# BEFORE THE OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF COLORADO

		CORRECTED
VEGA FIELD, MESA COUNTY, COLORADO	)	399-4
OPERATIONS IN THE BUZZARD CREEK AND	)	ORDER NO. 1-124, 369-4,
ESTABLISHMENT OF FIELD RULES TO GOVERN	)	
IN THE MATTER OF THE PROMULGATION AND	)	CAUSE NOS. 1, 369, 399

#### REPORT OF THE COMMISSION

This cause came on for hearing before the Commission at 9:00 a.m. on February 25, 2008, in Suite 801, The Chancery Building, 1120 Lincoln Street, Denver, Colorado, for an order to allow the equivalent of one well per 10 acres, with the permitted well to be located no closer than 100 feet from the unit boundary for certain lands in Townships 8 and 9 South, Range 92 West, 6<sup>th</sup> P.M. and Townships 8½, 9 and 10 South, Range 93 West, 6<sup>th</sup> P.M., and to allow wells to be located no closer than 100 feet from the exterior boundary of the Vega Federal Unit.

## **FINDINGS**

The Commission finds as follows:

- 1. Delta Petroleum Corporation ("Delta"), as applicant herein, is an interested party in the subject matter of the above-referenced hearing.
- 2. Due notice of the time, place and purpose of the hearing has been given in all respects as required by law.
- 3. The Commission has jurisdiction over the subject matter embraced in said Notice, and of the parties interested therein, and jurisdiction to promulgate the hereinafter prescribed order pursuant to the Oil and Gas Conservation Act.
- 4. On April 20, 1981, the Commission issued Order No. 369-1, which among other things, established 320-acre drilling and spacing units, including Sections 23 through 26, Township 9 South, Range 93 West, 6<sup>th</sup> P.M., for the production of gas and associated hydrocarbons from the Mesaverde Formation.
- 5. On May 16, 1983, the Commission issued Order No. 399-1, which among other things, established 320-acre drilling and spacing units for the production of gas and associated hydrocarbons from the Mesaverde Formation, with the permitted well to be located no closer than 600 feet from the unit boundary, for Sections 1 and 2, Township 10 South, Range 93 West, 6<sup>th</sup> P.M.
- 6. On May 7, 2007, the Commission issued Order Nos. 369-3 and 399-3, which among other things, established 320-acre drilling and spacing units for the S½ of Section 22 and all of Section 27, Township 9 South, Range 93 West, 6<sup>th</sup> P.M., and allowed one well per 20 acres to be optionally drilled, for production from the Williams Fork and Iles Formations (including but not limited to the Rollins, Cozzette and Corcoran), with the permitted well to be located 200 feet from the boundaries of the drilling and spacing unit and 400 feet from any existing Williams Fork Formation or Iles Formation well absent an exception from the Commission.

Township 8 South, Range 92 West, 6th P.M.

Section 31: SW1/4 SE1/4

Township 9 South, Range 92 West, 6th P.M.

Section 6: Lots 1-6, S½ NE¼, SE¼ (All)

Section 7: Lots 1-4, E½ (All) Section 18: Lots 1-4, E½ (All)

Section 19: Lots 1-4, E½ (All)

Township 8½ South, Range 93 West, 6th P.M.

Section 1: Lots 1-3 (All)

Township 9 South, Range 93 West, 6th P.M.

Section 1: Lots 2, 5, 6, 7, SW¼ NE¼, NW¼ SE¼ (all that part

of the E½ of Section 1, outside of the Buzzard

Creek Unit), Lots 3 & 4, S1/2 NW1/4

Section 13: S½ S½
Section 14: SE¼ SE¼

Section 21: S½

Section 22: S½ N½, S½

Sections 23 through 28: All

Section 35: N½ NE¼

Section 36: All

# Township 10 South, Range 93 West, 6th P.M.

Section 1: Lots 7-10, S½ NW¼, that part of Tract 37 lying in the S¼ NW¼

and N1/2 SW1/4

Section 2: Lots 5-12, SW1/4 NE1/4, NW1/4 SE1/4, that part of Tract 37 lying in

the NE1/4 SE1/4

Section 3: S½ N½, N½ S½, SE¼ SE¼

7. On January 8, 2008, Delta, by its attorneys, filed a with the Commission a verified application for an order to allow the equivalent of one well per 10 acres, for production from the Williams Fork and Iles Formations (including but not limited to the Rollins, Cozzette and Corcoran), with the permitted well to be located no closer than 100 feet from the unit boundary for the below-listed lands, and to allow wells to be located no closer than 100 feet from the exterior boundary of the Vega Federal Exploratory Unit.

