

HALLIBURTON

WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

**FEDERAL RG 411-14-298
SULPHUR CREEK
Rio Blanco County , Colorado**

Cement Multiple Stages 19-Feb-2014

Post Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300721		Ship To #: 3124400		Quote #:		Sales Order #: 901123610	
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS				Customer Rep:			
Well Name: FEDERAL RG			Well #: 411-14-298		API/UWI #:		
Field: SULPHUR CREEK		City (SAP): MEEKER		County/Parish: Rio Blanco		State: Colorado	
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: PONDER, THOMAS		MBU ID Emp #: 427112	
Job Personnel							
HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs
BRENNECKE, ANDREW Bailey	11.5	486345	LAULAINEN, ROGER Edward	11.5	524413	PONDER, THOMAS Lynn	11.5
WESTFALL, DUSTIN A	11.5	555858					
Equipment							
HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10551730C	60 mile	10867531	60 mile	10876398	60 mile	10995027	60 mile
11583931	60 mile	11808847	60 mile				
Job Hours							
Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours
02/18/2014	4.5	0	02/19/2014	7	6		
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	18 - Feb - 2014	14:00	MST
Form Type	BHST			On Location	18 - Feb - 2014	19:30	MST
Job depth MD	3300. ft	Job Depth TVD	3300. ft	Job Started	19 - Feb - 2014	01:00	MST
Water Depth	Wk Ht Above Floor			Job Completed	19 - Feb - 2014	05:22	MST
Perforation Depth (MD)	From	To		Departed Loc	19 - Feb - 2014	07:00	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
Tools and Accessories							
Type	Size	Qty	Make	Depth	Type	Size	Qty
Guide Shoe	9 5/8	1	WTF	2864	Packer		
Float Shoe					Bridge Plug		
Float Collar	9 5/8	1	WTF	2837.8	Retainer		
Insert Float							
Stage Tool	9 5/8	1	WTF	1301			
Miscellaneous Materials							
Gelling Agt		Conc		Surfactant		Conc	
Treatment Fld		Conc		Inhibitor		Conc	
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
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 ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Fresh Water Spacer		40	bbl	8.33	.0	.0	4.0	
2	1st Stage HLC Lead Cement	ECONOCEM (TM) SYSTEM (452992)	780	sacks	12.8	1.77	9.34	8	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)	325	sacks	12.8	1.96	10.95	8	10.95
	0.3 lbm	POLY-E-FLAKE (101216940)							
	10.95 Gal	FRESH WATER							
4	Displacement		219.4	bbl	8.33	.0	.0	10	
5	Fresh Water Spacer		20	bbl	8.33	.0	.0	4	
6	2nd Stage VariCem Cement	VARICEM (TM) CEMENT (452009)	765	sacks	12.8	1.96	10.95	8	10.95
	0.3 lbm	POLY-E-FLAKE (101216940)							
	10.95 Gal	FRESH WATER							
7	Displacement		100.6	bbl	8.33	.0	.0	10	
Calculated Values			Pressures			Volumes			
Displacement	320	Shut In: Instant		Lost Returns		Cement Slurry	624.6	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	80	Actual Displacement	320	Treatment	
Frac Gradient		15 Min		Spacers	60	Load and Breakdown		Total Job	1016.4
Rates									
Circulating	RIG	Mixing	8	Displacement	10	Avg. Job	8		
Cement Left In Pipe	Amount	26.24 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

Sold To #: 300721	Ship To #: 3124400	Quote #:	Sales Order #: 901123610
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep:	
Well Name: FEDERAL RG	Well #: 411-14-298	API/UWI #:	
Field: SULPHUR CREEK	City (SAP): MEEKER	County/Parish: Rio Blanco	State: Colorado
Legal Description:			
Lat:		Long:	
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		Srv Supervisor: PONDER, THOMAS	
		MBU ID Emp #: 427112	

