17-287

OCD Hobbs

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APR 17 2017

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Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM118727

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

8. Lease Name and Well No. (316102)
ORRTANNA 20 FED 707H

2. Name of Operator EOG RESOURCES INC (7377)

9. API Well No.
30-025-43747

3a. Address
1111 Bagby Sky Lobby2 Houston TX 77002

3b. Phone No. *(include area code)*
(713)651-7000

10. Field and Pool, or Exploratory (98097)
RED HILLS / WC-025 S263327G

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface SESE / 773 FSL / 468 FEL / LAT 32.0238774 / LONG -103.587254

At proposed prod. zone NENE / 230 FNL / 992 FEL / LAT 32.0356205 / LONG -103.5889554

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 20 / T26S / R33E / NMP

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

12. County or Parish
LEA

13. State
NM

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

16. No. of acres in lease
640

17. Spacing Unit dedicated to this well
160

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

19. Proposed Depth
12270 feet / 17165 feet

20. BLM/BIA Bond No. on file
FED: NM2308

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3241 feet

22. Approximate date work will start*
06/01/2017

23. Estimated duration
25 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 | Name *(Printed/Typed)* | Date |
|---|---|---|
| (Electronic Submission) | Stan Wagner / Ph: (432)686-3689 | 01/24/2017 |

Title
Regulatory Specialsit

| Approved by *(Signature)* | Name *(Printed/Typed)* | Date |
|---|---|---|
| (Electronic Submission) | Ty Allen / Ph: (575)234-5978 | 04/11/2017 |

| Title | Office |
|---|---|
| Wildlife Biologist | 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

KZ
04/17/17

**APD ID:** 10400009012
**Operator Name:** EOG RESOURCES INC
**Well Name:** ORRTANNA 20 FED
**Well Type:** OIL WELL

**Submission Date:** 01/24/2017
**Federal/Indian APD:** FED
**Well Number:** 707H
**Well Work Type:** Drill

Highlight All Changes

## Application

### Section 1 - General

**APD ID:** 10400009012
**Tie to previous NOS?**
**Submission Date:** 01/24/2017

**BLM Office:** HOBBS
**User:** Stan Wagner
**Title:** Regulatory Specialsit

**Federal/Indian APD:** FED
**Is the first lease penetrated for production Federal or Indian?** FED

**Lease number:** NMNM118727
**Lease Acres:** 640

**Surface access agreement in place?**
**Allotted?**
**Reservation:**

**Agreement in place?** NO
**Federal or Indian agreement:**

**Agreement number:**

**Agreement name:**

**Keep application confidential?** NO

**Permitting Agent?** NO
**APD Operator:** EOG RESOURCES INC

**Operator letter of designation:**

**Keep application confidential?** NO

### Operator Info

**Operator Organization Name:** EOG RESOURCES INC
**Operator Address:** 1111 Bagby Sky Lobby2
**Zip:** 77002
**Operator PO Box:**
**Operator City:** Houston
**State:** TX
**Operator Phone:** (713)651-7000
**Operator Internet Address:**

### 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:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H **Well API Number:**

**Field/Pool or Exploratory?** Field and Pool **Field Name:** RED HILLS **Pool Name:** WC-025 S263327G

**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:** MULTIPLE WELL **Multiple Well Pad Name:** ORRTANNA 20 FED **Number:** 707H/708H

