

NM OIL CONSERVATION  
ARTESIA DISTRICT

Form 3160-3  
(March 2012)

MAY 08 2017

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

HOBBS OGD  
RECEIVED

MAY 10 2017

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMLC061873
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator DEVON ENERGY PRODUCTION COMPANY LP (6137)		7. If Unit or CA Agreement, Name and No.
3a. Address 333 West Sheridan Avenue Oklahoma City OK		8. Lease Name and Well No. COTTON DRAW UNIT 354H (300635)
3b. Phone No. (include area code) (405)552-6571		9. API Well No. 30-025-43834
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface SWSE / 215 FSL / 1370 FEL / LAT 32.123668 / LONG -103.7103239 At proposed prod. zone NESE / 2350 FSL / 1276 FEL / LAT 32.1440357 / LONG -103.7099316		10. Field and Pool, or Exploratory NC-025 6-06 5253206M; BS (97899)
14. Distance in miles and direction from nearest town or post office* 21 miles		11. Sec., T. R. M. or Blk. and Survey or Area SEC 18 / T25S / R32E / NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 215 feet	16. No. of acres in lease 319.73	12. County or Parish LEA
17. Spacing Unit dedicated to this well 240	13. State NM	
18. Distance from proposed location* to nearest well, drilling, completed, 3225 feet applied for, on this lease, ft.	19. Proposed Depth 9135 feet / 16467 feet	20. BLM/BIA Bond No. on file FED: CO1104
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3409 feet	22. Approximate date work will start* 08/01/2017	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:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- 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 07/26/2016
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Title  
Regulatory Compliance Professional

Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 04/26/2017
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Title  
Supervisor Multiple Resources  
Office  
CARLSBAD

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**

KZ 05/25/17  
Requires NSL

ka

## 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

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:

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:

Assigned injection well API number?

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Injection well name:

Injection well API number:

### 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 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:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

APD ID: 10400003436

Submission Date: 07/26/2016

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 354H

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - Geologic Formations

ID: Surface formation

Name: ---

Lithology(ies):

ALLUVIUM

Elevation: 3409

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: 2794

True Vertical Depth: 615

Measured Depth: 615

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 2

Name: SALADO

Lithology(ies):

SALT

Elevation: 2464

True Vertical Depth: 945

Measured Depth: 945

Mineral Resource(s):

NONE

Is this a producing formation? N

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**ID:** Formation 3

**Name:** BASE OF SALT

**Lithology(ies):**

SALT

**Elevation:** -811

**True Vertical Depth:** 4220

**Measured Depth:** 4220

**Mineral Resource(s):**

NONE

**Is this a producing formation?** N

**ID:** Formation 4

**Name:** DELAWARE

**Lithology(ies):**

SANDSTONE

**Elevation:** -1056

**True Vertical Depth:** 4465

**Measured Depth:** 4465

**Mineral Resource(s):**

NONE

**Is this a producing formation?** N

**ID:** Formation 5

**Name:** LAMAR

**Lithology(ies):**

SANDSTONE

**Elevation:** -1056

**True Vertical Depth:** 4465

**Measured Depth:** 4465

**Mineral Resource(s):**

NONE

**Is this a producing formation?** N

**ID:** Formation 6

**Name:** BELL CANYON

**Lithology(ies):**

SANDSTONE

**Elevation:** -1061

**True Vertical Depth:** 4470

**Measured Depth:** 4470

**Mineral Resource(s):**

NATURAL GAS

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

OIL

**Is this a producing formation?** N

**ID:** Formation 7

**Name:** CHERRY CANYON

**Lithology(ies):**

SANDSTONE

**Elevation:** -1996

**True Vertical Depth:** 5405

**Measured Depth:** 5405

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** N

**ID:** Formation 8

**Name:** BRUSHY CANYON

**Lithology(ies):**

SANDSTONE

**Elevation:** -3281

**True Vertical Depth:** 6690

**Measured Depth:** 6690

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** N

**ID:** Formation 9

**Name:** BONE SPRING

**Lithology(ies):**

SANDSTONE

**Elevation:** -4946

**True Vertical Depth:** 8355

**Measured Depth:** 8355

**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:** 354H

**ID:** Formation 10

**Name:** BONE SPRING C ZONE

**Lithology(ies):**

SANDSTONE

**Elevation:** -5711

**True Vertical Depth:** 9120

**Measured Depth:** 9120

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** Y

## Section 2 - Blowout Prevention

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**Pressure Rating (PSI):** 3M

