

STATE OF  
COLORADO

Andrews - DNR, Doug &lt;doug.andrews@state.co.us&gt;

## COGCC Form 2A review of PDC Energy's Thornton 2V-HZ Pad - Doc #400559411

5 messages

Andrews - DNR, Doug &lt;doug.andrews@state.co.us&gt;

Mon, May 5, 2014 at 10:53 AM

To: Liz Lindow &lt;liz.lindow@pdce.com&gt;

Liz,

I have reviewed the referenced Form 2A Oil & Gas Location Assessment and have the following comments.

- 1) In the Facilities section you have indicated there will be one Buried Produced Water Vault on this location. Please provide a Best Management Practice that covers adverse impacts to shallow groundwater from the use of this produced water vault.
- 2) Your Facility Layout Drawing shows one meter on this location. Therefore I will add that to the Facilities section.
- 3) You have included an attachment certifying compliance with COGCC Rul 305.a. Pre-Application Notifications. I would like to make a suggestion to improve and clarify the language in your certification letter. Because COGCC Rule 303.b.(3)J requires operators to include "evidence that Building Unit owners within the Buffer Zone received the pre-application notice required by Rule 305.a.(2)", your certification letter should explicitly state that PDC certifies all Building Unit owners within the Buffer Zone received the pre-application notice and that proof of their receipt is kept on file with PDC. The letter you have included gives the impression that PDC only sent the pre-application notices, not that they have been received by all Building Unit owners. For future submittals of Form 2A for location within a Buffer Zone, please modify your pre-application notice certification letter to include this language.
- 4) Because you have indicated that a modular large volume storage tank (MLVT) will be used at this location, please also provide me with the size/volume of the MLVT, the anticipated timeframe it will be on location, and the manufacturer of the MLVT.
- 5) While you have included several BMPs concerning the use of the MLVT at this location, I would like to add the following Conditions of Approval:
  1. MLVTs may only be utilized for the storage of freshwater. E&P wastes, including produced water, treated E&P wastes, and flowback from hydraulic fracturing operations, are not allowed.
  2. MLVTs shall be constructed and operated in accordance with a design certified and sealed by a Colorado Licensed Professional Engineer.
  3. COGCC Rules 604.a. and 605.a.(2,3,5,6,7, and 8), as applicable to tank setbacks at the time of installation shall apply to the siting of MLVTs.
  4. All MLVT liner seams shall be welded at the liner manufacturers facility; field welded liners shall not be used. Liners shall not be reused.

Please reply to this correspondence with the requested information by June 5, 2014. If you have

any questions, please feel free to contact me. Thank you.

—

*Doug Andrews*

Oil & Gas Location Assessment Specialist - Northeast Area



**COLORADO**  
Oil & Gas Conservation  
Commission  
Department of Natural Resources

1120 Lincoln St., Suite 801  
Denver, CO 80203  
[doug.andrews@state.co.us](mailto:doug.andrews@state.co.us)  
303-894-2100 Ext. 5180

---

**Liz Lindow** <[Liz.Lindow@pdce.com](mailto:Liz.Lindow@pdce.com)>

Mon, May 5, 2014 at 12:33 PM

To: "Andrews - DNR, Doug" <[doug.andrews@state.co.us](mailto:doug.andrews@state.co.us)>

Please see my response below in RED. I still need to run #5 by my team.

Thank you,  
Liz

Liz Lindow | Regulatory Analyst (Progressive Consulting) | Consultant for PDC Energy | O: 303-831-3974 | F: 303-860-5838 | [liz.lindow@pdce.com](mailto:liz.lindow@pdce.com)

**From:** Andrews - DNR, Doug [<mailto:doug.andrews@state.co.us>]

**Sent:** Monday, May 05, 2014 10:53 AM

**To:** Liz Lindow

**Subject:** COGCC Form 2A review of PDC Energy's Thornton 2V-HZ Pad - Doc #400559411

Liz,

I have reviewed the referenced Form 2A Oil & Gas Location Assessment and have the following comments.

1) In the Facilities section you have indicated there will be one Buried Produced Water Vault on this location. Please provide a Best Management Practice that covers adverse impacts to shallow groundwater from the use of this produced water vault.

BMP: To prevent adverse impacts to shallow groundwater, buried produced water vault shall be installed above an impermeable synthetic or geosynthetic liner system which shall be tied back into the surface liner.