**Well Class:** HORIZONTAL **Number of Legs:** 1

**Well Work Type:** Drill

**Well Type:** OIL WELL

**Describe Well Type:**

**Well sub-Type:** INFILL

**Describe sub-type:**

**Distance to town:** 24 Miles **Distance to nearest well:** 663 FT **Distance to lease line:** 230 FT

**Reservoir well spacing assigned acres Measurement:** 160 Acres

**Well plat:** Orrtanna20Fed707H_signed C-102_01-24-2017.pdf

**Well work start Date:** 06/01/2017 **Duration:** 25 DAYS

## Section 3 - Well Location Table

**Survey Type:** RECTANGULAR

**Describe Survey Type:**

**Datum:** NAD83 **Vertical Datum:** NAVD88

**Survey number:**

| | | | |
|---|---|---|---|
| | **STATE:** NEW MEXICO | **Meridian:** NEW MEXICO PRINCIPAL | **County:** LEA |
| | **Latitude:** 32.0238774 | **Longitude:** -103.587254 | |
| SHL | **Elevation:** 3241 | **MD:** 0 | **TVD:** 0 |
| **Leg #:** 1 | **Lease Type:** FEDERAL | **Lease #:** NMNM118727 | |
| | **NS-Foot:** 773 | **NS Indicator:** FSL | |
| | **EW-Foot:** 468 | **EW Indicator:** FEL | |
| | **Twsp:** 26S | **Range:** 33E | **Section:** 20 |
| | **Aliquot:** SESE | **Lot:** | **Tract:** |

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

| | | | |
|---|---|---|---|
| | **STATE:** NEW MEXICO | **Meridian:** NEW MEXICO PRINCIPAL | **County:** LEA |
| | **Latitude:** 32.0217764 | **Longitude:** -103.5883692 | |
| KOP | **Elevation:** -8563 | **MD:** 11853 | **TVD:** 11804 |
| **Leg #:** 1 | **Lease Type:** FEDERAL | **Lease #:** NMNM118727 | |
| | **NS-Foot:** 50 | **NS Indicator:** FSL | |
| | **EW-Foot:** 952 | **EW Indicator:** FEL | |
| | **Twsp:** 26S | **Range:** 33E | **Section:** 20 |
| | **Aliquot:** SESE | **Lot:** | **Tract:** |
| | **STATE:** NEW MEXICO | **Meridian:** NEW MEXICO PRINCIPAL | **County:** LEA |
| | **Latitude:** 32.0225369 | **Longitude:** -103.5884714 | |
| PPP | **Elevation:** -9041 | **MD:** 12444 | **TVD:** 12282 |
| **Leg #:** 1 | **Lease Type:** FEDERAL | **Lease #:** NMNM118727 | |
| | **NS-Foot:** 330 | **NS Indicator:** FSL | |
| | **EW-Foot:** 993 | **EW Indicator:** FEL | |
| | **Twsp:** 26S | **Range:** 33E | **Section:** 20 |
| | **Aliquot:** SESE | **Lot:** | **Tract:** |
| | **STATE:** NEW MEXICO | **Meridian:** NEW MEXICO PRINCIPAL | **County:** LEA |
| | **Latitude:** 32.0335221 | **Longitude:** -103.588487 | |
| EXIT | **Elevation:** -9031 | **MD:** 17065 | **TVD:** 12272 |
| **Leg #:** 1 | **Lease Type:** FEDERAL | **Lease #:** NMNM118727 | |
| | **NS-Foot:** 330 | **NS Indicator:** FNL | |
| | **EW-Foot:** 992 | **EW Indicator:** FEL | |
| | **Twsp:** 26S | **Range:** 33E | **Section:** 20 |
| | **Aliquot:** NENE | **Lot:** | **Tract:** |
| | **STATE:** NEW MEXICO | **Meridian:** NEW MEXICO PRINCIPAL | **County:** LEA |
| | **Latitude:** 32.0356205 | **Longitude:** -103.5889554 | |
| BHL | **Elevation:** -9029 | **MD:** 17165 | **TVD:** 12270 |
| **Leg #:** 1 | **Lease Type:** FEDERAL | **Lease #:** NMNM118727 | |
| | **NS-Foot:** 230 | **NS Indicator:** FNL | |
| | **EW-Foot:** 992 | **EW Indicator:** FEL | |

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**Twsp:** 26S **Range:** 33E **Section:** 20

