HALLIBURTON

Cementing

WPX Energy Rocky Mountain LLC-EBUS

RU 431-7

Nabors 574

Post Job Summary
Cement Production Casing

Date Prepared: 01/09/2015
Job Date: 01/01/2015

Submitted by: Keven Nye – Grand Junction Cement Engineer

HALLIBURTON

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300721	**Ship To #:** 3356179	**Quote #:**	**Sales Order #:** 0901962414
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		**Customer Rep:** Matt Hutson	
Well Name: YOUBERG	**Well #:** RU 431-7		**API/UWI #:** 05-045-22346-00
Field: RULISON	**City (SAP):** RIFLE	**County/Parish:** GARFIELD	**State:** COLORADO
Legal Description: SE NE-7-7S-93W-2452FNL-379FEL			
Contractor:		**Rig/Platform Name/Num:** Nabors 574	
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HX23209		**Srvc Supervisor:** Carlton Kukus	

Job

Formation Name				
Formation Depth (MD)	**Top**		**Bottom**	
Form Type			**BHST**	
Job depth MD	10072ft		**Job Depth TVD**	
Water Depth			**Wk Ht Above Floor**	5ft
Perforation Depth (MD)	**From**		**To**	

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	9.001	32.3			0	1178	0	1178
Casing	3	4.5	4	11.6	8 RD	P-110	0	10072	0	10072
Open Hole Section			8.75				1178	10072	1178	10072

Tools and Accessories

Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	4.5	1		10072		**Top Plug**	4.5	1	HES
Float Shoe	4.5	1				**Bottom Plug**	4.5		HES
Float Collar	4.5	1				**SSR plug set**	4.5		HES
Insert Float	4.5					**Plug Container**	4.5	1	HES
Stage Tool	4.5					**Centralizers**	4.5		HES

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/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Fresh Water	Fresh Water	20	bbl	8.34				

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal

2	EconoCem GJ2	ECONOCEM (TM) SYSTEM	255	sack	12.7	1.66		8	8.51
8.69 Gal		FRESH WATER							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	ThermaCem GJ2	THERMACEM (TM) SYSTEM	815	sack	13.5	1.74		8	7.61
7.61 Gal		FRESH WATER							

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Fresh Water Displacement	Fresh Water Displacement	155.6	bbl	8.34				

