

WPX Energy Rocky Mountain LLC - EBUS

GM 322-28

**H&P 318**

# **Post Job Summary**

## **Cement Production Casing**

Date Prepared: 2/25/2015

Job Date: 2/10/2015

Submitted by: Patrick Ealey – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3205578	Quote #:	Sales Order #: 0902120687
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep: HARRY SAMSON	
Well Name: GM	Well #: 322-28	API/UWI #: 05-045-22501-00	
Field: GRAND VALLEY	City (SAP): PARACHUTE	County/Parish: GARFIELD	State: COLORADO
Legal Description: 28-6S-96W-1296FNL-1060FWL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 318	
Job BOM: 7523			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB50180		Srvc Supervisor: Kyle Bath	
<b>Job</b>			

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	7474ft 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	8.921	36			0	1347		
Casing		4.5	4	11.6			0	7474		
Open Hole Section			8.75				1332	7490		

Tools and Accessories									
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Guide Shoe	4.5			7474		Top Plug	4.5	1	HES
Float Shoe	4.5					Bottom Plug	4.5		HES
Float Collar	4.5					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	Mud Flush III (Powder)	Mud Flush III	20	bbl	8.4					
42 gal/bbl		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	
2	VariCem GJ3	VARICEM (TM) CEMENT	365	sack	13.7	1.42		3	6.61	
6.64 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	VariCem GJ3	VARICEM (TM) CEMENT	720	sack	14.2	1.3		3	5.71	
5.74 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	Displacement	Displacement	115	bbl	8.34					
<b>Cement Left In Pipe</b>		<b>Amount</b>	29ft		<b>Reason</b>			Shoe Joint		
<b>Comment</b>										

