

Piceance Energy LLC - EBUS

Piceance 28-21M

**Majors 24**

# **Post Job Summary**

## **Cement Surface Casing**

Date Prepared: 09/26/2014

Job Date: 09/19/2014

Submitted by: Patrick Ealey – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 344919	Ship To #: 3124073	Quote #:	Sales Order #: 0901676747
Customer: PICEANCE ENERGY LLC - EBUS		Customer Rep: ROGER FOSTER	
Well Name: PICEANCE	Well #: 28-21M	API/UWI #: 05-077-09942-00	
Field: VEGA	City (SAP): COLLBRAN	County/Parish: MESA	State: COLORADO
Legal Description: NE SW-28-9S-93W-2463FSL-1708FWL			
Contractor:		Rig/Platform Name/Num: Majors 24	
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Kyle Bath	
<b>Job</b>			

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	1527ft 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		16	15.25	65			0	60		
Casing		8.625	8.097	24			0	1521		0
Open Hole Section			11				60	1527		0

Tools and Accessories									
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	8.625			1521		Top Plug	8.625	1	HES
Float Shoe	8.625					Bottom Plug	8.625	1	HES
Float Collar	8.625					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					
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	

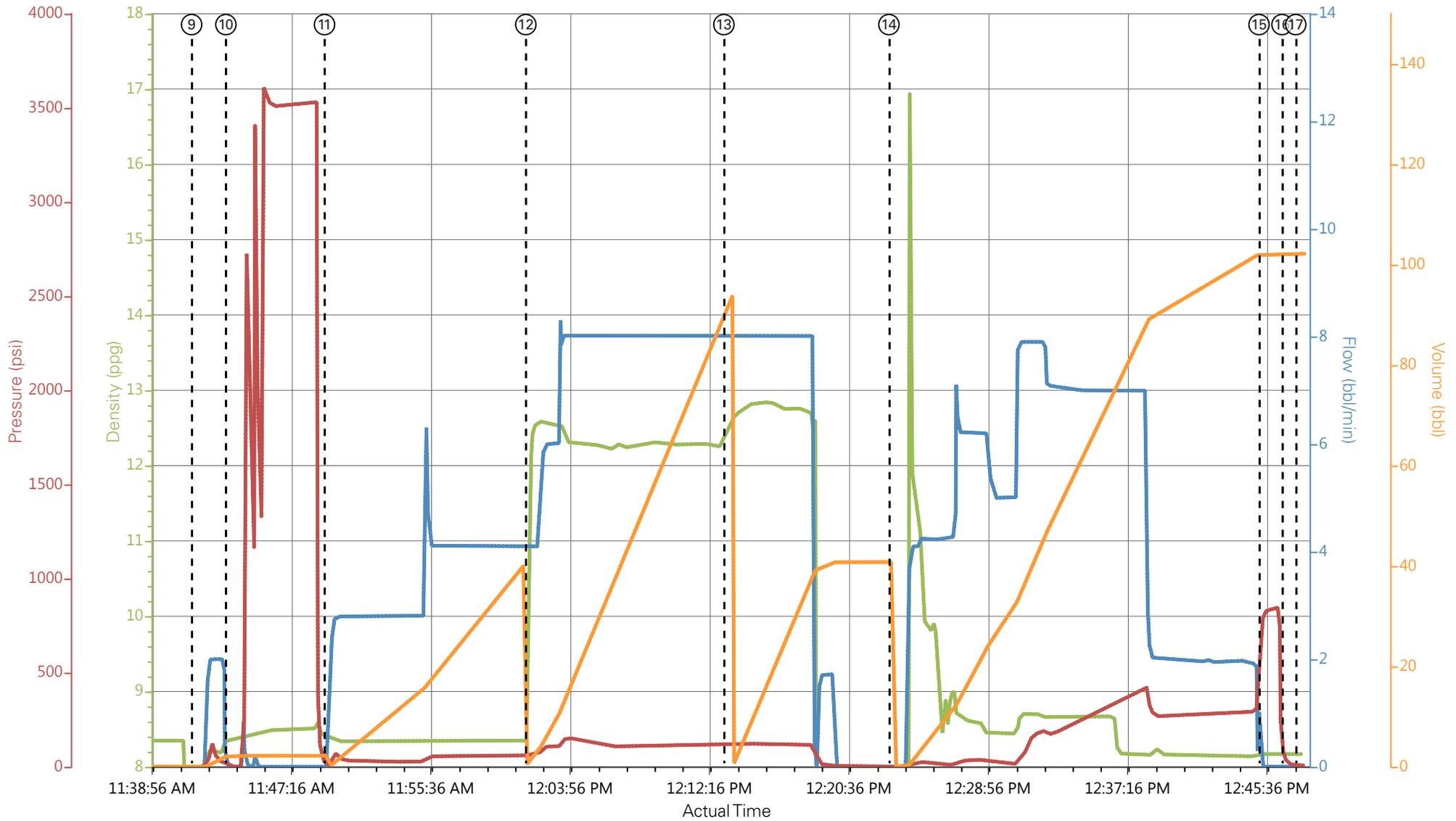
2	VariCem GJ5	VARICEM (TM) CEMENT	195	sack	12.3	2.45		6	14.17	
0.25 lbm		POLY-E-FLAKE (101216940)								
14.12 Gal		FRESH WATER								
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>	<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>	
3	VariCem GJ5	VARICEM (TM) CEMENT	110	sack	12.8	2.18		6	12.11	
12.05 Gal		FRESH WATER								
0.25 lbm		POLY-E-FLAKE (101216940)								
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>	<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft3/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>	
4	Mud Displacement	Mud Displacement	94	bbl	8.6					
<b>Cement Left In Pipe</b>		<b>Amount</b>	40 ft		<b>Reason</b>			Shoe Joint		
<b>Comment</b>										

