

PICEANCE ENERGY LLC - EBUS

Gunderson 29-08M

Patterson 306

Post Job Summary

Cement Production Casing

Date Prepared: 06/08/2015

Job Date: 06/06/2015

Submitted by: Aaron Katz – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 344919	Ship To #: 3123906	Quote #:	Sales Order #: 0902469913
Customer: PICEANCE ENERGY LLC - EBUS		Customer Rep: ROGER FOSTER	
Well Name: GUNDERSON		Well #: 29-08M	API/UWI #: 05-077-09761-00
Field: VEGA	City (SAP): COLLBRAN	County/Parish: MESA	State: COLORADO
Legal Description: SE NE-29-9S-93W-2405FNL-1229FEL			
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 306	
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Steven Wardell	

Job

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	7908ft
Water Depth	Job Depth TVD
Perforation Depth (MD)	Wk Ht Above Floor 4 FT
	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		8.625	7.921	32			0	1555		0
Casing		4.5	4	11.6	8 RD (LT&C)	I-80	0	7908		0
Open Hole Section			7.875				1530	7918		0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	4.5			7908	Top Plug	4.5	1	HES
Float Shoe	4.5				Bottom Plug	4.5	1	HES
Float Collar	4.5				SSR plug set	4.5		HES
Insert Float	4.5				Plug Container	4.5	1	HES
Stage Tool	4.5				Centralizers	4.5		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	Tuned Spacer III	Tuned Spacer III	40	bbl	11	4.55	30	4		
37 gal/bbl		FRESH WATER								
123.25 lbm/bbl		BARITE, BULK (100003681)								

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	VersaCem GJ4	VERSACEM (TM) SYSTEM	920	sack	12.8	1.75		8	8.5
0.25 lbm		POLY-E-FLAKE (101216940)							
6 lbm		KOL-SEAL, BULK (100064233)							
8.50 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
3	ExpandaCem GJ4	EXPANDACEM (TM) SYSTEM	413	sack	13.3	1.89		7	8.66
20 %		SS-200 - BULK (102240841)							
0.25 lbm		POLY-E-FLAKE (101216940)							
8.66 Gal		FRESH WATER							
6 lbm		KOL-SEAL, BULK (100064233)							
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	Displacement	Displacement	121.2	bbl	8.33			8	
0.01 gal/bbl		MICRO MATRIX CEMENT RETARDER, 1 GAL PAIL (100003780)							
0.05 gal/bbl		CLA-WEB - TOTE (101985045)							
Cement Left In Pipe		Amount	90 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/No		Bump Pressure: ##### psi MPa				Floats Held? Yes/No			
Cement Returns: ## bbl m3		Returns Density: ## lb/gal kg/m3				Returns Temperature: ## °F °C			
Comment									

