

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

5. Lease Serial No.
NMLC061873B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
COTTON DRAW UNIT 498H

9. API Well No.
30-025-4767

10. Field and Pool, or Exploratory
PADUCA / DELAWARE

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 18 / T25S / R32E / NMP

1a. Type of work: DRILL REENTER

1b. Type of Well: Oil Well Gas Well Other Single Zone Multiple Zone

2. Name of Operator
DEVON ENERGY PRODUCTION COMPANY LP (6137)

3a. Address
333 West Sheridan Avenue Oklahoma City OK

3b. Phone No. (include area code)
(405)552-6571

4. Location of Well (Report location clearly and in accordance with any State requirements.)*
At surface NWNE / 175 FNL / 1740 FEL / LAT 32.1370945 / LONG -103.7114525
At proposed prod. zone SWSE / 290 FSL / 1680 FEL / LAT 32.1238742 / LONG -103.7113238

14. Distance in miles and direction from nearest town or post office*
21 miles

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft.
175 feet
(Also to nearest drig. unit line, if any)

16. No. of acres in lease
1759.31

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, 540 feet applied for, on this lease, ft.

19. Proposed Depth
8272 feet / 12775 feet

20. BLM/BIA Bond No. on file
FED: CO1104

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3423 feet

22. Approximate date work will start*
10/01/2017

23. Estimated duration
45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- 1. Well plat certified by a registered surveyor.
- 2. A Drilling Plan.
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification
- 6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature
(Electronic Submission)

Name (Printed/Typed)
Linda Good / Ph: (405)552-6558

Date
09/01/2016

Title
Regulatory Compliance Professional

Approved by (Signature)
(Electronic Submission)

Name (Printed/Typed)
Cody Layton / Ph: (575)234-5959

Date
03/06/2017

Title
Supervisor Multiple Resources

Office
HOBBS

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

APPROVED WITH CONDITIONS

Ka
03/13/17

APD ID: 10400005100	Submission Date: 09/01/2016	Highlight All Changes
Operator Name: DEVON ENERGY PRODUCTION COMPANY LP	Federal/Indian APD: FED	
Well Name: COTTON DRAW UNIT	Well Number: 498H	
Well Type: OIL WELL	Well Work Type: Drill	

Application

Section 1 - General

APD ID: 10400005100	Tie to previous NOS?	Submission Date: 09/01/2016
BLM Office: HOBBS	User: Linda Good	Title: Regulatory Compliance Professional
Federal/Indian APD: FED	Is the first lease penetrated for production Federal or Indian? FED	
Lease number: NMLC061873B	Lease Acres: 1759.31	
Surface access agreement in place?	Allotted?	Reservation:
Agreement in place? NO	Federal or Indian agreement:	
Agreement number:		
Agreement name:		
Keep application confidential? YES		
Permitting Agent? NO	APD Operator: DEVON ENERGY PRODUCTION COMPANY LP	
Operator letter of designation:		
Keep application confidential? YES		

Operator Info

Operator Organization Name: DEVON ENERGY PRODUCTION COMPANY LP
Operator Address: 333 West Sheridan Avenue
Operator PO Box: Zip: 73102
Operator City: Oklahoma City **State:** OK
Operator Phone: (405)552-6571
Operator Internet Address: aletha.dewbre@dvn.com

Section 2 - Well Information

Well in Master Development Plan? NO	Mater Development Plan name:
Well in Master SUPO? NO	Master SUPO name:
Well in Master Drilling Plan? NO	Master Drilling Plan name:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Well Name: COTTON DRAW UNIT

Well Number: 498H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: PADUCA

Pool Name: DELAWARE

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL,POTASH

Describe other minerals:

Is the proposed well in a Helium production area? N

Use Existing Well Pad? NO

New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name:

Number: 288H/449H/498H

Well Class: HORIZONTAL

COTTON DRAW UNIT

Number of Legs:

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 21 Miles

Distance to nearest well: 540 FT

Distance to lease line: 175 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: CDU 498H_C-102_4658_signed_08-31-2016.pdf

Well work start Date: 10/01/2017

Duration: 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: 4658A

STATE: NEW MEXICO

Meridian: NEW MEXICO PRINCIPAL **County:** LEA

Latitude: 32.1370945

Longitude: -103.7114525

SHL

Elevation: 3423

MD: 0

TVD: 0

Leg #: 1

Lease Type: FEDERAL

Lease #: NMLC061873A

NS-Foot: 175

NS Indicator: FNL

EW-Foot: 1740

EW Indicator: FEL

Twsp: 25S

Range: 32E

Section: 18

Aliquot: NWNE

Lot:

Tract:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.1370945	Longitude: -103.7114525	
KOP	Elevation: -4214	MD: 7638	TVD: 7637
Leg #: 1	Lease Type: FEDERAL	Lease #: NMLC061873A	
	NS-Foot: 175	NS Indicator: FNL	
	EW-Foot: 1740	EW Indicator: FEL	
	Twsp: 25S	Range: 32E	Section: 18
	Aliquot: NWNE	Lot:	Tract:
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.1370945	Longitude: -103.7114525	
PPP	Elevation: -4748	MD: 8324	TVD: 8171
Leg #: 1	Lease Type: FEDERAL	Lease #: NMLC061873A	
	NS-Foot: 539	NS Indicator: FNL	
	EW-Foot: 1735	EW Indicator: FEL	
	Twsp: 25S	Range: 32E	Section: 18
	Aliquot: NWNE	Lot:	Tract:
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.1238742	Longitude: -103.7113238	
EXIT	Elevation: -4849	MD: 12775	TVD: 8272
Leg #: 1	Lease Type: FEDERAL	Lease #: NMLC061873B	
	NS-Foot: 290	NS Indicator: FSL	
	EW-Foot: 1680	EW Indicator: FEL	
	Twsp: 25S	Range: 32E	Section: 18
	Aliquot: SWSE	Lot:	Tract:
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.1238742	Longitude: -103.7113238	
BHL	Elevation: -4849	MD: 12775	TVD: 8272
Leg #: 1	Lease Type: FEDERAL	Lease #: NMLC061873B	
	NS-Foot: 290	NS Indicator: FSL	
	EW-Foot: 1680	EW Indicator: FEL	

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Twsp: 25S

Range: 32E

Section: 18

Aliquot: SWSE

Lot:

Tract:

Drilling Plan

Section 1 - Geologic Formations

ID: Surface formation

Name: UNKNOWN

Lithology(ies):

ALLUVIUM

Elevation: 3423

True Vertical Depth: 0

Measured Depth: 0

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 1

Name: RUSTLER

Lithology(ies):

DOLOMITE

Elevation: 2818

True Vertical Depth: 605

Measured Depth: 605

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 2

Name: SALADO

Lithology(ies):

SALT

Elevation: 2785

True Vertical Depth: 638

Measured Depth: 638

Mineral Resource(s):

NONE

Is this a producing formation? N

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 7

Name: CHERRY CANYON

Lithology(ies):

SANDSTONE

Elevation: -1944

True Vertical Depth: 5367

Measured Depth: 5367

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 8

Name: BRUSHY CANYON

Lithology(ies):

SANDSTONE

Elevation: -3347

True Vertical Depth: 6770

Measured Depth: 6770

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 9

Name: BRUSHY CANYON LOWER

Lithology(ies):

SANDSTONE

Elevation: -4682

True Vertical Depth: 8105

Measured Depth: 8105

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? Y

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M

Rating Depth: 8272

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.

Testing Procedure: A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Choke Diagram Attachment:

CDU 498H_3M BOPE Double Ram and CLS Schem_08-31-2016.pdf

BOP Diagram Attachment:

CDU 498H_3M BOPE Double Ram and CLS Schem_08-31-2016.pdf

Pressure Rating (PSI): 3M

Rating Depth: 4200

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.