## 3.5 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	9/18/2014	18:30:00	USER					
Event	2	Pre Convoy Safety Meeting	9/18/2014	20:30:00	USER					
Event	3	Crew Depart Yard	9/18/2014	21:00:00	USER					
Event	4	Arrive On Location	9/18/2014	23:00:00	USER					RIG PULLING DRILL PIPE AND DOING A WIPER TRIP UPON HES ARRIVAL
Event	5	Site Assesment Safety Meeting	9/18/2014	23:30:00	USER					
Event	6	Pre Rig Up Safety Meeting	9/19/2014	10:30:00	USER					
Event	7	Rig Up Complete	9/19/2014	11:15:00	USER					
Event	8	Pre Job Safety Meeting	9/19/2014	11:20:00	USER					
Event	9	Start Job	9/19/2014	11:41:28	COM3					TD 1527, TP 1521, SJ 40, CSG 8 5/8" 24# J-55, HOLE 11", MUD 8.6#
Event	10	Test Lines	9/19/2014	11:43:31	COM3			3521		TEST LINES TO 3521 PSI
Event	11	Pump Spacer 1	9/19/2014	11:49:25	COM3	8.33	4	64	40	PUMP 40 BBL FRESH WATER SPACER
Event	12	Pump Lead Cement	9/19/2014	12:01:27	COM3	12.3	8	144	85	MIX AND PUMP 195 SKS AT 12.3 PPG, 2.45 FT3/FT, 14.17 GAL/SK
Event	13	Pump Tail Cement	9/19/2014	12:13:18	COM3	12.8	8	123	42	MIX AND PUMP 110 SKS AT 12.8 PPG, 2.18 FT3/FT, 12.11 GAL/SK
Event	14	Pump Displacement	9/19/2014	12:23:10	COM3	8.6	7	327	94	PUMP 94 BBLs DISPLACEMENT, 10 FRESH WATER, 60 MUD, 24 WATER
Event	15	Bump Plug	9/19/2014	12:45:18	COM3					BUMPED PLUG AT 290 PSI TOOK TO 845 PSI
Event	16	Check Floats	9/19/2014	12:46:40	USER					FLOATS HELD TOOK 1/4 BBL BACK TO TRUCK
Event	17	End Job	9/19/2014	12:47:30	USER					GOOD CIRCULATION THROUGHOUT JOB, RECIEVED 11 BBLs TO SURFACE
Event	18	Pre Rig Down Safety Meeting	9/19/2014	13:00:00	USER					
Event	19	Rig Down Complete	9/19/2014	13:04:39	USER					
Event	20	Pre Convoy Safety Meeting	9/19/2014	13:04:58	USER					

