

WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

PA 41-27

Nabors 576

Post Job Summary

Cement Production Casing

Date Prepared: 12/08/2014
Job Date: 11/26/2014

Submitted by: Aaron Katz – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3207609	Quote #:	Sales Order #: 0901863136
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep:	
Well Name: FEDERAL	Well #: PA 41-27	API/UWI #: 05-045-22239-00	
Field: PARACHUTE	City (SAP): RIFLE	County/Parish: GARFIELD	State: COLORADO
Legal Description: 27-6S-95W-2367FNL-648FEL			
Contractor: NABORS DRLG		Rig/Platform Name/Num: NABORS 576	
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB50180		Srvc Supervisor: Dustin Hyde	

Job

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	8711ft Job Depth TVD
Water Depth	Wk Ht Above Floor
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	2790		0
Casing		4.5	4	11.6			0	8711		0
Open Hole Section			8.75				2790	8721	0	0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	4.5	1		8711	Top Plug	4.5	1	HES
Float Shoe	4.5	1			Bottom Plug			
Float Collar	4.5	1			SSR plug set			
Insert Float	4.5	1			Plug Container	4.5	1	HES
Stage Tool	4.5	1			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 /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Fresh Water	Fresh Water	20	bbl	8.34			4	

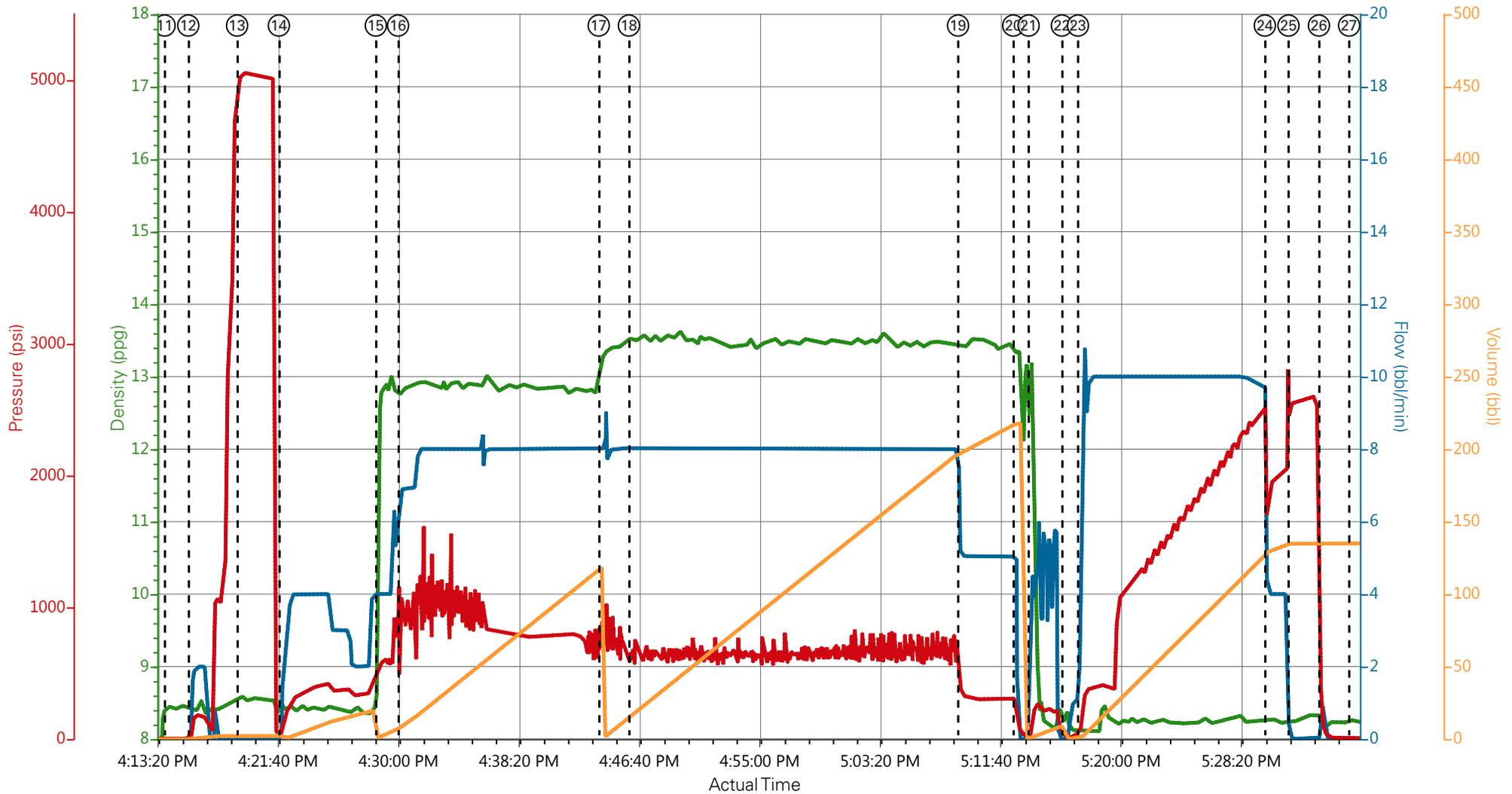
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
2	EconoCem GJ2	ECONOCEM (TM) SYSTEM	395	sack	12.7	1.66		8	8.51	
8.51 Gal		FRESH WATER								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
3	ThermaCem GJ2	THERMACEM (TM) SYSTEM	670	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/mi n	Total Mix Fluid Gal	
4	KCL Water Displacement	KCL Water Displacement	134.6	bbl	8.34			10		
Cement Left In Pipe		Amount	29 ft		Reason			Shoe Joint		
Comment										

