Form 3160-3

FORM APPROVED

	TED STATES	OCD 02/06/2019 02/06/2019 RECEIVED	Expires: Ja	anuary 31, 201	8
	T OF THE INTERIOR AND MANAGEMENT	RECEI	5. Lease Serial No.		
APPLICATION FOR PE	RMIT TO DRILL OR	REENTER	6. If Indian, Allotee	or Tribe Nam	e
1a. Type of work: DRILL	REENTER		7. If Unit or CA Ag	reement, Nam	e and No.
	s Well Other				
1c. Type of Completion: Hydraulic Fracturi		Multiple Zone	8. Lease Name and		1005
ober er berer - de de ere	2			318	3027
2. Name of Operator	372165		9. API Well No.	30-02	5-4555
3a. Address	3b. Phone N	lo. (include area code)	10. Field and Pool,	or Exploratory	222
4. Location of Well (Report location clearly and	in accordance with any State	requirements.*)	11. Sec., T. R. M. o	Blk. and Sur	vey or Area
At surface					
At proposed prod. zone					
14. Distance in miles and direction from nearest t	own or post office*		12. County or Paris	h 13.	State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of ac	eres in lease 17. Space	ing Unit dedicated to t	his well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Propose	d Depth 20, BLM	M/BIA Bond No. in file		
21. Elevations (Show whether DF, KDB, RT, GL,	etc.) 22. Approxi	mate date work will start*	23. Estimated durat	ion	
	24. Attac	chments			
The following, completed in accordance with the (as applicable)	requirements of Onshore Oil	and Gas Order No. 1, and the	Hydraulic Fracturing 1	ule per 43 CF	R 3162.3-3
Well plat certified by a registered surveyor. A Drilling Plan.		4. Bond to cover the operation Item 20 above).	ons unless covered by a	n existing bond	d on file (see
3. A Surface Use Plan (if the location is on Nation SUPO must be filed with the appropriate Fores		Operator certification. Such other site specific info BLM.	ormation and/or plans as	may be reques	sted by the
25. Signature	Name	(Printed/Typed)		Date	
Title					
Approved by (Signature)	Name	(Printed/Typed)		Date	
Title	Office				
Application approval does not warrant or certify tapplicant to conduct operations thereon. Conditions of approval, if any, are attached.	hat the applicant holds legal	or equitable title to those right	s in the subject lease w	hich would en	title the
14 /					

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.

GCP Rec 02/06/2019





PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: CENTENNIAL RESOURCES PRODUCTION LLC.

LEASE NO.: NMNM077090

WELL NAME & NO.: | 706H- ROMEO FED COM

SURFACE HOLE FOOTAGE: 400'/N & 847'/W **BOTTOM HOLE FOOTAGE** 2539'/N & 990'/W

LOCATION: Section. 22.,T24S.,R.34E., NMP COUNTY: LEA County, New Mexico

COA

H2S	O Yes	⊙ No	
Potash	None	© Secretary	Ō R-111-P
Cave/Karst Potential	• Low	○ Medium	[©] High
Variance	O None	© Flex Hose	Other Other
Wellhead	Conventional	• Multibowl	© Both
Other	☐4 String Area	☐ Capitan Reef	□WIPP

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

Primary Casing Design/Alternate Casing Design:

- 1. The **13-3/8** inch surface casing shall be set at approximately **1300** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the **7-5/8** inch production casing is:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
- 3. The minimum required fill of cement behind the 5 1/2 X 5 inch production casing is:
 - Cement should tie-back at least **200** feet into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5M Annular which shall be tested to 5000 psi.

Option 2:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi.

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

Variance is approved to use a 5M Annular which shall be tested to 5000 psi.

D. SPECIAL REQUIREMENT(S)

Communitization Agreement

A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales. In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.

