

Piceance Energy LLC-EBUS

Piceance 28-01W

**Patterson 306**

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 09/22/2015

Job Date: 09/14/2015

Submitted by: Jenna Cook – Grand Junction Cement Engineer

## The Road to Excellence Starts with Safety

Sold To #: 344919	Ship To #: 3672987	Quote #:	Sales Order #: 0902741610
Customer: PICEANCE ENERGY LLC - EBUS	Customer Rep: MATT SETTLES		
Well Name: PICEANCE	Well #: 28-01W	API/UWI #: 05-077-10236-00	
Field: VEGA	City (SAP): COLLBRAN	County/Parish: MESA	State: COLORADO
Legal Description: SW NW-28-9S-93W-1537FNL-1193FWL			
Contractor: PATTERSON-UTI ENERGY	Rig/Platform Name/Num: PATTERSON 306		
Job BOM: 7521			
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	1584ft Job Depth TVD 3 FT
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	8 RD (LT&C)		0	1584		0
Open Hole Section			11				60	1594		0

### Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	8.625			1584	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		
Insert Float	8.625				Plug Container	8.625	1	HES
Stage Tool	8.625				Centralizers	8.625		

### 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		6.5	14.17
14.17 Gal		FRESH WATER							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
3	VariCem GJ5	VARICEM (TM) CEMENT	120	sack	12.8	2.18		6.5	12.11	
12.11 Gal		FRESH WATER								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
4	Fresh Water Displacement	Fresh Water Displacement	98	bbl	8.3			8		
Cement Left In Pipe		Amount	46 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/m <sup>3</sup> XXXX			Disp. Temperature: ## °F °C					
Plug Bumped?		Yes/No	Bump Pressure: ##### psi MPa			Floats Held?			Yes/No	
Cement Returns: ## bbl m <sup>3</sup>		Returns Density: ## lb/gal kg/m <sup>3</sup>			Returns Temperature: ## °F °C					
Comment										

