

BEFORE THE BOARD OF OIL, GAS & MINING  
DEPARTMENT OF NATURAL RESOURCES AND ENERGY  
IN AND FOR THE STATE OF UTAH

---

IN THE MATTER OF THE PETITION  
OF LONE MOUNTAIN PRODUCTION  
COMPANY, TXO PRODUCTION  
CORPORATION, AND BURTON W.  
HANCOCK FOR AN ORDER MODIFYING  
PREVIOUS SPACING ORDERS TO  
ALLOW INFILL DRILLING UPON  
ESTABLISHED DRILLING UNITS  
AND ESTABLISHING OTHER  
DRILLING/SPACING UNITS FOR  
THE DAKOTA AND MORRISON  
FORMATIONS UNDERLYING  
CERTAIN ENUMERATED LANDS IN  
GRAND COUNTY, UTAH

\*  
\*  
\*  
\*  
\*  
\*  
\*  
\*  
\*  
\*  
\*  
\*  
\*

**INTERIM ORDER**

Docket No. 86-009  
Cause No. 13-6

---

The Board, having considered the above Petition at length, hereby enters the following Interim Order:

FINDINGS OF FACT AND CONCLUSIONS OF LAW

1. The Board wishes to consider the matter in greater detail, as it has concerns about the appropriateness of the relief requested. The Board requests that the interested parties submit (if they so desire) memoranda of points and authorities addressing these concerns, no later than 10 days before the June 1986 meeting of the Board.

2. Petitioners wish to proceed with the drilling of an additional well upon each of three different existing 320 acre drilling/spacing units within the lands subject to the Petition.

3. The uncontroverted testimony presented at the hearing in this matter indicates that additional wells are needed upon the existing units, in order to recover additional reserves of oil and gas.

4. Two mutually exclusive methods of additional well authorization are available under Utah law. UCA §40-6-6(4). The Board wishes to consider the appropriateness of each to the current Petition at greater length.

5. The Board withholds a determination of whether the existing units mentioned above will be permanently authorized for infill wells or downspaced, until a later date.

ORDER

THEREFORE, it is the Interim Order of this Board that:

1. An additional production well is authorized in each of the following existing units:

- a) N1/2 of Section 32, Township 16 South, Range 26 East, S.L.M.;
- b) N1/2 of Section 14, Township 17 South, Range 24 East, S.L.M.; and
- c) S1/2 of Section 6, Township 17 South, Range 25 East, S.L.M.

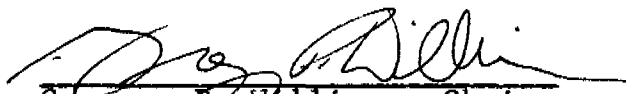
2. The Board withholds a determination of whether the existing units mentioned above will be permanently authorized for infill wells, or downspaced, until a later date.

3. The Board retains all other jurisdiction in this matter.

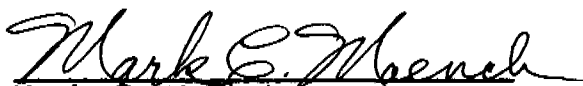
4. This Interim Order is effective as of May 22, 1986.

DATED this 26<sup>th</sup> day of June, 1986.

STATE OF UTAH  
BOARD OF OIL, GAS & MINING

  
\_\_\_\_\_  
Gregory E. Williams, Chairman

Approved As To Form:

  
\_\_\_\_\_  
Mark C. Moench  
Assistant Attorney General

BEFORE THE BOARD OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
IN AND FOR THE STATE OF UTAH

---

IN THE MATTER OF THE PETITION	*	
OF LONE MOUNTAIN PRODUCTION	*	FINDINGS OF FACT,
COMPANY, TXO PRODUCTION	*	CONCLUSIONS OF
CORPORATION, AND BURTON W.	*	LAW AND ORDER
HANCOCK FOR AN ORDER MODIFYING	*	
PREVIOUS SPACING ORDERS TO	*	
ALLOW INFILL DRILLING UPON	*	Docket No. 86-009
ESTABLISHED DRILLING UNITS	*	Cause No. 13-6
AND ESTABLISHING OTHER	*	
DRILLING/SPACING UNITS FOR THE	*	
DAKOTA AND MORRISON FORMATIONS	*	
UNDERLYING CERTAIN ENUMERATED	*	
LANDS IN GRAND COUNTY, UTAH	*	

---

Pursuant to the Petition of Lone Mountain Production Corporation, TXO Production Corporation, and Burton W. Hancock, this cause initially was heard before the Board of Oil, Gas and Mining, Department of Natural Resources, State of Utah, on Friday, May 9, 1986, at 10:30 a.m. in the Board Room of the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 301, Salt Lake City, Utah. The following Board members were present:

Gregory P. Williams, Chairman  
James W. Carter  
John M. Garr  
Charles R. Henderson  
Richard B. Larsen  
Judy F. Lever  
E. Steele McIntyre

The Board was represented by Mark C. Moench, Esq.,  
Assistant Attorney General for the State of Utah.

