

Piceance Energy LLC - EBUS

Gunderson 29-08E

Patterson 306

Post Job Summary

Cement Production Casing

Date Prepared: 4/30/2015

Job Date: 4/26/2015

Submitted by: Patrick Ealey – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 344919		Ship To #: 3123905		Quote #:		Sales Order #: 0902349075				
Customer: PICEANCE ENERGY LLC - EBUS				Customer Rep: MATT SETTLES						
Well Name: GUNDERSON		Well #: 29-08E		API/UWI #: 05-077-09760-00						
Field: VEGA		City (SAP): COLLBRAN		County/Parish: MESA		State: COLORADO				
Legal Description: SE NE-29-9S-93W-2394FNL-1150FEL										
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 306						
Job BOM: 7523										
Well Type: DIRECTIONAL GAS										
Sales Person: HALAMERICA\HX41066				Srvc Supervisor: DAVID CAMPBELL						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		7806 FT		Job Depth TVD						
Water Depth				Wk Ht Above Floor		5 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		8.625	7.921	32			0	1540		0
Casing		4.5	4	11.6			0	7806		0
Open Hole Section			7.875				1540	7816	0	0
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	4.5	1		7806		Top Plug	4.5	1	HES	
Float Shoe	4.5					Bottom Plug	4.5	1	HES	
Float Collar	4.5	1		7716.66		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
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size
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		4		
FRESH WATER										
BARITE, BULK (100003681)										

Cement Left In Pipe	Amount	89 ft		Reason	Shoe Joint
Mix Water:	7.5 pH	Mix Water Chloride:	0	Mix Water Temperature:	47 F
Cement Temperature:		Plug Displaced by:	8.4 PPG	Disp. Temperature:	47°F
Plug Bumped?	Yes	Bump Pressure:	2030 PSI	Floats Held?	Yes
Cement Returns:		Returns Density:		Returns Temperature:	
Comment					

