



STATE OF
COLORADO

Allison - DNR, Rick <rick.allison@state.co.us>

Nelson Ranches locations

Tina Taylor <Tina.Taylor@crzo.net>

Thu, May 16, 2013 at 12:13 PM

To: "Allison, Rick (Rick.Allison@state.co.us)" <Rick.Allison@state.co.us>

We agree to the COA's and will not have a pit on the 1-33.

And we will have new drawings for pit completed and will pass them along to you as soon as possible.

Tina Taylor

Regulatory Compliance Specialist

Carrizo Oil & Gas, Inc.

500 Dallas St.

Suite 2300

Houston, Texas 77002

713-328-1000 Main

713-358-6210 Direct

713-658-6440 Fax

From: Ryan Dornak

Sent: Thursday, May 16, 2013 1:11 PM

To: Tina Taylor

Subject: RE: Nelson Ranches locations

We agree to the COA's and will not have a pit on the 1-33.

Ryan W. Dornak

Drilling & Completions Engineer

Carrizo Oil & Gas, Inc.

713-358-6448 - Office

713-492-4072- Cell

713-328-1060 - Fax



From: Ryan Dornak
Sent: Thursday, May 16, 2013 1:09 PM
To: Tina Taylor
Subject: RE: Nelson Ranches locations

Is this currently holding up the drill pad permitting process?

From: Tina Taylor
Sent: Thursday, May 16, 2013 12:48 PM
To: Ryan Dornak
Subject: FW: Nelson Ranches locations
Importance: High

Ryan,

I just spoke to Rick and he wants us to send an email stating we agree with the following COAs and address Nelson Ranches 1-33-10-59 question.

Does Carrizo agree to these COAs?

COA 1: The freshwater storage pit is located partially in fill. Therefore a Form 15 Pit Permit must be submitted for Director Approval prior to construction of the pit. **Yes, Carrizo has submitted the form 15.**

COA 2: The Form 15 Pit Permit must include construction layout drawings that show the cut/fill and cross-sections through the pit. Pits in fill must include a design stamped by a Colorado Professional Engineer.

COA #2 we need new drawings stamped by a Colorado Professional Engineer.

What about the Nelson Ranches 1-33-10-59 location? Is a pit requested there?

Do we plan to have a pit at the Nelson Ranches 1-33-10-59 location?

Tina Taylor

Regulatory Compliance Specialist

Carrizo Oil & Gas, Inc.

500 Dallas St.

Suite 2300

Houston, Texas 77002

713-328-1000 Main

713-358-6210 Direct

713-658-6440 Fax

From: Allison - DNR, Rick [<mailto:rick.allison@state.co.us>]

Sent: Thursday, May 16, 2013 11:43 AM

To: Tina Taylor

Subject: Re: Nelson Ranches locations

Tina,

Does Carrizo agree to these COAs?

COA 1: The freshwater storage pit is located partially in fill. Therefore a Form 15 Pit Permit must be submitted for Director Approval prior to construction of the pit.

COA 2: The Form 15 Pit Permit must include construction layout drawings that show the cut/fill and cross-sections through the pit. Pits in fill must include a design stamped by a Colorado Professional Engineer.

What about the Nelson Ranches 1-33-10-59 location? Is a pit requested there?

Rick Allison, P.G.

Oil and Gas Location Specialist - Northeast Colorado

Colorado Oil and Gas Conservation Commission

303-894-2100 x5102

On Thu, May 16, 2013 at 10:06 AM, Tina Taylor <Tina.Taylor@crzo.net> wrote:

Rick,

I have submitted form 15 doc 400419289 for permit approval prior to construction.

Also, please add additional comments to bpm's for Nelson Ranches 1-27-10-59 2A doc 400403441.

Nelson Ranches additional BMP's

Site Specific Portions of the access road will cross highly erodible soil. The road will be built to the minimal width required and ditch vegetation will be established to prevent erosion.

Site Specific Production equipment will be painted with consideration to environmental colors to reduce visual contrast with the surrounding environment.

Site Specific Gas engines will be equipped with mufflers to reduce noise.

Site Specific The fresh water storage pit will be screened to reduce visibility.

Is this everything you need to pass our permit to drill?

Tina Taylor

Regulatory Compliance Specialist

Carrizo Oil & Gas, Inc.

500 Dallas St.

Suite 2300

Houston, Texas 77002

713-328-1000 Main

713-358-6210 Direct

713-658-6440 Fax

From: Allison - DNR, Rick [mailto:rick.allison@state.co.us]

Sent: Thursday, May 16, 2013 9:40 AM

To: Ryan Dornak

Cc: Tina Taylor; Fred Miller; Deranleau, Greg

Subject: Fwd: FW: Nelson Ranches locations

Ryan,

Thank you for the update.