## 1.0 Real-Time Job Summary

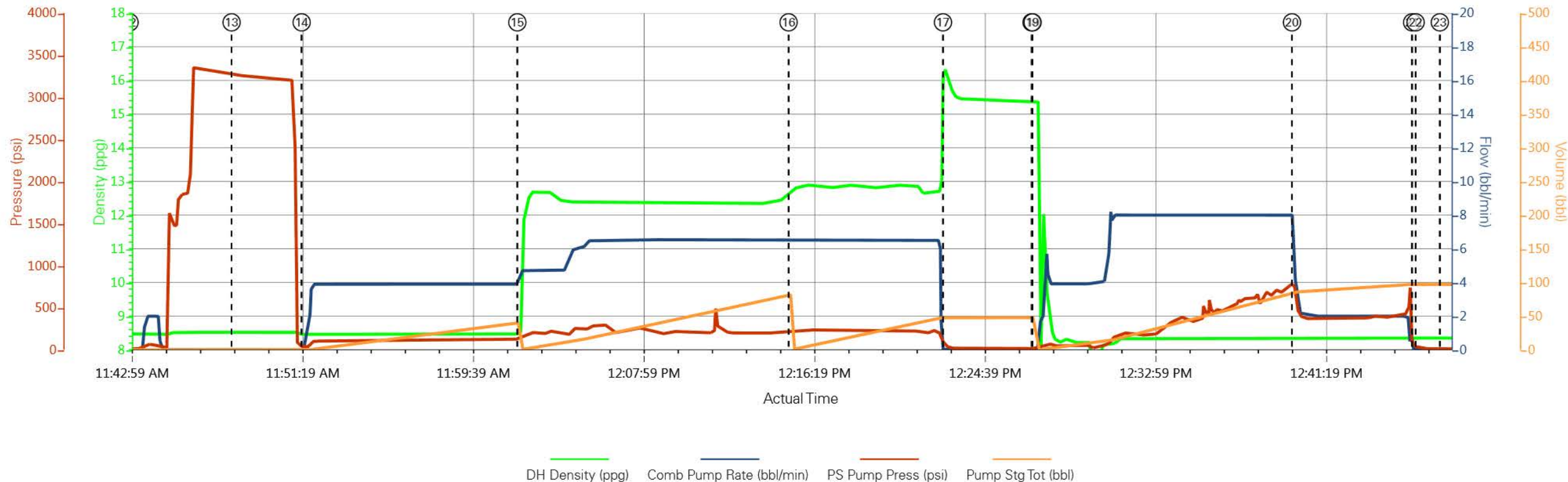
## 1.1 Job Event Log

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	9/14/2015	02:00:00	USER					
Event	2	Pre-Convoy Safety Meeting	9/14/2015	05:30:00	USER					WITH ALL HES PERSONNEL
Event	3	Crew Leave Yard	9/14/2015	06:00:00	USER					
Event	4	Arrive At Loc	9/14/2015	07:30:00	USER					RIG RUNNING CASING UPON HES ARRIVAL
Event	5	Assessment Of Location Safety Meeting	9/14/2015	07:40:00	USER					WITH ALL HES PERSONNEL
Event	6	Other	9/14/2015	07:50:00	USER					1 PUMP, 1 BULK TRUCK, 2 PICK UPS
Event	7	Pre-Rig Up Safety Meeting	9/14/2015	08:00:00	USER					WITH ALL HES PERSONNEL
Event	8	Rig-Up Equipment	9/14/2015	08:10:00	USER					
Event	9	Pre-Job Safety Meeting	9/14/2015	11:15:00	USER					WITH ALL PERSONNEL
Event	10	Start Job	9/14/2015	11:39:54	COM5					TD 1594 FT, TP 1584 FT, SJ 45.7 FT, CSG 8 5/8 IN 24 LB/FT, OH 11 IN, MUD 9.4 PPG
Event	11	Prime Pumps	9/14/2015	11:42:42	COM5	8.4	2.0	70.0	2.0	FRESH WATER
Event	12	Drop Bottom Plug	9/14/2015	11:43:00	USER					PLUG LAUNCHED
Event	13	Test Lines	9/14/2015	11:47:58	COM5					TESTED LINES TO 3255 PSI, PRESSURE HOLDING

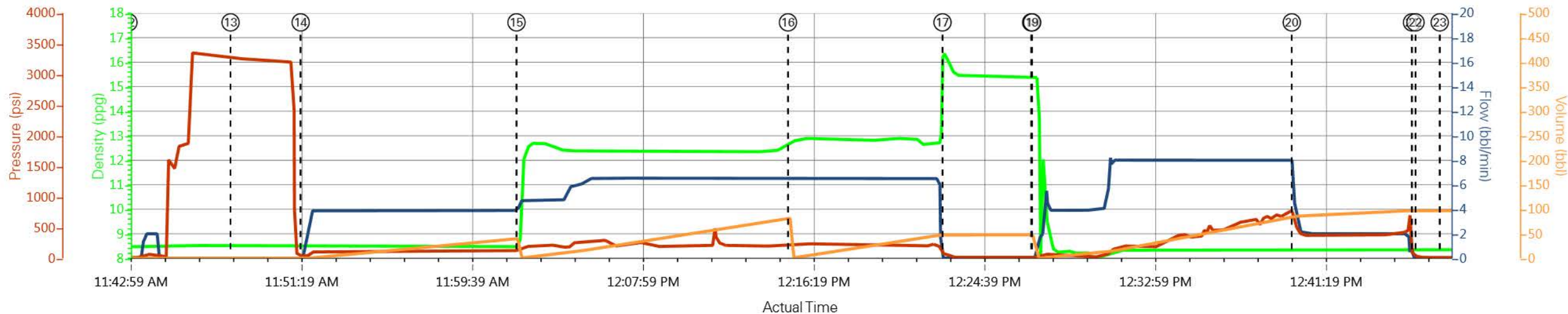
Event	14	Pump Spacer 1	9/14/2015	11:51:24	COM5	8.4	4.0	120.0	40.0	FRESH WATER
Event	15	Pump Lead Cement	9/14/2015	12:01:56	COM5	12.3	6.5	240.0	84.1	192 SKS, 12.3 PPG, 2.46 FT3/SK, 14.17 GAL/SK
Event	16	Pump Tail Cement	9/14/2015	12:15:11	COM5	12.8	6.5	220.0	46.6	120 SKS, 12.8 PPG, 2.18 FT3/SK, 12.11 GAL/SK
Event	17	Shutdown	9/14/2015	12:22:43	USER					
Event	18	Drop Top Plug	9/14/2015	12:27:03	COM5					PLUG LAUNCHED
Event	19	Pump Displacement	9/14/2015	12:27:06	COM5	8.4	8.0	700.0	98.0	FRESH WATER, WASHED UP ON TOP OF PLUG, HES RETURNED 25 BBLS LEAD CEMENT TO SURFACE.
Event	20	Slow Rate	9/14/2015	12:39:46	USER	8.4	2.0	300.0	88.0	SLOWED RATE 10 BBLS PRIOR TO CALCULATED DISPLACEMENT
Event	21	Bump Plug	9/14/2015	12:45:38	COM5			800.0		BUMPED PLUG, AT 800 PSI WELL HEAD SIDE PLUG BLEW OUT RELEASING PRESSURE. UNABLE TO PERFORM CASING TEST.
Event	22	Check Floats	9/14/2015	12:45:49	USER			800.0		CHECKED FLOATS IN CELLAR, FLOATS HOLDING
Event	23	End Job	9/14/2015	12:46:59	COM5					HAD GOOD RETURNS DURING JOB, PIPE WAS STATIC THROUGHOUT JOB.
Event	24	Pre-Rig Down Safety Meeting	9/14/2015	14:00:00	USER					WITH ALL HES PERSONNEL

