

PICEANCE ENERGY LLC - EBUS

Piceance 28-10M

Patterson 306

Post Job Summary

Cement Surface Casing

Date Prepared: 07/15/2015

Job Date: 07/14/2015

Submitted by: Aaron Katz – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 344919	Ship To #: 3673006	Quote #:	Sales Order #: 0902574841
Customer: PICEANCE ENERGY LLC - EBUS	Customer Rep: ROGER		
Well Name: PICEANCE	Well #: 28-10M	API/UWI #: 05-077-10243-00	
Field: VEGA	City (SAP): COLLBRAN	County/Parish: MESA	State: COLORADO
Legal Description: SW NW-28-9S-93W-1620FNL-1248FWL			
Contractor: PATTERSON-UTI ENERGY	Rig/Platform Name/Num: PATTERSON 306		
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HX41066	Srvs Supervisor: Craig Kukus		

Job

Formation Name	
Formation Depth (MD)	Top
Form Type	BHST
Job depth MD	1612ft
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		16	15.25	65			0	60		
Casing		8.625	8.097	24			0	1612		0
Open Hole Section			11				60	1612		0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	8.625	1		1612	Top Plug	8.625	1	HES
Float Shoe	8.625				Bottom Plug	8.625	1	HES
Float Collar	8.625	1	HES	1566	SSR plug set	8.625		HES
Insert Float	8.625				Plug Container	8.625	1	HES
Stage Tool	8.625				Centralizers	8.625		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	40	bbl	8.33			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 GJ5	VARICEM (TM) CEMENT	192	sack	12.3	2.46		7.5	14.17
14.17 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 GJ5	VARICEM (TM) CEMENT	120	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/mi n	Total Mix Fluid Gal
4	Fresh Water Displacement	Fresh Water Displacement	99.6	bbl	8.3			9	
Cement Left In Pipe		Amount	46 ft			Reason		Shoe Joint	
Mix Water:		pH 8	Mix Water Chloride:## ppm			Mix Water Temperature:## °F °C			
Cement Temperature:		## °F °C	Plug Displaced by:## lb/gal 8,33			Disp. Temperature:## °F °70			
Plug Bumped?		Yes/	Bump Pressure:#### psi 2124			Floats Held?Yes			
Cement Returns:		## bbl 20	Returns Density:## lb/gal kg/m3			Returns Temperature:## °F °C			
Comment									