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Choke Diagram Attachment:

CDU 498H_3M BOPE Double Ram and CLS Schem_08-31-2016.pdf

BOP Diagram Attachment:

CDU 498H_3M BOPE Double Ram and CLS Schem_08-31-2016.pdf

Section 3 - Casing

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

String Type: PRODUCTION

Other String Type:

Hole Size: 8.75

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: 3423

Bottom setting depth MD: 12775

Bottom setting depth TVD: 9135

Bottom setting depth MSL: -5712

Calculated casing length MD: 12775

Casing Size: 5.5

Other Size

Grade: P-110

Other Grade:

Weight: 17

Joint Type: BUTT

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 2.18

Burst Design Safety Factor: 2.7

Joint Tensile Design Safety Factor type: BUOYANT

Joint Tensile Design Safety Factor: 3.21

Body Tensile Design Safety Factor type: BUOYANT

Body Tensile Design Safety Factor: 3.21

Casing Design Assumptions and Worksheet(s):

CDU 498H_Production Casing Assumptions_08-31-2016.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

String Type: SURFACE

Other String Type:

Hole Size: 17.5

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL:

Bottom setting depth MD: ~~680~~ 770

Bottom setting depth TVD: ~~680~~ 770

Bottom setting depth MSL: 2743

Calculated casing length MD: ~~680~~ 770

Casing Size: 13.375

Other Size

Grade: J-55

Other Grade:

Weight: 48

Joint Type: STC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.74

Burst Design Safety Factor: 2.45

Joint Tensile Design Safety Factor type: BUOYANT

Joint Tensile Design Safety Factor: 4.13

Body Tensile Design Safety Factor type: BUOYANT

Body Tensile Design Safety Factor: 4.13

Casing Design Assumptions and Worksheet(s):

CDU 498H_Surface Casing Assumptions_08-31-2016.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

String Type: INTERMEDIATE

Other String Type:

Hole Size: 12.25

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: 3423

Bottom setting depth MD: 4200

Bottom setting depth TVD: 4200

Bottom setting depth MSL: -777

Calculated casing length MD: 4200

Casing Size: 9.625

Other Size

Grade: J-55

Other Grade:

Weight: 40

Joint Type: LTC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.19

Burst Design Safety Factor: 1.42

Joint Tensile Design Safety Factor type: BUOYANT

Joint Tensile Design Safety Factor: 3.98

Body Tensile Design Safety Factor type: BUOYANT

Body Tensile Design Safety Factor: 3.98

Casing Design Assumptions and Worksheet(s):

CDU 498H_Intermediate Casing Assumptions_08-31-2016.pdf

Section 4 - Cement

Casing String Type: SURFACE

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Stage Tool Depth:

Lead

Top MD of Segment: 0

Bottom MD Segment: ~~680~~ 770

Cement Type: C

Additives: 1% Calcium Chloride

Quantity (sks): 550

Yield (cu.ff./sk): 1.34

Density: 14.8

Volume (cu.ft.): 730

Percent Excess: 50

Casing String Type: INTERMEDIATE

Stage Tool Depth:

Lead

Top MD of Segment: 0

Bottom MD Segment: 3200

Cement Type: C

Additives: Poz (Fly Ash): 6% BWOC
Bentonite + 5% BWOW Sodium
Chloride + 0.125 lbs/sks Poly-E-Flake

Quantity (sks): 705

Yield (cu.ff./sk): 1.85

Density: 12.9

Volume (cu.ft.): 1300

Percent Excess: 30

Tail

Top MD of Segment: 3200

Bottom MD Segment: 4200

Cement Type: H

Additives: 0.125 lbs/sks Poly-R-Flake

Quantity (sks): 320

Yield (cu.ff./sk): 1.33

Density: 14.8

Volume (cu.ft.): 426

Percent Excess: 30

Casing String Type: PRODUCTION

Stage Tool Depth:

Lead

Top MD of Segment: 4000

Bottom MD Segment: 8100

Cement Type: TUNED

Additives: N/A

Quantity (sks): 365

Yield (cu.ff./sk): 3.27

Density: 9

Volume (cu.ft.): 1190

Percent Excess: 25

Tail

Top MD of Segment: 8100

Bottom MD Segment: 12775

Cement Type: H

Additives: Poz (Fly Ash) + 0.5% bwoc
HALAD-344 + 0.4% bwoc CFR-3 +
0.2% BWOC HR-601 + 2% bwoc
Bentonite

Quantity (sks): 1132

Yield (cu.ff./sk): 1.2

Density: 14.5

Volume (cu.ft.): 1360

Percent Excess: 25

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth: 0	Bottom Depth: 4250
Mud Type: SALT SATURATED	
Min Weight (lbs./gal.): 10	Max Weight (lbs./gal.): 11
Density (lbs/cu.ft.):	Gel Strength (lbs/100 sq.ft.):
PH:	Viscosity (CP): 2
Filtration (cc):	Salinity (ppm):
Additional Characteristics:	
Top Depth: 0	Bottom Depth: 640
Mud Type: WATER-BASED MUD	
Min Weight (lbs./gal.): 8.5	Max Weight (lbs./gal.): 9
Density (lbs/cu.ft.):	Gel Strength (lbs/100 sq.ft.):
PH:	Viscosity (CP): 2
Filtration (cc):	Salinity (ppm):
Additional Characteristics:	

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Top Depth: 4250

Bottom Depth: 12777

Mud Type: WATER-BASED MUD

Min Weight (lbs./gal.): 8.5

Max Weight (lbs./gal.): 9.3

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP): 12

Filtration (cc):

Salinity (ppm):

Additional Characteristics:

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.

List of open and cased hole logs run in the well:

CALIPER, DS, GR, MWD, MUDLOG

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3722

Anticipated Surface Pressure: 1902.16

Anticipated Bottom Hole Temperature(F): 140

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

CDU 498H_H2S Plan_08-31-2016.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

CDU 498H_Directional Plan_08-31-2016.pdf

Other proposed operations facets description:

Multi-bowl Verbiage

Multi-bowl Wellhead

Closed Loop Design Plan

Production Cement Contingency

Other proposed operations facets attachment:

CDU 498H_Multi-Bowl Verbiage_3M_08-31-2016.pdf

CDU 498H_Multi-Bowl Wellhead_08-31-2016.pdf

CDU 498H_Closed Loop Design Plan_08-31-2016.pdf

CDU 498H_ProdCmtContg_11-11-2016.pdf

Other Variance attachment:

CDU 498H_H_P Co-flex hose_08-31-2016.pdf

SUPO

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

CDU 498H_Existing Access Rd_08-31-2016.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: Improve road to accommodate Drilling and Completion operations.

Existing Road Improvement Attachment:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

CDU 498H_Access Rd for_CDU_449H_498H_288H_P_AA000000000_08-31-2016.pdf

New road type: COLLECTOR,RESOURCE

Length: 2101.08 Feet **Width (ft.):** 16

Max slope (%): 6 **Max grade (%):** 4

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Water drainage ditch.

New road access plan or profile prepared? YES

New road access plan attachment:

CDU 498H_Access Rd for_CDU_449H_498H_288H_P_AA000000000_08-31-2016.pdf

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: GRAVEL

Access topsoil source: ONSITE

Access surfacing type description:

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: See attached Interim reclamation diagram.

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: N/A

Road Drainage Control Structures (DCS) description: N/A

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

CDU 498H_1 Mile Map_08-31-2016.pdf

Existing Wells description:

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: All flowlines will be buried going to the CDU 13-18 DL CTB.

