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**WILLIAMS PRODUCTION RMT INC EBUSINE**

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**RU 12-5  
RULISON  
Garfield County , Colorado**

**Cement Surface Casing**  
**03-Dec-2013**

**Post Job Report**

## The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3123443	Quote #:	Sales Order #: 900942918
Customer: WILLIAMS PRODUCTION RMT INC EBUSINE	Customer Rep: Hartl, Al		
Well Name: RU	Well #: 12-5	API/UWI #:	
Field: RULISON	City (SAP): RIFLE	County/Parish: Garfield	State: Colorado
Contractor: Nabors	Rig/Platform Name/Num: Nabors 576		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	Job Type: Cement Surface Casing		
Sales Person:	Srvc Supervisor: DEUSSEN, EDWARD	MBU ID Emp #:	485182

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ANDERSON, ADAM S	7.5	456683	DEUSSEN, EDWARD Eric	7.5	485182	EICKHOFF, ROBERT Edward	7.5	495311

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10551730C	60 mile	10565341	60 mile	10951246	60 mile	10989685	60 mile
11808841	60 mile						

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
12/3/13	7.5	3.0						
TOTAL	Total is the sum of each column separately							

## Job

JOB						JOB TIMES				
Formation Name							Date	Time	Time Zone	
Formation Depth (MD)	Top			Bottom		Called Out	03 - Dec - 2013	09:30	MST	
Form Type				BHST		On Location	03 - Dec - 2013	14:30	MST	
Job depth MD	1159. ft			Job Depth TVD		1159. ft	Job Started	03 - Dec - 2013	19:37	MST
Water Depth				Wk Ht Above Floor		5. ft	Job Completed	03 - Dec - 2013	20:33	MST
Perforation Depth (MD)	From			To		Departed Loc	03 - Dec - 2013	22:00	MST	

## Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
OPEN HOLE				13.5				.	1175.		
SURFACE CASING	Unknown		9.625	9.001	32.3		HCP110	.	1158.8		

## Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	9 5/8"	1	HES
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	9 5/8"	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/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk

Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk

Stage/Plug #: 1									
1	Fresh Water Spacer		20.00	bbl	.	.0	.0	4.0	
2	VariCem GJ1 Lead Cement	VARICEM (TM) CEMENT (452009)	160.0	sacks	12.3	2.38	13.75	8.0	13.75
13.75 Gal		FRESH WATER							
3	VariCem GJ1 Tail Cement	VARICEM (TM) CEMENT (452009)	160.0	sacks	12.8	2.11	11.75	6.5	11.75
11.75 Gal		FRESH WATER							
4	Fresh Water Displacement		88.00	bbl	.	.0	.0	10.0	
Calculated Values		Pressures		Volumes					
Displacement	87.7	Shut In: Instant		Lost Returns		Cement Slurry	127.9	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	30	Actual Displacement	87.7	Treatment	
Frac Gradient		15 Min		Spacers	20	Load and Breakdown		Total Job	235.6
Rates									
Circulating		Mixing	8	Displacement	10	Avg. Job	7		
Cement Left In Pipe	Amount	43.8 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
The Information Stated Herein Is Correct				Customer Representative Signature					