**Aliquot:** NENE **Lot:** **Tract:**

## Drilling Plan

### Section 1 - Geologic Formations

**ID:** Surface formation **Name:** RUSTLER

**Lithology(ies):**

ANHYDRITE

**Elevation:** 2424 **True Vertical Depth:** 817 **Measured Depth:** 817

**Mineral Resource(s):**

NONE

**Is this a producing formation?** N

**ID:** Formation 1 **Name:** TOP OF SALT

**Lithology(ies):**

SALT

**Elevation:** 1256 **True Vertical Depth:** 1168 **Measured Depth:** 1168

**Mineral Resource(s):**

NONE

**Is this a producing formation?** N

**ID:** Formation 2 **Name:** BASE OF SALT

**Lithology(ies):**

SALT

**Elevation:** -2205 **True Vertical Depth:** 4629 **Measured Depth:** 4629

**Mineral Resource(s):**

NONE

**Is this a producing formation?** N

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**ID:** Formation 3 **Name:** LAMAR LS

**Lithology(ies):**

LIMESTONE

**Elevation:** -2442 **True Vertical Depth:** 4866 **Measured Depth:** 4866

**Mineral Resource(s):**

NONE

**Is this a producing formation?** N

**ID:** Formation 4 **Name:** BELL CANYON

**Lithology(ies):**

SANDSTONE

**Elevation:** -2469 **True Vertical Depth:** 4893 **Measured Depth:** 4893

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** N

**ID:** Formation 5 **Name:** CHERRY CANYON

**Lithology(ies):**

SANDSTONE

**Elevation:** -3486 **True Vertical Depth:** 5910 **Measured Depth:** 5910

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** N

**ID:** Formation 6 **Name:** BRUSHY CANYON

**Lithology(ies):**

SANDSTONE

**Elevation:** -5046 **True Vertical Depth:** 7470 **Measured Depth:** 7470

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** N

**ID:** Formation 7 **Name:** BONE SPRING LIME

**Lithology(ies):**

LIMESTONE

**Elevation:** -6615 **True Vertical Depth:** 9039 **Measured Depth:** 9039

**Mineral Resource(s):**

NONE

**Is this a producing formation?** N

**ID:** Formation 8 **Name:** BONE SPRING 1ST

**Lithology(ies):**

SANDSTONE

**Elevation:** -7539 **True Vertical Depth:** 9963 **Measured Depth:** 9963

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** N

**ID:** Formation 9 **Name:** BONE SPRING 2ND

**Lithology(ies):**

SANDSTONE

**Elevation:** -8118 **True Vertical Depth:** 10542 **Measured Depth:** 10542

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** N

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**ID:** Formation 10 **Name:** BONE SPRING 3RD

**Lithology(ies):**

SANDSTONE

**Elevation:** -9270 **True Vertical Depth:** 11694 **Measured Depth:** 11694

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** N

**ID:** Formation 11 **Name:** WOLFCAMP

**Lithology(ies):**

SHALE

**Elevation:** -9735 **True Vertical Depth:** 12159 **Measured Depth:** 12159

**Mineral Resource(s):**

NATURAL GAS

OIL

**Is this a producing formation?** Y

## Section 2 - Blowout Prevention

**Pressure Rating (PSI):** 5M **Rating Depth:** 12326

**Equipment:** The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil and Gas order No. 2.
**Requesting Variance?** YES

**Variance request:** Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line). Variance is requested to wave the centralizer requirements for the 7-5/8" FJ casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation. Variance is also requested to wave any centralizer requirements for the 5-1/2" FJ casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.
**Testing Procedure:** Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 3500/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**Choke Diagram Attachment:**

