

---

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

---

**PA 433-2  
GRAND VALLEY  
Garfield County , Colorado**

**Squeeze Perfs  
06-Jun-2013**

## **Post Job Summary**

## The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 2982657	Quote #:	Sales Order #: 900497630
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Customer Rep: Skalla, Justin		
Well Name: PA	Well #: 433-2	API/UWI #:	
Field: GRAND VALLEY	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado
Contractor: WORKOVER	Rig/Platform Name/Num: WORKOVER		
Job Purpose: Squeeze Perfs			
Well Type: Development Well	Job Type: Squeeze Perfs		
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 #
ATKINSON, STEPHAN Michael	4.5	513940	BURKE, BRENDAN Patrick	4.5	487782	SINCLAIR, DAN J	4.5	338784
SLAUGHTER, JESSE Dean	4.5	454315						

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10872429	60 mile	11021972	60 mile	11027039	60 mile	11583933	60 mile
11710582	60 mile	11808847	60 mile				

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
6-6-2013	4.5	4.5						

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

### Job

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	06 - Jun - 2013	05:30	MST
Form Type		BHST	Job Started	06 - Jun - 2013	10:00	MST
Job depth MD	4520. ft	Job Depth TVD	Job Completed	06 - Jun - 2013	11:24	MST
Water Depth		Wk Ht Above Floor	Departed Loc	06 - Jun - 2013	13:10	MST
Perforation Depth (MD)	From	To			14:30	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
-------------	------------	-------------------	---------	-------	---------------	--------	-------	-----------	--------------	------------	---------------

### Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug	4.5	1		4700	Bottom Plug			
Float Collar					Retainer	4.5	1		4520	SSR plug set			
Insert Float										Plug Container			
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 uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom				

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	Injection Test	FRESH WATER	15.00	bbl	8.34	.0	.0	2		
2	SUPER FLUSH 101	SUPER FLUSH 101 - SBM (12199)	20.00	bbl	10.	.0	.0	2		
3	FRESH WATER SPACER	FRESH WATER	10.00	bbl	8.34	.0	.0	2		
4	SqueezeCem LEAD Cement	SQUEEZECEM (TM) SYSTEM (452971)	150.0	sacks	15.8	1.15	4.98	2.5	4.98	
4.98 Gal		FRESH WATER								
5	Tail Cement Squeeze	SQUEEZECEM (TM) SYSTEM (452971)	50.0	sacks	17.	.99	3.77	2.5	3.77	
0.5 %		CFR-3, W/O DEFOAMER, 50 LB SK (100003653)								
3.77 Gal		FRESH WATER								
6	Displacement	FRESH WATER DISPLACEMENT	17.2	bbl	8.33	.0	.0	.0		
Calculated Values		Pressures		Volumes						
Displacement	17.2	Shut In: Instant		Lost Returns		Cement Slurry	40	Pad		
Top Of Cement		5 Min		Cement Returns	1	Actual Displacement	16.7	Treatment		
Frac Gradient		15 Min		Spacers	35	Load and Breakdown		Total Job	52	
Rates										
Circulating		Mixing	2.5	Displacement	2.5	Avg. Job		2.5		
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*

