Andrews, David

From: Andrews, David
Sent: Monday, May 03, 2010 3:57 PM
To: 'Tannehill, Julie'
Cc: Davis, Gregory; Harris, Steven; Foreman, Jay
Subject: RE: Low TOC : RWF 313-18 (05-045-17624-0000)

Julie,

This procedure is acceptable. Please proceed. You will need a cement top of 6198 or above prior to completing MV7, per Rule 317.i.

Dave

From: Tannehill, Julie [mailto:Julie.Tannehill@Williams.com]
Sent: Monday, May 03, 2010 1:23 PM
To: Andrews, David
Cc: Davis, Gregory; Harris, Steven; Foreman, Jay
Subject: RE: Low TOC : RWF 313-18 (05-045-17624-0000)

Dave,

Attached is the new cement squeeze procedure for the RWF 313-18. Please review and let me know if this plan in acceptable. We're scheduled to frac this pad on Wednesday, May 5th; I'll follow-up with a phone call later this afternoon to discuss the details of this plan.

Regards,
Julie Tannehill

From: Tannehill, Julie
Sent: Saturday, May 01, 2010 10:53 AM
To: Andrews, David
Subject: RE: Low TOC : RWF 313-18 (05-045-17624-0000)

Dave,

We have performed our cement squeeze on RWF 313-18. Please check-out our FTP site and under the folder titled: RWF 313-18 for the post squeeze CBL and Halliburton post job report. We pumped the cement squeeze per design to get TOC above top of MVRD: 350 sxs of 15.8 ppg cement and then tailed in with 100 sxs of 17 ppg mud. Unfortunately, our new TOC is at 6000'. I will send a follow-up email later this weekend that details our new plan to move forward with this well.

Regards,

Julie Tannehill

[redacted]

From: Andrews, David [mailto:David.Andrews@state.co.us]
Sent: Tuesday, April 06, 2010 11:21 AM
To: Tannehill, Julie

Exploration and Production
Cement Squeeze Procedure

Wellname:	**RWF 313-18**	Prepared By: Julie Tannehill	Date: 5/3/2010
Location:	**S18 T6S R94W**	office phone: (303) 606-4295	
Field:	**Rulison**	cell phone: (720) 375-2192	
API:	**05-045-17806**		

Surface Casing - 9-5/8", 32.5 lb/ft, H-40
Surface Casing Depth - 1138-ft
Production Casing - 4-1/2", 11.6 lb/ft, I-80
Production Casing Depth - 8,744-ft
Maximum Recorded Temp - 232 F
Total Depth - 8809-ft (Driller's depth)

Correlate Log - Baker Radial Cement Bond Log 03/23/10
Original TOC- 6900-ft
New TOC - 6600-ft

MV Completions- Lower Cameo through MV7 (6398-8543')
Formation Tops:

Top of Mesaverde:	5,154
Top of Rollins:	8,694
TD:	8,795

Purpose: **Cement Squeeze for Isolation**

Proposed Procedure:

1. Frac and Flowback the following Stages: MV3 and MV4 Stages
2. Set solid plug at 6800'.
3. Pressure test casing to 7000 psi.
4. Shoot 3-0.35" squeeze holes at 6552'. Perform Injection Test. Discuss results with Denver.
5. RIH with composite cement retainer and 2-3/8" tubing. Set retainer at 6452'.
6. Establish injection with freshwater leaving bradenhead valve open.
7. Pump 20 bbls of freshwater, pump 50 sxs of 12.7 ppg cement.
8. Pump 40 sxs of 14.2 ppg cement and stage last 5 bbls with bradenhead valve closed.
9. Sting out of retainer, reverese circulate out remaining cement in tubing.
10. POOH with tubing, shut-in well and WOC (24 hours).
11. Drill out cement and retainer, cleanout to 6800'.
12. Run CBL from 6800 to 5900'.
13. Pressure Test squeeze holes to 1000 psi.
14. Discuss CBL results with Denver before proceeding.

