
WPX ENERGY ROCKY MOUNTAIN LLC-EBUS

**PA 434-2
Parachute
Garfield County , Colorado**

Squeeze Perfs
17-May-2013

Post Job Report

The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 2967987	Quote #:	Sales Order #: 900447001
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS	Customer Rep:		
Well Name: PA	Well #: 434-2	API/UWI #: 05-045-20882	
Field: Parachute	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado
Lat: N 39.466 deg. OR N 39 deg. 27 min. 57.352 secs.	Long: W 107.954 deg. OR W -108 deg. 2 min. 45.236 secs.		
Contractor: WORKOVER	Rig/Platform Name/Num: Workover		
Job Purpose: Squeeze Perfs			
Well Type: Development Well	Job Type: Squeeze Perfs		
Sales Person: MAYO, MARK	Srv Supervisor: CARTER, ERIC	MBU ID Emp #: 345598	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ARNOLD, EDWARD John	0.0	439784	BERGESON, RYAN Jesse	0.0	544406	BLANCHETTE, JAMES George	0.0	371360
CARTER, ERIC Earl	0.0	345598	SALAZAR, PAUL Omar	0.0	445614	SPARKS, CLIFFORD Paul	0.0	502476

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10616651C	60 mile	10784064	60 mile	11006314	60 mile	11021972	60 mile
11027039	60 mile	11259882	60 mile	11808827	60 mile		

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours

TOTAL	Total is the sum of each column separately							
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Job

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	17 - May - 2013	00:30	MST
Form Type		BHST	Job Started	17 - May - 2013	06:30	MST
Job depth MD	6671. ft	Job Depth TVD	Job Completed	17 - May - 2013	08:56	MST
Water Depth		Wk Ht Above Floor	Departed Loc	17 - May - 2013	10:42	MST
Perforation Depth (MD)	From	To		17 - May - 2013	13:00	MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
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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			
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

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
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Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
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Stage/Plug #: 1										
1	Injection Test		7.00	bbl	.	.0	.0	.0		
2	MUD FLUSH III	MUD FLUSH III - SBM (528788)	20.00	bbl	8.4	.0	.0	.0		
3	Squeeze Lead Cement	SQUEEZECEM (TM) SYSTEM (452971)	430.0	sacks	15.8	1.15	4.98			4.98
	4.98 Gal	FRESH WATER								
4	SqueezeCem Tail Cement	SQUEEZECEM (TM) SYSTEM (452971)	50.0	sacks	17.	.99	3.74			3.74
	3.74 Gal	FRESH WATER								
5	Displacement		25.00	bbl	.	.0	.0	.0		
Calculated Values		Pressures		Volumes						
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad		
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment		
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job		
Rates										
Circulating		Mixing		Displacement		Avg. Job				
Cement Left In Pipe	Amount	0 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

