



COG Operating, LLC  
Caden Jameson  
One Concho Center  
600 W. Illinois Avenue  
Midland, Texas 79701

New Mexico Oil Conservation Division  
Richard Ezeanyim  
1220 S St. Francis Drive  
Santa Fe, New Mexico 87505

RE: Surface Commingle

Dear Mr. Ezeanyim,

COG Operating LLC respectfully requests approval for a surface commingle for the following oil and gas wells:

Falabella 31 Fee 3H  
Eddy County, NM  
Surface: 150' FSL & 2256' FEL, Sec. 31  
T18S, R26E, Unit O  
API# 30-015-41265

Falabella 31 Fee 4H  
Eddy County, NM  
Surface: 150' FSL & 963' FWL, Sec. 31  
T18S, R26E, Unit P  
API# 30-015-39513

Falabella 31 Fee 7H  
Eddy County, NM  
Surface: 150' FSL & 1700' FEL, Sec. 31  
T18S, R26E, Unit O  
API# 30-015-39514

Falabella 31 Fee 8H  
Eddy County, NM  
Surface: 150' FSL & 380' FEL, Sec. 31  
T18S, R26E, Unit P  
API# 30-015-39515

COG Operating LLC respectfully requests to send all future production from the wells identified above to the Falabella 31 Fee 8H CTB.

The wells listed above will produce to a tank battery located on the Falabella 31 Fee 8H well site operated by COG Operating LLC. Production will be measured using well tests using an isolated Three Phase, Test Separator to meter oil, water, and gas set upstream of all sale points, holding tanks, and water tank. Monthly production totals and weekly well tests will be calculated using calibrated meters on the Free Water Knockout. Please see attached Operation description for further detail.

I have attached the notice sent certified mail to all interest owners, a diagram of our battery facility, and map of lease boundaries showing well and facility locations.

Please contact me at 432-254-5559 should you have any questions.

Sincerely,

Caden Jameson  
Permitting Specialist

BEFORE THE OIL CONSERVATION  
DIVISION  
Santa Fe, New Mexico  
Exhibit No. 4  
Submitted by: COG RESOURCES INC.  
Hearing Date: September 17, 2014

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS  
 WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**  
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**  
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**  
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**  
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**  
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]  
 [A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD  
 Check One Only for [B] or [C]  
 [B] Commingling - Storage - Measurement  
☐ DHC ☒ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM  
 [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR  
 [D] Other: Specify \_\_\_\_\_

Falabella 31 Fee  
 #3H API# 30-015-41265  
 #4H API# 30-015-39513  
 #7H API# 30-015-39514  
 #8H API# 30-015-39515

- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply  
 [A] ☒ Working, Royalty or Overriding Royalty Interest Owners  
 [B] ☐ Offset Operators, Leaseholders or Surface Owner  
 [C] ☐ Application is One Which Requires Published Legal Notice  
 [D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
 [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,  
 [F] ☐ Waivers are Attached

- [3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

- [4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note:** Statement must be completed by an individual with managerial and/or supervisory capacity.

Caden Jameson

Print or Type Name

Signature

Permitting Specialist

Title

4/28/14

Date

cjameson@concho.com

e-mail Address

District I  
1625 N. French Drive, Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St Francis Dr, Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107-B  
Revised August 1, 2011

**OIL CONSERVATION DIVISION**  
1220 S. St Francis Drive  
Santa Fe, New Mexico 87505

Submit the original  
application to the Santa Fe  
office with one copy to the  
appropriate District Office.

