

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

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OFFICE

FIRST AMENDED APPLICATION OF THE NEW MEXICO OIL CONSERVATION DIVISION, FOR THE CREATION OF THE **BASIN MANCOS GAS POOL (97232)**, AND FOR PRE-APPROVAL FOR DOWN-HOLE COMMINGLING & THE CREATION OF SPECIAL POOL RULES FOR THE **BASIN MANCOS GAS POOL (97232)**, SAN JUAN, RIO ARriba & SANDOVAL COUNTIES, NEW MEXICO.

CASE NO. 14133

FIRST AMENDED APPLICATION FOR POOL NOMENCLATURE, PRE-APPROVAL FOR DOWN-HOLE COMMINGLING & SPECIAL POOL RULES

Applicant, the New Mexico Oil Conservation Division ("OCD"), hereby makes application for an Order (i) creating the Basin Mancos Gas Pool (97232), (ii) pre-approving down-hole commingling of the Basin Mancos Gas Pool (97232), and (iii) creating special pool rules for the Basin Mancos Gas Pool (97232). In support of this Application, the OCD states as follows:

I. NOMENCLATURE AND PRE-APPROVAL FOR DOWN-HOLE COMMINGLING FOR BASIN MANCOS POOL

1. There is a need to create the **Basin Mancos Gas Pool (97232)** in San Juan County, Rio Arriba County and Sandoval County in New Mexico for the purpose of producing natural gas and natural gas liquids from natural fractures and from sandstone/siltstone intervals in the Mancos Formation. This will allow a small resource to be developed in conjunction with Basin Dakota Gas Pool and Blanco Mesaverde Gas Pool wells.

2. For the most part, the gas in place in the Mancos will only be a few scf/t and would not form economically viable targets to drill as stand-alone wells. They will, however, add value to wells drilled to the other pools.

3. In an effort to facilitate the development of the Basin Mancos Pool, the Division further requests that it be pre-approved for down-hole commingling with the Basin Dakota and Blanco Mesaverde gas pool wells **pursuant to Rule 303.C.3.b**, and that it accordingly be added to the list of pre-approved pool combinations.

4. The Mancos Formation contains massive shale/siltstones. The four sandstone/siltstone members are listed below in ascending order:

- a. **Semilla Sandstone**, which lies just above the Greenhorn Limestone,
- b. **Juana Lopez Member** (sometimes incorrectly called Sanostee Sandstone), that underlies the interval where the Gallup Formation would occur if it was present in the main San Juan Basin,
- c. **Tocito Member** (or basal Niobrara Sandstone), and
- d. **El Vado Sandstone**, which is an offshore equivalent of the Dalton Sandstone Member of the Crevasse Canyon Formation.

These members have often been (erroneously) called "Gallup Formation," which does not actually occur north of Hospah in the southernmost San Juan Basin.

5. **Horizontal limits** for the Basin Mancos Pool will be San Juan and Rio Arriba Counties, New Mexico, plus Section 21, T23N, R5W in Sandoval County.

6. **Vertical limits** for the Basin Mancos Pool will extend from the base of the Point Lookout Formation to the base of the Greenhorn Member (Bridge Creek Limestone) of the Mancos Formation.

7. Existing Gallup, Tocito, Sanostee and Mancos (oil, gas and associated) pools will be excluded from the Basin Mancos Gas Pool. A wide variety of spacing and setback requirements in these pools complicate the standard location of wells, with primary targets in the Basin Dakota and Blanco-Mesaverde pools.

8. The Gallup, Tocito, Sanostee and Mancos (oil, gas and associated) pools will not be extended for the purpose of multiple completions in wells drilled to the Basin Dakota Pool and/or the Blanco Mesaverde Pool. They may, however, be extended to include new wells dedicated as single completions to existing oil and associated pools.

