

Caerus Oil and Gas LLC - EBUS

Puckett 21D-1

**H&P 330**

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 9/21/2015  
Job Date: 9/10/2015

Submitted by: Patrick Ealey – Grand Junction Cement Engineer

*The Road to Excellence Starts with Safety*

Sold To #: 360446	Ship To #: 3665976	Quote #:	Sales Order #: 0902732956
Customer: CAERUS OIL AND GAS LLC - EBUS	Customer Rep: BOYD COTTAM		
Well Name: PUCKETT	Well #: 21D-1	API/UWI #: 05-045-22858-00	
Field: GRAND VALLEY	City (SAP): PARACHUTE	County/Parish: GARFIELD	State: COLORADO
Legal Description: SE NW-1-7S-97W-2076FNL-1342FWL			
Contractor: H & P DRLG	Rig/Platform Name/Num: H & P 330		
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB80977	Srvs Supervisor: Dustin Hyde		
Job			

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	2510ft 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	3	20	19.124	94			0	128	0	0
Casing		9.625	8.921	36	8 RD (LT&C)		0	2534		0
Open Hole Section			14.75				128	2510	0	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	1				Bottom Plug			
Float Collar	9.625	1		2463.6		SSR plug set			
Insert Float	9.625	1				Plug Container	9.625	1	HES
Stage Tool	9.625	1				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/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
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2	Super Flush 101	Super Flush 101	20	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
3	Water	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
4	Lead Cement	VARICEM (TM) CEMENT	375	sack	11	3.65		6	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
5	Tail Cement	VARICEM (TM) CEMENT	160	sack	12.8	2.18		6	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
6	Displacement	Displacement	190	bbl	8.34			6	
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	Super Flush 101	Super Flush 101	10	bbl	9.17				
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
8	Top Out	REVERCEM (TM) CEMENT	200	sack	12.8	2.12		3.5	11.15
11.15 Gal		FRESH WATER							
Cement Left In Pipe		Amount	47 ft			Reason		Shoe Joint	
Comment									