**APPLICATION FOR SURFACE COMMINGLING (DIVERSE OWNERSHIP)**

OPERATOR NAME: COG Operating LLC  
OPERATOR ADDRESS: One Concho Center, 600 W. Illinois Ave, Midland, TX 79707  
APPLICATION TYPE:

☐ Pool Commingling ☒ Lease Commingling ☐ Pool and Lease Commingling ☐ Off-Lease Storage and Measurement (Only if not Surface Commingled)

LEASE TYPE: ☒ Fee ☐ State ☐ Federal

Is this an Amendment to existing Order? ☐ Yes ☒ No If "Yes", please include the appropriate Order No. \_\_\_\_\_  
Have the Bureau of Land Management (BLM) and State Land office (SLO) been notified in writing of the proposed commingling  
☐ Yes ☐ No

**(A) POOL COMMINGLING**  
Please attach sheets with the following information

(1) Pool Names and Codes	Gravities / BTU of Non-Commingled Production	Calculated Gravities / BTU of Commingled Production		Calculated Value of Commingled Production	Volumes

- (2) Are any wells producing at top allowables? ☐ Yes ☐ No  
(3) Has all interest owners been notified by certified mail of the proposed commingling? ☐ Yes ☐ No.  
(4) Measurement type: ☐ Metering ☐ Other (Specify)  
(5) Will commingling decrease the value of production? ☐ Yes ☐ No If "yes", describe why commingling should be approved

**(B) LEASE COMMINGLING**  
Please attach sheets with the following information

- (1) Pool Name and Code. Atoka; Glorieta-Yeso  
(2) Is all production from same source of supply? ☒ Yes ☐ No  
(3) Has all interest owners been notified by certified mail of the proposed commingling? ☒ Yes ☐ No  
(4) Measurement type: ☐ Metering ☒ Other (Specify) Monthly Well Tests

**(C) POOL and LEASE COMMINGLING**  
Please attach sheets with the following information

- (1) Complete Sections A and E.

**(D) OFF-LEASE STORAGE and MEASUREMENT**  
Please attached sheets with the following information

- (1) Is all production from same source of supply? ☒ Yes ☐ No  
(2) Include proof of notice to all interest owners.

**(E) ADDITIONAL INFORMATION (for all application types)**  
Please attach sheets with the following information

- (1) A schematic diagram of facility, including legal location.  
(2) A plat with lease boundaries showing all well and facility locations. Include lease numbers if Federal or State lands are involved.  
(3) Lease Names, Lease and Well Numbers, and API Numbers.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE: \_\_\_\_\_ TITLE: Permitting ROW Spec. DATE: 5/27/14  
TYPE OR PRINT NAME Caden Jameson TELEPHONE NO.: 432-254-5559  
E-MAIL ADDRESS: cjameson@concho.com

# Lakewood Area

## Tank Battery Operational Description

### Test Method Allocation

#### Summary

The following is a description of the facility operations at a standard tank battery installed in the Lakewood area. The plan of development for this area includes the installation of one tank battery per half section. Each battery will be equipped to handle 4 producing wells from that half section.

#### Operational Description

1. Flowlines from producing wells terminate into the test/production header which serves as the inlet to the tank battery. From the header, one well can be put in test while the remaining wells are combined in the production header for separation and storage of produced fluids. The test/production header is illustrated in Figure 1 below. In this diagram, the shaded valves indicate a closed position. Therefore, this illustration shows well "1H" to be in test while the remaining wells are routed to the 2-Phase Separator. Using the valves in the header, any single well can be isolated from the remaining wells and placed into test.

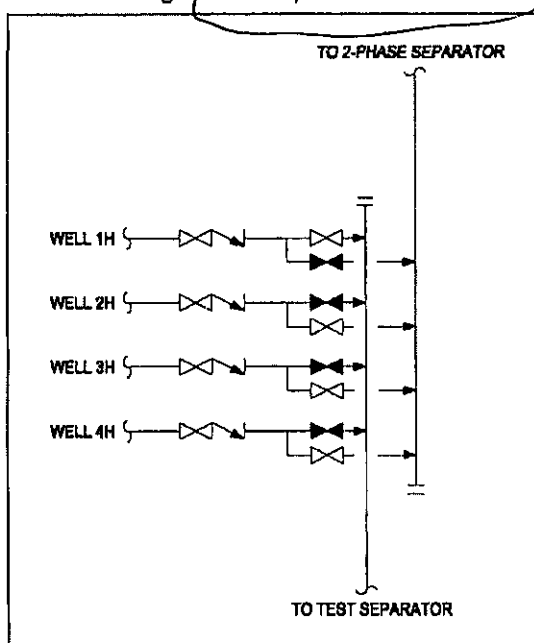


Figure 1: Test/Production Header Diagram

2. The test separator is a 3-phase horizontal separator used for measuring produced fluids from a given well. Separate meters are used for measuring oil, water, and gas from the production well. Turbine meters are used for measuring oil and water flow while an orifice meter is used