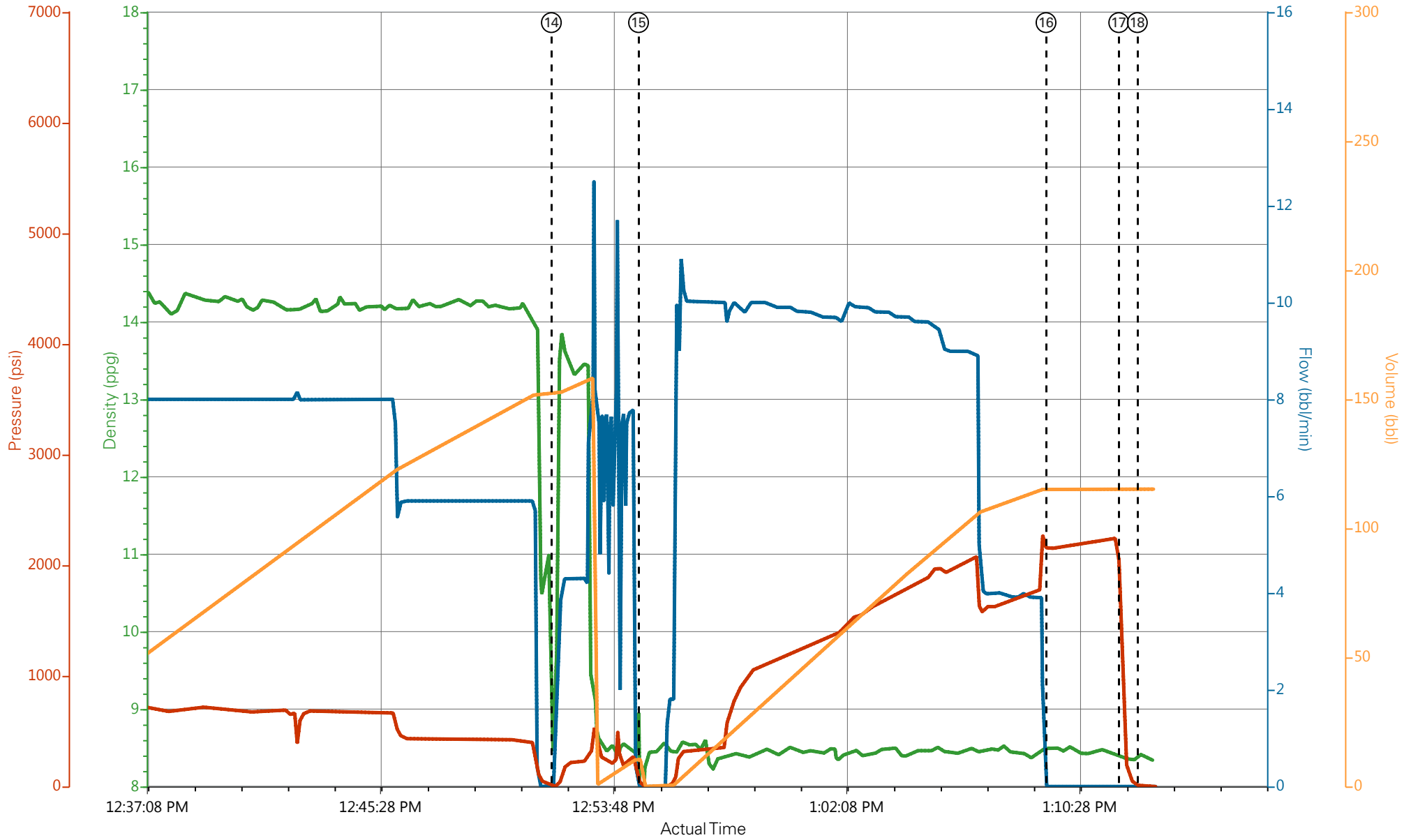
## 1.0 Real-Time Job Summary

### 1.1 Job Event Log

Type	Seq. No.	Activity	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	2/10/2015	03:30:00	USER					
Event	2	Pre Convoy Safety Meeting	2/10/2015	04:45:00	USER					
Event	3	Depart Yard For Location	2/10/2015	05:00:00	USER					
Event	4	Arrive On Location	2/10/2015	07:00:00	USER					RIG RUNNING CASING UPON HES ARRIVAL
Event	5	Site Assesment Safety Meeting	2/10/2015	09:00:00	USER					
Event	6	Pre Rig Up Safety Meeting	2/10/2015	09:15:00	USER					
Event	7	Rig Up Complete	2/10/2015	10:30:00	USER					
Event	8	Pre Job Safety Meeting	2/10/2015	11:30:00	USER					
Event	9	Start Job	2/10/2015	12:01:46	COM3					TD 7490, TP 7474.63, SJ 29.63, CSG 4.5" 11.6# I-80, PREV CSG 9.625" 36# J-55, HOLE 8.75", MUD 11.3#
Event	10	Test Lines	2/10/2015	12:04:49	COM3					TEST LINES TO 5080 PSI
Event	11	Pump Mud Flush Spacer	2/10/2015	12:09:51	COM3	8.4	4	410	20	PUMP 20 BBLS MUD FLUSH SPACER
Event	12	Pump Lead Cement	2/10/2015	12:15:13	COM3	13.7	8	1020	92.3	MIX AND PUMP 365 SKS AT 13.7 PPG, 1.42 FT3/FT, 6.61 GAL/SK
Event	13	Pump Tail Cement	2/10/2015	12:29:57	COM3	14.2	8	700	166.7	MIX AND PUMP 720 SKS AT 14.2 PPG, 1.3 FT3/FT, 5.71 GAL/SK

Event	14	Clean Lines	2/10/2015	12:51:41	COM3					WASH PUMPS AND LINES TO PIT
Event	15	Pump Displacement	2/10/2015	12:54:48	COM3	8.4	10	1450	115.4	PUMP 115.4 BBLS KCL DISPLACEMENT
Event	16	Bump Plug	2/10/2015	13:09:22	COM3					BUMPED PLUG AT 1780 PSI TOOK TO 2160 PSI
Event	17	Check Floats	2/10/2015	13:11:58	COM3					FLOATS HELD, TOOK 1 BBL BACK TO TRUCK
Event	18	End Job	2/10/2015	13:12:38	COM3					GOOD CIRCULATION THROUGHOUT JOB
Event	19	Pre Rig Down Safety Meeting	2/10/2015	13:20:00	USER					
Event	20	Rig Down Complete	2/10/2015	14:00:00	USER					
Event	21	Pre Convoy Safety Meeting	2/10/2015	14:15:00	USER					
Event	22	Crew Depart Location	2/10/2015	14:30:00	USER					THANK YOU FOR USING HALLIBURTON, KYLE BATH AND CREW

