

WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

RGU 331-26-198

**Aztec 1000**

## **Post Job Summary**

# **Cement Production Casing**

Date Prepared: 09/30/2014  
Job Date: 09/27/2014

Submitted by: Kory Hugentobler – Grand Junction Cement Engineer

## The Road to Excellence Starts with Safety

Sold To #: 300721		Ship To #: 3560634		Quote #:		Sales Order #: 0901680198					
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS				Customer Rep:							
Well Name: FEDERAL		Well #: RGU 331-26-198		API/UWI #: 05-103-12142-00							
Field: SULPHUR CREEK		City (SAP): MEEKER		County/Parish: RIO BLANCO		State: COLORADO					
Legal Description: SE SE-23-1S-98W-1018FSL-657FEL											
Contractor: AZTEC WELL				Rig/Platform Name/Num: AZTEC 1000							
Job BOM: 7523											
Well Type: DIRECTIONAL GAS											
Sales Person: HALAMERICA\HB50180				Srvc Supervisor: Francisco Castillo							
<b>Job</b>											
Formation Name											
Formation Depth (MD)		Top	3953ft		Bottom	12882ft					
Form Type				BHST							
Job depth MD		12882ft		Job Depth TVD							
Water Depth				Wk Ht Above Floor							
Perforation Depth (MD)		From			To						
<b>Well Data</b>											
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	NEW	9.625	8.921	36			0	3953		0	
Casing	NEW	4.5	4	11.6			0	12882		0	
Open Hole Section			8.75				3953	10514	0	0	
Open Hole Section			7.875				10514	12882	0	0	
<b>Tools and Accessories</b>											
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	WTF	12882		Bottom Plug					
Float Collar	4.5	1	WTF	12851.5		SSR plug set					
Insert Float						Plug Container	4.5	1	HES		
Stage Tool						Centralizers	4.5		WTF		
<b>Miscellaneous Materials</b>											
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty	
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size	
<b>Fluid Data</b>											
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			8	

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	Scavenger	EXTENDACEM (TM) SYSTEM	675	sack	11	2.75		8	16.07
16.21 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	EconoCem Lead	ECONOCEM (TM) SYSTEM	345	sack	12.7	1.91		4	10.13
10.27 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
4	ThermaCem Tail	THERMACEM (TM) SYSTEM	780	sack	13.5	1.75		8	8.24
8.32 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
5	Displacement	Displacement	199	bbl	8.34			10	
Cement Left In Pipe		Amount	31.05 ft		Reason		Shoe Joint		
Comment									