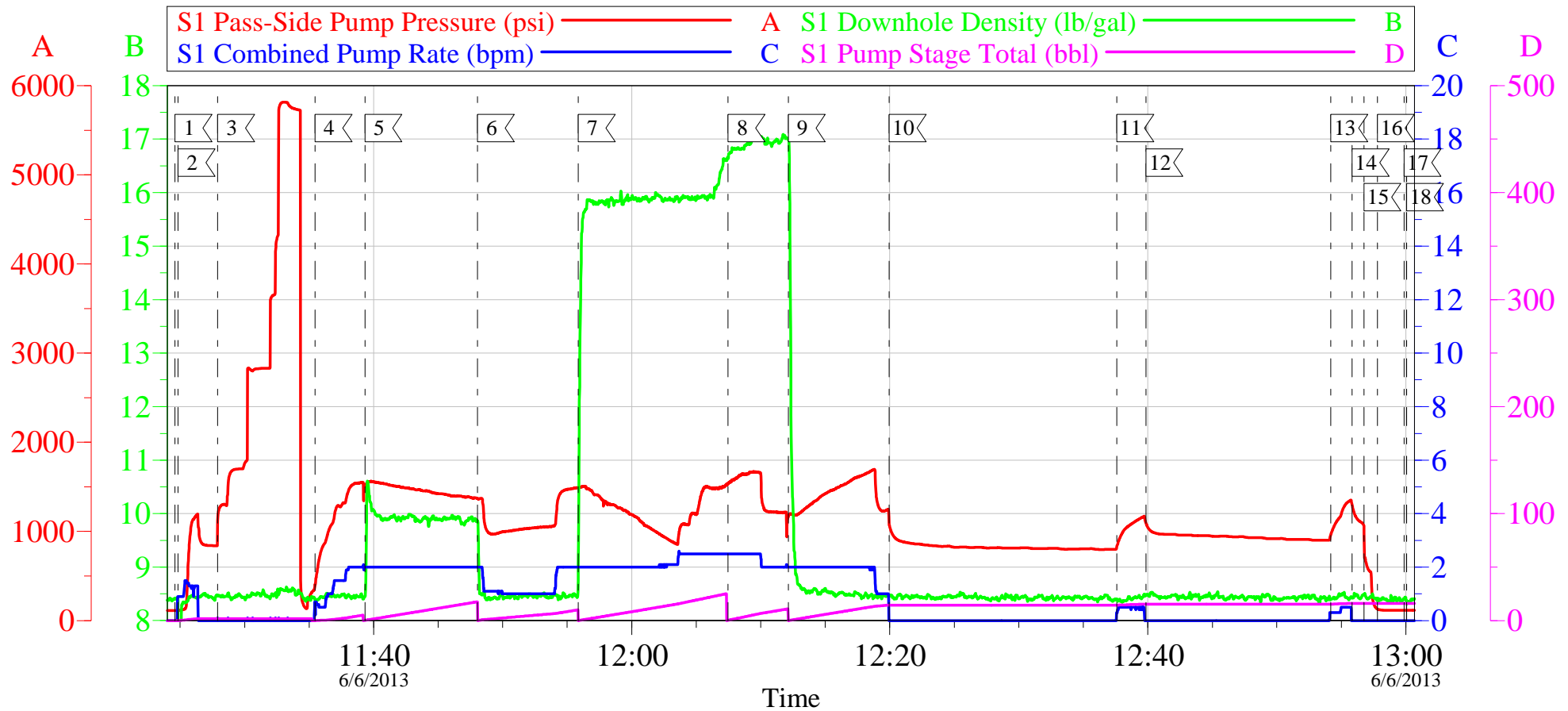
<b>Sold To #:</b> 300721	<b>Ship To #:</b> 2982657	<b>Quote #:</b>	<b>Sales Order #:</b> 900497630
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	<b>Customer Rep:</b> Skalla, Justin		
<b>Well Name:</b> PA	<b>Well #:</b> 433-2	<b>API/UWI #:</b>	
<b>Field:</b> GRAND VALLEY	<b>City (SAP):</b> PARACHUTE	<b>County/Parish:</b> Garfield	<b>State:</b> Colorado
<b>Legal Description:</b>			
<b>Lat:</b>		<b>Long:</b>	
<b>Contractor:</b> WORKOVER		<b>Rig/Platform Name/Num:</b> WORKOVER	
<b>Job Purpose:</b> Squeeze Perfs			<b>Ticket Amount:</b>
<b>Well Type:</b> Development Well		<b>Job Type:</b> Squeeze Perfs	
<b>Sales Person:</b> MAYO, MARK		<b>Srv 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	06/06/2013 05:30							
Pre-Convoy Safety Meeting	06/06/2013 07:30							WITH ALL HES PERSONNEL
Crew Leave Yard	06/06/2013 08:00							
Arrive At Loc	06/06/2013 10:00							RIG WAS STATIC UPON HES ARRIVAL
Assessment Of Location Safety Meeting	06/06/2013 10:05							WITH ALL HES PERSONNEL
Other	06/06/2013 10:10							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	06/06/2013 10:20							WITH ALL HES PERSONNEL
Rig-Up Equipment	06/06/2013 10:30							
Pre-Job Safety Meeting	06/06/2013 11:15							WITH ALL PERSONNEL ON LOCATION
Start Job	06/06/2013 11:24							RET. SET AT 4420 FT, TU 2 3/8 IN 4.7 LB/FT, CSG 4 1/2 IN 11.6 LB/FT, PERF. 3 HOLES AT 4520 FT, BRIDGE PLUG 4700 FT, WELL FLUID 8.33 PPG
Other	06/06/2013 11:24		1	1.5			1100.0	FILL LINES WITH FRESH WATER
Test Lines	06/06/2013 11:27							TESTED LINES AT 5828 PSI PRESSURE HOLDING
Pump Spacer 1	06/06/2013 11:35		2	5			1520.0	FRESH WATER INJECTION TEST
Pump Spacer 2	06/06/2013 11:39		2	20			1370.0	SUPERFLUSH 101
Pump Spacer 1	06/06/2013 11:48		2	10			1495.0	FRESH WATER BEHIND

