

**HALLIBURTON**

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# **WPX ENERGY ROCKY MOUNTAIN LLC-EBUS**

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**RWF 411-36  
Rulison  
Garfield County , Colorado**

## **Cement Surface Casing**

**23-Feb-2012**

## **Post Job Report**

*The Road to Excellence Starts with Safety*

Sold To #: 300721	Ship To #: 2907915	Quote #:	Sales Order #: 9270792
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Customer Rep: Hartl, Al		
Well Name: RWF	Well #: 411-36	API/UWI #:	
Field: Rulison	City (SAP): RIFLE	County/Parish: Garfield	State: Colorado
Lat: N 39.485 deg. OR N 39 deg. 29 min. 6.616 secs.	Long: W 107.84 deg. OR W -108 deg. 9 min. 36.209 secs.		
Contractor: NABORS	Rig/Platform Name/Num: NABORS 576		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	Job Type: Cement Surface Casing		
Sales Person: SCOTT, KYLE	Srv Supervisor: SLAUGHTER, JESSE	MBU ID Emp #: 454315	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ANDREWS, ANTHONY Michael	7.5	321604	PARKER, BRANDON	7.5	503646	ROMKEE, DALE Alan	7.5	488215
SLAUGHTER, JESSE Dean	7.5	454315						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10001431	60 mile	10744648C	60 mile	10969711	60 mile	10998508	60 mile
11583933	60 mile						

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
02-23-2012	7.5	4						

TOTAL Total is the sum of each column separately

## Job

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Job Depth TVD	Water Depth	Perforation Depth (MD)	From	To
				BHST	1166. ft	1166. ft				
							Wk Ht Above Floor			
						4. ft				

## Job Times

Date	Time	Time Zone
23 - Feb - 2012	06:00	MST
23 - Feb - 2012	11:30	MST
23 - Feb - 2012	15:50	MST
23 - Feb - 2012	16:46	MST
23 - Feb - 2012	19:00	MST

## Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbf/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
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## Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
R/A DENSOMETER W/CHART RECORDER, /JOB, ZI	1	JOB		
PORT. DAS W/CEMWIN; ACQUIRE W/HES, ZI	1	JOB		
ADC (AUTO DENSITY CTRL) SYS, /JOB, ZI	1	JOB		
PLUG, CMTG, TOP, 9 5/8, HWE, 8.16 MIN/9.06 MA	1	EA		

## Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	9.625	1	HES
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	9.625	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
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Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water	FRESH WATER	20.00	bbl	8.33	.0	.0	4	
2	VersaCem Lead	VERSACEM (TM) SYSTEM (452010)	160.0	sacks	12.3	2.38	13.75	8	13.75
	13.75 Gal	FRESH WATER							
3	VersaCem Tail	VERSACEM (TM) SYSTEM (452010)	160.0	sacks	12.8	2.11	11.75	8	11.75
	11.75 Gal	FRESH WATER							
4	Displacement Fluid	FRESH WATER	88.3	bbl	8.34	.0	.0	10	
Calculated Values		Pressures		Volumes					
Displacement	88.3	Shut In: Instant		Lost Returns	NO	Cement Slurry	128	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	22	Actual Displacement	88.3	Treatment	
Frac Gradient		15 Min		Spacers	20	Load and Breakdown		Total Job	236
Rates									
Circulating		Mixing	8	Displacement	10	Avg. Job			9
Cement Left In Pipe	Amount	0 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*

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Well Name: RWF			Well #: 411-36			API/UWI #:	
Field: Rulison		City (SAP): RIFLE		County/Parish: Garfield			State: Colorado
Legal Description:							
Lat: N 39.485 deg. OR N 39 deg. 29 min. 6.616 secs.				Long: W 107.84 deg. OR W -108 deg. 9 min. 36.209 secs.			
Contractor: NABORS			Rig/Platform Name/Num: NABORS 576				
Job Purpose: Cement Surface Casing						Ticket Amount:	
Well Type: Development Well			Job Type: Cement Surface Casing				
Sales Person: SCOTT, KYLE			Srv Supervisor: SLAUGHTER, JESSE			MBU ID Emp #: 454315	