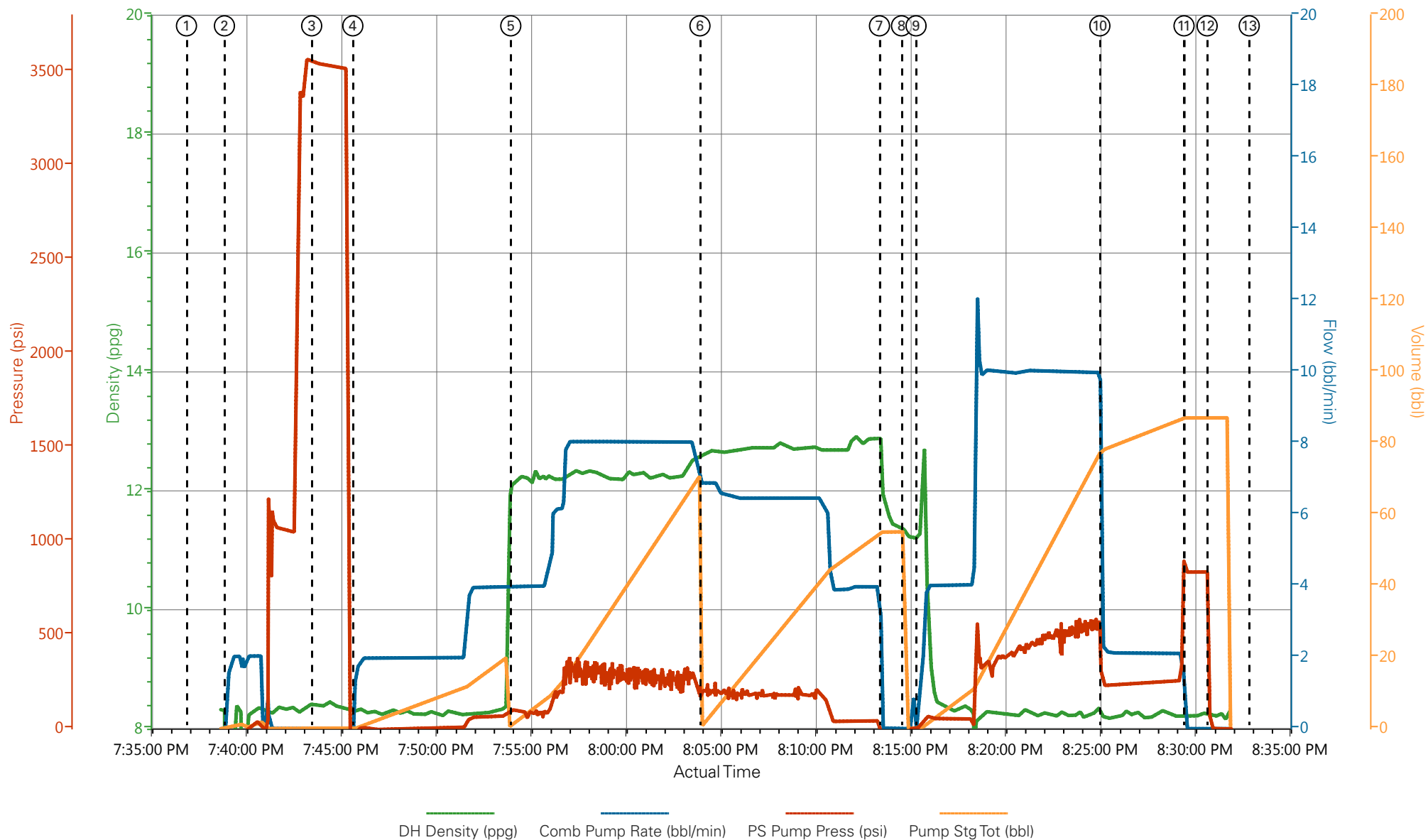
*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 300721	<b>Ship To #:</b> 3123443	<b>Quote #:</b>	<b>Sales Order #:</b> 900942918
<b>Customer:</b> WILLIAMS PRODUCTION RMT INC EBUSINE		<b>Customer Rep:</b> Hartl, Al	
<b>Well Name:</b> RU	<b>Well #:</b> 12-5	<b>API/UWI #:</b>	
<b>Field:</b> RULISON	<b>City (SAP):</b> RIFLE	<b>County/Parish:</b> Garfield	<b>State:</b> Colorado
<b>Legal Description:</b>			
<b>Lat:</b>		<b>Long:</b>	
<b>Contractor:</b> Nabors		<b>Rig/Platform Name/Num:</b> Nabors 576	
<b>Job Purpose:</b> Cement Surface Casing			<b>Ticket Amount:</b>
<b>Well Type:</b> Development Well		<b>Job Type:</b> Cement Surface Casing	
<b>Sales Person:</b>		<b>Srv Supervisor:</b> DEUSSEN, EDWARD	<b>MBU ID Emp #:</b> 485182

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	12/03/2013 09:30							
Pre-Convoy Safety Meeting	12/03/2013 12:15							ALL HES PERSONNEL
Crew Leave Yard	12/03/2013 12:30							1 ELITE, 1 660, 1 PICKUP
Arrive At Loc	12/03/2013 14:30							RIG STILL PULLING DRILL PIPE
Assessment Of Location Safety Meeting	12/03/2013 14:45							
Pre-Rig Up Safety Meeting	12/03/2013 17:45							ALL HES PERSONNEL
Rig-Up Equipment	12/03/2013 18:00							
Pre-Job Safety Meeting	12/03/2013 19:30							ALL HES PERSONNEL WITH RIG CREW AND COMPANY REP.
Start Job	12/03/2013 19:37							TD 1175', TP 1158.77', SJ 43.8', OH 13 1/2", MUD 10.5 PPG, SURF CSG 9 5/8" 32.3 LB/FT, HCP-110
Other	12/03/2013 19:39		2	2			30.0	FILL LINES
Pressure Test	12/03/2013 19:43							PRESSURED UP TO 3545 PSI - PRESSURE HELD WELL
Pump Spacer 1	12/03/2013 19:45		4	20			70.0	FRESH WATER
Pump Lead Cement	12/03/2013 19:54		8	67.8			290.0	160 SKS, 12.3 PPG, 2.38 YIELD, 13.75 GAL/SK
Pump Tail Cement	12/03/2013 20:04		6.5	60.1			185.0	160 SKS, 12.8 PPG, 2.11 YIELD, 11.75GAL/SK

