

WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Federal RG 541-15-298

Cyclone 29

Post Job Summary

Cement Two-Stage Surface Casing

Date Prepared: 05/02/2014
Job Date: 01/18/2014

Submitted by: Evan Russell - Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3274557	Quote #:	Sales Order #: 901049361
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Customer Rep:		
Well Name: FEDERAL RG	Well #: 541-15-298	API/UWI #: 05-103-12075	
Field:	City (SAP): MEEKER	County/Parish: Rio Blanco	State: Colorado
Contractor: CYCLONE 29	Rig/Platform Name/Num: 29		
Job Purpose: Cement Multiple Stages			
Well Type: Development Well	Job Type: Cement Multiple Stages		
Sales Person:	Srv Supervisor: DEUSSEN, EDWARD	MBU ID Emp #: 485182	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DEUSSEN, EDWARD Eric	17.5	485182	MCINTOSH, ROBERT	17.5	547652	BLANSCEY, TAYLOR	17.5	555417
WILSON, BENJAMIN Wallace	17.5	533647						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10296152C	60 mile	10867322	60 mile	10995025	60 mile	11583932	60 mile
11808849	60 mile						

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
1/18/14	13	6	1/19/14	4.5	3			

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	18 - Jan - 2014	05:15	MST
Form Type	BHST	115 degC	Job Started	18 - Jan - 2014	11:00	MST
Job depth MD	3125. m	Job Depth TVD	Job Completed	18 - Jan - 2014	15:30	MST
Water Depth		Wk Ht Above Floor	Departed Loc	18 - Jan - 2013	14:07	MST
Perforation Depth (MD)	From	To		18 - Jan - 2014	16:30	MST

Well Data

Description	New / Used	Max pressure MPa	Size mm	ID mm	Weight kg/m	Thread	Grade	Top MD m	Bottom MD m	Top TVD m	Bottom TVD m
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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	9 5/8	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 kg/m3	Yield m3/sk	Mix Fluid m3/tonne	Rate m3/min	Total Mix Fluid m3/tonne
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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
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Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density kg/m3	Yield m3/sk	Mix Fluid m3/tonne	Rate m3/min	Total Mix Fluid m3/tonne
1	Fresh Water Spacer		40.00	bbl	8.33	.0	.0	2.0	
2	1st Stage HLC Lead Cement	ECONOCEM (TM) SYSTEM (452992)	850.0	sacks	12.8	1.77	9.34	7.5	9.34
3	1st Stage Varicem Tail Cement	VARICEM (TM) CEMENT (452009)	225.0	sacks	12.8	1.96	10.95	7.5	10.95
4	Displacement		239.00	bbl	8.33	.0	.0	9.0	
5	Fresh Water Spacer		20.00	bbl	8.33	.0	.0	2.0	
6	2nd Stage VariCem Cement	VARICEM (TM) CEMENT (452009)	735.0	sacks	12.8	1.96	10.95	7.5	10.95
7	Displacement		97.00	bbl	8.33	.0	.0	9.0	
8	PlugCem	PLUGCEM (TM) SYSTEM (452969)	100.0	sacks	15.8	1.15	5.0	1.5	5.0
5 Gal		FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement	336.8	Shut In: Instant		Lost Returns		Cement Slurry	603.4	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	130	Actual Displacement	336.8	Treatment	
Frac Gradient		15 Min		Spacers	55	Load and Breakdown		Total Job	995.2
Rates									
Circulating		Mixing	7.5	Displacement	9	Avg. Job	8		
Cement Left In Pipe	Amount	24.5 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

