

WPX Energy Rocky Mountain LLC - EBUS

RGU 43-26-198

**H&P 318**

# **Post Job Summary**

## **Cement Production Casing**

Date Prepared: 5/24/2015

Job Date: 5/9/2015

Submitted by: Patrick Ealey – Grand Junction Cement Engineer

*The Road to Excellence Starts with Safety*

Sold To #: 300721	Ship To #: 3124464	Quote #: 0022009963	Sales Order #: 0902245788
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep: BOB BROWN	
Well Name: FEDERAL	Well #: RGU 43-26-198	API/UWI #: 05-103-11991-00	
Field: SULPHUR CREEK	City (SAP): MEEKER	County/Parish: RIO BLANCO	State: COLORADO
Legal Description: 26-1S-98W-2454FNL-901FEL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 318	
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB50180		Srcv Supervisor: John Keane	

**Job**

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	12469ft Job Depth TVD 12469 FT
Water Depth	Wk Ht Above Floor 3 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		9.625	8.921	36	8 RD	J-55	0	3954	0	3954
Casing		4.5	4	11.6	8 RD	P-110	0	12469	0	12469
Open Hole Section			8.75				3954	9300	3954	9300
Open Hole Section			7.875				9300	12469	9300	12469

**Tools and Accessories**

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe					Top Plug	4.5	1	HES
Float Shoe	4.5	1		12469	Bottom Plug			
Float Collar	4.5	1		12441	SSR plug set			
Insert Float					Plug Container	4.5	1	HES
Stage Tool					Centralizers			

**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	100	bbl	8.3			5		

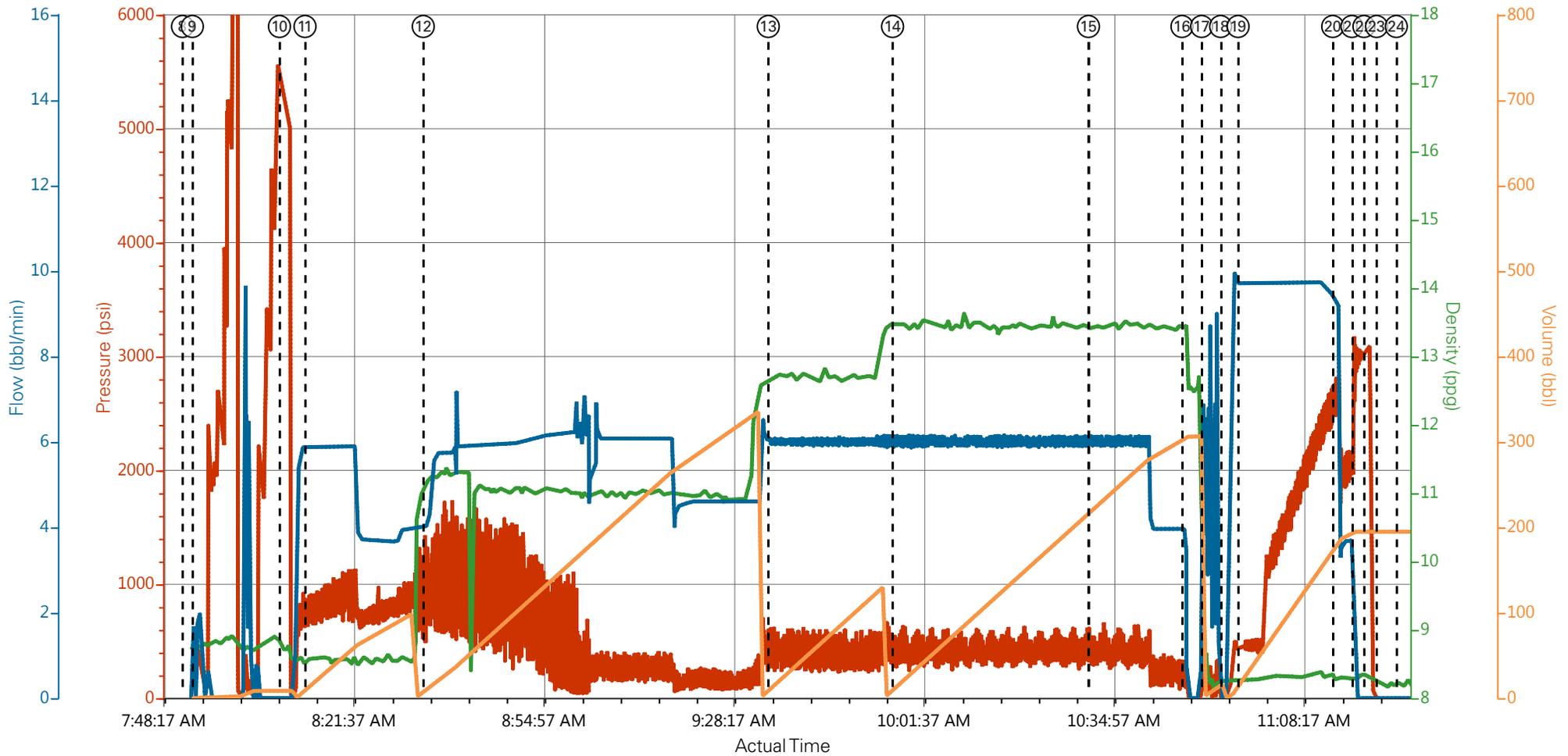
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
2	ExtendaCem GJ1	EXTENDACEM (TM) SYSTEM	625	sack	11	2.75		6	16.07
16.07 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	EconoCem GJ1	ECONOCEM (TM) SYSTEM	365	sack	12.7	1.91		6	10.09
10.09 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	ThermaCem GJ1	THERMACEM (TM) SYSTEM	935	sack	13.5	1.75		6	8.25
8.25 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
5	Displacement	Displacement	193	bbl	8.34			10	
0.03 gal/bbl		BE-6, 48 LB FIBER DRUM (100003800)							
0.01 gal/bbl		MICRO MATRIX CEMENT RETARDER, 1 GAL PAIL (100003780)							
Cement Left In Pipe	Amount	28 ft		Reason	Shoe Joint				
<b>Comment</b>									

