

WPX ENERGY ROCKY MOUNTAIN LLC-EBUS
DO NOT MAIL - ACH-43241
TULSA, Oklahoma

RG 411-23-298

Cyclone/29

Post Job Summary

Cement Multiple Stages

Date Prepared: 02/14/2014
Version: 1

Service Supervisor: CARTER, ERIC

Submitted by: Grand Junction Cement Engineering

HALLIBURTON

The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3111291	Quote #:	Sales Order #: 900812990
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep: Ragsdale, Ted	
Well Name: RG		Well #: 411-23-298	API/UWI #: 05-103-11900
Field:	City (SAP): MEEKER	County/Parish: Osage	State: Oklahoma
Lat: N 39.87 deg. OR N 39 deg. 52 min. 13.091 secs.		Long: W 108.363 deg. OR W -109 deg. 38 min. 12.52 secs.	
Contractor: Cyclone		Rig/Platform Name/Num: Cyclone 29	
Job Purpose: Cement Multiple Stages			
Well Type: Development Well		Job Type: Cement Multiple Stages	
Sales Person: MAYO, MARK		Srvc Supervisor: CARTER, ERIC	MBU ID Emp #: 345598

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CAMPBELL, DAVID Arthur	0.0	544403	CARTER, ERIC Earl	0.0	345598	EICKHOFF, ROBERT Edward	0.0	495311
JENSEN, SHANE	0.0	441759						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10567589C	60 mile	10867322	60 mile	10867425	60 mile	10897891	60 mile
10998512	60 mile	11583933	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

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	3549.3 ft	3549.3 ft				
						5. ft				

Job Times

Date	Time	Time Zone
11 - Oct - 2013	10:30	MST
11 - Oct - 2013	17:30	MST
11 - Oct - 2013	22:28	MST
12 - Oct - 2013	04:54	MST
12 - Oct - 2013	06:30	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
OPEN HOLE				13.5				1300.	3547.		
OPEN HOLE				14.75				84.	1300.		
CONDUCTOR CASING	Unknown		18.	16.875	92.87			.	84.		
SURFACE CASING	Unknown		9.625	8.921	36.		J-55	.	3549.3		

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					Bottom Plug			
Float Collar					Retainer					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 ft ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water Spacer		40.00	bbl	8.33	.0	.0	.0	
2	1st Stage HLC Lead Cement	ECONOCEM (TM) SYSTEM (452992)	840.0	sacks	12.8	1.77	9.34		9.34
	0.25 lbm	POLY-E-FLAKE (101216940)							
	0.35 %	HR-5, 50 LB SK (100005050)							
	9.34 Gal	FRESH WATER							
3	1st Stage Varicem Tail Cement	VARICEM (TM) CEMENT (452009)	200.0	sacks	12.8	1.96	10.95		10.95
	0.3 lbm	POLY-E-FLAKE (101216940)							
	10.95 Gal	FRESH WATER							
4	Displacement			bbl	8.33	.0	.0	.0	
5	Fresh Water Spacer		20.00	bbl	8.33	.0	.0	.0	
6	2nd Stage VariCem Cement	VARICEM (TM) CEMENT (452009)	840.0	sacks	12.8	1.96	10.95		10.95
	0.3 lbm	POLY-E-FLAKE (101216940)							
	10.95 Gal	FRESH WATER							
7	Displacement			bbl	8.33	.0	.0	.0	
8	SUPER FLUSH 100	SUPER FLUSH 100 - SBM (12191)		bbl	11.7	.0	.0	.0	
9	HalCem Top Out Cement	HALCEM (TM) SYSTEM (452986)		sacks	15.8	1.15	5.01		5.01
	5.01 Gal	FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	28.4 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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Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS				Customer Rep: Ragsdale, Ted			
Well Name: RG			Well #: 411-23-298			API/UWI #: 05-103-11900	
Field:		City (SAP): MEEKER		County/Parish: Osage		State: Oklahoma	
Legal Description:							
Lat: N 39.87 deg. OR N 39 deg. 52 min. 13.091 secs.				Long: W 108.363 deg. OR W -109 deg. 38 min. 12.52 secs.			
Contractor: Cyclone			Rig/Platform Name/Num: Cyclone 29				
Job Purpose: Cement Multiple Stages						Ticket Amount:	
Well Type: Development Well			Job Type: Cement Multiple Stages				
Sales Person: MAYO, MARK			Srvc Supervisor: CARTER, ERIC			MBU ID Emp #: 345598	

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	10/11/2013 10:30							
Depart Yard Safety Meeting	10/11/2013 14:50							ATTENDED BY ALL HES CREW
Crew Leave Yard	10/11/2013 15:00							
Arrive At Loc	10/11/2013 17:30							RIG RUNNING CASING
Assessment Of Location Safety Meeting	10/11/2013 20:30							ATTENDED BY ALL HES CREW
Other	10/11/2013 20:40							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	10/11/2013 20:50							ATTENDED BY ALL HES CREW
Rig-Up Equipment	10/11/2013 21:00							
Pre-Job Safety Meeting	10/11/2013 22:00							ATTENDED BY ALL HES CREW, RIG CREW, COMPANY REP AND ENGINEER
Start Job	10/11/2013 22:28							TP 3549.29', TD 3547', SJ 28.44', FC 3520.85', MW 8.9 PPG, CASING 9.625", 36#, J-55, MSC 1350.58', OPEN HOLE 14.75" (84'-1300') 13.5" (1300'-3547'), CONDUCTOR CASING 18", 94# SET AT 84', RIG CIRCULATED FOR 2.5 HR'S PRIOR TO JOB
Other	10/11/2013 22:28		2	2			110.0	FILL LINES
Activity Description	Date/Time	Cht	Rate bbl/min	Volume bbl		Pressure psig		Comments