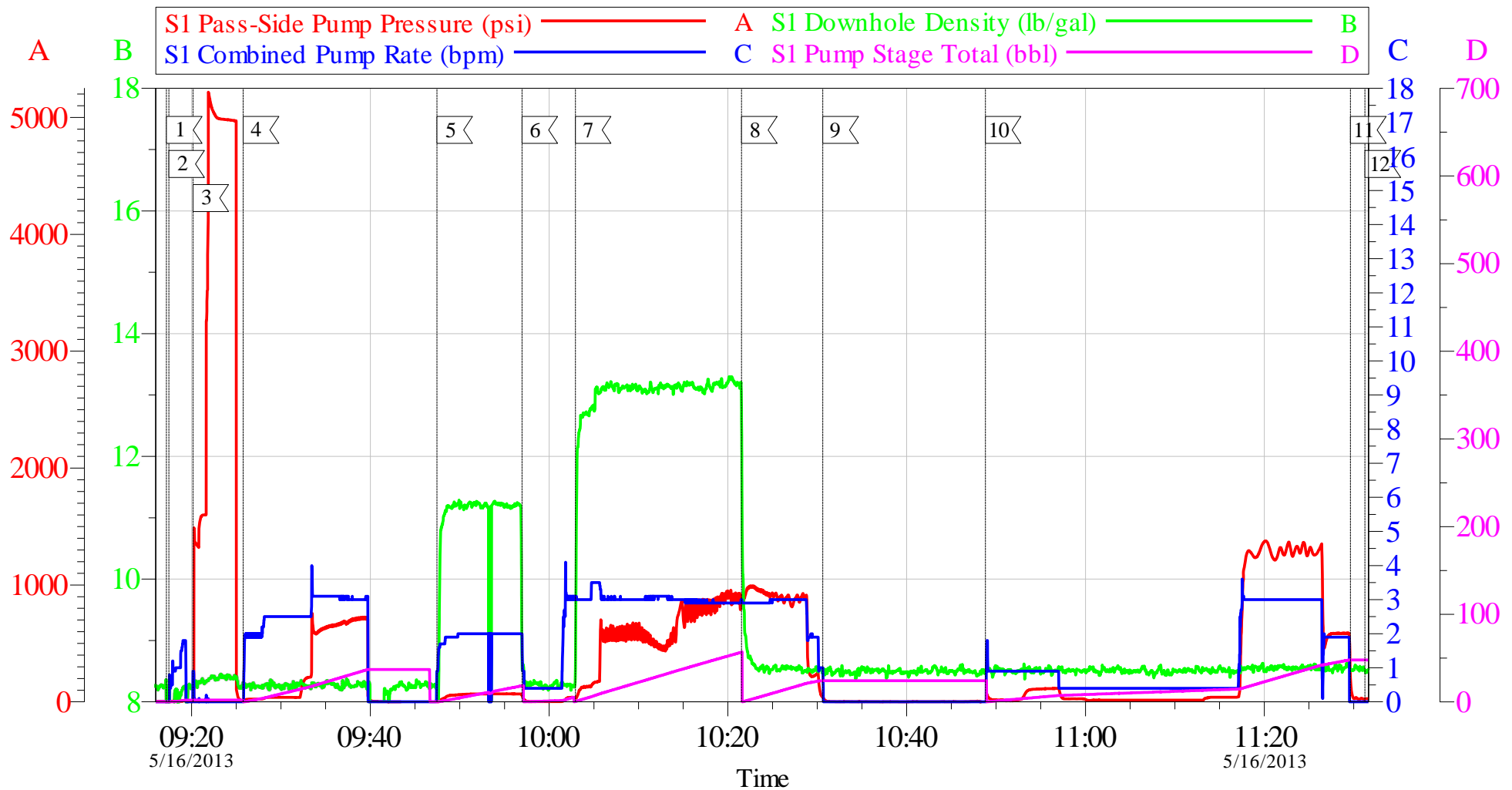
Sold To #: 300721		Ship To #: 2967987		Quote #:		Sales Order #: 900447001		
Customer: WPX ENERGY ROCKY MOUNTAIN LLC-EBUS				Customer Rep:				
Well Name: PA			Well #: 434-2			API/UWI #: 05-045-20882		
Field: Parachute		City (SAP): PARACHUTE		County/Parish: Garfield			State: Colorado	
Legal Description:								
Lat: N 39.466 deg. OR N 39 deg. 27 min. 57.352 secs.				Long: W 107.954 deg. OR W -108 deg. 2 min. 45.236 secs.				
Contractor: WORKOVER			Rig/Platform Name/Num: Workover					
Job Purpose: Squeeze Perfs						Ticket Amount:		
Well Type: Development Well			Job Type: Squeeze Perfs					
Sales Person: MAYO, MARK			Srvc Supervisor: CARTER, ERIC			MBU ID Emp #: 345598		

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	05/17/2013 00:30							
Crew Leave Yard	05/17/2013 01:15							
Depart Yard Safety Meeting	05/17/2013 03:30							ATTENDED BY ALL HES CREW
Arrive At Loc	05/17/2013 06:30							BULK TRUCKS ARRIVED AT 08:00.
Assessment Of Location Safety Meeting	05/17/2013 06:40							ATTENDED BY ALL HES CREW
Other	05/17/2013 06:45							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	05/17/2013 06:50							ATTENDED BY ALL HES CREW
Rig-Up Equipment	05/17/2013 07:00							
Pre-Job Safety Meeting	05/17/2013 08:30							ATTENDED BY ALL HES CREW, RIG CREW AND COMPANY REP
Start Job	05/17/2013 08:56							TUBING 2.375", 4.7#, L-80, CASING 4.5", 11.6#, N-80, RETAINER 6560', KILL PLUG 7618', PERF 6671'
Other	05/17/2013 08:56		1	1		800.0		FILL LINES
Test Lines	05/17/2013 08:58							PRESSURED UP TO 4972 PSI, PRESSURE HELD
Injection Test	05/17/2013 09:05		2	5		2000.0		WENT TO MUD FLUSH AT COMPANY REP'S REQUEST
Pump Spacer	05/17/2013 09:10		2	20		1970.0		MUD FLUSH
Pump Spacer	05/17/2013 09:21		2	7.4		2000.0		FRESH WATER

Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Lead Cement	05/17/2013 09:23		2	88.1		1660.0		430 SKS SQUEEZECM MIXED AT 15.8 PPG, 1.15 YIELD, 5 GL/SK
Pump Tail Cement	05/17/2013 10:05		2	8.8		2557.0		50 SKS SQUEEZECM MIXED AT 17 PPG, .99 YIELD, 3.74 GL/SK
Pump Displacement	05/17/2013 10:12		2	25		2490.0		FRESH WATER
Shutdown	05/17/2013 10:27							
Reverse Circ Well	05/17/2013 10:29							RIG REVERSE CIRCULATED WELL, .5 BBLS CEMENT BACK TO SURFACE
End Job	05/17/2013 10:42							NO RETURNS THROUGH OUT JOB
Post-Job Safety Meeting (Pre Rig-Down)	05/17/2013 10:45							ATTENDED BY ALL HES CREW
Rig-Down Equipment	05/17/2013 10:50							
Depart Location Safety Meeting	05/17/2013 12:50							ATTENDED BY ALL HES CREW
Crew Leave Location	05/17/2013 13:00							THANK YOU FOR USING HALLIBURTON CEMENT, ERIC CARTER AND CREW.

SQUEEZE



Local Event Log

1 START JOB	09:17:12	2 FILL LINES	09:17:28	3 TEST LINES	09:20:10
4 INJECTION TEST	09:25:47	5 PUMP SUPER FLUSH	09:47:27	6 PUMP WATER SPACER	09:56:58
7 PUMP CEMENT	10:02:56	8 PUMP DISPLACEMENT	10:21:32	9 SHUTDOWN	10:30:37
10 REVERSE CIRCULATE	10:48:48	11 SHUTDOWN	11:29:38	12 END JOB	11:31:16

Customer: OXY GRAND JUNCTION EBUSINESS
 Well Description: Cascade Creek 697-08-04A
 Company Rep: JEREMY A.

Job Date: 16-May-2013
 Job Type: SQUEEZE
 Service Supervisor: ERIC CARTER

Sales Order #: 900442487
 ADC Used: YES
 Elite#/Operator: 4/PAUL SALAZAR

OptiCem v6.4.10
 16-May-13 11:46

HALLIBURTON

Water Analysis Report

Company: WPX

Submitted by: ERIC CARTER

Attention: J.Trout

Lease: WORKOVER

Well #: PA 434-2

Date: 7/29/2013

Date Rec.: 7/29/2013

S.O.#: 900442487

Job Type: SQUEEZE PERFS

Specific Gravity	<i>MAX</i>	<i>1</i>
pH	<i>8</i>	<i>7</i>
Potassium (K)	<i>5000</i>	<i>250</i> Mg / L
Hrdness	<i>500</i>	<i>120</i> Mg / L
Iron (FE2)	<i>300</i>	<i>0</i> Mg / L
Chlorides (Cl)	<i>3000</i>	<i>0</i> Mg / L
Sulfates (SO ₄)	<i>1500</i>	<i><200</i> Mg / L
Temp	<i>40-80</i>	<i>60</i> Deg
Total Dissolved Solids		<i>350</i> Mg / L

Respectfully: ERIC CARTER

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 use.

Sales Order #: 900588469	Line Item: 10	Survey Conducted Date: 7/14/2013
Customer: INTREPID POTASH INC - EBUS		Job Type (BOM): CMT WHIPSTOCK PLUG BOM
Customer Representative: SCOTT GEARY		API / UWI: (leave blank if unknown) AFEY0NSZVGKAP023AAA
Well Name: Potash		Well Number: 43H
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Utah	Well County: Grand

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	7/14/2013
Survey Interviewer	The survey interviewer is the person who initiated the survey.	THOMAS PONDER (HX41187)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	SCOTT GEARY
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

Sales Order #: 900588469	Line Item: 10	Survey Conducted Date: 7/14/2013
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Well Name: Potash		Well Number: 43H
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Utah	Well County: Grand

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	7/14/2013
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)	5
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?	
Operating Hours (Pumping Hours)	2
Total number of hours pumping fluid on this job. Enter in decimal format.	
Customer Non-Productive Rig Time (hrs)	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.	
Type of Rig Classification Job Was Performed	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
Number Of JSAs Performed	6
Number Of Jsas Performed	
Number of Unplanned Shutdowns	0
Unplanned shutdown is when injection stops for any period of time.	
Was this a Primary Cement Job (Yes / No)	No