## 4.5 Job Event Log

Type	Seq. No.	Activity	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	5/8/2015	18:30:00	USER					
Event	2	Pre-Convoy Safety Meeting	5/8/2015	21:30:00	USER					WITH HES, 1 F-550, 1 ELITE CEMENTING UNIT, 2 660 FT3 BULK TRUCKS, 1 WASH-UP TRUCK
Event	3	Arrive At Loc	5/9/2015	00:30:00	USER					RIG RUNNING CASING UPON HES ARRIVAL
Event	4	Assessment Of Location Safety Meeting	5/9/2015	01:30:00	USER					WITH HES
Event	5	Pre-Rig Up Safety Meeting	5/9/2015	05:30:00	USER					WITH HES
Event	6	Rig-Up Equipment	5/9/2015	05:45:00	USER					1 LINE RAN TO THE FLOOR, 1 LINE RAN TO THE WASHUP TRUCK, MANIFOLD BUILT ON THE GROUND, 1 4.5 IN. QUICK-LATCH PLUG CONTAINER
Event	7	Pre-Job Safety Meeting	5/9/2015	07:30:00	USER					WITH HES, WPX ENERGY, AND H&P 318
Event	8	Start Job	5/9/2015	07:52:06	USER					TP 12469 FT, TD 12496 FT, CSG 4.5 IN 11.5 LB/FT P-110, HOLE 8.75 IN TO 9300 FT, 7.875 IN FROM 9300 FT TO 12496 FT, MWT 10 LB/GAL, SHOE 27.5 FT, SURFACE SET AT 3954 FT, CSG 9.625 IN 36 LB/FT J-55, RIG CIRCULATING AT 8 BBL/MIN, 834 PSI, 500 UNITS PASON GAS
Event	9	Prime Pumps	5/9/2015	07:53:49	USER	136.17	8.33	0.00	2.0	
Event	10	Test Lines	5/9/2015	08:09:06	USER	5277.50	8.33	0.00	8.6	LOW TEST AT 2089 PSI, HIGH TEST AT 5277 PSI, PRESSURE HOLDING
Event	11	Pump Spacer 2	5/9/2015	08:13:35	USER	792.43	8.64	5.90	100.0	RETURNS AT 1 BBL AWAY
Event	12	Pump Spacer 2	5/9/2015	08:34:20	COM9	690.24	11.00	6.00	306.1	MIXED AT 11.0 LB/GAL, 625 SKS, 2.75 FT3/SK, 16.07 GAL/SK, DENSITY VERIFIED USING PRESSURIZED MUD SCALES, 105 LBS TUFF FIBER ADDED