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	21	Crew Depart Location	9/19/2014	13:05:17	USER					THANK YOU FOR USING HALLIBURTON, KYLE BATH AND CREW

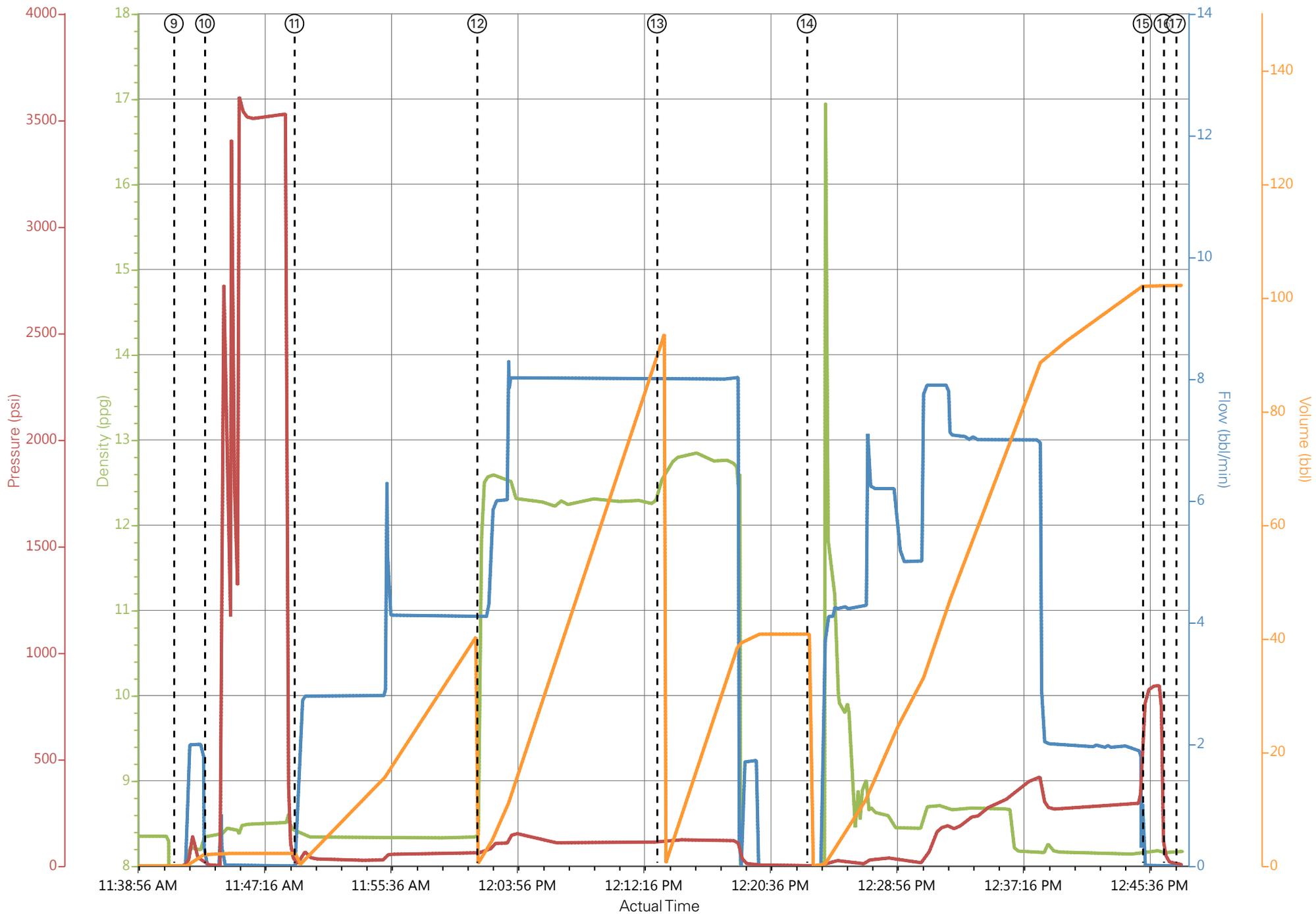
# PICEANCE ENERGY ~ PICEANCE 28-21M ~ SURFACE CASING