Appearances for the Division Of Oil, Gas & Mining were  
made by:

Dr. Dianne Nielson, Director  
Division of Oil, Gas & Mining

Ronald J. Firth, Associate  
Director, Oil & Gas

John R. Baza, Petroleum Engineer

The Division was represented by Barbara W. Roberts,  
Assistant Attorney General for the State of Utah.

The Petitioners were represented by John A. Harja of  
Hugh C. Garner & Associates, 310 South Main Street, Suite 1400,  
Salt Lake City, Utah 84101.

Testimony was given by:

A. John Davis, Attorney at Law, for Petitioners  
James G. Routson, Geologist, for Petitioners

Mr. Assad M. Raffoul, Petroleum Engineer with the Salt  
Lake City Office of the Bureau of Land Management was present and  
gave a presentation and statement for the record.

Statements were made for the record in this matter at  
the regularly scheduled Board hearings on May 22, June 26 and  
July 31, 1986. Petitioners filed an Amended Petition on August  
5, 1986, which requested relief essentially based upon the  
findings of the Board as stated at the July 31 meeting.

The Amended Petition was heard at the regularly  
scheduled Board meeting on August 28, 1986. All Board members

stated above were present and all appearances were identical except that the Bureau of Land Management was represented by Mr. Robert Hendricks of the Salt Lake City office.

NOW, THEREFORE, the Board having considered the testimony adduced and the exhibits reviewed in said hearing, and being fully advised in the premises, now makes and enters the following:

#### FINDINGS OF FACT

1. Due and regular notice of the time, place and purpose of the May 9 and August 28 hearings was given to all interested parties as required by law and the rules and regulations of the Board. The parties specifically served with notice are listed in Exhibit "1" attached to the Petition, which names represent all persons who own the right to explore for and produce hydrocarbons from the subject lands and all lands immediately adjacent to and cornering upon the subject lands.
2. The Board has jurisdiction over the subject matter of the Amended Petition and over all parties interested therein and has jurisdiction to make and promulgate the order hereinafter set forth.
3. The Amended Petition in this matter is a request to modify previously existing drilling/spacing units for the Dakota and Morrison formations in parts of Grand County, Utah to permit additional wells to be drilled, both by downspacing some of the existing units and by authorizing additional wells within the other of the existing units (increased well density or infill).

The Amended Petition requests that existing wells be designated the current initial production well for infill units, or be the current designated production well for the new smaller units, as appropriate. New wells would be drilled, at the operator's option, within the opposite government quarter section from the existing well, or in the new smaller units (whichever is appropriate), at a point not less than 500 feet from the unit boundaries and 2,000 feet from other wells producing from the same formation, with a 200 foot tolerance to each requirement to be administratively approved pursuant to Rule 302.1 of the General Oil and Gas Rules for Utah.

In addition, the Amended Petition requests that other lands in Grand County be spaced (primarily upon a 160 acre basis) for production from the Dakota and Morrison formations. One well would be authorized for each unit with existing wells designated as the current production well. New wells would be drilled at a point not less than 500 feet from the unit boundaries and not less than 2,000 feet from other wells producing from the same formations with a 200 foot tolerance to each requirement to be administratively approved pursuant to Rule 302.1 of the General Oil and Gas Rules for Utah.

In addition, the Amended Petition also requests various other small drilling spacing units be established or modified.

4. An Interim Order was entered in this matter, effective May 22, 1986, which allowed Petitioners to drill 3

wells upon the subject lands. The terms of the Interim Order are hereby incorporated into this final Order.

5. The Board has previously entered Orders in Cause Nos. 4-2, 13-3, 149-1, 149-2B, 149-3B, 149-5, 149-9, 165-2, 165-3, 165-4, 165-6, 165-7, and 165-10 establishing the following drilling/spacing units for the production of hydrocarbons from the Dakota and Morrison formations underlying Grand County, Utah (among other lands):

A. 320 acre units (more or less)

i) Township 16 South, Range 24 East, S.L.M.

Section 25: All  
 Section 35: All  
 Section 36: All

ii) Township 16 South, Range 25 East, S.L.M.

Section 19: All  
 Section 21: S1/2  
 Section 29: All  
 Section 30: All  
 Section 31: All  
 Section 32: All  
 Section 33: All  
 Section 34: All  
 Section 35: S1/2

iii) Township 16 South, Range 26 East, S.L.M.

Section 32: All  
 Section 33: All

iv) Township 17 South, Range 24 East, S.L.M.

Section 1: All  
 Section 2: All  
 Section 3: All  
 Section 11: All  
 Section 12: All  
 Section 14: All



v) Township 17 South, Range 25 East, S.L.M.

