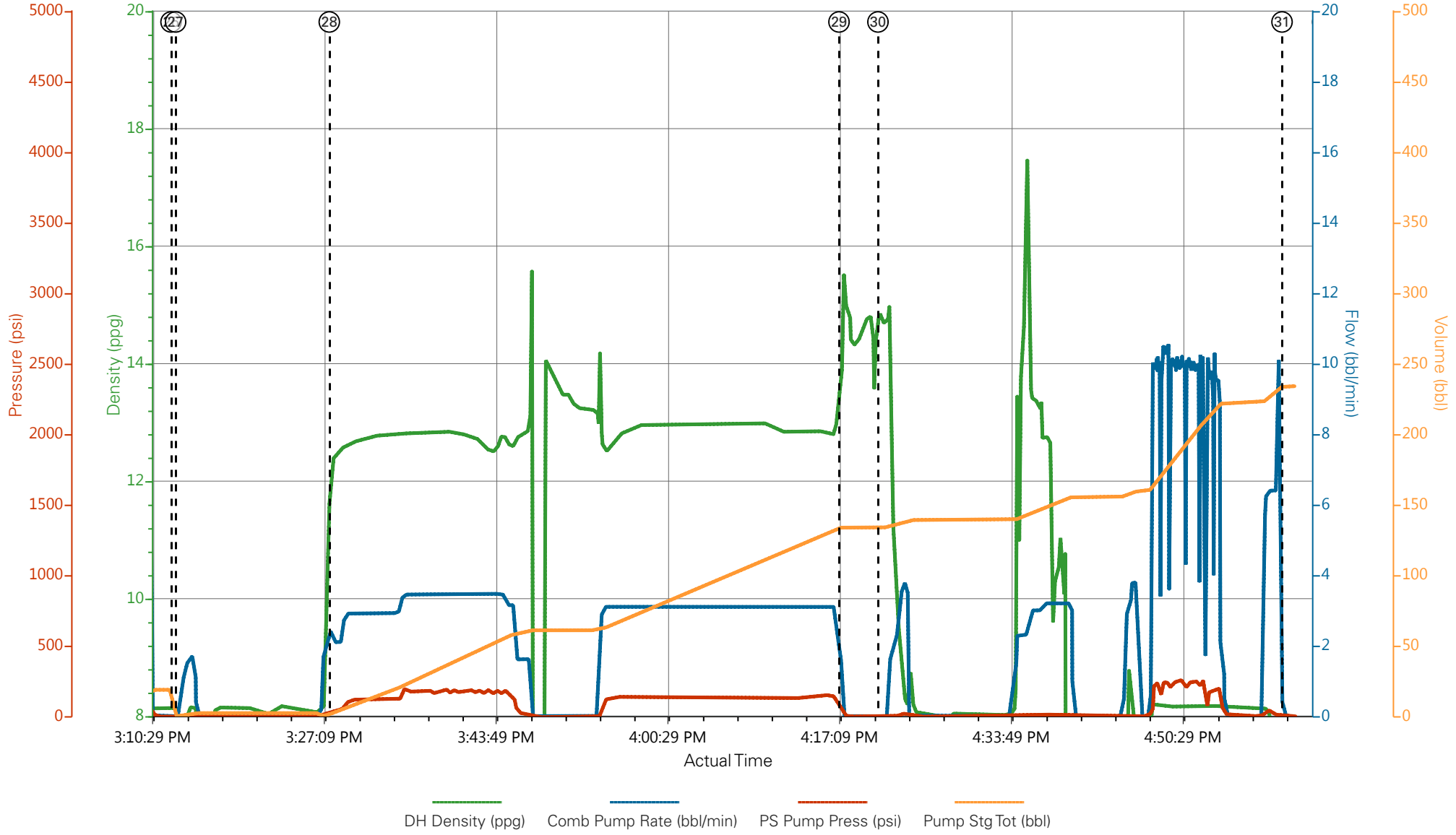

① Call Out	⑦ Pre-Job Safety Meeting	⑬ Pump Lead Cement	⑲ Slow Rate	25 Shutdown	31 End Job
② Depart from Service Center or Other Site	⑧ Start Job	⑭ Check weight	20 Slow Rate	26 Start Pumping	32 Pre-Rig Down Safety Meeting
③ Arrive At Loc	⑨ PRIME LINES	⑮ Pump Tail Cement	21 Bump Plug	27 Prime lines	33 Rig-Down Equipment