3.5 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	11/26/2014	05:00:00	USER					ON LOCATION TO BE AT 11:00
Event	2	Pre-Convoy Safety Meeting	11/26/2014	08:45:00	USER					
Event	3	Crew Leave Yard	11/26/2014	09:00:00	USER					1 HT 400 PUMP TRUCK E 4, 1 660 BULK TRUCK, 1 550 PUMP TRUCK
Event	4	Arrive At Loc	11/26/2014	11:00:00	USER					RIG RUNNING CASING UPON HES ARRIVAL
Event	5	Assessment Of Location Safety Meeting	11/26/2014	11:30:00	USER					PERFORMED JSA AND WATER ANALYSIS
Event	6	Spot Equipment	11/26/2014	14:00:00	USER					
Event	7	Pre-Rig Up Safety Meeting	11/26/2014	14:30:00	USER					
Event	8	Rig-Up Equipment	11/26/2014	14:45:00	USER					1 SILO, 1 660 BULK TRUCK, 1 HT 400 PUMP TRUCK
Event	9	Rig-Up Completed	11/26/2014	15:55:00	USER					
Event	10	Pre-Job Safety Meeting	11/26/2014	16:00:00	USER					WF/WT 11.8, PV 21, YP 15
Event	11	Start Job	11/26/2014	16:14:00	COM8					TD 8721' OF 8 3/4" OH, TP 8711' 4 1/2" CSG 11.6# P-110, SJ 29.45', SURFACE CSG 9 5/8" 32.3# J-55 SET AT 2790'
Event	12	Prime Lines	11/26/2014	16:15:38	USER	8.33	2.0	190	2	FRESH WATER
Event	13	Test Lines	11/26/2014	16:19:01	COM8			5058		PRESSURE HELD AT 5058 PSI FALLING 1 PSI EVERY 3-4 SECONDS
Event	14	Pump H2O Spacer	11/26/2014	16:21:54	COM8	8.33	4.0	497	20	FRESH WATER
Event	15	Pump Lead Cement	11/26/2014	16:28:37	COM8	12.7	8.0	780	117	395 SKS OF ECONOCEM, 12.7 PPG, 1.66 YIELD, 8.51 GAL/SK
Event	16	Check weight	11/26/2014	16:30:09	COM8					
Event	17	Pump Tail Cement	11/26/2014	16:44:03	COM8	13.5	8.0	680	208	670 SKS OF THERMACEM, 13.5 PPG, 1.74 YIELD, 7.61 GAL/SK