HALLIBURTON

WILLIAMS PRODUCTION RMT INC EBUSINE

RWF 313-18
RULISON
Garfield County , Colorado

Squeeze Perfs

28-Apr-2010

Post Job Report

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300721	**Ship To #:** 2762214	**Quote #:**	**Sales Order #:** 7329468
Customer: WILLIAMS PRODUCTION RMT INC EBUSINE		**Customer Rep:** Zeiss, Rob	
Well Name: RWF	**Well #:** 313-18		**API/UWI #:** 05-045-17624
Field: RULISON	**City (SAP):** RIFLE	**County/Parish:** Garfield	**State:** Colorado
Lat: N 39.518 deg. OR N 39 deg. 31 min. 5.736 secs.		**Long:** W 107.932 deg. OR W -108 deg. 4 min. 3.464 secs.	
Contractor: WORKOVER	**Rig/Platform Name/Num:** WORKOVER		
Job Purpose: Squeeze Perfs			
Well Type: Development Well	**Job Type:** Squeeze Perfs		
Sales Person: SCOTT, KYLE	**Srvc Supervisor:** SCOTT, DALLAS	**MBU ID Emp #:** 334750	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
Dyk, Kory		421946	GREGORY, JON D		439067	HOEFER, FREEMAN Dennis		369666
MUHLESTEIN, RYAN Herrick		453609	SCOTT, DALLAS D		334750			

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*
10248065	60 mile	10296152C	60 mile	10784064	60 mile	10897797	60 mile
10951250	60 mile	11006314	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*						

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	6820. ft	**Job Depth TVD**	6820. ft		
Water Depth		**Wk Ht Above Floor**			
Perforation Depth (MD)	*From*	***4,549.00 ft***	**To**	4,550.00 ft	

Job Times

	Date	Time	Time Zone
Called Out	28 - Apr - 2010	02:30	CST
On Location	28 - Apr - 2010	07:00	CST
Job Started	28 - Apr - 2010	08:50	CST
Job Completed	28 - Apr - 2010	10:15	CST
Departed Loc	28 - Apr - 2010	12:30	CST

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
Perforation Interval											
Perforation Interval								6820.	6820.		
4 1/2" Casing	Unknown		4.5	4.	11.6		N-80	.	6820.		
2 3/8" Tubing	Unknown		2.375	1.995	4.7		N-80	.	6711.		

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

Stage/Plug #: 1

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Cementing Job Summary

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
1	Fresh Water Spacer			bbl	8.3	.0	.0	4.0	
2	Fresh Water Spacer		26.00	bbl	.	.0	.0	.0	
3	Lead Cement	HALCEM (TM) SYSTEM (452986)	350.0	sacks	15.8	1.15	4.96	3.0	4.96
	4.96 Gal	FRESH WATER							
4	Tail Cement	PLUGCEM (TM) SYSTEM (452969)	100.0	sacks	17.	.99	3.77	3.0	3.77
	0.1 %	HR-5, 50 LB SK (100005050)							
	3.77 Gal	FRESH WATER							
5	Displacement Fluid		27.00	bbl	8.34	.0	.0	4.0	

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

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Cementing Job Log

The Road to Excellence Starts with Safety

Sold To #: 300721	**Ship To #:** 2762214	**Quote #:**	**Sales Order #:** 7329468
Customer: WILLIAMS PRODUCTION RMT INC EBUSINE		**Customer Rep:** Zeiss, Rob	
Well Name: RWF	**Well #:** 313-18		**API/UWI #:** 05-045-17624
Field: RULISON	**City (SAP):** RIFLE	**County/Parish:** Garfield	**State:** Colorado
Legal Description:			
Lat: N 39.518 deg. OR N 39 deg. 31 min. 5.736 secs.		**Long:** W 107.932 deg. OR W -108 deg. 4 min. 3.464 secs.	
Contractor: WORKOVER	**Rig/Platform Name/Num:** WORKOVER		
Job Purpose: Squeeze Perfs			**Ticket Amount:**
Well Type: Development Well	**Job Type:** Squeeze Perfs		
Sales Person: SCOTT, KYLE	**Srvc Supervisor:** SCOTT, DALLAS		**MBU ID Emp #:** 334750

