# OCD Hobbs

CD	0	CD Hobbs							
Form 3160-3 (March 2012) HOBBS OCD UNITED STATES				OMB N	APPROVE o. 1004-013 ctober 31, 2	7			
	NTERIOR			5. Lease Serial No. NMNM66927					
APPLICATION FOR PERMIT TO		REENTER		6. If Indian, Allotee or Tribe Name					
la. Type of work: DRILL REENTE	ER			7. If Unit or CA Agree	ement, Na	me and No.			
lb. Type of Well: Oil Well Gas Well Other	Sin	gle Zone Multip	ole Zone	8. Lease Name and V RUBY 2 FED COM		71872			
2. Name of Operator EOG RESOURCES INC (737	7)			9. API Well No.	5-4	43892			
3a. Address 1111 Bagby Sky Lobby2 Houston TX 77002	3b. Phone No. (713)651-7	(include area code)		10. Field and Pool, or F		1000.			
4. Location of Well (Report location clearly and in accordance with any				11. Sec., T. R. M. or B	lk. and Sur	vey or Area			
At surface NWNW / 220 FNL / 1178 FWL / LAT 32.07910			202	SEC 2 / T26S / R34	4E / NMF	0			
At proposed prod. zone SWSW / 230 FSL / 907 FWL / LAT  14. Distance in miles and direction from nearest town or post office*  15 miles	32.0313177	LONG - 103.44032	292	12. County or Parish LEA		13. State NM			
15. Distance from proposed* location to nearest 220 feet property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of a 2480	cres in lease	17. Spacin 320	g Unit dedicated to this v	vell				
Distance from proposed location* to nearest well, drilling, completed, 577 feet	19. Proposed	Depth	20. BLM/I	20. BLM/BIA Bond No. on file					
applied for, on this lease, ft.	12623 feet	/ 22804 feet	FED: N	M2308					
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3304 feet	22. Approximate date work will start* 07/01/2017			23. Estimated duration 25 days					
	24. Attac								
The following, completed in accordance with the requirements of Onshor	re Oil and Gas	Order No.1, must be a	ttached to the	is form:					
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System</li> </ol>	I ands the	Bond to cover the litem 20 above).      Operator certification.		ns unless covered by an	existing b	oond on file (see			
SUPO must be filed with the appropriate Forest Service Office).	Lanus, the			ormation and/or plans as	may be r	equired by the			
25. Signature (Electronic Submission)		<i>(Printed/Typed)</i> Wagner / Ph: (432)	686-3689		Date 01/31/2	2017			
Title Regulatory Specialsit									
Approved by (Signature) (Electronic Submission)	000 00000000	(Printed/Typed) Layton / Ph: (575)2	234-5959		Date 06/05/	2017			
Title Supervisor Multiple Resources	Office	SBAD							
Application approval does not warrant or certify that the applicant hold conduct operations thereon.  Conditions of approval, if any, are attached.			its in the sub	ject lease which would e	entitle the a	applicant to			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as	rime for any po to any matter w	erson knowingly and vithin its jurisdiction.	willfully to n	nake to any department of	or agency	of the United			
(Continued on page 2)			03/0	*(Inst	ruction	s on page 2)			
ango	ED WIT	H CONDIT	ONS	K# 1/1/	17				



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT APD Print Report

APD ID: 10400010134

Operator Name: EOG RESOURCES INC

Well Name: RUBY 2 FED COM

Well Type: OIL WELL

Submission Date: 01/31/2017

Federal/Indian APD: FED

Highlight All Changes

Well Number: 702H

Well Work Type: Drill

#### Application

#### Section 1 - General

APD ID:

10400010134

Tie to previous NOS?

Submission Date: 01/31/2017

**BLM Office: CARLSBAD** 

User: Stan Wagner

Title: Regulatory Specialsit

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM66927

Lease Acres: 2480

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:

Well Name: RUBY 2 FED COM

Well Number: 702H

Well Name: RUBY 2 FED COM

Well Number: 702H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: RED HILLS

Pool Name: HARDIN TANK;

WOLFCAMP

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: RUBY Number: 702H/703H

2 FED COM

Number of Legs: 1

Well Class: HORIZONTAL

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 15 Miles

Distance to nearest well: 577 FT

Distance to lease line: 220 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Ruby2fedcom702H signed C-102 01-25-2017.pdf