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Lead Cement	06/06/2013 11:55		2.5	30.7			1500.0	150 SKS AT 15.8 PPG, 1.15 FT3/SK, 4.98 GAL/SK
Pump Tail Cement	06/06/2013 12:07		2.5	8.8			1170.0	50 SKS AT 17.0 PPG, .99 FT3/SK, 3.77 GAL/SK
Pump Displacement	06/06/2013 12:12		2	15			1246.0	FRESH WATER
Shutdown	06/06/2013 12:19							SHUTDOWN FOR 17 MIN AS PER COMPANY REP
Resume	06/06/2013 12:37		0.5	1			1172.0	HESITATION #1
Shutdown	06/06/2013 12:39							SHUTDOWN FOR 13 MIN AS PER COMPANY REP
Resume	06/06/2013 12:54		0.5	0.7	16.7		1353.0	HESITAION #2
Shutdown	06/06/2013 12:55							AS PER COMPANY REP
Other	06/06/2013 12:56							RIG STING OUT
Reverse Circ Well	06/06/2013 12:57		2	25				RIG REVERSE CIRCULATE WELL. RETURNED 1 BBL CEMENT TO SURFACE
Shutdown	06/06/2013 13:09							
End Job	06/06/2013 13:10							
Pre-Rig Down Safety Meeting	06/06/2013 13:10							WITH ALL HES PERSONNEL
Rig-Down Equipment	06/06/2013 13:15							
Pre-Convoy Safety Meeting	06/06/2013 14:20							WITH ALL HES PERSONNEL
Crew Leave Location	06/06/2013 14:30							
Comment	06/06/2013 14:31							THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. JESSE SLAUGHTER AND CREW

# WPX PA 433-2

## SQUEEZE



### Local Event Log

1 START JOB	11:24:37	2 PRIME LINES	11:24:51	3 TEST LINES	11:27:55
4 PUMP H2O INJECTION	11:35:27	5 PUMP SUPER FLUSH	11:39:20	6 PUMP H2O SPACER	11:48:03
7 PUMP LEAD CEMENT	11:55:52	8 PUMP TAIL CEMENT	12:07:28	9 PUMP DISPLACEMENT	12:12:08
10 SHUTDOWN	12:19:58	11 HESITATE #1	12:37:36	12 SHUTDOWN	12:39:51
13 HESITATE #2	12:54:11	14 SHUTDOWN	12:55:50	15 RIG STING OUT	12:56:45
16 RIG REV. CIRC. WELL	12:57:48	17 SHUTDOWN	12:59:52	18 END JOB	13:00:03