9. The creation of the Basin Mancos Pool and the pre-approval of down-hole commingling of this pool with Basin Dakota and Blanco Mesaverde pools, pursuant to Rule 303.C.3.b, is in the best interest of conservation, the prevention of waste and the protection of correlative rights.

II. SPECIAL POOL RULES REQUESTED

10. Because of the unique character and position of the Basin Mancos Pool, special pool rules are needed for this pool so as to ensure that development

and production of this pool is conducted in an orderly, efficient and environmentally sound manner.

11. In order to facilitate the multiple completions with Basin Dakota and Blanco Mesaverde Pools, to prevent waste and protect correlative rights, the Basin Mancos should have the same spacing and setbacks as these two (the Basin Dakota and Blanco Mesaverde) pools.

12. Drainage areas for each completion in the Basin Mancos will be smaller than those of either the Basin Dakota or the Blanco Mesaverde due to the relatively impermeable lithologies of the Mancos Formation. It is therefore requested that the Basin Mancos Pool wells be spaced as follows, to coincide with the spacing units of the Basin Dakota and Blanco Mesaverde gas pools:

▪ **AS TO ACREAGE & WELL LOCATION REQUIREMENTS:**

A. **Standard GPU (Gas Proration Unit):** A standard GPU in the Basin-Mancos Pool shall be 320 acres, more or less, comprising any two contiguous quarter sections of a single section that is a legal subdivision of the U. S. Public Land Surveys.

B. **Well density:**

- (1) Up to four (4) wells may be drilled on a standard GPU, as follows:
 - (a) the FIRST OPTIONAL INFILL WELL drilled on a GPU shall be located in the quarter section not containing the INITIAL Mancos well;
 - (b) the SECOND OPTIONAL INFILL WELL drilled on a GPU shall be located in a quarter-quarter section not containing a Mancos well and within a quarter section of the GPU not containing more than one (1) Mancos well;
 - (c) the THIRD OPTIONAL INFILLWELL drilled on a GPU shall be located in a quarter-quarter section of the GPU not containing a Mancos well and within a quarter section of the GPU not containing more than one Mancos well;
 - (d) at the discretion of the operator, the second or third optional

infill well may be drilled prior to the drilling of the first optional infill well;

- (e) no more than two wells shall be located within either quarter section in a GPU; and
 - (f) any deviation from the above-described well density requirements shall be authorized only after hearing.
- (2) The plat (Form C-102) accompanying the "*Application for Permit to Drill*" ("APD") for subsequent wells on a GPU shall have outlined the boundaries of the GPU and shall show the location (well name, footage location, API number) of all existing Mancos wells on the GPU plus the proposed new well.

C. Well locations:

- (1) Except as provided in subparagraph 1. C (2) below, wells drilled on a GPU shall be located not closer than 660 feet to the outer boundary of the GPU and not closer than 10 feet to any interior quarter or quarter-quarter section line or subdivision inner boundary.
- (2) **Well locations inside federal exploratory units:** Wells located within federal exploratory units are permitted an exception to the 660-foot setback requirement to the outer boundary of a GPU and shall be permitted to be no closer than 10 feet to any section, quarter section, or interior quarter-quarter section line or subdivision inner boundary, provided however:
 - (a) wells shall not be closer than 660 to the outer boundary of the federal exploratory unit;
 - (b) a well located within the unit area but adjacent to an existing or prospective GPU containing a non-committed tract or partially committed tract shall not be closer than 660 to the outer boundary of its GPU;
 - (c) a well located within a non-committed or partially committed GPU shall not be closer than 660 to the outer boundary of its GPU;
 - (d) a well located within a participating area but adjacent to an existing or prospective GPU that is not within the same participating area shall not be closer than 660 to the outer boundary of the participating area; and
 - (e) a well located within the unit area but in an existing or prospective GPU that is a non-participating GPU shall not be closer than 660 to the outer boundary of its GPU.
- (3) The operator filing an APD for any well within a unit area that is closer to the outer boundary of its assigned GPU than 660 feet shall provide proof in the form of a participating area plat that such well meets the requirements of I.C (2) above.

