

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

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IN THE MATTER OF THE HEARING CALLED  
BY THE OIL CONSERVATION DIVISION  
FOR THE PURPOSE OF CONSIDERING:

CASE NO. 15011

APPLICATION OF CONOCOPHILLIPS COMPANY TO  
TERMINATE THE TRAIL CANYON GALLUP GAS POOL AND  
EXPAND THE BASIN-MANCOS GAS POOL,  
SAN JUAN COUNTY, NEW MEXICO

CASE NO. 15012

APPLICATION OF BURLINGTON RESOURCES OIL & GAS COMPANY, LP,  
FOR THE ESTABLISHMENT OF A DOWNHOLE COMMINGLING REFERENCE  
CASE, INCLUDING THE DELETION OF NOTICE REQUIREMENTS, FOR ITS  
SAN JUAN 27-4 UNIT, PURSUANT TO DIVISION RULE 19.15.12.11.D,  
RIO ARriba COUNTY, NEW MEXICO.

CASE NO. 15013

FIRST AMENDED APPLICATION OF BURLINGTON RESOURCES  
OIL & GAS COMPANY, LP, TO TERMINATE THE CEREZA CANYON-GALLUP  
POOL INCLUDING THE CONCOMITANT EXPANSION OF THE BASIN-MANCOS  
GAS POOL AND FOR THE ESTABLISHMENT OF A DOWNHOLE COMMINGLING  
REFERENCE CASE, INCLUDING THE DELETION OF NOTICE REQUIREMENT,  
PURSUANT TO DIVISION RULE 19.15.12.11.D FOR ITS SAN JUAN 27-5 UNIT,  
RIO ARriba COUNTY, NEW MEXICO

CASE NO. 15014

APPLICATION OF BURLINGTON RESOURCES OIL & GAS COMPANY, LP,  
FOR THE ESTABLISHMENT OF A DOWNHOLE COMMINGLING REFERENCE  
CASE, INCLUDING THE DELETION OF NOTICE REQUIREMENTS, FOR ITS  
SAN JUAN 28-5 UNIT, PURSUANT TO DIVISION RULE 19.15.12.11.D,  
RIO ARriba COUNTY, NEW MEXICO

CASE NO. 15015

APPLICATION OF BURLINGTON RESOURCES OIL & GAS COMPANY, LP,  
FOR THE ESTABLISHMENT OF A DOWNHOLE COMMINGLING REFERENCE  
CASE, INCLUDING THE DELETION OF NOTICE REQUIREMENTS, FOR ITS  
HUERFANO UNIT, PURSUANT TO DIVISION RULE 19.15.12.11.D,  
RIO ARriba COUNTY, NEW MEXICO

CASE NO. 15016

APPLICATION OF BURLINGTON RESOURCES OIL & GAS COMPANY, LP,  
FOR THE ESTABLISHMENT OF A DOWNHOLE COMMINGLING REFERENCE  
CASE, INCLUDING THE DELETION OF NOTICE REQUIREMENTS, FOR ITS  
HUERFANITO UNIT, PURSUANT TO DIVISION RULE 19.15.12.11.D,  
SAN JUAN COUNTY, NEW MEXICO

### CONSOLIDATED PRE-HEARING STATEMENT

This pre-hearing statement is submitted by Burlington Resources Oil & Gas Company,  
LP and ConocoPhillips Company as required by the New Mexico Oil Conservation Division.

### APPEARANCES OF THE PARTIES

#### APPLICANT

ConocoPhillips Company  
3401 East 30<sup>th</sup> Street  
Farmington, NM 87501  
Attn: Chuck Creekmore  
Phone 505-324-6122

#### ATTORNEY

W. Thomas Kellahin  
706 Gonzales Road  
Santa Fe, New Mexico 87501  
phone 505-982-4285  
Fax 505-982-2047  
tkellahin@comcast.net

#### OTHER PARTIES

None of record

#### ATTORNEY

## STATEMENT OF THE CASES

### APPLICANT:

#### Summary:

ConocoPhillips Company and its affiliate Burlington Resources Oil & Gas Company, LP are continuing their plan to streamline the regulatory process for the downhole commingling of production from the Basin-Dakota, Blanco-Mesaverde and the Basin-Mancos gas pools. That plan includes some old Gallup pools that need to be terminated and their acreage included in the Basin-Mancos Gas Pool or granted downhole commingling reference case status with exceptions from certain downhole commingling "DHC" criteria including deletion of certain notice requirements.