1.0 Real-Time Job Summary

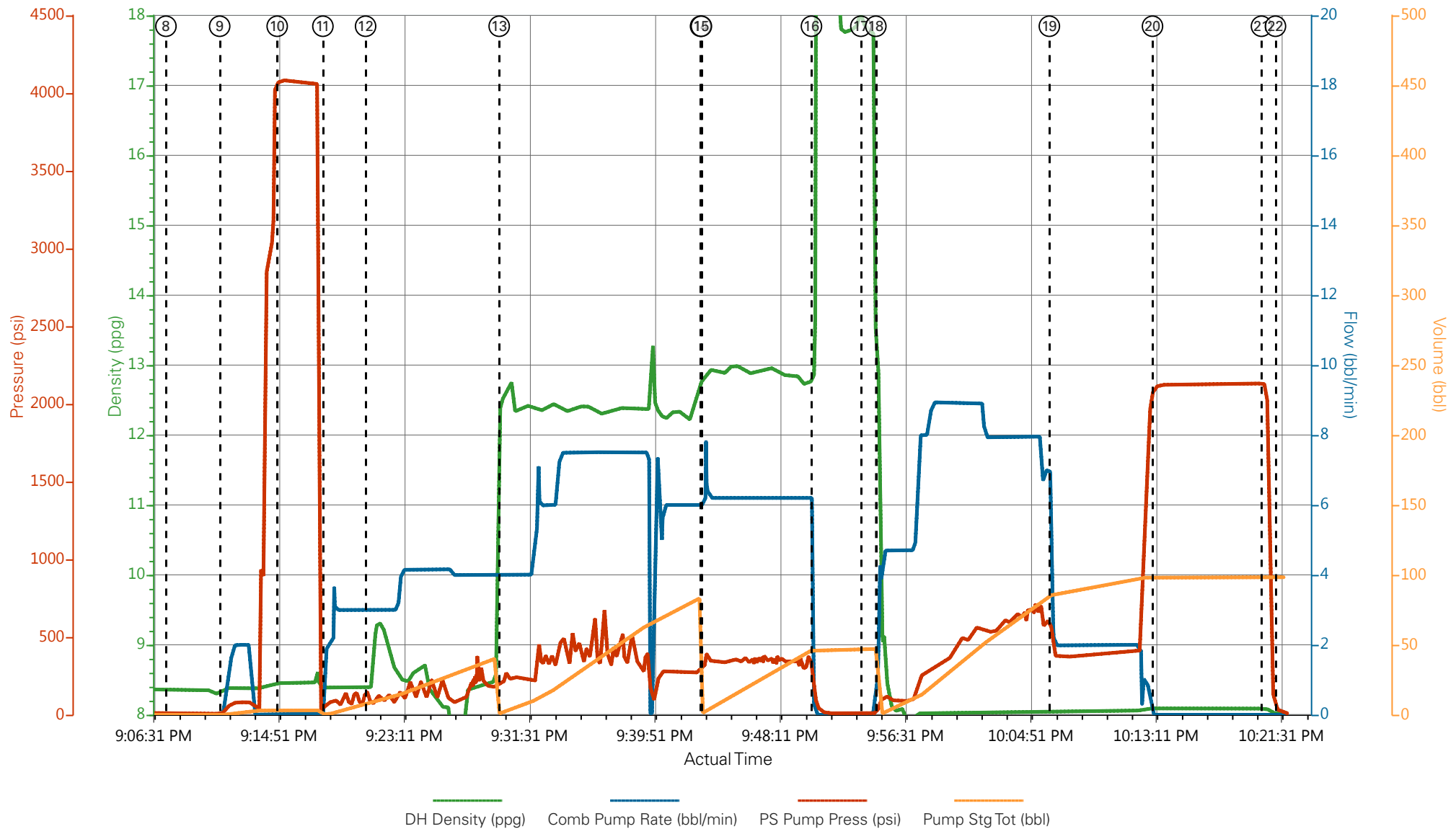
1.1 Job Event Log

Type	Seq. No.	Activity	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	7/14/2015	14:00:00	USER					CREW CALL OUT
Event	2	Depart from Service Center or Other Site	SAFETY MEETING DEPARTING SERVICE CENTER	7/14/2015	17:30:00	USER					SAFETY MEETING DEPARTING SERVICE CENTER ALL HES CREW PRESENT
Event	3	Arrive At Loc	Arrive At Loc	7/14/2015	19:30:00	USER					ARRIVE EARLY ON LOC RIG RUNNING CSG / HES EQUIP ON LOC: 1 EA CMT PUMPUNIT 1 EA 660 BULK UNIT 1 EA IRON TRUCK UNIT 1 EA SERVICE PICK UP UNIT
Event	4	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	7/14/2015	19:40:00	USER					ASSESSMENT WALK THRU OF LOC ALL HES CREW PRESENT
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/14/2015	19:50:00	USER					PRE-RIG UP SAFETY MEETING ALL HES CREW PRESENT
Event	6	Rig-Up Equipment	Rig-Up Equipment	7/14/2015	20:00:00	USER					RIG IRO TO STAND PIPE AND WATER SUCTION HOSES AND BULK EQUIP
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	7/14/2015	20:28:03	USER	8.35	0.00	0.0	0.0	ALL RIG PERSONEL AND HES CREW PRESENT
Event	8	Start Job	Start Job	7/14/2015	21:07:31	COM6	8.35	0.00	0.0	0.0	START JOB: TD 1622 FT TP 1612 FT SJT 46.08 FT OH 11.0 IN WF/WT 9.4# CSG 8 5/8 IN 24# J-55 USED TOP AND BOTTOM PLUGS
Event	9	Prime Pumps	Prime Pumps	7/14/2015	21:11:05	USER	8.36	2.0	82.0	3.0	PRIME LINES WITH H2O 3 BBLS AHEAD