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	04/28/2010 02:30							
Depart Yard Safety Meeting	04/28/2010 05:00							Safety meeting including entire HES Crew
Arrive At Loc	04/28/2010 07:00							Rig waiting on HES; Customer requested crew on location ready to pump @ 0700; Crew arrived at 0700
Safety Meeting - Assessment of Location	04/28/2010 07:05							Location assessment including entire HES crew
Pre-Rig Up Safety Meeting	04/28/2010 07:10							Safety meeting including entire HES crew
Rig-Up Equipment	04/28/2010 07:15							1 Pump (Elite 9); 1 Bulk (660), 1 Bulk (400), 1 hard line from pump to manifold; 1 hardline from manifold to floor; 1 hardline from manifold to pit; 2 H2O lines from H2O trucks to pump
Rig-Up Completed	04/28/2010 08:40							
Pre-Job Safety Meeting	04/28/2010 08:45							Safety meeting including everyone on location
Start Job	04/28/2010 08:50							Rig was stung into retainer w/braiding head open
Other	04/28/2010 08:51		1	1		400.0		Fill lines
Pressure Test	04/28/2010 08:54					5000.0		PSI test good; No leaks
Injection Test	04/28/2010 08:57		3	26		2900.0		Freshwater; 4x4 @ 110 psi