#### Background:

- (1) As a result of the entry of Order R-11363, dated April 26, 2000, the Basin-Dakota and the Blanco-Mesaverde Pools were approved as "pre-approved pools" for downhole commingling of production thus eliminating the need to justify pressure and economic criteria on a well-by-well basis.
- (2) In addition, by Order R-12984-B, dated August 4, 2012, the Division has "pre-approved" the downhole commingling of production from the Basin-Mancos Gas Pool such that production from the Basin-Mancos Gas Pool, the Blanco-Mesaverde Gas Pool and the Basin-Dakota Gas Pool that all be downhole commingled.
- (3) Recently, the Division, by Order R-13681, dated November 29, 2012, Case 14928, approved applicants application to modify the DHC notice requirements for some fourteen units operated by the applicants.
- (4) The Division routinely administratively approves the downhole commingling of production from the Gallup (Mancos), Mesaverde and Dakota formations within the San Juan Basin.
- (5) The six current cases involve other units where the absence of the establishment of a "reference case" as provided in Rule 19.15.12.11D NMAC, Division requires that administrative applications for downhole commingling of gas production be submitted, processed and approved on a well by well basis including notification by certified mail return receipt requested to each interest owner where ownership is not common in the zones to be commingled.
- (6) In support of its request to establish a "reference case" to delete the requirement that each application for downhole commingling be sent to each interest owner affected, Burlington will demonstrate that: (a) because this is a "divided" unit with various participating areas, the interest ownership between any zones to be downhole commingled within a given wellbore in the Unit will not be common; (b) pursuant to Division Rule 303. D, applicant is currently required to notify all interest owners in the unit every time a Form C-107-A is

submitted to the Division which because of ownerships in Unit Participating Areas can involve as many as five hundred different owners; and, (c) providing notice to each interest owner in the unit of subsequent downhole commingling application is unnecessary and is an excessive burden to the applicant.

- (7) Unless the affected units have been exempted from some or all of the requirements of Division Rule 19.15.12.11 NMAC that required administrative applications for downhole commingling to demonstrate (a) marginal economic criteria, (b) compatibility criteria (c) pressure criteria, (d) cross-flow criteria (e) fluid-sensitivity criteria (f) value criteria (g) allocation formulas and (h) that notice of the proposed downhole commingling on a well by well basis was provided by certified mail return receipt requested to each of the interest owners in the well in those instances where ownership between the zones to be commingled is not common.

#### **Current Applications:**

To accomplished this objective, the applicants are seeking the following:

(1) Case 15011: For the San Juan 32-8 Unit: To streamline the regulatory process by termination the Trail Canyon-Gallup Pool inside and outside the 32-8 Unit and concomitant expand the Basin-Mancos Gas Pool so that this acreage is subject to the Basin-Mancos Gas Pool rules and thus compatible with the Blanco-Mesaverde, Basin-Dakota and Basin Mancos rules. The case requires Land, Geological and Engineering testimony.

(2) Case 15012: For the San Juan 27-4 Unit: This Unit will be Land only testimony for Notice exemption because the Basin Mancos and the BS Mesa-Gallup (72920) pools are already pre-approved for downhole commingling.

(3) Case 15013: For the San Juan 27-5 Unit: To streamline the regulatory process by termination the Cereza Canyon-Gallup Pool inside the 27-5 Unit and concomitant expand the Basin-Mancos Gas Pool so that this acreage is subject to the Basin-Mancos Gas Pool rules and thus compatible with the Blanco-Mesaverde, Basin-Dakota and Basin Mancos rules. The case requires Land for notice exemption of the Basin-Mancos commingling with the Mesaverde and Dakota, but will require Land, Geological and Engineering testimony for the termination of the Cereza Canyon-Gallup Pool.

(4) Case 15014: For the San Juan 28-5 Unit: This Unit contains the Munoz Canyon-Gallup Pool which is not a DHC "pre-approved" pool. Applicant will demonstrate that certain DHC criteria can be exempted and this pool can be a "pre-approved for DHC. In addition, a notice exemption is justified of the Basin-Mancos and Munoz Canyon-Gallup commingling with the Mesaverde and Dakota.

(5) Case 15015: For the Huerfano Unit: This Unit will be Land only for Notice exemption of the Basin-Mancos commingling with the Mesaverde and Dakota and in the Angels Peak-Gallup and Gallegos-Gallup Associated Pools with the Dakota only which they are already pre-approved for

downhole commingling. The Dufers Point Gallup-Dakota Pool is already a combined Pool so commingling Notice should not be an issue even though we should probably mention it for the Order for the Unit. [COPC/BR Resource Assessment and Management group (RAM) has determined it is not necessary in this area to extend the pre-approval for the commingling of the Mesaverde in the three Gallup pools.]