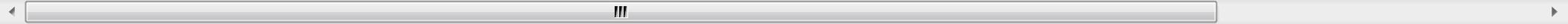
Type	Seq. No.	Activity	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	13	Pump Lead Cement	5/9/2015	09:34:50	COM9	422.11	12.70	6.00	124.2	MIXED AT 12.7 LB/GAL, 365 SKS, 1.91 FT3/SK, 10.09 GAL/SK, DENSITY VERIFIED USING PRESSURIZED MUD SCALES
Event	14	Pump Tail Cement	5/9/2015	09:56:38	COM9	420.23	13.50	6.00	292.0	MIXED AT 13.5 LB/GAL, 935 SKS, 1.75 FT3/SK, 8.25 GAL/SK, DENSITY VERIFIED USING PRESSURIZED MUD SCALES
Event	15	Comment	5/9/2015	10:31:00	USER	534.61	13.50	6.08	220.1	LOST RETURNS WITH 220 BBL AWAY ON TAIL CEMENT, ESTIMATED LOSING 263 BBL OF MUD
Event	16	Shutdown	5/9/2015	10:47:24	USER	199.92	13.50	4.02	292.0	
Event	17	Clean Lines	5/9/2015	10:50:51	USER					WASHED PUMPS AND LINES
Event	18	Drop Top Plug	5/9/2015	10:54:11	USER					PLUG LAUNCHED
Event	19	Pump Displacement	5/9/2015	10:57:14	COM9	2800.00	8.33	10.0	183.0	FRESH WATER WITH KCL ADDED, MMCR ADDED
Event	20	Slow Rate	5/9/2015	11:13:51	USER	1980.00	8.33	4.0	10.0	SLOWED AT 183 BBL AWAY
Event	21	Bump Plug	5/9/2015	11:17:13	USER	2100.00	8.30	4.0	193.0	PLUG BUMPED AT CALCULATED DISPLACEMENT
Event	22	Check Floats	5/9/2015	11:19:19	USER	3064.03	8.28	0.00	193.0	FLOATS HOLDING, 2.5 BBL RETURNED TO THE TRCUK
Event	23	End Job	5/9/2015	11:21:32	USER					GOOD CIRCULATION, PIPE WAS STATIC, 2 ADD HOURS CHARGED, RIG SUPPLIED TOP PLUG, RIG DID NOT USE SUGAR
Event	24	Pre-Rig Down Safety Meeting	5/9/2015	11:25:00	USER					WITH HES
Event	25	Rig-Down Equipment	5/9/2015	11:45:00	USER					
Event	26	Pre-Convoy Safety Meeting	5/9/2015	13:45:00	USER					WITH HES
Event	27	Crew Leave Location	5/9/2015	14:00:00	USER					
Event	28	Comment	5/9/2015	14:00:01	USER					THANKS FOR USING HALLIBURTON, JOHN KEANE AND CREW