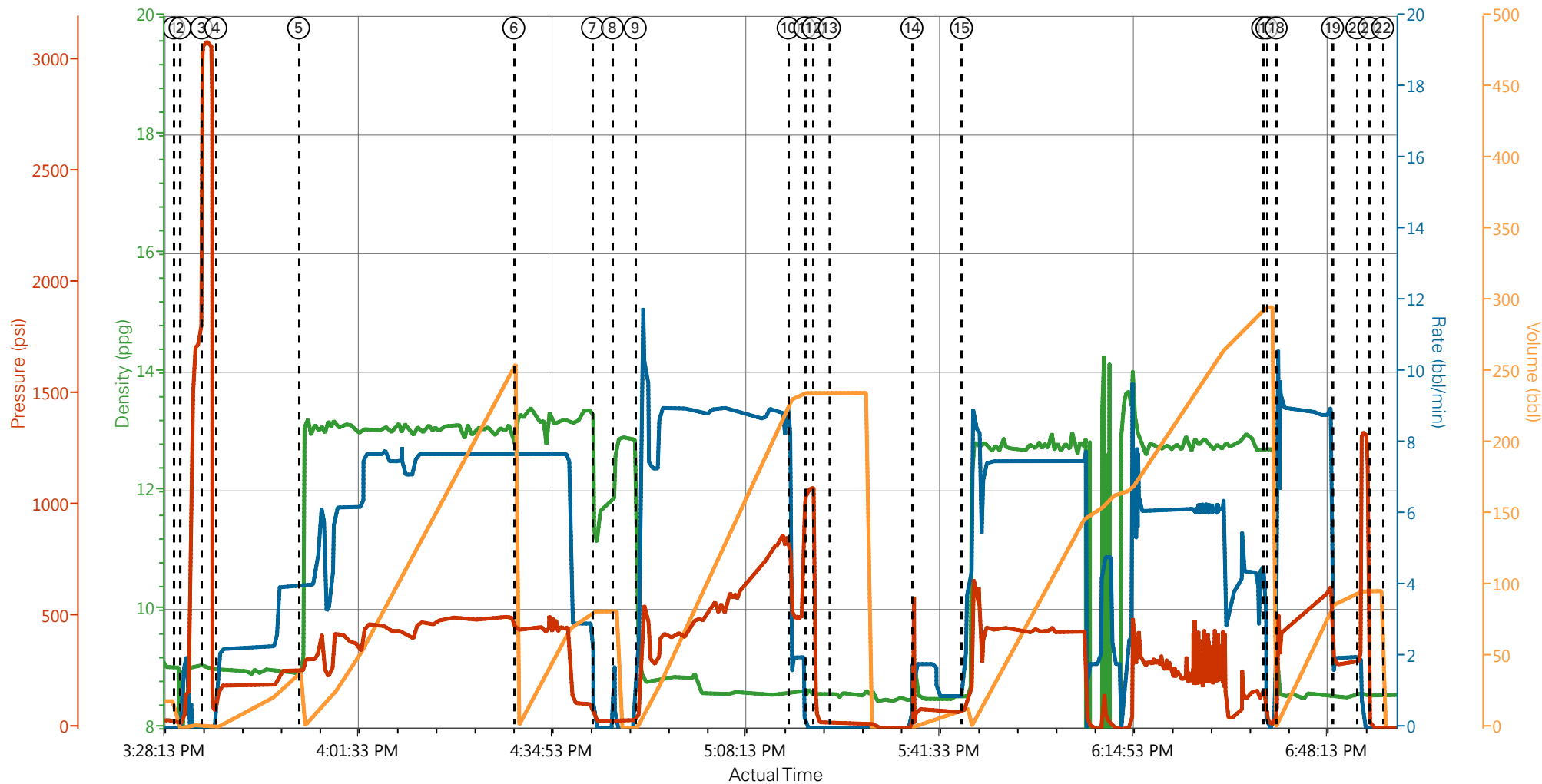
Sold To #: 300721	Ship To #: 3274557	Quote #:	Sales Order #: 901049361
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep:	
Well Name: FEDERAL RG		Well #: 541-15-298	API/UWI #: 05-103-12075
Field:	City (SAP): MEEKER	County/Parish: Rio Blanco	State: Colorado
Legal Description:			
Lat: N 0 deg. OR N 0 deg. 0 min. 0 secs.		Long: E 0 deg. OR E 0 deg. 0 min. 0 secs.	
Contractor: CYCLONE 29		Rig/Platform Name/Num: 29	
Job Purpose: Cement Multiple Stages			Ticket Amount:
Well Type: Development Well		Job Type: Cement Multiple Stages	
Sales Person:		Srvc Supervisor: DEUSSEN, EDWARD	MBU ID Emp #: 485182

