

Caerus Oil and Gas LLC- EBUS

Puckett 23B-1

H&P 330

Post Job Summary

Cement Surface Casing

Date Prepared: 07/24/2015

Job Date: 07/18/2015

Submitted by: Evan Russell – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 360446	Ship To #: 3194318	Quote #:	Sales Order #: 0902573486
Customer: CAERUS OIL AND GAS LLC - EBUS	Customer Rep: WHITEY		
Well Name: PUCKETT	Well #: 23B-1	API/UWI #: 05-045-13351-00	
Field: GRAND VALLEY	City (SAP): PARACHUTE	County/Parish: GARFIELD	State: COLORADO
Legal Description: NE SW-1-7S-97W-2142FSL-1980FWL			
Contractor: H & P DRLG	Rig/Platform Name/Num: H & P 330		
Job BOM: 7521			
Well Type: VERTICAL GAS			
Sales Person: HALAMERICA\HB80977	Srvc Supervisor:		

Job

Formation Name	
Formation Depth (MD)	Top
Form Type	BHST
Job depth MD	2507ft
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	2507		0
Open Hole Section			14.75				0	2520		0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625	1		2507	Top Plug	9.625	1	HES
Float Shoe	9.625				Bottom Plug	9.625		HES
Float Collar	9.625	1			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	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	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
4	Lead Cement	VARICEM (TM) CEMENT	375	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
5	Tail Cement	VARICEM (TM) CEMENT	160	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
6	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
7	ReverCem	REVERCEM (TM) CEMENT	300	sack	12.8	2.12		2.7	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
8	Type 1/2	Type I-II Cement	0	sack	15.6	1.16			5.02
0.10 Gal		CALCIUM CHLORIDE - LIQUID, 5 GAL PAIL (100005054)							
5.02 Gal		FRESH WATER							
94 lbm		TYPE I / II CEMENT, BULK (101439798)							
Cement Left In Pipe		Amount	42 ft			Reason		Shoe Joint	
Mix Water:		pH ##	Mix Water Chloride:## ppm			Mix Water Temperature:## °F °C			
Cement Temperature:## °F °C		Plug Displaced by:## lb/gal kg/m3 XXXX			Disp. Temperature:## °F °C				
Plug Bumped?Yes		Bump Pressure:945 psi			Floats Held?Yes				
TOP OUTCement Returns:3 bbl		Returns Density:## lb/gal kg/m3			Returns Temperature:## °F °C				
Comment									