Section 5: All  
 Section 6: All

vi) Township 17 South, Range 26 East, S.L.M.

Sections 4 & 5: All  
 Sections 8 & 9: N1/2

B. 280 acre units (more or less)i) Township 16 South, Range 25 East, S.L.M.

Section 28: SE1/4, S1/2 NE1/4, NW1/4 NE1/4  
 Section 35: NW1/4, S1/2 NE1/4, NW1/4 NE1/4

C. 400 acre unit (more or less)i) Township 17 South, Range 25 East, S.L.M.

Section 13: SE1/4, SW1/4, S1/2 NW1/4

6. Geologic evidence indicates that the Dakota and Morrison formations also extend under the following unspaced lands, and, as such, constitute a common source of supply of (principally) natural gas:

i) Township 16 South, Range 24 East, S.L.M.

Section 26: All

ii) Township 17 South, Range 24 East, S.L.M.

Section 5: SE1/4  
 Section 8: NW1/4 NE1/4, NW1/4  
 Section 13: All

iii) Township 17 South, Range 25 East, S.L.M.

Section 2: W1/2 W1/2  
 Section 3: All  
 Section 4: All  
 Section 8: S1/2, E1/2 NE1/4  
 Section 9: All  
 Section 10: All  
 Section 14: All

Section 15: All  
Section 16: All  
Section 17: All  
Section 18: All

7. The San Arroyo, Winter Camp, Bar-X, Bar Creek, Bryson Canyon, Westwater and Horse Point "B" operational units exist upon lands contiguous with the above stated lands. The shape of these operational units prevents the establishment of uniform drilling units upon all of the above stated lands.

8. Currently available geologic evidence indicates that one well will not drain the natural gas reserves underlying a spaced area 280 acres in size or larger. The geologic evidence indicates that one well will drain approximately 160 acres, and that a 160 acre drainage area is not smaller than the maximum area that can be efficiently and economically drained by one well.

9. Due to the presence of existing communitization agreements and other factors, and in order to protect the correlative rights of the various interest owners, the geographic extent of several of the existing drilling/spacing units can not be altered. Increased well density authorization is appropriate for these units. Additional wells upon existing units are authorized to be drilled only at the option of the operator of each separate unit, such drilling decision to be based upon geologic and engineering data indicating that the well will recover additional hydrocarbons in an economically feasible manner. Economically feasible means that a prudent operator

would have a reasonable opportunity to recover the costs of drilling, completing, producing and operating the well, plus a reasonable profit.

10. It is not the intent of this Order to change, amend or otherwise alter any existing contractual rights or relationships, express or implied, between any parties who share in the production (or proceeds therefrom) from previously spaced drilling units or tracts pooled or unitized for purposes of developing and producing wells (upon the lands not spaced at the date of hearing on this matter). It is not the intent of this Order to alter any interests based on previously existing communitization or participation agreements.

11. The various types of relief ordered by the Board in this matter will prevent the drilling of unnecessary wells, prevent waste, and protect correlative rights.

#### CONCLUSIONS OF LAW

1. The Dakota and Morrison formations underlying the subject lands are a "common source of supply" as that term is defined in U.C.A. §40-6-2(a) (1953, as amended).

2. The Board has the authority, pursuant to U.C.A. §40-6-6(3), (1953, as amended) to modify previous spacing orders to include additional areas which are underlaid by a common source of supply.

3. The Board has the authority, pursuant to U.C.A. §40-6-6(4), (1953, as amended) to modify existing drilling/

spacing units to decrease the size of the unit or permit additional wells to be drilled within established units.

4. The various types of relief ordered by the Board in this matter will prevent the drilling of unnecessary wells, prevent waste, and protect correlative rights.

Sufficient evidence now being available upon which to reach a decision, the Board issues the following:

ORDER

IT IS HEREBY ORDERED THAT:

A. INTERIM ORDER

The terms of the Interim Order entered effective May 22, 1986 in this matter are incorporated into this final Order.

B. INFILL AUTHORIZATION

1) Two production wells are authorized for production from the Dakota and Morrison formations within the following established drilling/spacing units:

i) Township 16 South, Range 24 East, S.L.M.

Section 25: S1/2  
Section 35: E1/2  
Section 36: All

ii) Township 16 South, Range 25 East, S.L.M.

Section 28: SE1/4, S1/2 NE1/4, NW1/4 NE1/4 (280 acre unit)  
Section 29: All  
Section 30: All  
Section 31: All  
Section 32: All  
Section 33: S1/2  
Section 34: All  
Section 35: NW1/4, S1/2 NE1/4, NW1/4 NE1/4 (280 acre unit)  
Section 35: S1/2

iii) Township 16 South, Range 26 East, S.L.M.

Section 32: All

iv) Township 17 South, Range 24 East, S.L.M.

