

Caerus Oil and Gas LLC- EBUS

Puckett 21C-1

H&P 330

Post Job Summary

Cement Surface Casing

Date Prepared: 09/17/2015

Job Date: 09/05/2015

Submitted by: Evan Russell – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 360446	Ship To #: 3665975	Quote #: 0022096435	Sales Order #: 0902721288
Customer: CAERUS OIL AND GAS LLC - EBUS		Customer Rep: WHITEY	
Well Name: PUCKETT	Well #: 21C-1	API/UWI #: 05-045-22857-00	
Field: GRAND VALLEY	City (SAP): PARACHUTE	County/Parish: GARFIELD	State: COLORADO
Legal Description: SE NW-1-7S-97W-2083FNL-1338FWL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 330	
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB80977		Srcv Supervisor: Eric Carter	

Job

Formation Name			
Formation Depth (MD)	Top	128ft	Bottom 2550ft
Form Type	BHST		
Job depth MD	2533ft		Job Depth TVD
Water Depth			Wk Ht Above Floor N/A
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	2533		0
Open Hole Section			14.75				128	2550	0	0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe					Top Plug	9.625	1	HES
Float Shoe					Bottom Plug			
Float Collar					SSR plug set			
Insert Float					Plug Container	9.625	1	HES
Stage Tool					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

2	Super Flush 101	Super Flush 101	20	bbl	10			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	23.08	7	
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	12.11	7	
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	192.2	bbl	8.34			7	
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	20	bbl	10				
21 gal/bbl		FRESH WATER							
20 BBLS SUPER FLUSH 101 PUMPED IN ANNULAS (SEE JOB LOG)									
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	300	sack	12.8	2.12	11.15	2	
11.15 Gal		FRESH WATER							
Cement Left In Pipe	Amount	46 ft		Reason	Shoe Joint				
Comment									