ORRTANNA20FED707H_5 M Choke Manifold Diagram (3-21-14)_01-24-2017.pdf

**BOP Diagram Attachment:**

ORRTANNA20FED707H_5 M BOP Diagram (8-14-14)_01-24-2017.pdf

## Section 3 - Casing

**String Type:** SURFACE **Other String Type:**

**Hole Size:** 14.75

**Top setting depth MD:** 0 **Top setting depth TVD:** 0

**Top setting depth MSL:** 3241

**Bottom setting depth MD:** 850 **Bottom setting depth TVD:** 850

**Bottom setting depth MSL:** 2391

**Calculated casing length MD:** 850

**Casing Size:** 10.75 **Other Size**

**Grade:** J-55 **Other Grade:**

**Weight:** 40.5

**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:** 1.125 **Burst Design Safety Factor:** 1.25

**Joint Tensile Design Safety Factor type:** BUOYANT **Joint Tensile Design Safety Factor:** 1.6

**Body Tensile Design Safety Factor type:** BUOYANT **Body Tensile Design Safety Factor:** 1.6

**Casing Design Assumptions and Worksheet(s):**

Orrtanna 20 Fed 707H BLM Plan_01-24-2017.pdf

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**String Type:** INTERMEDIATE **Other String Type:**

**Hole Size:** 9.875

**Top setting depth MD:** 0 **Top setting depth TVD:** 0

**Top setting depth MSL:** 3241

**Bottom setting depth MD:** 1000 **Bottom setting depth TVD:** 1000

**Bottom setting depth MSL:** 2241

**Calculated casing length MD:** 1000

**Casing Size:** 7.625 **Other Size**

**Grade:** HCP-110 **Other Grade:**

**Weight:** 29.7

**Joint Type:** LTC **Other Joint Type:** Flushmax III

**Condition:** NEW

**Inspection Document:**

**Standard:** API

**Spec Document:**

**Tapered String?:** N

**Tapered String Spec:**

## Safety Factors

**Collapse Design Safety Factor:** 1.125 **Burst Design Safety Factor:** 1.25

**Joint Tensile Design Safety Factor type:** BUOYANT **Joint Tensile Design Safety Factor:** 1.6

**Body Tensile Design Safety Factor type:** BUOYANT **Body Tensile Design Safety Factor:** 1.6

**Casing Design Assumptions and Worksheet(s):**

Orrtanna 20 Fed 707H BLM Plan_01-24-2017.pdf

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**String Type:** PRODUCTION **Other String Type:**

**Hole Size:** 6.75

**Top setting depth MD:** 0 **Top setting depth TVD:** 0

**Top setting depth MSL:** 3241

**Bottom setting depth MD:** 10600 **Bottom setting depth TVD:** 10600

**Bottom setting depth MSL:** -7359

**Calculated casing length MD:** 10600

**Casing Size:** 5.5 **Other Size**

**Grade:** OTHER **Other Grade:** P-110EC

**Weight:** 20

**Joint Type:** OTHER **Other Joint Type:** DWC/C-IS MS

**Condition:** NEW

**Inspection Document:**

**Standard:** API

**Spec Document:**

**Tapered String?:** N

**Tapered String Spec:**

## Safety Factors

**Collapse Design Safety Factor:** 1.125 **Burst Design Safety Factor:** 1.25

**Joint Tensile Design Safety Factor type:** BUOYANT **Joint Tensile Design Safety Factor:** 1.6

**Body Tensile Design Safety Factor type:** BUOYANT **Body Tensile Design Safety Factor:** 1.6

**Casing Design Assumptions and Worksheet(s):**

Orrtanna 20 Fed 707H BLM Plan_01-24-2017.pdf

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**String Type:** PRODUCTION **Other String Type:**

**Hole Size:** 6.75

**Top setting depth MD:** 10600 **Top setting depth TVD:** 10600

**Top setting depth MSL:** -7359

**Bottom setting depth MD:** 17165 **Bottom setting depth TVD:** 12270

**Bottom setting depth MSL:** -9029

**Calculated casing length MD:** 6565

**Casing Size:** 5.5 **Other Size**

**Grade:** OTHER **Other Grade:** P-110EC

**Weight:** 20

**Joint Type:** OTHER **Other Joint Type:** VAM SFC

**Condition:** NEW

**Inspection Document:**

**Standard:** API

**Spec Document:**

**Tapered String?:** N

**Tapered String Spec:**

## Safety Factors

**Collapse Design Safety Factor:** 1.125 **Burst Design Safety Factor:** 1.25

**Joint Tensile Design Safety Factor type:** BUOYANT **Joint Tensile Design Safety Factor:** 1.6

**Body Tensile Design Safety Factor type:** BUOYANT **Body Tensile Design Safety Factor:** 1.6

**Casing Design Assumptions and Worksheet(s):**

Orrtanna 20 Fed 707H BLM Plan_01-24-2017.pdf

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**String Type:** INTERMEDIATE **Other String Type:**