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	02/23/2012 06:00							TD 1180 FT, TP 1166 FT, SHOE 44.15 FT, CSG 9 5/8 IN 32.3 LB/FT, HOLE 13 1/2 IN, MUD WT 9.4 PPG
Pre-Convoy Safety Meeting	02/23/2012 09:50							WITH ALL HES PERSONNEL
Crew Leave Yard	02/23/2012 10:00							
Arrive At Loc	02/23/2012 11:30							RIG WAS PULLING PIPE UPON HES ARRIVAL
Assessment Of Location Safety Meeting	02/23/2012 14:30							WITH ALL HES PERSONNEL
Other	02/23/2012 14:40							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	02/23/2012 14:50							WITH ALL HES PERSONNEL
Rig-Up Equipment	02/23/2012 15:00							
Pre-Job Safety Meeting	02/23/2012 15:40							WITH ALL PERSONNEL ON LOCATION
Start Job	02/23/2012 15:50							
Other	02/23/2012 15:50		2	2			65.0	FILL LINES WITH FRESH WATER
Test Lines	02/23/2012 15:52							TESTED LINES TO 3210 PSI PRESSURE HOLDING
Pump Spacer 1	02/23/2012 15:58		4	20			119.0	FRESH WATER
Pump Lead Cement	02/23/2012 16:07		8	67.8			240.0	160 SKS AT 12.3 PPG, 2.38 FT3/SK, 13.75 GAL/SK
Activity Description	Date/Time	Cht	Rate bbl/min	Volume bbl		Pressure psig		Comments

Sold To #: 300721

Ship To #: 2907915

Quote #:

Sales Order #:

9270792

SUMMIT Version: 7.3.0021

Wednesday, December 19, 2012 04:39:00

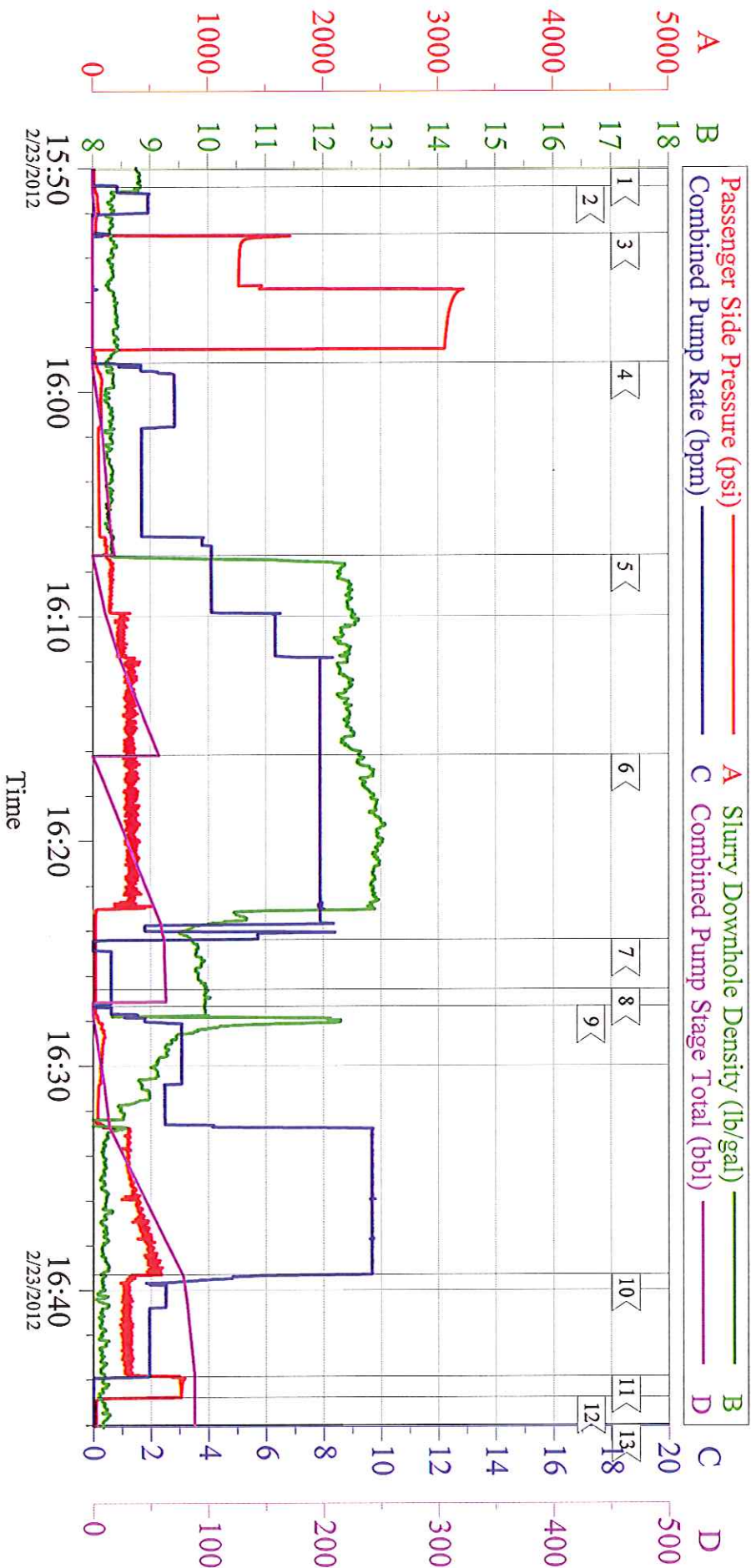
## Cementing Job Log

		#		Stage	Total	Tubing	Casing	
Pump Tail Cement	02/23/2012 16:16		8	60.1			240.0	160 SKS AT 12.8 PPG, 2.11 FT3/SK, 11.75 GAL/SK
Shutdown	02/23/2012 16:24							
Drop Top Plug	02/23/2012 16:26							PLUG LAUNCHED
Pump Displacement	02/23/2012 16:27		10	78.3			540.0	FRESH WATER
Slow Rate	02/23/2012 16:39		2	10			300.0	SLOW RATE 10 BBLs PRIOR TO CALCULATED DISPLACEMENT
Bump Plug	02/23/2012 16:43		2		88.3		770.0	PLUG BUMPED
Check Floats	02/23/2012 16:44							FLOATS HOLDING.
End Job	02/23/2012 16:46							PIPE WAS STATIC DURING JOB, GOOD CIRCULATION THROUGHOUT JOB
Pre-Rig Down Safety Meeting	02/23/2012 16:50							WITH ALL HES PERSONNEL
Rig-Down Equipment	02/23/2012 17:00							
Pre-Convoy Safety Meeting	02/23/2012 18:50							WITH ALL HES PERSONNEL
Crew Leave Location	02/23/2012 19:00							
Comment	02/23/2012 19:01							THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. JESSE SLAUGHTER AND CREW.



# WILLIAMS RWF 411-36

## 9 5/8 SURFACE



### Local Event Log

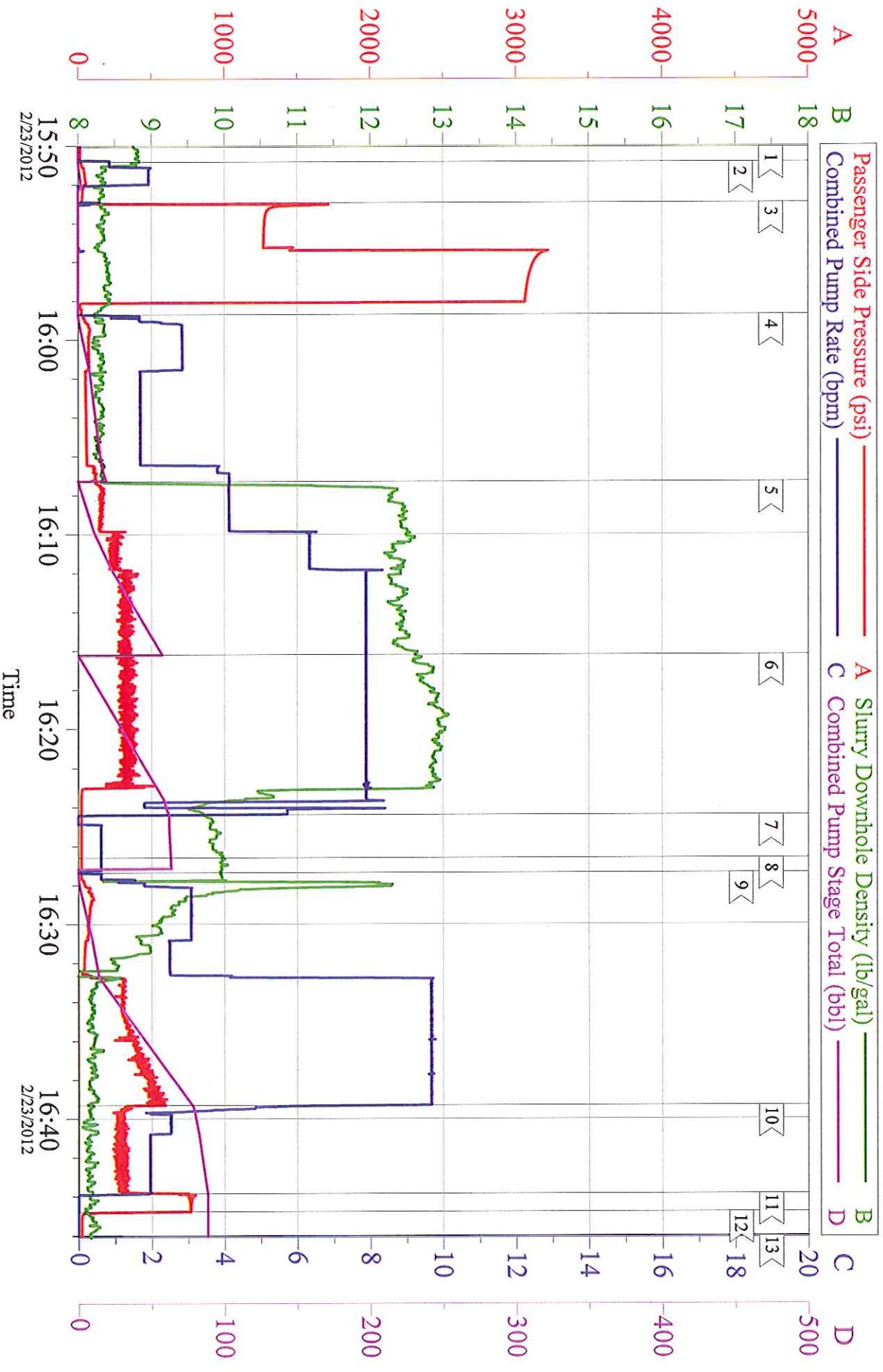
1 < START JOB	2 < PRIME LINES	3 < TEST LINES	15:50:04	15:50:50	15:52:56
4 < PUMP H2O SPACER	5 < PUMP LEAD CEMENT	6 < PUMP TAIL CEMENT	15:58:42	16:07:17	16:16:10
7 < SHUTDOWN	8 < DROP TOP PLUG	9 < PUMP DISPLACEMENT	16:24:24	16:26:35	16:27:21
10 < SLOW RATE	11 < BUMP PLUG	12 < CHECK FLOATS	16:39:18	16:43:51	16:44:46
13 < END JOB			16:46:03		