1.0 Real-Time Job Summary

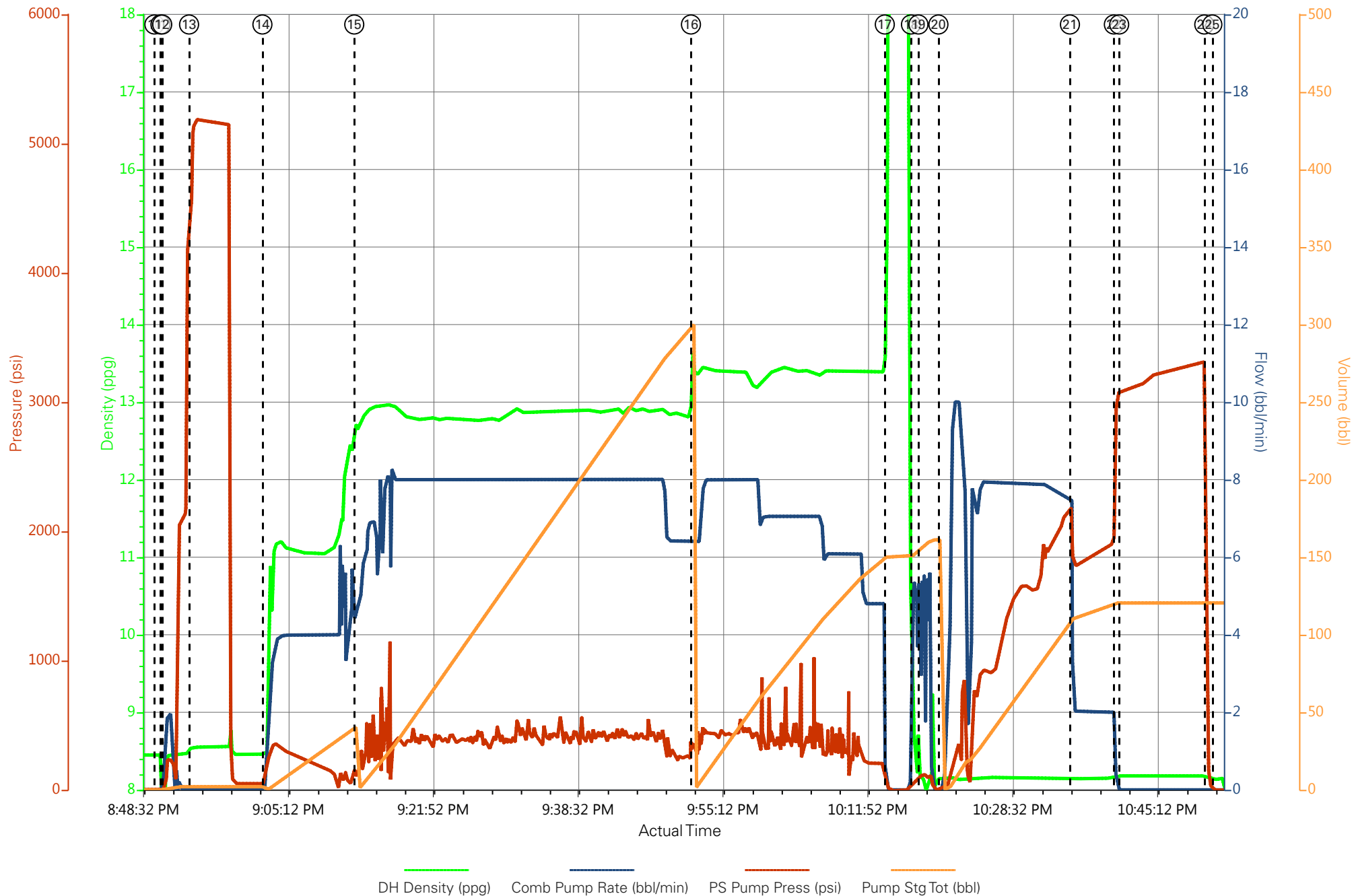
1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pass-Side Pump Pressure (psi)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	Call Out	6/6/2015	14:00:00	USER					
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/6/2015	16:45:00	USER					WITH ALL HES PERSONNEL
Event	3	Crew Leave Yard	Crew Leave Yard	6/6/2015	17:00:00	USER					
Event	4	Arrive At Loc	Arrive At Loc	6/6/2015	19:30:00	USER					RIG WAS CIRCULATING ON BOTTOM UPON HES ARRIVAL.
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	6/6/2015	19:35:00	USER					WITH ALL HES PERSONNEL
Event	6	Other	Spot Equipment	6/6/2015	19:40:00	USER					1 PUMP, 2 BULK TRUCKS, 1 SILO
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/6/2015	19:45:00	USER					WITH ALL HES PERSONNEL
Event	8	Rig-Up Equipment	Rig-Up Equipment	6/6/2015	19:50:00	USER					
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	6/6/2015	20:30:00	USER					WITH ALL PERSONNEL
Event	10	Start Job	Start Job	6/6/2015	20:50:05	COM5					TD 7918 FT, TP 7908 FT, SJ 90 FT, SFC CSG 8 5/8 IN 24#, CSG 4 1/2 IN 11.6# I-80, OH 7/78 IN, MUD 9.4 PPG.
Event	11	Prime Pumps	Prime Lines	6/6/2015	20:50:47	USER	8.4	2.0	216.0	2.0	FRESH WATER
Event	12	Drop Bottom Plug	Drop Bottom Plug	6/6/2015	20:50:59	USER					PLUG LAUNCHED
Event	13	Test Lines	Test Lines	6/6/2015	20:54:05	COM5					TESTED LINES TO 5182 PSI, PRESSURE HOLDING
Event	14	Pump Spacer 1	Pump Tuned Spacer III	6/6/2015	21:02:31	COM5	11.0	4.0	200.0	40.0	40 BBLS TUNED SPACER III, 11.0 PPG