We did not intend screening of the pit to include netting. Rather, we intend a visual screen from the Pawnee Buttes trail area via placement of the pit on the location, using existing topography as a screen, and/or placement of spoils and topsoil, coupled with revegetation and stabilization of those piles to provide some buffer. We are willing to see that BMP rewritten, if you have a suggestion.

The revised plats through the pit show that the northwest and northeast sides of the pit are almost entirely in fill, and will be constructed with a 2:1 slope. Therefore, COGCC still requires pre-approval of the Form 15 to construct a pit at this location. The Form 15 shall include engineering design certified by a Colorado PE.

Rick Allison, P.G.

Oil and Gas Location Specialist - Northeast Colorado

Colorado Oil and Gas Conservation Commission

[303-894-2100](tel:303-894-2100) x5102

----- Forwarded message -----

From: **Ryan Dornak** <Ryan.Dornak@crzo.net>

Date: Wed, May 15, 2013 at 5:24 PM

Subject: RE: FW: Nelson Ranches locations

To: "Allison - DNR, Rick" <rick.allison@state.co.us>, Tina Taylor <Tina.Taylor@crzo.net>, Fred Miller <Fred.Miller@crzo.net>

Rick,

Attached is a detailed plat of the freshwater pit construction.

Thanks,

Ryan W. Dornak

Drilling & Completions Engineer

Carrizo Oil & Gas, Inc.

[713-358-6448](tel:713-358-6448) - Office

[713-492-4072](tel:713-492-4072) - Cell

[713-328-1060](tel:713-328-1060) - Fax



From: Ryan Dornak
Sent: Tuesday, May 14, 2013 4:43 PM
To: 'Allison - DNR, Rick'; Tina Taylor; Fred Miller
Subject: RE: FW: Nelson Ranches locations

Rick,

We are generating more detailed plats for the pit, and agree to the BMP's, except that of screening the fresh water pit, as I don't understand how a net across an earthen water pit would reduce visibility. I actually see the black net adding visibility. I would like to discuss further.

Thanks,

Ryan

Ryan W. Dornak
Drilling & Completions Engineer
Carrizo Oil & Gas, Inc.
713-358-6448 - Office
713-492-4072- Cell
713-328-1060 - Fax



From: Allison - DNR, Rick [<mailto:rick.allison@state.co.us>]

Sent: Tuesday, May 14, 2013 9:50 AM

To: Tina Taylor; Ryan Dornak; Fred Miller

Subject: Re: FW: Nelson Ranches locations

Everyone,

I have not heard back regarding my response below. Are there questions, plans to submit more information, or move forward with the COAs?

Thank you.

Rick Allison, P.G.

Oil and Gas Location Specialist - Northeast Colorado

Colorado Oil and Gas Conservation Commission

[303-894-2100](tel:303-894-2100) x5102

On Tue, May 7, 2013 at 9:00 AM, Allison - DNR, Rick <rick.allison@state.co.us> wrote:

Tina, Ryan, and Fred:

The BMPs requested are for the locations overall, and not specific to the pits (with the exception of screening).

The BMPs pertain largely due to site stabilization and aesthetics due to the erodible nature of the soils at the locations and along the access road, as well as the proximity of the locations to the Pawnee Buttes trailhead and scenic areas.

COGCC appreciates that Carrizo does not intend to construct a freshwater pit on Nelson Ranches 27-14-10-59 location. However, we still have questions about the topography at the other two Nelson Ranches locations.

The Construction Layout Drawings included with the Form 2A do not include enough detail to determine whether a significant amount of the pit will be constructed in fill. Based on the cross-sections through the well pad, it appears that a portion of the pits will be in fill. I can pass these locations through to final approval with the conditions below, which require that we get detailed information to review the pits as a Pit Permit prior to pit construction. Alternatively, we need to look more thoroughly at these locations now - starting with a cross-sections through the freshwater pit, in addition to the well pad.

Please feel free to call me to discuss.

Rick Allison, P.G.

Oil and Gas Location Specialist - Northeast Colorado

Colorado Oil and Gas Conservation Commission

303-894-2100 x5102

On Thu, May 2, 2013 at 9:41 AM, Tina Taylor <Tina.Taylor@crzo.net> wrote:

I spoke with Ryan and he wanted me to tell you we agree not to build the pit on Nelson Ranches 27-14-10-59. However, he also wanted me to let you know that the other two Nelson Ranches 1-27-10-59 and 1-33-10-59 does not have significant portions of fill. They have much flatter topography; so our question is why do we need the COA's and BMP's?

