

WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

NER 513-32

**Nabors 576**

## **Post Job Summary**

# **Cement Surface Casing**

Date Prepared: 05/31/2014

Job Date: 05/27/2014

Submitted by: Aaron Katz – Grand Junction Cement Engineer

The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 3123439	Quote #:	Sales Order #: 0901375084
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		Customer Rep: Rick Oaks	
Well Name: FEDERAL	Well #: NER 513-32	API/UWI #: 05-045-21765-00	
Field: RULISON	City (SAP): RIFLE	County/Parish: GARFIELD	State: COLORADO
Legal Description: 5-7S-93W-149FNL-2582FWL			
Contractor: NABORS DRLG		Rig/Platform Name/Num: NABORS 576	
Job BOM: 7521			
Well Type: DIRECTIONAL GAS			
Sales Person: HALAMERICA\HB50180		Srvc Supervisor: Edward Deussen	

### Job

Formation Name	
Formation Depth (MD)	Top Bottom
Form Type	BHST
Job depth MD	1175.79ft 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	8 RD	H-40	0	1175.79	0	0
Open Hole Section			13.5				0	1175.79		0

### Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe				1175.79	Top Plug	9.625	1	HES
Float Shoe					Bottom Plug			
Float Collar					SSR plug set			
Insert Float					Plug Container	9.625	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 lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	Fresh Water	Fresh Water	20	bbl	8.34			2.0		
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	Lead Cement	VARICEM (TM) CEMENT	135	sack	12.3	2.38		7.0	13.77	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
3	Tail Cement	VARICEM (TM) CEMENT	175	sack	12.8	2.11		7.0	11.77	
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal	
4	Displacement	Displacement	89.3	bbl	8.34			10.0		
<b>Cement Left In Pipe</b>		<b>Amount</b>	41.11 ft		<b>Reason</b>			Shoe Joint		
<b>Comment</b>										

3.1 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)	Comment
Event	1	Start Job	5/27/2014	16:42:02	COM5					O/L 1430 - TP 1180', TP 1175.79', SJ 41.11', Mud 9.4 ppg, 13 1/2" OH, 9 5/8" 32.3# csg
Event	2	Prime Lines	5/27/2014	16:42:55	USER	8.27	2.0	75	2.0	
Event	3	Test Lines	5/27/2014	16:45:52	COM5			2992		Pressure held well
Event	4	Pump H2O Spacer	5/27/2014	16:48:06	COM5	8.33	2.0	51	20.0	Fresh Water
Event	5	Pump Lead Cement	5/27/2014	16:58:29	COM5	12.3	7.0	230	57.2	135 sks, 12.3 ppg, 2.38 yield, 13.77 gal/sk
Event	6	Pump Tail Cement	5/27/2014	17:07:43	COM5	12.8	7.0	235	65.8	175 sks, 12.8 ppg, 2.11 yield, 11.77 gal/sk
Event	7	Shutdown	5/27/2014	17:18:02	USER					Wash up on top of plug
Event	8	Drop Top Plug	5/27/2014	17:21:47	USER					
Event	9	Pump Displacement	5/27/2014	17:22:52	COM5	8.35	10.0	511	89.3	Fresh Water
Event	10	Slow Rate	5/27/2014	17:32:44	USER	8.38	2.0	241	10.0	30 bbls cement to surface
Event	11	Bump Plug	5/27/2014	17:36:49	COM5			271		
Event	12	Check Floats	5/27/2014	17:38:48	USER			785		Floats did not hold
Event	13	Check Floats	5/27/2014	17:41:39	USER			988		Floats did not hold
Event	14	Shut In Well	5/27/2014	17:45:34	USER			811		Pressure up/Shut in well at cement head
Event	15	End Job	5/27/2014	17:47:00	USER					40 lbs sugar used

# HALLIBURTON

## Water Analysis Report

Company: WPX  
Submitted by: ED DEUSSEN  
Attention: J.TROUT  
Lease: NER  
Well #: 513-32

Date: 5/27/2014  
Date Rec.: 5/27/2014  
S.O.#: 901375984  
Job Type: 9 5/8" Surface

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</b>
Potassium (K)	<i>5000</i>	<b>0</b> Mg / L
Calcium (Ca)	<i>500</i>	<b>212050</b> Mg / L
Iron (FE2)	<i>300</i>	<b>0</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>64</b> Deg
Total Dissolved Solids		<b>170</b> Mg / L