		#		Stage	Total	Tubing	Casing	
Test Lines	10/11/2013 22:29							PRESSURED UP TO 3779 PSI, PRESSURE HELD
Pump Spacer	10/11/2013 22:33		4	40			186.0	FRESH WATER
Pump 1st Stage Lead Slurry	10/11/2013 22:44		7	264.8			450.0	840 SKS ECONOCCEM MIXED AT 12.8 PG, 1.77 YIELD, 9.34 GL/SK, 52.5 LBS TUFF FIBER ADDED TO FIRST 100 BBLS CEMENT
Pump 1st Stage Tail Slurry	10/11/2013 23:24		6	69.8			325.0	200 SKS VARICEM MIXED AT 12.8 PPG, 1.96 YIELD, 10.95 GL/SK
Shutdown	10/11/2013 23:35							
Drop Plug	10/11/2013 23:39							PLUG LANCHED
Pump Displacement	10/11/2013 23:39		10	94			540.0	FRESH WATER
Slow Rate	10/11/2013 23:51		3	20			150.0	SLOW RATE WHILE DART PASSES THROUGH TOOL
Resume	10/11/2013 23:57		9	148.2			1020. 0	
Slow Rate	10/12/2013 00:14		2	10			710.0	
Bump Plug	10/12/2013 00:16						1360. 0	PLUG LANDED
Check Floats	10/12/2013 00:20							FLOATS HELD, LOST CIRCULATION AT 210 BBLS DISPLACEMENT, GAINED PARTIAL RETURNS AT 240 BBLS DISPLACEMENT, FIRST STAGE CIRCULATED 80 BBLS CEMENT TO SURFACE
Drop Opening Device For Multiple Stage Cementer	10/12/2013 00:20							
Pressure Up	10/12/2013 00:29							
Open Multiple Stage Cementer	10/12/2013 00:29						800.0	MSC OPENED AT 800 PSI
Pump Spacer	10/12/2013 00:30		4	20			280.0	FRESH WATER
Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

Pump 2nd Stage Tail Slurry	10/12/2013 00:36		6	293.2			360.0	840 SKS VARICEM MIXED AT 12.8 PPG, 1.96 YIELD, 10.95 GL/SK, 52.5 LBS TUFF FIBER ADDED TO FIRST 100 BBLS CEMENT
Shutdown	10/12/2013 01:26							
Drop Plug	10/12/2013 01:29							PLUG LUANCED
Pump Displacement	10/12/2013 01:29		10	94.4			750.0	FRESH WATER
Slow Rate	10/12/2013 01:42		2	10			690.0	
Bump Plug	10/12/2013 01:45						1750.0	PLUG LANDED
Close Multiple Stage Cementer	10/12/2013 01:45							MSC CLOSED
Check Floats	10/12/2013 01:49							FLOATS HELD, GOOD CIRCULATING THROUGH OUT SECOND STAGE, CIRCULATED 110 BBLS CEMENT TO SURFACE, CEMENT STARTED TO FALL, WAITED ON ORDERS TO PUMP TOP OUT
Pump Cement	10/12/2013 04:42		1.5	9.4				46 SKS HALCEM TOP OUT CEMENT MIXED AT 15.8 PPG, 1.15 YIELD, 5 GL/SK
Pump Water	10/12/2013 04:49		1.5	10				FRESH WATER PUMPED TO CLEAN RIG CELLAR PUMP
Shutdown	10/12/2013 04:54							CEMENT TO SURFACE
End Job	10/12/2013 04:54							
Post-Job Safety Meeting (Pre Rig-Down)	10/12/2013 04:55							ATTENDED BY ALL HES CREW
Rig-Down Equipment	10/12/2013 05:00							
Depart Location Safety Meeting	10/12/2013 06:20							ATTENDED BY ALL HES CREW
Crew Leave Location	10/12/2013 06:30							THANK YOU FOR USING HALLIBURTON CEMENT, ERIC CARTER AND CREW.
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