Type	Seq. No.	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	18	Check weight	11/26/2014	16:46:08	COM8					
Event	19	Slow Rate	11/26/2014	17:08:55	USER					SLOWED TO KEEP GOOD DENSITY WHEN ENDING SILO
Event	20	Shutdown	11/26/2014	17:12:45	USER					
Event	21	Clean Lines	11/26/2014	17:13:48	COM8					USED 9 BBLS
Event	22	Drop Top Plug	11/26/2014	17:16:06	COM8					VERIFIED BY TATTLE TAIL AND DRILLER
Event	23	Pump Displacement	11/26/2014	17:17:13	COM8	8.33	10.0	2474	125	1 GAL MMCT IN FIRST 10 BBLS, 1 BAG BE-6 IN FIRST 30 BBLS, 1 BAG KCL IN EVERY 10 BBLS
Event	24	Slow Rate	11/26/2014	17:30:09	USER	8.33	4.0	2500	10	
Event	25	Bump Plug	11/26/2014	17:31:48	COM8	8.33	4.0	2560	135	PLUG BUMPED
Event	26	Check Floats	11/26/2014	17:33:54	USER			2590		FLOATS HELD 1.5 BBL FLOW BACK
Event	27	End Job	11/26/2014	17:36:00	COM8					
Event	28	Post-Job Safety Meeting (Pre Rig-Down)	11/26/2014	17:45:00	USER					
Event	29	Rig-Down Equipment	11/26/2014	18:00:00	USER					
Event	30	Rig-Down Completed	11/26/2014	19:00:00	USER					
Event	31	Pre-Convoy Safety Meeting	11/26/2014	19:30:00	USER					NO INJURIES TO REPORT
Event	32	Crew Leave Location	11/26/2014	20:00:00	USER					THANK YOU FOR USING HALLIBURTON CEMENT

WPX PA 41-27 4 1/2" NABORS 576 PRODUCTION



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

- | | | | | | | |
|-----------------------------|---|--------------------------|--------------------|--------------------|----------------------|-------------------------|
| ① Call Out | ⑤ Assessment Of Location Safety Meeting | ⑨ Rig-Up Completed | ⑬ Test Lines | ⑰ Pump Tail Cement | 21 Clean Lines | 25 Bump Plug |
| ② Pre-Convoy Safety Meeting | ⑥ Spot Equipment | ⑩ Pre-Job Safety Meeting | ⑭ Pump H2O Spacer | ⑱ Check weight | 22 Drop Top Plug | 26 Check Floats |
| ③ Crew Leave Yard | ⑦ Pre-Rig Up Safety Meeting | ⑪ Start Job | ⑮ Pump Lead Cement | ⑲ Slow Rate | 23 Pump Displacement | 27 End Job |
| ④ Arrive At Loc | ⑧ Rig-Up Equipment | ⑫ Prime Lines | ⑯ Check weight | 20 Shutdown | 24 Slow Rate | 28 Post-Job Safety Meet |