Cement Left In Pipe	Amount	32 ft	Reason	Shoe Joint

Comment

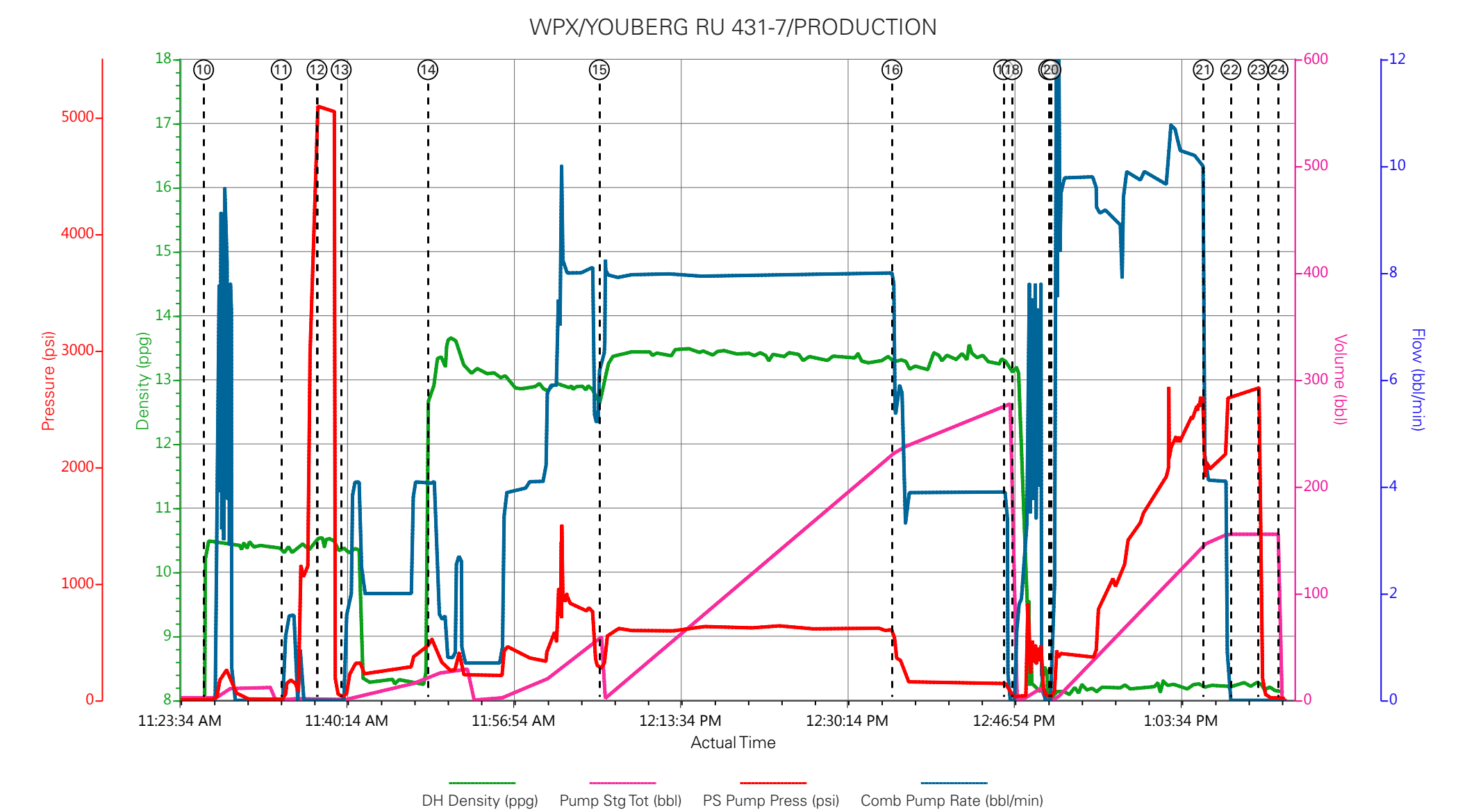
1.0 Real-Time Job Summary

1.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comb Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	1/1/2015	00:01:00	USER					HES CREW CALLED OUT
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/1/2015	02:30:00	USER					ALL HES
Event	3	Crew Leave Yard	Crew Leave Yard	1/1/2015	02:45:00	USER					1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 1-660 BULK TRUCK
Event	4	Arrive At Loc	Arrive At Loc	1/1/2015	05:00:00	USER					ALL HES
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	1/1/2015	05:15:00	USER					RIG WAS RUNNING CASING
Event	6	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/1/2015	08:00:00	USER					HES SPOTTED EQUIPMENT AND HELD SAFETY MEETING
Event	7	Rig-Up Equipment	Rig-Up Equipment	1/1/2015	08:15:00	USER					RIG UP IRON TO THE STAND PIPE AND TO THE PIT, WATER HOSES TO THE UP RIGHT AND AND RIG TANK, BULK HOSES TO BULK TRUCK AND SILO
Event	8	Rig-Up Completed	Rig-Up Completed	1/1/2015	10:00:00	USER					COMPLETED
Event	9	Pre-Job Safety Meeting	Pre-Job Safety Meeting	1/1/2015	10:40:00	USER					ALL HES AND RIG CREW
Event	10	Start Job	Start Job	1/1/2015	11:26:12	COM5					TD: 10072FT TP: 10072FT OH: 8.75 CSG: 4.5 11.6 I-80 SJ: 32.10FT SRF CSG: 1178FT 9.625 32.3# J-55 MUD WT: 10.6
Event	11	Prime Pumps	Fill Lines	1/1/2015	11:33:57	COM5	8.34	193	2	2	FILL LINES TO PRESSURE TEST
Event	12	Test Lines	Test Lines	1/1/2015	11:37:32	COM5	8.34	5104	2	0	PRESSURE TEST TO 5000 PSI, PRESSURE TEST OK
Event	13	Pump Spacer 1	Fresh Water Spacer	1/1/2015	11:39:57	COM5	8.34	441	20	4	20 BBL FRESH WATER