Section 2: All  
 Section 11: N1/2  
 Section 12: S1/2  
 Section 14: S1/2

v) Township 17 South, Range 25 East, S.L.M.

Section 5: N1/2  
 Section 13: SE1/4, SW1/4, S1/2 NW1/4 (400 acre unit)

vi) Township 17 South, Range 26 East, S.L.M.

Sections 4 &amp; 5: N1/2

2) Existing wells capable of production from the Dakota/Morrison formations in the units stated in paragraph "B(1)" above are the authorized current initial well per unit. Additional wells shall be located no less than 500 feet from the unit boundaries and no less than 2,000 feet from other wells producing from the same formations (with a 200 foot tolerance for each distance requirement to be administratively granted pursuant to Rule 302.1 for geological, topographical, cultural or other reasons) so long as only one well is located within each of the governmental quarter sections (or lots or approximate acreage corresponding thereto) which comprise each unit.

3) Said additional wells shall be permitted to be drilled only at the option of the operator of each separate

drilling unit. Said drilling decision shall be based upon the criteria stated in Finding of Fact No. 9 above.

4) It is not the intent of this Order that existing contractual rights or relationships, express or implied, between all parties who share in the production, or proceeds therefrom, from any of the established drilling units stated in paragraph "B(1)" above be altered by virtue of this order.

C. DOWNSPACED UNITS

1) The existing 320 acre units within the following lands are downspaced to two 160 acre (more or less) drilling and spacing units, with any existing wells to be the authorized current production well within the new unit boundaries:

- i) Township 16 South, Range 24 East, S.L.M.  
Section 35: W1/2
- ii) Township 16 South, Range 25 East, S.L.M.  
Section 19: All  
Section 33: N1/2
- iii) Township 16 South, Range 26 East, S.L.M.  
Section 33: All
- iv) Township 17 South, Range 24 East, S.L.M.  
Section 1: All  
Section 3: All  
Section 11: S1/2  
Section 12: N1/2  
Section 14: N1/2
- v) Township 17 South, Range 25 East, S.L.M.  
Section 6: All

vi) Township 17 South, Range 26 East, S.L.M.

Sections 4 and 5: S1/2  
Sections 8 and 9: N1/2

2) Each drilling unit shall be composed of and equivalent to a regularly surveyed quarter section or lots corresponding thereto.

3) Well locations within the new units that do not currently contain a well are authorized as follows:

i) not less than 500 feet from the established unit boundaries, with a 200 foot tolerance to be administratively granted pursuant to Rule 302.1 for geological, topographical, cultural or other reasons; and

ii) not less than 2,000 feet from other wells producing from the same formations, with a 200 foot tolerance to be administratively approved pursuant to Rule 302.1 for geological, topographical, cultural or other reasons.

D. NEW DRILLING/SPACING UNITS

1) The following drilling/spacing units are hereby established for production from the Dakota and Morrison formations:

i) 160 acre units

Township 16 South, Range 24 East, S.L.M.

Section 26: All

Township 17 South, Range 24 East, S.L.M.

Section 13: All

Township 17 South, Range 25 East, S.L.M.

Section 4: W1/2  
Section 8: SW1/4  
Section 9: E1/2  
Section 14: All  
Section 15: All  
Section 16: All  
Section 17: All  
Section 18: All

ii) Other units (acreage approximate)

Township 17 South, Range 24 East, S.L.M.

Section 5: SE1/4 (160 acres)  
Section 8: NW1/4, NW1/4 NE1/4 (200 acres)

2) Each such 160 acre unit shall be composed of and equivalent to a regularly surveyed quarter section or lots corresponding thereto.

3) One well is authorized upon each of the units so established (with existing wells to be the authorized current production well), said well to be located anywhere within the unit that is not less than 500 feet from the unit boundaries (with a 200 foot tolerance to be administratively granted pursuant to Rule 302.1 for geologic, topographic, cultural or other reasons) and not less than 2,000 feet from other wells producing from the same formations (with a 200 foot tolerance to be administratively approved pursuant to Rule 302.1 for geologic, topographic, cultural or other reasons).

E. Cause No. 149-1 is amended to alter the drilling/spacing unit composed of the S1/2 of Section 21, Township 16 South, Range 25 East, S.L.M. (320 acres) to the S1/2 SW1/4, NW1/4



SW1/4 of Section 21 (120 acres). One production well is authorized for this unit, to be located no less than 500 feet from the unit boundaries, and no less than 2,000 feet from other Dakota/Morrison wells, with a 200 foot tolerance to the distance requirements to be administratively approved pursuant to Rule 302.1 for geologic, topographic, cultural or other reasons.