13. In addition, the following adjustments are needed to the existing Gallup pools in San Juan and Rio Arriba Counties to facilitate the establishment Basin Mancos Pool:

- A. The following pools need to be **contracted** in the listed sections on the outer margins due to lack of production and abandonment of wells around the margins of existing Gallup Pools:

B. S. Mesa Gallup Gas Pool (72920)

T27N R4W

Section 32 S/2

Devil's Fork Gallup Associated Pool (17610)

T24N R6W

Section 29 N/2 and SE/4

T24N R7W

Section 11 E/2

Section 14 E/2 and SW/4

T25N R6W

Section 17 E/2

Section 18 All

Section 21 NE/4

Section 26 SE/4

Section 35 NE/4

T25N R7W

Section 13 NW/4

Section 25 All

Section 36 N/2

Dufer's Point Gallup-Dakota Oil Pool (19859)

T24N R8W

Section 1 SE/4

T25N R8W

Section 5 SW/4

Section 19 W/2 and NE/4

Section 20 NW/4

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Escrito Gallup Associated Pool (22619)

T24N R7W

Section 7 S/2 SW/4
Section 23 W/2 NW/4 and SW/4
Section 33 E/2
Section 35 W/2 NW/4

Gallegos Gallup Associated Pool (26980)

T26N R11W

Section 6 SW/4

T26N R12W

Section 1,2 S/2
Section 3 S/2 and NW/4
Section 4 All
Section 24 SW/4
Section 25 NW/4

T27N R12W

Section 30 SW/4
Section 31 N/2
Section 32 S/2
Section 33 SW/4

T27N R13W

Section 22 SW/4
Section 25 S/2

Ice Canyon Gallup Gas Pool (93235)

T26N R7W

Section 23 W/2

Kutz Gallup Oil Pool (36550)

T27N R10W

Section 5 NW/4

T28N R10W

Section 32 SW/4

Laguna Seca Gallup Gas Pool (79870)

T31N R5W

Section 19 SE/4

Section 20	S/2
Section 21	S/2
Section 22	SW/4
Section 27	W/2
Section 28	All
Section 29	All
Section 30	NE/4
Section 32	N/2
Section 33	NW/4

T31N R6W

Section 14	E/2
Section 23	N/2
Section 36	NE/4

NE Ojito Gallup-Dakota Oil Pool (48025)

T26N R2W

Section 30	All
Section 31	All

Otero Gallup Oil Pool (48450)

T24N R5W

Section 1	W/2 and SE/4 of Nw/4
Section 2	N/2 N/2

Tapacito Gallup Associated Pool (58090)

T26N R5W

Section 18	SW/4
Section 19	W/2 and SE/4
Section 20	S/2
Section 21	S/2

Totah Gallup Oil Pool (59750)

T28N R13W

Section 13	S/2 NE/4
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T29N R13W

Section 18	S/2
Section 19	NE/4
Section 20	W/2 NW/4 and S/2
Section 21	W/2 SW/4
Section 27	N/2

Section 28 N/2
Section 35 N/2

T29N R14W

Section 11 S/2 SW/4
Section 15 N/2 NE/4
Section 23 E/2 NE/4
Section 24 NW/4, E/2 SE/4

Wild Horse Gallup Gas Pool (87360)

T26N R3W

Section 3 S/2
Section 4 S/2
Section 5 SE/4
Section 6 N/2
Section 19 W/2

Willow Gallup Gas Pool (96379)

T31N R4W

Section 10 E/2
Section 11 N/2 and SW/4
Section 14 W/2
Section 22 NE/4
Section 23 SE/4
Section 24 W/2

B. The following pools need to be **extended** in the listed sections:

Baca Gallup Oil Pool (3745)

T26N R8W

Section 5 SW/4 SE/4, W/2 W/2 and SE/4 SW/4
Section 8 N/2 SE/4 and NE/4 SW/4
Section 9 N/2 SW/4

Based on:

Burlington Resources, Starr #5 in D-5-T26N-R8W.