Event	15	Pump Lead Cement	Pump Lead Cement	6/6/2015	21:13:05	COM5	12.8	8.0	400.0	286.7	920 SKS, 12.8 PPG, 1.75 FT3/SK, 8.5 GAL/SK
Event	16	Pump Tail Cement	Pump Tail Cement	6/6/2015	21:51:49	COM5	13.3	7.0	450.0	139.0	413 SKS, 13.3 PPG, 1.89 FT3/SK, 8.66 GAL/SK
Event	17	Shutdown	Shutdown	6/6/2015	22:14:07	COM5					
Event	18	Clean Lines	Clean Lines	6/6/2015	22:17:08	USER					CLEAN PUMPS AND LINES TO CELLAR
Event	19	Drop Top Plug	Drop Top Plug	6/6/2015	22:18:00	USER					PLUG LAUNCHED
Event	20	Pump Displacement	Pump Displacement	6/6/2015	22:20:17	COM5	8.4	8.0	2000.0	121.2	FRESH WATER WITH 5 GALS CLAY-WEB AND 1 GAL MMCR, HES RETURNED 20 BBLS TUNED SPACER TO SURFACE.
Event	21	Slow Rate	Slow Rate	6/6/2015	22:35:25	USER	8.4	2.0	1920.0	111.2	SLOWED RATE 10 BBLS PRIOR TO CALCULATED DISPLACEMENT
Event	22	Bump Plug	Bump Plug	6/6/2015	22:40:28	COM5			3200.0		
Event	23	Pressure Test	Pressure Test	6/6/2015	22:41:05	USER			3200.0		PRESSURE TEST CASING PER COMPANY REP TO 3000 PSI FOR 10 MINUTES
Event	24	Check Floats	Check Floats	6/6/2015	22:50:52	USER					FLOATS HOLDING HES RETURNED 1.5 BBLS BACK TO PUMP.
Event	25	End Job	End Job	6/6/2015	22:51:48	COM5					PIPE WAS STATIC DURIG JOB, GOOD RETURNS THROUGHOUT JOB. HES USED 40 LBS SUGAR.
Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	6/6/2015	23:00:00	USER					WITH ALL HES PERSONNEL
Event	27	Rig-Down Equipment	Rig-Down Equipment	6/6/2015	23:10:00	USER					
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/7/2015	00:45:00	USER					WITH ALL HES PERSONNEL