Sold To #: 300721

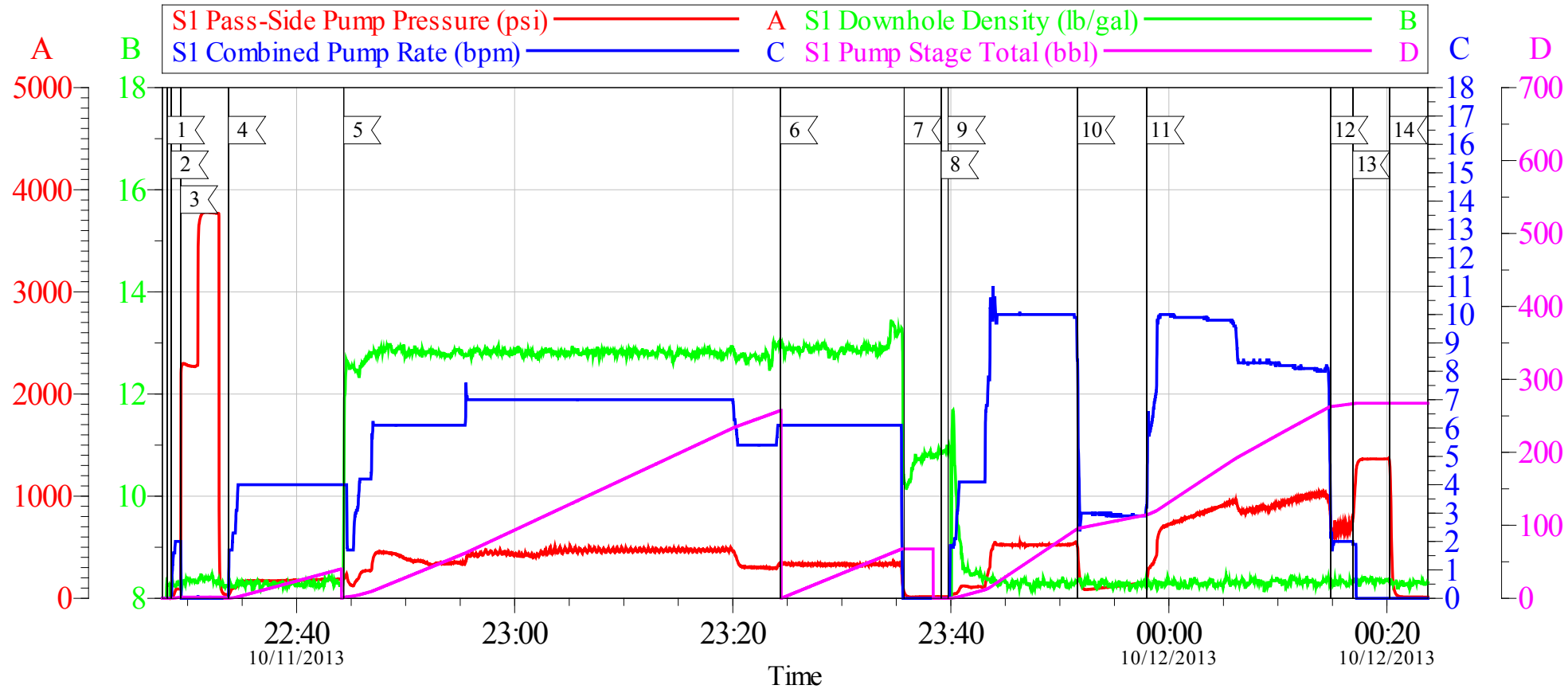
Ship To #: 3111291

Quote #:

Sales Order #: 900812990

Comment	10/12/2013 18:37							WELL FED RG 434-14-298 USED 8.4 BBLS/24 SKS VARICEM MIXED AT 12.8 PPG, 1.96 YIELD, 10.95 GL/SK CEMENT TO BRING CEMENT TO SURFACE
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WPX - RG 411-23-298
9.625" MULTI STAGE SURFACE



Local Event Log

1 START JOB	10/11/2013 22:28:09	2 FILL LINES	10/11/2013 22:28:30
3 TEST LINES	10/11/2013 22:29:21	4 PUMP SPACER	10/11/2013 22:33:45
5 PUMP FIRST STAGE LEAD CEMENT	10/11/2013 22:44:19	6 PUMP FIRST STAGE TAIL CEMENT	10/11/2013 23:24:22
7 SHUTDOWN	10/11/2013 23:35:43	8 DROP PLUG	10/11/2013 23:39:07
9 PUMP DISPLACEMENT	10/11/2013 23:39:45	10 SLOW RATE	10/11/2013 23:51:38
11 RESUME	10/11/2013 23:57:59	12 SLOW RATE	10/12/2013 00:14:51
13 BUMP PLUG	10/12/2013 00:16:52	14 CHECK FLOATS	10/12/2013 00:20:16