for measuring gas flow. Once the produced fluids have been metered, all three phases are recombined and routed to the 2-phase separator where the well is tied in with the bulk fluids from other wells. A diagram of the test separator is shown in Figure 2 below.

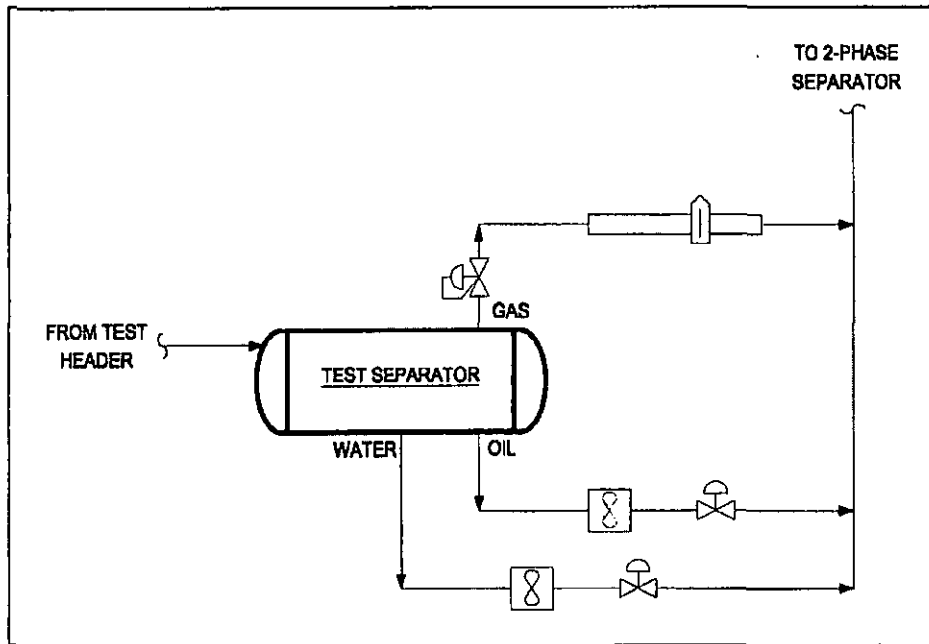


Figure 2: Test Separator with 3-Phase Metering

3. The test separator and associated metering devices have been sized for the expected range of fluid rates from the production wells. The sizing and calibration of this equipment ensures accurate measurement of produced fluids from a well in test. When a well is placed in test, it will remain in test for a minimum of 3 days. This allows adequate time for the well to level out and accurate daily production rates to be measured. Each well will be placed in test once a month at a minimum. Given the number of wells and the duration of well tests, it is likely that each well could be tested as often as 2-3 times per month. Allocation of co-mingled production will be based on average well tests taken during the previous month.
4. Fluids from the production header are routed to the 2-Phase Separator where gas and liquids are separated. Gas is sent directly to the gas sales system and liquids are sent to the FWKO for further separation. In addition to providing a means of bulk gas/liquid separation, this vessel also helps to alleviate slugs of fluid which enter the system and would otherwise disrupt the separation process.
5. Liquids from the 2-Phase Separator are sent to the Free Water Knock Out (FWKO). The primary function of this vessel is to provide sufficient retention time for oil and water to separate. Water from the FWKO is sent to water storage tanks. Oil from the FWKO is sent to the Heater-Treater for a final stage of polishing and water removal. Any gas that flashes off in this stage of separation is tied directly into the gas sales system.
6. Oil from the FWKO is routed to the Heater-Treater wherein heat is applied to help break any remaining emulsions and remove water from the oil stream. Oil from the Heater-Treater is sent



to the oil storage tanks. Water from the Heater-Treater is tied into the water line from the FWKO going to the storage tanks. Any gas that flashes off in this stage of separation is tied directly into the gas sales system.