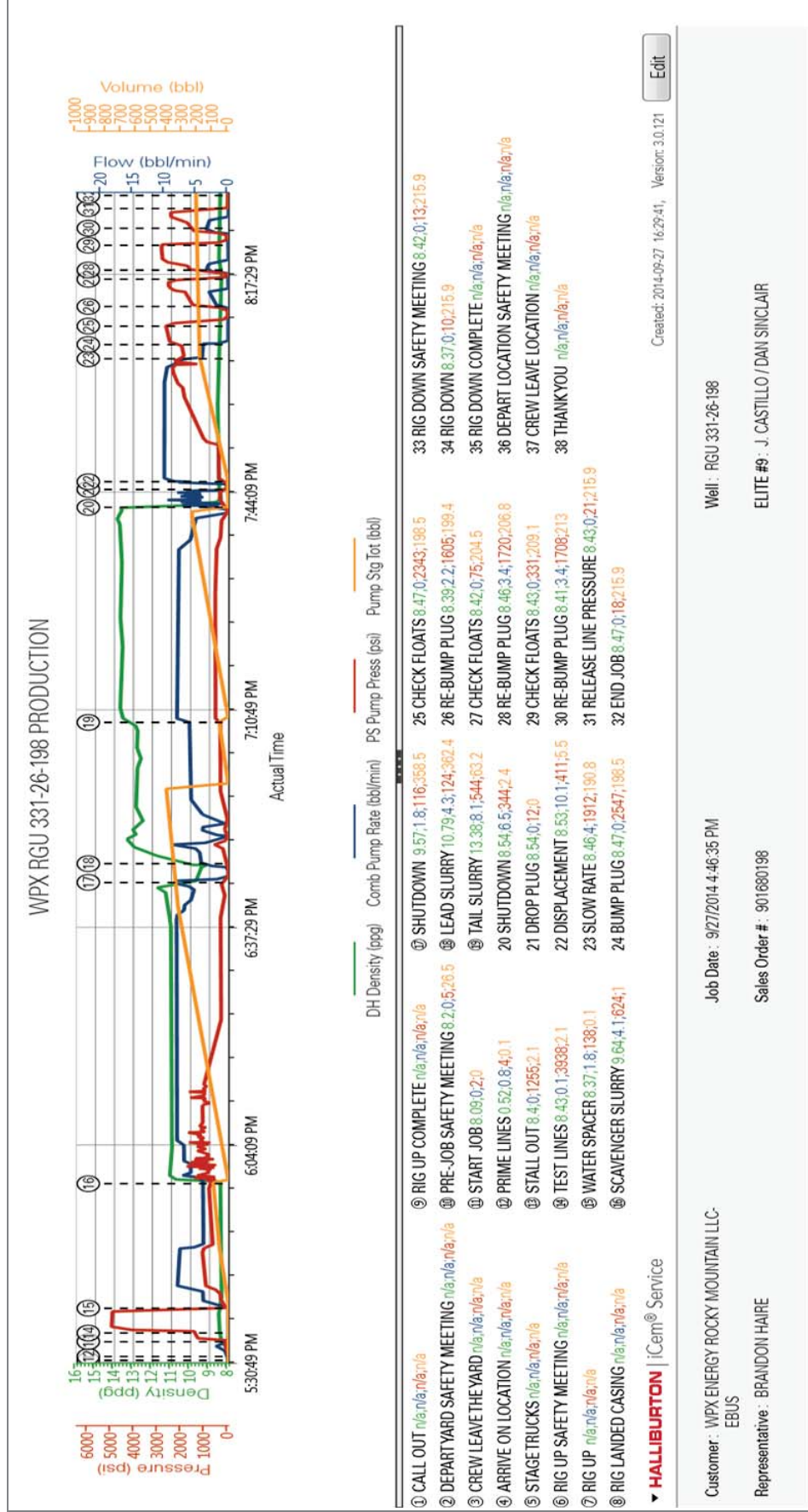
## 1.1 Job Event Log

Graph Label	Date	Time	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comment
CALL OUT	9/27/2014	06:30:00					ON LOCATION AT 13:00 HRS
DEPART YARD SAFETY MEETING	9/27/2014	08:50:00					NO INJURIES TO REPORT BEFORE THE JOB
CREW LEAVE THE YARD	9/27/2014	09:00:00					
ARRIVE ON LOCATION	9/27/2014	12:00:00					RIG WAS RUNNING CASING
STAGE TRUCKS	9/27/2014	13:00:00					1-ELITE PUMP AND 1-660 BULK TRUCK
RIG UP SAFETY MEETING	9/27/2014	13:20:00					
RIG UP	9/27/2014	13:30:00					1-ELITE, 1-660 BULK TRUCK, 2-1700FT3 SILOS, 2" PUMPING IRON, 4.5" PLUG CONTAINER AND QUICK CONNECT
RIG LANDED CASING	9/27/2014	14:00:00					RIG CIRCULATED AT 15 BPM FOR 3 HRS WHILE RECIPROCATING THE CASING
RIG UP COMPLETE	9/27/2014	14:30:00					
PRE-JOB SAFETY MEETING	9/27/2014	17:15:00					HES PERSONEL AND RIG CREW / LOADED HES TOP RUBBER PLUG IN PLUG CONTAINER
START JOB	9/27/2014	17:31:36					SET DEPTH 12,882', OH-8.75" FROM 3953' TO 10,514', 7.875" FROM 10,514' TO TD, CSG-4.5", 11.6#, P-110, SJ-31.05', FC- 12,851.5', MUD-9.8 PPG, FV-44, PV-15, YP-16, pH-9.8, TEMP-134
PRIME LINES	9/27/2014	17:32:12	8.33 PPG	2 BPM	190 PSI	2 BBLs	FRESH WATER
STALL OUT	9/27/2014	17:34:29					HELD PRESSURE AT 1456 PSI
TEST LINES	9/27/2014	17:35:47					HELD PRESSURE AT 5018 PSI
WATER SPACER	9/27/2014	17:39:35	8.33 PPG	8 BPM	1100 PSI	100 BBLs	FRESH WATER / 1 <sup>ST</sup> 60 BBLs PUMPED AT 8 BPM WITH 1100 PSI / LAST 40 BBLs PUMPED AT 4 BPM WITH 880 PSI
SCAVENGER SLURRY	9/27/2014	17:58:39	11.0 PPG	8 BPM	1100 PSI	330 BBLs	11.0 PPG/ 2.75 FT3/SK, 16.07 GAL/SK / 75 LBS OF TUFF FIBER ON THE FIRST 100 BBLs
SHUTDOWN	9/27/2014	18:44:48					SHUTDOWN DUE TO PUMP COMPUTER NOT TAKING BLEND 2 TO MANUALLY BRING UP LEAD BLEND