F. The SE1/4 of Section 8 and SW1/4 of Section 9, both in Township 17 South, Range 25 East, S.L.M., are hereby established as 160 acre drilling/spacing units for production from the Dakota and Morrison formations, provided that the Communitization Agreement presently in effect covering the W1/2 of Section 9 and E1/2 E1/2 of Section 8, Township 17 South, Range 25 East, S.L.M. shall be terminated prior to production of any well drilled in the SE1/4 of Section 8. Termination of the Agreement shall require the written assent of all parties to the Agreement. The well presently producing in the SW1/4 of Section 9 shall be the authorized well for that new unit. The authorized well location for the SE1/4 of Section 8 shall be as stated in paragraph "D(3)" above.

G. A hearing on the Amended Petition, insofar as it covers the W1/2 W1/2 of Section 2, Section 3, E1/2 Section 4, NW1/4 Section 9, E1/2 NE1/4 Section 8, and Section 10, all in Township 17 South, Range 25 East, S.L.M. is continued without date.

H. It is not the intent of this Order to change, amend or otherwise alter any existing contractual rights or relationships, express or implied, between any parties who share in the production (or proceeds therefrom) from previously spaced


drilling units or tracts pooled or unitized for purposes of developing and producing wells (upon the lands not spaced at the date of hearing on this matter). It is not the intent of this Order to alter any interests based on previously existing communitization or participation agreements.

I. This Order is effective as of August 28, 1986.

J. The Board retains exclusive and continuing jurisdiction over all matters covered by this Order and over all parties affected thereby and particularly reserves exclusive and continuing jurisdiction to make further orders as appropriate and as authorized by statute and regulation.

DATED this 26<sup>th</sup> day of September, 1986.

STATE OF UTAH  
BOARD OF OIL, GAS & MINING

  
\_\_\_\_\_  
Gregory P. Williams, Chairman

Approved as to form:

  
\_\_\_\_\_  
Mark C. Moench  
Assistant Attorney General

BEFORE THE BOARD OF OIL, GAS AND MINING  
DEPARTMENT OF NATURAL RESOURCES  
IN AND FOR THE STATE OF UTAH

---

IN THE MATTER OF THE PETITION	*	
OF LONE MOUNTAIN PRODUCTION	*	
COMPANY, TXO PRODUCTION	*	SECOND SET OF FINDINGS
CORPORATION, AND BURTON W.	*	OF FACT, AND CONCLUSIONS
HANCOCK FOR AN ORDER MODIFYING	*	OF LAW AND SECOND ORDER
PREVIOUS SPACING ORDERS TO	*	
ALLOW INFILL DRILLING UPON	*	
ESTABLISHED DRILLING UNITS	*	Docket No. 86-009
AND ESTABLISHING OTHER	*	Cause No. 13-6
DRILLING/SPACING UNITS FOR THE	*	
DAKOTA AND MORRISON FORMATIONS	*	
UNDERLYING CERTAIN ENUMERATED	*	
LANDS IN GRAND COUNTY, UTAH	*	

---

Pursuant to the Petition of Lone Mountain Production Corporation, TXO Production Corporation, and Burton W. Hancock, this cause initially was heard before the Board of Oil, Gas and Mining, Department of Natural Resources, State of Utah, on Friday, May 9, 1986, at 10:30 a.m. in the Board Room of the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 301, Salt Lake City, Utah.

Statements were made for the record in this matter at the regularly scheduled Board hearings on May 22, June 26 and July 31, 1986. Petitioners filed an Amended Petition on August 5, 1986, which requested relief essentially based upon the findings of the Board as stated at the July 31 meeting. The Amended Petition was heard at the regularly scheduled Board meeting on August 28, 1986.

Pursuant to Paragraph G of the Order signed September 26, 1986, in this matter, the hearing upon the Amended Petition, insofar as it covered the W $\frac{1}{2}$  W $\frac{1}{2}$  of Section 2, Section 3, E $\frac{1}{2}$  Section 4, E $\frac{1}{2}$  NE $\frac{1}{2}$  Section 8, NW $\frac{1}{2}$  Section 9, and Section 10, all in Township 17 South, Range 25 East, S.L.M., was continued without date.

On January 12, 1987, Petitioners Lone Mountain Production Company and Burton W. Hancock filed a "Second Amended Petition Concerning Lands not Covered by Order dated September 26, 1986." The Second Amended Petition requested a hearing date for the lands mentioned in the above Paragraph G. In addition, relief was requested for lands not a part of the original petition. Pursuant to the Second Amended Petition, a hearing was held on Thursday, February 26, 1987 at 10:00 a.m. in the Board Room of the Division of Oil, Gas & Mining, 355 West North Temple, 3 Triad Center, Suite 301, Salt Lake City, Utah. The following Board Members were present:

Gregory P. Williams, Chairman  
James W. Carter  
John M. Garr  
Charles R. Henderson  
Richard B. Larsen  
Judy F. Lever

The Board was represented by Mark C. Moench, Esq.,  
Assistant Attorney General for the State of Utah.