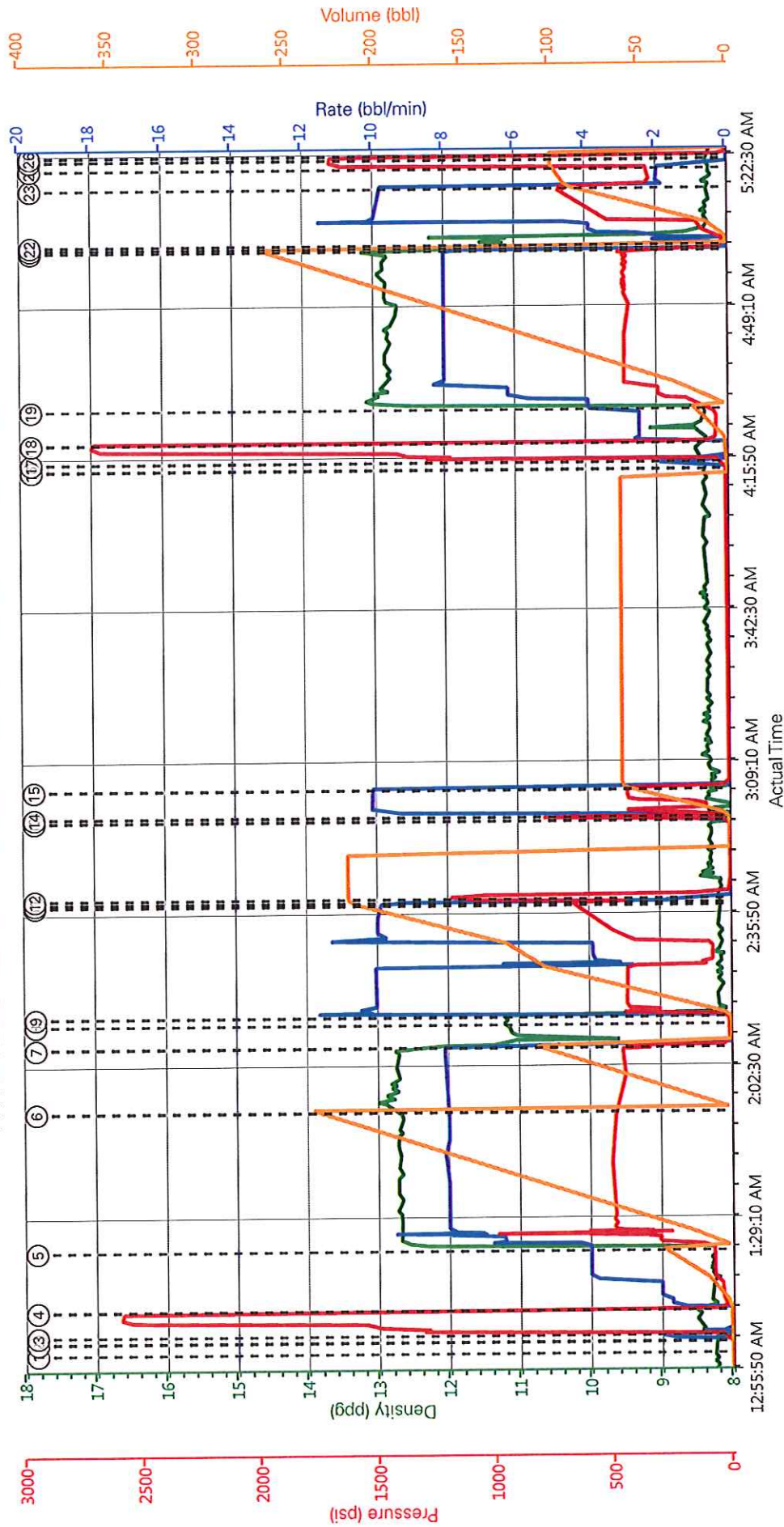
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	02/18/2014 14:00							
Crew Leave Yard	02/18/2014 16:30							ALL HES PRESENT FOR PRE-CONVOY SAFETY HUDDLE
Arrive At Loc	02/18/2014 19:30							RIG WAS FINISHING UP PULLING OUT DRILL PIPE WHEN CREW ARRIVED ON LOCATION
Assessment Of Location Safety Meeting	02/18/2014 23:45							TD- 2866', TP- 2864', SJ- 26.24', MUD- 8.4 PPG, HOLE- 14 3/4" TO 1300', HOLE 13 1/2" FROM 1300' TO TD, SURFACE CASING- 9 5/8" 36# J-55, MSC- 1301', RIG LOST RETURNS WHILE DRILLING @ 1765', LOST APPROX 11,800 BBL OF FLUID FROM 1765' TO TD
Rig-Up Equipment	02/19/2014 00:00							1-550 PICKUP, 1-ELITE PUMP, 1-660 CUFT BULK TRUCK, 2-1700 CUFT STORAGE SILO
Safety Meeting	02/19/2014 00:45							ALL HES PRESENT, RIG CREW PRESENT, RIG STARTED CIRCULATING ON BOTTOM @ 0000
Start Job	02/19/2014 01:00		2	2			46.0	FILL LINES
Activity Description	Date/Time	Cht	Rate bbl/min	Volume bbl		Pressure psig		Comments