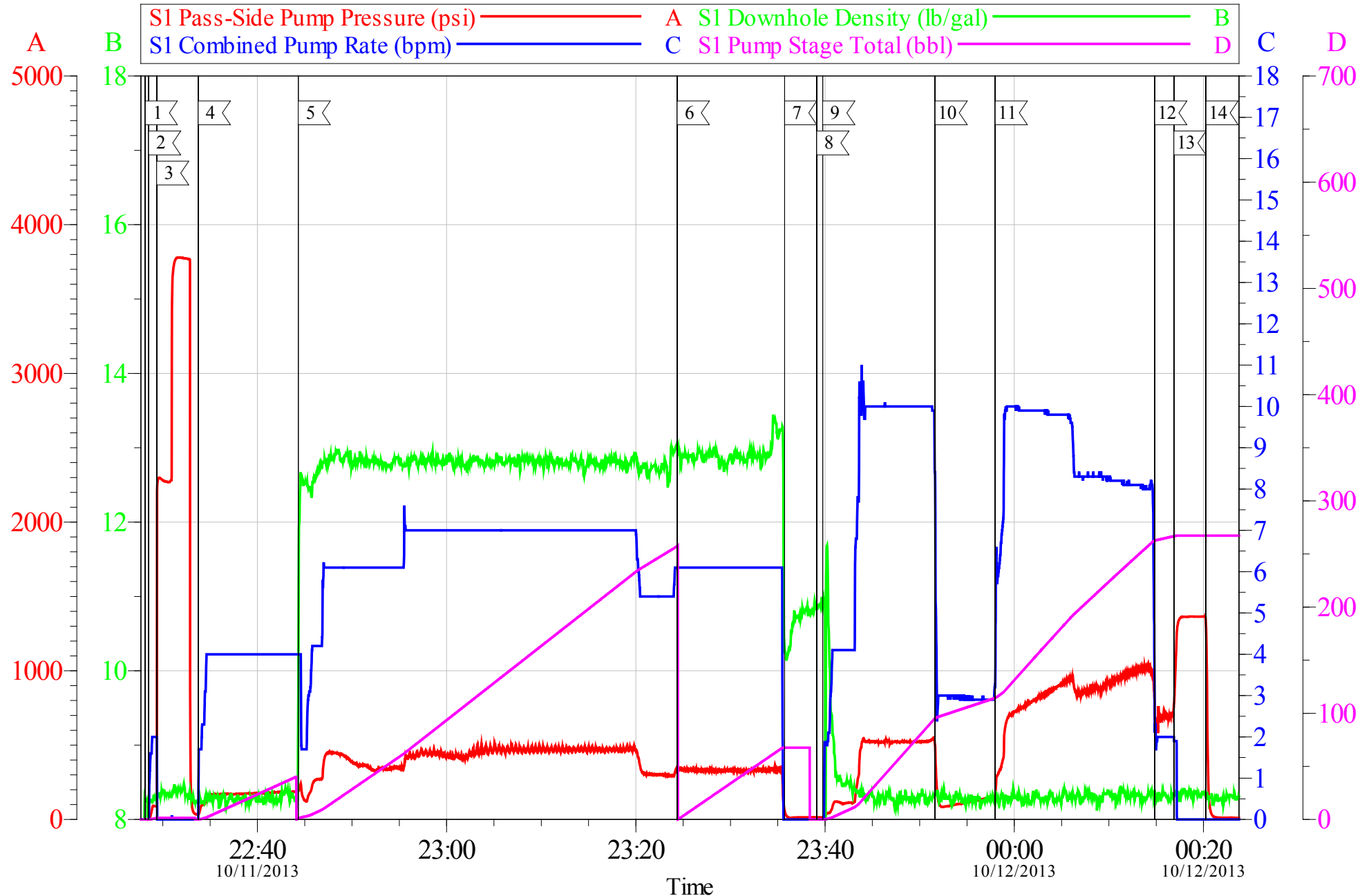
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS
Well Description: RG 411-23-298
Company Rep: TED RAGSDALE