# WPX ENERGY - FEDERAL RGU - 43-26-198 - 4.5 IN PRODUCTION



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

- |   |   |  |  |
|---|---|--|--|
| ① Call Out n/a;n/a;n/a;n/a                              | ⑦ Pre-Job Safety Meeting n/a;n/a;n/a;n/a        | ⑬ Pump Lead Cement 422.11;12.68;5.97;12.72 | ⑰ Pump Displacement 463.36;8.26;9.72;19.88   |
| ② Pre-Convoy Safety Meeting n/a;n/a;n/a;n/a             | ⑧ Start Job n/a;n/a;n/a;n/a                     | ⑭ Pump Tail Cement 420.23;13.47;5.88;13.29 | 20 Slow Rate 2703.08;8.31;9.3;181.23         |
| ③ Arrive At Loc n/a;n/a;n/a;n/a                         | ⑨ Fill Lines 136.17;8.76;0;0.42                 | ⑮ Comment 534.61;13.44;6.08;220.07         | 21 Bump Plug 3103.4;8.3;0;194.88             |
| ④ Assessment Of Location Safety Meeting n/a;n/a;n/a;n/a | ⑩ Test Lines 5277.5;8.7;0;8.65                  | ⑯ Shutdown 199.92;13.45;4.02;305.94        | 22 Check Floats 3064.03;8.28;0;194.88        |
| ⑤ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a             | ⑪ Pump Fresh Water Spacer 792.43;8.64;5.9;12.51 | ⑱ Clean Lines 33.98;8.34;4.19;2.97         | 23 End Job -7.27;8.22;0;194.88               |
| ⑥ Rig-Up Equipment n/a;n/a;n/a;n/a                      | ⑫ Pump Scavenger Cement 690.24;11.22;3.99;8.9   | ⑳ Drop Top Plug -17.59;8.26;0;0            | 24 Pre-Rig Down Safety Meeting -10.09;8.23;0 |