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Shutdown	12/03/2013 20:13							WASH UP ON TOP OF PLUG
Drop Top Plug	12/03/2013 20:14							
Pump Displacement	12/03/2013 20:15		10	87.7			565.0	FRESH WATER
Slow Rate	12/03/2013 20:25		2	10			230.0	
Bump Plug	12/03/2013 20:29						252.0	PRESSURED UP TO 808 PSI
Check Floats	12/03/2013 20:30							FLOATS HELD - GOT 1/2 BBL BACK
End Job	12/03/2013 20:33							GOT 30 BBL CEMENT TO SURFACE / NO DERRICK CHARGE / NO ADD HOURS / NO SUGAR
Pre-Rig Down Safety Meeting	12/03/2013 20:45							ALL HES PERSONNEL
Rig-Down Equipment	12/03/2013 21:00							
Pre-Convoy Safety Meeting	12/03/2013 21:45							ALL HES PERSONNEL
Crew Leave Location	12/03/2013 22:00							THANK YOU FOR USING HALLIBURTON - ED DEUSSEN AND CREW

# WPX - RU 12-5 - 9 5/8" SURFACE



- |                                     |  |  |                                    |                           |
|-------------------------------------|--|--|------------------------------------|---------------------------|
| ① Start Job n/a;n/a;n/a;n/a         | ④ Pump H2O Spacer 8.31;1.75;-24.5;0.17   | ⑦ Shutdown 11.9;0;-47.92;55.19           | ⑩ Slow Rate 8.18;2.31;235.37;78.16 | ⑬ End Job n/a;n/a;n/a;n/a |
| ② Fill Lines -0.06;1.28;-25.43;0.07 | ⑤ Pump Lead Cement 12.11;3.96;99.18;1.55 | ⑧ Drop Top Plug 11.31;0;-48.86;0         | ⑪ Bump Plug 8.22;0;835.01;87.15    |                           |
| ③ Pressure Test 8.43;0;3547.08;0.05 | ⑥ Pump Tail Cement 12.59;6.9;223.79;1.26 | ⑨ Pump Displacement 11.25;1.31;6.76;0.07 | ⑫ Check Floats 8.2;0;3.95;87.15    |                           |