Tina Taylor

Regulatory Compliance Specialist

Carrizo Oil & Gas, Inc.

500 Dallas St.

Suite 2300

Houston, Texas 77002

713-328-1000 Main

713-358-6210 Direct

713-658-6440 Fax

From: Ryan Dornak

Sent: Tuesday, April 30, 2013 4:10 PM

To: Tina Taylor

Cc: Fred Miller

Subject: RE: Nelson Ranches locations

As we will drill either the Nelson Ranches 1-33-10-59 or the 1-27-10-59 pads first, which have much flatter topography, just withdrawal the 27-14-10-59 pit.

Ryan W. Dornak

Drilling & Completions Engineer

Carrizo Oil & Gas, Inc.

713-358-6448 - Office

713-492-4072- Cell

713-328-1060 - Fax



From: Tina Taylor
Sent: Tuesday, April 30, 2013 2:26 PM
To: Ryan Dornak
Cc: Fred Miller
Subject: FW: Nelson Ranches locations

Please read Rick's comments and condition of approvals below. I've copied Fred on this email as well because the condition of approvals relate to the pit. I will need to know the date in which Carrizo will construct the pit so I can file the Form 15 prior to construction.

Tina Taylor
Regulatory Compliance Specialist
Carrizo Oil & Gas, Inc.
500 Dallas St.
Suite 2300
Houston, Texas 77002
713-328-1000 Main
713-358-6210 Direct
713-658-6440 Fax

From: Allison - DNR, Rick [<mailto:rick.allison@state.co.us>]

Sent: Tuesday, April 30, 2013 2:21 PM
To: Tina Taylor
Subject: Re: Nelson Ranches locations

Tina,

For both locations, I would like Carrizo to include the following BMPs that are also stated on the approved Nelson Ranches 27-14-10-59:

1. Portions of the access road will cross highly erodible soil. The road will be built to the minimal width required and ditch vegetation will be established to prevent erosion.
2. Operator will implement interim reclamation measures immediately after construction of the location to stabilize cut and fill slopes, stabilize the topsoil and spoil stockpiles, establish desirable vegetation and control weeds on the location.
3. The fresh water storage pit will be screened to reduce visibility.
4. Production equipment will be painted with consideration to environmental colors to reduce visual contrast with the surrounding environment.

My question regarding the pit location was because it appears the freshwater pit on each location may be constructed within a significant portion of fill. Therefore, please agree to the following condition of approval for both the 1-27-10-59 and 1-33-10-59 locations:

COA 1: The freshwater storage pit is located partially in fill. Therefore a Form 15 Pit Permit must be submitted for Director Approval prior to construction of the pit.

COA 2: The Form 15 Pit Permit must include construction layout drawings that show the cut/fill and cross-sections through the pit. Pits in fill must include a design stamped by a Colorado Professional Engineer.

Please let me know if you have any questions about this.

Thank you.

Rick Allison, P.G.

Oil and Gas Location Specialist - Northeast Colorado

Colorado Oil and Gas Conservation Commission

[303-894-2100](tel:303-894-2100) x5102

On Mon, Apr 29, 2013 at 12:41 PM, Tina Taylor <Tina.Taylor@crzo.net> wrote:

Sorry it took so long to reply. I just got with Ryan and he said we will keep the Nelson Ranches 27-14-10-59 location 428203 (remove pit) and we will put the frac pit at the Nelson Ranches 1-27-10-59 (New

location).

Did you have a question on Nelson Ranches 1-33-10-59?

Tina Taylor

Regulatory Compliance Specialist

Carrizo Oil & Gas, Inc.

500 Dallas St.

Suite 2300

Houston, Texas 77002

713-328-1000 Main

713-358-6210 Direct

713-658-6440 Fax

From: Allison - DNR, Rick [mailto:rick.allison@state.co.us]

Sent: Wednesday, April 24, 2013 3:09 PM

To: Tina Taylor

Subject: Nelson Ranches locations

Tina,

I am reviewing the Nelson Ranches 1-27-10-59 and 1-33-10-59 locations. I have two initial questions.

1. What does Carrizo plan to do with the Nelson Ranches 27-14-10-59 location (Location ID 428203)?
2. Is it known where the freshwater storage pit will be located?

Thank you.

Rick Allison, P.G.

Oil and Gas Location Specialist - Northeast Colorado

Colorado Oil and Gas Conservation Commission

303-894-2100 x5102