HALLIBURTON | iCem® Service

Created: 2014-11-26 13:34:16, Version: 4.0.248

Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

Job Date: 11/26/2014

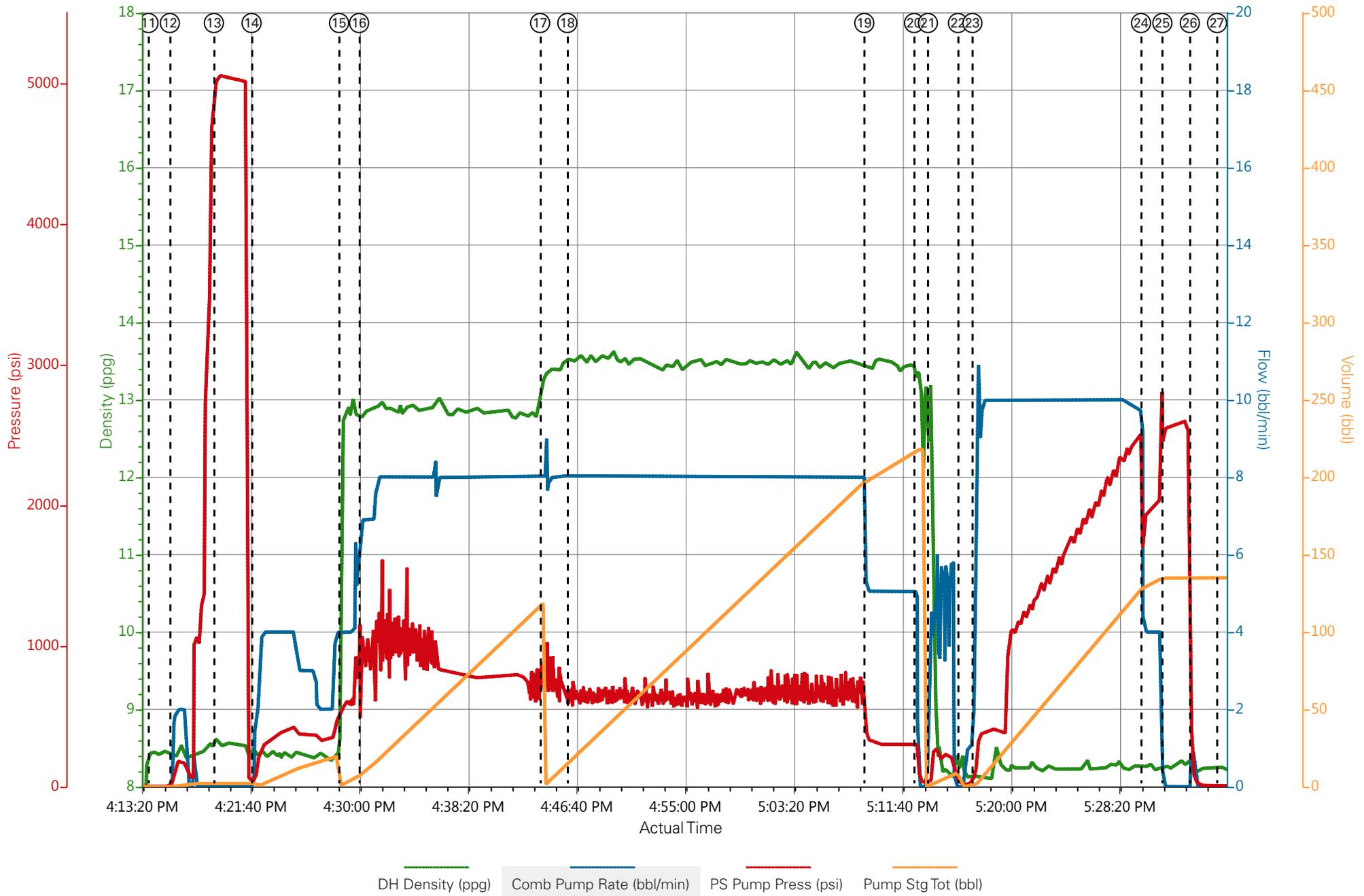
Well: PA 41-27

Representative: Al Hartl

Sales Order #: 901863136

Elite # 4: Dustin Hyde / Roger Laulainen

WPX PA 41-27 4 1/2" NABORS 576 PRODUCTION



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

HALLIBURTON

Water Analysis Report

Company: WPX
Submitted by: Dustin Hyde
Attention: J.TROUT
Lease: PA
Well #: 41-27

Date: 11/26/2014
Date Rec.: 11/26/2014
S.O.#: 901863136
Job Type: PRODUCTION

Specific Gravity	<i>MAX</i>	1
pH	<i>8</i>	8
Potassium (K)	<i>5000</i>	700 Mg / L
Calcium (Ca)	<i>500</i>	425 Mg / L
Iron (FE2)	<i>300</i>	3 Mg / L
Chlorides (Cl)	<i>3000</i>	500 Mg / L
Sulfates (SO ₄)	<i>1500</i>	<200 Mg / L
Temp	<i>40-80</i>	65 Deg
Total Dissolved Solids		500 Mg / L

Respectfully: Dustin Hyde

Title: Cement 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

Sales Order #: 0901863136	Line Item: 10	Survey Conducted Date: 11/27/2014
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Job Type (BOM): CMT PRODUCTION CASING BOM
Customer Representative: AL HARTL		API / UWI: (leave blank if unknown) 05-045-22239-00
Well Name: FEDERAL		Well Number: 0080244870
Well Type: DIRECTIONAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: 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	11/27/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB43597
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	AL HARTL
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

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KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	11/27/2014
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)	4
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?	
Pumping Hours	1.5
Total number of hours pumping fluid on this job. Enter in decimal format.	
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	
Was this a Primary Cement Job (Yes / No)	Yes
Primary Cement Job= Casing job, Liner job, or Tie-back job.	
Number of Unplanned Shutdowns	0
Unplanned shutdown is when injection stops for any period of time.	
Customer Non-Productive Rig Time (hrs)	0

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Well Type: DIRECTIONAL GAS	Well Country: USA	
H2S Present: No	Well State: COLORADO	Well County: 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.	
Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment? Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment?	No
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)	Not Available
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 cement mixed at designed density divided by total BBLs of cement multiplied by 100	99
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
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