1.0 Real-Time Job Summary

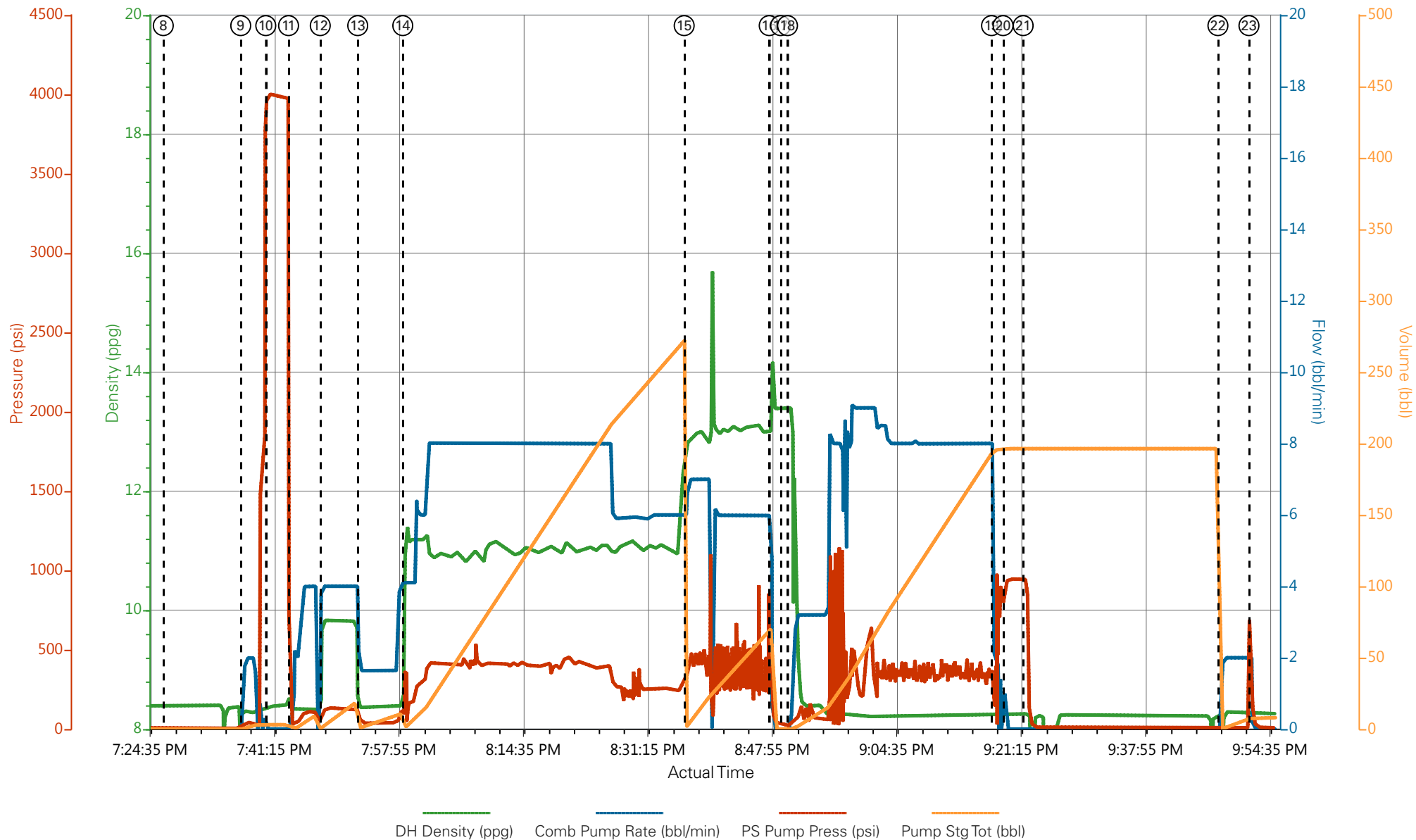
1.1 Job Event Log

Type	Seq. No.	Activity	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	7/18/2015	11:00:00	USER					CREW CALL OUT
Event	2	Depart from Service Center or Other Site	7/18/2015	13:00:00	USER					SAFETY MEETING DEPARTING LOC ALL HES CREW PRESENT
Event	3	Arrive At Loc	7/18/2015	16:00:00	USER					ARRIVE EARLY ON LOC / RIG RUNNING CSG / HES EQUIP ON LOC: 1 EA CMT PUMP UNIT 1 EA 660 BULK UNIT 1EA BODY LOAD BULK UNIT 1 EA UP RIGHT SILO 1 EA S/F UNIT 1 EA SERVICE PICK UP UNIT
Event	4	Assessment Of Location Safety Meeting	7/18/2015	16:10:00	USER					ASSESMENT WALK THRU OF LOC ALL HES CREW PRESENT
Event	5	Pre-Rig Up Safety Meeting	7/18/2015	16:15:00	USER					PRE-RIG UP SAFETY MEETING ALL HES CREW PRESENT
Event	6	Rig-Up Equipment	7/18/2015	16:25:00	USER					RIG UP IRON TO STAND PIPE / RIG UP SUCTION HOSES TO FRESH WATER AND RIG UP BULK EQUIP
Event	7	Pre-Job Safety Meeting	7/18/2015	17:34:55	USER	8.30	0.00	0.0	0.0	PRE-JOB MEETING ALL RIG PERSONEL AND HES CREW PRESENT
Event	8	Start Job	7/18/2015	19:26:44	COM6	8.39	0.00	0.0	0.0	START JOB: TD 2520 FT TP 2507 FT SJT 42.89 FT OH 14 3/4 IN CSG 9 5/8 IN 36# J-55 WF/WT 8.5#