Sales Order #: 900588469	Line Item: 10	Survey Conducted Date: 7/14/2013
Customer: INTREPID POTASH INC - EBUS		Job Type (BOM): CMT WHIPSTOCK PLUG BOM
Customer Representative: SCOTT GEARY		API / UWI: (leave blank if unknown) AFEY0NSZVGKAP023AAA
Well Name: Potash		Well Number: 43H
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Utah	Well County: Grand

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
Was this a Plug or a Squeeze Job? Please select the appropriate choice	Yes
Was this a Primary or a Remedial Job? Kick off plug, Plug to Abandon, LCM plug or Planned Liner Top Squeeze, Squeeze of existing perforations, Squeeze of casing leak	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
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	100
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

HALLIBURTON

Rockies, Grand Junction

Lab Results- Squeeze

Job Information

Request/Slurry	2038685/3	Rig Name	Work over	Date	15/MAY/2013
Submitted By	Charles Ross	Job Type	Perforation Squeeze	Bulk Plant	Grand Junction
Customer	WPX Energy, Inc.	Location	Garfield	Well	PA 434-2

Well Information

Casing/Liner Size	4.5"	Depth MD	2033 m / 6671 ft	BHST	89°C / 193°F
Hole Size	8.75"	Depth TVD		BHCT	73°C / 163°F
Pressure	359 bar / 5200 psi				

Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density
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Cement Information - Squeeze Design

Cement/Additive	Sample Type	Sample Date	Lot No.	Cement Properties		
Mountain G	Bulk Blend	05.05.13	Tank 29			
Fresh Water	Lab	12.03.13	N/A	Slurry Density	15.798	lbm/gal
HALAD-344 (PB)				Slurry Yield	1.15	ft3/sack
HALAD-413 (PB)				Water Requirement	4.97	gal/sack
HR-800	Lab	08.05.13	2071305	Total Mix Fluid	4.97	gal/sack
HALAD-344 (PB)	Lab	08.05.13	B413071 A			
HALAD-413 (PB)	Lab	20.03.13	ZM2K01 98AO			
				Water Source	Fresh Water	
				Water Chloride		

Pilot Test Results Request ID 2038685/3

API Fluid Loss

Test Temp (°F)	Test Pressure (psi)	Test Time (min)	Meas. Vol.	Calc. ISO FL (<30 min)	Conditioning time (min)
163	1000	9	39	142	30

Mixability (0 - 5) - 0 is not mixable

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Mixability rating (0 - 5)

5

Avg rpm mixing under load

12000

Thickening Time - ON-OFF-ON

Test Temp (°F)	Pressure (psi)	Reached in (min)	30 Bc (hh:min)	50 Bc (hh:min)	70 Bc (hh:min)	100 Bc (hh:min)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)
163	5200	16	1:47	1:53	1:56	1:59	14	35	10	9

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HALLIBURTON

Rockies, Grand Junction

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Drilling Fluid Information

Mud Supplier Name	Mud Trade Name	Density
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Cement Information - Squeeze Design

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Mountain G	Bulk Blend	05.05.13	Tank 29			
Fresh Water	Lab	12.03.13	N/A	Slurry Density	17.000	lbm/gal
				Slurry Yield	0.99	ft3/sack
HALAD-344 (PB)	Bulk Blend	05.05.13	B413067 B	Water Requirement	3.74	gal/sack
HALAD-413 (PB)	Bulk Blend	05.05.13	ZM2K01 98AO	Total Mix Fluid	3.74	gal/sack
CFR-3 (PB)	Lab	20.03.13	0804201 203			
HR-5 (PB)	Lab	25.04.13	185			
				Water Source	Fresh Water	
				Water Chloride		

Pilot Test Results Request ID 2038679/2

API Fluid Loss

Test Temp (°F)	Test Pressure (psi)	Test Time (min)	Meas. Vol.	Calc. ISO FL (<30 min)	Conditioning time (min)
163	1000	6.31	30	131	30

Mixability (0 - 5) - 0 is not mixable

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Mixability rating (0 - 5)

3

Avg rpm mixing under load

12000

Thickening Time - ON-OFF-ON

Test Temp (°F)	Pressure (psi)	Reached in (min)	50 Bc (hh:min)	70 Bc (hh:min)	100 Bc (hh:min)	Start Bc	Stirring before stop (mins)	Static Period (min)	Peak reading (BC)
	5200	16	1:22	1:22	1:26	31	35	10	21

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