## 1.0 Real-Time Job Summary

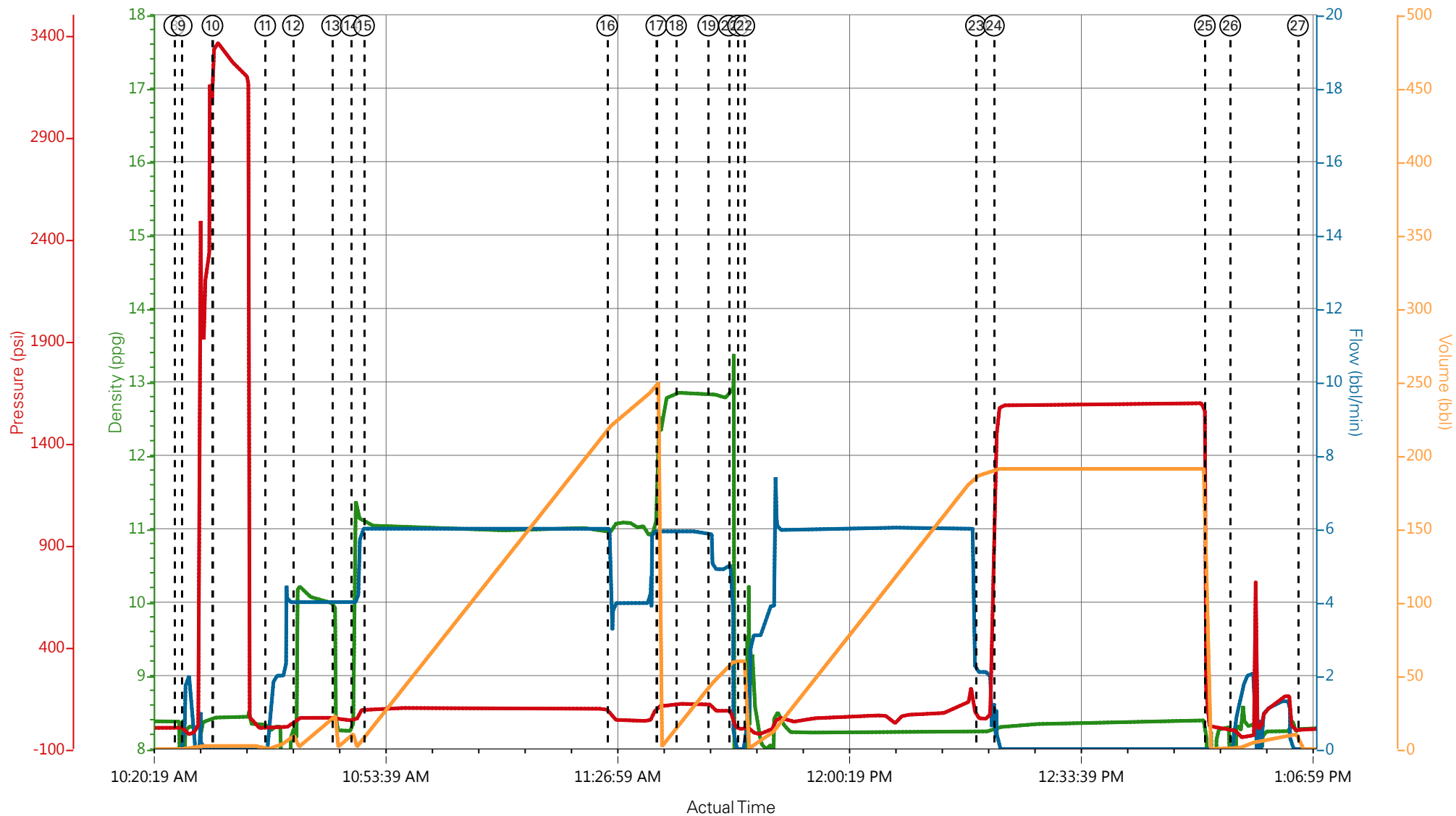
## 1.1 Job Event Log

Type	Seq. No.	Activity	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Recirc Density (ppg)	Comments
Event	1	Call Out	9/10/2015	04:00:00	USER						ON LOCATION CHANGED TO @ 08:00. ALL EQUIPMENT DID NOT GET ON LOCATION UNTIL 08:30
Event	2	Pre-Convoy Safety Meeting	9/10/2015	06:00:00	USER						CREW WAITING IN FIELD FOR JOB JUST MISSING SUPERFLUSH DRIVER AND TRUCK. EE WILL BE LEAVING YARD SHORTLY
Event	3	Arrive at Location from Other Job or Site	9/10/2015	08:00:00	USER						1 HT 400 PUMP TRUCK E8, 2 660 BULK TRUCKS, 1 550 SERVICE PICKUP. SUPERFLUSH SHOWED UP @08:30
Event	4	Assessment Of Location Safety Meeting	9/10/2015	08:15:00	USER						PERFORMED JSA AND WATER TEST
Event	5	Pre-Rig Up Safety Meeting	9/10/2015	08:30:00	USER						ALL HES EMPLOYEES PRESENT
Event	6	Rig-Up Equipment	9/10/2015	08:45:00	USER						1 HT 400 PUMP TRUCK E8, 2 660 BULK TRUCKS, 1 SUPER FLUSH TRUCK, 1 550 SERVICE PICK UP
Event	7	Pre-Job Safety Meeting	9/10/2015	10:00:00	USER						ALL HES EMPLOYEES AND RIG CREWS ATTENDED
Event	8	Start Job	9/10/2015	10:23:42	USER						TD 2510', TP 2534.19', SJ 46.38', OH 14 3/4", SCG 9 5/8" 36# J-55