Job Date: 11-Oct-2013
Job Type: SURFACE
Service Supervisor: ERIC CARTER

Sales Order #: 900812990
ADC Used: YES
Elite#/Operator: 3/ROB EICKHOFF

OptiCem v6.4.10
12-Oct-13 02:43

WPX - RG 411-23-298
9.625" MULTI STAGE SURFACE



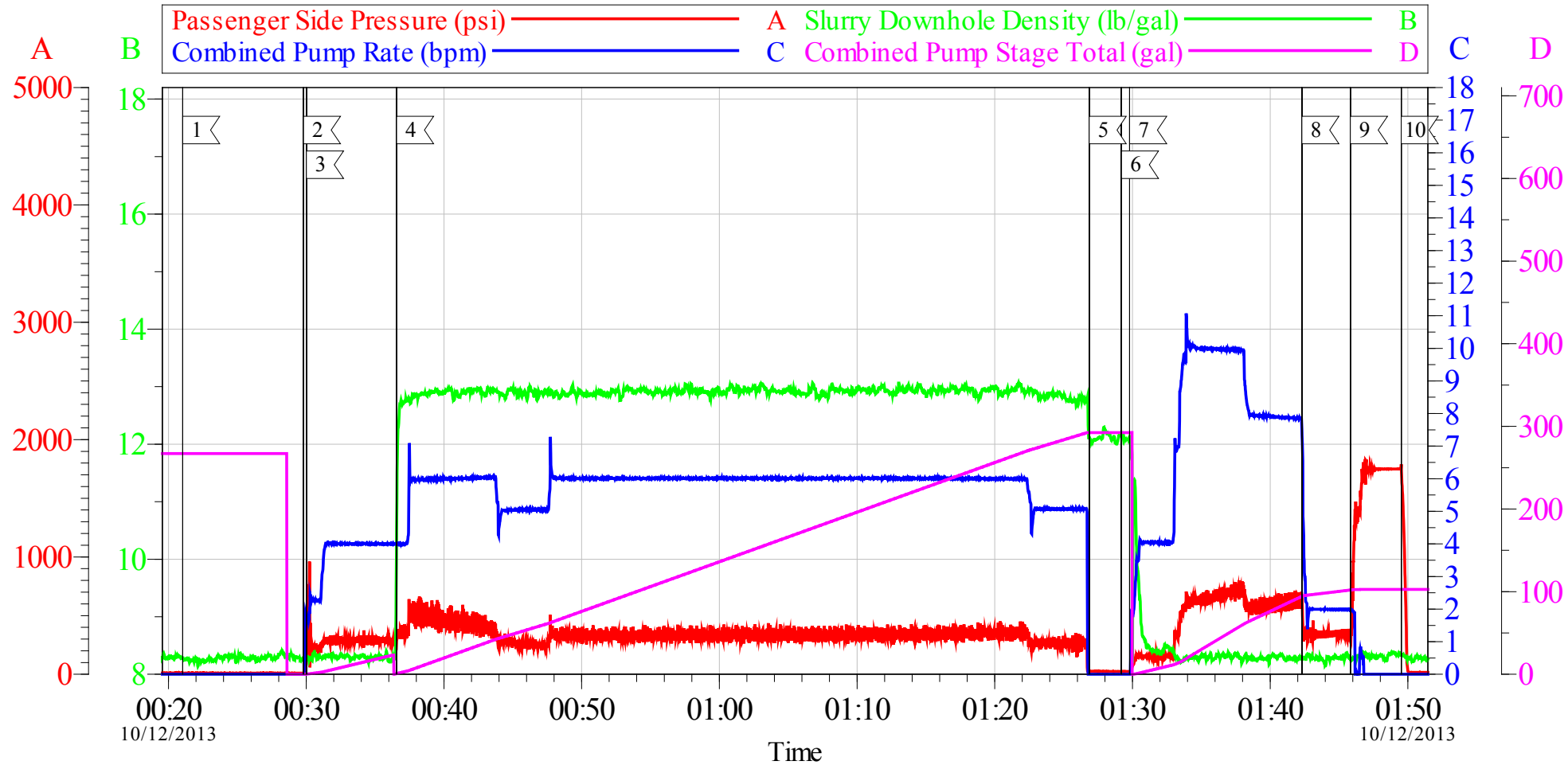
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS
Well Description: RG 411-23-298
Company Rep: TED RAGSDALE

Job Date: 11-Oct-2013
Job Type: SURFACE
Service Supervisor: ERIC CARTER

Sales Order #: 900812990
ADC Used: YES
Elite#/Operator: 3/ROB EICKHOFF

OptiCem v6.4.10
12-Oct-13 02:43

WPX - 411-23-298
9.625" MULTI STAGE SURFACE



Local Event Log

1 <	DROP MSC OPENING DEVICE	00:21:02	2 <	PRESSURE UP	00:29:48
3 <	PUMP SPACER	00:30:01	4 <	PUMP SECOND STAGE CEMENT	00:36:34
5 <	SHUTDOWN	01:26:51	6 <	DROP PLUG	01:29:12
7 <	PUMP DISPLACEMENT	01:29:48	8 <	SLOW RATE	01:42:18
9 <	BUMP PLUG	01:45:50	10 <	CHECK FLOATS	01:49:31

