

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 )	FINDINGS OF FACT,
OF CELSIUS ENERGY COMPANY FOR )	CONCLUSIONS OF LAW,
AN ORDER ESTABLISHING A 300- )	AND ORDER
ACRE DRILLING AND SPACING UNIT )	
FOR THE DESERT CREEK FORMATION )	DOCKET NO. 85-009
FOR LANDS IN THE UCOLO FIELD, )	
SAN JUAN COUNTY, UTAH. )	CAUSE NO. 186-14

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This matter was heard before the Board of Oil, Gas and Mining ("Board") at its regularly scheduled hearing at 11:00 a.m. on February 28, 1985, 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, constituting a quorum, were present and participated in the hearing and the decision and Order embodied herein:

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

Mark C. Moench, Assistant Attorney General of the State of Utah, participated in the hearing on behalf of the Board.

Members of the staff of the Division of Oil, Gas and Mining ("Division") present at and participating in the hearing included:

Dr. Dianne R. Nielson, Director  
Ronald J. Firth, Associate Director  
John R. Baza, Petroleum Engineer

Barbara W. Roberts, Assistant Attorney General of the State of Utah, participated in the hearing on behalf of the Division.

The following appeared at the hearing:

Petitioner Celsius Energy Company ("Celsius" or "Petitioner") by Ruland J. Gill, Jr., Esq., Salt Lake City, Utah.

Respondents Callie Cowling, Marie Grubbs, Marguerite Wilson, Robert Baird, Ed Baird, Jr., and The Adra Baird Estate through its co-executors, Ed Baird, Jr., and Robert Baird (Cowling et al.) by Thomas R. Blonquist, Esq., Salt Lake City, Utah, associated with Dilts, Dyer, Fossum and Hatter, Attorneys at Law, Cortez, Colorado.

Respondent Larry J. White ("White,") intervenor appearing pro se.

Respondent Bureau of Land Management by Assad Rafoul.

Testimony was received from and exhibits were introduced on behalf of Petitioner Celsius by Robert E. Pittam, Landman, by Gregory W. Martin, Geologist and by Christopher A. Belby, Petroleum Reservoir Engineer, each of whom was recognized by the Board as an expert in his respective field in the context of this matter. Kenai Oil and Gas, Inc., Denver, Colorado, an owner in the Ucolo field, submitted to the Board and Division a letter dated February 20, 1985, supporting the Petition of Celsius.

Respondent White appeared to request to be an intervenor, to oppose the petition and presented cross examination of Petitioner.

Respondents Cowling et al. appeared to request a continuance of the hearing and withdrew from the hearing room prior to the beginning of the Petitioner's presentation of evidence and testimony.

The Board, having considered the motions, legal argument, testimony, exhibits and evidence presented and the statements made by the participants at the hearing, now makes and enters the following:

FINDINGS OF FACT

1. Due and regular notice of the time, place and purpose of the hearing was given by the Division and also given by Petitioner to all parties required to be so notified in the form and manner and within the time required by law and the rules and regulations of the Board. The Board notes that Mr. Blomquist represented that his clients had received a copy of the Celsius petition in this matter in mid-January 1985. The Respondents Cowling et al. and White have been or should have been aware of the activities for drilling, spacing and voluntary pooling in the Ucolo field from as far back as October 1983 when the Board held a hearing under Docket 186-10.

2. The written "Motion and Appearance for Continuance" of Respondents Cowling et al. was filed with the Board and Division and served upon the Petitioner on the morning of the hearing in this matter on February 28, 1985. The Motion and Appearance for Continuance also recites as authority old procedural rules 5(3) and [sic] h(i) which have been superseded by new Board Procedural Rule 6(d). Procedural Rules (adopted

February 23, 1984). The Motion for Continuance of Cowling et al. was not timely filed with the Division as required by Rule 6(d).