1.0 Real-Time Job Summary

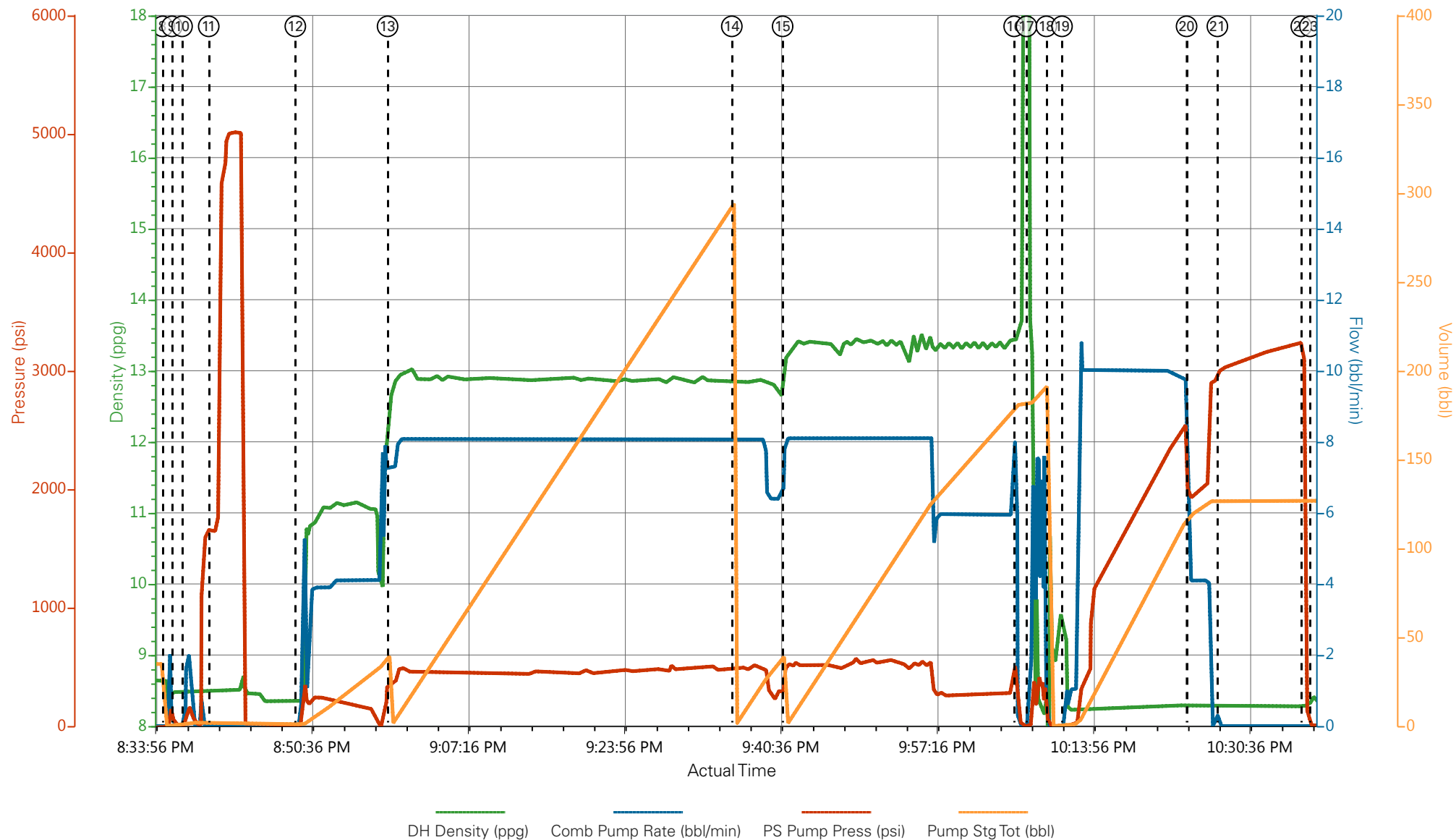
1.1 Job Event Log

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	4/25/2015	11:30:00	USER					ELITE #4
Event	2	Pre-Convoy Safety Meeting	4/25/2015	14:00:00	USER					ALL HES EMPLOYEES
Event	3	Arrive At Loc	4/25/2015	15:30:00	USER					ARRIVED ON LOCATION 2 HRS EARLY DID NOT START CHARGING HOURS UNTIL REQUESTED ON LOCATION TIME
Event	4	Assessment Of Location Safety Meeting	4/25/2015	15:45:00	USER					ALL HES EMPLOYEES
Event	5	Pre-Rig Up Safety Meeting	4/25/2015	16:00:00	USER					ALL HES EMPLOYEES
Event	6	Rig-Up Equipment	4/25/2015	16:30:00	USER					1 HT-400 PUMP TRUCK (ELITE # 4) 2 660 BULK TRUCKS 1 F-550 PICKUP 1 SILO
Event	7	Pre-Job Safety Meeting	4/25/2015	20:00:00	USER					ALL HES EMPLOYEES AND RIG CREW RIG CIRCULATED FOR 1 HR AT 8 BBL/MIN PRIOR TO JOB
Event	8	Start Job	4/25/2015	20:34:59	COM5					TD:7816 TP: 7806 SJ: 89.34 CSG: 4 1/2 11.6# L-80 OH: 7 7/8 MUD WEIGHT: 9.6 PPG SURFACE CSG: 8 5/8 24# @ 1540
Event	9	Prime Pumps	4/25/2015	20:35:59	COM5	8.33	2.0	162.0	2.0	FILL LINES WITH 2 BBL FRESH WATER
Event	10	Drop Bottom Plug	4/25/2015	20:37:03	USER					PLUG AWAY NO PROBLEMS
Event	11	Test Lines	4/25/2015	20:39:54	COM5	8.33	0.00	5015.0	2.0	PRESSURE TEST OK
Event	12	Pump Spacer 1	4/25/2015	20:49:08	COM5	11.0	4.0	375.0	40.0	40 BBL 11 PPG 4.55 YIELD 30 GAL/SK TUNED SPACER III WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES
Event	13	Pump Lead Cement	4/25/2015	20:58:58	COM5	12.6	8.0	493.0	278.6	894 SKS 12.8 PPG 1.75 YIELD 8.5 GAL/SK LEAD CEMENT WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES
Event	14	Pump Tail Cement	4/25/2015	21:35:40	COM5					OPERATOR MISPLACED EVENT
Event	15	Pump Tail Cement	4/25/2015	21:41:05	COM5	13.3	8.0	560.0	139.0	413 SKS 13.3 PPG 1.89 YIELD 8.66 GAL/SK TAIL CEMENT