# Township 8 South, Range 92 West, 6<sup>th</sup> P.M.

Section 31: SW¼ SE¼

## Township 9 South, Range 92 West

Section 6: Lots 1-6, S½ NE¼, SE¼ (All)

Section 7: Lots 1-4, E½ (All) Section 18: Lots 1-4, E½ (All) Section 19: Lots 1-4, E½ (All)

#### Township 8½ South, Range 93 West, 6<sup>th</sup> P.M.

Section 1: Lots 1-3 (All)

## Township 9 South, Range 93 West

Section 1: Lots 2, 5, 6, 7, SW1/4 NE1/4, NW1/4 SE1/4 (all that part

of the E½ of Sec. 1 outside of the Buzzard Creek

Unit), Lot 3 & 4, S½ NW¼

Section 13:  $S\frac{1}{2}S$  Section 14:  $SE\frac{1}{4}SE\frac{1}{4}$  Section 20:  $SE\frac{1}{4}$ 

Section 21: S½

Section 22: S½ N½, S½

Sections 23 through 28: All

Section 29: E½ NW¼, NE¼ SW¼, E½

Section 33: E½ E½ Section 34: All

Section 35: W½, SE¼, S½ NE¼, N½ NE¼

Section 36: All

#### Township 10 South, Range 93 West, 6th P.M.

Section 1: Lots 7-10, S½ NW¼, that part of Tract 37 lying in the S¼ NW¼

and N1/2 SW1/4

Section 2: Lot 5-12, SW1/4 NE1/4, NW1/4 SE1/4, that part of Tract 37 lying in the

NE1/4 SE1/4

Section 3: S½ N½, N½ S½, SE¼ SE¼, Lots 1 through 4 (N½ N½), S½

SW1/4, SW1/4 SE1/4

Section 4: All

Section 5: S½ SE¼

Section 8: E½

Section 9: W½ W½, E½ SW¼, W½ SE¼, SE¼ SE¼, NE¼, E½ NW¼, NE¼

SE¼

Section 10: SW1/4 SW1/4, N1/2, N1/2 SW1/4, SE1/4 SW1/4, SE1/4

Section 15: Tract 39 (N½ NE¼, except Lots 3 and 4, NE¼ NW¼ except Lot 2),

and Part of Tract 40 (NW1/4 NW1/4 except Lot 1)

Section 16: Part of Tract 40 N½ NE¼ except Lots 4 and 5, NE¼ NW¼ except

Lots 2 and 3)

In cases where the application lands, not including the Vega Federal Exploratory Unit lands, abut or corner lands where the Commission has not, at the time of the drilling permit application, granted the right to drill 10-acre density Mesaverde or Iles Formation wells, the wells should be located downhole no closer than 200 feet from the boundary or boundaries of the drilling unit or lease line (if unspaced) abutting or cornering such lands, without exception granted by the Commission.

In cases where the Vega Federal Exploratory Unit lands abut or corner lands where the Commission has not, at the time of the drilling permit application, granted the right to drill 10-acre density Mesaverde or lles Formation wells, the wells should be located downhole no closer than 200 feet from the exterior boundary of a federal exploratory unit without exception granted by the Commission.

Delta commits that no more than four (4) Mesaverde or Iles Formation wells shall be drilled on the application lands per governmental quarter quarter section. Additionally, Delta commits that under this application wells will be drilled from the surface either vertically or directionally from no more than one pad located on a given quarter quarter section unless exception is granted by the Director of the Colorado Oil and Gas Conservation Commission, and that both the Williams Fork and Iles Formations will be reached from a single wellbore, *i.e.*, separate wells will not be drilled to reach each formation.