3. The supporting documents to the Motion and Appearance for Continuance of Respondents Cowling et al., and specifically Exhibit A, the oil and gas leases marked A through E, the Petitioner's letter dated May 18, 1983, maps 1 through 5, the various declarations of pooling and affidavits of production and associated correspondence were all reviewed by the Board and subject to the Board Order in Docket No. 186-10 heard October 27, 1983.

4. The Board has jurisdiction over all matters covered by said notice and over all parties interested therein and has the power and authority to make and promulgate the order hereinafter set forth.

5. The area that is subject to this order is described as the north half of Section 10, Township 36 South, Range 26 East, SLBM, consisting of 300.14 acres (hereinafter referred to as the "N $\frac{1}{2}$  of Section 10"). The N $\frac{1}{2}$  of Section 10 is an irregular section.

6. The Desert Creek formation underlying the N $\frac{1}{2}$  of Section 10 consists of an algal mound or algal dolostone reservoir noted by the steeply dipping edges. The Desert Creek formation underlying the N $\frac{1}{2}$  of Section 10 comprises a pool and common source of supply of gas and associated hydrocarbon substances that is distinct geologically from the Bug field oil pool.

7. Petitioner owns working interest and operating rights in all lands embraced in the N $\frac{1}{2}$  of Section 10.

8. The area sought to be spaced is bordered on the south by two dry holes, the Ucolo Well No. 3 and the Adra Baird Well No. 43-10, and bordered on the north by the Ucolo Well No. 1 which was unproductive in the Desert Creek formation. The Ucolo gas pool is bordered on the north by a porosity pinch out and bordered on the south by an oil/water contact zone.

9. The Bureau of Land Management by letter dated January 23, 1985, (Petitioner's Exhibit 3) has demanded that Petitioner protect federal lease U-30135 in the N $\frac{1}{2}$  of Section 10 from offset drainage from the Ucolo Well No. 2. Pursuant to that letter, Petitioner has until March 29, 1985, to pay compensatory royalties or drill an offset well unless the federal lease shares in production. Through this spacing order, the N $\frac{1}{2}$  of Section 10 may be communitized and the federal lease share in a portion of the production from Ucolo Well No. 2.

10. Because of the BLM demand letter of January 23, 1985, Petitioner would have been materially and adversely affected if the hearing in this matter had been continued. Petitioner to protect its rights in federal lease U-30135, may have had to drill an unnecessary well thus resulting in waste or may have had to pay unnecessary compensatory royalties thus violating Petitioner's correlative rights.

11. The maximum effective porosity thickness of Desert Creek sands penetrated by a well in the Ucolo field is 17 feet. The minimum thickness of effective porosity in the Desert Creek

zone that is necessary for a commercial well is from five to ten feet.

12. The Desert Creek zone of the Ucolo field comprising the N $\frac{1}{2}$  of Section 10 is a retrograde condensate reservoir with a dew point pressure of 3,158 psig. The initial condensate production from Ucolo Well No. 2 had a pour point of below 0°F. and a gravity of 65° API at 60°F.

13. The initial gas/condensate ratio from Ucolo Well No. 2 was 11,640 standard cubic feet of gas to one barrel of condensate (11,640 to one). The present cumulative gas/condensate ratio for that well is 14,800 to one.

14. The anticipated ultimate recovery from Ucolo Well No. 2 is 1.1 Bcf of gas and 80,000 barrels of condensate which equates to 1.2 Bcf of wet gas. The primary recovery factor is 77.5%.

15. The estimated drainage area for Ucolo Well No. 2 is 258 acres. The actual drainage area could be slightly larger or smaller than 258 acres.

16. The cost to complete a producing well similar to Ucolo Well No. 2 would be \$850,000.

17. The N $\frac{1}{2}$  of Section 10 should comprise a single drilling and spacing unit for the Desert Creek formation.

18. One well within the N $\frac{1}{2}$  of Section 10 will economically and efficiently drain the gas and associated hydrocarbons from the Desert Creek formation. A 300-acre drilling and spacing unit is not smaller than the maximum area that can be efficiently and economically drained by one well.