Event	9	Prime Pumps	9/10/2015	10:24:46	COM8	8.33	2.0	0	2	PRIME LINES WITH FRESH WATER
Event	10	Test Lines	9/10/2015	10:29:11	COM8			3260		KICK OUTS FUNCTIONAL, 5TH GEAR STALLED OUT @ 2200 PSI, TESTED @ 3260 PSI
Event	11	Pump Spacer 1	9/10/2015	10:36:47	COM8	8.33	4.0	5	10	FRESH WATER
Event	12	Pump Spacer 2	9/10/2015	10:40:46	COM8	10.2	4.0	52	20	20 BBLS SUPER FLUSH
Event	13	Pump Spacer 1	9/10/2015	10:46:24	COM8	8.33	4.0	40	10	FRESH WATER
Event	14	Pump Lead Cement	9/10/2015	10:49:06	COM8	11.0	6.0	120	243.8	375 SKS OF VARICEM CMT, 11 PPG, 3.65 YIELD, 23.08 GAL/SK, 6 BOXS OF TUF FIBER RAN THROUGH OUT LEAD CMT
Event	15	Check Weight	9/10/2015	10:51:00	COM8					MUD CUP MATCHED RECIRC DENSITY
Event	16	Slow Rate	9/10/2015	11:25:58	USER					SLOWED TO END LEAD CMT ON THE SILO
Event	17	Pump Tail Cement	9/10/2015	11:33:02	COM8	12.8	6.0	180	62.12	160 SKS VARICEM CMT, 12.8 PPG, 2.18 YIELD, 11.15 GAL/SK
Event	18	Check Weight	9/10/2015	11:35:52	COM8					MUD CUP MATCHED RECIRC DENSITY
Event	19	Slow Rate	9/10/2015	11:40:30	USER					SLOWED TO END TAIL CMT
Event	20	Shutdown	9/10/2015	11:43:27	USER					END OF CMT
Event	21	Drop Top Plug	9/10/2015	11:44:47	COM8					VERIFIED BY TATTLE TAIL
Event	22	Pump Displacement	9/10/2015	11:45:41	COM8	8.33	6.0	160	180	FRESH WATER WASHED UP ONTOP OF PLUG
Event	23	Slow Rate	9/10/2015	12:19:00	USER	8.33	2.0	60	10	SLOWED TO BUMP PLUG
Event	24	Bump Plug	9/10/2015	12:21:35	COM8	8.33	2.0	80	190	PLUG BUMPED BROUGHT PRESSURE UP TO 1580 PSI FOR A 30 MIN. CSG TEST. NOT RETURNS
Event	25	Check Floats	9/10/2015	12:51:56	USER			1580		PRESSURE HELD FOR CCG TEST. FLOATS HELD 1.5 BBL FLOW BACK

Event	26	Other	9/10/2015	12:55:34	USER	8.4	2.0	150	10	PUMP 10 BBLS SUGAR WATER PRESSURE 150 PSI 2 BPM. FLOW CAME BACK AT 5 BBLS IN. USED 10 LBS SUGAR
Event	27	Other	9/10/2015	13:05:19	USER					RIG GOING TO NIPPLE UP AND BOP TEST RTP @ 17:00
Event	28	Other	9/10/2015	17:15:22	USER					
Event	29	Prime Pumps	9/10/2015	17:16:04	COM8	8.33			.5	BOOSTED .5 BBL WATER TO MAKE SURE HAD FLOW
Event	30	Pump Cement	9/10/2015	17:19:34	COM8	12.8	3.5	110	79	200 SKS REVERCEM CMT, 12.8 PPG, 2.12 YIELD, 11.15 GAL/SK. USED 10 BBLS SUPER FLUSH 101 STARTED 60 BBLS INTO CMT
Event	31	Shutdown	9/10/2015	17:44:08	USER					RECIEVED CMT TO SURFACE
Event	32	Resume	9/10/2015	17:45:22	USER	12.8	1.0	25	1	FELL 1' PUMPED 1 BBL
Event	33	Shutdown	9/10/2015	17:48:45	USER				80	TOPPED OUT WATCHED AND DID NOT FALL ANY MORE
Event	34	End Job	9/10/2015	17:49:22	USER					THANK YOU FOR USING HALLIBURTON CMT, DUSTIN HYDE AND CREW

# CAERUS PUCKETT 21D-1 9 5/8" SURFACE



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

- |   |                             |                    |                    |                    |                      |                      |
|---|-----------------------------|--------------------|--------------------|--------------------|----------------------|----------------------|
| ① Call Out                                  | ⑤ Pre-Rig Up Safety Meeting | ⑨ Prime Lines      | ⑬ Pump H2O Spacer  | ⑰ Pump Tail Cement | 21 Drop Top Plug     | 25 Check Floats      |
| ② Pre-Convoy Safety Meeting                 | ⑥ Rig-Up Equipment          | ⑩ Test Lines       | ⑭ Pump Lead Cement | ⑱ Check weight     | 22 Pump Displacement | 26 Pump Parasite     |
| ③ Arrive at Location from Other Job or Site | ⑦ Pre-Job Safety Meeting    | ⑪ Pump H2O Spacer  | ⑮ Check weight     | ⑲ Slow Rate        | 23 Slow Rate         | 27 Wait To Do Topout |
| ④ Assessment Of Location Safety Meeting     | ⑧ Start Job                 | ⑫ Pump Super Flush | ⑯ Slow Rate        | 20 Shutdown        | 24 Bump Plug         |                      |