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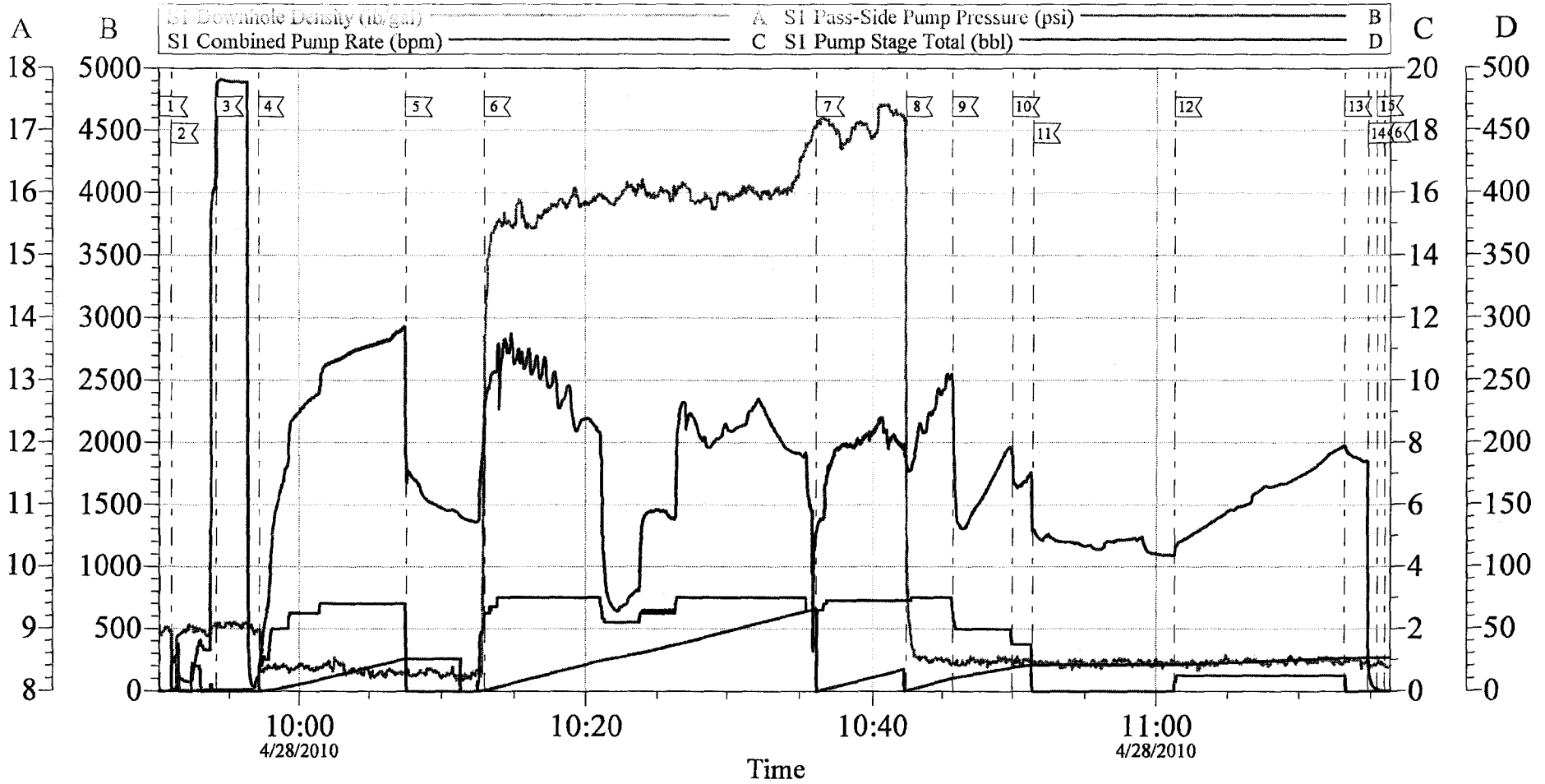
Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
ISIP	04/28/2010 09:07					1730.0		
Pump Lead Cement	04/28/2010 09:12		3	71.69		2744.0		(Halcem) 350 sks; 15.8 ppg; 1.15 ft3/sk, 4.96 gal/sk; BP @ 18
Pump Tail Cement	04/28/2010 09:36		3	17.63		2000.0		(Plugcem) 100 sks; 17 ppg, .99 ft3/sk, 3.77 gal/sk, BP @ 19
Pump Displacement	04/28/2010 09:42		3	10		2150.0		Freshwater Displacment
Slow Rate	04/28/2010 09:45		2	8		1680.0		
Slow Rate	04/28/2010 09:49		1.5	3		1650.0		
Shutdown	04/28/2010 09:51					1300.0		
Stage Cement	04/28/2010 10:01		0.5	5	27	1952.0		
Shutdown	04/28/2010 10:13					1952.0		
Open Bypass / Sting Out	04/28/2010 10:14							Rig Stung out of retainer
Other	04/28/2010 10:15							Swapped over to rig to reverse out
End Job	04/28/2010 10:15							
Pre-Rig Down Safety Meeting	04/28/2010 10:30							Safety meeting including entire HES crew
Rig-Down Equipment	04/28/2010 10:35							
Rig-Down Completed	04/28/2010 12:30							
Safety Meeting - Departing Location	04/28/2010 12:35							Safety meeting including entire HES crew
Crew Leave Location	04/28/2010 12:40							Thank-you for choosing Halliburton

Williams Production

Squeeze



Local Event Log

1	Start Job	09:50:24	2	Fill Lines	09:51:10	3	PSI Test	09:54:12
4	Injection Test	09:57:08	5	ISIP	10:07:34	6	Lead Cement	10:12:57
7	Tail Cement	10:36:05	8	Displacement	10:42:24	9	Slow Rate	10:45:46
10	Slow Rate	10:49:58	11	Shutdown	10:51:24	12	Stage Cement	11:01:20
13	Shutdown	11:13:11	14	Sting Out	11:14:47	15	Swap to Rig	11:15:28
16	End Job	11:15:58						

Customer:	Williams	Job Date:	28-Apr-2010	Sales Order #:	7329468
Well Description:	RWF 313-18	Job Type:	Squeeze	ADC Used:	Yes
Company Rep:	Robert Zeiss	Cement Supervisor:	Dallas Scott	Elite #/Operator:	9/Ryan Muhlestein

OptiCem v6.4.8
28-Apr-10 11:25