Appearances for the Division of Oil, Gas & Mining were made by:

Dr. Dianne Nielson, Director  
Division of Oil, Gas & Mining

Ronald J. Firth, Associate  
Director, Oil & Gas

John R. Baza, Petroleum Engineer

The Division was represented by Barbara W. Roberts,  
Assistant Attorney General for the State of Utah.

The Petitioners were represented by John A. Harja, Esq.,  
1170 East 1300 South, Salt Lake City, Utah 84105.

NOW, THEREFORE, the Board having considered the testi-  
mony adduced and the exhibits reviewed in all said hearings, and  
being fully advised in the premises, now makes and enters the  
following:

FINDINGS OF FACT

1. Due and regular notice of the time, place and pur-  
pose of the February 26 hearing was given to all interested par-  
ties as required by law and the rules and regulations of the  
Board. The parties specifically served with notice are listed in  
Exhibit "1" attached to the original Petition, as updated for the  
1987 hearing, which names represent all persons who own the right  
to explore for and produce hydrocarbons from the subject lands  
and all lands immediately adjacent to and cornering upon the sub-  
ject lands in Utah.

2. The Board has jurisdiction over the subject matter  
of the Second Amended Petition and over all parties interested  
therein and has jurisdiction to make and promulgate the order  
hereinafter set forth.

3. The Second Amended Petition in this matter is a request to modify previously existing drilling/spacing units for the Dakota and Morrison formations in parts of Grand County, Utah so as to authorize additional wells to be drilled within the existing units (increased well density or "infill"). The Second Amended Petition requests that existing wells be designated the current initial production well for the infill units. Additional wells would be drilled, at the operator's option, within the opposite government quarter section from the existing well at a point not less than 500 feet from the unit boundaries and 2,000 feet from other wells producing from the same formations, with a 200 foot tolerance to each requirement to be administratively approved pursuant to Rule 302.1 of the General Oil and Gas Rules for the State of Utah.

In addition, the Second Amended Petition requests that other lands in Grand County be spaced for production from the Dakota and Morrison formations. One well would be authorized for each unit. New wells would be drilled at a point not less than 500 feet from the unit boundaries and not less than 2,000 feet from other wells producing from the same formations with a 200 foot tolerance to each requirement to be administratively approved pursuant to Rule 302.1 of the General Oil and Gas Rules for Utah. Certain of these units so established would then be modified to allow for three production wells per unit.

4. The Board has previously entered an Order in Cause Number 107-1 which established a drilling/spacing unit con-

sisting of Section 16, Township 16 South, Range 26 East, S.L.M. This section is an irregular 320 acre (approximate) section which borders Colorado. Pursuant to oral motion made at the hearing, the Second Amended Petition was further amended to request authorization for an additional production well for this unit, rather than the original request to establish two 160 acre units.

5. Information obtained from the Bureau of Land Management (BLM) after the Second Amended Petition was filed, demonstrated that both sections 21 and 28, Township 16 South, Range 26 East, S.L.M., lie within the federal San Arroyo Operational Unit. Because of this, Petitioners' motion to delete these lands from the Second Amended Petition was granted.

6. This Board has previously entered an Order (Cause No. 165-11) which allows for two production wells in each of the following 480 acre drilling/spacing units:

- a) Township 17 South, Range 25 East, S.L.M.  
Section 1: Lots 1, 2, 3, 4, S $\frac{1}{2}$  N $\frac{1}{2}$ , N $\frac{1}{2}$  S $\frac{1}{2}$
  
- b) Township 17 South, Range 26 East, S.L.M.  
Section 6: Lots 1, 2, 3, 4, S $\frac{1}{2}$  N $\frac{1}{2}$ , N $\frac{1}{2}$  S $\frac{1}{2}$

Petitioners have requested authorization for an additional production well (total of three) for each of these units.

7. The federal Winter Camp Operational Unit has been terminated by the Bureau of Land Management (BLM) effective December 31, 1986. Petitioners have requested that the Board

establish drilling/spacing units for the lands previously embraced by the Winter Camp Unit.

8. The following 480 acre (approx.) drilling/spacing units were created in Cause No. 4:

Township 17 South, Range 25 East, S.L.M.

- a) Section 2: E $\frac{1}{2}$ , E $\frac{1}{2}$  W $\frac{1}{2}$
- b) Section 2: W $\frac{1}{2}$  W $\frac{1}{2}$  plus Section 3: E $\frac{1}{2}$
- c) Section 3: W $\frac{1}{2}$  plus Section 4: E $\frac{1}{2}$  E $\frac{1}{2}$
- d) Section 4: W $\frac{1}{2}$  E $\frac{1}{2}$ , W $\frac{1}{2}$
- e) Section 9: E $\frac{1}{2}$  plus Section 10: W $\frac{1}{2}$  W $\frac{1}{2}$
- f) Section 10: E $\frac{1}{2}$  W $\frac{1}{2}$ , E $\frac{1}{2}$

(See more accurate descriptions under Zones 2 and 3 of Field Rule 4-4, Cause No. 4)

These drilling/spacing units were vacated in Cause No. 4-2 because said units had become part of the then new Winter Camp Unit. These lands have been developed upon a 480 acre basis. Valid 480 acre Communitization Agreements still exist covering some of these same (since vacated) units.