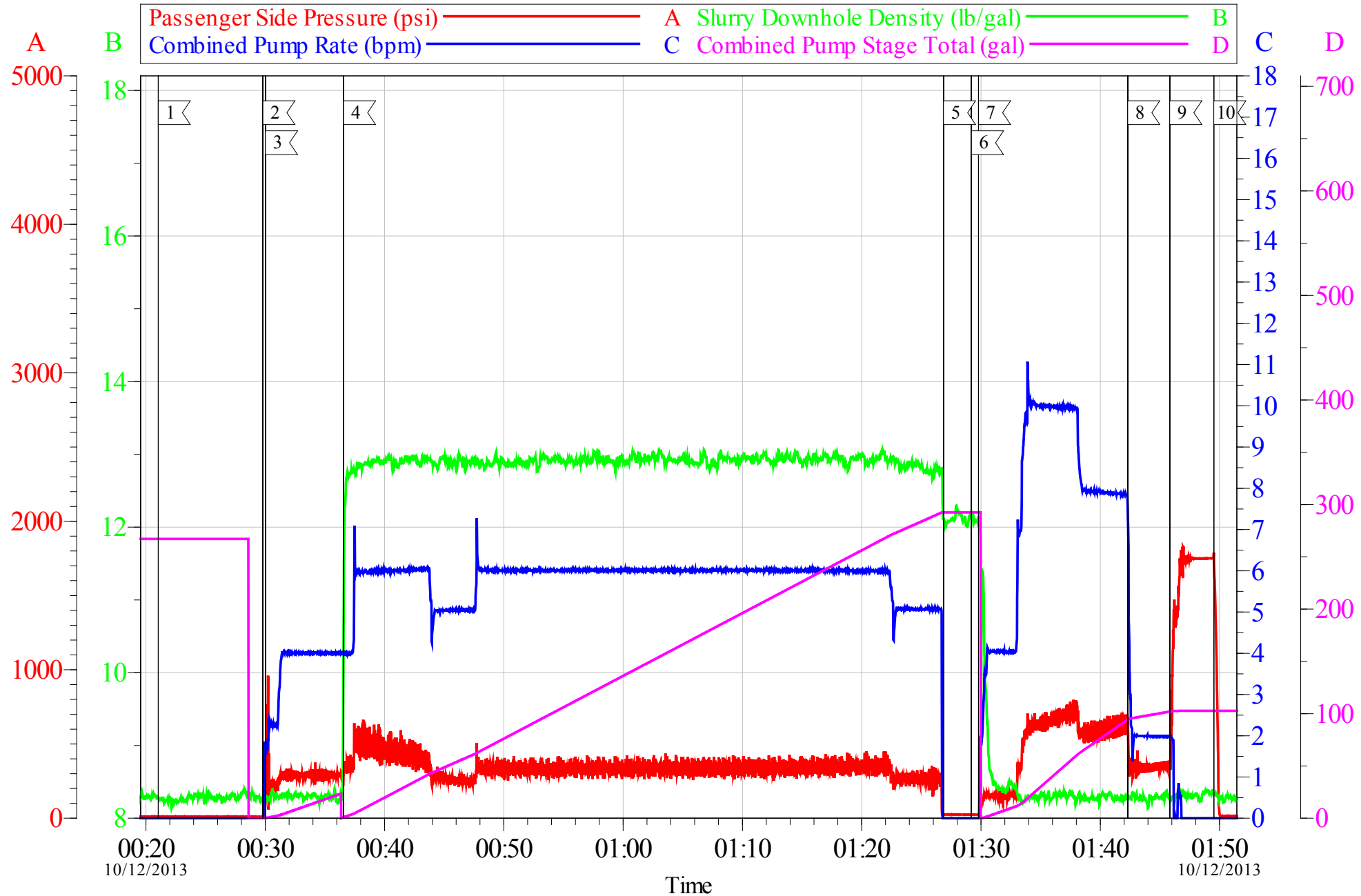
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS
Well Description: RG 411-23-298
Company Rep: TED RAGSDALE

Job Date: 12-Oct-2013
Job Type: SURFACE
Service Supervisor: ERIC CARTER

Sales Order #: 900812990
ADC Used: YES
Elite#/Operator: 3/ROB EICKHOFF

OptiCem v6.4.10
12-Oct-13 03:06

WPX - 411-23-298
9.625" MULTI STAGE SURFACE



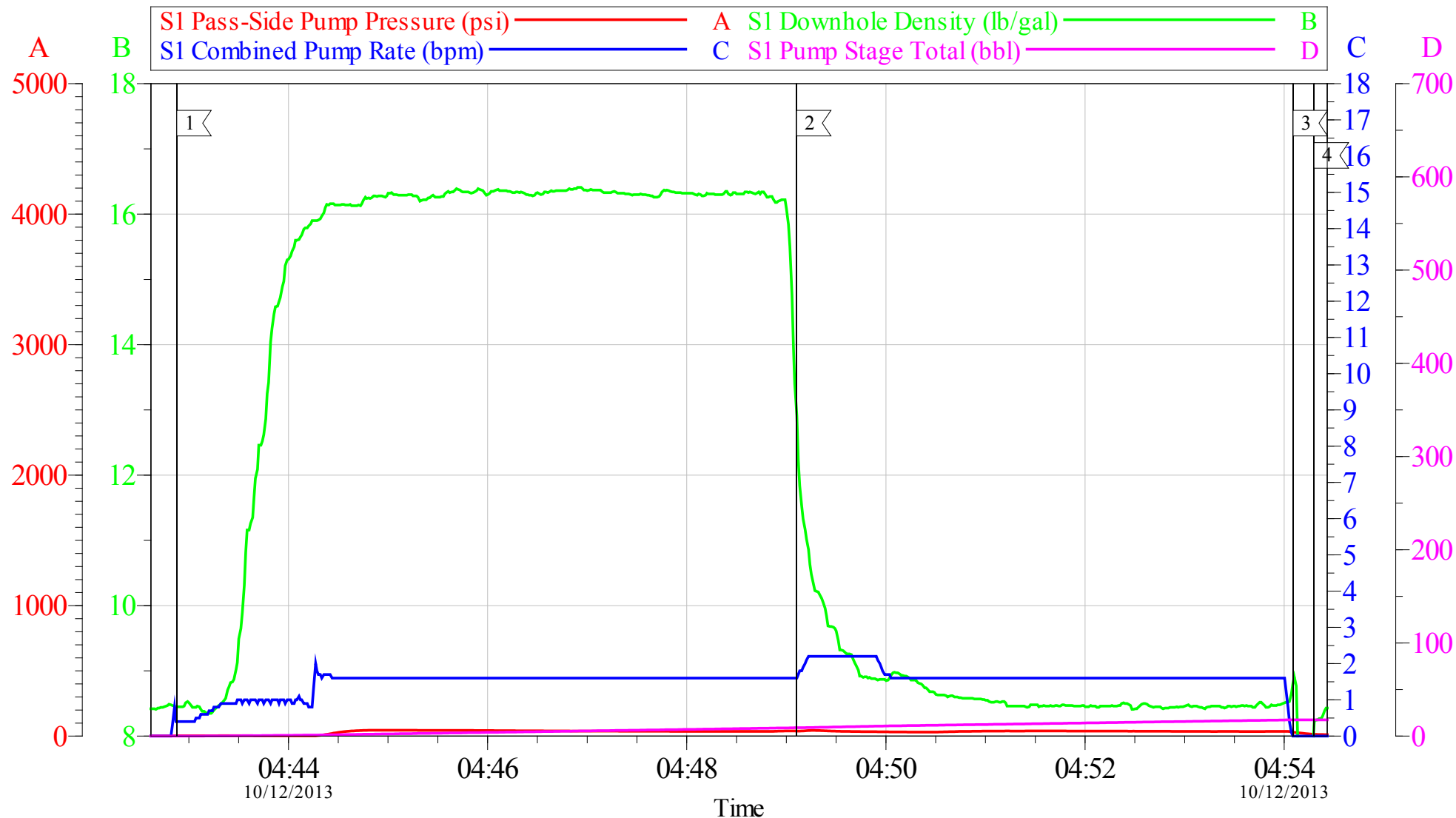
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS
Well Description: RG 411-23-298
Company Rep: TED RAGSDALE