		#		Stage	Total	Tubing	Casing	
Test Lines	02/19/2014 01:03		0.5	0.5			2600.0	GOOD PRESSURE TEST, NO LEAKS IN THE LINES
Pump Spacer 1	02/19/2014 01:09		4	40			78.0	FRESH WATER
Pump Lead Cement	02/19/2014 01:22		8	245.9			512.0	780 SKS 12.8 PPG 1.77 FT3/SK 9.34 GAL/SK, USED 75# TUFF FIBER
Pump Tail Cement	02/19/2014 01:53		8	113.5			470.0	325 SKS 12.8 PPG 1.96 FT3/SK 10.95 GAL/SK
Shutdown	02/19/2014 02:07							REMOVED TOP CAP TO THE PLUG CONTAINER TO DROP SHUTOFF PLUG
Drop Plug	02/19/2014 02:12							PLUG DROP VERIFIED VIA TATTLE TALE BY THE CO REP
Pump Displacement	02/19/2014 02:14		10	209.4			672.0	FRESH WATER, SLOWED RATE TO 2 BPM @ 108 AWAY AND RESUMED 10 BPM @ 128 AWAY TO ALLOW PLUG TO PASS THROUGH THE TOOL
Slow Rate	02/19/2014 02:38		4	10	219.4			NO CIRCULATION THROUGHOUT THE 1ST STAGE
Bump Plug	02/19/2014 02:39							PLUG BUMPED
Check Floats	02/19/2014 02:40						1152.0	FLOATS HELD, 1 BBL BACK TO THE DISPLACEMENT TANKS
Drop Opening Device For Multiple Stage Cementer	02/19/2014 02:45							REMOVED TOP CAP TO PLUG CONTAINER TO DROP OPENING DEVICE AND PRE-LOAD CLOSING PLUG, CIRCULATED 60 BBL OF WATER DID NOT SEE ANY RETURNS, TURNED OVER TO RIG TO CIRCULATE, RIG CAUGHT RETURNS AFTER 50 BBL
Start Job	02/19/2014 04:13		2	2			44.0	FILL LINES
Test Lines	02/19/2014 04:15		0.5	0.5			2709.0	GOOD PRESSURE TEST

Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Spacer 1	02/19/2014 04:19		4	20			97.0	FRESH WATER
Pump Tail Cement	02/19/2014 04:27		8	267			451.0	765 SKS 12.8 PPG 1.96 FT3/SK 10.95 GAL/SK, USED 75# TUFF FIBER
Shutdown	02/19/2014 05:01							
Drop Plug	02/19/2014 05:02							PLUG DROP VERIFIED VIA TATTLE TALE BY THE CO REP
Pump Displacement	02/19/2014 05:03		10	90.6			724.0	FRESH WATER, WASHED UP MIXING TUB ON TOP OF PLUG WITH FIRST 10 BBL OF DISPLACEMENT
Slow Rate	02/19/2014 05:15		2	10	100.6		326.0	GOOD RETURNS THROUGHOUT THE SECOND STAGE, CIRCULATED 80 BBL OF CEMENT TO SURFACE WHICH 10 BBL WAS USED TO TOP OUT PREVIOUS WELL
Bump Plug	02/19/2014 05:20				100.6		382.0	PLUG BUMPED, PRESSURED UP TO CLOSE MSC
Close Multiple Stage Cementer	02/19/2014 05:22						1680. 0	MSC CLOSED, 1 BBL BACK TO THE DISPLACEMENT TANKS
End Job	02/19/2014 05:22							THANK YOU FOR CHOOSING HALLIBURTON, THOMAS PONDER AND CREW

WPX - FEDERAL RG 411-14-298 - MULTI STAGE 9.625 IN SURFACE



DH Density (ppg) Comb Pump Rate (bbl/min) PS Pump Press (psi) Pump Stg Tot (bbl)

