

**STATE OF
COLORADO**

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

COGCC Form 2A review of Ward Petroleum's Sharp 24-3-11HC location - Doc #4005248314 messages

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

Thu, Jan 30, 2014 at 9:30 AM

Andrea,

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

A) Because Ward Petroleum plans to use a Temporary Large Volume Tank (TLVT) at this Oil and Gas Location, please provide me with the following additional information: the manufacturer of the TLVT, the size and volume of the TLVT, and the anticipated timeframe the TLVT will be onsite.

B) Because Ward Petroleum plans to use a TLVT at this Oil and Gas Location, I would like to add the following Conditions of Approval:

1. TLVTs 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. TLVTs shall be constructed and operated in accordance with a design certified and sealed by a Colorado Licensed Professional Engineer.
3. Site preparation and TLVT installation oversight shall be provided by a Professional Engineer or their designated representatives. Construction and installation of the tank structure, liner and sub-grade shall meet or exceed the manufacturer specifications.
4. 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 TLVTs.
5. All TLVT liner seams shall be welded at the liner manufacturers facility; field welded liners shall not be used. Liners shall not be reused.
6. Signs shall be posted on the TLVT to indicate contents are freshwater and that no E&P waste fluids are allowed. Location and additional signage shall conform to Rule 210.
7. TLVTs shall be operated with a minimum of 1 foot freeboard.
8. Operator shall be onsite and inspect for leaks during the initial filling of the TLVT. If leaks are observed, filling shall cease and the leaks be repaired and the integrity of the tank evaluated.
9. Once in operation, the TLVT shall be inspected daily and any deficiencies repaired as soon as practicable.
10. Access to the TLVT shall be limited to operational personnel.

11. Operators employing TLVTs on their Oil & Gas Locations shall develop and comply with a written standard operating procedure.
12. Operator shall develop a contingency plan for any TLVT leak or catastrophic failure of the tank integrity and resulting loss of fluid. The plan should include a notification process to the COGCC and local emergency authority (municipal, county or both) for any failure and resulting loss of fluid.
13. Should a failure of TLVT integrity occur, operator shall notify COGCC upon discovery, report the incident to COGCC on a Form 22-Accident Report within 10 days, and shall conduct a root cause analysis and provide it to the COGCC on a Form 4-Sundry Notice within 30 days of the failure.

C) During my review it appears that the topographically downgradient direction at this Oil and Gas Location is to the north. On the Hydrology Map a surface water feature is shown to the north (an irrigation ditch) approximately 522 feet from the Oil and Gas Location. Therefore, in the Water Resources section I would like to change the distance to the nearest downgradient surface water feature from 863 feet to 522 feet.

D) A review of the Location Drawing and Hydrology Map indicates there is an irrigation ditch approximately 13 west that flows directly through the Oil and Gas Location. What are Ward Petroleum's intentions for protecting the integrity and future use of this irrigation ditch?

E) There is a Planning BMP that indicates Ward Petroleum is permitting this 2A for five (5) wells. However, this Form 2A only indicates there will be two wells on this Oil & Gas Location. Please explain this discrepancy.

F) There is a Noise Mitigation BMP that indicates no noise mitigation will be required for this location. Please explain why Ward Petroleum thinks this is so.

G) Because this Oil and Gas Location is within a Designated Setback, please provide me with a **site specific** mitigation BMP that will address visual impacts of the oil and gas facilities proposed for this Oil and Gas Location.

H) Your Facility Layout Drawing shows a large area south of the two proposed wellheads that will not be reclaimed. Because this Oil and Gas Location is within a Designated Setback, please provide me with a **site specific** mitigation BMP that will address dust impacts from the unreclaimed portion of this Oil and Gas Location.

Please provide me the requested items by March 1, 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

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

Tue, Feb 4, 2014 at 12:51 PM

Doug,

Please see my responses in red. Let me know if you need anything else or have any questions.

Thank you,

Andrea

From: Andrews - DNR, Doug [mailto:doug.andrews@state.co.us]
Sent: Thursday, January 30, 2014 9:30 AM
To: Agross@upstreampm.com
Subject: COGCC Form 2A review of Ward Petroleum's Sharp 24-3-11HC location - Doc #400524831

Andrea,

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

A) Because Ward Petroleum plans to use a Temporary Large Volume Tank (TLVT) at this Oil and Gas Location, please provide me with the following additional information: the manufacturer of the TLVT, the size and volume of the TLVT, and the anticipated timeframe the TLVT will be onsite.

Ward Petroleum will supply COGCC with the TLVT specifications once a supplier has been selected. This information will be supplied prior to the TLVT being on location.

B) Because Ward Petroleum plans to use a TLVT at this Oil and Gas Location, I would like to add the following Conditions of Approval:

1. TLVTs 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. TLVTs shall be constructed and operated in accordance with a design certified and sealed by a Colorado Licensed Professional Engineer.
3. Site preparation and TLVT installation oversight shall be provided by a Professional Engineer or their designated representatives. Construction and installation of the tank structure, liner and sub-grade shall meet or exceed the manufacturer specifications.
4. 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 TLVTs.