Activity Description	Date/Time	Cht #	Rate m3/min	Volume m3		Pressure MPa		Comments
				Stage	Total	Tubing	Casing	
Call Out	01/18/2014 05:15							CREW ALREADY IN FIELD
Pre-Convoy Safety Meeting	01/18/2014 07:45							ALL HES PERSONNEL
Crew Leave Yard	01/18/2014 08:00							1 ELITE, 2 660s, 1 PICKUP
Arrive At Loc	01/18/2014 11:00							RIG JUST STARTING TO RUN CASING
Assessment Of Location Safety Meeting	01/18/2014 11:15							
Pre-Rig Up Safety Meeting	01/18/2014 12:45							ALL HES PERSONNEL
Rig-Up Equipment	01/18/2014 13:00							HARD LINE TO STANDPIPE, WATER HOSES TO UPRIGHT AND DAY TANK, BULK HOSES TO SILOS AND 660
Pre-Job Safety Meeting	01/18/2014 15:15							ALL HES PERSONNEL AND RIG CREW
Start Job	01/18/2014 15:30							2 STAGE - TD3125', TP 3125', SJ 24.50', MUD 9.0 PPG, TOOL SET @ 1256', 14 3/4" OH TO 1204', 13 1/2" OH TO 3125', 9 5/8" CSG J-55 36#
Other	01/18/2014 15:31		2	2			182.0	1ST STAGE - FILL LINES
Pressure Test	01/18/2014 15:35							PRESSURED UP TO 3097 PSI - PRESSURE HELD WELL
Pump Spacer 1	01/18/2014 15:37		4	40			245.0	FRESH WATER
Pump Lead Cement	01/18/2014 15:51		7.7	268			505.0	850 SKS, 12.8PPG, 1.77 YIELD, 9.34GAL/SK

Activity Description	Date/Time	Cht #	Rate m3/min	Volume m3		Pressure MPa		Comments
				Stage	Total	Tubing	Casing	
Pump Tail Cement	01/18/2014 16:28		7.5	78.5			465.0	225 SKS, 12.8 PPG, 1.96 YIELD, 10.95 GAL/SK
Shutdown	01/18/2014 16:42							WASH UP ON TOP OF PLUG - GOOD RETURNS THROUGHOUT CEMENT
Drop Plug	01/18/2014 16:45							RIG SUPPLIED PLUG
Pump Displacement	01/18/2014 16:49		9	239.7			855.0	FRESH WATER - LOST RETURNS ABOUT 140 BBL PUMPED, REGAINED RETURNS ABOUT 170 BBL PUMPED
Slow Rate	01/18/2014 17:16		2	10			495.0	LAST 10 BBLS
Bump Plug	01/18/2014 17:19						521.0	
Check Floats	01/18/2014 17:20						1070.0	FLOATS HELD - GOT 1 BBL BACK
Drop Opening Device For Multiple Stage Cementer	01/18/2014 17:23							RIG SUPPLIED DEVICE - ALLOWED TO FALL 10 MINUTES
Other	01/18/2014 17:25							PROCEED TO STAGE 2
Start Job	01/18/2014 17:30							2ND STAGE
Open Multiple Stage Cementer	01/18/2014 17:37		2	15				FRESH WATER - TOOL OPENED AT 595 PSI
Pump Tail Cement	01/18/2014 17:45		8	256.6			460.0	735 SKS, 12.8 PPG, 1.96 YIELD, 10.95 GAL/SK - HAD TO SLOW RATE FOR ABOUT 10 MINUTES DURING TAIL TO FIX ISSUE ON PUMP - LOST RETURNS TEMPORARILY
Shutdown	01/18/2014 18:37							40 BBLS 1ST STAGE CEMENT TO SURFACE
Drop Plug	01/18/2014 18:38							RIG SUPPLIED PLUG
Pump Displacement	01/18/2014 18:40		10	97.1			647.0	FRESH WATER - 90 BBLS 2ND STAGE CEMENT TO SURFACE
Slow Rate	01/18/2014 18:49		2	10			285.0	GOOD RETURNS

Activity Description	Date/Time	Cht #	Rate m3/min	Volume m3		Pressure MPa		Comments
				Stage	Total	Tubing	Casing	
Bump Plug	01/18/2014 18:54						304.0	
Close Multiple Stage Cementer	01/18/2014 18:56						1329.0	
Release Casing Pressure	01/18/2014 18:57							TOOL CLOSED
End Job	01/18/2014 18:58							END 2nd STAGE - WAIT ON LOCATION TO START TOPOUT - USED 40 LBS SUGAR
Start Job	01/19/2014 01:43							TOPOUT - HAD ISSUES WITH PUMP STARTING TOPOUT - ENDED ADD-HOUR CLOCK AT 1/19/14 00:00
Pump Water	01/19/2014 01:44							VERIFY LINES ARE CLEAR
Pump Cement	01/19/2014 01:46		1.5	20.4			40	100 SKS USED, 15.8 PPG, 1.15 YIELD, 5.0 GAL/SAK - WASTED 75 SKS CLEARING PLUG ON PUMP
Shutdown	01/19/2014 01:58							
Pump Water	01/19/2014 01:59							FLUSH LINES
End Job	01/19/2014 02:07							5 ADD HOURS, RETURN 175 SKS CEMENT, ADJUSTED TICKET ACCORDINGLY
Pre-Rig Down Safety Meeting	01/19/2014 02:30							ALL HES PERSONNEL
Rig-Down Equipment	01/19/2014 02:45							
Crew Leave Location	01/19/2014 04:30							THANK YOU FOR USING HALLIBURTON - ED DEUSSEN AND CREW
Pre-Convoy Safety Meeting	01/19/2014 21:10							ALL HES PERSONNEL