Customer: WPX  
Well Description: PA 433-2  
Customer Rep: JUSTIN SKALA

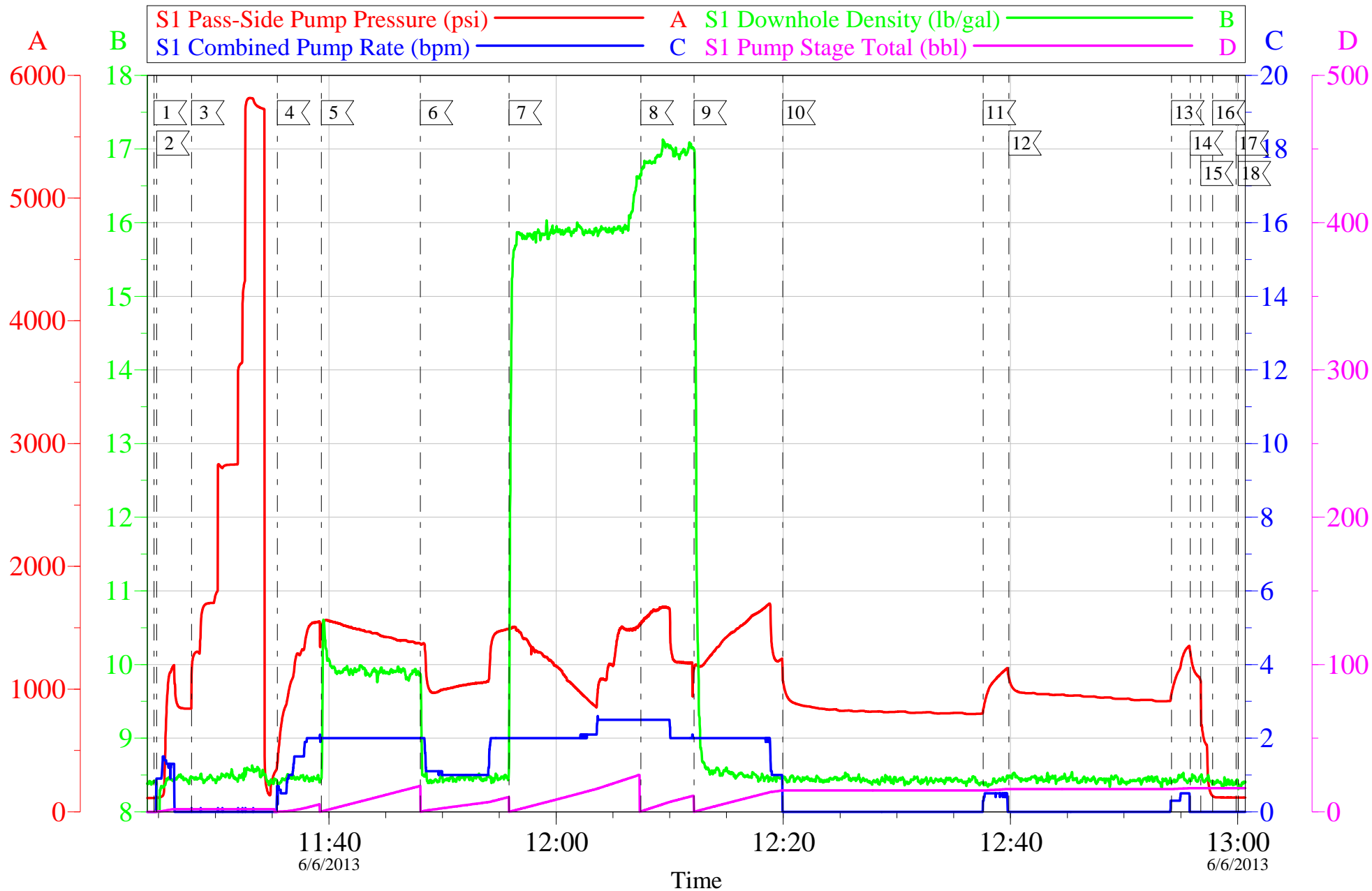
Job Date: 06-Jun-2013  
Job Type: SQUEEZE  
Cement Supervisor: JESSE SLAUGHTER

Sales Order #: 900497630  
ADC Used: YES  
Elite #4: STEPHAN ATKINSON

OptiCem v6.4.10  
06-Jun-13 13:18

# WPX PA 433-2

## SQUEEZE



Customer: WPX	Job Date: 06-Jun-2013	Sales Order #: 900497630
Well Description: PA 433-2	Job Type: SQUEEZE	ADC Used: YES
Customer Rep: JUSTIN SKALA	Cement Supervisor: JESSE SLAUGHTER	Elite #4: STEPHAN ATKINSON

# HALLIBURTON

## Water Analysis Report

Company: WILLIAMS PRODUCTION

Submitted by: JESSE SLAUGHTER

Attention: LAB

Lease PA

Well # 433-2

Date: 6/6/2013

Date Rec.:

S.O.# 900497630

Job Type: SQUEEZE

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</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>60</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> 900497630	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 6/6/2013
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SQUEEZE PERFORATIONS BOM
<b>Customer Representative:</b> ORAN JACOBS		<b>API / UWI: (leave blank if unknown)</b> AFEYKQIVGKQFACWAAA
<b>Well Name:</b> PA		<b>Well Number:</b> 433-2
<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	6/6/2013
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	ORAN JACOBS
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	GOOD JOB

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

<b>Sales Order #:</b> 900497630	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 6/6/2013
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SQUEEZE PERFORATIONS BOM
<b>Customer Representative:</b> ORAN JACOBS		<b>API / UWI: (leave blank if unknown)</b> AFEYKQIVGKQFACWAAA
<b>Well Name:</b> PA		<b>Well Number:</b> 433-2
<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	6/6/2013

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.	4.5
<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>	No