2) Your Facility Layout Drawing shows one meter on this location. Therefore I will add that to the Facilities section. **OK**

3) You have included an attachment certifying compliance with COGCC Rule 305.a. Pre-Application Notifications. I would like to make a suggestion to improve and clarify the language in your certification letter. Because COGCC Rule 303.b.(3)J requires operators to include "evidence that Building Unit owners within the Buffer Zone **received** the pre-application notice required by Rule 305.a.(2)", your certification letter should explicitly state that PDC certifies all Building Unit owners within the Buffer Zone **received** the pre-application notice and that proof of their receipt is kept on file with PDC. The letter you have included gives the impression that PDC only sent the pre-application notices, not that they have been received by all Building Unit owners. For future submittals of Form 2A for location within a Buffer Zone, please modify your pre-application notice certification letter to include this language. **Ok**

4) Because you have indicated that a modular large volume storage tank (MLVT) will be used at this location, please also provide me with the size/volume of the MLVT, the anticipated timeframe it will be on location, and the manufacturer of the MLVT. **This is already included in the comments portion of the 2A.**

5) While you have included several BMPs concerning the use of the MLVT at this location, I would like to add the following Conditions of Approval: **Need to talk to my team first. I know some of these points are still being discussed with the COGCC in regards to the draft policy. Any idea on when the policy is supposed to be finalized?**

1. MLVTs may only be utilized for the storage of freshwater. E&P wastes, including produced water, treated E&P wastes, and flowback from hydraulic fracturing operations, are not allowed.
2. MLVTs shall be constructed and operated in accordance with a design certified and sealed by a Colorado Licensed Professional Engineer.
3. COGCC Rules 604.a. and 605.a.(2,3,5,6,7, and 8), as applicable to tank setbacks at the time of installation shall apply to the siting of MLVTs.
4. All MLVT liner seams shall be welded at the liner manufacturer's facility; field welded liners shall not be used. Liners shall not be reused.

Please reply to this correspondence with the requested information by June 5, 2014. If you have any questions, please feel free to contact me. Thank you.

—

***Doug Andrews***

Oil & Gas Location Assessment Specialist - Northeast Area



**COLORADO**  
Oil & Gas Conservation  
Commission  
Department of Natural Resources

1120 Lincoln St., Suite 801

Denver, CO 80203

[doug.andrews@state.co.us](mailto:doug.andrews@state.co.us)

303-894-2100 Ext. 5180

---

**Liz Lindow** <[Liz.Lindow@pdce.com](mailto:Liz.Lindow@pdce.com)>

Wed, May 7, 2014 at 12:55 PM


To: "Andrews - DNR, Doug" <[doug.andrews@state.co.us](mailto:doug.andrews@state.co.us)>

Hello Doug,

In response to #5 below:

These proposed COAs are concerning as a group of operators that previously met with you and Greg to discuss the industry's comments on the MLVT Draft Policy. Randall also sent a follow up email on 4/18/14 to Greg to suggest a caveat to Rule 605.a.(2) to eliminate the need for a Property Line Waiver for MLVTs that are truly temporary and will be onsite for 120 days or less. As stated in the comments, this MLVT will be onsite for 30 days or less and we feel that this scenario constitutes a caveat to that particular rule. As such, the COAs (#s 2-4) you are requesting do not reflect those discussions over the suggested changes to the policy. Since the actual policy seems in the works and has not yet been finalized, we respectfully request that the COAs not be added to the permits as this requirement is a departure from locations with MLVTs that OGLA as recently approved. Your consideration of this request is greatly appreciated.

Thank you,  
Liz

 Liz Lindow | Regulatory Analyst (Progressive Consulting) | Consultant for PDC Energy | O: 303-831-3974 | F: 303-860-5838 | [liz.lindow@pdce.com](mailto:liz.lindow@pdce.com)

---

**From:** Liz Lindow


**Sent:** Monday, May 05, 2014 12:33 PM

**To:** 'Andrews - DNR, Doug'

**Subject:** RE: COGCC Form 2A review of PDC Energy's Thornton 2V-HZ Pad - Doc #400559411

Please see my response below in **RED**. I still need to run #5 by my team.

Thank you,  
Liz

 Liz Lindow | Regulatory Analyst (Progressive Consulting) | Consultant for PDC Energy | O: 303-831-3974 | F: 303-860-5838 | [liz.lindow@pdce.com](mailto:liz.lindow@pdce.com)

**From:** Andrews - DNR, Doug [<mailto:doug.andrews@state.co.us>]  
**Sent:** Monday, May 05, 2014 10:53 AM  
**To:** Liz Lindow  
**Subject:** COGCC Form 2A review of PDC Energy's Thornton 2V-HZ Pad - Doc #400559411

Liz,

I have reviewed the referenced Form 2A Oil & Gas Location Assessment and have the following comments.