WPX - RG 541-15-298 - 2 STAGE SURFACE



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

- | | | | |
|--------------------------------------|-------------------------------------|---|--|
| ① Start Job 8.99;0;22;0 | ⑦ Shutdown/Wash Up 11.08;0;30;82 | ⑬ Drop MSC Opening Device 8.56;0;20;235.5 | ⑲ Slow Rate 8.55;2;284;87.7 |
| ② Fill Lines 8.97;1.5;29;0.3 | ⑧ Drop Plug 12.76;0;36;82.1 | ⑭ Open Multiple Stage Cementer 8.8;1.8;68;1.1 | 20 Bump Plug 8.57;1.9;429;95.9 |
| ③ Pressure Test 9.06;0;3097;2.1 | ⑨ Pump Displacement 9.32;2.6;54;0.8 | ⑮ Pump Tail Cement 8.54;1.9;87;12.3 | 21 Close Multiple Stage Cementer 8.55;0;1;96.3 |
| ④ Pump H2O Spacer 9.01;1.9;176;0.7 | ⑩ Slow Rate 8.57;1.6;575;231.2 | ⑯ Shutdown 12.68;0;122;295.7 | 22 End Job 8.55;0;-1;0 |
| ⑤ Pump Lead Cement 8.96;4;254;0.1 | ⑪ Bump Plug 8.67;0;1073;235.5 | ⑰ Drop Plug 12.76;0;14;295.7 | |
| ⑥ Pump Tail Cement 13.18;7.7;440;0.2 | ⑫ Check Floats 8.58;0;63;235.5 | ⑱ Pump Displacement 8.57;9.2;343;5.4 | |

