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

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**PA 412-29**

**Garfield County , Colorado**

## **Cement Surface Casing**

**17-May-2012**

### **Post Job Summary**

## The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 2925185	Quote #:	Sales Order #: 9472649
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Customer Rep: Towers, Ron		
Well Name: PA	Well #: 412-29	API/UWI #: 05-045-19535	
Field:	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado
Lat: N 39.49 deg. OR N 39 deg. 29 min. 23.885 secs.	Long: W 108.023 deg. OR W -109 deg. 58 min. 36.145 secs.		
Contractor: NABORS 577	Rig/Platform Name/Num: NABORS 577		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	Job Type: Cement Surface Casing		
Sales Person: MAYO, MARK	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 #
BURKE, BRENDAN Patrick	13.5	487782	GOWEN, WESLEY M	13.5	496205	SALAZAR, PAUL Omar	13.5	445614
SLAUGHTER, JESSE Dean	13.5	454315						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10565341	60 mile	10784064	60 mile	10973571	60 mile	11006314	60 mile
11259881	60 mile	11560046	60 mile	11808833	60 mile		

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
5-16-2012	3.5	0	5-17-2012	8	3.5			

**TOTAL** Total is the sum of each column separately

Job				Job Times			
Formation Name				Date	Time	Time Zone	
Formation Depth (MD)	Top	Bottom		Called Out	16 - May - 2012	15:00	MST
Form Type	BHST			On Location	16 - May - 2012	18:30	MST
Job depth MD	2842. ft			Job Started	17 - May - 2012	00:00	MST
Water Depth	Wk Ht Above Floor			Job Completed	17 - May - 2012	00:00	MST
Perforation Depth (MD)	From	To		Departed Loc	17 - May - 2012	08:00	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
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Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
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									
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 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)	465.0	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	220.2	bbl	8.34	.0	.0	10	
Calculated Values		Pressures		Volumes					
Displacement	220.2	Shut In: Instant		Lost Returns	NO	Cement Slurry	257	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	38	Actual Displacement	220.2	Treatment	
Frac Gradient		15 Min		Spacers	20	Load and Breakdown		Total Job	497
Rates									
Circulating	7	Mixing	8	Displacement	10	Avg. Job	8		
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*

<b>Sold To #:</b> 300721	<b>Ship To #:</b> 2925185	<b>Quote #:</b>	<b>Sales Order #:</b> 9472649
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Customer Rep:</b> Towers, Ron	
<b>Well Name:</b> PA	<b>Well #:</b> 412-29		<b>API/UWI #:</b> 05-045-19535
<b>Field:</b>	<b>City (SAP):</b> PARACHUTE	<b>County/Parish:</b> Garfield	<b>State:</b> Colorado
<b>Legal Description:</b>			
<b>Lat:</b> N 39.49 deg. OR N 39 deg. 29 min. 23.885 secs.		<b>Long:</b> W 108.023 deg. OR W -109 deg. 58 min. 36.145 secs.	
<b>Contractor:</b> NABORS 577		<b>Rig/Platform Name/Num:</b> NABORS 577	
<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> MAYO, MARK		<b>Srvc Supervisor:</b> SLAUGHTER, JESSE	<b>MBU ID Emp #:</b> 454315

