



Andrews, David

From: Grubich, John [John.Grubich@encana.com]
Sent: Tuesday, May 15, 2012 1:11 PM
To: Andrews, David; Reynolds, Scott D.; King, Kevin; jjking@blm.gov
Cc: bhartman@blm.gov; Phillips, Tim D.; Abell, Matt; Brown, Charlie; Friesen, Kathy
Subject: RE: PC28 Update 5-11-12

Follow Up Flag: Follow up
Flag Status: Flagged

David,

I made a survey of the base of the fill slope of this pad this morning. I did not see any evidence of moisture, seepage or any other indication that fluid was migrating from the wells drilled to date. We will follow up with the survey of immediate proximity drainages and report as necessary.

Thanks,

John

From: Andrews, David [mailto:David.Andrews@state.co.us]
Sent: Tuesday, May 15, 2012 8:16 AM
To: Reynolds, Scott D.; King, Kevin; jjking@blm.gov
Cc: bhartman@blm.gov; Grubich, John; Phillips, Tim D.; Abell, Matt; Brown, Charlie
Subject: RE: PC28 Update 5-11-12

Scott,

In addition to checking for mud daylighting on the pad and along the perimeter of the pad, please check for daylighting in the drainages east and west of the pad. It appears that the surface is fee, so let me know if that presents an access problem with visual checks in the drainages.

Thanks,

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

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From: Reynolds, Scott D. [mailto:Scott.Reynolds@encana.com]
Sent: Friday, May 11, 2012 4:19 PM
To: King, Kevin; jjking@blm.gov

Cc: Andrews, David; bhartman@blm.gov; Grubich, John; Phillips, Tim D.; Abell, Matt; Brown, Charlie
Subject: PC28 Update 5-11-12

Kevin, Julie,

As you probably know from the notifications, we have drilled Gardner 21-14 and Gardner Federal 28-1, run surface casing end cemented to surface.

While drilling the Gardner Federal 28-1C at approximately 180' MD-RKB we started to see mud seeping into the cellar of Gardner 21-14. The mud was flowing up the annulus between the 9-5/8" surface casing and 16" conductor. We have removed about 1' of cement around the wellhead landing plate and plumb bobbed a 4" gap in the cement to a depth of 38' MD-GL, which is the depth the conductor is set at.

We had the same issue with mud entering the cellar of the Gardner 28-2A well while drilling the Gardner 28-3D well at 180' MD-RKB. In that case we thought it was due to the impending collision; however, we now believe that the mud we had in the cellar was due to communication between wellbores. The collision occurred after the mud was first noticed in the Gardner 28-3D cellar and the collision also resulted in drilling mud entering the Gardner 28-3D via the 9-5/8" casing ID.

With the data we have, we believe that we have a rubble or boulder zone between our conductor shoe and \pm 300' MD-RKB which is allowing drilling mud to channel up the 9-5/8" surface casing and 16" conductor annulus of adjacent wells. We also believe that the rubble zone is allowing our surface casing cement to fall back to the base of the conductor even though we have been getting >35 bbls of good cement back to surface.

With that in mind, prior to re-commencing drilling operation we are currently:

1. Planning a top job on the Gardner 21-14 to seal up the channel we have in the 9-5/8" x 16" casing annulus.
2. We have checked the other annuluses to determine if they need to have top jobs performed.
3. We will bring cement to surface (top up) the P&A'd Gardner 28-3D.

Going forward:

1. After the surface cement jobs, we will remove all excess cement from around the conductor and wellhead landing plate run on the 9-5/8" casing. This will be done so we can better monitor fluid/cement drop in the annulus. I believe the cement on surface was setting up giving us a false indication that the cement was not dropping in the annulus.
2. We will have personnel walk the perimeter of the pad while drilling surface holes to make sure no mud is seeping out of the ground down slope of the pad. At this time we have not had any indication of mud seepage during earlier inspections.
3. In an effort to mitigate communication, we have swapped two surface hole location to allow the surface holes more separation. The wells we swapped were Gardner 21-14C and Gardner 28-4A. I will probably need verbal permission to drill these surface holes prior to submitting sundries. It will take a few days to revise the pad survey and Well Location Certificate (individual well plats).

Well API numbers:

1. Gardner 21-14: 05-045-21191-00 ✓
2. Gardner Federal 28-1: 05-045-21190-00 ✓
3. Gardner Federal 28-1C: 05-045-21184-00 ✓
4. Gardner 28-4A: 05-045-21187-00 ✓
5. Gardner Federal 28-2A: 05-045-21185-00 ✓

Gardner 28-3D 05-045-21188
Gardner 21-14C 05-045-21189

If you need any clarifications, please give me a call,

Best regards,
Scott Reynolds
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