**Rating Depth:** 9135

**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 354H\_3M BOPE Double Ram and CLS Schem\_07-21-2016.pdf

**BOP Diagram Attachment:**

CDU 354H\_3M BOPE Double Ram and CLS Schem\_07-21-2016.pdf

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**Pressure Rating (PSI):** 3M

**Rating Depth:** 4250

**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.

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**Choke Diagram Attachment:**

CDU 354H\_3M BOPE Double Ram and CLS Schem\_07-21-2016.pdf

**BOP Diagram Attachment:**

CDU 354H\_3M BOPE Double Ram and CLS Schem\_07-21-2016.pdf

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### Section 3 - Casing

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**String Type:** PRODUCTION

**Other String Type:**

**Hole Size:** 8.75

**Top setting depth MD:** 0

**Top setting depth TVD:** 0

**Top setting depth MSL:** -5726

**Bottom setting depth MD:** 16472

**Bottom setting depth TVD:** 9135

**Bottom setting depth MSL:** -14861

**Calculated casing length MD:** 16472

**Casing Size:** 5.5

**Other Size**

**Grade:** P-105

**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 354H\_ProdCasing Ass\_11-14-2016.pdf

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**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**String Type:** SURFACE

**Other String Type:**

**Hole Size:** 17.5

**Top setting depth MD:** 0

**Top setting depth TVD:** 0

**Top setting depth MSL:** -5726

**Bottom setting depth MD:** 640

**Bottom setting depth TVD:** 640

**Bottom setting depth MSL:** -6366

**Calculated casing length MD:** 640

**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 354H\_SurfCsg Ass\_11-14-2016.pdf

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**String Type:** INTERMEDIATE

**Other String Type:**

**Hole Size:** 12.25

**Top setting depth MD:** 0

**Top setting depth TVD:** 0

**Top setting depth MSL:** -5726

**Bottom setting depth MD:** 4250

**Bottom setting depth TVD:** 4250

**Bottom setting depth MSL:** -9976

**Calculated casing length MD:** 4250

**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 354H\_Int Csg Ass\_11-14-2016.pdf

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### Section 4 - Cement

**Casing String Type:** SURFACE

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 354H

Stage Tool Depth:

Lead

Top MD of Segment: 0

Bottom MD Segment: 640

Cement Type: C

Additives: 1% Calcium Chloride

Quantity (sks): 550

Yield (cu.ff./sk): 1.34

Density: 14.8

Volume (cu.ft.): 737

Percent Excess: 50

Tail

Top MD of Segment: 3250

Bottom MD Segment:

Cement Type:

Additives:

Quantity (sks):

Yield (cu.ff./sk):

Density:

Volume (cu.ft.):

Percent Excess: 30

Casing String Type: INTERMEDIATE

Stage Tool Depth:

Lead

Top MD of Segment: 0

Bottom MD Segment: 3250

Cement Type: C

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

Quantity (sks): 685

Yield (cu.ff./sk): 1.85

~~Density:~~ 12.9

Volume (cu.ft.): 1268

Percent Excess: 30

Tail

Top MD of Segment: 3250

Bottom MD Segment: 4250

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: 4050

Bottom MD Segment: 8600

Cement Type: TUNED

Additives: N/A

Quantity (sks): 405

Yield (cu.ff./sk): 3.27

Density: 9

Volume (cu.ft.): 1325

Percent Excess: 25

Tail

Top MD of Segment: 8600

Bottom MD Segment: 16466

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): 1905

Yield (cu.ff./sk): 1.2

Density: 14.5

Volume (cu.ft.): 2286

Percent Excess: 25

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 354H

## 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: 640	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):
Filtration (cc):	Salinity (ppm):
Additional Characteristics:	
Top Depth: 4250	Bottom Depth: 16466
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):
Filtration (cc):	Salinity (ppm):
Additional Characteristics:	