Event	10	Test Lines	Test Lines	7/14/2015	21:14:55	COM6	8.36	0.8	4081.00	0.1	PRESSURE TEST LINES 5 TH GEAR STALL OUT AT 2970 PSI TEST TO 4038 PSI TEST GOOD
Event	11	Pump Spacer 1	Pump Spacer 1	7/14/2015	21:17:57	COM6	8.38	4.0	210.0	40.0	DROP BOTTOM PLUG / PUMP 40 BBLS H2O SPACER AHEAD
Event	12	Check Weight	Check weight	7/14/2015	21:20:48	COM6	8.38	4.0	115.00	8.2	CHECK WT
Event	13	Pump Lead Cement	Pump Lead Cement	7/14/2015	21:29:41	COM6	12.38	7.5	340.0	84.0	PUMP 192 SKS LEAD CEMENT AT 12.3 PPG 2.46 Y 14.17 GAL/SKS AND HAVE RETURNS
Event	14	Pump Tail Cement	Pump Tail Cement	7/14/2015	21:43:04	COM6	12.83	6.00	343.0	46.0	PUMP 120 SKS TAIL CMT AT 12.8 PPG 2.18 Y 12.11 GAL/SKS AND HAVE RETURNS
Event	15	Check Weight	Check weight	7/14/2015	21:43:08	COM6	12.85	6.00	318.00	2.1	CHECK CMT WT
Event	16	Shutdown	Shutdown	7/14/2015	21:50:27	USER	12.89	0.00	340.0	46.0	SHUT DOWN END CEMENT / READY TUB TO WASH UP ON TOP OF PLUG
Event	17	Drop Top Plug	Drop Top Plug	7/14/2015	21:53:44	USER	8.38	0.00	0.0	0.0	DROP TOP PLUG / PLUG AWAY
Event	18	Pump Displacement	Pump Displacement	7/14/2015	21:54:44	COM6	8.38	9.0	640.0	89.0	PUMP H2O DISPLACEMENT
Event	19	Slow Rate	Slow Rate	7/14/2015	22:06:16	USER	8.38	2.0	396.00	89.6	SLOW RATE LAST 10 BBLS TO 2 BBL MIN
Event	20	Bump Plug	Bump Plug	7/14/2015	22:13:08	COM6	8.38	0.00	2110.00	99.0	PLUG LANDED AT 380 PSI BUMP TO 2000 PSI FOR CSG TEST AND HOLD 10MINS
Event	21	Check Floats	Check Floats	7/14/2015	22:20:23	USER	8.38	0.00	2132.00	99.0	CHECK FLOATS / FLOATS HELD GOT 1BBL BACK
Event	22	End Job	End Job	7/14/2015	22:21:19	COM6	8.38	0.00	0.0	0.0	END JOB / RETURNS THRU OUT THE JOB AND 20 BBLS CMT TO SURFACE

Event	23	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/14/2015	22:25:00	USER	PRE-RIG DOWN SAFETY MEETING ALL HES CREW PRESENT
Event	24	Rig-Down Equipment	Rig-Down Equipment	7/14/2015	22:45:00	USER	RIG DOWN FLOOR AND RIG UP TO CELLAR FOR WAS UP / WASH UP PUMPS AND RIG DOWN EQUIPMENT
Event	25	Depart Location	Depart Location	7/14/2015	23:50:00	USER	SAFETY MEETING DEPARTING LOC / ALL HES CREW PRESENT
Event	26	Comment	Comment	7/14/2015	23:55:00	USER	THANK YOU FOR USING HALLIBURTON CEMENTING SERVICES AND THE CREW OF CRAIG KUKUS

PICEANCE ENERGY PICEANCE 28-10M SURFACE CSG JOB PATT 306



- | | | | | |
|---|--------------------------|---------------------|--------------------------------|--------------------|
| ① Call Out | ⑦ Pre-Job Safety Meeting | ⑬ Pump Lead Cement | ⑲ Slow Rate | 25 Depart Location |
| ② SAFETY MEETING DEPARTING SERVICE CENTER | ⑧ Start Job | ⑭ Pump Tail Cement | 20 Bump Plug | 26 Comment |
| ③ Arrive At Loc | ⑨ Prime Pumps | ⑮ Check weight | 21 Check Floats | |
| ④ Assessment Of Location Safety Meeting | ⑩ Test Lines | ⑯ Shutdown | 22 End Job | |
| ⑤ Pre-Rig Up Safety Meeting | ⑪ Pump Spacer 1 | ⑰ Drop Top Plug | 23 Pre-Rig Down Safety Meeting | |
| ⑥ Rig-Up Equipment | ⑫ Check weight | ⑱ Pump Displacement | 24 Rig-Down Equipment | |