Respectfully: ED DEUSSEN

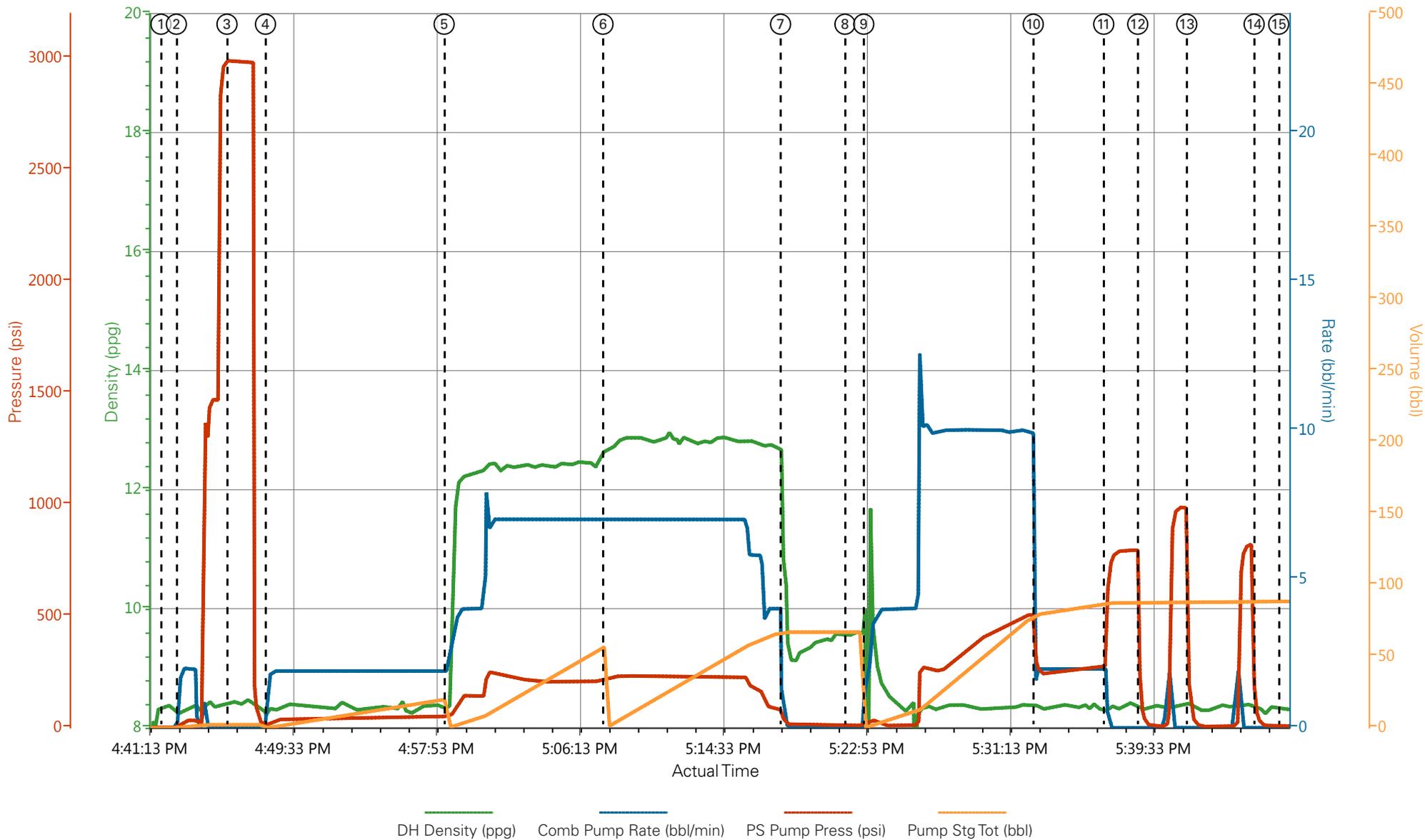
Title: CEMENTING SUPERVISOR

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 or

# WPX - NER 513-32 - 9 5/8" SURFACE



① Start Job 8.33;0;1;0	④ Pump H2O Spacer 8.33;1.8;16;0.1	⑦ Shutdown 10.67;0.5;35;66.9	⑩ Slow Rate 8.38;1.9;285;79.2	⑬ Check Floats 8.38;0;114;87.9
② Prime Lines 8.27;1.2;5;0.1	⑤ Pump Lead Cement 8.36;1.9;51;0	⑧ Drop Top Plug 9.55;0;10;66.9	⑪ Bump Plug 8.29;0.5;543;87.3	⑭ Shut In Well 8.32;0;52;88.5
③ Test Lines 8.41;0;2991;2.1	⑥ Pump Tail Cement 12.73;7;220;0.1	⑨ Pump Displacement 0.05;1.8;15;0.3	⑫ Check Floats 8.33;0;115;87.3	⑮ End Job 8.29;0;5;88.5