Burlington Resources, Newsome #7E in K-8-T26N-R8W

B. S. Mesa Gallup Gas Pool (72920)

T26N R5W

Section 2 NW/4
Section 3 N/2

Based on:

CDX Rio LLC, Jicarilla Apache Tribal #4 in C-3-T26N-R5W.

Counselors Gallup-Dakota oil Pool (13379)

T23N R6W

Section 13 NW/4

Based on:

Range Productions Corporation, Marcus #4 in E-5-T23N-R5W.

Elm Ridge Exploration Company, Marcus A #12 in B-5-T23N-R6W.

Elm Ridge Exploration Company, Marcus A #2 in G-6-T23N-R6W.

M&M Production Company, Gallo Canyon #1 in E-13-T23N-R6W.

Devil's Fork Gallup Associated Pool (17610)

T24N R6W

Section 14 SE/4

Section 23 NE/4

Section 24 NW/4

Based on:

Merrion Oil And Gas Corporation, Canada Mesa #1E in C-24-T24N-R6W.

Dufer's Point Gallup-Dakota Oil Pool (19859)

T25N R8W

Section 23 W/2

Section 26 W/2

Based on:

Great Western Drilling Company, Crow Mesa #1, in D-23, T25N, R8W.

Escrito Gallup Associated Pool (22619)

T24N R6W

Section 30 E/2 NE/4

Based on:

Elm Ridge Exploration, Rincon Unit #3, in A-30-T24N-R6W.

Gallegos Gallup Associated Pool (26980)

T26N R11W

Section 19 SW/4

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Section 22 S/2
Section 23 SW/4
Section 30 W/2
Section 31 NW/4

Based on:

XTO Energy Inc, Berger #3 in I-22-T26N-R11W.

XTO Energy Inc, Berger #3E in L-22-T26N-R11W.

Redwolf Production Company, Windfall #10, in F-31-T26N-R11W.

Gallo Canyon Gallup-Dakota Oil Pool (96369)

T23N R5W

Section 4 SW/4 SW/4
Section 5 E/2 NE/4 and SW/4 NE/4 and SE/4
Section 9 W/2 NW/4

Based on:

Elm Ridge Exploration, Martin Whittaker #58, in E-9-T23N-R5W.undelete

Ice Canyon Gallup Gas Pool (93235)

T26N R7W

Section 14 SE/4

Based on:

Dugan Production Company, Mona Lisa #2, in J-14-T26N-R7W.:

Laguna Seca Gallup Gas Pool (79870)

T31N R6W

Section 19 SE/4
Section 20 SW/4
Section 30 E/2

Based on:

Devon Energy Production Company, Northeast Blanco Unit #302, in I-30-T31N-R6W.

La Jara Canyon Gallup Gas Pool (96483)

T30N R5W

Section 26 S/2
Section 27 S/2
Section 34 W/2

Based on:

ConocoPhillips Company, San Juan 30 5 Unit #102, in K-34-T30N-R5W.

Lindrith Gallup Dakota, South Oil Pool (96483)

T23N R4W

Section 13 SE/4 **Undelete**

Based on:

Golden Holding Corporation, Jicarilla Tribal Contract 47 #39 in J-13-T23N-R4W.

Munoz Canyon Gallup Gas Pool (96767)

T28N R5W

Section 17 SW/4

Section 18 S/2 and NW/4

Based on:

Burlington Resources Company, San Juan 28 5 Unit #61E, in K-34-T30N-R5W.

Otero Gallup Oil Pool (48450)

T24N R5W

Section 3 S/2 NE/4

Based on:

Energen Resources Corporation, San Jicarilla L #11, in G-3-T24N-R5W.