WEIGHT VERIFIED VIA PRESSURIZED MUD SCALES

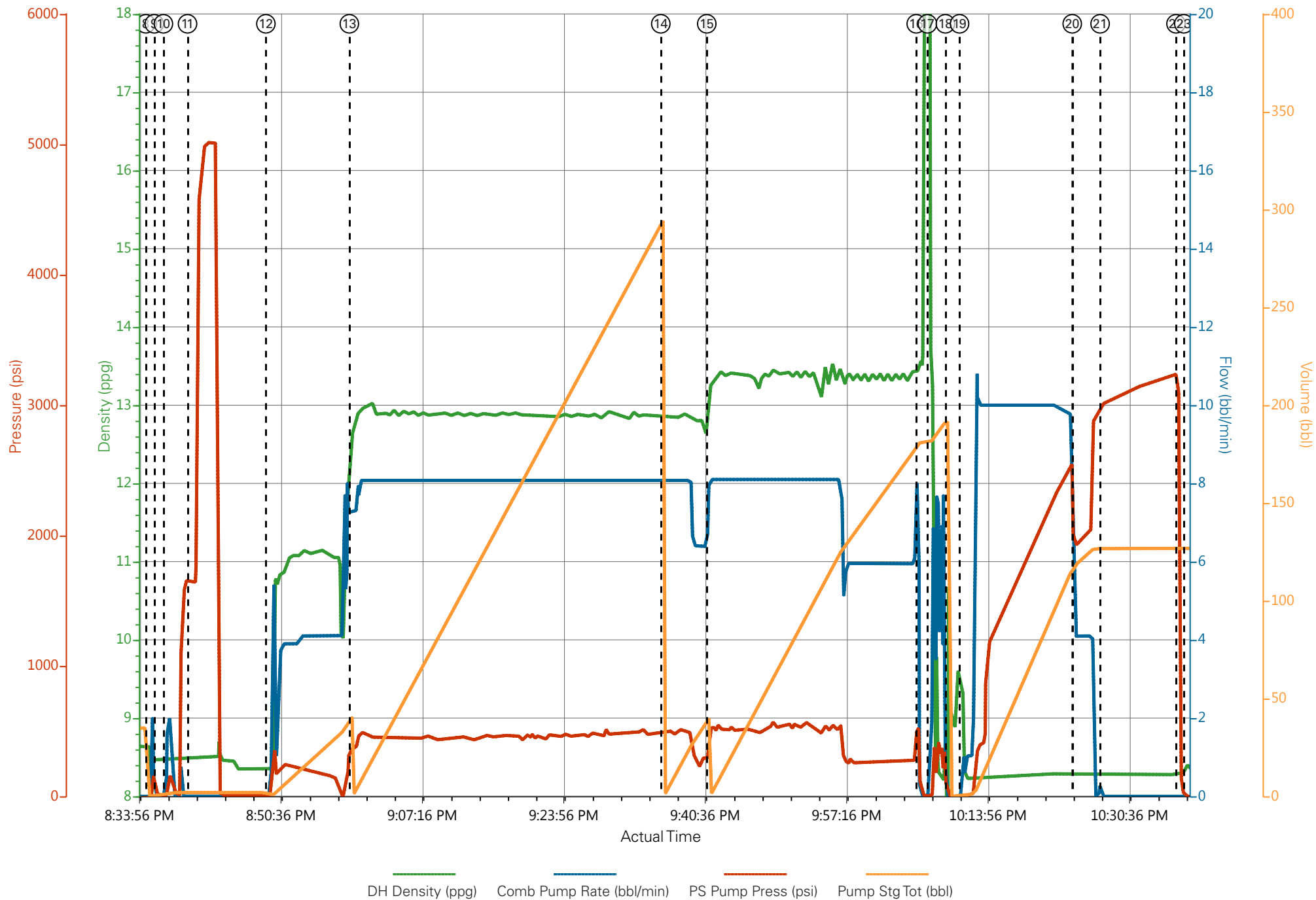
Event	16	Shutdown	4/25/2015	22:05:46	USER					
Event	17	Clean Lines	4/25/2015	22:07:05	USER					CLEAN LINES WITH FRESH WATER
Event	18	Pump Displacement	4/25/2015	22:09:12	COM5	8.4	10.0	2450	119.6	FRESH WATER DISPLACEMENT 1 GAL MMCR 5 GAL CLA-WEB
Event	19	Drop Top Plug	4/25/2015	22:10:52	USER					PLUG AWAY NO PROBLEMS
Event	20	Slow Rate	4/25/2015	22:24:09	USER	8.4	4.0	1923.0	109.6	SLOW RATE TO BUMP PLUG
Event	21	Bump Plug	4/25/2015	22:27:26	COM5	8.4	4.0	3225.0	119.6	PSI BEFORE BUMPING PLUG @ 2030 BUMPED PLUG UP TO 3225 PSI FOR 10 MIN CASING TEST AS PER COMPANY REP REQUEST
Event	22	Check Floats	4/25/2015	22:36:23	USER					FLOATS HELD 1 1/2 BBLS BACK TO DISPLACEMENT TANKS
Event	23	End Job	4/25/2015	22:37:18	COM5					GOOD RETURNS THROUGHOUT JOB PIPE WAS STATIC THROUGHOUT THE JOB RETURNED 20 BBLS OF TUNED SPACER III TO SURFACE
Event	24	Pre-Rig Down Safety Meeting	4/25/2015	23:00:00	USER					ALL HES EMPLOYEES
Event	25	Rig-Down Equipment	4/25/2015	23:30:00	USER					
Event	26	Pre-Convoy Safety Meeting	4/26/2015	00:45:00	USER					ALL HES EMPLOYEES
Event	27	Crew Leave Location	4/26/2015	01:00:00	USER					THANKS FOR USING HALLIBURTON CEMENT DAVID CAMPBELL AND CREW