④ Assessment Of Location Safety Meeting	⑩ Test Lines	⑯ Shutdown	22 Check Floats	28 Rev er Cem Cmt	34 Safety Meeting - Departing Location
⑤ Pre-Rig Up Safety Meeting	⑪ Pump Spacer 1	⑰ Drop Top Plug	23 Rig-Down Equipment	29 Shutdown	35 Comment
⑥ Rig-Up Equipment	⑫ Pump Spacer 2	⑱ Pump Displacement	24 Pump Sugar Water	30 Clean Lines	

HALLIBURTON | iCem® Service

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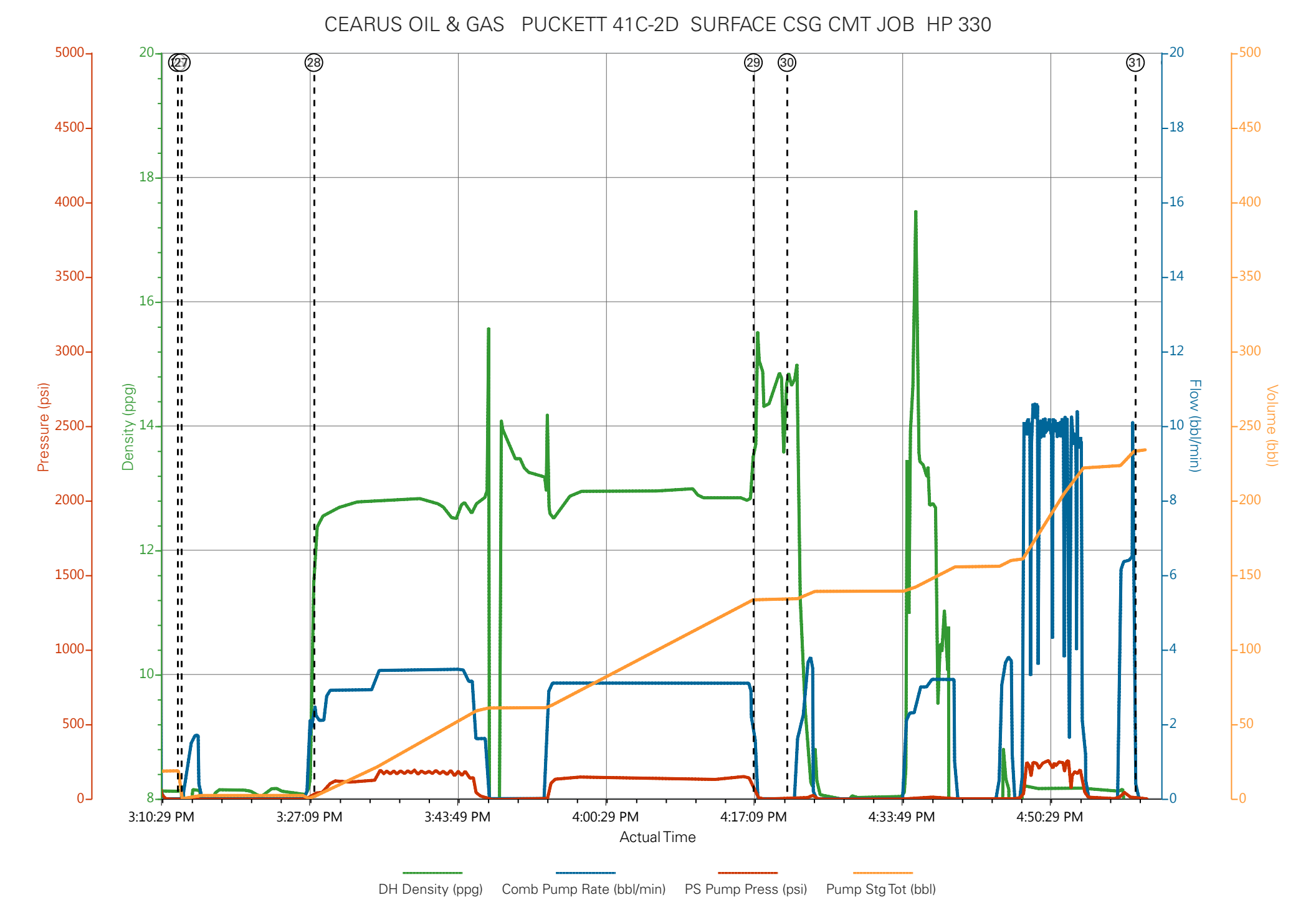

