

**From:** [Richard Miller](#)  
**To:** [Katz - DNR, Aaron](#)  
**Cc:** [Heil - DNR, John](#); [Mike Gardner](#); [Kussum Kanguru](#); [Scott Ramsey - DNR](#); [Jeff Kirtland](#); [Alex Fischer - DNR](#); [Wes Hobbs](#)  
**Subject:** RE: Bubbling in Cellar at RIVER RANCH #A5 & RIVER RANCH #A4  
**Date:** Thursday, July 22, 2021 10:27:00 AM

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Aaron,

We will get a Form 4 BHP submitted for the A4 well. I will also notify you whether we will plan to repair or P&A and get the necessary paperwork filed.

As we discussed this morning, I don't believe there is a good way for us to obtain a gas sample for the bubbling gas. The gas is slowly bubbling out of water and any attempt to capture this gas would be mixed with air and skew the analysis.

The flow path for both wells appears to be outside the conductor casing.

Thank you,

Richard  
(985) 774-3761

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**From:** Katz - DNR, Aaron <aaron.katz@state.co.us>  
**Sent:** Tuesday, July 20, 2021 5:01 PM  
**To:** Richard Miller <rmiller@terraep.com>  
**Cc:** Heil - DNR, John <john.heil@state.co.us>; Mike Gardner <MGardner@terraep.com>; Kussum Kanguru <craig.burger@state.co.us>; Scott Ramsey - DNR <scott.ramsey@state.co.us>; Jeff Kirtland <JKirtland@terraep.com>; Alex Fischer - DNR <alex.fischer@state.co.us>; Wes Hobbs <whobbs@terraep.com>  
**Subject:** Re: Bubbling in Cellar at RIVER RANCH #A5 & RIVER RANCH #A4

Thank you Richard for the information and follow up.

For the A4 well, please submit a Form 4 Sundry-BHP due to the well exceeding the threshold pressure. Please provide details on the wellbore leak in relation to the BH pressure and Terra's plan to maintain the pressure below the threshold. The time frame to repair or P&A the well is 6 months from the inspection and operations should be completed by 12/25/2021.

As noted, the A5 is not suspected to have a casing leak and the source of the gas is currently unknown. To determine the source of the gas please collect a gas sample and analyze to determine if it is from the Williams Fork or a shallow source such as the Wasatch.

For both wells can you please confirm the flow path of the gas? Is it coming to the surface between the surface casing and conductor or from outside the conductor casing?

Regards,

Aaron Katz

Northwest Area Engineer



Office: 303-894-2100 Ext. 5691

Cell: 970-765-6300

818 Taughenbaugh Blvd. Suite 103

Rifle, CO 81650

[aaron.katz@state.co.us](mailto:aaron.katz@state.co.us) | [www.colorado.gov/cogcc](http://www.colorado.gov/cogcc)

On Tue, Jul 20, 2021 at 11:48 AM Richard Miller <[rmiller@terraep.com](mailto:rmiller@terraep.com)> wrote:

Aaron,

As you requested during our conversation this morning, below is an update from our testing of these wells.

A4 Well:

- Bradenhead test completed in June. Initial pressure was 180 psi so a Form 17 was submitted
- Bradenhead and Casing were found to be equalized. Suspect possible casing leak
- We are currently selling casing to keep pressures lower. Current casing pressure is ~115 psi (below Mamm Creek threshold of 150 psi)
- Evaluating next steps for this well, either casing repair or P&A

A5 Well:

- Bradenhead pressure was previously checked and found to be 120 psi
- Casing pressure is much higher at 530 psi. I do not suspect a casing leak
- We blew down the bradenhead on 6/30. Casing pressure did not drop during this time.
- Current bradenhead pressure is ~40 psi
- We will attempt to gather gas sample from the bubbling and compare with production gas

Please let me know if you have any questions or comments.

Thank you,

Richard  
(985) 774-3761

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**From:** Katz - DNR, Aaron <[aaron.katz@state.co.us](mailto:aaron.katz@state.co.us)>  
**Sent:** Tuesday, July 13, 2021 1:40 PM  
**To:** Heil - DNR, John <[john.heil@state.co.us](mailto:john.heil@state.co.us)>  
**Cc:** Mike Gardner <[MGardner@terraep.com](mailto:MGardner@terraep.com)>; Kussum Kanguru <[craig.burger@state.co.us](mailto:craig.burger@state.co.us)>; Scott Ramsey - DNR <[scott.ramsey@state.co.us](mailto:scott.ramsey@state.co.us)>; Jeff Kirtland <[JKirtland@terraep.com](mailto:JKirtland@terraep.com)>; Alex Fischer - DNR <[alex.fischer@state.co.us](mailto:alex.fischer@state.co.us)>; Richard Miller <[rmiller@terraep.com](mailto:rmiller@terraep.com)>  
**Subject:** Re: Bubbling in Cellar at RIVER RANCH #A5 & RIVER RANCH #A4

Mike and Richard, Can you please provide your findings from the additional tests. Thank you for the update.