Well work start Date: 07/01/2017

**Duration: 25 DAYS** 

#### Section 3 - Well Location Table

Survey Type: RECTANGULAR

**Describe Survey Type:** 

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	220	FNL	117 , 8	FWL	26S	34E	2	Aliquot NWN W	32.07910 49	- 103.4454 628	LEA		NEW MEXI CO	S	STATE	330 4	0	0
KOP Leg #1	54	FNL	921	FWL	26S	34E	2	Aliquot NWN W	32.07944 14	- 103.4458 214	LEA	NEW MEXI CO		S	STATE	- 893 5	122 44	122 39
PPP Leg #1	330	FNL	907	FWL	26S	34E	2	Aliquot NWN W	32.07867 86	- 103.4458 664	LEA	NEW MEXI CO		S	STATE	- 937 8	127 98	126 82

Well Name: RUBY 2 FED COM

Well Number: 702H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT Leg #1	330	FSL	907	FWL	26S	34E	11	Aliquot SWS W	32.05146 69	- 103.4458 661	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 66927	- 932 0	227 04	126 24
BHL Leg #1	230	FSL	907	FWL	26S	34E	11	Aliquot SWS W	32.05131 7	- 103.4463 292	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 66927	- 931 9	228 04	126 23

# Drilling Plan

# Section 1 - Geologic Formations

Formation	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producii
17746	RUSTLER	2415	889	889	ANHYDRITE	NONE	No
17718	TOP SALT	982	1433	1433	SALT	NONE	No
17722	BASE OF SALT	-1596	4011	4011	SALT	NONE	No
17719	LAMAR	-2939	5354	5354	LIMESTONE	NONE	No
15332	BELL CANYON	-2971	5386	5386	SANDSTONE	NATURAL GAS,OIL	. No
15316	CHERRY CANYON	-3943	6358	6358	SANDSTONE	NATURAL GAS,OIL	. No
17713	BRUSHY CANYON	-5395	7810	7810	SANDSTONE	NATURAL GAS,OIL	. No
17721	BONE SPRING LIME	-7054	9469	9469	LIMESTONE	NONE	No
15338	BONE SPRING 1ST	-8083	10498	10498	SANDSTONE	NATURAL GAS,OIL	. No
17737	BONE SPRING 2ND	-8664	11079	11079	SANDSTONE	NATURAL GAS,OIL	No
17738	BONE SPRING 3RD	-9725	12140	12140	SANDSTONE	NATURAL GAS,OIL	No
17709	WOLFCAMP	-10165	12580	12580	SHALE	NATURAL GAS,OIL	Yes

# **Section 2 - Blowout Prevention**

Well Name: RUBY 2 FED COM Well Number: 702H

Pressure Rating (PSI): 5M

Rating Depth: 12726

**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.

#### **Choke Diagram Attachment:**

ruby2fedcom702H 5 M Choke Manifold Diagram (3-21-14)\_01-25-2017.pdf

#### **BOP Diagram Attachment:**

ruby2fedcom702H 5 M BOP Diagram (8-14-14)\_01-25-2017.pdf

# Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	D.A. OT
1	SURFACE	14.7 5	10.75	NEW	API	N	0	915	0	915	-9319	- 10234	915	J-55	40.5	STC	1.12 5	1.25	BUOY	1.6	BUOY	1.
2	INTERMED IATE	9.87 5	7.625	NEW	API	N	0	1000	0	1000	-9319	- 10319	1000	HCP -110	29.7	LTC	1.12 5	1.25	BUOY	1.6	BUOY	1.
3	INTERMED IATE	9.87 5	7.625	NEW	API	N	1000	3000	1000	3000	- 10319		2000	OTH ER	29.7		1.12 5	1.25	BUOY	1.6	BUOY	1.
	PRODUCTI ON	6.75	5.5	NEW	API	N	0	11200	0	11200	-9319	- 20519	11200	OTH ER	20		1.12 5	1,25	BUOY	1.6	BUOY	1.
	INTERMED IATE	8.75	7.625	NEW	API	N	3000	11700	3000	11700	- 12319			HCP -110	29.7		1.12 5	1.25	BUOY	1.6	BUOY	1./
	PRODUCTI ON	6.75	5.5	NEW	API	N	11200	22804	11200	12623	- 20519		11604	OTH ER	20		1.12 5	1.25	BUOY	1.6	BUOY	1.