1.0 Real-Time Job Summary

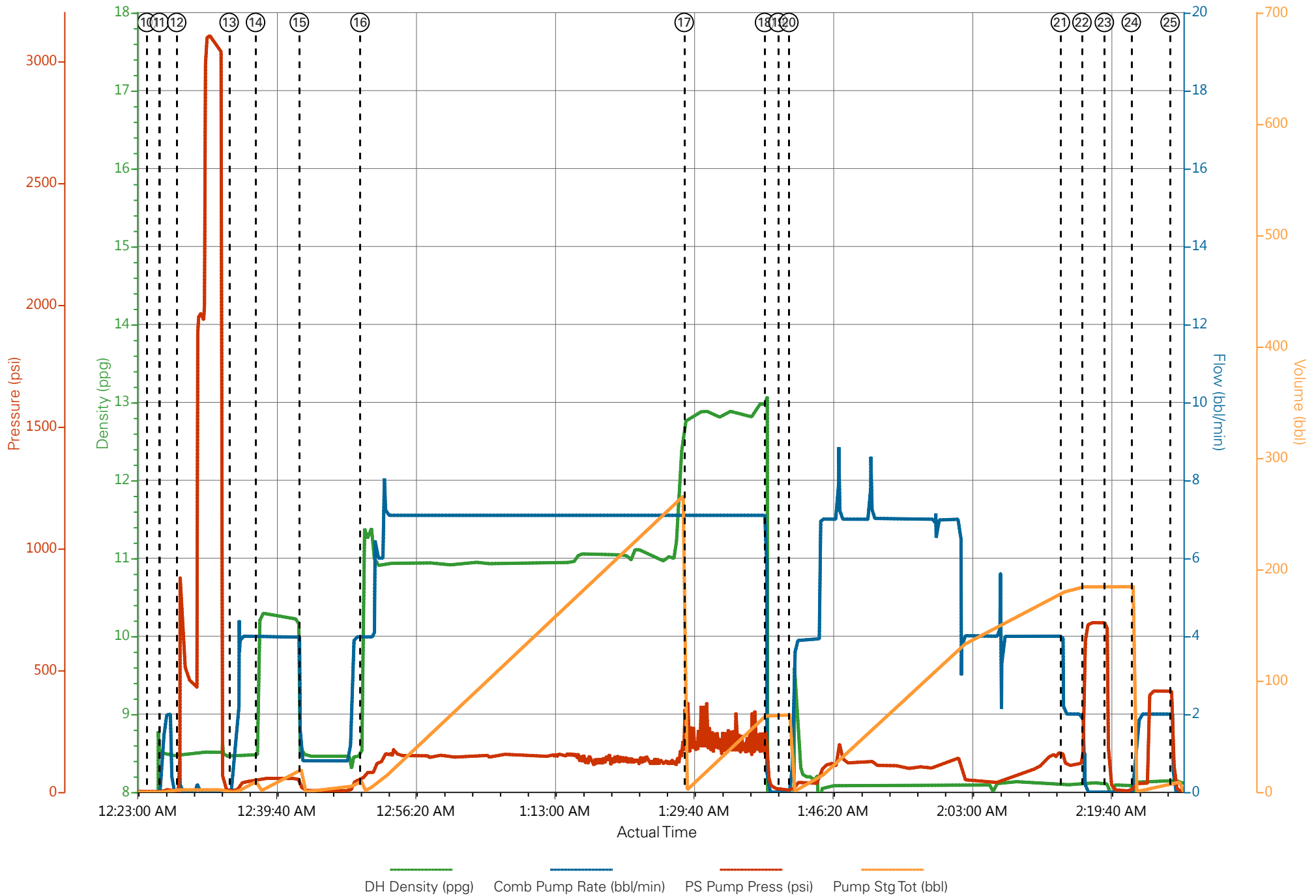
1.1 Job Event Log

Type	Seq. No.	Activity	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	PS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	9/4/2015	17:00:00	USER					
Event	2	Depart Yard Safety Meeting	9/4/2015	18:50:00	USER					ATTENDED BY ALL HES CREW
Event	3	Crew Leave Yard	9/4/2015	19:00:00	USER					
Event	4	Arrive At Loc	9/4/2015	23:00:00	USER					RIG READY
Event	5	Assessment Of Location Safety Meeting	9/4/2015	23:05:00	USER					ATTENDED BY ALL HES CREW
Event	6	Other	9/4/2015	23:10:00	USER					SPOT EQUIPMENT
Event	7	Pre-Rig Up Safety Meeting	9/4/2015	23:15:00	USER					ATTENDED BY ALL HES CREW
Event	8	Rig-Up Equipment	9/4/2015	23:20:00	USER					
Event	9	Pre-Job Safety Meeting	9/5/2015	00:00:00	USER					ATTENDED BY ALL HES CREW, RIG CREW AND COMPANY REP
Event	10	Other	9/5/2015	00:24:24	USER					TP 2533', TD 2550', MW 9.1 PPG, CASING 9.625", 36#, J-55, SJ 46', CONDUCTOR CASING 20", 94# SET AT 128', HOLE 14.75", RIG DID NOT HAVE CIRCULATION PRIOR TO JOB, CEMENT JOB PUMPED OFF LINE
Event	11	Other	9/5/2015	00:25:54	USER	8.34	2	15	2	FRESH WATER
Event	12	Test Lines	9/5/2015	00:27:59	USER					PRESSURED UP TO 3150 PSI, PRESSURE HELD