7. Oil from the Heater-Treater is sent to 500 BBL oil tanks located on site. These tanks allow for storage of oil prior to sales through a pipeline LACT or trucking. Valves are installed on each tank to provide the ability to isolate a tank for sales or to further treat the fluids by circulating back through the separation process. Oil tanks are connected together with a common overflow line that serves to prevent spills caused by over running a single tank.
8. Water from the FWKO and Heater Treater is sent to 500 BBL water tanks located on site. These tanks provide water storage prior to being pumped into the salt water disposal (SWD) system. One water tank is used as the primary tank for water handling while the second tank provides overflow protection and operational flexibility. A transfer pump is connected to the water tanks and is operated automatically by the facility PLC based on the level of water in the tanks. This pump discharges into the SWD system which gathers and disposes of produced water.

Legal Notice

COG Operating LLC is applying for a surface commingle with the New Mexico Oil Conservation Division to produce 4 oil and gas wells into a central tank battery consisting of separate leases in Eddy County, New Mexico. The 4 wells are producing from the Penasco Draw; SA-Yeso Pool and named as follows:

Falabella 31 Fee 3H  
Eddy County, NM  
Surface: 150' FSL & 2256' FEL, Sec. 31  
T18S, R26E, Unit O  
API# 30-015-41265

Falabella 31 Fee 4H  
Eddy County, NM  
Surface: 150' FSL & 963' FWL, Sec. 31  
T18S, R26E, Unit P  
API# 30-015-39513

Falabella 31 Fee 7H  
Eddy County, NM  
Surface: 150' FSL & 1700' FEL, Sec. 31  
T18S, R26E, Unit O  
API# 30-015-39514

Falabella 31 Fee 8H  
Eddy County, NM  
Surface: 150' FSL & 380' FEL, Sec. 31  
T18S, R26E, Unit P  
API# 30-015-39515

Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division 1220 South Saint Francis Dr. Santa Fe, NM 87505 within 20 days. Additional information can be obtained by contacting Caden Jameson, COG Operating LLC, 600 West Illinois Ave, Midland, TX 79701. Phone 432.254.5559

## LEGAL NOTICE

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Published in the Artesia Daily Press, Artesia, N.M., June 11 2014 Legal No. 23024.



RE: Request for Surface Commingle

To Whom It May Concern:

This letter will serve as notice under Rule 104.F (3) that COG Operating LLC has requested administrative approval from the Oil Conservation Division in Santa Fe, NM for Surface Commingle of production from the following wells to the Falabella 31 Fee 8H Central Tank Battery:

Falabella 31 Fee 3H  
Eddy County, NM  
Surface: 150' FSL & 2256' FEL, Sec. 31  
T18S, R26E, Unit O  
API# 30-015-41265

Falabella 31 Fee 4H  
Eddy County, NM  
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Falabella 31 Fee 7H  
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T18S, R26E, Unit O  
API# 30-015-39514

Falabella 31 Fee 8H  
Eddy County, NM  
Surface: 150' FSL & 380' FEL, Sec. 31  
T18S, R26E, Unit P  
API# 30-015-39515

Should you or your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice to the New Mexico Oil Conservation Division at the following address: 1220 S St. Francis Drive, Santa Fe, New Mexico 87505. The Division Director may approve the Surface Commingle if no objection has been made within the 20 days after the application has been received. Please do not hesitate to reach us with any questions at the phone number given below.

Sincerely,

Caden Jameson  
432.254.5559  
Permitting Specialist  
COG Operating LLC