▼ **HALLIBURTON** | iCem® Service

Created: 2013-12-03 20:55:11, Version: 3.0.121

Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date: 12/3/2013 7:38:26 PM

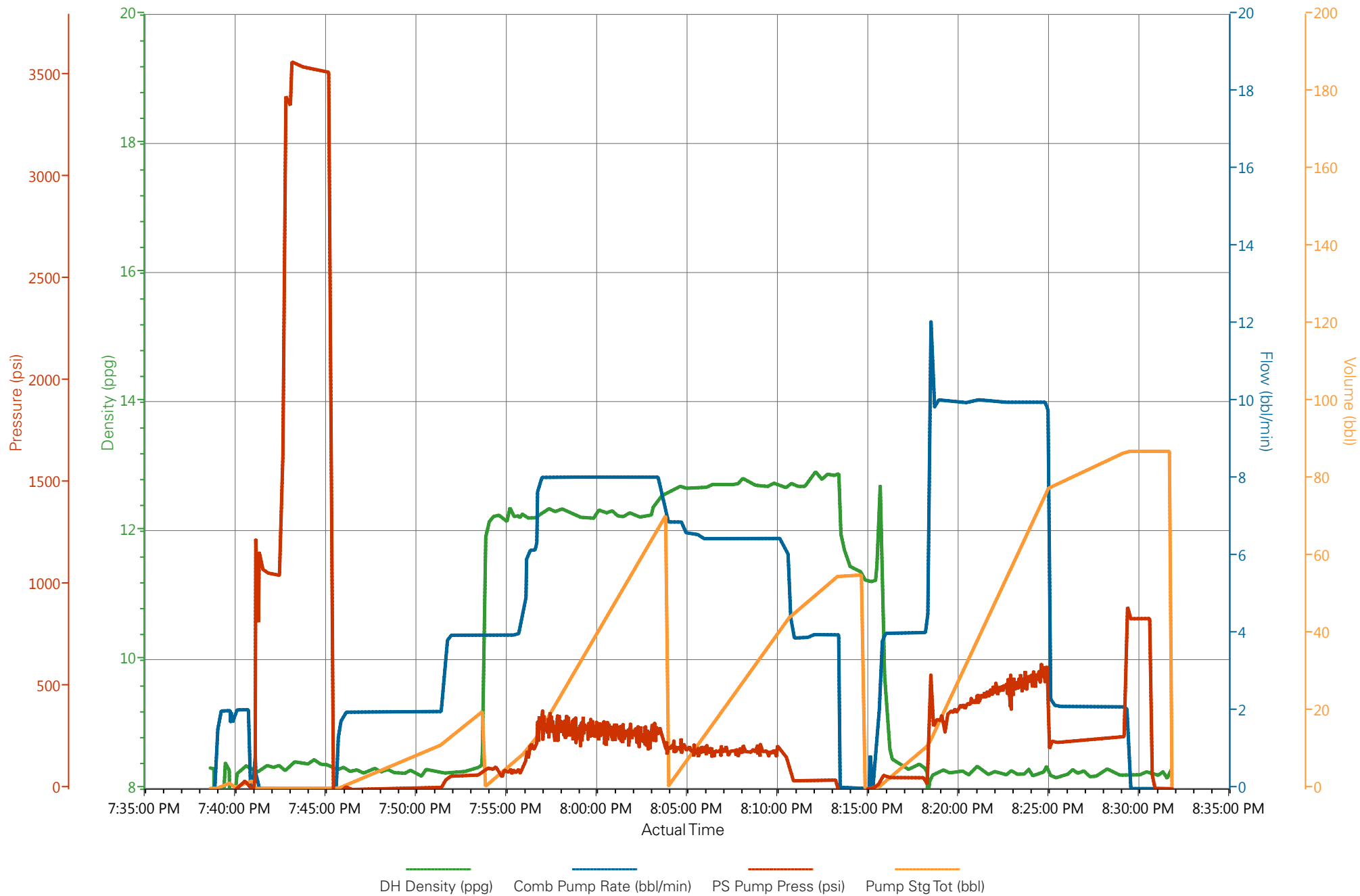
Well: RU 12-5

Representative: Al Hartl

Sales Order #: 900942918

Elite #2: Ed Deussen / Adam Anderson

# WPX - RU 12-5 - 9 5/8" SURFACE



# HALLIBURTON

## Water Analysis Report

Company: WPX

Submitted by: ED DEUSSEN

Attention: J.TROUT

Lease RU

Well # 12-5

Date: 12/3/2013

Date Rec.: 12/3/2013

S.O.# 900942918

Job Type: 9 5/8" SURFACE

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</b>
Potassium (K)	<i>5000</i>	<b>0</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>&lt;200</b> Mg / L
Temp	<i>40-80</i>	<b>48</b> Deg
Total Dissolved Solids		<b>380</b> -

Respectfully: ED DEUSSEN

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> 900942918	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 12/3/2013
<b>Customer:</b> WILLIAMS PRODUCTION RMT INC EBUSINE		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> AL HARTL		<b>API / UWI: (leave blank if unknown)</b> AFEYSFL4ZLK2E000AAA
<b>Well Name:</b> RU		<b>Well Number:</b> 12-5
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

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	12/3/2013
Survey Interviewer	The survey interviewer is the person who initiated the survey.	EDWARD DEUSSEN (HB57194)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	AL HARTL
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

<b>Sales Order #:</b> 900942918	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 12/3/2013
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<b>Customer Representative:</b> AL HARTL		<b>API / UWI: (leave blank if unknown)</b> AFEYSFL4ZLK2E000AAA
<b>Well Name:</b> RU		<b>Well Number:</b> 12-5
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

*KEY PERFORMANCE INDICATORS*

General	
<b>Survey Conducted Date</b> The date the survey was conducted	12/3/2013

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.	3
<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.	1
<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.	0
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes

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<b>Customer Representative:</b> AL HARTL		<b>API / UWI: (leave blank if unknown)</b> AFEYSFL4ZLK2E000AAA
<b>Well Name:</b> RU		<b>Well Number:</b> 12-5
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
<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	98
<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	98
<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