

**Devon Energy
Production Company,
L.P. – Produced Water
Treatment Research Pilot
Project 2RF-141 -
Cotton Draw Recycling
Facility
[fVV2325636574]
Modification**

**[6137] Devon Energy Production
Company, L.P
05/20/2024**



May 13, 2024

Ms. Victoria Venegas
New Mexico EMNRD
Oil Conservation Division

RE: Request for Permit Modification of an approved Produced Water Pilot Project at the Devon Energy Cotton Draw Recycle Containment (2RF-141).

Ms. Venegas:

Devon Energy Corporation is requesting to modify the terms of the pilot project regarding produced water desalination at the Cotton Draw Recycle Containment and AST.

Devon is requesting approval to use a lined Muscle Wall as a secondary containment instead of a lined earthen berm around the pad at the Cotton Draw Recycle Facility. The reason for this request is Devon has determined that this approach is more cost-effective as they do not need as much containment for the equipment as originally planned. All Pilot Project equipment will still be placed in the lined secondary containment area mentioned above. Devon will follow all guidelines set forth by NMOCD and operate the Pilot Project as originally permitted by NMOCD per the original application.

Enclosed within this submission is a C-147 form with the Modification Box checked for both the earthen containment and AST and a diagram of the Muscle Wall Containment to be used.

Should you have any questions or require additional information, please contact me by phone at 580-234-8780 or by email at mratke@envirotechconsulting.com at your convenience.

Thank you for your consideration.
Best regards,

ENVIROTECH ENGINEERING & CONSULTING, INC.

A handwritten signature in black ink, appearing to read "Mitchell Ratke". The signature is fluid and cursive, with the first name "Mitchell" and last name "Ratke" clearly distinguishable.

Mitchell Ratke, P.E.
Sr. Project Engineer, Energy Infrastructure

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-147
Revised April 3, 2017

Recycling Facility and/or Recycling Containment

Type of Facility: ☐ Recycling Facility ☒ Recycling Containment*
Type of action: ☐ Permit ☐ Registration
☒ Modification ☐ Extension
☐ Closure ☒ Other (explain) Produced Water Pilot Project

* At the time C-147 is submitted to the division for a Recycling Containment, a copy shall be provided to the surface owner.

Be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Devon Energy Corporation (For multiple operators attach page with information) OGRID #: 6137
Address: 333 West Sheridan, Oklahoma City, Oklahoma 737102-8260
Facility or well name (include API# if associated with a well): Cotton Draw Recycle Facility
OCD Permit Number: 2RF-141 (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr 1 Section 22 Township 25 South Range 31 County: Eddy
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Recycling Facility:**
Location of recycling facility (if applicable): Latitude _____ Longitude _____ NAD83
Proposed Use: ☐ Drilling* ☐ Completion* ☐ Production* ☐ Plugging *
**The re-use of produced water may NOT be used until fresh water zones are cased and cemented*
☐ Other, *requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.*
☐ Fluid Storage
☐ Above ground tanks ☐ Recycling containment ☐ Activity permitted under 19.15.17 NMAC explain type _____
☐ Activity permitted under 19.15.36 NMAC explain type: _____ ☐ Other explain _____
☐ For multiple or additional recycling containments, attach design and location information of each containment
☐ **Closure Report (required within 60 days of closure completion):** ☐ Recycling Facility Closure Completion Date: _____

3.
☐ **Recycling Containment:**
☐ Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)
Center of Recycling Containment (if applicable): Latitude _____ Longitude _____ NAD83
☐ For multiple or additional recycling containments, attach design and location information of each containment
☐ Lined ☐ Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____
☐ Recycling Containment Closure Completion Date: _____

4.

Bonding:

- ☐ Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC (These containments are limited to only the wells owned or operated by the owners of the containment.)
- ☐ Bonding in accordance with 19.15.34.15(A)(1). Amount of bond \$ _____ (work on these facilities cannot commence until bonding amounts are approved)
- ☐ Attach closure cost estimate and documentation on how the closure cost was calculated.

5.

Fencing:

- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☐ Alternate. Please specify _____

6.

Signs:

- ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.16.8 NMAC

7.

Variances:

Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.

Check the below box only if a variance is requested:

- ☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.

If a Variance is requested, it must be approved prior to implementation.

8.