▼ **HALLIBURTON** | iCem® Service

Created: 2015-09-10 09:14:50, Version: 4.2.384

Edit

Customer : CAERUS OIL AND GAS LLC - EBUS

Job Date : 9/10/2015

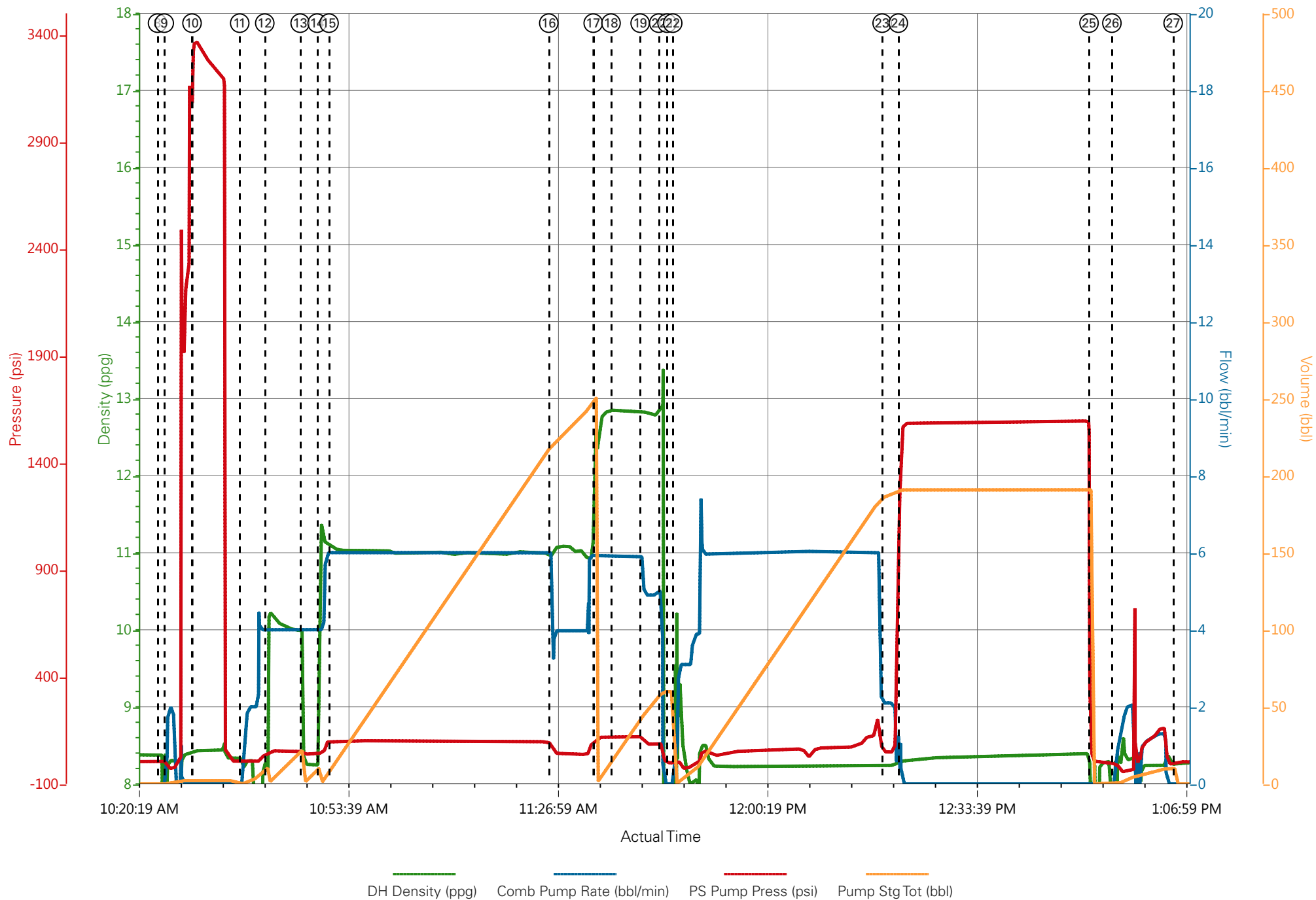
Well : PUCKETT

Representative : DUSTIN HYDE

Sales Order # : 902732956

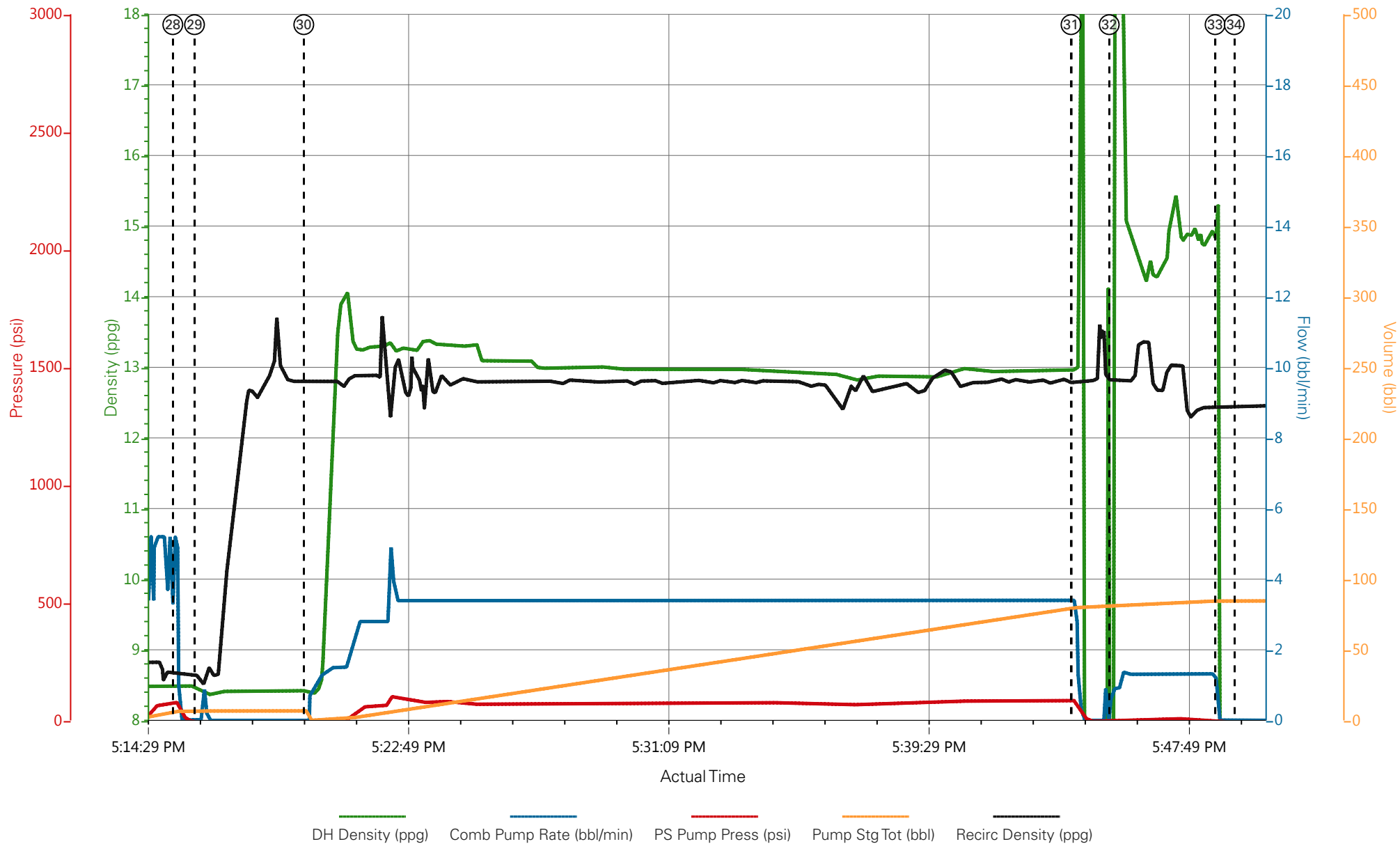
ELITE #8 : DUSTIN HYDE / MAX LOBATO

# CAERUS PUCKETT 21D-1 9 5/8" SURFACE



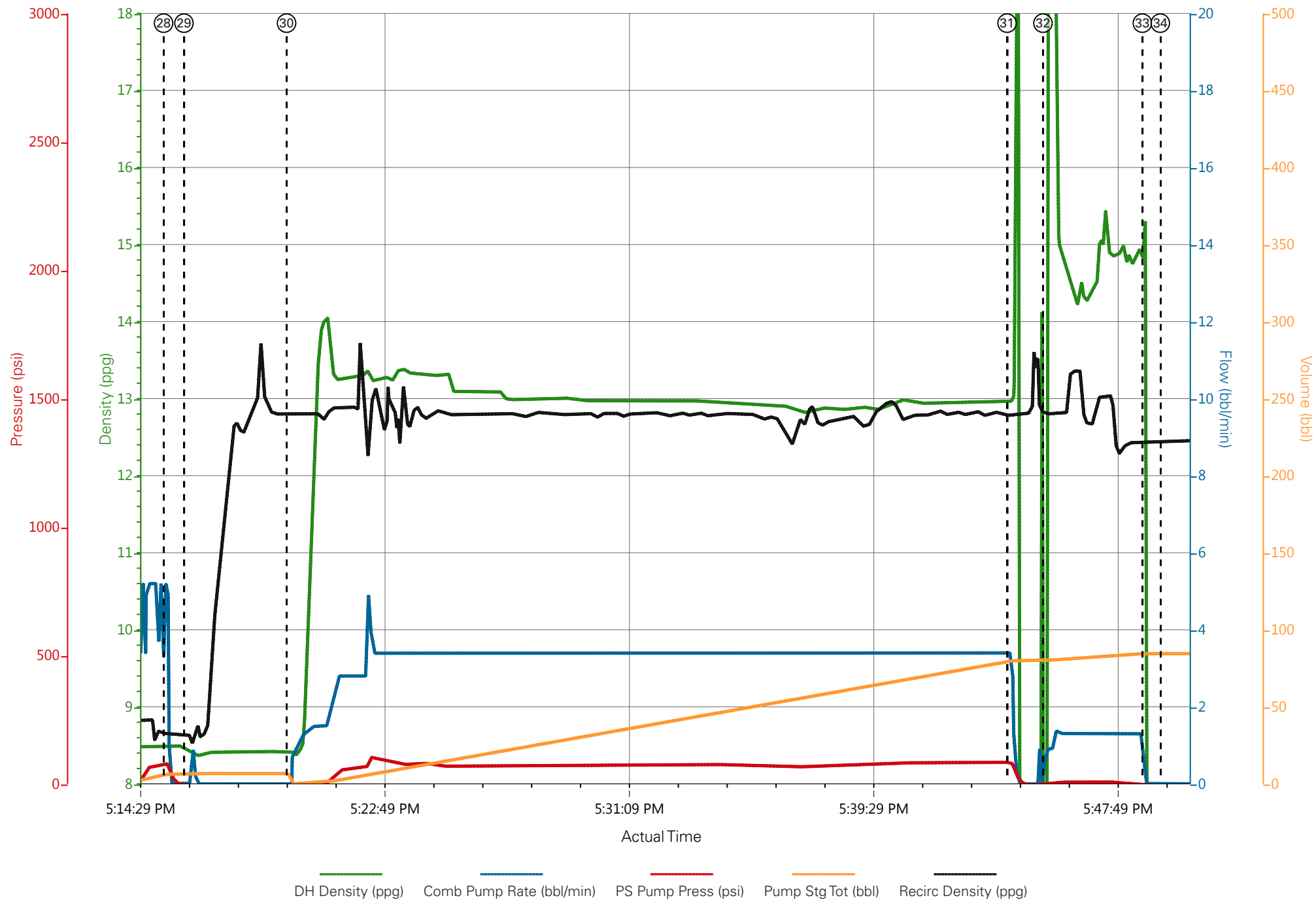


# CAERUS PUCKETT 21D-1 9 5/8" TOPOUT



- |   |   |                          |                    |                    |                    |             |
|---|---|--------------------------|--------------------|--------------------|--------------------|-------------|
| ① Call Out                                  | ④ Assessment Of Location Safety Meeting | ⑦ Pre-Job Safety Meeting | ⑩ Test Lines       | ⑬ Pump H2O Spacer  | ⑯ Slow Rate        | ⑲ Slow Rate |
| ② Pre-Convoy Safety Meeting                 | ⑤ Pre-Rig Up Safety Meeting             | ⑧ Start Job              | ⑪ Pump H2O Spacer  | ⑭ Pump Lead Cement | ⑰ Pump Tail Cement | ⑳ Shutdown  |
| ③ Arrive at Location from Other Job or Site | ⑥ Rig-Up Equipment                      | ⑨ Prime Lines            | ⑫ Pump Super Flush | ⑮ Check weight     | ⑱ Check weight     | ㉑ Drop Top  |