- ① Start Job 8.18;0.1;0
- ② Pump Water 8.25;1.5;26;0.1
- ③ Test Lines 8.29;0;54;1.5
- ④ Pump Spacer 1 8.41;1.7;16;0.1
- ⑤ Pump Lead Cement 8.27;4.77;0.1
- ⑥ Pump Tail Cement 12.87;8.487;0.1
- ⑦ Shutdown 11.33;0.31;110.5
- ⑧ Drop Plug 11.18;0.9;0
- ⑨ Pump Displacement 9.03;8.2;224;1.6
- ⑩ Slow Rate 8.17;5.2;520;215.3
- ⑪ Bump Plug 8.17;0.1130;216.4
- ⑫ Check Floats 8.18;0.1098;216.4
- ⑬ Open Multiple Stage Cementer 8.31;0.6;24;0.8
- ⑭ Circulate Well 8.31;6.103;2.3
- ⑮ Shutdown 0.31;0.88;60.5
- ⑯ Pump Spacer 1 8.33;0.7;0
- ⑰ Test Lines 8.33;0.1;1255;1.6
- ⑱ Pump Spacer 1 8.28;2.5;50;0.5
- ⑲ Pump Tail Cement 8.32;3.9;97;10.68
- 20 Shutdown 11.36;0.33;264.3

HALLIBURTON | iCem® Service

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Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date: 2/19/2014 12:30:58 AM