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•	In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
 - Chaves and Roosevelt Counties
 Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
 During office hours call (575) 627-0272.
 After office hours call (575)
 - ☑ Eddy CountyCall the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log (one log per well pad is acceptable) run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

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- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes. This test shall be performed prior to the test at full stack pressure.
 - g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Waste Minimization Plan (WMP)

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

NMK12819

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

Operator Certification Data Report

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: Katie Biersmith Signed on: 06/01/2018

Title: Regulatory Analyst

Street Address: 1001 17th Street, Suite 1800

City: Denver State: CO Zip: 80202

Phone: (720)499-1522

Email address: Katie.Biersmith@cdevinc.com

Field Representative

Representative Name: Melissa Luke

Street Address: 1001 17th Street, Suite 1800

City: Denver State: CO Zip: 80202

Phone: (720)499-1482

Email address: Melissa.Luke@cdevinc.com



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

Application Data Report

01/31/2019

APD ID: 10400029666 **Submission Date:** 06/15/2018

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: ROMEO FED COM Well Number: 706H

Well Type: OIL WELL Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

BLM Office: CARLSBAD User: Katie Biersmith Title: Regulatory Analyst

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

Lease number: NMNM077090 Lease Acres: 1440.02

Surface access agreement in place? Allotted? Reservation:

Agreement in place? NO Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO APD Operator: CENTENNIAL RESOURCE PRODUCTION LLC

Operator letter of designation:

Operator Info

Operator Organization Name: CENTENNIAL RESOURCE PRODUCTION LLC

Operator Address: 1001 17th Street, Suite 1800

Operator PO Box:

Operator City: Denver State: CO

Operator Phone: (720)499-1400 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: ROMEO FED COM Well Number: 706H Well API Number:

Field/Pool or Exploratory? Field and Pool Field Name: ANTELOPE RIDGE; Pool Name:

WOLFCAMP

Zip: 80202

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: ROMEO FED COM Well Number: 706H

Describe other minerals:

Is the proposed well in a Helium production area? N Use Existing Well Pad? NO New surface disturbance?

Type of Well Pad: MULTIPLE WELL Multiple Well Pad Name: Number: 1

Well Class: HORIZONTAL

ROMEO FEDERAL

Number of Legs: 1

Well Work Type: Drill Well Type: OIL WELL Describe Well Type:

Well sub-Type: EVALUATION

Describe sub-type:

Distance to town: 18.2 Miles Distance to nearest well: 380 FT Distance to lease line: 100 FT

Reservoir well spacing assigned acres Measurement: 80 Acres

Well plat: WELL_PLAT_ATTACHMENT_ROMEO_FED_COM_706H_06.15.18_20180615161530.pdf

Well work start Date: 03/01/2019 Duration: 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 Vertical Datum: NAVD88

Survey number: 23782

	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	400	FNL	847	FWL	24S	34E	22	Tract	32.20919	l	LEA		NEW	F		353	0	0
Leg								D	2	103.4636			MEXI		077090	5		
#1										52		СО	СО					
KOP	400	FNL	847	FWL	24S	34E	22	Tract	32.20919	-	LEA	NEW	NEW	F	NMNM	-	118	117
Leg								D	2	103.4636		MEXI			077090	826	07	98
#1										52		CO	CO			3		
PPP	350	FNL	990	FWL	24S	34E	22	Tract	32.20932	-	LEA	NEW	NEW	F	NMNM	-	122	121
Leg								D	9	103.4631		MEXI	MEXI		077090	864	25	79
#1										89		CO	CO			4		

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: ROMEO FED COM Well Number: 706H

	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	253 9	FNL	990	FWL	24S	34E	27	Tract	32.18881	- 103.4631	LEA	NEW MEXI	NEW	F	FEE	- 883	199 00	123 71
#1								E		66		CO	CO			6		
BHL	253	FNL	990	FWL	24S	34E	27	Tract	32.18881	-	LEA		NEW	F	FEE	-	199	123
Leg	9							E		103.4631		MEXI				883	00	71
#1										66		CO	СО			6		