

**STATE OF
COLORADO**

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

COGCC Form 2A review of PDC Energy's Thornton 14K-TB Pad - Doc #4004860225 messages

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

Fri, Dec 13, 2013 at 2:37 PM

To: Liz Lindow <liz.lindow@pdce.com>

Liz,

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

1) During my review I identified a High School approximately 2,770 feet northeast of the oil and gas location. Therefore, I will change the distance to the nearest High Occupancy Building Unit from 5,280 feet to 2,770 feet.

2) In the Facilities section you have indicated there will be one buried produced water vault at this oil and gas location. Due to the presence of shallow groundwater in the area of the oil and gas location, please provide me with site-specific Best Management Practices that PDC Energy will employ to prevent and contain any leaks of produced water from the buried vault.

3) A review of your Hydrology Map indicates the east end of an east-west irrigation ditch is located 182 west. This irrigation ditch appears to be topographically downgradient of the oil and gas location on the USGS topographic map. Therefore, I will change the distance to the nearest downgradient surface water feature from 400 feet to 182 feet.

4) You have included a Noise mitigation BMP on this Form 2A that pertains to drilling rigs in general and the Thornton 14K-441 well pad location in particular. As this oil and gas location will not have any wells or drill rigs on it, this noise mitigation measure does not apply. Please provide me with a site specific noise mitigation measure that will address noise control at this production facility.

5) Per COGCC Rule 303.b.(3)J.iii, please provide me evidence that the Building Unit owner within the Buffer Zone received their pre-application notice from PDC Energy. This can be accomplished via a signed letter on PDC letterhead that certifies all Building Unit owners received their pre-application notice.

Please respond with the requested items by January 13, 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
1120 Lincoln St., Suite 801
Denver, CO 80203

doug.andrews@state.co.us
303-894-2100 Ext. 5180

Liz Lindow <Liz.Lindow@pdce.com>

Wed, Dec 18, 2013 at 10:48 AM

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

See my answers below in **RED**.

 Liz Lindow | Regulatory Analyst | PDC Energy | O: 303-831-3974 | F: 303-860-5838 | liz.lindow@pdce.com

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

Sent: Friday, December 13, 2013 2:37 PM

To: Liz Lindow

Subject: COGCC Form 2A review of PDC Energy's Thornton 14K-TB Pad - Doc #400486022

Liz,

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2) In the Facilities section you have indicated there will be one buried produced water vault at this oil and gas location. Due to the presence of shallow groundwater in the area of the oil and gas location, please provide me with site-specific Best Management Practices that PDC Energy will employ to prevent and contain any leaks of produced water from the buried vault. **"To prevent adverse impacts to shallow groundwater, buried produced water vault constructed of fiberglass shall be installed above an impermeable synthetic or geosynthetic liner system which shall be tied back into the surface liner."**

3) A review of your Hydrology Map indicates the east end of an east-west irrigation ditch is located 182 west. This irrigation ditch appears to be topographically downgradient of the oil and gas location on the USGS topographic map. Therefore, I will change the distance to the nearest downgradient surface water feature from 400 feet to 182 feet. **OK**

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via a signed letter on PDC letterhead that certifies all Building Unit owners received their pre-application notice. **ATTACHED.**

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Denver, CO 80203

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Thornton 14K-441 and TB_Pre-App Certification.pdf

403K

Liz Lindow <Liz.Lindow@pdce.com>

Fri, Dec 20, 2013 at 9:10 AM

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

For #4 below for noise mitigation:

It is not anticipated that noise mitigation will be necessary at the proposed tank battery location. After construction is completed, equipment installed and production begins, noise levels will be assessed to determine if mitigation measures will be required to be compliant with Rule 802. If noise mitigation measures are warranted, the COGCC will be consulted accordingly.

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

From: Liz Lindow

Sent: Wednesday, December 18, 2013 10:48 AM

To: 'Andrews - DNR, Doug'

Subject: RE: COGCC Form 2A review of PDC Energy's Thornton 14K-TB Pad - Doc #400486022

See my answers below in **RED**.

 Liz Lindow | Regulatory Analyst | PDC Energy | O: 303-831-3974 | F: 303-860-5838 | liz.lindow@pdce.com

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Sent: Friday, December 13, 2013 2:37 PM

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

Fri, Dec 27, 2013 at 10:51 AM

To: Liz Lindow <Liz.Lindow@pdce.com>

Liz,

Now that the public comment period has closed, please let me know if any meetings with Building Unit owners and PDC Energy occurred and if any concerns were expressed by the Building Unit owners either during a meeting or in any correspondence (phone, letter, email, etc.) with PDC.

As a final step in the Form 2A notification process, per COGCC Rule 604.a.(2), please send me a signed letter on PDC letterhead certifying that PDC has complied with Rule 306.e. concerning meeting requirements.

Thank you.

[Quoted text hidden]

Liz Lindow <Liz.Lindow@pdce.com>

Mon, Dec 30, 2013 at 9:26 AM

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

Attached!

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

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Sent: Friday, December 27, 2013 10:51 AM

To: Liz Lindow

Subject: Re: COGCC Form 2A review of PDC Energy's Thornton 14K-TB Pad - Doc #400486022

[Quoted text hidden]



Thornton 14K-441 and 14K-TB_306e Certification to Director.pdf

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