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: STIMULATION

Water source type: RECYCLED

Describe type:

Source latitude:

Source longitude:

Source datum:

Water source permit type: OTHER

Source land ownership: FEDERAL

Water source transport method: PIPELINE,TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 85000

Source volume (acre-feet): 10.955914

Source volume (gal): 3570000

Water source and transportation map:

CDU 498H_Wtr Xfr Map_rev_11-11-2016.pdf

Water source comments: The attached Water Transfer Map is a proposal only and the final route and documentation will be provided by a Devon contractor prior to installation. When available Devon will always follow existing disturbance.

New water well? NO

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Dirt fill and caliche will be used to construct well pad.

Construction Materials source location attachment:

CDU 498H_Caliche Pit_12-19-2016.pdf

CDU 498H_CALICHE_12-19-2016.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Water based cuttings.

Amount of waste: 1335 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: All cuttings will be disposed of at R360, Sundance, or equivalent.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Waste type: COMPLETIONS/STIMULATION

Waste content description: Flow back water during completion operations.

Amount of waste: 3000 barrels

Waste disposal frequency : One Time Only

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Various disposal locations in Lea and Eddy counties.

Waste type: FLOWBACK

Waste content description: Produced water during flowback operations. This amount is a daily average during flowback (BWPD).

Amount of waste: 1500 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: ON-LEASE INJECTION **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: One of three company owned SWD facilities in the area: CDU 181, CDU 89, CDU 84.

Waste type: PRODUCED WATER

Waste content description: Produced water during production operations. This amount is a daily average during the first year of production (BWPD).

Amount of waste: 1000 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: ON-LEASE INJECTION **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: One of three company owned SWD facilities in the area: CDU 181, CDU 89, CDU 84.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Reserve pit length (ft.)

Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Description of cuttings location

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

CDU 498H_3 Well Pad Rig Location Layout_09-01-2016.pdf

Comments:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW

Recontouring attachment:

CDU 498H_Interium Reclamation Diagram_09-01-2016.pdf

Drainage/Erosion control construction: All areas disturbed shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.

Drainage/Erosion control reclamation: Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season.

Wellpad long term disturbance (acres): 1.707

Wellpad short term disturbance (acres): 3.776

Access road long term disturbance (acres): 0.96

Access road short term disturbance (acres): 0.96

Pipeline long term disturbance (acres): 3.5823278

Pipeline short term disturbance (acres): 5.970512

Other long term disturbance (acres): 0.437

Other short term disturbance (acres): 0.0437

Total long term disturbance: 6.686328

Total short term disturbance: 10.750212

Reconstruction method: Operator will use Best Management Practices "BMP" to mechanically recontour to obtain the desired outcome.

Topsoil redistribution: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.

Soil treatment: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.

Existing Vegetation at the well pad: Shinnery, yucca, grasses and mesquite.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type

Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Mark

Last Name: Smith

Phone: (575)746-5559

Email: mark.smith@dvn.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Maintain weeds on an as need basis.

Weed treatment plan attachment:

Monitoring plan description: Monitor as needed.

Monitoring plan attachment:

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface Ownership

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information: Electrical Survey Flow line Survey

Use a previously conducted onsite? NO

Previous Onsite information:

Other SUPO Attachment

CDU 498H_Electric for 449H, 498H, 288H - EL7757_09-01-2016.PDF

CDU 498H_Flowline_12-19-2016.pdf

PWD

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

Bond Info

Bond Information

Federal/Indian APD: FED

BLM Bond number: CO1104

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 498H

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

Operator Certification

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Linda Good

Signed on: 09/01/2016

Title: Regulatory Compliance Professional

Street Address: 333 West Sheridan Avenue

City: Oklahoma City

State: OK

Zip: 73102

Phone: (405)552-6558

Email address: Linda.Good@dvn.com

Field Representative

Representative Name: Brad Oates

Street Address: 6488 Seven Rivers Hwy

City: Artesia

State: NM

Zip: 88210

Phone: (575)748-1810

Email address: brad.oates@dvn.com

Payment Info

Payment

APD Fee Payment Method: PAY.GOV

pay.gov Tracking ID: 25TLJFIR