Regards,

Aaron Katz

Northwest Area Engineer



Office: 303-894-2100 Ext. 5691

Cell: 970-765-6300

818 Taughenbaugh Blvd. Suite 103

Rifle, CO 81650

[aaron.katz@state.co.us](mailto:aaron.katz@state.co.us) | [www.colorado.gov/cogcc](http://www.colorado.gov/cogcc)

On Wed, Jun 30, 2021 at 1:30 PM Heil - DNR, John <[john.heil@state.co.us](mailto:john.heil@state.co.us)> wrote:

Thank you for the update.

On Wed, Jun 30, 2021 at 1:21 PM Mike Gardner <[MGardner@terraep.com](mailto:MGardner@terraep.com)> wrote:

John,

A bradenhead test was performed earlier this month on the A4 well and a Form 17 is currently being prepared for submittal to COGCC.

Richard Miller, a TEP Production Engineer, is also performing additional tests on the well today and he will be contacting Aaron Katz either today or tomorrow to review any findings related to his investigation of the wells. Once I have some information back from Richard, I

will prepare and submit an FIRR responding to the corrective actions.

Mike Gardner

Cell: (970) 623-4875

Office: (970) 263-2760

[mgardner@terraep.com](mailto:mgardner@terraep.com)

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**From:** Heil - DNR, John <[john.heil@state.co.us](mailto:john.heil@state.co.us)>

**Sent:** Wednesday, June 30, 2021 11:30 AM

**To:** Mike Gardner <[MGardner@terraep.com](mailto:MGardner@terraep.com)>

**Cc:** Katz - DNR, Aaron <[aaron.katz@state.co.us](mailto:aaron.katz@state.co.us)>; Kussum Kanguru <[craig.burger@state.co.us](mailto:craig.burger@state.co.us)>; Scott Ramsey - DNR <[scott.ramsey@state.co.us](mailto:scott.ramsey@state.co.us)>; Jeff Kirtland <[JKirtland@terraep.com](mailto:JKirtland@terraep.com)>; Alex Fischer - DNR <[alex.fischer@state.co.us](mailto:alex.fischer@state.co.us)>

**Subject:** Re: Bubbling in Cellar at RIVER RANCH #A5 & RIVER RANCH #A4

Hello Mike,

I was curious if you had an update on the status of those bundling wells?

Thank you,

On Mon, Jun 28, 2021, 11:09 AM Mike Gardner <[MGardner@terraep.com](mailto:MGardner@terraep.com)> wrote:

Hi Aaron,

As I mentioned to Scott on the phone on Friday, according to our production field supervisor ... this bubbling is most likely attributable to shallow, naturally occurring gas that is migrating to surface and is bubbling up through the storm water that has accumulated within the well cellars.

However, we are pulling records to assess any casing integrity and testing data and will provide you with an update within the next day or two. In the mean-time, the pumper has been to the location and checked fittings to ensure there are no surface mechanical issues, and that nothing is leaking from any valves, plugs or other fittings.

As soon as we have an update from our production engineering guys, we will pass that information along to you.

Mike Gardner

Cell: (970) 623-4875

Office: (970) 263-2760

[mgardner@terraep.com](mailto:mgardner@terraep.com)

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**From:** Katz - DNR, Aaron <[aaron.katz@state.co.us](mailto:aaron.katz@state.co.us)>  
**Sent:** Monday, June 28, 2021 8:56 AM  
**To:** Mike Gardner <[MGardner@terraep.com](mailto:MGardner@terraep.com)>  
**Cc:** Kussum Kanguru <[craig.burger@state.co.us](mailto:craig.burger@state.co.us)>; Scott Ramsey - DNR <[scott.ramsey@state.co.us](mailto:scott.ramsey@state.co.us)>; Jeff Kirtland <[JKirtland@terraep.com](mailto:JKirtland@terraep.com)>; John Heil - DNR <[john.heil@state.co.us](mailto:john.heil@state.co.us)>  
**Subject:** Bubbling in Cellar at RIVER RANCH #A5 & RIVER RANCH #A4

Good Morning Mike,

I am following up on the two wells, API# 05-045-10845 and API # 05-045-12124 that were reported to have bubbling in the cellars on Friday 6/25/2021. Can you please provide an update on your findings? If you have not already done so, please check any buried fittings including the bradenhead valves for leaks. If the fittings are not the root cause please expose the top of the conductor casing and determine if it is coming from outside or inside the conductor casing.

Regards,

Aaron Katz

Northwest Area Engineer

Office: 303-894-2100 Ext. 5691

Cell: 970-765-6300

818 Taughenbaugh Blvd. Suite 103

Rifle, CO 81650

[aaron.katz@state.co.us](mailto:aaron.katz@state.co.us) | [www.colorado.gov/cogcc](http://www.colorado.gov/cogcc)

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**John Heil**  
**Environmental Protection Specialist**



C 970-787-0029 | P 303.894.2100 x5692 | O 970-625-1213  
1818 Taughenbaugh Blvd., STE 103, Rifle, CO 81650  
[John.Heil@state.co.us](mailto:John.Heil@state.co.us) | [www.colorado.gov/cogcc](http://www.colorado.gov/cogcc)

He/Him