**Casing Attachments** Casing ID: 1 String Type: SURFACE Inspection Document: Spec Document: **Taperd String Spec:** Casing Design Assumptions and Worksheet(s): Ruby 2 Fed Com 702H BLM Plan\_01-25-2017.pdf Casing ID: 2 String Type: INTERMEDIATE Inspection Document: Spec Document: **Taperd String Spec:** Casing Design Assumptions and Worksheet(s): Ruby 2 Fed Com 702H BLM Plan\_01-25-2017.pdf Casing ID: 3 String Type: INTERMEDIATE Inspection Document: **Spec Document: Taperd String Spec:** Casing Design Assumptions and Worksheet(s): Ruby 2 Fed Com 702H BLM Plan\_01-25-2017.pdf

Well Number: 702H

Operator Name: EOG RESOURCES INC

Well Name: RUBY 2 FED COM

Operator Name: EOG RESOURCES INC
Well Name: RUBY 2 FED COM Well Number: 702H
Casing Attachments
Casing ID: 4 String Type: PRODUCTION
Inspection Document:
Spec Document:
Taperd String Spec:
Casing Design Assumptions and Worksheet(s):
Ruby 2 Fed Com 702H BLM Plan_01-25-2017.pdf
Casing ID: 5 String Type: INTERMEDIATE
Inspection Document:
Spec Document:
Taperd String Spec:
Casing Design Assumptions and Worksheet(s):
Ruby 2 Fed Com 702H BLM Plan_01-25-2017.pdf
Casing ID: 6 String Type:PRODUCTION Inspection Document:
Spec Document:
Taperd String Spec:
Casing Design Assumptions and Worksheet(s):

Section 4 - Cement

Ruby 2 Fed Com 702H BLM Plan\_01-25-2017.pdf

Well Name: RUBY 2 FED COM

Well Number: 702H

		I HIEROTON TO BE					THE RESERVE OF THE PARTY OF THE				
String Type	Lead/Tail	Stage Tool Depth	Тор МD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead		Ó	0	0	0	0	0		0	0
INTERMEDIATE	Lead		0	0	0	0	0	0		0	0
SURFACE	Lead		0	915	325	1.73	13.5	562	25	Class C	Class C + 4.0% Bentonite + 0.6% CD-
SURFACE	Tail		915	915	200	1.34	14.8	268	25	Class C	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake +
INTERMEDIATE	Lead		0	1170 0	2250	1.38	14.8	3105	er	Class C	Class C + 5% Gypsum + 3% CaCl2 pumped
INTERMEDIATE	Tail		1170 0	1170 0	550	1.2	14.4	660	25	Class H	50:50 Class H:Poz + 0.25% CPT20A +
PRODUCTION	Lead		1120 0	2018 5	1000	1.26	14.1	1260		Class H	Class H + 0.1% C-20 + 0.05% CSA-1000 +
PRODUCTION	Lead		1060 0	2018 5	725	1.26	14.1	913		Class H	Class H + 0.1% C-20 + 0.05% CSA-1000 +

# **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**

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
915	1170	SALT SATURATED	8.8	10							

Well Name: RUBY 2 FED COM

Well Number: 702H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
117	2280	OIL-BASED MUD	10	11.5							
0	915	WATER-BASED MUD	8.6	8.8							

# 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

#### Section 7 - Pressure

**Anticipated Bottom Hole Pressure: 7610** 

Anticipated Surface Pressure: 4819.96

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:

Ruby 2 Fed Com 702H H2S Plan Summary\_01-25-2017.pdf

Well Name: RUBY 2 FED COM Well Number: 702H

#### Section 8 - Other Information

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

Ruby 2 Fed Com 702H Planning Report\_01-25-2017.pdf

Ruby 2 Fed Com 702H Wall Plot\_01-25-2017.pdf

#### Other proposed operations facets description:

#### Other proposed operations facets attachment:

Ruby 2 Fed Com 702H rig layout\_01-25-2017.pdf
ruby2fedcom702H 5.500in 20.00 VST P110EC DWC\_C-IS MS Spec Sheet\_01-25-2017.pdf
ruby2fedcom702H 5.500in 20.00 VST P110EC VAM SFC Spec Sheet\_01-25-2017.pdf
ruby2fedcom702H 7.625in 29.7 P110EC VAM SLIJ-II\_01-25-2017.pdf
ruby2fedcom702H Co-Flex Hose Certification\_01-25-2017.PDF
ruby2fedcom702H Co-Flex Hose Test Chart\_01-25-2017.pdf
ruby2fedcom702H 7.625in 29.70 P-110 FlushMax III Spec Sheet\_01-25-2017.pdf

#### Other Variance attachment:

Ruby 2 Fed Com 702H BLM Plan\_01-25-2017.pdf

# SUPO

## Section 1 - Existing Roads

Will existing roads be used? YES

**Existing Road Map:** 

Ruby 2 Fed Com 702H\_vicinity map\_01-19-2017.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? YES

#### ROW ID(s)

ID:

Do the existing roads need to be improved? NO

**Existing Road Improvement Description:** 

**Existing Road Improvement Attachment:** 

Well Name: RUBY 2 FED COM Well Number: 702H

#### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Ruby 2 Fed Com infrastructure sketch\_01-19-2017.pdf

Ruby 2 Fed Com 702H\_pad site\_01-19-2017.pdf

Ruby 2 Fed Com 702H\_well site\_01-19-2017.pdf

New road type: RESOURCE

Length: 4433

Feet

Width (ft.): 24

Max slope (%): 2

Max grade (%): 20

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 24

**New road access erosion control:** Newly constructed or reconstructed roads will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road. We plan to grade and water twice a year.