Event	13	Pump Spacer	9/5/2015	00:34:16	USER	8.34	4	50	10	FRESH WATER
Event	14	Pump Spacer	9/5/2015	00:37:26	USER	10	4	60	20	SUPER FLUSH 101
Event	15	Pump Spacer	9/5/2015	00:42:41	USER	8.34	4	50	10	FRESH WATER
Event	16	Pump Lead Cement	9/5/2015	00:49:57	USER	11	7	170	243.8	375 SKS VARICEM MIXED AT 11PPG, 3.65 YIELD, 23.08 GL/SK, TUFF FIBER MIXED ON THE FLY
Event	17	Pump Tail Cement	9/5/2015	01:28:48	USER	12.8	7	250	62.1	160 SKS VARICEM MIXED AT 12.8 PPG, 2.18 YIELD, 12.11 GL/SK
Event	18	Shutdown	9/5/2015	01:38:26	USER					
Event	19	Drop Top Plug	9/5/2015	01:40:02	USER					PLUG LAUNCHED
Event	20	Pump Displacement	9/5/2015	01:41:21	USER	8.34	7	179	182.2	FRESH WATER, SLOWED TO 4 BBLS AT 130 AWAY
Event	21	Slow Rate	9/5/2015	02:13:53	USER	8.34	2	120	10	
Event	22	Bump Plug	9/5/2015	02:16:28	USER			700		PLUG LANDED
Event	23	Check Floats	9/5/2015	02:19:09	USER					FLOATS HELD, NO CIRCULATION THROUGHOUT JOB, CASING NOT MOVED DURING JOB
Event	24	Other	9/5/2015	02:22:22	USER					PUMP SUGAR WATER THROUGH PARASITE
Event	25	Shutdown	9/5/2015	02:27:02	USER					
Event	26	Start Job	9/5/2015	06:12:36	COM5					BEGAN PUMPING ANNULAR FILL
Event	27	Pump Cement	9/5/2015	06:37:07	USER	12.8	2	40	113.3	300 SKS REVERCEM MIXED AT 12.8 PPG, 2.12 YIELD, 11.15 GL/SK, 20 BBLS SUPERFLUSH 101 PUMPED DOWN ANNULAS WHILE PUMPING CEMENT