Job Date: 12-Oct-2013
Job Type: SURFACE
Service Supervisor: ERIC CARTER

Sales Order #: 900812990
ADC Used: YES
Elite#/Operator: 3/ROB EICKHOFF

OptiCem v6.4.10
12-Oct-13 03:06

WPX - RG 411-23-298
9.625" SURFACE TOP OUT



Local Event Log			
1	PUMP CEMENT	04:42:53	2
			PUMP WATER 04:49:06
3	SHUTDOWN	04:54:05	4
			END JOB 04:54:18

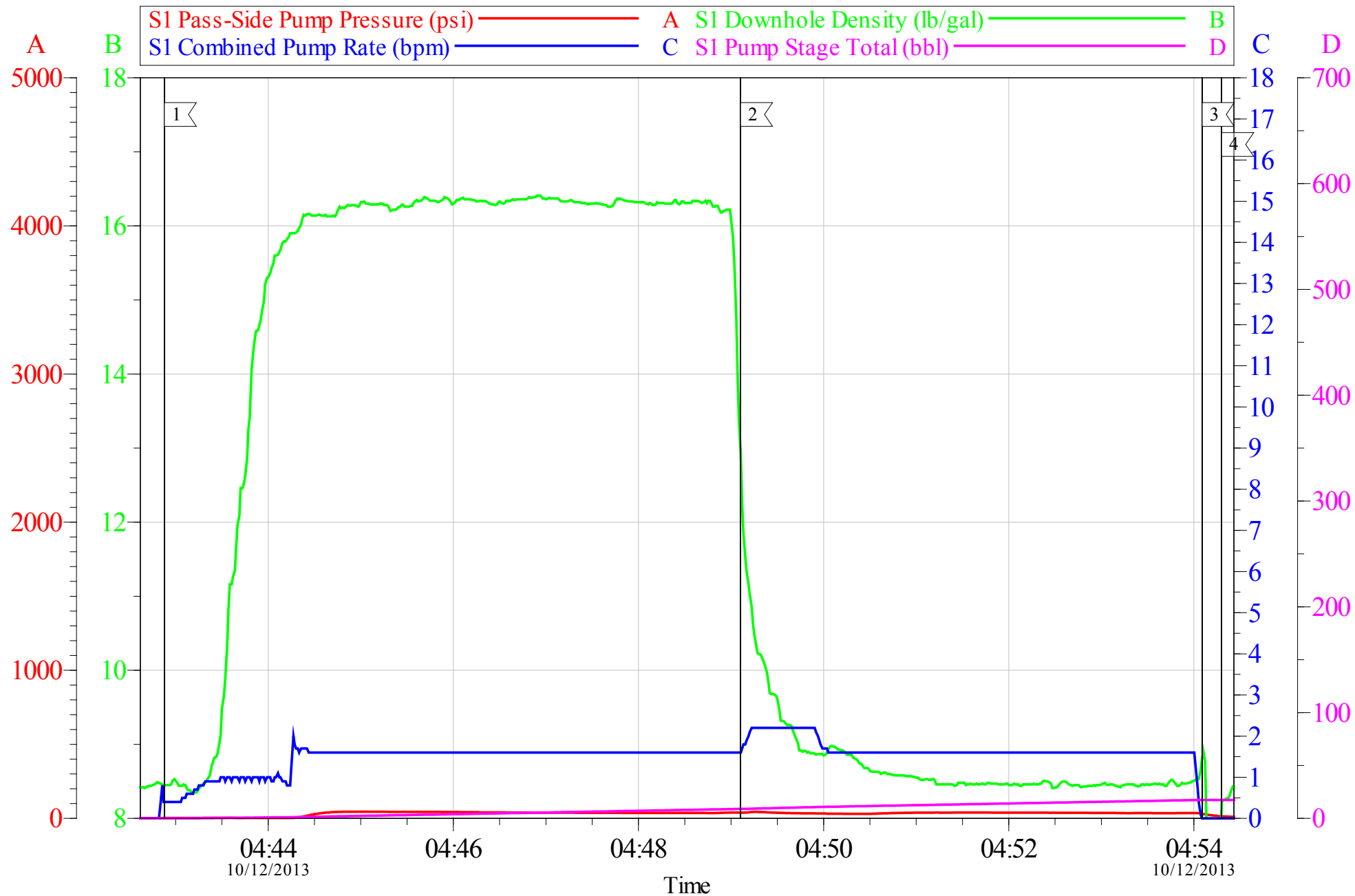
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUSS
Well Description: RG 411-23-298
Company Rep: TED RAGSDALE