9. All previous testimony related to the geology, reservoir characteristics, and the like of the Dakota and Morrison formations was incorporated into the record of the February 26, 1987, hearing. Geologic evidence indicates that the Dakota and Morrison formations extend under the following unspaced lands, and, as such, constitute a common source of supply of (principally) natural gas:



a) Township 17 South, Range 25 East, S.L.M.

Section 7: All

Section 8: N $\frac{1}{2}$

Section 9: NW $\frac{1}{4}$

b) Township 17 South, Range 25 East, S.L.M.

Section 2: E $\frac{1}{2}$ , E $\frac{1}{2}$  W $\frac{1}{2}$

Section 2: W $\frac{1}{2}$  W $\frac{1}{2}$  plus Section 3: E $\frac{1}{2}$

Section 3: W $\frac{1}{2}$  plus Section 4: E $\frac{1}{2}$  E $\frac{1}{2}$

Section 4: W $\frac{1}{2}$  E $\frac{1}{2}$ , W $\frac{1}{2}$

Section 9: E $\frac{1}{2}$  plus Section 10: W $\frac{1}{2}$  W $\frac{1}{2}$

Section 10: E $\frac{1}{2}$  W $\frac{1}{2}$ , E $\frac{1}{2}$

10. Paragraph D of the Order dated September 26, 1986 in this matter established 160 acre units for the W $\frac{1}{2}$  of Section 4 and E $\frac{1}{2}$  of Section 9, both in Township 17 South, Range 25 East, S.L.M. In order to establish drilling/spacing units of uniform size on this area, these units should be modified as ordered below.

11. Paragraph F of the Order dated September 26, 1986 in this matter established 160 acre units for the SE $\frac{1}{4}$  of Section 8 and SW $\frac{1}{4}$  of Section 9, both in Township 17 South, Range 25 East, S.L.M., provided that the Communitization Agreement then in effect covering the W $\frac{1}{2}$  of Section 9 and E $\frac{1}{2}$  E $\frac{1}{2}$  of Section 8, Township 17 South, Range 25 East, S.L.M. was terminated prior to the production of any well drilled in the SE $\frac{1}{4}$  of Section 8. Said Communitization Agreement was terminated effective February 1, 1987.

12. Currently available geologic evidence indicates that one well will not drain the natural gas reserves underlying a spaced area 280 acres in size or larger. The geologic evidence indicates that one well will drain approximately 160 acres, and that a 160 acre drainage is not smaller than the maximum area that can be efficiently and economically drained by one well.

13. Due to the presence of existing communitization agreements and other factors, and in order to protect the correlative rights of the various interest owners, the geographic extent of several of the existing drilling/spacing units can not be altered. Increased well density authorization is appropriate for these units. Additional wells upon existing units are authorized to be drilled only at the option of the operator of each separate unit, such drilling decision to be based upon geologic and engineering data indicating that the well will recover additional hydrocarbons in an economically feasible manner. Economically feasible means that a prudent operator would have a reasonable opportunity to recover the costs of drilling, completing, producing and operating the well, plus a reasonable profit.

14. It is not the intent of this Order to change, amend or otherwise alter any existing contractual rights or relationships, express or implied, between any parties who share in the production (or proceeds therefrom) from previously spaced drilling units or tracts pooled or unitized for purposes of deve-

loping and producing wells (upon the lands not spaced at the date of hearing on this matter). It is not the intent of this Order to alter any interests based on previously existing communitization or participation agreements.

15. The various types of relief ordered by the Board in this matter will prevent the drilling of unnecessary wells, prevent waste, and protect correlative rights.

#### CONCLUSIONS OF LAW

1. The Dakota and Morrison formations underlying the subject lands are a "common source of supply" as that term is defined in U.C.A. §40-6-2(a) (1953, as amended).

2. The Board has the authority, pursuant to U.C.A. §40-6-6(3), (1953, as amended) to modify previous spacing orders to include additional areas which are underlain by a common source of supply.

3. The Board has the authority, pursuant to U.C.A. §40-6-6(4), (1953, as amended) to modify existing drilling/spacing units to permit additional wells to be drilled within established units.

4. The various types of relief ordered by the Board in this matter will prevent the drilling of unnecessary wells, prevent waste, and protect correlative rights.

Sufficient evidence now being available upon which to reach a decision, the Board issues the following:

ORDER

IT IS HEREBY ORDERED THAT:

A. NEW DRILLING/SPACING UNITS

1) The following drilling/spacing units are hereby established for production from the Dakota and Morrison formations:

a) 160 acre units

Township 17 South, Range 25 East, S.L.M.