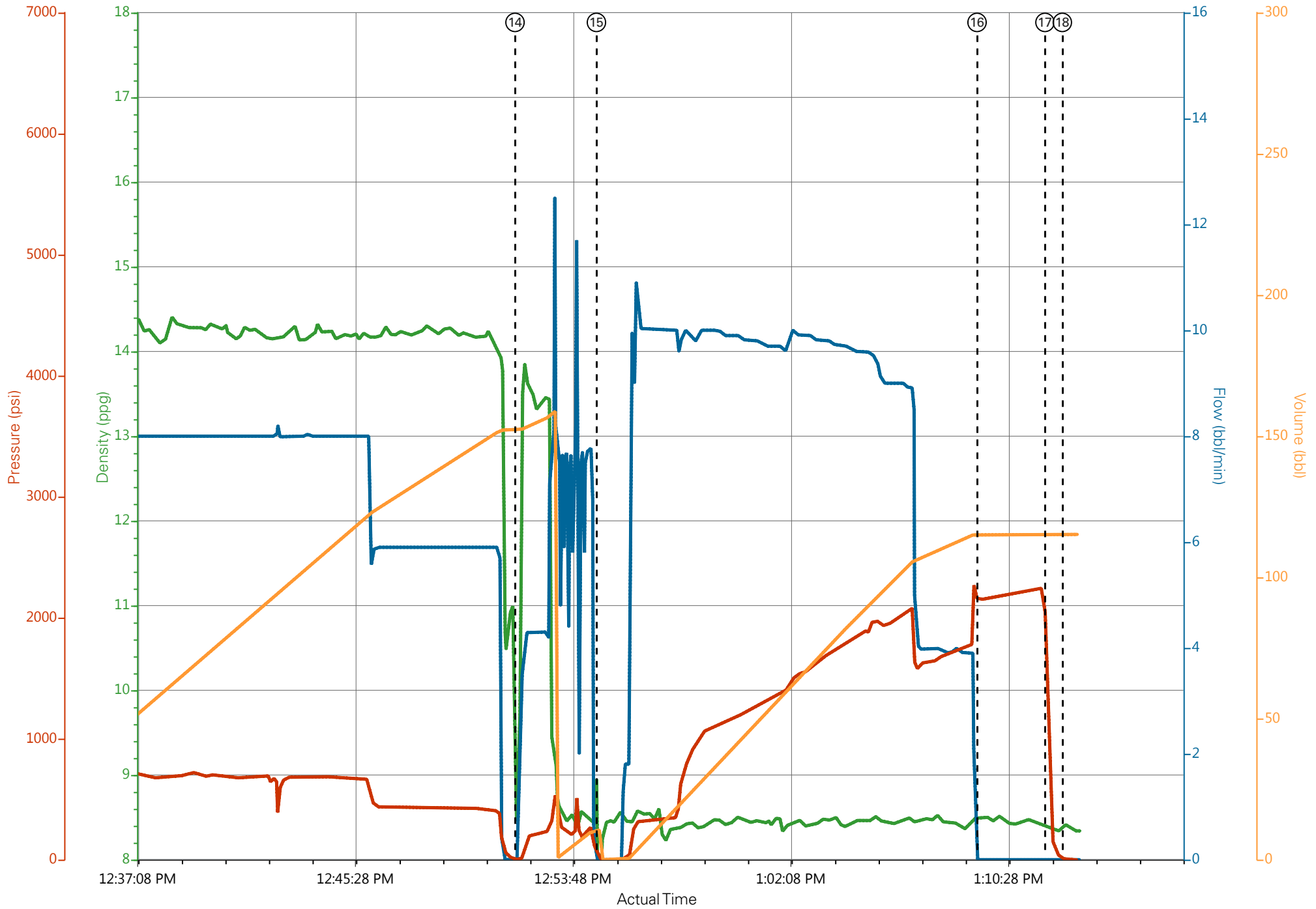
# WPX ~ GM 322-28 ~ PRODUCTION CASING



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

- |   |   |                                     |                                 |   |
|---|---|-------------------------------------|---------------------------------|---|
| ① Call Out n/a;n/a;n/a;n/a                  | ⑤ Site Assesment Safety Meeting n/a;n/a;n/a;n/a | ⑨ Start Job 8.34;0;2;0              | ⑬ Pump Tail Cement 14;1.8;118;0 | ⑰ Check Floats 8.38;0;1269;115.2              |
| ② Pre Convoy Safety Meeting n/a;n/a;n/a;n/a | ⑥ Pre Rig Up Safety Meeting n/a;n/a;n/a;n/a     | ⑩ Test Lines 8.31;0;72;3            | ⑭ Clean Lines 9.15;0;0;152.2    | ⑱ End Job 8.41;0;3;115.2                      |
| ③ Depart Yard For Location n/a;n/a;n/a;n/a  | ⑦ Rig Up Complete 8.2;7.7;196;4.2               | ⑪ Pump Mud Flush Spacer 8.38;0;71;0 | ⑮ Pump Displacement 7.1;0;13;0  | ⑲ Pre Rig Down Safety Meeting n/a;n/a;n/a;n/a |
| ④ Arrive On Location n/a;n/a;n/a;n/a        | ⑧ Pre Job Safety Meeting 8.31;0;4;0             | ⑫ Pump Lead Cement 8.33;4;510;0.1   | ⑯ Bump Plug 8.46;0;2146;115.2   | ⑳ Rig Down Complete n/a;n/a;n/a;n/a           |

# WPX ~ GM 322-28 ~ PRODUCTION CASING



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

# HALLIBURTON

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## Water Analysis Report

Company: WPX  
Submitted by: KYLE BATH  
Attention: DALLAS SCOTT  
Lease: GM  
Well #: 322-28

Date: 2/10/2015  
Date Rec.: 2/10/2015  
S.O.#: 902120687  
Job Type: PRODUCTION

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</b>
Potassium (K)	<i>5000</i>	<b>220</b> Mg / L
Hrdness	<i>500</i>	<b>0</b> Mg / L
Iron (FE2)	<i>300</i>	<b>200</b> Mg / L
Chlorides (Cl)	<i>3000</i>	<b>0</b> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>&lt;200</b> Mg / L
Temp	<i>40-80</i>	<b>60</b> Deg
Total Dissolved Solids		<b>380</b> Mg / L

Respectfully: KYLE BATH

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 its

<b>Sales Order #:</b> 0902120687	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 2/10/2015
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b> HARRY SAMSON		<b>API / UWI: (leave blank if unknown)</b> 05-045-22501-00
<b>Well Name:</b> GM		<b>Well Number:</b> 0080241783
<b>Well Type:</b> DIRECTIONAL GAS	<b>Well Country:</b> USA	
<b>H2S Present:</b> No	<b>Well State:</b> COLORADO	<b>Well County:</b> 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	2/10/2015
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB49384
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	HARRY SAMSON