19. A single drilling and spacing unit of 300.14 acres comprising the  $N\frac{1}{2}$  of Section 10 should be established to prevent waste of gas and associated hydrocarbons, to avoid the drilling of unnecessary wells and to protect the correlative rights of all parties holding interests in the area.

20. Ucolo Well No. 2 located in the  $SW\frac{1}{4}NE\frac{1}{4}$  of Section 10 should be the permitted well location in the drilling unit.

#### CONCLUSIONS OF LAW

1. Due and regular notice of the time, place and subject matter of this hearing in Cause No. 85-009 and Docket No. 186-14 was given to all interested persons in accordance with applicable law and with the rules and regulations of the Board.

2. The Board has jurisdiction over all matters covered by said notice and over all parties interested therein and has the power and authority to make and promulgate the Order hereinafter set forth.

3. The Motions of Respondents Cowling et al. and Respondent White to intervene were filed and argued at the hearing and stated good cause as provided by Rule 4 of the Board.

4. The Motion for Continuance of Respondents Cowling et al. was not timely filed in accordance with Procedural Rule 6 of the Board's Procedural Rules (adopted February 23, 1984). The exhibits attached to the Motion were reviewed by the Board and disposed of under Docket No. 186-10 on October 27, 1983.

5. The oral Motion for Continuance of Respondent White was not made timely in accordance with Procedural Rule 6 of the Board.

6. The Board has received and duly considered adequate, substantial evidence to support its decision herein, and that decision is supported by the evidence.

7. The granting of the Petitioner's application, as submitted, would result in the protection of correlative rights and would assist in preventing the waste of gas and associated hydrocarbon substances from the Desert Creek formation in the Ucolo field.

9. A drilling unit of 300.14 acres comprising the N $\frac{1}{2}$  of Section 10, Township 36 South, Range 26 East, SLBM. should be established to prevent the waste of gas and associated hydrocarbon substances, to avoid the drilling of unnecessary wells and to protect the correlative rights of all parties holding interests in the area.

10. The drilling unit of 300.14 acres is not smaller than the maximum area that can be efficiently and economically drained by one well.

11. The permitted well location in the drilling unit should be the same as the location of Ucolo Well no. 2 in the SW $\frac{1}{4}$ NE $\frac{1}{4}$  of Section 10, T36S, R26E.

ORDER

IT IS THEREFORE ORDERED:

1. A drilling unit of 300.14 acres, comprising the N $\frac{1}{2}$  of Section 10, Township 36 South, Range 26 East, SLBM. is hereby established for the development and production of gas and associated hydrocarbon substances from the Desert Creek formation underlying said drilling unit.

2. Ucolo Well No. 2 shall be the permitted well for the single drilling unit and is the one and only well for the particular drilling unit in which the well is located.

3. The Motions to Appear and Intervene by Respondents Cowling et al. and Respondent White are granted.

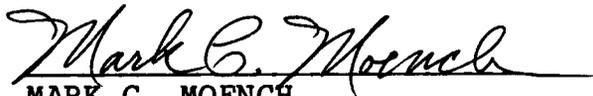
4. The Motions for Continuance of Respondents Cowling et al. and Respondent White are denied.

Entered this 28<sup>th</sup> day of March, 1985.

BOARD OF OIL, GAS AND MINING

  
BY \_\_\_\_\_  
GREGORY P. WILLIAMS  
Chairman

Approved as to form:

  
MARK C. MOENCH  
Assistant Attorney General

LARRY J. WHITE  
1305 Parkview Boulevard  
Colorado Springs, CO 80906

cc: Board  
DR Nielson  
RJ Finth  
MC Moench  
BW Roberts

**RECEIVED**

May 22, 1985

**MAY 24 1985**

Mrs. Marjorie Anderson  
Board of Oil, Gas & Mining  
355 West North Temple  
#3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

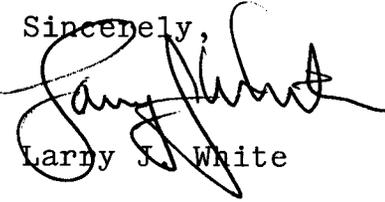
**DIVISION OF OIL  
GAS & MINING**

Dear Marjorie:

Pursuant to our phone conversation of May 22, 1985, I will not be attending the hearing May 23 before the Board of Oil, Gas and Mining, and I request that my application be withdrawn without prejudice.