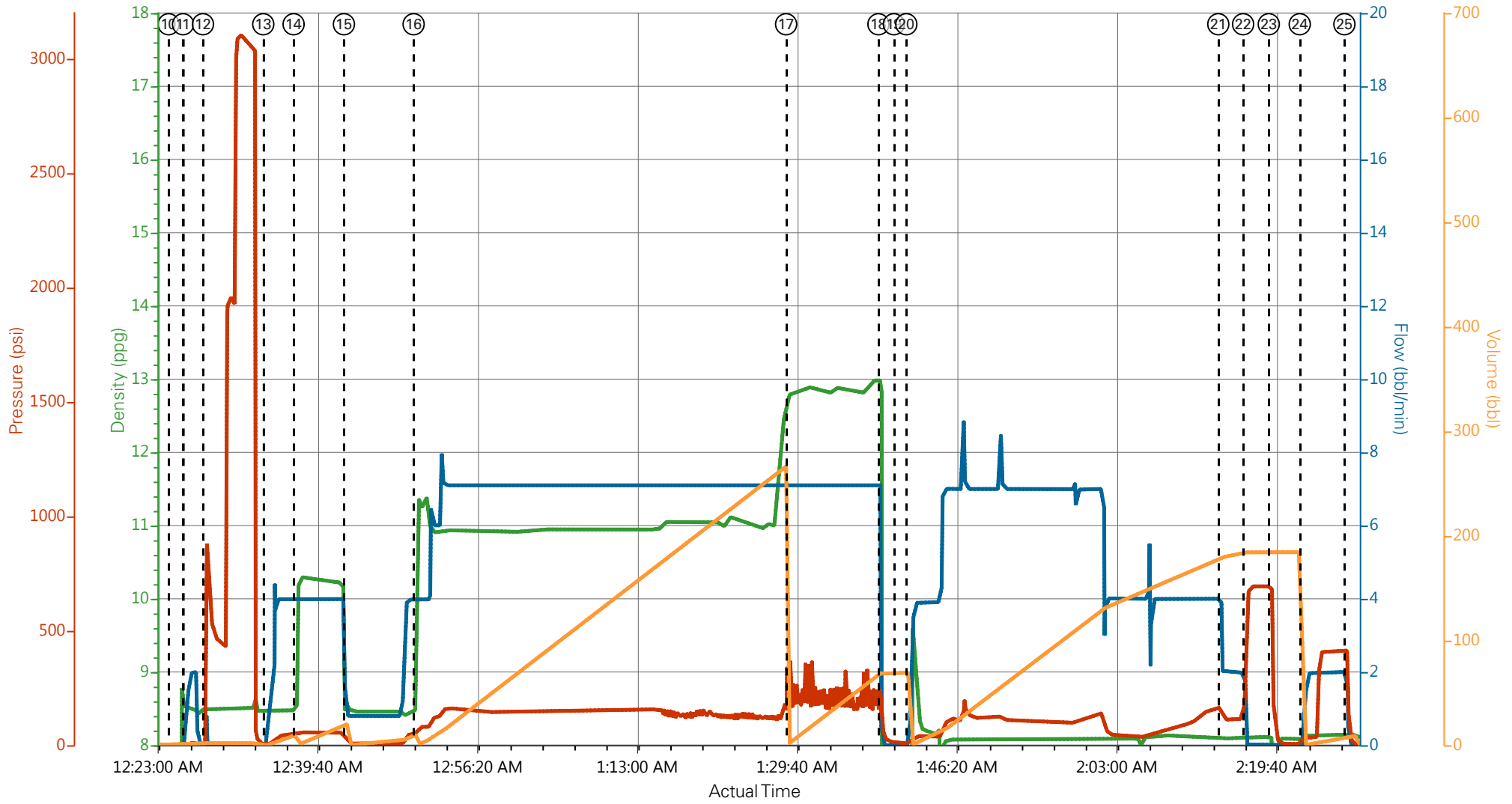
Event	28	Shutdown	9/5/2015	07:22:25	USER	
Event	29	End Job	9/5/2015	07:24:00	USER	5 BBLS CEMENT TO SURFACE
Event	30	Post-Job Safety Meeting (Pre Rig-Down)	9/5/2015	07:25:00	USER	ATTENDED BY ALL HES CREW
Event	31	Rig-Down Equipment	9/5/2015	07:35:00	USER	
Event	32	Depart Location Safety Meeting	9/5/2015	08:50:00	USER	ATTENDED BY ALL HES CREW
Event	33	Crew Leave Location	9/5/2015	09:00:00	USER	THANK YOU FOR USING HALLIBURTON CEMENT, ERIC CARTER AND CREW

CAERUS - PUCKETT 21C-1 - 9.625" SURFACE



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

CAERUS - PUCKETT 21C-1 - 9.625" SURFACE



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

- | | | | | |
|---------------------------------------------------------|---------------------------------------------|--------------------------------|--------------------------------------|---------------------------|
| ① Call Out n/a;n/a;n/a;n/a | ⑥ Other n/a;n/a;n/a;n/a | ⑪ Fill Lines 8.52;0.8;1;0 | ⑯ Pump Lead Cement 10.64;3.9;55;0.3 | ⑳ Slow Rate 8.1;2;138;179 |
| ② Depart Yard Safety Meeting n/a;n/a;n/a;n/a | ⑦ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a | ⑫ Test Lines 8.49;0.8;86;2 | ⑰ Pump Tail Cement 12.81;7.1;174;2.2 | ㉑ Bump Plug 8.12;0;610;1 |
| ③ Crew Leave Yard n/a;n/a;n/a;n/a | ⑧ Rig-Up Equipment n/a;n/a;n/a;n/a | ⑬ Pump Spacer 8.46;0.6;4;0 | ⑱ Shutdown 4.97;0;97;69.4 | ㉒ Check Floats 8.11;0;424 |
| ④ Arrive At Loc n/a;n/a;n/a;n/a | ⑨ Pre-Job Safety Meeting n/a;n/a;n/a;n/a | ⑭ Pump Spacer 8.92;4;45;10.5 | ㉓ Drop Top Plug 0.25;0;12;69.4 | ㉔ Other 8.12;0.9;30;0 |
| ⑤ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a | ⑩ Start Job 0;0;3;0 | ⑮ Pump Spacer 8.46;0.8;13;20.1 | ㉔ Pump Displacement 0.36;0.6;8;0 | ㉕ Shutdown 8.13;0.5;221 |