<b>Sales Order #:</b> 900497630	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 6/6/2013
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SQUEEZE PERFORATIONS BOM
<b>Customer Representative:</b> ORAN JACOBS		<b>API / UWI: (leave blank if unknown)</b> AFEYKQIVGKQFACWAAA
<b>Well Name:</b> PA		<b>Well Number:</b> 433-2
<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>Was this a Plug or a Squeeze Job?</b> Please select the appropriate choice	No
<b>Was this a Primary or a Remedial Job?</b> Kick off plug, Plug to Abandon, LCM plug or Planned Liner Top Squeeze, Squeeze of existing perforations, Squeeze of casing leak	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	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	99
<b>Nbr of Remedial Sqz Jobs Rqd - Competition</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	1
<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	1

# HALLIBURTON

## Rockies, Grand Junction

## Lab Results- Lead

### Job Information

Request/Slurry	2044145/1	Rig Name	Workover	Date	05/JUN/2013
Submitted By	Charles Ross	Job Type	Perforation Squeeze	Bulk Plant	Grand Junction
Customer	WPX Energy, Inc.	Location		Well	PA 433-2

### Well Information

Casing/Liner Size	4.5"	Depth MD	4520 ft	BHST	157 degF
Hole Size		Depth TVD		BHCT	132 degF

### Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density
-------------------	----------------	---------

### Cement Information - Lead Design

Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
Mountain G	Bulk Blend	05.06.13	Tank 29	Slurry Density	15.798	lbm/gal
HALAD-344 (PB)	Bulk Blend	05.06.13	b413068 a	Slurry Yield	1.15	ft3/sack
				Water Requirement	4.98	gal/sack
				Total Mix Fluid	4.98	gal/sack
HALAD-413 (PB)	Bulk Blend	05.06.13	zm3d024 0ao			
Fresh Water	Lab	12.03.13	N/A			
				Water Source	Fresh Water	
				Water Chloride		

### Operation Test Results Request ID 2044145/1

#### API Fluid Loss

Test Temp (°F)	Test Pressure (psi)	Test Time (min)	Meas. Vol.	Calc. ISO FL (<30 min)	Conditioning time (min)
132	1000	20.2	43	105	30

#### Thickening Time - ON-OFF-ON

Test Temp (°F)	Pressure (psi)	Reached in (min)	30 Bc (hh:min)	50 Bc (hh:min)	70 Bc (hh:min)	100 Bc (hh:min)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)
132	3410	10	1:10	1:18	1:24	1:36	7	25	10	7

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.

# HALLIBURTON

## Rockies, Grand Junction

## Lab Results- Tail

### Job Information

Request/Slurry	2044147/1	Rig Name	Workover	Date	05/JUN/2013
Submitted By	Charles Ross	Job Type	Perforation Squeeze	Bulk Plant	Grand Junction
Customer	WPX Energy, Inc.	Location		Well	PA 433-2

### Well Information

Casing/Liner Size	4.5"	Depth MD	4520 ft	BHST	157 degF
Hole Size		Depth TVD		BHCT	132 degF

### Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density
-------------------	----------------	---------

### Cement Information - Tail Design

Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
Mountain G	Bulk Blend	05.06.13	Tank 19	Slurry Density	17.000	lbm/gal
CFR-3 (PB)	Bulk Blend	05.06.13	1101021	Slurry Yield	0.99	ft3/sack
			203	Water Requirement	3.77	gal/sack
				Total Mix Fluid	3.77	gal/sack
Fresh Water	Lab	12.03.13	N/A			

Water Source Fresh Water  
Water Chloride

### Operation Test Results Request ID 2044147/1

#### Mixability (0 - 5) - 0 is not mixable

Mixability rating (0 - 5)	Avg rpm mixing under load	Blend add. time (sec)
4	12000	0

#### Thickening Time - ON-OFF-ON

Test Temp (°F)	Pressure (psi)	Reached in (min)	30 Bc (hh:min)	50 Bc (hh:min)	70 Bc (hh:min)	100 Bc (hh:min)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)
132	3410	10	1:01	1:02	1:05	1:10	6	25	10	6

This report is the property of Halliburton Energy Services and neither it nor any part thereof, nor a copy thereof, is to be published or disclosed without first securing the expressed written approval of Halliburton. It may however be used in the course of regular business operations by any person or concern receiving such report from Halliburton. This report is for information purposes only and the content is limited to the sample described. Halliburton makes no warranties, expressed or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage regardless of cause, including any act or omission of Halliburton, resulting from the use hereof.