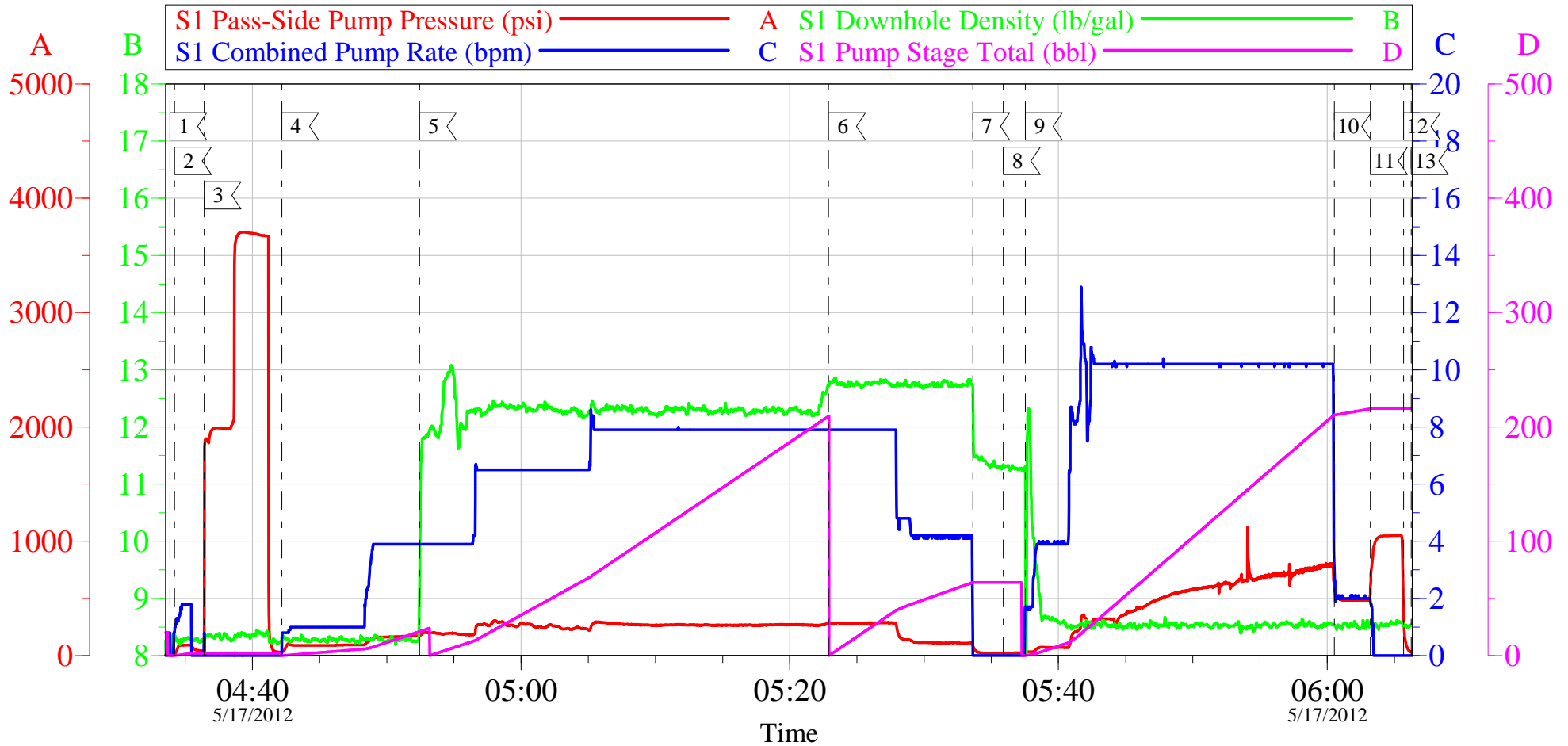
Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	05/16/2012 15:00							TD 2860 FT, TP 2842 FT, SHOE 44 FT, CSG 9 5/8 IN 32.3 LB/FT, HOLE 13 1/2 IN, MUD WT 10.4 PPG
Pre-Convoy Safety Meeting	05/16/2012 16:50							WITH ALL HES PERSONNEL
Crew Leave Yard	05/16/2012 17:00							
Arrive At Loc	05/16/2012 18:30							RIG WAS PULLING DRILL PIPE UPON HES ARRIVAL
Assessment Of Location Safety Meeting	05/17/2012 03:00							WITH ALL HES PERSONNEL
Other	05/17/2012 03:10							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	05/17/2012 03:20							WITH ALL HES PERSONNEL
Rig-Up Equipment	05/17/2012 03:30							
Pre-Job Safety Meeting	05/17/2012 04:20							WITH ALL PERSONNEL ON LOCATION
Start Job	05/17/2012 04:33							
Other	05/17/2012 04:34		2	2			91.0	FILL LINES WITH FRESH WATER
Test Lines	05/17/2012 04:36							TESTED LINES TO 3704 PSI PRESSURE HOLDING
Pump Spacer 1	05/17/2012 04:42		4	20			173.0	FRESH WATER
Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