Siting Criteria for Recycling Containment

Instructions: The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the application. Potential examples of the siting attachment source material are provided below under each criteria.

General siting**Ground water is less than 50 feet below the bottom of the Recycling Containment.**

NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No
☐ NA

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

☐ Yes ☐ No
☐ NA

- Written confirmation or verification from the municipality; written approval obtained from the municipality

Within the area overlying a subsurface mine.

☐ Yes ☐ No

- Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division

Within an unstable area.

☐ Yes ☐ No

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map

Within a 100-year floodplain. FEMA map

☐ Yes ☐ No

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

☐ Yes ☐ No

- Topographic map; visual inspection (certification) of the proposed site

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

☐ Yes ☐ No

- Visual inspection (certification) of the proposed site; aerial photo; satellite image

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.

☐ Yes ☐ No

- NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site

Within 500 feet of a wetland.

☐ Yes ☐ No

- US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site

9.

Recycling Facility and/or Containment Checklist:

Instructions: Each of the following items must be attached to the application. Indicate, by a check mark in the box, that the documents are attached.

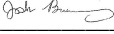
- ☐ Design Plan - based upon the appropriate requirements.
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements.
- ☐ Closure Plan - based upon the appropriate requirements.
- ☐ Site Specific Groundwater Data -
- ☐ Siting Criteria Compliance Demonstrations –
- ☐ **Certify that notice of the C-147 (only) has been sent to the surface owner(s)**

10.

Operator Application Certification:

I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.

Name (Print): Josh Bruening Title: Supervisor

Signature:  Date: 5-16-2024

e-mail address: josh.bruening@dvn.com Telephone: 405-552-7882

11.

OCD Representative Signature: Victoria Venegas Approval Date: 05/20/2024

Title: Environmental Specialist OCD Permit Number: 2RF-141

☒ OCD Conditions

☒ Additional OCD Conditions on Attachment

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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Form C-147
Revised April 3, 2017

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Address: 333 West Sheridan, Oklahoma City, Oklahoma 737102-8260
Facility or well name (include API# if associated with a well): Cotton Draw Recycle Facility - AST
OCD Permit Number: 2RF-141 (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr Section 22 Township 25 South Range 31 East County: Eddy
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Recycling Facility:**
Location of recycling facility (if applicable): Latitude 32.113744 Longitude -103.758072 NAD83
Proposed Use: ☒ Drilling* ☒ Completion* ☒ Production ☒ Plugging
**The re-use of produced water may NOT be used until fresh water zones are cased and cemented*
☐ Other, *requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.*
☒ Fluid Storage
☐ Above ground tanks ☒ Recycling containment ☐ Activity permitted under 19.15.17 NMAC explain type _____
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☐ For multiple or additional recycling containments, attach design and location information of each containment
☐ **Closure Report (required within 60 days of closure completion):** ☐ Recycling Facility Closure Completion Date: _____

3.
☒ **Recycling Containment:**
☐ Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)
Center of Recycling Containment (if applicable): Latitude 32.115697 Longitude 103.758169 NAD83
☐ For multiple or additional recycling containments, attach design and location information of each containment
☒ Lined ☒ Liner type: Thickness 40/40 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☒ Welded ☒ Factory ☒ Other Field Welds Volume: 40,000 bbl Dimensions: L 12 x W 155 x D _____
☐ Recycling Containment Closure Completion Date: _____ *155' diameter round AST

4.

Bonding:

- ☐ Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC (These containments are limited to only the wells owned or operated by the owners of the containment.)
- ☒ Bonding in accordance with 19.15.34.15(A)(1). Amount of bond \$ 793,760.00 (work on these facilities cannot commence until bonding amounts are approved)
- ☒ Attach closure cost estimate and documentation on how the closure cost was calculated.

5.

Fencing:

- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☒ Alternate. Please specify Chain Link Game Fence

6.

Signs:

- ☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.16.8 NMAC

7.

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- Written confirmation or verification from the municipality; written approval obtained from the municipality

☐ Yes ☒ No
☐ NA

Within the area overlying a subsurface mine.

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☐ Yes ☒ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map

☐ Yes ☒ No

Within a 100-year floodplain. FEMA map

☐ Yes ☒ No

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; visual inspection (certification) of the proposed site

☐ Yes ☒ No

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; aerial photo; satellite image

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Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.