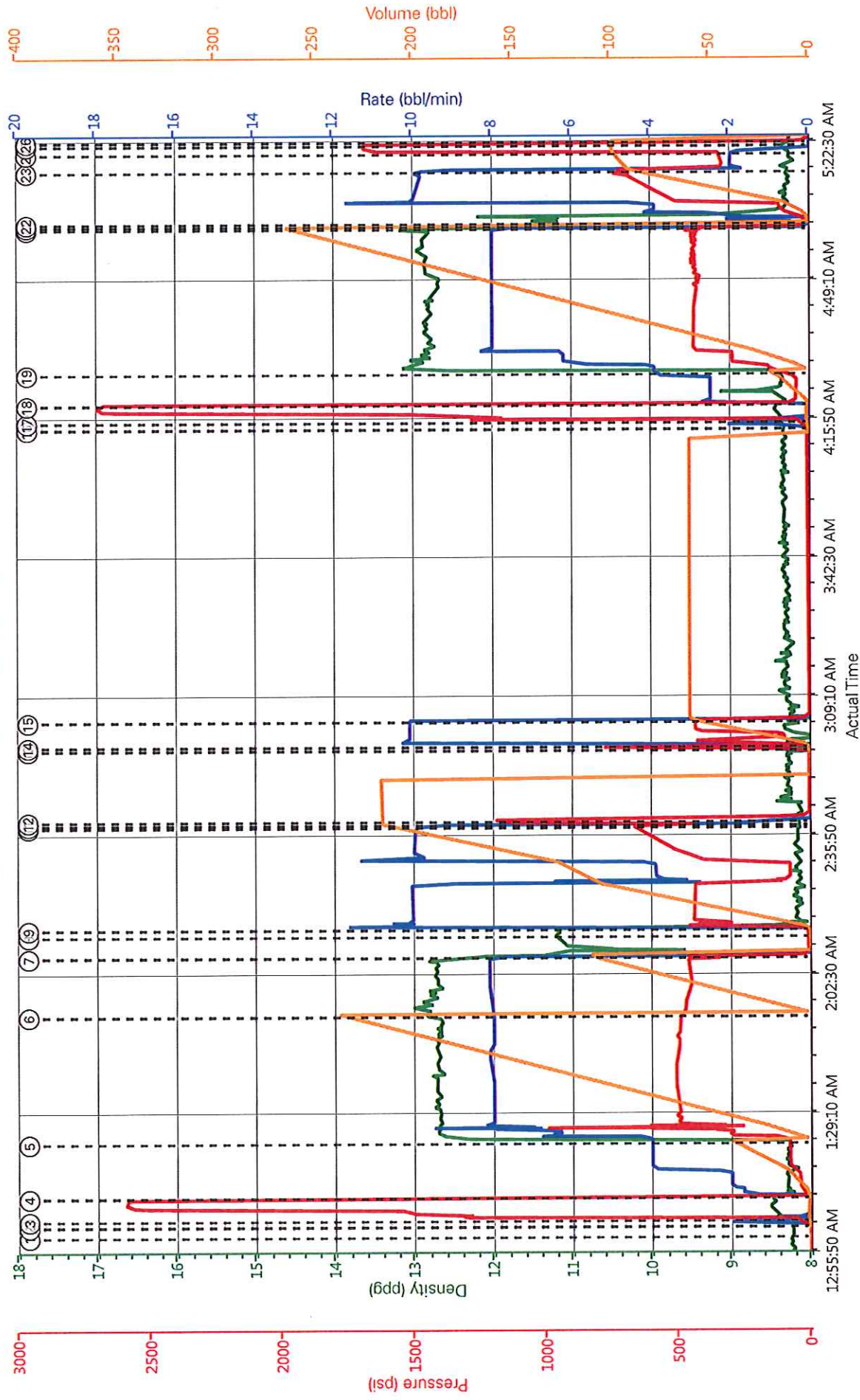
Well: FEDERAL RG 411-14-298

Representative: ANDREW BRUNK

Sales Order #: 901123610

ELITE #2: ROGER LAULAINEN / THOMAS PONDER

WPX - FEDERAL RG 411-14-298 - MULTI STAGE 9.625 IN SURFACE



HALLIBURTON | iCem® Service

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Customer : WPX ENERGY ROCKY MOUNTAIN LLC-
EBUS

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Well : FEDERAL RG 411-14-298

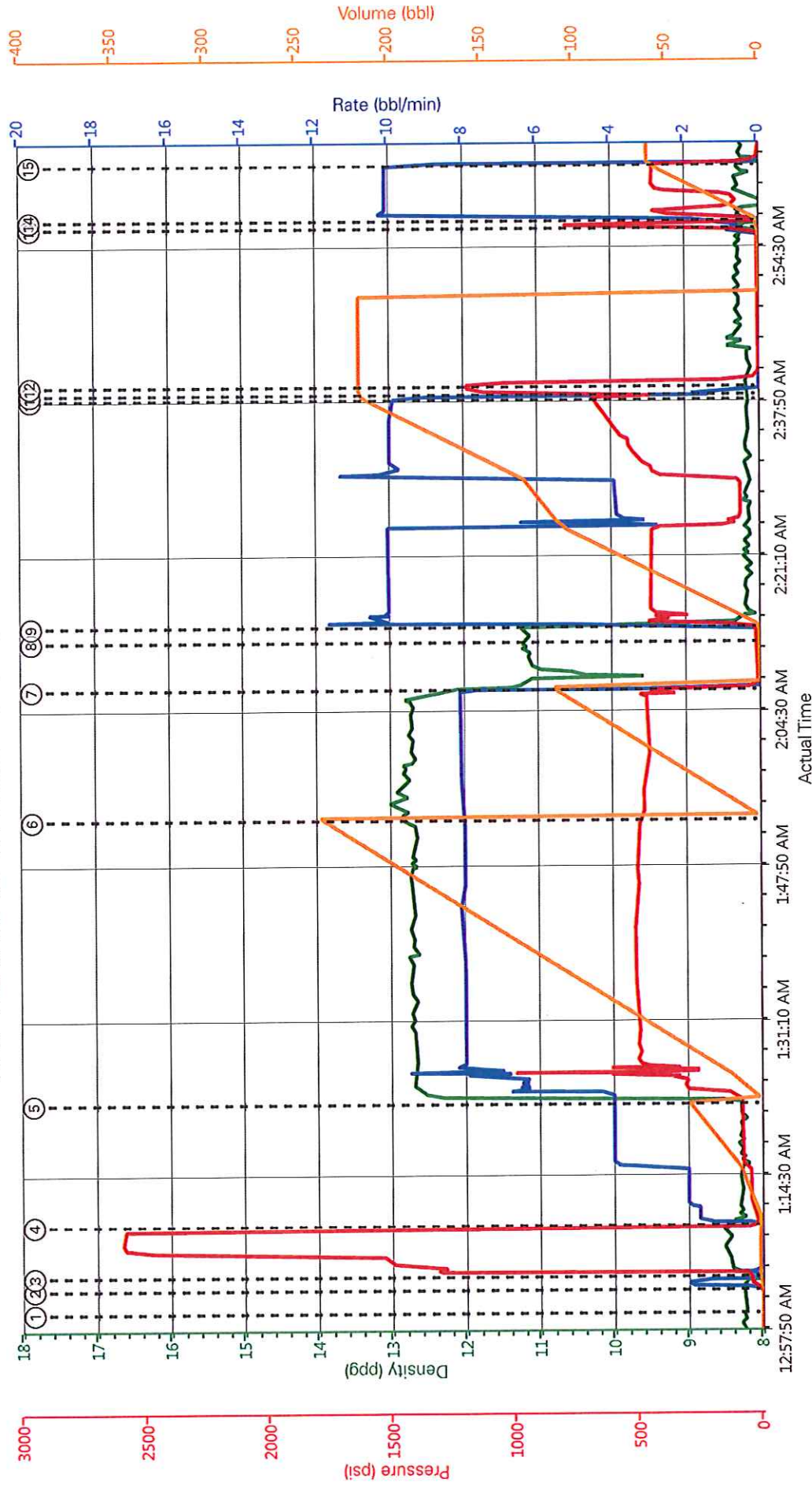
Representative : ANDREW BRUNK

Sales Order # : 901123610

ELITE #2 : ROGER LAULAINEN /THOMAS
PONDER

Edit

WPX - FEDERAL RG 411-14-298 - 1ST STAGE 9.625 IN SURFACE



DH Density (ppg) Comb Pump Rate (bbl/min) PS Pump Press (psi) Pump Stg Tot (bbl)