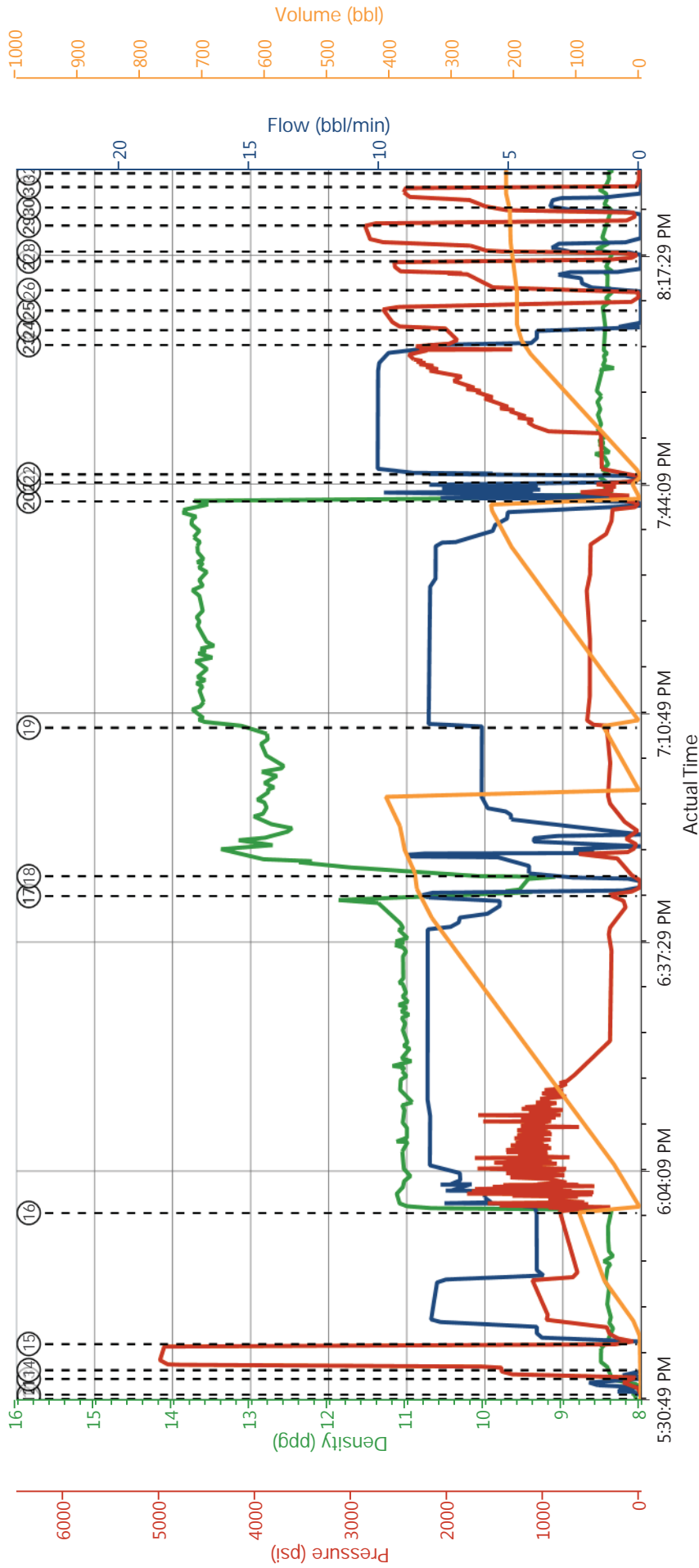
LEAD SLURRY	9/27/2014	18:47:40	12.7 PPG	4 BPM	540 PSI	117 BBLS	345 SKS, 12.7 PPG, 1.91 FT3/SK, 10.07 GAL/SK, SETUP TIME 5:09 HRS AT 70 BC / TOL AT 5691'
TAIL SLURRY	9/27/2014	19:09:18	13.5 PPG	8 BPM	535 PSI	243 BBLS	780 SKS, 13.5 PPG, 1.75 FT3/SK, 8.23 GAL/SK, SETUP TIME 4:13 HRS AT 70 BC / TOT AT 7835'
SHUTDOWN	9/27/2014	19:42:14	WASH LINES TO THE PIT / HAD GOOD RETURNS ALL THE WAY TILL WE SHUTDOWN TO DROP THE PLUG				
DROP PLUG	9/27/2014	19:45:00	PLUG DROP VERIFIED BY CUSTOMER				
DISPLACEMENT	9/27/2014	19:46:09	8.4 PPG	10 BPM	2300 PSI	189 BBLS	KCL + 3LBS OF BE-6 ON FIRST 30 BBLS, 1-GAL MMCR ON FIRST 10 BBLS / CAUGHT CEMENT 60 BBLS INTO DISPLACEMENT
SLOW RATE	9/27/2014	20:04:59	8.4 PPG	4 BPM	1950 PSI	10 BBLS	
BUMP PLUG	9/27/2014	20:07:11			2559	TOTAL DISP 199 BBLS	
CHECK FLOATS	9/27/2014	20:10:00	FLOATS DID NOT HOLD / FLOW BACK 7 BBLS				
RE-BUMP PLUG	9/27/2014	20:13:00	8.4 PPG	3.5 BPM	1800 PSI	7 BBLS	
CHECK FLOATS	9/27/2014	20:17:10	FLOATS DID NOT HOLD / FLOW BACK 5 BBLS				
RE-BUMP PLUG	9/27/2014	20:18:35	8.4 PPG	3.5 BPM	1850 PSI	5 BBLS	
CHECK FLOATS	9/27/2014	20:22:22	FLOATS DID NOT HOLD / FLOW BACK 7 BBLS				
RE-BUMP PLUG	9/27/2014	20:25:00	8.4 PPG	3.5 BPM	1950 PSI	7 BBLS	BUMP PLUG, CLOSE PLUG CONTAINER, BLEED OFF LINE PRESSURE, RIG ATTACH A PRESSURE GUAGE ON THE PLUG CONTAINER TO MONITOR THE PRESSURE
RELEASE LINE PRESSURE	9/27/2014	20:28:00					
END JOB	9/27/2014	20:30:00	DID NOT HAVE RETURNS THROUGH OUT THE ENTIRE DISPLACEMENT				
RIG DOWN SAFETY MEETING	9/27/2014	20:35:00					
RIG DOWN	9/27/2014	20:40:00	BLOW DOWN BOTH SILOS AND WASH UP CEMENT PUMP				
RIG DOWN COMPLETE	9/27/2014	22:00:00					
DEPART LOCATION SAFETY MEETING	9/27/2014	22:10:00	NO INJURIES TO REPORT AFTER THE JOB				
CREW LEAVE	9/27/2014	23:00:00					