Customer: WILLIAMS  
Well Description: RWF 411-36  
Customer Rep: AL HARTL

Job Date: 23-Feb-2012  
Job Type: SURFACE  
Cement Supervisor: JESSE SLAUGHTER

Sales Order #: 9270792  
ADC Used: YES  
Elite #6: ANTHONY ANDREWS

# WILLIAMS RWF 411-36 9 5/8 SURFACE



Customer:	WILLIAMS	Job Date:	23-Feb-2012	Sales Order #:	9270792
Well Description:	RWF 411-36	Job Type:	SURFACE	ADC Used:	YES
Customer Rep:	AL HARTL	Cement Supervisor:	JESSE SLAUGHTER	Elite #6:	ANTHONY ANDREWS

# HALLIBURTON

## Water Analysis Report

Company: WILLIAMS PRODUCTION

Date: 2/23/2012

Submitted by: JESSE SLAUGHTER

Date Rec.: \_\_\_\_\_

Attention: LAB

S.O.# 9270792

Lease RWF

Job Type: SURFACE

Well # 411-36

Specific Gravity	MAX	1
pH	8	6
Potassium (K)	5000	250 Mg / L
Calcium (Ca)	500	120 Mg / L
Iron (FE2)	300	0 Mg / L
Chlorides (Cl)	3000	0 Mg / L
Sulfates (SO <sub>4</sub> )	1500	UNDER 200 Mg / L
Chlorine (Cl <sub>2</sub> )		0 Mg / L
Temp	40-80	55 Deg
Total Dissolved Solids		200 Mg / L

Respectfully: JESSE SLAUGHTER

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 it



<b>Sales Order #:</b> 9270792	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 2/23/2012
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> AL HARTL		<b>API / UWI: (leave blank if unknown)</b> AFEYCBGKB3JFS3IPAAA
<b>Well Name:</b> RWF		<b>Well Number:</b> 411-36
<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,DD

DD

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.DD

DD

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	2/23/2012
Survey Interviewer	The survey interviewer is the person who initiated the survey.	JESSE SLAUGHTER (HB21762)
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
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<b>Customer Representative:</b> AL HARTL		<b>API / UWI: (leave blank if unknown)</b> AFEYCBGKB3JFS3IPAAA
<b>Well Name:</b> RWF		<b>Well Number:</b> 411-36
<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	2/23/2012

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.	4
<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.	1.5
<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	6
<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

<b>Sales Order #:</b> 9270792	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 2/23/2012
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<b>Customer Representative:</b> AL HARTL		<b>API / UWI: (leave blank if unknown)</b> AFEYCBGKB3JFS3IPAAA
<b>Well Name:</b> RWF		<b>Well Number:</b> 411-36
<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	95
<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