Thank you very much.

Sincerely,

  
Larry J. White

LJW/egh

cc Ruland Gill, Celsius Energy Co.

RECEIVED

MAR 11 1985

ATTORNEY GENERAL'S OFFICE

*Celsius Draft*

BEFORE THE BOARD OF OIL, GAS AND MINING  
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- John M. Garr
- Charles R. Henderson
- Richard B. Larsen
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- Dr. Dianne R. Nielson, Director
- Ronald J. Firth, Associate Director
- John R. Boza, Petroleum Engineer

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The following appeared at the hearing:

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Respondents Callie Cowling, Marie Grubbs, Marguerite Wilson, Robert Baird, Ed Baird, Jr., and The Adra Baird Estate through its

co-executors, Ed Baird, Jr., and Robert Baird (hereinafter referred to as "Cowling et al.") by Thomas R. Blonquist, Esq., Salt Lake City, Utah, associated with Dilts, Dyer, Fossum and Hatter, Attorney at Law, Cortez, Colorado.

Respondent Larry J. White (hereinafter referred to as "White,") intervenor appearing pro se.

Testimony was received from and exhibits were introduced on behalf of Petitioner Celsius by Robert E. Pittam, Landman, by Gregory W. Martin, Geologist and by Christopher A. Beilby, Petroleum Reservoir Engineer, each of whom was recognized by the Board as an expert in his respective field in the context of this matter. Kenai Oil and Gas, Inc., Denver, Colorado, an owner in the Ucolo field, submitted to the Board and Division a letter dated February 20, 1985, supporting the Petition of Celsius.

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The Board, having considered the motions, legal argument, testimony, exhibits and evidence presented and the statements made by the participants at the hearing, now makes and enters the following:

#### FINDINGS OF FACT

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2. The written "Motion and Appearance for Continuance" of Respondents Cowling et al. was filed with the Board and Division and served upon the Petitioner on the morning of the hearing in this matter on February 28, 1985. The Motion and Appearance for Continuance also recites as authority old procedural rules 5(3) and [sic] h(i) which have been superseded by new Board procedural rule 6(d). The Motion of Cowling et al. was not timely filed with the Division as required by Rule 6(d). } motion of Continuance

3. The supporting documents to the Motion and Appearance for Continuance of Respondents Cowling et al., and specifically Exhibit A, the oil and gas leases marked A through E, the Petitioner's letter dated May 18, 1983, maps 1 through 5, the various declarations of pooling and affidavits of production and associated correspondence were all reviewed by the Board and subject to the Board Order in Docket 186-10 heard October 27, 1983.

4. The Board has jurisdiction over all matters covered by said notice and over all parties interested therein and has the power and authority to make and promulgate the order hereinafter set forth.

5. The area that is subject to this order is described as the north half of Section 10, Township 36 South, Range 26 East, SLBM, consisting of 300.14 acres (hereinafter referred to as the "N $\frac{1}{2}$  of Section 10"). The N $\frac{1}{2}$  of Section 10 is an irregular section.

6. The Desert Creek formation underlying the N $\frac{1}{2}$  of Section 10 consists of an algal mound or algal dolostone reservoir noted by the steeply dipping edges. The Desert Creek formation underlying the N $\frac{1}{2}$  of Section 10 comprises a pool and common source of supply of gas and associated hydrocarbon substances that is distinct geologically from the Bug field oil pool.