LOCATION		
THANK YOU	9/27/2014 23:01:00	THANK YOU FOR YOUR BUSINESS FROM JAVIER CASTILLO AND CREW

2.2 Case 1-Custom Results (1).png



WPX RGU 331-26-198 PRODUCTION



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

• CALL OUT n/a;n/a;n/a	• RIG LANDED CASING n/a;n/a;n/a	• WATER SPACER 8.37;1.8;138;0.1	22 DISPLACEMENT 8.53;10.1;411;5.5	29 CHECK FLOAT
• DEPART YARD SAFETY MEETING n/a;n/a;n/a	• RIG UP COMPLETE n/a;n/a;n/a	• SCAVENGER SLURRY 9.64;4.1;624;1	23 SLOW RATE 8.46;4;1912;190.8	30 RE-BUMP PLC
• CREW LEAVE THE YARD n/a;n/a;n/a	• PRE-JOB SAFETY MEETING 8.2;0;5;26.5	• SHUTDOWN 9.57;1.8;116;358.5	24 BUMP PLUG 8.47;0;2547;198.5	31 RELEASE LINE
• ARRIVE ON LOCATION n/a;n/a;n/a	• START JOB 8.09;0;2;0	• LEAD SLURRY 10.79;4.3;124;362.4	25 CHECK FLOATS 8.47;0;2343;198.5	32 END JOB 8.47;
• STAGE TRUCKS n/a;n/a;n/a	• PRIME LINES 0.52;0.8;4;0.1	• TAIL SLURRY 13.38;8.1;544;63.2	26 RE-BUMP PLUG 8.39;2.2;1605;199.4	33 RIG DOWN SF
• RIG UP SAFETY MEETING n/a;n/a;n/a	• STALL OUT 8.4;0;1255;2.1	20 SHUTDOWN 8.54;6.5;344;2.4	27 CHECK FLOATS 8.42;0;75;204.5	34 RIG DOWN 8.3
• RIG UP n/a;n/a;n/a	• TEST LINES 8.43;0.1;3938;2.1	21 DROP PLUG 8.54;0;12;0	28 RE-BUMP PLUG 8.46;3.4;1720;206.8	35 RIG DOWN CC

• HALLIBURTON | iCem® Service

Created: 2014-09-27 16:29:41, Version: 3.0.121

Edit

Customer : WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date : 9/27/2014 4:46:35 PM