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Created: 2015-09-05 00:04:55, Version: 4.1.107

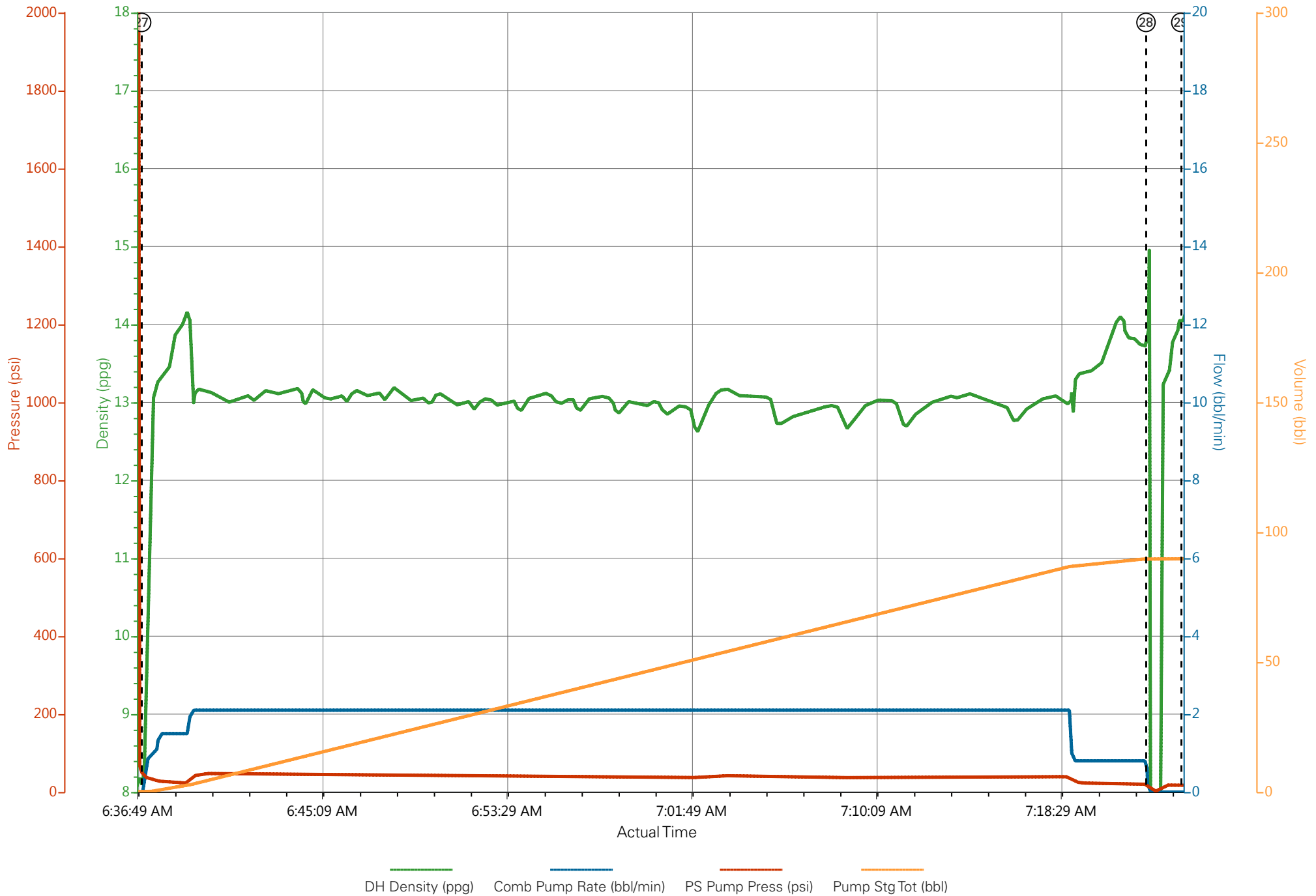
Edit

Customer: CAERUS OIL AND GAS LLC - EBUS