PICEANCE- GUNDERSON 29-08E - 4 1/2 PRODUCTION



- | | | | | | |
|---|--------------------------|--------------------|---------------------|--------------------------------|------------------------------|
| ① Call Out | ⑥ Rig-Up Equipment | ⑪ Test Lines | ⑬ Shutdown | 21 Bump Plug | 26 Pre-Convoy Safety Meeting |
| ② Pre-Convoy Safety Meeting | ⑦ Pre-Job Safety Meeting | ⑫ Tuned Spacer III | ⑭ Clean Lines | 22 Check Floats | 27 Crew Leave Location |
| ③ Arrive At Loc | ⑧ Start Job | ⑬ Pump Lead Cement | ⑮ Pump Displacement | 23 End Job | |
| ④ Assessment Of Location Safety Meeting | ⑨ Prime Pumps | ⑯ Misplaced Event | ⑰ Drop Top Plug | 24 Pre-Rig Down Safety Meeting | |
| ⑤ Pre-Rig Up Safety Meeting | ⑩ Drop Bottom Plug | ⑰ Pump Tail Cement | 20 Slow Rate | 25 Rig-Down Equipment | |

PICEANCE- GUNDERSON 29-08E - 4 1/2 PRODUCTION



HALLIBURTON

Water Analysis Report

Company: PICEANCE

Submitted by: DAVID CAMPBELL

Attention: J. TROUT/C.MARTINEZ

Lease GUNDERSON

Well # 29-08E

Date: 4/25/2015

Date Rec.: 4/25/2015

S.O.# 902349075

Job Type: PRODUCTION

Specific Gravity	<i>MAX</i>	1
pH	<i>8</i>	7.5
Potassium (K)	<i>5000</i>	300 Mg / L
Calcium (Ca)	<i>500</i>	150 Mg / L
Iron (FE2)	<i>300</i>	0 Mg / L
Chlorides (Cl)	<i>3000</i>	0 Mg / L
Sulfates (SO ₄)	<i>1500</i>	UNDER 200 Mg / L
Chlorine (Cl ₂)		0 Mg / L
Temp	<i>40-90</i>	47 Deg
Total Dissolved Solids		110 Mg / L

Respectfully: DAVID CAMPBELL

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

Sales Order #: 0902349075	Line Item: 10	Survey Conducted Date: 4/25/2015
Customer: PICEANCE ENERGY LLC - EBUS		Job Type (BOM): CMT PRODUCTION CASING BOM
Customer Representative: MATT SETTLES		API / UWI: (leave blank if unknown) 05-077-09760-00
Well Name: GUNDERSON		Well Number: 0080127640
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	4/25/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HX37079
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	MATT SETTLES
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	4/25/2015

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.	5
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?	No
Pumping Hours Total number of hours pumping fluid on this job. Enter in decimal format.	3
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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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)	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	90
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	90
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