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

- ① Call Out n/a;n/a;n/a;n/a
- ② Pre Convoy Safety Meeting n/a;n/a;n/a;n/a
- ③ Crew Depart Yard n/a;n/a;n/a;n/a
- ④ Arrive On Location n/a;n/a;n/a;n/a
- ⑤ Site Assesment Safety Meeting n/a;n/a;n/a;n/a
- ⑥ Pre Rig Up Safety Meeting n/a;n/a;n/a;n/a
- ⑦ Rig Up Complete n/a;n/a;n/a;n/a
- ⑧ Pre Job Safety Meeting 8.34;0;5;0
- ⑨ Start Job 6.1;0;-4;0
- ⑩ Test Lines 8.36;0;6;2.1
- ⑪ Pump Spacer 18.43;0.9;7;2.2
- ⑫ Pump Lead Cement 10.29;4.1;62;1.1
- ⑬ Pump Tail Cement 12.49;8;113;91.3
- ⑭ Pump Displacement 0.18;0;2;40.8
- ⑮ Bump Plug 8.17;0;783;102.2
- ⑯ Check Floats 8.15;0;37;102.2
- ⑰ End Job 8.17;0;7;102.2
- ⑱ Pre Rig Down Safety Meeting n/a;n/a;n/a;n/a
- ⑲ Rig Down Complete n/a;n/a;n/a;n/a
- ⑳ Pre Convoy Safety Meeting n/a;n/a;n/a;n/a
- ㉑ Crew Depart Location n/a;n/a;n/a;n/a

PICEANCE ENERGY ~ PICEANCE 28-21M ~ SURFACE CASING



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

# HALLIBURTON

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## Water Analysis Report

Company: PICEANCE ENERGY

Date: 9/19/2014

Submitted by: KYLE BATH

Date Rec.: 9/19/2014

Attention: DALLAS SCOTT

S.O.# 901676747

Lease PICEANCE

Job Type: SURFACE

Well # 28-21M

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</b>
Potassium (K)	<i>5000</i>	<b>220</b> Mg / L
Hrdness	<i>500</i>	<b>0</b> Mg / L
Iron (FE2)	<i>300</i>	<b>200</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>67</b> Deg
Total Dissolved Solids		<b>380</b> Mg / L

Respectfully: KYLE BATH

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

<b>Sales Order #:</b> 0901676747	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 9/19/2014
<b>Customer:</b> PICEANCE ENERGY LLC - EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> ROGER FOSTER		<b>API / UWI: (leave blank if unknown)</b> 05-077-09942-00
<b>Well Name:</b> PICEANCE		<b>Well Number:</b> 0080127812
<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> 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	9/19/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB49384
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	

<b>CUSTOMER SIGNATURE</b>
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### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	9/19/2014
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>	Deviated
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>	3
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>	1
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>	5
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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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	98
<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)	Yes
<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