 Representative: WHITEY

Job Date: 9/5/2015 12:07:18 AM
 Sales Order #: 902721288

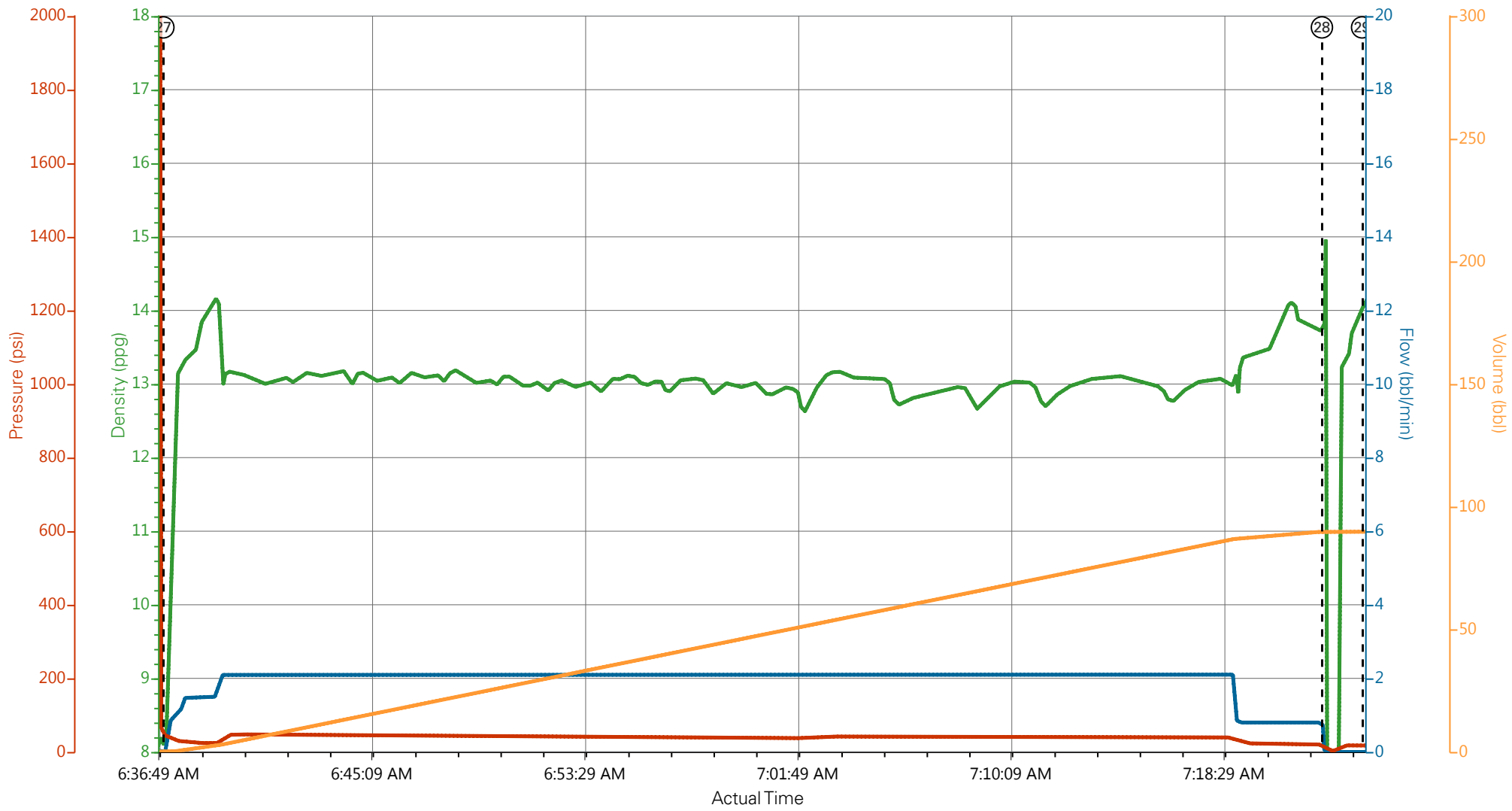
Well: PUCKETT 21C-1
 ELITE 1: ERIC CARTER/THOMAS PONDER