- ① Start Job 8.18;0.1;0
- ② Pump Water 8.25;1.5;26;0.1
- ③ Test Lines 8.29;0.54;1.5
- ④ Pump Spacer 18.41;1.7;16;0.1
- ⑤ Pump Lead Cement 8.27;4.77;0.1
- ⑥ Pump Tail Cement 12.87;8.487;0.1
- ⑦ Shutdown 11.33;0.31;110.5
- ⑧ Drop Plug 11.18;0.9;0
- ⑨ Pump Displacement 9.03;8.2;224;1.6
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- ⑪ Bump Plug 8.17;0.1130;216.4
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- ⑭ Circulate Well 8.31;6.103;2.3
- ⑮ Shutdown 0.31;0.88;60.5

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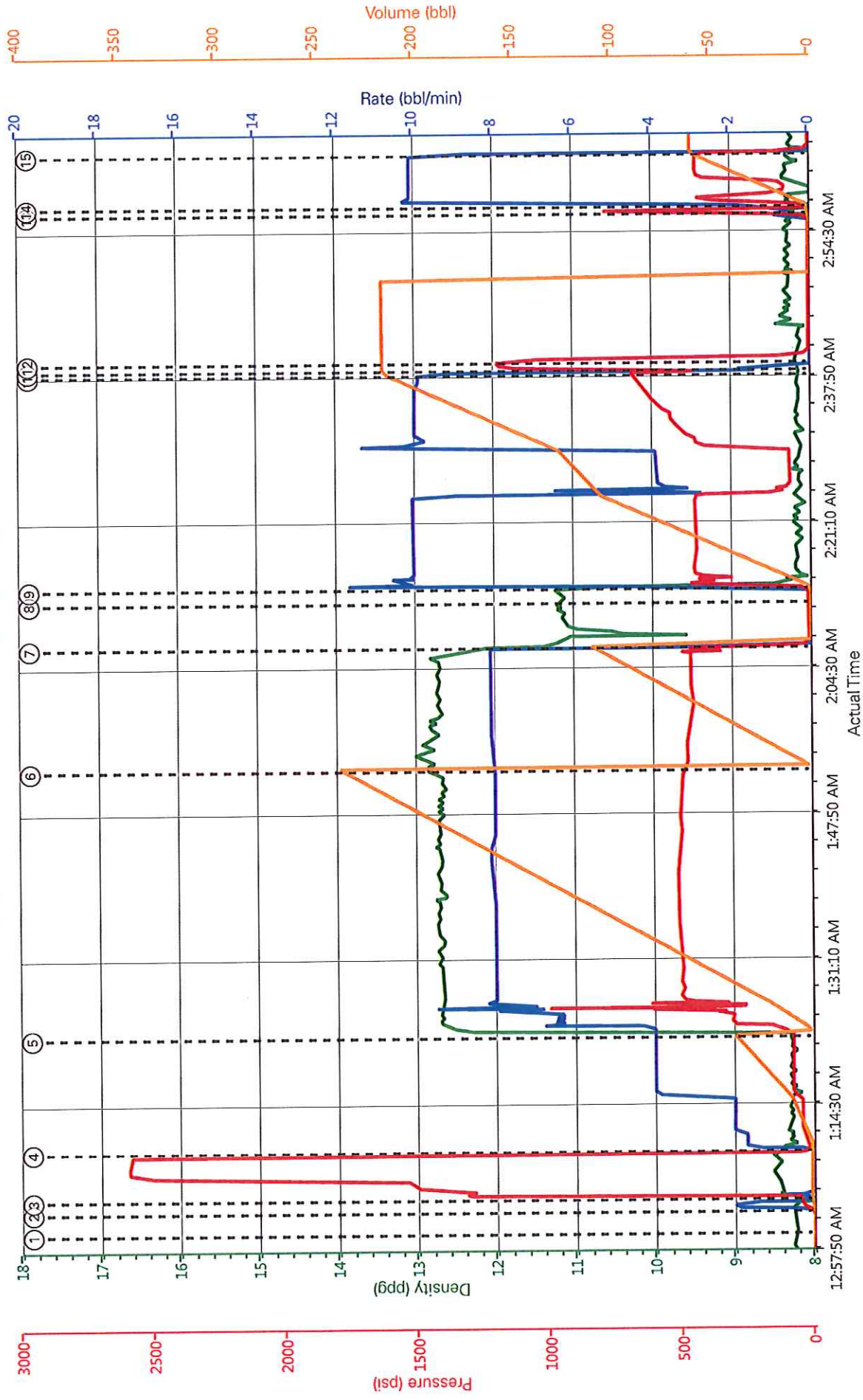
Well: FEDERAL RG 411-14-298