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: 6" of Compacted Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: An adequate amount of topsoil/root zone will be stripped by dozer from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram / survey plat.

Access other construction information:

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

**Drainage Control** 

New road drainage crossing: OTHER

Drainage Control comments: No drainage crossings

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

Road Drainage Control Structures (DCS) attachment:

Well Name: RUBY 2 FED COM Well Number: 702H

#### **Access Additional Attachments**

Additional Attachment(s):

#### Section 3 - Location of Existing Wells

**Existing Wells Map?** YES

Attach Well map:

Ruby 2 Fed Com 702H\_radius map\_01-19-2017.pdf

**Existing Wells description:** 

# 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: Ruby 2 Fed Com central tank battery

**Production Facilities map:** 

Ruby 2 Fed Com infrastructure sketch 01-19-2017.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:

Ruby 2 Fed Com Water Source and Caliche map\_01-19-2017.docx

Water source comments:

New water well? NO

Well Name: RUBY 2 FED COM Well Number: 702H

## **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:

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:** 

Ruby 2 Fed Com Water Source and Caliche map\_01-19-2017.docx

Well Name: RUBY 2 FED COM Well Number: 702H

# 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 containment attachment:

Waste disposal type: HAUL TO COMMERCIAL

Disposal location ownership: COMMERCIAL

**FACILITY** 

Disposal type description:

Disposal location description: Trucked to NMOCD approved disposal facility

#### **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

Well Name: RUBY 2 FED COM Well Number: 702H

# Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

**Ancillary Facilities attachment:** 

Comments:

#### Section 9 - Well Site Layout

#### Well Site Layout Diagram:

Ruby 2 Fed Com 702H well site 01-19-2017.pdf

Ruby 2 Fed Com 702H\_pad site\_01-19-2017.pdf

Ruby 2 Fed Com 702H rig layout\_01-25-2017.pdf

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): 2.692837 Wellpad short term disturbance (acres): 4.178145

Pipeline long term disturbance (acres): 3.177686 Pipeline short term disturbance (acres): 5.296143

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

Total long term disturbance: 8.312947 Total short term disturbance: 11.916712

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

Well Name: RUBY 2 FED COM Well Number: 702H

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:

Ruby 2 Fed Com 702H interim reclamation 01-19-2017.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:

**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 type: Seed source: Seed name: Source name: Source phone: Seed cultivar: Seed use location: PLS pounds per acre: Proposed seeding season:

Well Name: RUBY 2 FED COM

Well Number: 702H

# **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

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: STATE GOVERNMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

**DOD Local Office:** 

NPS Local Office:

State Local Office: NEW MEXICO STATE LAND

Well Name: RUBY 2 FED COM

Well Number: 702H

Military Local Office:

**USFWS Local Office:** 

Other Local Office:

**USFS** Region:

**USFS** Forest/Grassland:

**USFS** Ranger District:

Fee Owner: Oliver Kiehne

Fee Owner Address: P.O. Box 135 Orla, TX 79770

Phone: (575)399-9281

Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: surface use agreement

Surface Access Bond BLM or Forest Service:

**BLM Surface Access Bond number:** 

**USFS Surface access bond number:** 

#### Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

## **ROW Applications**

**SUPO Additional Information:** An onsite meeting was conducted 12/14/16. 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 12/14/16.

#### **Other SUPO Attachment**

Ruby 2 Fed Com 702H\_SUPO\_01-19-2017.pdf RUBY2FEDCOM\_702H\_COMBINED\_01-25-2017.PDF Ruby2fedcom702H\_signed C-102\_01-25-2017.pdf

Well Name: RUBY 2 FED COM

Well Number: 702H

#### **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:

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?

PWD disturbance (acres):

Well Name: RUBY 2 FED COM Well Number: 702H

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?

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:

Well Name: RUBY 2 FED COM Well Number: 702H

## 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?** 

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?

Well Name: RUBY 2 FED COM

Well Number: 702H

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 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: 01/31/2017

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

Well Name: RUBY 2 FED COM

Well Number: 702H

City: Midland

State: TX

**Zip:** 79706

Phone: (432)425-1204

Email address: james\_barwis@eogresources.com

# Payment Info

# **Payment**

APD Fee Payment Method: BLM DIRECT

CBS Receipt number:

3752113