Event	9	Prime Pumps	7/18/2015	19:37:06	USER	8.34	2.0	45.0	3.0	PRIME LINES WITH FRESH WATER AHEAD
Event	10	Test Lines	7/18/2015	19:40:27	COM6	8.38	0.00	4005.00	0.1	PRESSURE TEST LINES 5 TH GEAR STALL OUT AT 1570 PSI TEST TO 4000 PSI TEST GOOD
Event	11	Pump Spacer 1	7/18/2015	19:43:30	COM6	8.33	4.0	130.0	10.0	PUMP 10 BBLS FRESH WATER AHEAD
Event	12	Pump Spacer 2	7/18/2015	19:47:45	COM6	9.2	4.00	116.00	20.0	PUMP 20 BBLS S/FLUSH AT 9.17 PPG
Event	13	Pump Spacer 1	7/18/2015	19:52:46	COM6	8.36	4.0	130.0	10.0	PUMP 10 BBLS H2O SPACER
Event	14	Pump Lead Cement	7/18/2015	19:58:48	COM6	11.10	8.0	420.0	243.0	PUMP 375 SKS LEAD CMT AT 11.0 PPG 3.65Y 23.08 GAL/SKS 6 BOXES TUF FIBER
Event	15	Pump Tail Cement	7/18/2015	20:36:30	COM6	12.83	6.90	400.0	63.0	PUMP 160 SKS TAIL CMT AT 12.8 PPG 2.18 Y 12.11 GAL/SKS
Event	16	Shutdown	7/18/2015	20:47:53	USER	12.8	0.00	0.0	63.0	SHUT DOWN END CEMENT / READY TUB TO WASH UP ON TOP OF PLUG
Event	17	Drop Top Plug	7/18/2015	20:49:25	USER	8.34	0.00	0.0	0.0	DROP TOP PLUG / PLUG AWAY
Event	18	Pump Displacement	7/18/2015	20:50:20	COM6	8.34	8.0	360.0	180.0	PUMP H2O DISPLACEMENT
Event	19	Slow Rate	7/18/2015	21:17:40	USER	8.28	2.10	269.0	182.0	SLOW RATE 2 BLM
Event	20	Bump Plug	7/18/2015	21:19:13	COM6	8.34	0.0	934.00	190.2	PLUG LANDED AT 283 PSI BUMP TO 946 PSI
Event	21	Check Floats	7/18/2015	21:21:54	USER	8.27	0.00	944.00	190.2	CHECK FLOATS / GOT BACK 1.5 BBLS TO TANKS / FLOATS HELD / HAD NO RETURNS THRU OUT THE JOB
Event	22	Pump Spacer	7/18/2015	21:47:59	USER	8.34	2.0	700.0	6.5	PUMP 6.5 BBLS SUGAR WATER THRU PARISITE

Event	23	Shutdown	7/18/2015	21:52:09	USER	8.28	0.0	0.0	6.5	SHUT DOWN 6.5 BBLS GONE / WOC
Event	24	Start Job	7/19/2015	02:38:51	COM6					START TOP OUT
Event	25	Pump Spacer 1	7/19/2015	02:39:57	COM6	8.34	1.0	43.00	2.0	PUMP 2 BBLS H2O AHEAD
Event	26	Mix Cement	7/19/2015	02:43:02	USER	12.8	0.00	0.0	0.0	MIX UP TUB OF REVERCEM CMT
Event	27	Pump Cement	7/19/2015	02:52:11	COM6	12.8	2.7	170.0	108.0	PUMP REVERCEM CMT AT 12.8 PPG 2.12 Y 11.15 GAL/SKS 110 BBLS TOTAL 113 BBLS TO PUMP / USED 8 BBLS SUPER FLUSH 101
Event	28	Shutdown	7/19/2015	03:36:04	USER	12.8	0.0	149.00	108.0	SHUT DOWN CEMENT TO SURFACE / HESITATE
Event	29	Pump Cement	7/19/2015	03:37:29	USER	12.8	1.0	70.0	110.0	PUMP CEMENT
Event	30	Pump Water	7/19/2015	03:38:40	USER	8.34	1.0	17.00	1.0	PUMP 1 BBL WATER BEHIND
Event	31	Shutdown	7/19/2015	03:39:25	USER	8.34	0.0	0.0	1.0	SHUT DOWN / BREAK LINES TO CLEAN UP PUMP
Event	32	End Job	7/19/2015	03:43:04	COM6					END JOB / 3 BBLS CMT TO SURFACE
Event	33	Pre-Rig Down Safety Meeting	7/19/2015	03:50:00	USER					PRE-RIG DOWN SAFETY MEETING ALL HES CREW PRESENT
Event	34	Rig-Down Equipment	7/19/2015	03:58:00	USER					RIG DOWN IRON AND WASH UP PUMP / RIG DOWN GROUND AND BULK EQUIP
Event	35	Depart Location Safety Meeting	7/19/2015	04:45:00	USER					DEPART LOC SAFETY MEETING ALL HES CREW PRESENT
Event	36	Comment	7/19/2015	04:50:00	USER					THANK YOU FOR USING HALLIBURTON CEMENTING SERVICES AND THE CREW