(6) Case 15016: for this Huerfano Unit: This Unit will be Land only for Notice exemption of the Basin-Mancos commingling with the Mesaverde and Dakota and in the Angels Peak-Gallup Associated Pool with the Dakota only which it is already pre-approved for downhole commingling. [RAM has determined it is not necessary in this area to extend the pre-approval for the Mesaverde.]

### **Geologic Presentation:**

#### **Mancos Stratigraphic Terminology Summary**

There is a hierarchy of terminology within the Mancos, similar to the Cliff House, Menefee, and Point Lookout within the Mesa Verde Group. The Mancos describes the entire section between the base of the Point Lookout and the top of the Greenhorn.

This section is divided into the Upper Mancos (which has no further subdivisions), the Niobrara (which is subdivided into the El Vado and the Basal Niobrara), and the Carlile (which is subdivided into the Gallup equivalent, Juana Lopez, and Lower Carlile).

#### **•Main Target:**

-El Vado (Upper, A, B, & C, variable quality)

#### **•Possible Future Targets:**

-Juana Lopez

-Lower Carlile

#### **•Basal Niobrara**

-Represents the section where Tocito sands exist

-The Basal Niobrara can be found with or without the presence of Tocito sands, though is generally not pay without the Tocito sands

#### **•Gallup Equivalent**

-Rocks existing below the Base Niobrara unconformity (dotted line) and above the Juana Lopez

-These are the only true Gallup age rocks in the basin, and are not sandstones. There is no Gallup sandstone in the productive part of the basin.

-Throughout most of the basin, the unconformity has completely eroded and removed the Gallup equivalent section.

## Geologic exhibit summary

All of the geological exhibits have the same basic set-up – a locator map in the upper left with a marked cross-section line and then the cross section itself across the bottom. The locator maps use the traditional well symbols for the San Juan Basin where the wells we would be most interested in for the cross-sections are the light blue squares of the Dakota formation (a deeper horizon that commonly has log coverage over the Mancos interval). In each case I have built the cross-section with at least one well within the pool of interest along with wells extending beyond the pool. The cross sections all go from left to right utilizing the best available logs including both raster images and digitized log curves of Gamma Ray (GR) and Resistivity. For all the logs the GR will be to the left of the depth track on a scale of 0 – 200 api units while the Resistivity curve will be to the right of the depth track and colored blue if using digital data with a linear scale of 0 – 100 ohms. For the wells that have been perforated through the interval of interest, the perforations show up in the depth track either as pink slashes or boxes depending on the detail of the available data. For consistency all the cross-sections have been hung on the top of the Upper El Vado represented by the red line. The green lines are the other correlated El Vado tops then moving down section in black is the Basal Niobrara, the unconformity (dashed line), and the Juana Lopez. Each cross-section shows fairly uniform interval thickness across the pools from the outside to the inside of the pools with minimal change in character of the log data itself from well to well. This uniformity indicates there is no natural geological boundary represented by the pools and thus is not a necessary entity.

### **Geological Synopsis**

Explanation of Locator map

Line of cross-section

Log data, tops, and perfs

Uniform thickness and log character

### **Petroleum Engineering Presentation:**

There are only three of these cases that involved engineering issues:

In Case 15011, the existing Trail Canyon-Gallup Pool, having being tested in the El Vado C and Basal Niobrara, can be terminated and its acreage merged into the Basin-Mancos Gas Pool because production and pressure data demonstrates that the Trail Canyon subsection of the Mancos is not unique and does not require being administered as a "separate" Gallup pool. Likewise, there are no engineering data that prevents termination and merger—no waste will occur and no correlative rights will be harmed.

In Case 15013, the existing Cereza Canyon-Gallup Pool, having been tested in from the El Vado A to Juana Lopez, can be terminated and its acreage merged into the Basin-Mancos Gas Pool because production and pressure data demonstrates that the Cereza Canyon subsection of the Mancos is not unique and does not require being administered as a "separate" Gallup pool. Likewise, there are no engineering data that prevents termination and merger—no waste will occur and no correlative rights will be harmed.