Job Date: 12-Oct-2013
Job Type: SURFACE
Service Supervisor: ERIC CARTER

Sales Order #: 900812990
ADC Used: YES
Elite#/Operator: 3/SHANE JENSEN

OptiCem v6.4.10
12-Oct-13 04:58

WPX - RG 411-23-298
9.625" SURFACE TOP OUT



Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUSS
Well Description: RG 411-23-298
Company Rep: TED RAGSDALE

Job Date: 12-Oct-2013
Job Type: SURFACE
Service Supervisor: ERIC CARTER

Sales Order #: 900812990
ADC Used: YES
Elite#/Operator: 3/SHANE JENSEN

OptiCem v6.4.10
12-Oct-13 04:58

HALLIBURTON

Water Analysis Report

Company: WPX

Submitted by: ERIC CARTER

Attention: J.Trout

Lease CYCLONE 29

Well # RG 411-23-298

Date: 2/14/2014

Date Rec.: 2/14/2014

S.O.# 900812990

Job Type: SURFACE

Specific Gravity	<i>MAX</i>	1
pH	<i>8</i>	7
Potassium (K)	<i>5000</i>	0 Mg / L
Hrdness	<i>500</i>	425 Mg / L
Iron (FE2)	<i>300</i>	0 Mg / L
Chlorides (Cl)	<i>3000</i>	0 Mg / L
Sulfates (SO ₄)	<i>1500</i>	<200 Mg / L
Temp	<i>40-80</i>	50 Deg
Total Dissolved Solids		1000 Mg / L

Respectfully: ERIC CARTER

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

Sales Order #: 900812990	Line Item: 10	Survey Conducted Date: 10/12/2013
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Job Type (BOM): CMT MULTIPLE STAGES BOM
Customer Representative: TEDD RAGSDALE		API / UWI: (leave blank if unknown) 05-103-11900
Well Name: RG		Well Number: 411-23-298
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Oklahoma	Well County: Osage

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	10/12/2013
Survey Interviewer	The survey interviewer is the person who initiated the survey.	ERIC CARTER (HX15491)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	TEDD RAGSDALE
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 GUYS THANKS

CUSTOMER SIGNATURE

Sales Order #: 900812990	Line Item: 10	Survey Conducted Date: 10/12/2013
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Job Type (BOM): CMT MULTIPLE STAGES BOM
Customer Representative: TEDD RAGSDALE		API / UWI: (leave blank if unknown) 05-103-11900
Well Name: RG		Well Number: 411-23-298
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Oklahoma	Well County: Osage

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	10/12/2013
The date the survey was conducted	

Cementing KPI Survey	
Type of Job	0
Select the type of job. (Cementing or Non-Cementing)	
Select the Maximum Deviation range for this Job	Vertical
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
Total Operating Time (hours)	7
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
HSE Incident, Accident, Injury	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
Was the job purpose achieved?	Yes
Was the job delivered correctly as per customer agreed design?	
Operating Hours (Pumping Hours)	4.5
Total number of hours pumping fluid on this job. Enter in decimal format.	
Customer Non-Productive Rig Time (hrs)	0
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.	
Type of Rig Classification Job Was Performed	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
Number Of JSAs Performed	5
Number Of Jsas Performed	
Number of Unplanned Shutdowns	0
Unplanned shutdown is when injection stops for any period of time.	
Was this a Primary Cement Job (Yes / No)	Yes

Sales Order #: 900812990	Line Item: 10	Survey Conducted Date: 10/12/2013
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Customer Representative: TEDD RAGSDALE		API / UWI: (leave blank if unknown) 05-103-11900
Well Name: RG		Well Number: 411-23-298
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Oklahoma	Well County: Osage

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
Did We Run Wiper Plugs? Did We Run Top And Bottom Casing Wiper Plugs?	None
Mixing Density of Job Stayed in Designed Density Range (0-100%) Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	98
Was Automated Density Control Used? Was Automated Density Control (ADC) Used ?	Yes
Pump Rate (percent) of Job Stayed At Designed Pump Rate 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
Nbr of Remedial Sqz Jobs Rqd - Competition Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
Nbr of Remedial Plug Jobs Rqd - HES Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
Nbr of Remedial Sqz Jobs Rqd - HES Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0