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Within 500 feet of a wetland.

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☒ Operating and Maintenance Plan - based upon the appropriate requirements.
☒ Closure Plan - based upon the appropriate requirements.
☒ Site Specific Groundwater Data -
☒ Siting Criteria Compliance Demonstrations –
☒ Certify that notice of the C-147 (only) has been sent to the surface owner(s)

10.

Operator Application Certification:

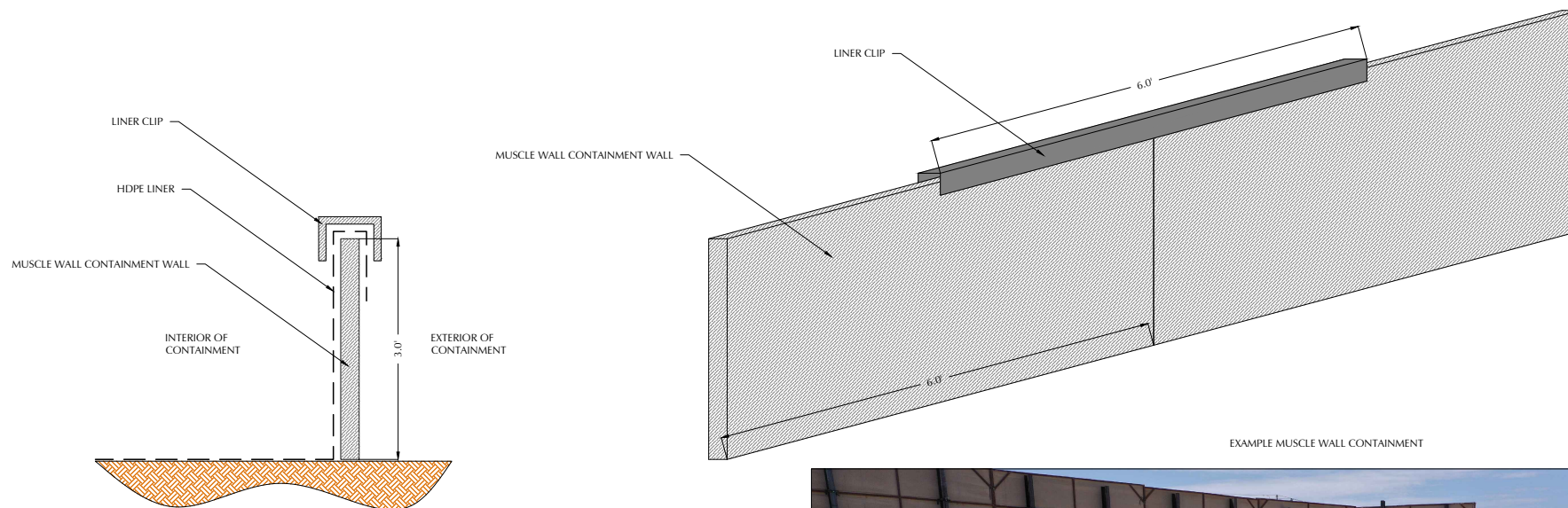
I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.

Name (Print): Josh Bruening Title: SupervisorSignature:  Date: 5-16-2024e-mail address: josh.bruening@dvn.com Telephone: 405-552-7882

11.

OCD Representative Signature: Victoria Venegas Approval Date: 05/20/2024Title: Environmental Specialist OCD Permit Number: 2RF-141

- ☒ OCD Conditions _____
☒ Additional OCD Conditions on Attachment



EXAMPLE MUSCLE WALL CONTAINMENT



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SECONDARY CONTAINMENT

DEVON COTTON DRAW PRODUCED WATER PILOT PROJECT



2500 N. Eleventh Street Enid, OK 73701 • 580.234.8780 • envirotechconsulting.com
C.A. #1960 - Expiration Date: 6-30-2024



Project No.
24.091-01

Figure 2A

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 345254

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 345254
	Action Type: [C-147] Water Recycle Long (C-147L)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	The requested modification is approved. No changes to the operations procedures, maintenance, and monitoring procedures, or closure procedures will be made aside from the approved modification. Devon Energy Production Company, L.P. –Produced Water Treatment Research Pilot Project will operate as originally permitted. The signed C-147 can be found in OCD Imaging	5/20/2024