Tapacito Gallup Associated Pool (58090)

T26N R5W

Section 13 SE/4

Section 24 NE/4

Based on:

CDX Rio LLC, Jicarilla C #7E in J-13-T26N-R5W.

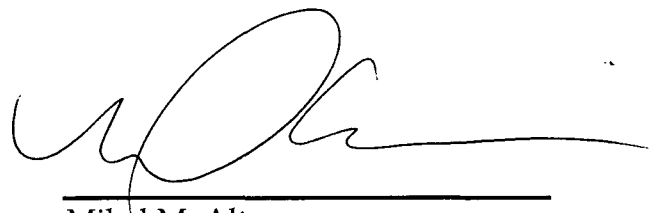
14. The implementation of the above-described, proposed special pool rules (Paragraph 12, inclusive of subparts) and the noted adjustments to the existing Gallup pools in the San Juan and Rio Arriba Counties that will be necessary to facilitate the Basin Mancos Pool establishment (Paragraph 13, inclusive of subparts) Application of the OCD for Pool Creation, Pre-Approval for Down-Hole Commingling & Designation of Special Pool Rules, **Basin Mancos Gas Pool (97232)**
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are in the interest of conservation, the protection of correlative rights and the prevention of waste.

WHEREFORE, the Division hereby requests that this Application be set for a hearing before a duly appointed examiner of the Oil Conservation Division, and that after notice and hearing as required by law and the Rules of the Division, requests that the Director enter an order providing for the following:

- A. Creation of the Basin Mancos Gas Pool (97232) in San Juan, Rio Arriba and Sandoval Counties, New Mexico,
- B. Pre-approval for downhole commingling with regard to the Basin Mancos Gas Pool (97232), as provided by Rule 303.C.3.b,
- C. Implementation of Special Pool Rules and well spacing, as specified in Paragraph 12 (inclusive of subparts) of this Application,
- D. Adoption of the specified adjustments to the existing Gallup pools in San Juan and Rio Arriba Counties, as identified at Paragraph 13 (inclusive of subparts) that are needed to facilitate the establishment Basin Mancos Pool: and
- E. For such other and further relief as the Director deems just and proper under the circumstances.

RESPECTFULLY SUBMITTED,
this 7th day of
May 2008 by



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- **CASE NO. 14133. APPLICATION OF THE NEW MEXICO OIL CONSERVATION DIVISION FOR POOL CREATION, PRE-APPROVAL FOR DOWNHOLE COMMINGLING AND DESIGNATION OF SPECIAL POOL RULES, BASIN MANCOS GAS POOL (97232), RIO ARRIBA, SAN JUAN AND SANDOVAL COUNTIES.** Applicant in the above-styled cause seeks the creation of the Basin Mancos Gas Pool for the production of natural gas and natural gas liquids from natural fractures and from sandstone/siltstone intervals in the Mancos Formation, which will allow a small resource to be developed in conjunction with the Basin Dakota Gas Pool and the Blanco Mesaverde Gas Pool wells. Applicant seeks the promulgation of special pool rules for this new pool, including the pre-approval for down-hole commingling with the Basin Dakota and Blanco Mesaverde gas pool wells pursuant to OCD Rule 303.C.3.b [19.15.5.303.C.3.b NMAC], that spacing requirements and setbacks be the same as for the Basin Dakota and Blanco Mesaverde pools, and that special pool rules also be created to address well locations, gas proration units and well density limits. Applicant further seeks necessary adjustments (expansion and contraction) of the existing Gallup pools in San Juan and Rio Arriba Counties to facilitate the establishment of the Basin Mancos Gas Pool. Vertical limits of the proposed new pool will extend from the base of the Point Lookout Formation to the base of the Greenhorn Member (Bridge Creek Limestone) of the Mancos Formation, and Horizontal limits of the proposed new pool will be San Juan and Rio Arriba Counties, New Mexico, plus Section 21, T23N, R5W in Sandoval County.