**Hole Size:** 9.875

**Top setting depth MD:** 1000 **Top setting depth TVD:** 1000

**Top setting depth MSL:** 2241

**Bottom setting depth MD:** 3000 **Bottom setting depth TVD:** 3000

**Bottom setting depth MSL:** 241

**Calculated casing length MD:** 2000

**Casing Size:** 7.625 **Other Size**

**Grade:** OTHER **Other Grade:** P-110EC

**Weight:** 29.7

**Joint Type:** OTHER **Other Joint Type:** SJIJ II

**Condition:** NEW

**Inspection Document:**

**Standard:** API

**Spec Document:**

**Tapered String?:** N

**Tapered String Spec:**

## Safety Factors

**Collapse Design Safety Factor:** 1.125 **Burst Design Safety Factor:** 1.25

**Joint Tensile Design Safety Factor type:** BUOYANT **Joint Tensile Design Safety Factor:** 1.6

**Body Tensile Design Safety Factor type:** BUOYANT **Body Tensile Design Safety Factor:** 1.6

**Casing Design Assumptions and Worksheet(s):**

Orrtanna 20 Fed 707H BLM Plan_01-24-2017.pdf

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**String Type:** INTERMEDIATE **Other String Type:**

**Hole Size:** 8.75

**Top setting depth MD:** 3000 **Top setting depth TVD:** 3000

**Top setting depth MSL:** 241

**Bottom setting depth MD:** 11100 **Bottom setting depth TVD:** 11100

**Bottom setting depth MSL:** -7859

**Calculated casing length MD:** 8100

**Casing Size:** 7.625 **Other Size**

**Grade:** HCP-110 **Other Grade:**

**Weight:** 29.7

**Joint Type:** OTHER **Other Joint Type:** Flushmax III

**Condition:** NEW

**Inspection Document:**

**Standard:** API

**Spec Document:**

**Tapered String?:** N

**Tapered String Spec:**

## Safety Factors

**Collapse Design Safety Factor:** 1.125 **Burst Design Safety Factor:** 1.25

**Joint Tensile Design Safety Factor type:** BUOYANT **Joint Tensile Design Safety Factor:** 1.6

**Body Tensile Design Safety Factor type:** BUOYANT **Body Tensile Design Safety Factor:** 1.6

**Casing Design Assumptions and Worksheet(s):**

Orrtanna 20 Fed 707H BLM Plan_01-24-2017.pdf

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## Section 4 - Cement

**Casing String Type:** INTERMEDIATE

**Stage Tool Depth:**

*Lead*

**Top MD of Segment:** 0 **Bottom MD Segment:** 0 **Cement Type:** 0

**Additives:** 0 **Quantity (sks):** 0 **Yield (cu.ff./sk):** 0

**Density:** 0 **Volume (cu.ft.):** 0 **Percent Excess:**

**Stage Tool Depth:**

*Lead*

**Top MD of Segment:** 0 **Bottom MD Segment:** 0 **Cement Type:** 0

**Additives:** 0 **Quantity (sks):** 0 **Yield (cu.ff./sk):** 0

**Density:** 0 **Volume (cu.ft.):** 0 **Percent Excess:**

**Casing String Type:** SURFACE

**Stage Tool Depth:**

*Lead*

**Top MD of Segment:** 0 **Bottom MD Segment:** 850 **Cement Type:** Class C

**Additives:** Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface) **Quantity (sks):** 325 **Yield (cu.ff./sk):** 1.73