Representative: ANDREW BRUNK

Sales Order #: 901123610

ELITE #2: ROGER LAULAINEN / THOMAS PONDER

WPX - FEDERAL RG 411-14-298 - 1ST STAGE 9.625 IN SURFACE



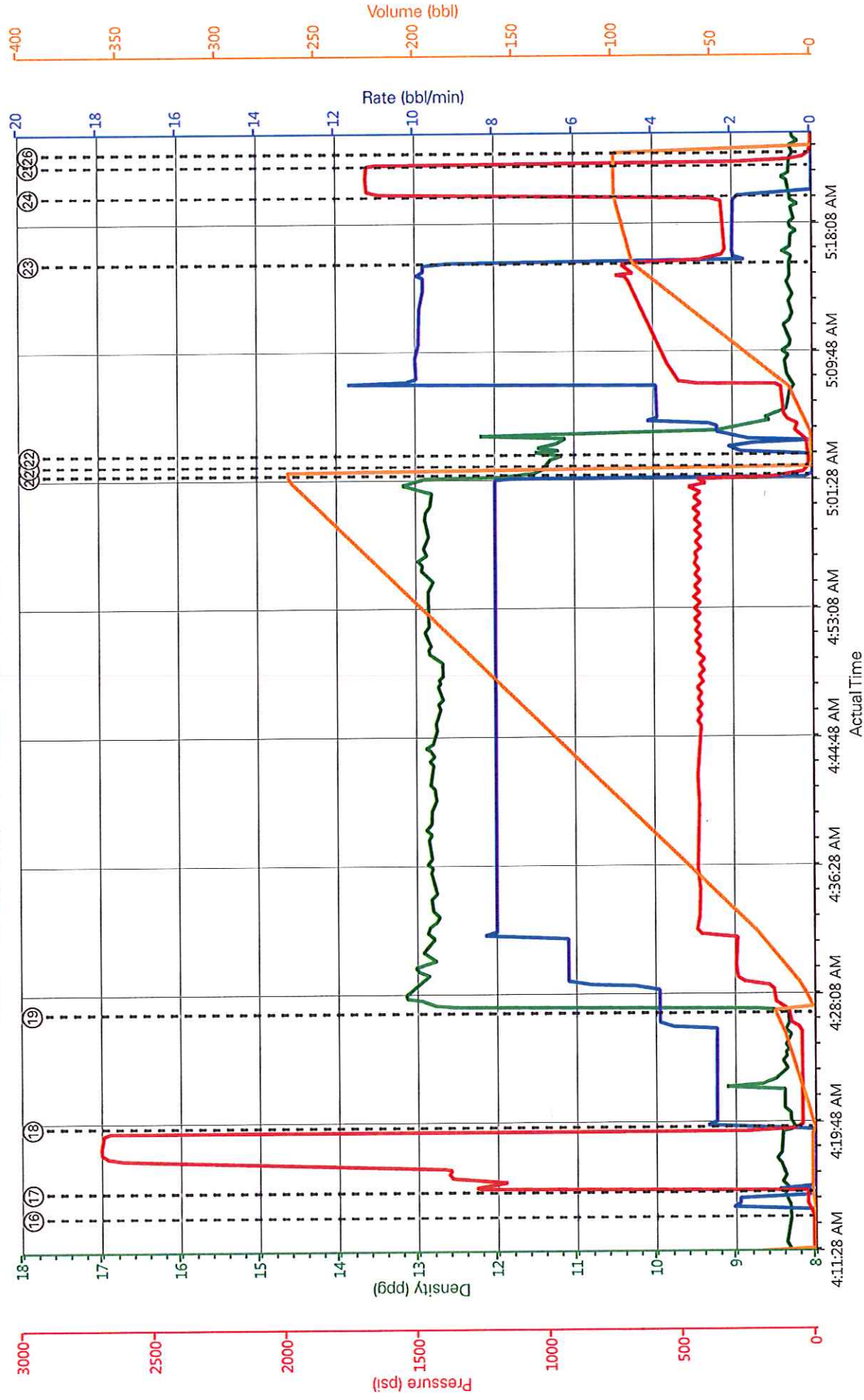
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HALLIBURTON | iCem® Service