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**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):**

**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:**

NA

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 4111

**Anticipated Surface Pressure:** 2101.3

**Anticipated Bottom Hole Temperature(F):** 150

**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 354H\_H2S Plan\_07-21-2016.pdf

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

CDU 354H\_Directional Plan - p1\_07-22-2016.pdf

**Other proposed operations facets description:**

Multi-Bowl wellhead may be used.  
Closed Loop Design Plan.  
Production Cement Contingency

**Other proposed operations facets attachment:**

CDU 354H\_Multi-Bowl Verbiage\_3M\_07-21-2016.pdf  
CDU 354H\_Multi-Bowl Wellhead\_07-21-2016.pdf  
CDU 354H\_Closed Loop Design Plan\_07-21-2016.pdf  
CDU 354H\_ProdCmtContg\_11-14-2016.pdf

**Other Variance attachment:**

CDU 354H\_H\_P Co-flex hose\_07-21-2016.pdf

APD ID: 10400003436

Submission Date: 07/26/2016

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 354H

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

CDU 354H\_Existing Access Rd\_07-21-2016.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. Access Road attachment also submitted with the Cotton Draw MDP.

Existing Road Improvement Attachment:

CDU 354H\_Access Rd to CDU\_18\_18\_P1\_CDU\_18\_18\_CTB1\_P\_11-11-2016.pdf

## Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

CDU 354H\_Access Rd\_CDU\_18\_18\_P4\_TO\_CTB4\_P\_07-22-2016.PDF

New road type: COLLECTOR,RESOURCE

Length: 1190

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 354H\_Access Rd\_CDU\_18\_18\_P4\_TO\_CTB4\_P\_07-21-2016.PDF

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**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 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:** NA

**Road Drainage Control Structures (DCS) description:** NA

**Road Drainage Control Structures (DCS) attachment:**

### **Access Additional Attachments**

**Additional Attachment(s):**

CDU 354H\_AA000055112\_SRD\_CDU\_18\_18\_P1\_CDU\_18\_18\_CTB1\_P\_07-21-2016.PDF

### **Section 3 - Location of Existing Wells**

**Existing Wells Map?** YES

**Attach Well map:**

CDU 354H\_1 Mile Map\_07-21-2016.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 Cotton draw unit 18-18 CTB 4 . CTB also submitted with the CD 1 MDP.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 354H

## 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): 150000

Source volume (acre-feet): 19.333965

Source volume (gal): 6300000

Water source and transportation map:

CDU 354H\_Water Transfer Map\_rev\_11-15-2016.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:

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:

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**Additional information attachment:**

## Section 6 - Construction Materials

**Construction Materials description:** Dirt Fill and Caliche will be used to construct well pad. All flowlines will be buried.

**Construction Materials source location attachment:**

CDU 354H\_Caliche Pit\_12-19-2016.pdf

CDU 354H\_CALICHE\_12-19-2016.pdf

## Section 7 - Methods for Handling Waste

**Waste type:** DRILLING

**Waste content description:** Water based cuttings

**Amount of waste:** 1650 barrels

**Waste disposal frequency :** Daily

**Safe containment description:** No asterisk, not a requirement.

**Safe containmant attachment:**

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

**Disposal type description:**

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

**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:** No asterisk, not a requirement.

**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:** No asterisk, not a requirement.

**Safe containmant attachment:**

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**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:** No asterisk, not a requirement.

**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?**

**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**

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

## 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 354H\_Single Well Rig Location Layout\_07-22-2016.pdf

**Comments:**

## Section 10 - Plans for Surface Reclamation

**Type of disturbance:** NEW

**Recontouring attachment:**

**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):** 1.376

**Wellpad short term disturbance (acres):** 3.375

**Access road long term disturbance (acres):** 0.55

**Access road short term disturbance (acres):** 0.55

**Pipeline long term disturbance (acres):** 0

**Pipeline short term disturbance (acres):** 0

**Other long term disturbance (acres):** 0

**Other short term disturbance (acres):** 0

**Total long term disturbance:** 1.926

**Total short term disturbance:** 3.925

**Reconstruction method:** perator 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:** Grasses and mesquite.

**Existing Vegetation at the well pad attachment:**

**Existing Vegetation Community at the road:** Grasses and mesquite.

**Existing Vegetation Community at the road attachment:**

**Existing Vegetation Community at the pipeline:** Grasses and mesquite.

**Existing Vegetation Community at the pipeline attachment:**

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**Existing Vegetation Community at other disturbances:** 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:**