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	

<b>CUSTOMER SIGNATURE</b>
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### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	2/10/2015
The date the survey was conducted	

Cementing KPI Survey	
<b>Type of Job</b>	0
Select the type of job. (Cementing or Non-Cementing)	
<b>Select the Maximum Deviation range for this Job</b>	Deviated
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
<b>Total Operating Time (hours)</b>	4
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
<b>HSE Incident, Accident, Injury</b>	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
<b>Was the job purpose achieved?</b>	Yes
Was the job delivered correctly as per customer agreed design?	
<b>Pumping Hours</b>	2
Total number of hours pumping fluid on this job. Enter in decimal format.	
<b>Type of Rig Classification Job Was Performed</b>	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
<b>Number Of JSAs Performed</b>	5
Number Of Jsas Performed	
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes
Primary Cement Job= Casing job, Liner job, or Tie-back job.	
<b>Number of Unplanned Shutdowns</b>	0
Unplanned shutdown is when injection stops for any period of time.	
<b>Customer Non-Productive Rig Time (hrs)</b>	0

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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.	
<b>Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment?</b> Was the non productive time or the unplanned shutdown caused by a problem with a piece of equipment?	No
<b>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Top
<b>If a top plug was run, was the plug bumped? (Yes/No/N/A)</b> If a top plug was run, was the plug bumped? (Yes/No/N/A)	Yes
<b>If applicable, was Halliburton float equipment used? (Yes/No/N/A)</b> If applicable, was Halliburton float equipment used? (Yes/No/N/A)	Not Available
<b>If applicable, did the floats hold? (Yes/No/N/A)</b> If applicable, did the floats hold? (Yes/No/N/A)	Yes
<b>Mixing Density of Job Stayed in Designed Density Range (0-100%)</b> Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	98
<b>Pump Rate (percent) of Job Stayed At Designed Pump Rate</b> 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
<b>If applicable, were there returns throughout the job? (Yes/No/N/A)</b> If applicable, were there returns throughout the job? (Yes/No/N/A)	Yes
<b>Nbr of Remedial Plug Jobs Rqd - HES</b> Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
<b>Nbr of Remedial Sqz Jobs Rqd - HES</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0