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comb Pump Rate (bbl/min)	Comments
											SPACER
Event	14	Pump Lead Cement	Pump Lead Cement	1/1/2015	11:48:37	COM5	12.7	806	74.4	8	255SKS OF ECONOCEM CEMENT 12.7PPG 1.66YIELD 8.51GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT LEAD CEMENT
Event	15	Pump Tail Cement	Pump Tail Cement	1/1/2015	12:05:44	COM5	13.5	630	232.6	8	815SKS OF THERMACEM CEMENT 13.5PPG 1.74YIELD 7.61GAL/SK WEIGHT OF CEMENT VERIFIED VIA MUD SCALES THROUGHOUT TAIL CEMENT
Event	16	Slow Rate	Slow Rate	1/1/2015	12:34:58	USER	13.5	440	20	4	SLOW RATE TO END ON CEMENT
Event	17	Shutdown	Shutdown	1/1/2015	12:46:07	USER	13.5		252.6	0	SHUTDOWN END OF CEMENT
Event	18	Clean Lines	Clean Lines	1/1/2015	12:46:57	USER					CLEAN LINES TO PIT
Event	19	Drop Top Plug	Drop Top Plug	1/1/2015	12:50:37	USER					PLUG AWAY NO PROBLEMS
Event	20	Pump Displacement	Pump Displacement	1/1/2015	12:50:51	COM5	8.34	2000	145.6	10	FRESH WATER DISPLACEMENT WITH KCL, MMCR AND BE-6
Event	21	Slow Rate	Slow Rate	1/1/2015	13:06:04	USER	8.34	2480	10	4	SLOW RATE TO BUMP PLUG
Event	22	Bump Plug	Bump Plug	1/1/2015	13:08:49	COM5		2035	155.6		BUMPED PLUG AT 2030 PSI TOOK TO 2600 PSI
Event	23	Check Floats	Check Floats	1/1/2015	13:11:32	USER		2600			FLOATS HELD 1.5 BBLS BACK TO TANKS
Event	24	End Job	End Job	1/1/2015	13:13:32	COM5					THERE WERE GOOD RETURNS THROUGHOUT CEMENT JOB

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density *(ppg)*	PS Pump Press *(psi)*	Pump Stg Tot *(bbl)*	Comb Pump Rate *(bbl/min)*	Comments
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/1/2015	13:31:40	USER					ALL HES
Event	26	Rig-Down Equipment	Rig-Down Equipment	1/1/2015	14:00:00	USER					WASH UP AND BLOW DOWN PUMP, RIG DOWN ALL LINES AND RACK UP
Event	27	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/1/2015	14:45:00	USER					ALL HES
Event	28	Crew Leave Location	Crew Leave Location	1/1/2015	15:00:00	USER					1-F-550 PICKUP, 1-ELITE PUMP TRUCK, 1-660 BULK TRUCK
Event	29	Other	Other	1/1/2015	15:05:00	USER					THANK YOU FOR CHOOSING HALLIBURTON CEMENT CARL KUKUS AND CREW