**Density:** 13.5 **Volume (cu.ft.):** 562 **Percent Excess:** 25

*Tail*

**Bottom MD Segment:** 850 **Cement Type:** Class C

**Top MD of Segment:** 850 **Quantity (sks):** 200 **Yield (cu.ff./sk):** 1.34

**Additives:** Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate **Volume (cu.ft.):** 268 **Percent Excess:** 25

**Density:** 14.8

**Casing String Type:** INTERMEDIATE

**Stage Tool Depth:**

*Lead*

**Top MD of Segment:** 0 **Bottom MD Segment:** 11100 **Cement Type:** Class C

**Additives:** Class C + 5% Gypsum + 3% CaCl2 pumped via bradenhead. TOC at surface. **Quantity (sks):** 2250 **Yield (cu.ff./sk):** 1.38

**Density:** 14.8 **Volume (cu.ft.):** 3105 **Percent Excess:** 25

*Tail*

**Bottom MD Segment:** 11100 **Cement Type:** Class H

**Top MD of Segment:** 11100 **Quantity (sks):** 550 **Yield (cu.ff./sk):** 1.2

**Additives:** 50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% **Volume (cu.ft.):** 660 **Percent Excess:** 25

CPT35 + 0.80% CPT16A + 0.25% CPT503P. Pumped conventionally.
**Density:** 14.4

**Percent Excess:** 25

**Casing String Type:** PRODUCTION

**Stage Tool Depth:**

*Lead*

**Top MD of Segment:** 10600 **Bottom MD Segment:** 17165 **Cement Type:** Class H

**Additives:** Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,600')
**Density:** 14.1

**Quantity (sks):** 725 **Yield (cu.ff./sk):** 1.26

**Volume (cu.ft.):** 913 **Percent Excess:** 25

**Stage Tool Depth:**

*Lead*

**Top MD of Segment:** 10600 **Bottom MD Segment:** 20185 **Cement Type:** Class H

**Additives:** Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,600')
**Density:** 14.1

**Quantity (sks):** 725 **Yield (cu.ff./sk):** 1.26

**Volume (cu.ft.):** 913 **Percent Excess:** 25

## 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:** (A) A Kelly cock will be kept in the drill string at all times. (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times. (C) H2S monitoring and detection equipment will be utilized from surface casing point to TD.
**Describe the mud monitoring system utilized:** An electronic pit volume totalizer (PVT) will be utilized on the circulating system to monitor pit volume, flow rate, pump pressure and stroke rate.

## Circulating Medium Table

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**Top Depth:** 775 **Bottom Depth:** 11100

**Mud Type:** SALT SATURATED

**Min Weight (lbs./gal.):** 8.8 **Max Weight (lbs./gal.):** 10

**Density (lbs/cu.ft.):** **Gel Strength (lbs/100 sq.ft.):**

**PH:** **Viscosity (CP):**

**Filtration (cc):** **Salinity (ppm):**

**Additional Characteristics:**

---

**Top Depth:** 11100 **Bottom Depth:** 17165

**Mud Type:** OIL-BASED MUD

**Min Weight (lbs./gal.):** 10 **Max Weight (lbs./gal.):** 11.5

**Density (lbs/cu.ft.):** **Gel Strength (lbs/100 sq.ft.):**

**PH:** **Viscosity (CP):**

**Filtration (cc):** **Salinity (ppm):**

**Additional Characteristics:**

---

**Top Depth:** 0 **Bottom Depth:** 850

**Mud Type:** WATER-BASED MUD

**Min Weight (lbs./gal.):** 8.6 **Max Weight (lbs./gal.):** 8.8

**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:**

Open-hole logs are not planned for this well.