**HALLIBURTON** | iCem® Service

Created: 2015-05-09 01:14:21, Version: 4.1.107

Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date: 5/9/2015 6:46:04 AM

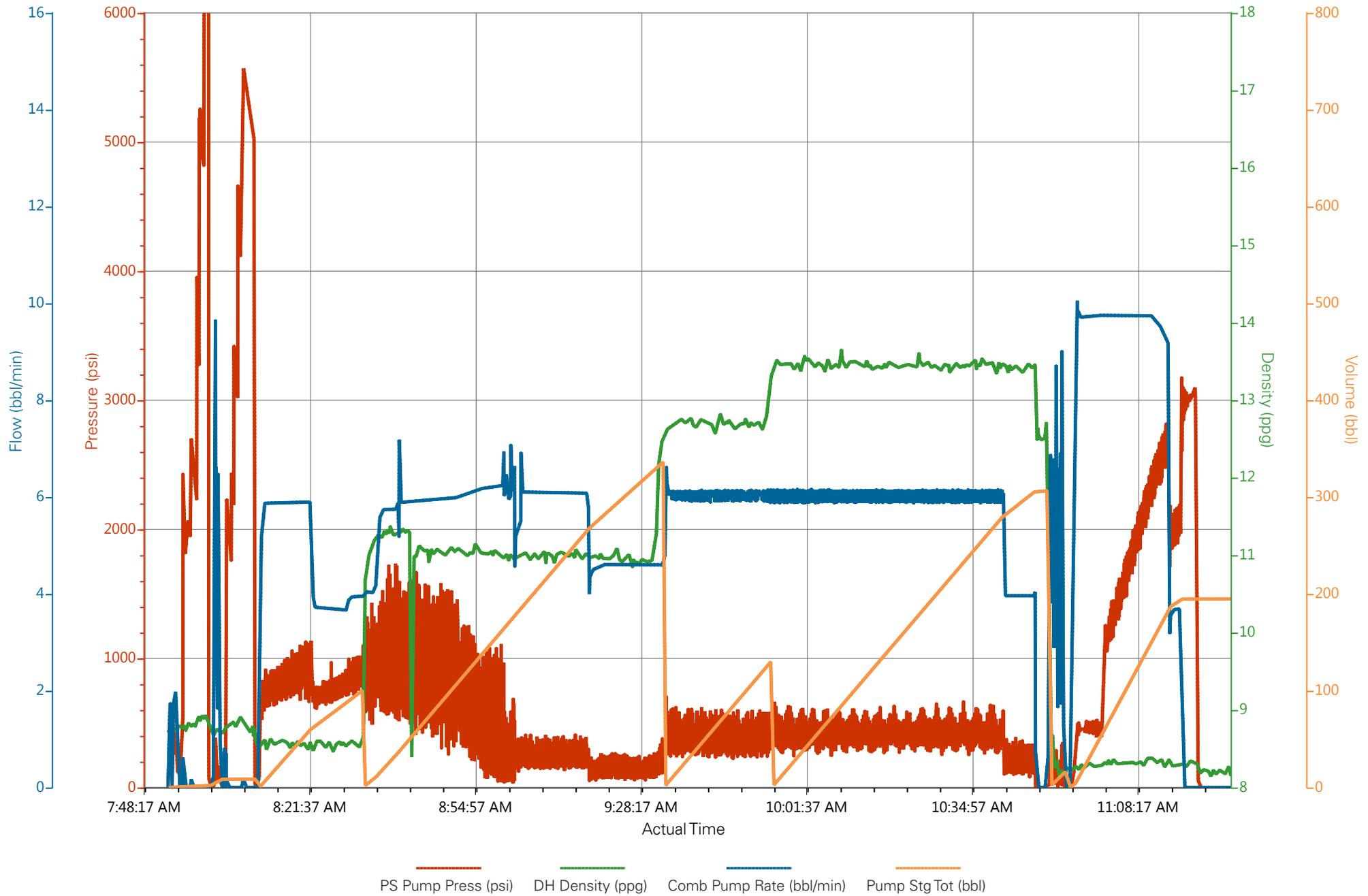
Well: RGU-43-26-198

Representative: BOB BROWN

Sales Order #: 902245788

ELITE 6 : JOHN KEANE / JOHN KENDALL

# WPX ENERGY - FEDERAL RGU - 43-26-198 - 4.5 IN PRODUCTION



# HALLIBURTON

## Water Analysis Report

Company: WPX ENERGY  
Submitted by: JOHN KEANE  
Attention: EVAN RUSSEL  
Lease: FEDERAL RGU  
Well #: 43-26-198

Date: 4/23/2015  
Date Rec.: 4/23/2015  
S.O.#: 902245788  
Job Type: PRODUCTION

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7.1</b>
Potassium (K)	<i>5000</i>	<b>0 Mg / L</b>
Calcium (Ca)	<i>500</i>	<b>250 Mg / L</b>
Iron (FE2)	<i>300</i>	<b>0 Mg / L</b>
Chlorides (Cl)	<i>3000</i>	<b>0 Mg / L</b>
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>&lt;200 Mg / L</b>
Chlorine (Cl <sub>2</sub> )		<b>0 Mg / L</b>
Temp	<i>40-80</i>	<b>56 Deg</b>
Total Dissolved Solids		<b>1240 Mg / L</b>

Respectfully: JOHN KEANE

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 use

<b>Sales Order #:</b> 0902245788	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/9/2015
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b>		<b>API / UWI: (leave blank if unknown)</b> 05-103-11991-00
<b>Well Name:</b> FEDERAL		<b>Well Number:</b> 0080129299
<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> RIO BLANCO

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	5/9/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB58526
Customer Participation	Did the customer participate in this survey? (Y/N)	No
Customer Representative	Enter the Customer representative name	
HSE	Was our HSE performance satisfactory? Circle Y or N	
Equipment	Were you satisfied with our Equipment? Circle Y or N	
Personnel	Were you satisfied with our people? Circle Y or N	
Customer Comment	Customer's Comment	

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

<b>Sales Order #:</b> 0902245788	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/9/2015
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b>		<b>API / UWI: (leave blank if unknown)</b> 05-103-11991-00
<b>Well Name:</b> FEDERAL		<b>Well Number:</b> 0080129299
<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> RIO BLANCO

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	5/9/2015
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>	Vertical
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>	7
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>	4
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>	6
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

<b>Sales Order #:</b> 0902245788	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/9/2015
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b>		<b>API / UWI: (leave blank if unknown)</b> 05-103-11991-00
<b>Well Name:</b> FEDERAL		<b>Well Number:</b> 0080129299
<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> RIO BLANCO

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)	No
<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	90
<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	90
<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)	No
<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