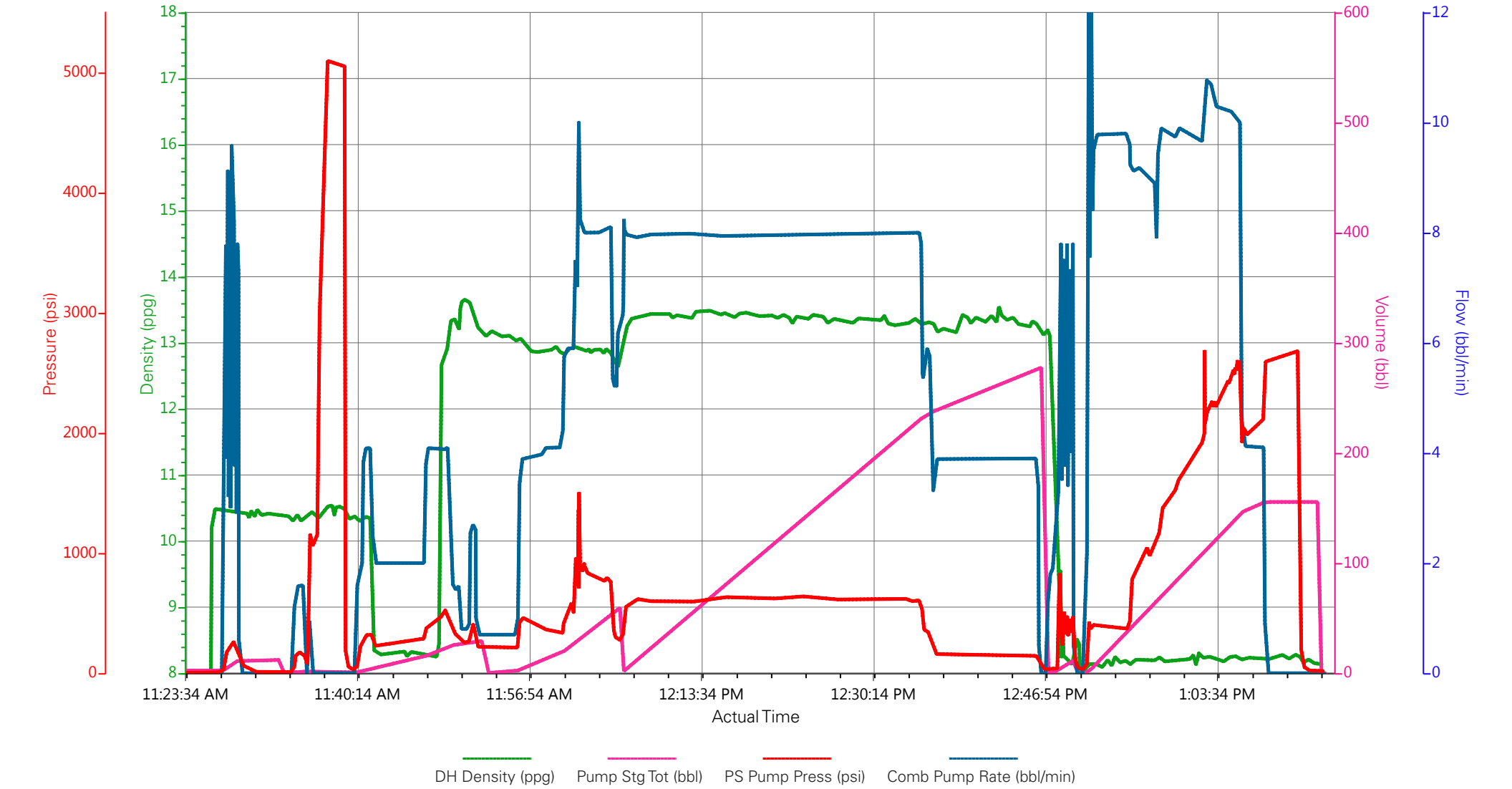


⑥ Pre-Rig Up Safety Meeting n/a;n/a;n/a;n/a
⑦ Rig-Up Equipment n/a;n/a;n/a;n/a
⑧ Rig-Up Completed n/a;n/a;n/a;n/a
⑨ Pre-Job Safety Meeting 1.82;2.4;2;0
⑩ Start Job 10.49;2.4;6;0
⑪ Fill Lines 10.3;0;21;0.5
⑫ Test Lines 10.55;1.7;5101;0
⑬ Fresh Water Spacer 10.39;0;32;0
⑭ Pump Lead Cement 12.84;22.9;524;4.1
⑮ Pump Tail Cement 12.92;0.2;280;6.3
⑯ Slow Rate 13.28;232.3;407;5.3
⑰ Shutdown 13.29;277.3;143;3.9
⑱ Clean Lines 13.26;0;28;0
⑲ Drop Top Plug 8.04;0;41;0
20 Pump Displacement 8.15;0;74;2.2
21 Slow Rate 8.2;147.1;2003;4.2
22 Bump Plug 8.23;155.5;2610;0
23 Check Floats 8.21;155.5;563;0
24 End Job 8.14;0;18;0
25 Pre-Rig Down Safety Meeting n/a;n/a;n/a;n/a
26 Rig-Down Equipme
27 Pre-Convoy Safety
28 Crew Leave Locatio
29 Other n/a;n/a;n/a;n/a

HALLIBURTON | iCem® Service

Created: 2015-01-01 08:50:59, Version: 4.0.248 Edit

Customer : WPX ENERGY ROCKY MOUNTAIN LLC-EBUS
Job Date : 1/1/2015 10:10:43 AM
Well : YOUBERG RU 431-7
Representative : Matt Hutson
Sales Order # : 901962414
Supervisor/Operator : Carlton Kukus/Andrew Schanz E-3