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

DS

**Coring operation description for the well:**

None

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 7337 **Anticipated Surface Pressure:** 4634.96

**Anticipated Bottom Hole Temperature(F):** 181

**Anticipated abnormal proessures, temperatures, or potential geologic hazards?** NO

**Describe:**

**Contingency Plans geoharzards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations plan:**

Orrtanna 20 Fed 707H BLM Plan_01-24-2017.pdf

## Section 8 - Other Information

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

Orrtanna 20 Fed 707H Wall Plot_01-24-2017.pdf
Orrtanna 20 Fed 707H Planning Report_01-24-2017.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

ORRTANNA20FED707H_5.500in 20.00 VST P110EC DWC_C-IS MS Spec Sheet_01-24-2017.pdf
ORRTANNA20FED707H_5.500in 20.00 VST P110EC VAM SFC Spec Sheet_01-24-2017.pdf
ORRTANNA20FED707H_7.625in 29.7 P110EC VAM SLIJ-II_01-24-2017.pdf
ORRTANNA20FED707H_7.625in 29.70 P-110 FlushMax III Spec Sheet_01-24-2017.pdf
ORRTANNA20FED707H_Co-Flex Hose Certification_01-24-2017.PDF
ORRTANNA20FED707H_Co-Flex Hose Test Chart_01-24-2017.pdf
Orrtanna 20 Fed 707H RIG LAYOUT_01-24-2017.pdf

**Other Variance attachment:**

Orrtanna 20 Fed 707H BLM Plan_01-24-2017.pdf

SUPO

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

## Section 1 - Existing Roads

**Will existing roads be used?** YES

**Existing Road Map:**

Orrtanna 20 Fed 707H_vicinity map_12-20-2016.pdf

**Existing Road Purpose:** ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

### ROW ID(s)

**ID:**

**Do the existing roads need to be improved?** NO

**Existing Road Improvement Description:**

**Existing Road Improvement Attachment:**

## Section 2 - New or Reconstructed Access Roads

**Will new roads be needed?** NO

## Section 3 - Location of Existing Wells

**Existing Wells Map?** YES

**Attach Well map:**

Orrtanna 20 Fed 707H_radius map_12-20-2016.pdf

**Existing Wells description:**

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

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

**Submit or defer a Proposed Production Facilities plan?** SUBMIT

**Estimated Production Facilities description:**

**Production Facilities description:**

**Production Facilities map:**

Orrtanna 20 Fed _infrastructure_12-20-2016.pdf

## Section 5 - Location and Types of Water Supply

### Water Source Table

**Water source use type:** OTHER **Water source type:** RECYCLED

**Describe type:**

**Source latitude:** **Source longitude:**

**Source datum:**

**Water source permit type:** WATER RIGHT

**Source land ownership:** FEDERAL

**Water source transport method:** PIPELINE,TRUCKING

**Source transportation land ownership:** FEDERAL

**Water source volume (barrels):** 0 **Source volume (acre-feet):** 0

**Source volume (gal):** 0

**Water source and transportation map:**

Orrtanna 20 Fed Water Source and Caliche Map_12-20-2016.docx

**Water source comments:**

**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.):**

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**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:** Caliche will be supplied from pits shown on the attached caliche source map. Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows: * -An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat. -An area will be used within the proposed well site dimensions to excavate caliche. Subsoil will be removed and stockpiled within the surveyed well pad dimensions. -Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions. -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available). -Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat. * In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

**Construction Materials source location attachment:**

Orrtanna 20 Fed Water Source and Caliche Map_12-20-2016.docx

## Section 7 - Methods for Handling Waste

**Waste type:** DRILLING

**Waste content description:** Drill fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly. Human waste and grey water will be properly contained of and disposed of properly. After drilling and completion operations; trash, chemicals, salts, frac sand, and other waste material will be removed and disposed of properly at a state approved disposal facility.

**Amount of waste:** 0 barrels

**Waste disposal frequency :** Daily

**Safe containment description:** Steel Tanks

**Safe containmant attachment:**

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

**Disposal type description:**

**Disposal location description:** Trucked to NMOCD approved disposal facility

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

## 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?** YES

**Description of cuttings location** Closed Loop System. Drill cuttings will be disposed of into steel tanks and taken to an NMOCD approved disposal facility.