## Cementing Job Log

Pump Lead Cement	05/17/2012 04:52		8	197.1			285.0	465 SKS AT 12.3 PPG, 2.38 FT3/SK, 13.75 GAL/SK. DENSITY GAINED IN BEGINING OF LEAD DUE TO POOR CEMENT DELIVERY
Pump Tail Cement	05/17/2012 05:22		8	60.1			284.0	160 SKS AT 12.8 PPG, 2.11 FT3/SK, 11.75 GAL/SK
Shutdown	05/17/2012 05:33							
Drop Top Plug	05/17/2012 05:35							PLUG LAUNCHED
Pump Displacement	05/17/2012 05:37		10	210.3			800.0	FRESH WATER
Slow Rate	05/17/2012 06:00		2	10			500.0	SLOW RATE 10 BBLS PRIOR TO CALCULATED DISPLACEMENT
Bump Plug	05/17/2012 06:03		2		220.3		1050. 0	PLUG BUMPED
Check Floats	05/17/2012 06:05							FLOATS HOLDING. HES RETURNED 1 BBL H2O TO PUMP
End Job	05/17/2012 06:06							PIPE WAS STATIC DURING JOB, GOOD CIRCULATION THROUGHOUT JOB. HES RETURNED 38 BBL CEMENT TO SURFACE
Pre-Rig Down Safety Meeting	05/17/2012 06:10							WITH ALL HES PERSONNEL
Rig-Down Equipment	05/17/2012 06:30							
Pre-Convoy Safety Meeting	05/17/2012 07:50							WITH ALL HES PERSONNEL
Crew Leave Location	05/17/2012 08:00							
Comment	05/17/2012 08:01							THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. JESSE SLAUGHTER AND CREW.

# WILLIAMS PA 412-29

9 5/8 SURFACE



## Local Event Log

1 START JOB	04:33:52	2 PRIME LINES	04:34:12	3 TEST LINES	04:36:25
4 PUMP H2O SPACER	04:42:11	5 PUMP LEAD CEMENT	04:52:26	6 PUMP TAIL CEMENT	05:22:53
7 SHUTDOWN	05:33:37	8 DROP TOP PLUG	05:35:54	9 PUMP DISPLACEMENT	05:37:32
10 SLOW RATE	06:00:31	11 BUMP PLUG	06:03:13	12 CHECK FLOATS	06:05:40
13 END JOB	06:06:16				

Customer: WILLIAMS  
Well Description: PA 412-29  
Customer Rep: RON TOWERS

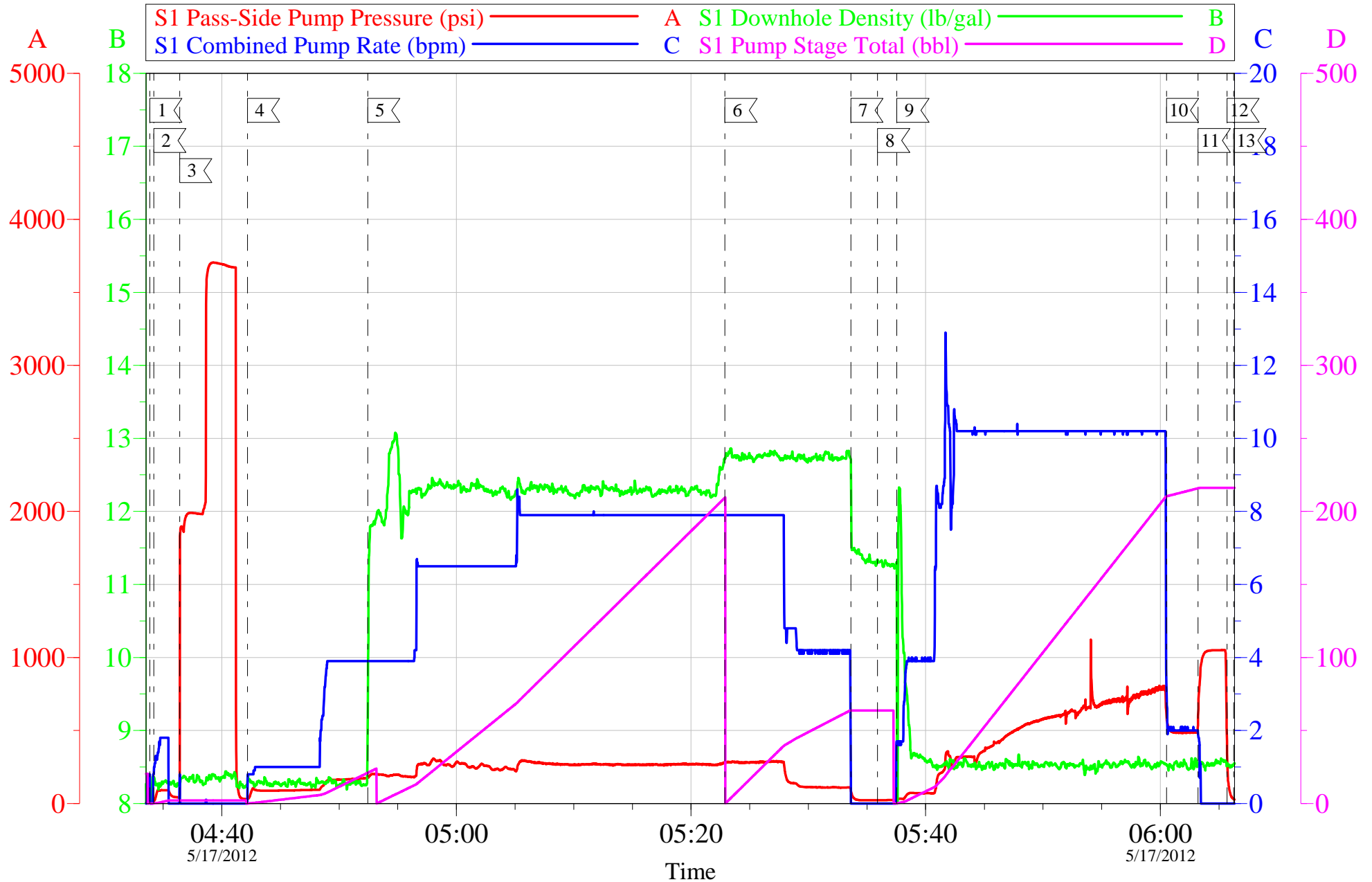
Job Date: 17-May-2012  
Job Type: SURFACE  
Cement Supervisor: JESSE SLAUGHTER