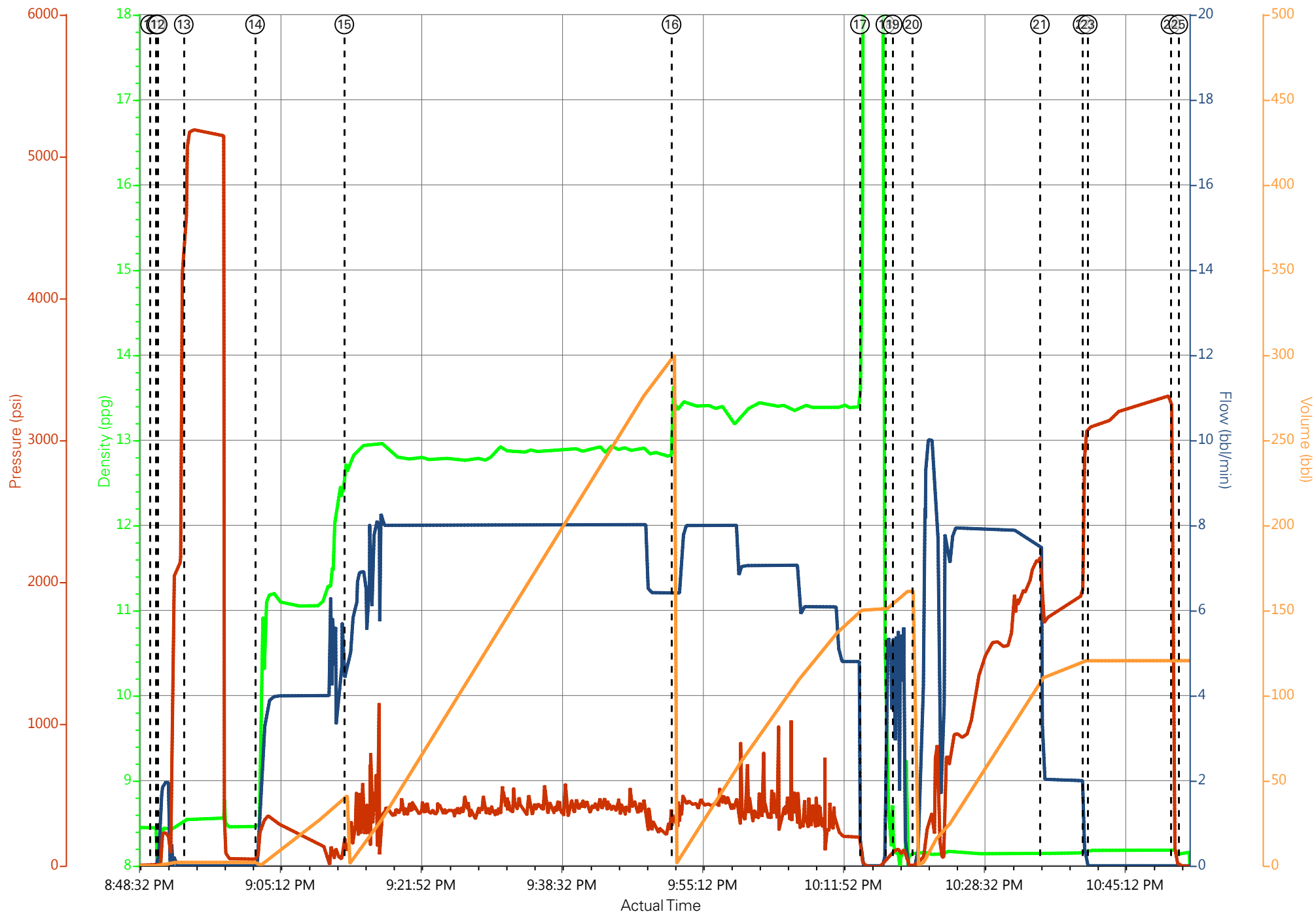
Event	29	Crew Leave Location	Crew Leave Location	6/7/2015	01:00:00	USER	
Event	30	Comment	Comment	6/7/2015	01:01:00	USER	THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT, STEVEN WARDELL AND CREW.

PICEANCE ENERGY GUNDERSON 29-08M 902469913 PRODUCTION



- | | | | | | | |
|-----------------------------|---|-----------------------------|--------------------|-------------------------|--------------------|---------------------|
| ① Call Out | ④ Arrive At Loc | ⑦ Pre-Rig Up Safety Meeting | ⑩ Start Job | ⑬ Test Lines | ⑯ Pump Tail Cement | ⑲ Drop Top Plug |
| ② Pre-Convoy Safety Meeting | ⑤ Assessment Of Location Safety Meeting | ⑧ Rig-Up Equipment | ⑪ Prime Lines | ⑭ Pump Tuned Spacer III | ⑰ Shutdown | ⑳ Pump Displacement |
| ③ Crew Leave Yard | ⑥ Spot Equipment | ⑨ Pre-Job Safety Meeting | ⑫ Drop Bottom Plug | ⑮ Pump Lead Cement | ⑱ Clean Lines | ㉑ Slow Rate |

PICEANCE ENERGY GUNDERSON 29-08M 902469913 PRODUCTION



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

Sales Order #: 0902469913	Line Item: 10	Survey Conducted Date: 6/6/2015
Customer: PICEANCE ENERGY LLC - EBUS		Job Type (BOM): CMT PRODUCTION CASING BOM
Customer Representative: ROGER FOSTER		API / UWI: (leave blank if unknown) 05-077-09761-00
Well Name: GUNDERSON		Well Number: 0080127641
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	6/6/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	H127209
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	6/6/2015

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.	Deviated
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: GUNDERSON		Well Number: 0080127641
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	95
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	95
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