**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:**

Orrtanna 20 Fed 707H_pad site_12-20-2016.pdf
Orrtanna 20 Fed 707H_well site_12-20-2016.pdf
Orrtanna 20 Fed 707H RIG LAYOUT_01-24-2017.pdf

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**Comments:** Exhibit 2A-Wellsite & Exhibit 2B-Padsite Rig Layout Exhibit 4

## Section 10 - Plans for Surface Reclamation

**Type of disturbance:** NEW

**Recontouring attachment:**

**Drainage/Erosion control construction:** Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.
**Drainage/Erosion control reclamation:** The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

**Wellpad long term disturbance (acres):** 2.662994 **Wellpad short term disturbance (acres):** 3.512397

**Access road long term disturbance (acres):** 0 **Access road short term disturbance (acres):** 0

**Pipeline long term disturbance (acres):** 0.000421666 **Pipeline short term disturbance (acres):** 0.0011712947

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

**Total long term disturbance:** 2.6634157 **Total short term disturbance:** 3.5135684

**Reconstruction method:** In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Areas planned for interim reclamation will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
**Topsoil redistribution:** Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts and fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
**Soil treatment:** Re-seed according to BLM standards. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.
**Existing Vegetation at the well pad:** Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respreads evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils.
**Existing Vegetation at the well pad attachment:**

Orrtanna 20 Fed 707H_interim reclamation_12-20-2016.pdf

**Existing Vegetation Community at the road:** All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
**Existing Vegetation Community at the road attachment:**

**Existing Vegetation Community at the pipeline:** All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
**Existing Vegetation Community at the pipeline attachment:**

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**Existing Vegetation Community at other disturbances:** All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

**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:** Stan **Last Name:** Wagner

**Phone:** (432)686-3689 **Email:** stan_wagner@eogresources.com

**Seedbed prep:**

**Seed BMP:**

**Seed method:**

**Existing invasive species?** NO

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**Existing invasive species treatment description:**

**Existing invasive species treatment attachment:**

**Weed treatment plan description:** All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds. Weeds will be treated if found.
**Weed treatment plan attachment:**

**Monitoring plan description:** Reclamation will be completed within 6 months of well plugging. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds.
**Monitoring plan attachment:**

**Success standards:** N/A

**Pit closure description:** NA

**Pit closure attachment:**

## Section 11 - Surface Ownership

**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:**

## Section 12 - Other Information

**Right of Way needed?** NO **Use APD as ROW?**

**ROW Type(s):**

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

## ROW Applications

**SUPO Additional Information:** An onsite meeting was conducted 1/21/16. Poly lines are planned to transport water for operations. Will truck if necessary. See attached SUPO Plan.
**Use a previously conducted onsite?** YES

**Previous Onsite information:** Onsite meeting conducted 1/21/16.

## Other SUPO Attachment

Orrtanna 20 Fed 707H_SUPO_12-20-2016.pdf
ORRTANNA20FED_707H_COMBINED_01-24-2017.PDF
Orrtanna20Fed707H_signed C-102_01-24-2017.pdf
Orrtanna_20_Fed_707H_Deficiency_Response._03-09-2017.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

**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:**

**Decribe 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:**

**Decribe 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?**

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**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?**

**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?**

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

**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:** NM2308

**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:**

## Operator Certification

**Operator Name:** EOG RESOURCES INC

**Well Name:** ORRTANNA 20 FED **Well Number:** 707H

## 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:** Stan Wagner **Signed on:** 01/24/2017

**Title:** Regulatory Specialsit

**Street Address:** 5509 Champions Drive

**City:** Midland **State:** TX **Zip:** 79702

**Phone:** (432)686-3689

**Email address:** Stan_Wagner@eogresources.com

## Field Representative

**Representative Name:** James Barwis

**Street Address:** 5509 Champions Drive

**City:** **State:** TX **Zip:** 79705

**Phone:** (432)425-1204

**Email address:** james_barwis@eogresources.com

## Payment Info

## Payment

**APD Fee Payment Method:** BLM DIRECT

**CBS Receipt number:** 3745587