5. All TLVT liner seams shall be welded at the liner manufacturers facility; field welded liners shall not be used. Liners shall not be reused.
6. Signs shall be posted on the TLVT to indicate contents are freshwater and that no E&P waste fluids are allowed. Location and additional signage shall conform to Rule 210.
7. TLVTs shall be operated with a minimum of 1 foot freeboard.
8. Operator shall be onsite and inspect for leaks during the initial filling of the TLVT. If leaks are observed, filling shall cease and the leaks be repaired and the integrity of the tank evaluated.
9. Once in operation, the TLVT shall be inspected daily and any deficiencies repaired as soon as practicable.
10. Access to the TLVT shall be limited to operational personnel.
11. Operators employing TLVTs on their Oil & Gas Locations shall develop and comply with a written standard operating procedure.
12. Operator shall develop a contingency plan for any TLVT leak or catastrophic failure of the tank integrity and resulting loss of fluid. The plan should include a notification process to the COGCC and local emergency authority (municipal, county or both) for any failure and resulting loss of fluid.
13. Should a failure of TLVT integrity occur, operator shall notify COGCC upon discovery, report the incident to COGCC on a Form 22-Accident Report within 10 days, and shall conduct a root cause analysis and provide it to the COGCC on a Form 4-Sundry Notice within 30 days of the failure.

C) During my review it appears that the topographically downgradient direction at this Oil and Gas Location is to the north. On the Hydrology Map a surface water feature is shown to the north (an irrigation ditch) approximately 522 feet from the Oil and Gas Location. Therefore, in the Water Resources section I would like to change the distance to the nearest downgradient surface water feature from 863 feet to 522 feet.

Please make the required change.

D) A review of the Location Drawing and Hydrology Map indicates there is an irrigation ditch approximately 13 west that flows directly through the Oil and Gas Location. What are Ward Petroleum's intentions for protecting the integrity and future use of this irrigation ditch?

The irrigation ditch that flows through the Oil and Gas Location will be diverted to the eastern boundary of the well pad and run west and north per agreements with the Surface Owner.

E) There is a Planning BMP that indicates Ward Petroleum is permitting this 2A for five (5) wells. However, this Form 2A only indicates there will be two wells on this Oil & Gas Location. Please explain this discrepancy.

Ward has designed and planned this location for up to 5 wells. At this moment they are only submitting 2 APDs and depending on production, they will permit the remaining 3 wells.

F) There is a Noise Mitigation BMP that indicates no noise mitigation will be required for this location. Please explain why Ward Petroleum thinks this is so.

Ward had an ambient sound study conducted for this location. Per the results, no sound mitigation will be necessary as it is anticipated that the noise will fall below levels for Light Industry.

G) Because this Oil and Gas Location is within a Designated Setback, please provide me with a site specific mitigation BMP that will address visual impacts of the oil and gas facilities proposed for this Oil and Gas Location.

Pursuant to Rule 804, the tank battery shall be painted in uniform, non-contrasting, non-reflective color tones with the colors matched to but slightly darker than the surrounding landscape. Additionally, because the location is within the Rule 604.a.(2) setback due to its proximity to the dealership to the south and east, the battery facilities will be fenced with a 6' chain-link fence with lath, the color for which shall be sufficiently similar to the tank color. This fence shall serve to restrict access to the site by unauthorized persons and as visual mitigation of the facility components.

H) You Facility Layout Drawing shows a large area south of the two proposed wellheads that will not be reclaimed. Because this Oil and Gas Location is within a Designated Setback, please provide me with a site specific mitigation BMP that will address dust impacts from the unreclaimed portion of this Oil and Gas Location.

Operator will comply with Rule 805.c and take all practicable measures to control fugitive dust caused by the operation, including but not limited to wetting the soil with fresh water via a truck with a spreader bar if deemed necessary.

Please provide me the requested items by March 1, 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

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

Wed, Feb 5, 2014 at 9:46 AM

Andrea,

Concerning your response to my request for the manufacturer of the TLVT, the size and volume of the TLVT, and the anticipated timeframe the TLVT will be onsite, I would like to add the following Condition of Approval to the Form 2A:

"Operator will submit, via a Form 4 Sundry Notice, information detailing the manufacturer of the Temporary Large Volume Tank (TLVT), the size and volume of the TLVT, and the anticipated timeframe the TLVT will be on the oil and gas location. This Form 4 Sundry Notice shall be submitted prior to the TLVT being brought onto the oil and gas location."

Please let me know if this and the other COAs are acceptable to Ward Petroleum Corp. Thank you.

[Quoted text hidden]

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

Wed, Feb 5, 2014 at 9:51 AM

Doug,

Ward has no problem and will comply with this COA.

Thank you,

Andrea

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

Sent: Wednesday, February 05, 2014 9:46 AM

To: Agross@upstreampm.com

Subject: Re: COGCC Form 2A review of Ward Petroleum's Sharp 24-3-11HC location - Doc #400524831

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