Sales Order #: 9472649  
ADC Used: YES  
Elite #5: BRENDAN BURKE

OptiCem v6.4.10  
17-May-12 06:14

# WILLIAMS PA 412-29

## 9 5/8 SURFACE



Customer: WILLIAMS	Job Date: 17-May-2012	Sales Order #: 9472649
Well Description: PA 412-29	Job Type: SURFACE	ADC Used: YES
Customer Rep: RON TOWERS	Cement Supervisor: JESSE SLAUGHTER	Elite #5: BRENDAN BURKE

OptiCem v6.4.10  
17-May-12 06:14

# HALLIBURTON

## Water Analysis Report

Company: WILLIAMS PRODUCTION

Submitted by: JESSE SLAUGHTER

Attention: LAB

Lease PA

Well # 412-29

Date: 5/16/2012

Date Rec.:

S.O.# 9472649

Job Type: SURFACE

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>6</b>
Potassium (K)	<i>5000</i>	<b>250</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>UNDER 200</b> Mg / L
Chlorine (Cl <sub>2</sub> )		<b>0</b> Mg / L
Temp	<i>40-80</i>	<b>55</b> Deg
Total Dissolved Solids		<b>200</b> 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 its



<b>Sales Order #:</b> 9472649	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/17/2012
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> RON TOWERS		<b>API / UWI: (leave blank if unknown)</b> 05-045-19535
<b>Well Name:</b> PA		<b>Well Number:</b> 412-29
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b> No	<b>Well State:</b> Oklahoma	<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	5/17/2012
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	RON TOWERS
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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<b>Sales Order #:</b> 9472649	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/17/2012
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<b>Customer Representative:</b> RON TOWERS		<b>API / UWI: (leave blank if unknown)</b> 05-045-19535
<b>Well Name:</b> PA		<b>Well Number:</b> 412-29
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b> No	<b>Well State:</b> Oklahoma	<b>Well County:</b> Garfield

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b> The date the survey was conducted	5/17/2012

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.	3.5
<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> 9472649	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/17/2012
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<b>Customer Representative:</b> RON TOWERS		<b>API / UWI: (leave blank if unknown)</b> 05-045-19535
<b>Well Name:</b> PA		<b>Well Number:</b> 412-29
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b> No	<b>Well State:</b> Oklahoma	<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	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