HALLIBURTON | iCem® Service

Created: 2015-01-01 08:50:59, Version: 4.0.248 Edit

Customer : WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date : 1/1/2015 10:10:43 AM

Well : YOUBERG RU 431-7

Representative : Matt Hutson

Sales Order # : 901962414

Supervisor/Operator : Carlton Kukus/Andrew Schanz E-3

HALLIBURTON

Water Analysis Report

Company:	WPX	**Date:**	1/1/2015
Submitted by:	Carl Kukus	**Date Rec.:**	1/1/2015
Attention:	J.Trout	**S.O.#**	901962414
Lease	YOUBERG	**Job Type:**	Production
Well #	RU 431-7		

Specific Gravity	*MAX*	1	
pH	*8*	7	
Potassium (K)	*5000*	200	Mg / L
Calcium (Ca)	*500*	120	Mg / L
Iron (FE2)	*300*	3	Mg / L
Chlorides (Cl)	*3000*	0	Mg / L
Sulfates (SO_4)	*1500*	200	Mg / L
Chlorine (Cl_2)		0	Mg / L
Temp	*40-80*	60	Deg
Total Dissolved Solids		250	Mg / L

Respectfully: Carl Kukus

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

HALLIBURTON

CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
0901962414	10	1/1/2015
Customer:		**Job Type (BOM):**
WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		CMT PRODUCTION CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
MATT HUTSON		05-045-22346-00
Well Name:		**Well Number:**
YOUBERG		0080456563
Well Type:	**Well Country:**	
DIRECTIONAL GAS	USA	
H2S Present:	**Well State:**	**Well County:**
No	COLORADO	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**	**1/1/2015**
Survey Interviewer	**The survey interviewer is the person who initiated the survey.**	**HB44726**
Customer Participation	**Did the customer partipcipate in this survey? (Y/N)**	**Yes**
Customer Representative	**Enter the Customer representative name**	**MATT HUTSON**
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**	

CUSTOMER SIGNATURE

HALLIBURTON

CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
0901962414	10	1/1/2015
Customer:		**Job Type (BOM):**
WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		CMT PRODUCTION CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
MATT HUTSON		05-045-22346-00
Well Name:		**Well Number:**
YOUBERG		0080456563
Well Type:	**Well Country:**	
DIRECTIONAL GAS	USA	
H2S Present:	**Well State:**	**Well County:**
No	COLORADO	GARFIELD

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date The date the survey was conducted	1/1/2015

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.	5
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
Pumping Hours Total number of hours pumping fluid on this job. Enter in decimal format.	2
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
Was this a Primary Cement Job (Yes / No) Primary Cement Job= Casing job, Liner job, or Tie-back job.	Yes
Number of Unplanned Shutdowns Unplanned shutdown is when injection stops for any period of time.	0
Customer Non-Productive Rig Time (hrs)	0

HALLIBURTON

CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
0901962414	10	1/1/2015
Customer:		**Job Type (BOM):**
WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		CMT PRODUCTION CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
MATT HUTSON		05-045-22346-00
Well Name:		**Well Number:**
YOUBERG		0080456563
Well Type:	**Well Country:**	
DIRECTIONAL GAS	USA	
H2S Present:	**Well State:**	**Well County:**
No	COLORADO	GARFIELD

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.	
Did We Run Wiper Plugs? Did We Run Top And Bottom Casing Wiper Plugs?	Top
If a top plug was run, was the plug bumped? (Yes/No/N/A) If a top plug was run, was the plug bumped? (Yes/No/N/A)	Yes
If applicable, was Halliburton float equipment used? (Yes/No/N/A) If applicable, was Halliburton float equipment used? (Yes/No/N/A)	N/A
If applicable, did the floats hold? (Yes/No/N/A) If applicable, did the floats hold? (Yes/No/N/A)	Yes
Mixing Density of Job Stayed in Designed Density Range (0-100%) Density Range defined as +/- .20 ppg. Calculation: Total BBLs cment mixed at designed density divided by total BBLs of cement multiplied by 100	90
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	8
If applicable, were there returns throughout the job? (Yes/No/N/A) If applicable, were there returns throughout the job? (Yes/No/N/A)	YES
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