Well : RGU 331-26-198

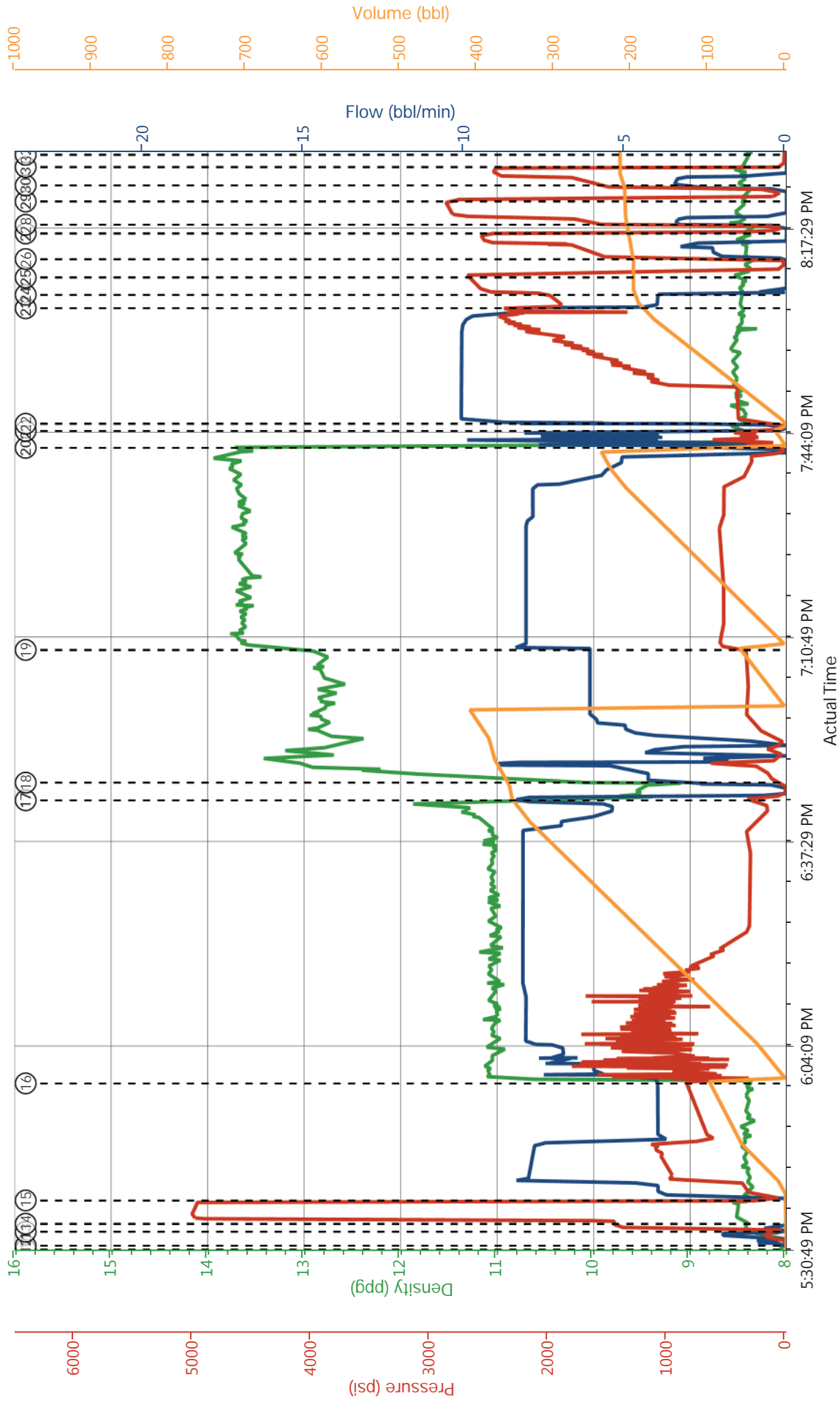
Representative : BRANDON HAIRE

Sales Order # : 901680198

ELITE #9 : J. CASTILLO / DAN SINCLAIR



WPX RGU 331-26-198 PRODUCTION



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Created: 2014-09-27 16:29:41, Version: 3.0.121

Edit

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EBUS  
Representative : BRANDON HAIRE

Job Date : 9/27/2014 4:46:35 PM  
Sales Order # : 901680198

Well : RGU 331-26-198  
ELITE #9 : J. CASTILLO / DAN SINCLAIR

# HALLIBURTON

## Water Analysis Report

Company: WPX  
Submitted by: JAVIER CASTILLO  
Attention: Chuck Ross  
Lease: RGU  
Well #: 331-26-198

Date: 9/27/2014  
Date Rec.: 9/27/2014  
S.O.#: 901680198  
Job Type: PRODUCTION

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</b>
Potassium (K)	<i>5000</i>	<b>200</b> Mg / L
Calcium (Ca)	<i>500</i>	<b>120</b> Mg / L
Iron (FE2)	<i>300</i>	<b>0</b> Mg / L
Chlorides (Cl)	<i>3000</i>	<b>0</b> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>200</b> Mg / L
Chlorine (Cl <sub>2</sub> )		<b>0</b> Mg / L
Temp	<i>40-80</i>	<b>65</b> Deg
Total Dissolved Solids		<b>530</b> Mg / L

Respectfully: JAVIER CASTILLO

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> 0901680198	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 9/28/2014
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b> BRANDON HAIRE		<b>API / UWI: (leave blank if unknown)</b> 05-103-12142-00
<b>Well Name:</b> FEDERAL		<b>Well Number:</b> 0080641197
<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	9/28/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB85312
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	BRANDON HAIRE
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>
---------------------------

<b>Sales Order #:</b> 0901680198	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 9/28/2014