1) In the Facilities section you have indicated there will be one Buried Produced Water Vault on this location. Please provide a Best Management Practice that covers adverse impacts to shallow groundwater from the use of this produced water vault.

BMP: To prevent adverse impacts to shallow groundwater, buried produced water vault shall be installed above an impermeable synthetic or geosynthetic liner system which shall be tied back into the surface liner.

2) Your Facility Layout Drawing shows one meter on this location. Therefore I will add that to the Facilities section. **OK**

3) You have included an attachment certifying compliance with COGCC Rule 305.a. Pre-Application Notifications. I would like to make a suggestion to improve and clarify the language in your certification letter. Because COGCC Rule 303.b.(3)J requires operators to include "evidence that Building Unit owners within the Buffer Zone **received** the pre-application notice required by Rule 305.a.(2)", your certification letter should explicitly state that PDC certifies all Building Unit owners within the Buffer Zone **received** the pre-application notice and that proof of their receipt is kept on file with PDC. The letter you have included gives the impression that PDC only sent the pre-application notices, not that they have been received by all Building Unit owners. For future submittals of Form 2A for location within a Buffer Zone, please modify your pre-application notice certification letter to include this language. **Ok**

4) Because you have indicated that a modular large volume storage tank (MLVT) will be used at this location, please also provide me with the size/volume of the MLVT, the anticipated timeframe

it will be on location, and the manufacturer of the MLVT. This is already included in the comments portion of the 2A.

5) While you have included several BMPs concerning the use of the MLVT at this location, I would like to add the following Conditions of Approval: Need to talk to my team first. I know some of these points are still being discussed with the COGCC in regards to the draft policy. Any idea on when the policy is supposed to be finalized?

1. MLVTs may only be utilized for the storage of freshwater. E&P wastes, including produced water, treated E&P wastes, and flowback from hydraulic fracturing operations, are not allowed.
2. MLVTs shall be constructed and operated in accordance with a design certified and sealed by a Colorado Licensed Professional Engineer.
3. COGCC Rules 604.a. and 605.a.(2,3,5,6,7, and 8), as applicable to tank setbacks at the time of installation shall apply to the siting of MLVTs.
4. All MLVT liner seams shall be welded at the liner manufacturers facility; field welded liners shall not be used. Liners shall not be reused.

Please reply to this correspondence with the requested information by June 5, 2014. If you have any questions, please feel free to contact me. Thank you.

—

*Doug Andrews*

Oil & Gas Location Assessment Specialist - Northeast Area



1120 Lincoln St., Suite 801

Denver, CO 80203

[doug.andrews@state.co.us](mailto:doug.andrews@state.co.us)

303-894-2100 Ext. 5180

---

**Andrews - DNR, Doug** <doug.andrews@state.co.us>  
To: Liz Lindow <Liz.Lindow@pdce.com>

Fri, May 30, 2014 at 2:09 PM

Liz,

I have modified my COA #2 -4 to reflect the COGCC's recently revised (May 29, 2014) MLVT policy which has been approved by Director Lepore. If these are still unacceptable to PDC,

please provide me BMPs that will address the concerns these COAs cover.

2. The MLVT shall be constructed and operated in accordance with a design package certified and sealed by a Licensed Professional Engineer either in Colorado or the state where the MLVT was designed or manufactured.

3. COGCC Rules 605.a.(3,5,6,7, and 8), as applicable to tank setbacks at the time of installation shall apply to the siting of this MLVT.

4. All MLVT liner seams shall be welded and tested in accordance with applicable ASTM international standards. Any repairs to liners shall be made using acceptable practices and applicable standards.

[Quoted text hidden]

---

**Liz Lindow** <Liz.Lindow@pdce.com>

Wed, Jun 4, 2014 at 8:37 AM

To: "Andrews - DNR, Doug" <doug.andrews@state.co.us>

These are approved.

Thank you!

Liz Lindow, Regulatory Analyst

PDC Energy

1775 Sherman Street, Suite 3000, Denver, CO 80203

Office: 303-831-3974 | Fax: 303-860-5838 | Cell: 303-590-8789 | [liz.lindow@pdce.com](mailto:liz.lindow@pdce.com)

---

**From:** Andrews - DNR, Doug [[doug.andrews@state.co.us](mailto:doug.andrews@state.co.us)]

**Sent:** Friday, May 30, 2014 2:09 PM

**To:** Liz Lindow

**Subject:** Re: COGCC Form 2A review of PDC Energy's Thornton 2V-HZ Pad - Doc #400559411

[Quoted text hidden]