▼ **HALLIBURTON** | iCem® Service

Created: 2015-07-14 20:06:57, Version: 4.1.107

Edit

Customer : PICEANCE ENERGY LLC

Job Date : 7/14/2015 8:10:27 PM

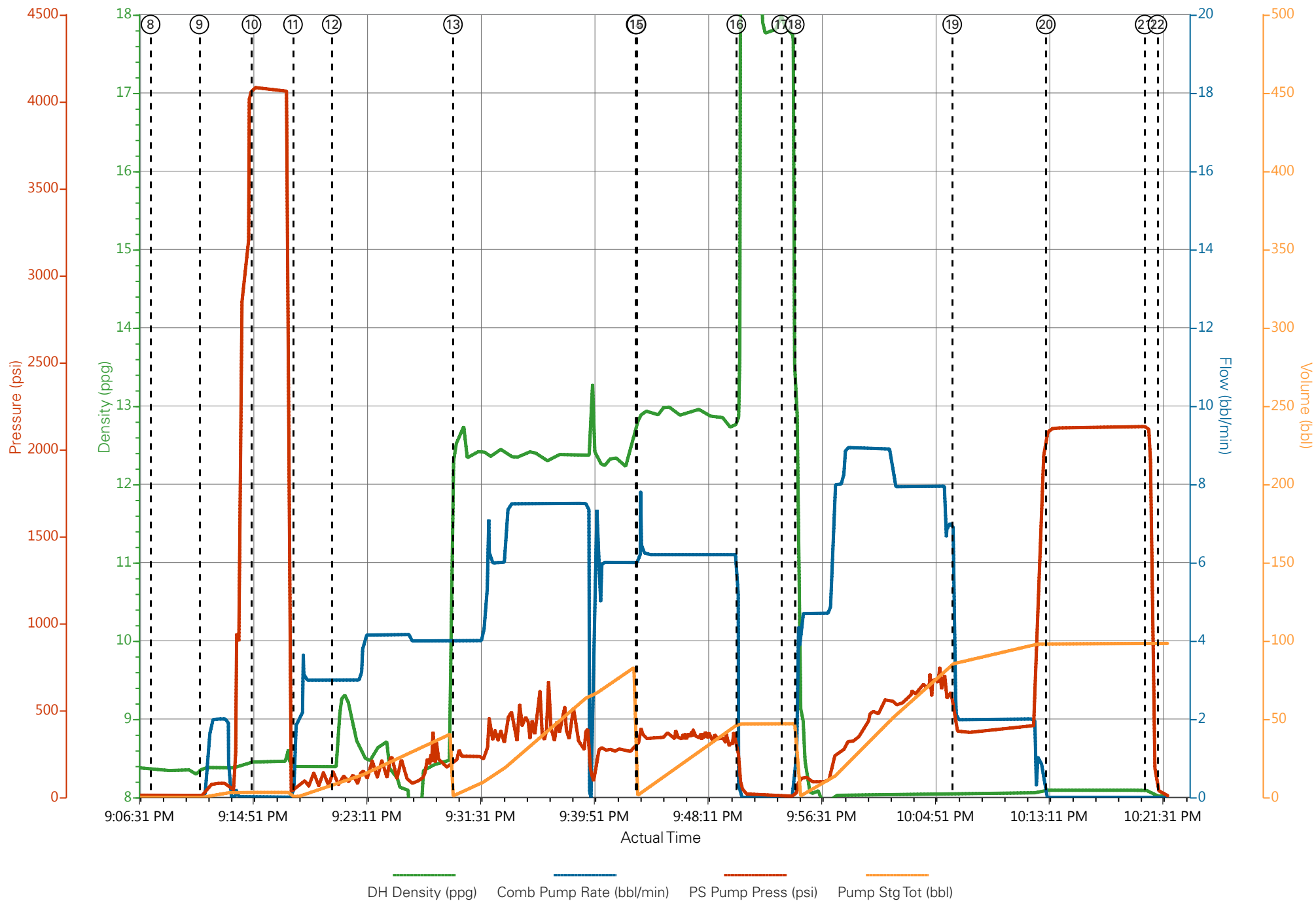
Well : 28-10M

Representative : CRAIG KUKUS

Sales Order # : 0902574841

ELIETE 7 / OPERATOR : ADAM ANGELO

PICEANCE ENERGY PICEANCE 28-10M SURFACE CSG JOB PATT 306



HALLIBURTON

Water Analysis Report

Company: PICEANCE
Submitted by: CRAIG KUKUS
Attention: _____
Lease: PICEANCE
Well #: 28-10M

Date: 7/14/2015
Date Rec.: 7/14/2015
S.O.#: 902574841
Job Type: SURFACE

Specific Gravity	MAX	0
pH	8	8
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		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 #: 0902574841	Line Item: 10	Survey Conducted Date: 7/14/2015
Customer: PICEANCE ENERGY LLC - EBUS		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: ROGER FOSTER		API / UWI: (leave blank if unknown) 05-077-10243-00
Well Name: PICEANCE		Well Number: 0080734125
Well Type: DIRECTIONAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: MESA

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	7/14/2015
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	ROGER FOSTER
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

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KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date The date the survey was conducted	7/14/2015

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.	4
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.	2
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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Well Name: PICEANCE		Well Number: 0080734125
Well Type: DIRECTIONAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: MESA

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?	Both
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)	Yes
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