CAERUS OIL & GAS SURFACE CMT JOB PUCKETT 23B-1 HP 330



- | | | | | |
|--|--------------------------|--------------------|---------------------|---------------------|
| 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 Spacer 2 | ⑰ Drop Top Plug | 22 Pump Sugar Water |
| ③ Arrive At Loc | ⑧ Start Job | ⑬ Pump Spacer 1 | ⑱ Pump Displacement | 23 Shutdown |
| ④ Assessment Of Location Safety Meeting | ⑨ Prime Pumps | ⑭ Pump Lead Cement | ⑲ Slow Rate | |
| ⑤ Pre-Rig Up Safety Meeting | ⑩ Test Lines | ⑮ Pump Tail Cement | 20 Bump Plug | |

▼ **HALLIBURTON** | iCem® Service

Created: 2015-07-18 17:17:53, Version: 4.1.107

Edit

Customer : CAERUS OIL AND GAS LLC - EBUS

Job Date : 7/18/2015 5:25:18 PM

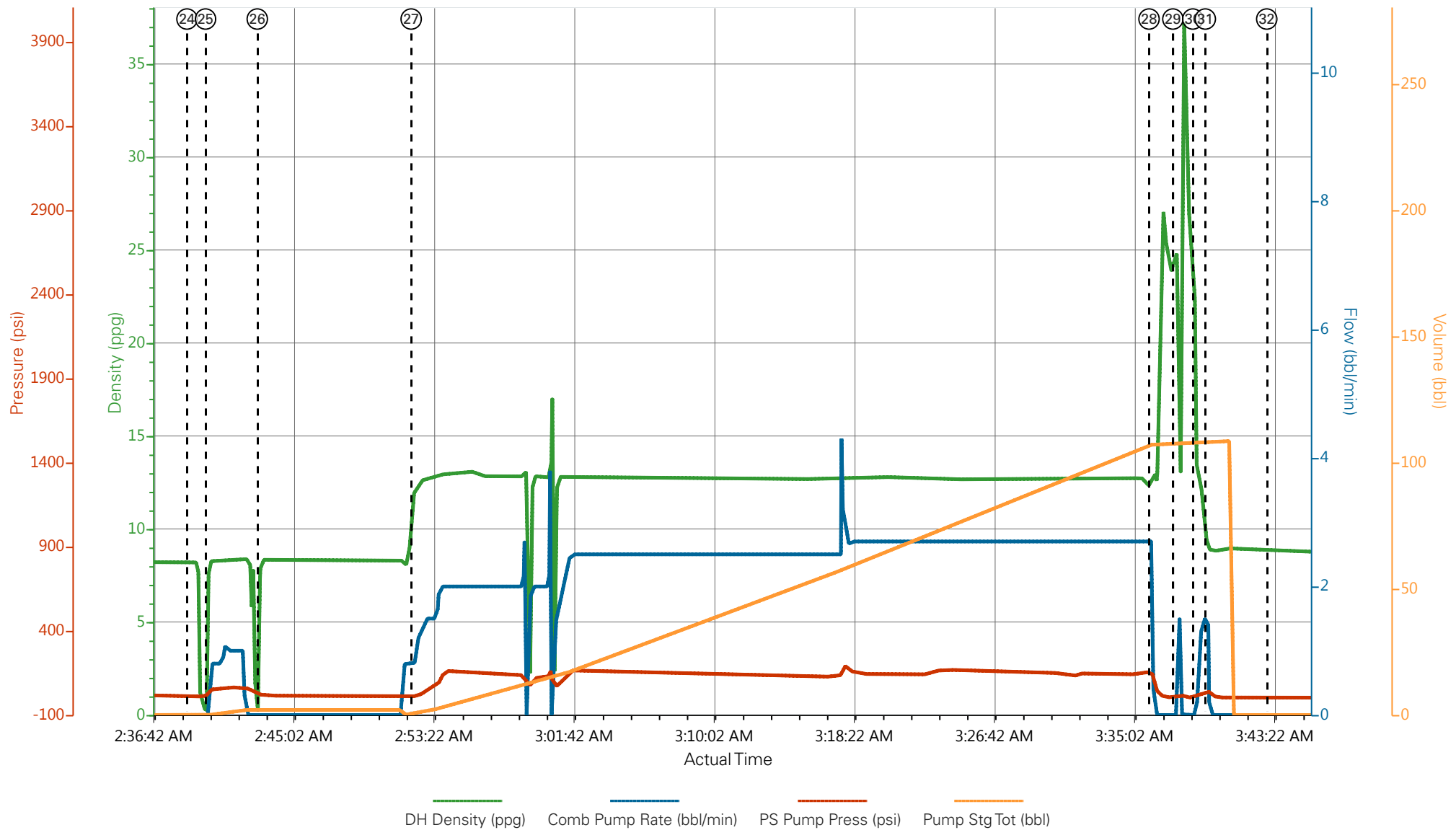
Well : 23B-1

Representative : CRAIG KUKUS

Sales Order # : 0902573486

ELITE 7 / OPERATOR : ADAM ANGELO

CAERUS OIL & GAS TOP OUT CMT JOB PUCKETT 23B-1 HP 330



- | | | | | | |
|--|--------------------------|---------------------|---------------------|------------------|-----------------------------------|
| ① Call Out | ⑦ Pre-Job Safety Meeting | ⑬ Pump Spacer 1 | ⑲ Slow Rate | 25 Pump Spacer 1 | 31 Shutdown |
| ② Depart from Service Center or Other Site | ⑧ Start Job | ⑭ Pump Lead Cement | 20 Bump Plug | 26 Mix Cement | 32 End Job |
| ③ Arrive At Loc | ⑨ Prime Pumps | ⑮ Pump Tail Cement | 21 Check Floats | 27 Pump Cement | 33 Pre-Rig Down Safety Meeting |
| ④ Assessment Of Location Safety Meeting | ⑩ Test Lines | ⑯ Shutdown | 22 Pump Sugar Water | 28 Shutdown | 34 Rig-Down Equipment |
| ⑤ Pre-Rig Up Safety Meeting | ⑪ Pump Spacer 1 | ⑰ Drop Top Plug | 23 Shutdown | 29 Pump Cement | 35 Depart Location Safety Meeting |
| ⑥ Rig-Up Equipment | ⑫ Pump Spacer 2 | ⑱ Pump Displacement | 24 Start Job | 30 Pump Water | 36 Comment |

▼ **HALLIBURTON** | iCem® Service

Created: 2015-07-18 17:17:53, Version: 4.1.107