CAERUS - PUCKETT 21C-1 - 9.625" SURFACE



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

CAERUS - PUCKETT 21C-1 - 9.625" SURFACE



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

⑥ Other n/a;n/a;n/a;n/a	⑪ Fill Lines 8.52;0.8;1.0	⑮ Pump Lead Cement 10.64;3.9;55;0.3	21 Slow Rate 8.1;2.2;140;179.6	26 Start Job 8.12;0;9.64;0
⑦ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a	⑫ Test Lines 8.49;0.8;4;2	⑯ Pump Tail Cement 12.81;7.1;174;2.2	22 Bump Plug 8.12;0.2;600;184.5	27 Pump Cement 8.39;0;39;0
⑧ Rig-Up Equipment n/a;n/a;n/a;n/a	⑬ Pump Spacer 8.46;0;4;0	⑰ Shutdown 7.39;0;104;69.4	23 Check Floats 8.11;0;481;184.5	28 Shutdown 14.96;0;15;89.8
⑨ Pre-Job Safety Meeting n/a;n/a;n/a;n/a	⑭ Pump Spacer 8.92;4;45;10.5	⑱ Drop Top Plug 0.25;0;12;69.4	24 Other 8.12;0.9;30;0	29 End Job 14.04;0;19;89.8
⑩ Start Job 0;0;3;0	⑵ Pump Spacer 8.46;0.8;13;20.1	20 Pump Displacement 0.38;0;8;0	25 Shutdown 8.13;1;270;8.9	30 Post-Job Safety Meeting (Pre Rig-D

III

HALLIBURTON

Water Analysis Report

Company: CAERUS
Submitted by: ERIC CARTER
Attention: J.Trout
Lease: H&P 330
Well #: PUCKETT 21C-1

Date: 9/17/2015
Date Rec.: 9/17/2015
S.O.#: 902721288
Job Type: SURFACE

Specific Gravity	<i>MAX</i>	1
pH	<i>8</i>	7
Potassium (K)	<i>5000</i>	1000 Mg / L
Hardness	<i>500</i>	250 Mg / L
Iron (FE2)	<i>300</i>	10 Mg / L
Chlorides (Cl)	<i>3000</i>	500 Mg / L
Sulfates (SO ₄)	<i>1500</i>	<200 Mg / L
Temp	<i>40-80</i>	60 Deg
Total Dissolved Solids		OR Mg / L

Respectfully: ERIC CARTER

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 #: 0902721288	Line Item: 10	Survey Conducted Date: 9/5/2015
Customer: CAERUS OIL AND GAS LLC - EBUS		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative:		API / UWI: (leave blank if unknown) 05-045-22857-00
Well Name: PUCKETT		Well Number: 0080730020
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	9/5/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HX15491
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

Sales Order #: 0902721288	Line Item: 10	Survey Conducted Date: 9/5/2015
Customer: CAERUS OIL AND GAS LLC - EBUS		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative:		API / UWI: (leave blank if unknown) 05-045-22857-00
Well Name: PUCKETT		Well Number: 0080730020
Well Type: DIRECTIONAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: GARFIELD

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	9/5/2015
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	4
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

Sales Order #: 0902721288	Line Item: 10	Survey Conducted Date: 9/5/2015
Customer: CAERUS OIL AND GAS LLC - EBUS		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative:		API / UWI: (leave blank if unknown) 05-045-22857-00
Well Name: PUCKETT		Well Number: 0080730020
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)	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	94
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	94
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