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b> BRANDON HAIRE		<b>API / UWI: (leave blank if unknown)</b> 05-103-12142-00
<b>Well Name:</b> FEDERAL		<b>Well Number:</b> 0080641197
<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> The date the survey was conducted	9/28/2014

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.	11
<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>Operating Hours (Pumping Hours)</b> Total number of hours pumping fluid on this job. Enter in decimal format.	3.5
<b>Customer Non-Productive Rig Time (hrs)</b> 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.	0
<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	5
<b>Number of Unplanned Shutdowns</b> Unplanned shutdown is when injection stops for any period of time.	1
<b>Reason For Unplanned Shutdown</b>	PUMP COMPUTER WOULD NOT TAKE BLEND TWO

<b>Sales Order #:</b> 0901680198	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 9/28/2014
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b> BRANDON HAIRE		<b>API / UWI: (leave blank if unknown)</b> 05-103-12142-00
<b>Well Name:</b> FEDERAL		<b>Well Number:</b> 0080641197
<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

Reason For Unplanned Shutdowns (after Starting To Pump)	
<b>Was this a Primary Cement Job (Yes / No)</b> Primary Cement Job= Casing job, Liner job, or Tie-back job.	Yes
<b>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Top
<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>Was Automated Density Control Used?</b> Was Automated Density Control (ADC) Used ?	Yes
<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	95
<b>Nbr of Remedial Sqz Jobs Rqd - Competition</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
<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