Edit

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

Job Date : 7/18/2015 5:25:18 PM
Sales Order # : 0902573486

Well : 23B-1
ELITE 7 / OPERATOR : ADAM ANGELO

HALLIBURTON

Water Analysis Report

Company: CAERUS
Submitted by: CRAIG KUKUS
Attention: _____
Lease: PUCKETT
Well #: 23B-1

Date: 7/18/2015
Date Rec.: 7/18/2015
S.O.#: 902573486
Job Type: SURFACE

Specific Gravity	MAX	0
pH	8	7.5
Potassium (K)	5000	0 Mg / L
HARDNESS	500	425 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	70 Deg
Total Dissolved Solids		525 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 #: 0902573486	Line Item: 10	Survey Conducted Date: 7/19/2015
Customer: CAERUS OIL AND GAS LLC - EBUS		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative:		API / UWI: (leave blank if unknown) 05-045-13351-00
Well Name: PUCKETT		Well Number: 0080227934
Well Type: VERTICAL 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	7/19/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HX19742
Customer Participation	Did the customer participate in this survey? (Y/N)	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

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Customer Representative:		API / UWI: (leave blank if unknown) 05-045-13351-00
Well Name: PUCKETT		Well Number: 0080227934
Well Type: VERTICAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: GARFIELD

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	7/19/2015
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)	6
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	3.5
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:		API / UWI: (leave blank if unknown) 05-045-13351-00
Well Name: PUCKETT		Well Number: 0080227934
Well Type: VERTICAL 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)	Not Available
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