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS
 Representative: ANDREW BRUNK
 Job Date: 2/19/2014 12:30:58 AM
 Sales Order #: 901123610
 Well: FEDERAL RG 411-14-298
 ELITE #2: ROGER LAULAINEN / THOMAS PONDER

WPX - FEDERAL RG 411-14-298 - 2ND STAGE 9.625 IN SURFACE



▶ **HALLIBURTON** | iCem® Service

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Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS
Representative: ANDREW BRUNK
Job Date: 2/19/2014 12:30:58 AM
Sales Order #: 901123610

Well: FEDERAL RG 411-14-298
ELITE #2: ROGER LAULAINEN / THOMAS PONDER

Sales Order #: 901123610	Line Item: 10	Survey Conducted Date: 2/19/2014
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Job Type (BOM): CMT MULTIPLE STAGES BOM
Customer Representative: ANDREW BRENNECKE		API / UWI: (leave blank if unknown) AFEYS41AQNKAQJZAAA
Well Name: FEDERAL RG		Well Number: 411-14-298
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Colorado	Well County: Rio Blanco

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	2/19/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	THOMAS PONDER (HX41187)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	ANDREW BRENNECKE
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	THANKS GREAT JOB!

CUSTOMER SIGNATURE

Sales Order #: 901123610	Line Item: 10	Survey Conducted Date: 2/19/2014
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Job Type (BOM): CMT MULTIPLE STAGES BOM
Customer Representative: ANDREW BRENNKE		API / UWI: (leave blank if unknown) AFEYS41AQNKAAJZAAA
Well Name: FEDERAL RG		Well Number: 411-14-298
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Colorado	Well County: Rio Blanco

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date The date the survey was conducted	2/19/2014

Cementing KPI Survey	
Type of Job Select the type of job. (Cementing or Non-Cementing)	0
Select the Maximum Deviation range for this Job What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	Deviated
Total Operating Time (hours) Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	6
HSE Incident, Accident, Injury HSE Incident, Accident, Injury. This should be recordable incidents only.	No
Was the job purpose achieved? Was the job delivered correctly as per customer agreed design?	Yes
Operating Hours (Pumping Hours) Total number of hours pumping fluid on this job. Enter in decimal format.	5
Customer Non-Productive Rig Time (hrs) 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
Type of Rig Classification Job Was Performed Type Of Rig (classification) Job Was Performed On	Drilling Rig (Portable)
Number Of JSAs Performed Number Of Jsas Performed	6
Number of Unplanned Shutdowns Unplanned shutdown is when injection stops for any period of time.	0
Was this a Primary Cement Job (Yes / No)	Yes

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Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Job Type (BOM): CMT MULTIPLE STAGES BOM
Customer Representative: ANDREW BRENNECKE		API / UWI: (leave blank if unknown) AFEYS41AQNKAAJZAAA
Well Name: FEDERAL RG		Well Number: 411-14-298
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Colorado	Well County: Rio Blanco

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?	Top
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	99
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	99
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

HALLIBURTON

Company: WPX Date: 2/19/2014
Submitted by: THOMAS PONDER Date Rec.: 2/19/2014
Attention: LARRY COOKSEY S.O.# 901124610
Lease FEDERAL RG Job Type: MULTI STAGE
Well # 411-14-298

Specific Gravity	<i>MAX</i>	<i>1</i>
pH	<i>8</i>	<i>7</i>
Potassium (K)	<i>5000</i>	<i>500 Mg / L</i>
Calcium (Ca)	<i>500</i>	<i>120 Mg / L</i>
Iron (FE2)	<i>300</i>	<i>10 Mg / L</i>
Chlorides (Cl)	<i>3000</i>	<i>0 Mg / L</i>
Sulfates (SO ₄)	<i>1500</i>	<i><200 Mg / L</i>
Carbonates hardness		
Temp	<i>40-80</i>	<i>84 Deg</i>
Total Dissolved Solids		<i>Mg / L</i>

Respectfully: THOMAS PONDER

Title: CEMENTING SUPERVISOR

Location: GRAND JCT, CO