In Case 15014 the Munoz Canyon Gallup Pool is not a "preapproved" DHC pool, but needs to be so approved:

- (a) Economic criteria to support that at least one zone to be commingled is marginal;
- (b) Cross-flow issues
- (c) Pressure criteria to demonstrate that the bottomhole pressure of all zones to be commingled is less than the original bottom hole pressure of the lowest pressures zone,
- (d) Fluid compatibility and water sensitivity/damage issues
- (e) Will commingling decrease the value of production?
- (f) Allocation formulas,

**Land/Regulatory Presentation:**

The land presentation is summarized on the Excel spreadsheet attached hereto as Exhibit "A"

**PROPOSED EVIDENCE**

**APPLICANT**

**WITNESSES**

**EST. TIME EST. EXHIBITS**

Chuck Creekmore (Landman)

@ 30-45 -min. @ 14-16 in 6 cases.  
See spreadsheet:

Eddy Pippin (Geologist)

@ 20-30 min @ 3 in 3 cases

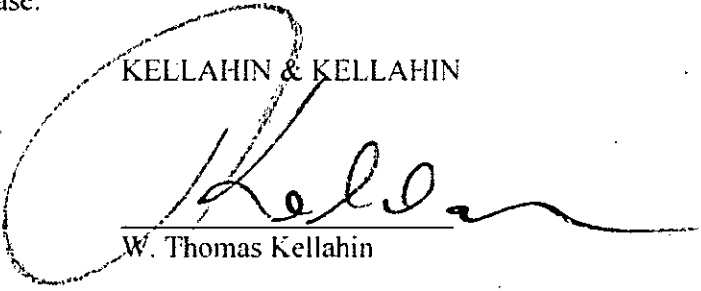
Pertuso Dryonis, (Petroleum Engineer)

@ 20-30 min @ 3 in 3 cases

**PROCEDURAL MATTERS**

Applicants request that these six cases be consolidated for hearing purposes but that separate orders to issues for each case.

KELLAHIN & KELLAHIN



W. Thomas Kellahin

**CERTIFICATION OF SERVICE**

I hereby certify that a copy of this pleading was served upon the following parties and attorneys this 3rd day of July 2013, by email:

None at this time.



W. Thomas Kellahin



7/11/13 Hearing -- Cases 15011 -- 15016 Hearing Exhibit comparrison

Exhibit	Description	32-8 Unit	27-4 Unit	27-5 Unit	28-5 Unit	Huerfano	Huerfanito	
1	Application-Case#	15011	15012	15013	15014	15015	15016	Individual Applications.
2	Notice receipts	15011	15012	15013	15014	15015	15016	Certified mail post office receipts for each Unit.
3	Maps	*	*	*	*	*	*	SJ Basin Gallup, Dakota and Deeper Pool Maps.
4	Unit Locator Plats	15011	15012	15013	15013	15015	15016	Exhibit 'A' to Application locator maps each Unit.
5	Basin-Mancos Order	*	*	*	*	*	*	R-12984. Case 14133, established the Mancos Pool.
6	Basin-Mancos Order	*	*	*	*	*	*	R-12984-B, Case 14862, pre-approval downhole commingling (DHC) Order
7	BR/COPC Fed Units	*	*	*	*	*	*	BR/COPC Unit Notice Exemption Spreadsheet.
8	William's Rosa Unit	*	*	*	*	*	*	R-12991, Case 14146, Reference case, DHC.
9	XTO Rincon Unit	*	*	*	*	*	*	R-12984-A, Case 14395, Reference case, DHC and contracting S Blanco-Tocito Oil Pool
10	NMOCD Rules	*	*	*	*	*	*	R-11363, Case 11346, NMOCD DHC Order for Pools
11	NMOCD Rules	*	*	*	*	*	*	Resulting Title 19 Chapter 15 Part 12 DHC Pools
12	COPC Ref case	*	*	*	*	*	*	R-13574, Case 14839, SJ 29-5 Unit Reference case addressing objection to downhole commingling.
13	BR/COPC Ref case	*	*	*	*	*	*	R-13681, Case 14928, 14 SJ Federal Units Reference case allowing Notice exemption for DHC.
14	Units	R-7277 Trail-Canyon	R-12867 DHC 27-4 Unit	R-11115 Cereza Canyon	R-11115 Munoz Canyon	R-5353 Angels Peak & Gallegos C	R-5353 Angels Peak	Unit specific Pool Rules
15	Units	SUSCO 16-1 Well	R-3856 BS Mesa Gallup	27-5 138E Well History	R-10695 DHC Ref case	R-7435 Dufers Point	X	Unit specific Pool Rules
16	Units	Trail-Canyon #2	X	R-10694 DHC Ref case	geological	X	X	Unit specific Pool Rules & geological
17	Units	geological	X	geological	engineer	X	X	geological and engineering
18	Units	engineer?	X	engineer?	X	X	X	geological and engineering

\* is the same exhibit and testimony in each of the 6 cases.