- 8. On February 4, 2008, Robert W. and Dianna B. Beltz filed with the Commission a letter designated as a protest to Delta's application. Mr. and Mrs. Beltz, who own minerals adjacent to the application lands, were inadvertently noticed and their letter does not meet the requirements of a protest under Commission rules. Delta provided a response to the letter on February 12, 2008, which is part of the hearing file.
- 9. On February 13, 2008, the United States Department of Interior, Bureau of Reclamation, filed with the Commission a letter expressing concerns regarding potential adverse effects the proposed density could have on the Vega Reservoir and Vega State Park. Delta also provided a response to this letter on February 20, 2008, which is part of the hearing file.
- 10. On February 11, 2008, Delta, by its attorney, filed with the Commission a written request to approve the application based on the merits of the verified application and the supporting exhibits. Sworn written testimony and exhibits were submitted in support of the application.
- 11. Testimony and exhibits submitted in support of the application showed that Delta is the current operator and owns or has a contractual working interest in the Delta and EnCana leases within the application lands. The application lands are located predominately in the Vega Field Area and Vega Federal Unit, and consist of approximately 13,366 total acres, with approximately 5,506 acres of federal lands and approximately 7,860 acres of fee lands.
- 12. Testimony and exhibits submitted in support of the application showed that the Mesaverde Group is a basin-center gas accumulation, with regionally extensive gas accumulation in discontinuous fluvial sandstones, with low porosity and low permeability, interbedded with marine and nonmarine shales and coals. Additional testimony and exhibits indicated that the Williams Fork Formation net sands do not individually correlate, and must be drilled with increased well density to intersect a greater number of point sand bars to adequately drain the area. Further testimony and exhibits showed microseismic data which indicated that the drainage ellipse for a wellbore is less than 20 acres.
- 13. Testimony and exhibits submitted in support of the application showed that the current 20-acre well density does not capture all the reserves, and that 10-acre well density in the application lands is needed to recover 65% of an offset 20-acre well. Additional testimony and exhibits indicated that drilling wells on a 10-acre density basis will be economic.

- 14. The above-referenced testimony and exhibits show that the proposed increased well density will allow more efficient reservoir drainage, will prevent waste, will assure a greater ultimate recovery of gas, and will not violate correlative rights.
  - 15. Delta Petroleum Corporation agreed to be bound by oral order of the Commission.
- 16. Based on the facts stated in the verified application, having received no valid protests, and based on the Hearing Officer review of the application under Rule 511.b., the Commission should enter an order to allow the equivalent of one well per 10 acres, with the permitted well to be located no closer than 100 feet from the unit boundary for certain lands in Townships 8 and 9 South, Range 92 West, 6th P.M. and Townships 8½, 9 and 10 South, Range 93 West, 6th P.M., and to allow wells to be located no closer than 100 feet from the exterior boundary of the Vega Federal Unit.

#### <u>ORDER</u>

NOW, THEREFORE IT IS ORDERED, that for the application lands, not including the Vega Unit Lands, as those lands are defined in the application and as described below, the equivalent of one (1) well per 10 acres is hereby approved for production of gas and associated hydrocarbons from the Williams Fork and Iles Formations (including but not limited to the Rollins, Cozzette and Corcoran).

## Township 8 South, Range 92 West, 6th P.M.

Section 31: SW1/4 SE1/4

## Township 9 South, Range 92 West, 6th P.M.

Section 6: Lots 1-6, S½ NE¼, SE¼ (All)

Section 7: Lots 1-4, E½ (All)
Section 18: Lots 1-4, E½ (All)
Section 19: Lots 1-4, E½ (All)

# Township 81/2 South, Range 93 West, 6th P.M.

Section 1: Lots 1-3 (All)