# CAERUS PUCKETT 21D-1 9 5/8" TOPOUT



# HALLIBURTON

## Water Analysis Report

Company: CAERUS  
Submitted by: Dustin Hyde  
Attention: J.TROUT  
Lease: PUCKETT  
Well #: 21D-1

Date: 9/10/2015  
Date Rec.: 9/10/2015  
S.O.#: 902732956  
Job Type: SURFACE

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>8</b>
Potassium (K)	<i>5000</i>	<b>200</b> Mg / L
Calcium (Ca)	<i>500</i>	<b>250</b> Mg / L
Iron (FE2)	<i>300</i>	<b>0</b> Mg / L
Chlorides (Cl)	<i>3000</i>	<b>0</b> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>&lt;200</b> Mg / L
Temp	<i>40-80</i>	<b>60</b> Deg
Total Dissolved Solids		<b>420</b> Mg / L

Respectfully: Dustin Hyde  
Title: Cement 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 use

<b>Sales Order #:</b> 0902732956	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 9/11/2015
<b>Customer:</b> CAERUS OIL AND GAS LLC - EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b>		<b>API / UWI: (leave blank if unknown)</b> 05-045-22858-00
<b>Well Name:</b> PUCKETT		<b>Well Number:</b> 0080730012
<b>Well Type:</b> DIRECTIONAL GAS	<b>Well Country:</b> USA	
<b>H2S Present:</b> No	<b>Well State:</b> COLORADO	<b>Well County:</b> 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	9/11/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB43597
Customer Participation	Did the customer participate 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	

<b>CUSTOMER SIGNATURE</b>
---------------------------

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<b>Well Name:</b> PUCKETT		<b>Well Number:</b> 0080730012
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<b>H2S Present:</b> No	<b>Well State:</b> COLORADO	<b>Well County:</b> GARFIELD

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	9/11/2015
The date the survey was conducted	

Cementing KPI Survey	
<b>Type of Job</b>	0
Select the type of job. (Cementing or Non-Cementing)	
<b>Select the Maximum Deviation range for this Job</b>	Vertical
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
<b>Total Operating Time (hours)</b>	7
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
<b>HSE Incident, Accident, Injury</b>	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
<b>Was the job purpose achieved?</b>	Yes
Was the job delivered correctly as per customer agreed design?	
<b>Pumping Hours</b>	4
Total number of hours pumping fluid on this job. Enter in decimal format.	
<b>Type of Rig Classification Job Was Performed</b>	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
<b>Number Of JSAs Performed</b>	6
Number Of Jsas Performed	
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes
Primary Cement Job= Casing job, Liner job, or Tie-back job.	
<b>Number of Unplanned Shutdowns</b>	0
Unplanned shutdown is when injection stops for any period of time.	
<b>Customer Non-Productive Rig Time (hrs)</b>	0

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<b>Customer Representative:</b>		<b>API / UWI: (leave blank if unknown)</b> 05-045-22858-00
<b>Well Name:</b> PUCKETT		<b>Well Number:</b> 0080730012
<b>Well Type:</b> DIRECTIONAL GAS	<b>Well Country:</b> USA	
<b>H2S Present:</b> No	<b>Well State:</b> COLORADO	<b>Well County:</b> 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.	
<b>Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment?</b> Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment?	No
<b>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Top
<b>If a top plug was run, was the plug bumped? (Yes/No/N/A)</b> If a top plug was run, was the plug bumped? (Yes/No/N/A)	Yes
<b>If applicable, was Halliburton float equipment used? (Yes/No/N/A)</b> If applicable, was Halliburton float equipment used? (Yes/No/N/A)	Not Available
<b>If applicable, did the floats hold? (Yes/No/N/A)</b> If applicable, did the floats hold? (Yes/No/N/A)	Yes
<b>Mixing Density of Job Stayed in Designed Density Range (0-100%)</b> Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	98
<b>Pump Rate (percent) of Job Stayed At Designed Pump Rate</b> 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	97
<b>If applicable, were there returns throughout the job? (Yes/No/N/A)</b> If applicable, were there returns throughout the job? (Yes/No/N/A)	No
<b>Nbr of Remedial Plug Jobs Rqd - HES</b> Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
<b>Nbr of Remedial Sqz Jobs Rqd - HES</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0