Section 7: All

Section 8:  $N\frac{1}{2}$

Section 9:  $NW\frac{1}{4}$

b) 480 acre units (more or less)

Township 17 South, Range 25 East, S.L.M.

i) Section 2:  $E\frac{1}{2}, E\frac{1}{2} W\frac{1}{2}$

ii) Section 2:  $W\frac{1}{2} W\frac{1}{2}$  plus Section 3:  $E\frac{1}{2}$

iii) Section 3:  $W\frac{1}{2}$  plus Section 4:  $E\frac{1}{2} E\frac{1}{2}$

iv) Section 4:  $W\frac{1}{2} E\frac{1}{2}, W\frac{1}{2}$

v) Section 9:  $E\frac{1}{2}$  plus Section 10:  $W\frac{1}{2} W\frac{1}{2}$

vi) Section 10:  $E\frac{1}{2} W\frac{1}{2}, E\frac{1}{2}$

2) Each of the above 160 acre units shall be composed of and equivalent to a regularly surveyed quarter section or lots corresponding thereto.

3) One well is authorized upon each of the above established units, said well to be located anywhere within the unit that is not less than 500 feet from the unit boundaries

(with a 200 foot tolerance to be administratively granted pursuant to Rule 302.1 for geologic, topographic, cultural or other reasons) and not less than 2,000 feet from other wells producing from the same formations (with a 200 foot tolerance to be administratively approved pursuant to Rule 302.1 for geologic, topographic, cultural and other reasons).

B. INFILL AUTHORIZATION

1) Additional wells are authorized for production from the Dakota and Morrison formations within the following previously established drilling/spacing units:

a) Two Production Wells

Township 16 South, Range 26 East, S.L.M.

Section 16

b) Three Production Wells

i) Township 17 South, Range 25 East, S.L.M.

Section 1: Lots 1, 2, 3, 4, S $\frac{1}{2}$  N $\frac{1}{2}$ , N $\frac{1}{2}$  S $\frac{1}{2}$

ii) Township 17 South, Range 26 East, S.L.M.

Section 6: Lots 1, 2, 3, 4, S $\frac{1}{2}$  N $\frac{1}{2}$ , N $\frac{1}{2}$  S $\frac{1}{2}$

Township 17 South, Range 25 East, S.L.M.

iii) Section 2: E  $\frac{1}{2}$ , E $\frac{1}{2}$  W $\frac{1}{2}$

iv) Section 2: W $\frac{1}{2}$  W $\frac{1}{2}$  plus Section 3: E $\frac{1}{2}$

v) Section 3: W $\frac{1}{2}$  plus Section 4: E $\frac{1}{2}$  E $\frac{1}{2}$

vi) Section 4: W $\frac{1}{2}$  E $\frac{1}{2}$ , W $\frac{1}{2}$

vii) Section 9: E $\frac{1}{2}$  plus Section 10: W $\frac{1}{2}$  W $\frac{1}{2}$

viii) Section 10: E $\frac{1}{2}$  W $\frac{1}{2}$ , E $\frac{1}{2}$

2) Existing wells capable of production from the Dakota/Morrison formations in the units stated in paragraph "B(1)" above are the authorized current initial wells per unit. Additional wells shall be located no less than 500 feet from the unit boundaries and no less than 2,000 feet from other wells producing from the same formations (with a 200 foot tolerance for each distance requirement to be administratively granted pursuant to Rule 302.1 for geologic, topographical, cultural or other reasons).

3) Said additional wells may be drilled only at the option of the operator of each separate drilling unit, based upon the criteria stated in Finding of Fact No. 13 above.

4) It is not the intent of this Order that existing contractual rights or relationships, express or implied, between all parties who share in the production, or proceeds therefrom, from any of the established drilling units stated in paragraph "B(1)" above be altered by virtue of this order.

C. All previous Orders of this Board which are inconsistent with this Order, are hereby vacated, to the extent of such inconsistency only.

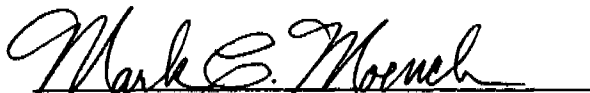
D. The Board retains exclusive and continuing jurisdiction over all matters covered by this Order and over all parties affected thereby and particularly reserves exclusive and continuing jurisdiction to make further orders as appropriate and as authorized by statute and regulation.

DATED this 26<sup>th</sup> day of March, 1987.

STATE OF UTAH  
BOARD OF OIL, GAS & MINING

  
\_\_\_\_\_  
Gregory P. Williams, Chairman

Approved as to form:

  
\_\_\_\_\_  
Mark C. Moench  
Assistant Attorney General