#### Township 9 South, Range 93 West, 6th P.M.

Section 1: Lots 2, 5, 6, 7, SW¼ NE¼, NW¼ SE¼ (all that part

of the  $E\frac{1}{2}$  of Sec. 1 outside of the Buzzard Creek

Unit), Lot 3 & 4, S1/2 NW1/4

 Section 13:
 S½ S½

 Section 14:
 SE¼ SE¼

 Section 20:
 SE¼

Section 20: SE1/4 Section 21: S1/2

Section 22: S½ N½, S½

Sections 23 through 28: All

Section 29: E½ NW¼, NE¼ SW¼, E½

Section 33: E½ E½ Section 34: All

Section 35: W½, SE¼, S½ NE¼, N½ NE¼

Section 36: All

## Township 10 South, Range 93 West, 6th P.M.

Section 1: Lots 7-10, S½ NW¼, that part of Tract 37 lying in the S¼ NW¼ and N½ SW¼

Section 2: Lot 5-12, SW¼ NE¼, NW¼ SE¼, that part of Tract 37 lying in the NE¼ SE¼

Section 3: S½ N½, N½ S½, SE¼ SE¼, Lots 1 through 4 (N½ N½), S½ SW¼, SW¼ SE¼

Section 4: All

Section 5: S½ SE¼

Section 8: E½

Section 9: W½ W½, E½ SW¼, W½ SE¼, SE¼ SE¼, NE¼, E½ NW¼, NE¼ SE¼

Section 10: SW1/4 SW1/4, N1/2, N1/2 SW1/4, SE1/4 SW1/4, SE1/4

Section 15: Tract 39 (N½ NE¼, except Lots 3 and 4, NE¼ NW¼ except Lot 2), and Part of Tract 40 (NW¼ NW¼ except Lot 1)

Section 16: Part of Tract 40 N½ NE¼ except Lots 4 and 5, NE¼ NW¼ except Lots 2 and 3)

IT IS FURTHER ORDERED, that all future permitted wells shall be located no closer than 100 feet from the boundary of the unit or lease line (if unspaced), unless exception is granted by the Commission. In cases where the application lands, not including the Vega Unit lands, abut or corner lands where the Commission has not, at the time of the drilling permit application, granted the right to drill 10-acre density Mesaverde Formation or lles Formation wells, the wells shall be located downhole no closer than 200 feet from the boundary or boundaries of the drilling unit or lease line (if unspaced) abutting or cornering such lands.

IT IS FURTHER ORDERED, that for the Vega Federal Exploratory Unit lands described below, all future permitted wells shall be located no closer than 100 feet from the exterior boundary of a federal exploratory unit without exception granted by the Commission. In cases where the Vega Unit Lands abut or corner lands where the Commission has not, at the time of the drilling permit application, granted the right to drill 10-acre density Mesaverde or Iles Formation wells, the wells should be located downhole no closer than 200 feet from the exterior boundary of a federal exploratory unit without exception granted by the Commission.

Township 9 South, Range 93 West, 6th P.M.

Section 33: E½ E½

Section 34: All

Section 35: W½, SE¼, S½ NE¼

Township 10 South, Range 93 West, 6th P.M.

Section 3: Lots 1 through 4 (N½ N½), S½ SW¼, SW¼ SE¼

Section 4: SE 1/4 SW 1/4, S 1/2 SE 1/4

Section 9: NE1/4, E1/2 NW1/4, NE1/4 SE1/4

Section 10: N1/2, N1/2 SW1/4, SE1/4 SW1/4, SE1/4

IT IS FURTHER ORDERED, that wells shall be drilled from the surface either vertically or directionally from no more than one well pad located on a given quarter quarter section unless exception is granted by the Director of the Colorado Oil and Gas Conservation Commission.

IT IS FURTHER ORDERED, that the provisions contained in the above order shall become effective forthwith.

IT IS FURTHER ORDERED, that the Commission expressly reserves its right, after notice and hearing, to alter, amend or repeal any and/or all of the above orders.

IT IS FURTHER ORDERED, that under the State Administrative Procedure Act the Commission considers this order to be final agency action for purposes of judicial review within thirty (30) days after the date this order is mailed by the Commission.

IT IS FURTHER ORDERED, that an application for reconsideration by the Commission of this order is not required prior to the filing for judicial review.

ENTERED this 11 day of March, 2008, as of February 25, 2008.

OIL AND GAS CONSERVATION COMMISSION OF THE STATE OF COLORADO

Patricia C. Beaver, Secretary

Dated at Suite 801 1120 Lincoln Street Denver, Colorado 80203 March 11, 2008