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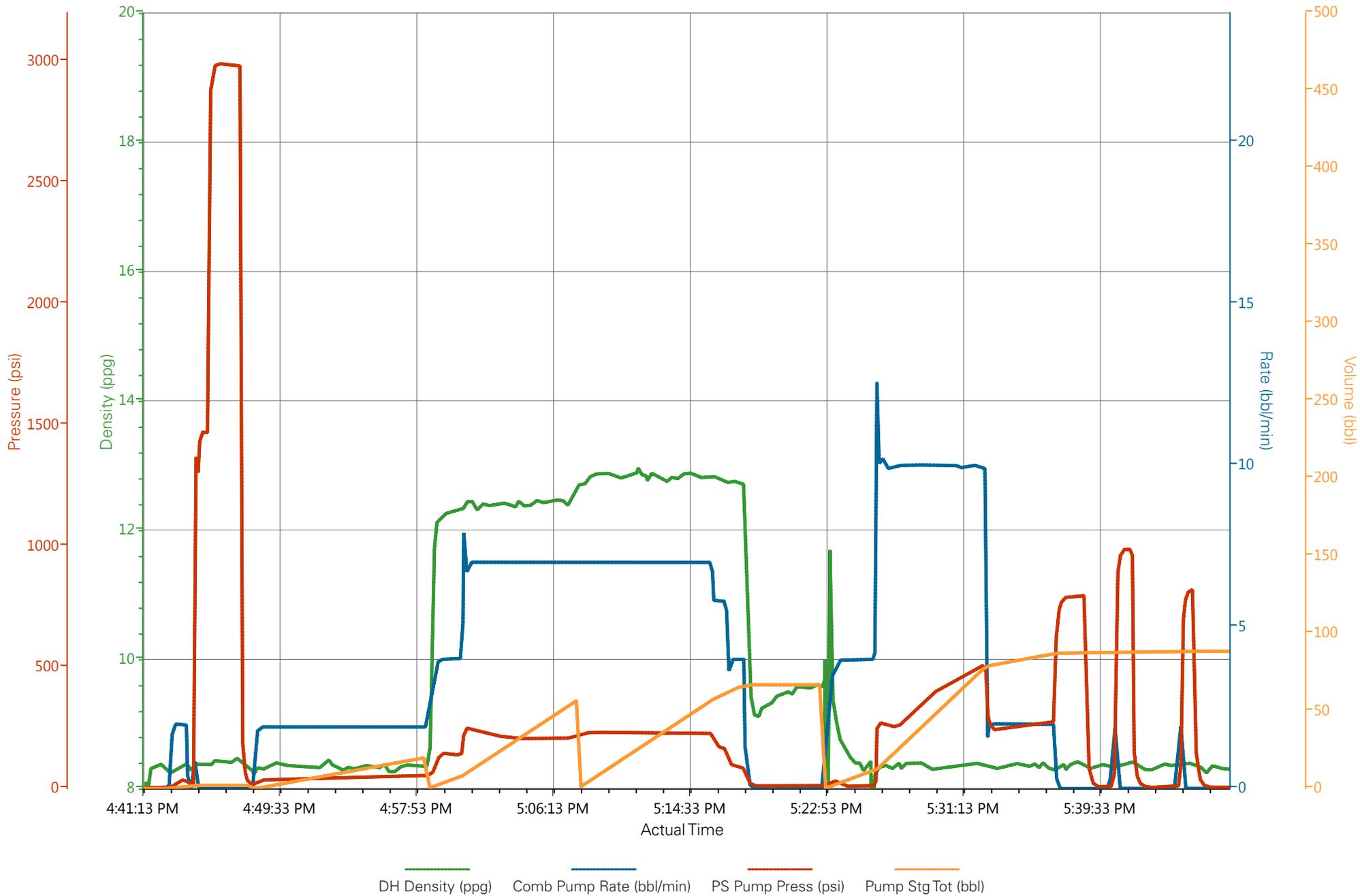
Created: 2014-05-27 14:11:57, Version: 3.0.121 Edit

Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS  
 Representative: Rick Oaks

Job Date: 5/27/2014 3:31:46 PM  
 Sales Order #: 901375084

Well: NER 513-32  
 Elite #2: Ed Deussen / Robert McIntosh

# WPX - NER 513-32 - 9 5/8" SURFACE



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

<b>Sales Order #:</b> 0901375084	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/27/2014
<b>Customer:</b> WPX ENERGY ROCKY MOUNTAIN LLC-EBUS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> RICK OAKS		<b>API / UWI: (leave blank if unknown)</b> 05-045-21765-00
<b>Well Name:</b> FEDERAL		<b>Well Number:</b> 0080125485
<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	5/27/2014
Survey Interviewer	The survey interviewer is the person who initiated the survey.	HB57194
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	RICK OAKS
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>	5/27/2014
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>	Vertical
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>Operating Hours (Pumping Hours)</b>	2
Total number of hours pumping fluid on this job. Enter in decimal format.	
<b>Customer Non-Productive Rig Time (hrs)</b>	0
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>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>Number of Unplanned Shutdowns</b>	0
Unplanned shutdown is when injection stops for any period of time.	
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes

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<b>H2S Present:</b> No	<b>Well State:</b> COLORADO	<b>Well County:</b> GARFIELD

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
<b>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Top
<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>Was Automated Density Control Used?</b> Was Automated Density Control (ADC) Used ?	Yes
<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>Nbr of Remedial Sqz Jobs Rqd - Competition</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
<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