## 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:**

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**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:** NA

**Pit closure description:** No asterisk, not required.

**Pit closure attachment:**

## **Section 11 - Surface Ownership**

**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:**

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**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:** 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:**

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**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:**

## Section 12 - Other Information

**Right of Way needed?** NO

**Use APD as ROW?**

**ROW Type(s):**

## ROW Applications

**SUPO Additional Information:** Flow line Survey, Access Rd Survey & CTB Survey also submitted with the CD 1 MDP.

**Use a previously conducted onsite?** NO

**Previous Onsite information:**

## Other SUPO Attachment

CDU 354H\_Flowline\_12-19-2016.PDF

CDU 354H\_CDU\_18\_18\_CTBT1\_P\_12-19-2016.PDF



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Operator Certification Data Report

04/27/2017

### 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:** 07/26/2016

**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@dnv.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@dnv.com

<b>APD ID:</b> 10400003436	<b>Submission Date:</b> 07/26/2016
<b>Operator Name:</b> DEVON ENERGY PRODUCTION COMPANY LP	
<b>Well Name:</b> COTTON DRAW UNIT	<b>Well Number:</b> 354H
<b>Well Type:</b> OIL WELL	<b>Well Work Type:</b> Drill

## Section 1 - General

<b>APD ID:</b> 10400003436	<b>Tie to previous NOS?</b>	<b>Submission Date:</b> 07/26/2016
<b>BLM Office:</b> CARLSBAD	<b>User:</b> Linda Good	<b>Title:</b> Regulatory Compliance Professional
<b>Federal/Indian APD:</b> FED	<b>Is the first lease penetrated for production Federal or Indian?</b> FED	
<b>Lease number:</b> NMLC061873	<b>Lease Acres:</b> 319.73	
<b>Surface access agreement in place?</b>	<b>Allotted?</b>	<b>Reservation:</b>
<b>Agreement in place?</b> NO	<b>Federal or Indian agreement:</b>	
<b>Agreement number:</b>		
<b>Agreement name:</b>		
<b>Keep application confidential?</b> YES		
<b>Permitting Agent?</b> NO	<b>APD Operator:</b> DEVON ENERGY PRODUCTION COMPANY LP	
<b>Operator letter of designation:</b>		
<b>Keep application confidential?</b> YES		

## Operator Info

**Operator Organization Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Operator Address:** 333 West Sheridan Avenue **Zip:** 73102

**Operator PO Box:**

**Operator City:** Oklahoma City **State:** OK

**Operator Phone:** (405)552-6571

**Operator Internet Address:** aletha.dewbre@dvn.com

## Section 2 - Well Information

<b>Well in Master Development Plan?</b> NEW	<b>Master Development Plan name:</b> Cotton Draw MDP Unit 1	
<b>Well in Master SUPO?</b> NO	<b>Master SUPO name:</b>	
<b>Well in Master Drilling Plan?</b> NO	<b>Master Drilling Plan name:</b>	
<b>Well Name:</b> COTTON DRAW UNIT	<b>Well Number:</b> 354H	<b>Well API Number:</b>
<b>Field/Pool or Exploratory?</b> Field and Pool	<b>Field Name:</b> PADUCA	<b>Pool Name:</b> BONE SPRING

