



Andrews, David

From: Andrews, David
Sent: Tuesday, November 30, 2010 2:50 PM
To: 'Woodworth, Ty'; Neifert, Angela
Cc: King, Kevin; Krabacher, Jay; Conger, Jeremy; Davis, Gregory; Harris, Steven
Subject: RE: Kokopelli Federal 18-315D Sqz Bradenhead Pressure Procedure
Attachments: image001.jpg; image002.gif

Ty,

Consider this your verbal approval to proceed. I am adding a copy of this email and your revised procedure to COGCC's well file. There is no need to submit an additional Sundry Notice.

Thanks,

Dave

From: Woodworth, Ty [<mailto:Ty.Woodworth@Williams.com>]
Sent: Tuesday, November 30, 2010 10:13 AM
To: Andrews, David; Neifert, Angela
Cc: King, Kevin; Krabacher, Jay; Conger, Jeremy; Davis, Gregory; Harris, Steven
Subject: RE: Kokopelli Federal 18-315D Sqz Bradenhead Pressure Procedure

Dave/Jay/Kevin,

The proposed procedure has changed after discussion with BLM. We are now being asked to block squeeze at top of Mesa Verde at 3350' in addition to the original proposed squeeze at 1940'. Please find the attached procedure with changes.

We are scheduled to begin tomorrow Wednesday 12/1/2010.

Are these changes acceptable? Would you like another Form 4 outlining the changes?

Thanks for your time.

Ty Woodworth
Operations Engineer II
970-274-9254
ty.woodworth@williams.com

From: Andrews, David [<mailto:David.Andrews@state.co.us>]
Sent: Wednesday, November 17, 2010 11:35 AM
To: Neifert, Angela
Cc: King, Kevin; Krabacher, Jay; Woodworth, Ty; Conger, Jeremy; Davis, Gregory; Harris, Steven
Subject: RE: Kokopelli Federal 18-315D Sqz Bradenhead Pressure Procedure

Angela,

The attached Sundry Notice is approved. **Please print or save a copy for your records. A hard copy will not follow.**

Thanks,

David D. Andrews, P.E., P.G.
Engineering Supervisor - Western Colorado

State of Colorado
Oil and Gas Conservation Commission
707 Wapiti Court, Suite 204
Rifle, Colorado 81650
Office Phone: (970) 625-2497 Ext. 1
Cell Phone: (970) 456-5262
Fax: (970) 625-5682
E-mail: David.Andrews@state.co.us
Website: <http://www.colorado.gov/cogcc>

From: Neifert, Angela [<mailto:Angela.Neifert@Williams.com>]
Sent: Monday, November 15, 2010 4:58 PM
To: Andrews, David
Cc: King, Kevin; Krabacher, Jay; Woodworth, Ty; Conger, Jeremy; Davis, Gregory; Harris, Steven
Subject: Kokopelli Federal 18-315D Sqz Bradenhead Pressure Procedure

Hi Dave,

Please find attached a Form 4 for the KP 18-315D to Sqz Bradenhead pressure. Let me know when this has been approved and if you have any questions. Thank you

Angela Neifert
303-606-4398
DO OR DO NOT THERE IS NO TRY!! yoda





Williams Production RMT Co.

Remedial Cement Procedure

Wellname: **Kokopelli Federal 18-315D**
Date: 11/30/2010
Field: Kokopelli

Prepared By: Ty Woodworth
Cell phone: 970-274-9254
Office phone:

Purpose: Remediate bradenhead pressure

Well Information:

API Number:	05-045-16267
Production Casing:	4-1/2" 11.6# N-80
Shoe Depth:	8,022 ft
Surface Casing Depth:	1,026 ft
Tubing:	2 3/8" N-80 at 6,040 ft
Perforated Interval:	4,770 ft - 7,839 ft
Top of Mesaverde:	3,353 ft
Top of Gas:	4,763 ft
Correlate Log:	Schlumberger OH Log - 9/3/08
Current TOC:	Good Bond: 4,870 ft Poor Bond: 2,250ft (Lone Wolf CBL 11/10/2008)
Max pressure:	7,000 psi

Well History:

- Orion drilled and completed this well. Spud date was 8/21/2008. Original CBL is somewhat ratty. It shows good bond to 4870 ft and poor bond up to 2250 ft. Orion reports noted there was no bradenhead pressure during completion. Currently, when the bradenhead valve is shut it will reach 150 psi in 12 hours. When blowing down there is only gas, no fluid. Once blown down there is not enough gas to see or hear. Williams submitted Sundry to Vent Bradenhead for 90 Days to COGCC and BLM on 8/23/2010.
- Awaiting isotopic gas analysis results

Proposed Procedure:

- 1 MIRU service unit. POOH w/ 2 3/8" tbg
- 2 RIH w/ wireline and set CBP at 4500 ft.
- 3 **Perforate sqz holes at 3,350 ft (to isolate Top Mesa Verde)**
Pump injection test
Set retainer at 3,300 ft

MIRU HES Cement Crew. Sting into retainer and pump 20 bbl inj test
Pump 175 sks 16.2 ppg Cement per attached design (volumes may vary depending on inj rate)
Pump 30 sks 17.0 ppg Neat G Tail Cement
Displace to within 0.5 bbls of EOT

Sting out of retainer,
Reverse circulate tubing.
POOH with tubing

- 4 Perforate sqz holes at 1,940 ft (deepest true free pipe)
Pump injection test

MIRU HES Cement Crew. Pump 20 bbl inj test down casing.
Pump 175 sks 16.2 ppg Cement per attached design
Pump 30 sks 17.0 ppg Neat G Tail Cement
Displace to within 50 ft of sqz holes

SI Bradenhead to allow cement to set - Monitor pressure.
POOH with tubing and SDFN.

- 5 Allow for 24 - 48 hrs cement set time.
- 6 RIH with bit and 2 3/8" tubing. Drill out Cement Retainer/cement
POOH bit and tubing.
Run CBL from 3,500 ft to surface (Send .pdf and hard copy to Parachute)
Chart and Pressure test squeeze holes to 1800 psi (see calculations below)
Monitor Bradenhead Pressure - Call Parachute if it reaches 150 psi.
- 7 RIH w/ bit and 2 3/8" tubing
Drill out CBP at 4500 ft.
Clean out rathole
Return well to production

Pressure Test Calculations:

Shut in Casing Pressure: 1178 psi (approx 90 days)

Fluid Level: 7022 ft

Gas Grad: 0.15 psi/ft

Fluid Grad: 0.447 psi/ft

Bottom Perf: 7839 ft

Estimated Reservoir Pressure=Surf Press+Gas Hydro+Fluid Hydro

ERP=1178 psi+(7022 ft x 0.15 psi/ft)+(817 ft x 0.447 psi/ft)

ERP=2596 psi

Test Pressure=ERP - Fluid Hydrostatic to Sqz Holes

Test Pressure=2596 psi - (1940 ft x 0.447 psi/ft)

Test Pressure = 1729 psi