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Sales Order #: 0902404803
Well: 41C-2D
E-1 / OPERATOR: DIRK BRENNECKE

HALLIBURTON

Water Analysis Report

Company:	CEARUS OIL & GAS	**Date:**	5/13/2015
Submitted by:	CRAIG KUKUS	**Date Rec.:**	5/13/2015
Attention:		**S.O.#**	902404803
Lease	PUCKETT	**Job Type:**	SURFACE
Well #	41C-2D		

Specific Gravity	*MAX*	0
pH	*8*	7
Potassium (K)	*5000*	200 Mg / L
HARDNESS	*500*	425 Mg / L
Iron (FE2)	*300*	0 Mg / L
Chlorides (Cl)	*3000*	250 Mg / L
Sulfates (SO_4)	*1500*	<200 Mg / L
Chlorine (Cl_2)		0 Mg / L
Temp	*40-80*	60 Deg
Total Dissolved Solids		460 Mg / L

Respectfully: CRAIG KUKUS

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

HALLIBURTON

CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
0902404803	10	5/13/2015
Customer:		**Job Type (BOM):**
CAERUS OIL AND GAS LLC - EBUS		CMT SURFACE CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
WHITEY		05-045-17713-00
Well Name:		**Well Number:**
PUCKETT		0080227814
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**	**5/13/2015**
Survey Interviewer	**The survey interviewer is the person who initiated the survey.**	**HX19742**
Customer Participation	**Did the customer partipcipate in this survey? (Y/N)**	**Yes**
Customer Representative	**Enter the Customer representative name**	**WHITEY**
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

HALLIBURTON

CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
0902404803	10	5/13/2015
Customer:		**Job Type (BOM):**
CAERUS OIL AND GAS LLC - EBUS		CMT SURFACE CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
WHITEY		05-045-17713-00
Well Name:		**Well Number:**
PUCKETT		0080227814
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	5/13/2015

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.	Vertical
Total Operating Time (hours) Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	7
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
Pumping Hours Total number of hours pumping fluid on this job. Enter in decimal format.	5
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	6
Was this a Primary Cement Job (Yes / No) Primary Cement Job= Casing job, Liner job, or Tie-back job.	Yes
Number of Unplanned Shutdowns Unplanned shutdown is when injection stops for any period of time.	0
Customer Non-Productive Rig Time (hrs)	0

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Customer Representative:		**API / UWI: (leave blank if unknown)**
WHITEY		05-045-17713-00
Well Name:		**Well Number:**
PUCKETT		0080227814
Well Type:	**Well Country:**	
DIRECTIONAL GAS	USA	
H2S Present:	**Well State:**	**Well County:**
No	COLORADO	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)	No
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 cment 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