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

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

**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:** SINGLE WELL

**Multiple Well Pad Name:**    **Number:**

**Well Class:** HORIZONTAL

**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:** 3225 FT

**Distance to lease line:** 215 FT

**Reservoir well spacing assigned acres Measurement:** 240 Acres

**Well plat:** CDU 354H\_C-102\_signed\_07-21-2016.pdf

**Well work start Date:** 08/01/2017

**Duration:** 45 DAYS

### Section 3 - Well Location Table

**Survey Type:** RECTANGULAR

**Describe Survey Type:**

**Datum:** NAD83

**Vertical Datum:** NAVD88

**Survey number:** 4794

**STATE:** NEW MEXICO

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

**Latitude:** 32.123668

**Longitude:** -103.7103239

SHL

**Elevation:** 3409

**MD:** 0

**TVD:** 0

**Leg #:** 1

**Lease Type:** FEDERAL

**Lease #:** NMLC061873B

**NS-Foot:** 215

**NS Indicator:** FSL

**EW-Foot:** 1370

**EW Indicator:** FEL

**Twsp:** 25S

**Range:** 32E

**Section:** 18

**Aliquot:** SWSE

**Lot:**

**Tract:**

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: COTTON DRAW UNIT

Well Number: 354H

	<b>STATE:</b> NEW MEXICO	<b>Meridian:</b> NEW MEXICO PRINCIPAL	<b>County:</b> LEA
	<b>Latitude:</b> 32.123668	<b>Longitude:</b> -103.7103239	
KOP	<b>Elevation:</b> -5664	<b>MD:</b> 9200	<b>TVD:</b> 9073
<b>Leg #: 1</b>	<b>Lease Type:</b> FEDERAL	<b>Lease #:</b> NMLC061873B	
	<b>NS-Foot:</b> 368	<b>NS Indicator:</b> FSL	
	<b>EW-Foot:</b> 1279	<b>EW Indicator:</b> FEL	
	<b>Twsp:</b> 25S	<b>Range:</b> 32E	<b>Section:</b> 18
	<b>Aliquot:</b> SESE	<b>Lot:</b>	<b>Tract:</b>
	<b>STATE:</b> NEW MEXICO	<b>Meridian:</b> NEW MEXICO PRINCIPAL	<b>County:</b> LEA
	<b>Latitude:</b> 32.123668	<b>Longitude:</b> -103.7103239	
PPP	<b>Elevation:</b> -5183	<b>MD:</b> 8600	<b>TVD:</b> 8592
<b>Leg #: 1</b>	<b>Lease Type:</b> FEDERAL	<b>Lease #:</b> NMLC061873B	
	<b>NS-Foot:</b> 55	<b>NS Indicator:</b> FSL	
	<b>EW-Foot:</b> 1279	<b>EW Indicator:</b> FEL	
	<b>Twsp:</b> 25S	<b>Range:</b> 32E	<b>Section:</b> 18
	<b>Aliquot:</b> SESE	<b>Lot:</b>	<b>Tract:</b>
	<b>STATE:</b> NEW MEXICO	<b>Meridian:</b> NEW MEXICO PRINCIPAL	<b>County:</b> LEA
	<b>Latitude:</b> 32.1440357	<b>Longitude:</b> -103.7099316	
EXIT	<b>Elevation:</b> -5726	<b>MD:</b> 16467	<b>TVD:</b> 9135
<b>Leg #: 1</b>	<b>Lease Type:</b> FEDERAL	<b>Lease #:</b> NMLC061873	
	<b>NS-Foot:</b> 2350	<b>NS Indicator:</b> FSL	
	<b>EW-Foot:</b> 1276	<b>EW Indicator:</b> FEL	
	<b>Twsp:</b> 25S	<b>Range:</b> 32E	<b>Section:</b> 7
	<b>Aliquot:</b> NESE	<b>Lot:</b>	<b>Tract:</b>
	<b>STATE:</b> NEW MEXICO	<b>Meridian:</b> NEW MEXICO PRINCIPAL	<b>County:</b> LEA
	<b>Latitude:</b> 32.1440357	<b>Longitude:</b> -103.7099316	
BHL	<b>Elevation:</b> -5726	<b>MD:</b> 16467	<b>TVD:</b> 9135
<b>Leg #: 1</b>	<b>Lease Type:</b> FEDERAL	<b>Lease #:</b> NMLC061873	
	<b>NS-Foot:</b> 2350	<b>NS Indicator:</b> FSL	
	<b>EW-Foot:</b> 1276	<b>EW Indicator:</b> FEL	

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** COTTON DRAW UNIT

**Well Number:** 354H

**Twsp:** 25S

**Range:** 32E

**Section:** 7

**Aliquot:** NESE

**Lot:**

**Tract:**