Event	25	Rig-Down Equipment	9/14/2015	14:10:00	USER	
Event	26	Pre-Convoy Safety Meeting	9/14/2015	14:30:00	USER	WITH ALL HES PERSONNEL
Event	27	Crew Leave Location	9/14/2015	14:40:00	USER	
Event	28	Comment	9/14/2015	14:45:00	USER	THANK YOU FOR CHOOSING HALLIBURTON CEMENT DEPARTMENT, STEVEN WARDELL AND CREW.

# PICEANCE ENERGY 28-01W 902741610 SURFACE



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- |                             |   |                          |                     |                     |                                |                              |
|-----------------------------|---|--------------------------|---------------------|---------------------|--------------------------------|------------------------------|
| ① Call Out                  | ⑤ Assessment Of Location Safety Meeting | ⑨ Pre-Job Safety Meeting | ⑬ Test Lines        | ⑰ Shutdown          | 21 Bump Plug                   | 25 Rig-Down Equipment        |
| ② Pre-Convoy Safety Meeting | ⑥ Spot Equipment                        | ⑩ Start Job              | ⑭ Pump Water Spacer | ⑱ Drop Top Plug     | 22 Check Floats                | 26 Pre-Convoy Safety Meeting |
| ③ Crew Leave Yard           | ⑦ Pre-Rig Up Safety Meeting             | ⑪ Prime Lines            | ⑮ Pump Lead Cement  | ⑲ Pump Displacement | 23 End Job                     | 27 Crew Leave Location       |
| ④ Arrive At Loc             | ⑧ Rig-Up Equipment                      | ⑫ Drop Bottom Plug       | ⑯ Pump Tail Cement  | 20 Slow Rate        | 24 Pre-Rig Down Safety Meeting | 28 Comment                   |

▼ **HALLIBURTON** | iCem® Service

Created: 2015-09-14 04:52:50, Version: 4.2.384

Edit

Customer: PICEANCE ENERGY LLC - EBUS

Job Date: 9/14/2015 9:54:00 AM

Well: PICEANCE 28-01W

Representative: MATT SETTLES

Sales Order #: 902741610

ELITE # 1: WARDELL / SLAUGHTER



<b>Sales Order #:</b> 0902741610	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 9/15/2015
<b>Customer:</b> PICEANCE ENERGY LLC - EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> MATT SETTLES		<b>API / UWI: (leave blank if unknown)</b> 05-077-10236-00
<b>Well Name:</b> PICEANCE		<b>Well Number:</b> 0080734089
<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	9/15/2015
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	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	

<b>CUSTOMER SIGNATURE</b>
---------------------------

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*KEY PERFORMANCE INDICATORS*

General	
<b>Survey Conducted Date</b> The date the survey was conducted	9/15/2015

Cementing KPI Survey	
<b>Type of Job</b> Select the type of job. (Cementing or Non-Cementing)	0
<b>Select the Maximum Deviation range for this Job</b> What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	Vertical
<b>Total Operating Time (hours)</b> Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	2
<b>HSE Incident, Accident, Injury</b> HSE Incident, Accident, Injury. This should be recordable incidents only.	No
<b>Was the job purpose achieved?</b> Was the job delivered correctly as per customer agreed design?	Yes
<b>Pumping Hours</b> Total number of hours pumping fluid on this job. Enter in decimal format.	1
<b>Type of Rig Classification Job Was Performed</b> Type Of Rig (classification) Job Was Performed On	Drilling Rig (Portable)
<b>Number Of JSAs Performed</b> Number Of Jsas Performed	6
<b>Was this a Primary Cement Job (Yes / No)</b> Primary Cement Job= Casing job, Liner job, or Tie-back job.	Yes
<b>Number of Unplanned Shutdowns</b> Unplanned shutdown is when injection stops for any period of time.	0
<b>Customer Non-Productive Rig Time (hrs)</b>	0

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<b>H2S Present:</b> No	<b>Well State:</b> COLORADO	<b>Well County:</b> 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.	
<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?	Both
<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)	Yes
<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	96
<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	94
<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