▼ **HALLIBURTON** | iCem® Service

Created: 2014-01-18 12:30:07, Version: 3.0.121

Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date: 1/18/2014 2:36:13 PM

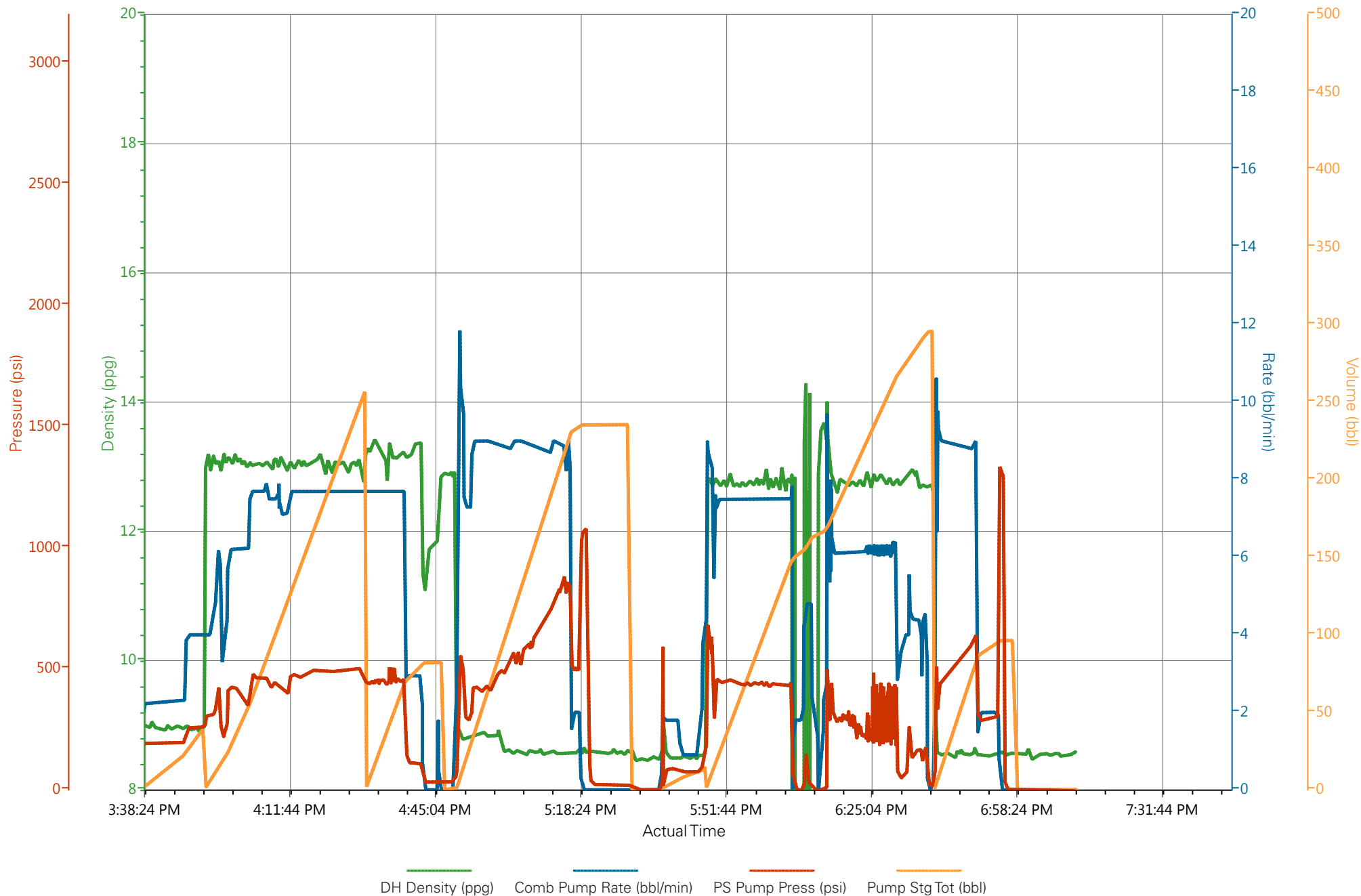
Well: RG 541-15-298

Representative: Andrew Brunk

Sales Order #: 901049361

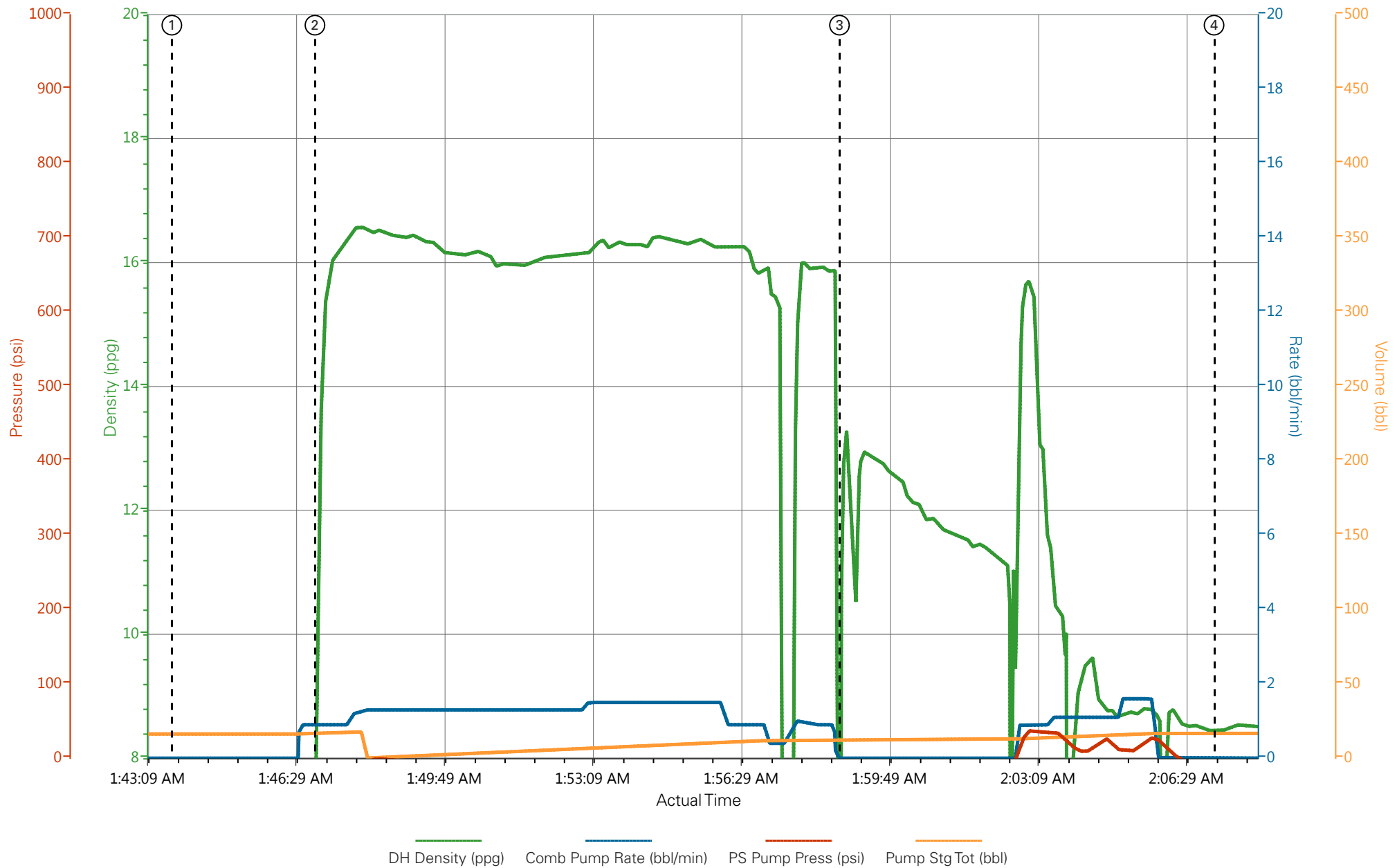
Elite #9: Ed Deussen / Ben Wilson

WPX - RG 541-15-298 - 2 STAGE SURFACE



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

WPX - RG 541-15-298 - TOPOUT



① Start Job -0.03;0;-25;16.3 ② Pump Cement 9.24;0.9;-25;16.7 ③ Shutdown/Wash Up 12.13;0;-24;13 ④ End Job 8.42;0;-17;16.7

▼ **HALLIBURTON** | iCem® Service

Created: 2014-01-18 21:14:36, Version: 3.0.121

Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date: 1/18/2014 9:16:37 PM

Well: RG 541-15-298

Representative: Andrew Brunk

Sales Order #: 901049361

Elite #9: Ed Deussen

HALLIBURTON

Water Analysis Report

Company: WPX

Submitted by: ED DEUSSEN

Attention: J.TROUT

Lease: RG

Well #: 541-15-298

Date: 1/18/2014

Date Rec.: 1/18/2014

S.O.#: 901049361

Job Type: 9 5/8 SURFACE

Specific Gravity	<i>MAX</i>	1
pH	<i>8</i>	8
Potassium (K)	<i>5000</i>	0 Mg / L
Calcium (Ca)	<i>500</i>	250 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>	60 Deg
Total Dissolved Solids		480 Mg / L

Respectfully: ED DEUSSEN

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.

Sales Order #: 901049361	Line Item: 10	Survey Conducted Date: 1/19/2014
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Job Type (BOM): CMT MULTIPLE STAGES BOM
Customer Representative: ANDREW BRUNK		API / UWI: (leave blank if unknown) 05-103-12075
Well Name: FEDERAL RG		Well Number: 541-15-298
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	1/19/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	EDWARD DEUSSEN (HB57194)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	ANDREW BRUNK
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

CUSTOMER SIGNATURE

Sales Order #: 901049361	Line Item: 10	Survey Conducted Date: 1/19/2014
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Job Type (BOM): CMT MULTIPLE STAGES BOM
Customer Representative: ANDREW BRUNK		API / UWI: (leave blank if unknown) 05-103-12075
Well Name: FEDERAL RG		Well Number: 541-15-298
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	1/19/2014

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.	Vertical
Total Operating Time (hours) Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	9
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	5
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

Sales Order #: 901049361	Line Item: 10	Survey Conducted Date: 1/19/2014
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Job Type (BOM): CMT MULTIPLE STAGES BOM
Customer Representative: ANDREW BRUNK		API / UWI: (leave blank if unknown) 05-103-12075
Well Name: FEDERAL RG		Well Number: 541-15-298
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?	Both
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	90
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	95
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