7. Petitioner owns working interest and operating rights in all lands embraced in the N $\frac{1}{2}$  of Section 10.

8. The area sought to be spaced is bordered on the south by two dry holes, the Ucolo Well No. 3 and the Adra Baird Well No. 43-10, and bordered on the north by the Ucolo Well No. 1 which was unproductive in the Desert Creek formation. The Ucolo gas pool is bordered on the north by a porosity pinch out and bordered on the south by an oil/water contact zone.

9. The Bureau of Land Management by letter dated January 23, 1985, (Petitioner's Exhibit 3) has demanded that Petitioner protect federal lease U-30135 in the N $\frac{1}{2}$  of Section 10 from offset drainage from the Ucolo Well No. 2. Pursuant to that letter, Petitioner has until March 29, 1985, to pay compensatory royalties or drill an offset well unless the federal lease shares in production. Through this spacing order, the N $\frac{1}{2}$  of Section 10 may be communitized and the federal lease share in a portion of the production from Ucolo Well No. 2.

10. Because of the BLM demand letter of January 23, 1985, Petitioner would have been materially and adversely affected if the hearing in this matter had been continued. Petitioner, to protect its rights in federal lease U-30135, may have had to drill an unnecessary well thus resulting in waste or may have had to pay unnecessary compensatory royalties thus violating Petitioner's correlative rights.

11. The maximum effective porosity thickness of Desert Creek sands penetrated by a well in the Ucolo field is 17 feet. The minimum thickness of effective porosity in the Desert Creek zone that is necessary for a commercial well is from five to ten feet.

12. The Desert Creek zone of the Ucolo field comprising the N $\frac{1}{2}$  of Section 10 is a retrograde condensate reservoir with a dew point pressure of 3,258 psig. The initial condensate production from Ucolo Well No. 2 had a pour point of below 0°F. and a gravity of 6° API at 60°F.

13. The initial gas/condensate ratio from Ucolo Well No. 2 was 11,640 standard cubic feet gas to one barrel of condensate (11,640 to one). The present cumulative gas/condensate ratio for that well is 14,800 to one.

14. The anticipated ultimate recovery from Ucolo Well No. 2 is 1.1 Bcf of gas and 80,000 barrels of condensate which equates to 1.2 Bcf of wet gas. The primary recovery factor is 77.5%.

15. The estimated drainage area for Ucolo Well No. 2 is 258 acres. The actual drainage area could be slightly larger or smaller than 258 acres.

16. The cost to complete a producing well similar to Ucolo Well No. 2 would be \$850,000.

17. The N $\frac{1}{2}$  of Section 10 should comprise a single drilling and spacing unit for the Desert Creek formation.

18. One well within the N $\frac{1}{2}$  of Section 10 will economically and efficiently drain the gas and associated hydrocarbons from the Desert Creek formation. A 300-acre drilling and spacing unit is not smaller than the maximum area that can be efficiently and economically drained by one well.

19. A single drilling and spacing unit of 300.14 acres comprising the N $\frac{1}{2}$  of Section 10 should be established to prevent waste of gas and associated hydrocarbons, to avoid the drilling of unnecessary wells and to protect the correlative rights of all parties holding interests in the area.

20. Ucolo Well No. 2 located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$  of Section 10 should be the only permitted well location in the field.

#### CONCLUSIONS OF LAW

1. Due and regular notice of the time, place and subject matter of this hearing in Cause 85-009 and Docket 186-14 was given to all interested persons in accordance with applicable law and with the rules and regulations of the Board.

2. The Board has jurisdiction over all matters covered by said notice and over all parties interested therein and has the power and authority to make and promulgate the Order hereinafter set forth.

3. The Motion for Continuance of Respondents Cowling et al. was not timely filed in accordance with Rule 6 of the Board's Procedural Rules (adopted February 23, 1984) and is otherwise substantively inadequate. The exhibits attached to the Motion were reviewed by the Board and disposed of under Docket 186-10 on October 27, 1983. 3

4. The oral Motion for Continuance of Respondent White was not timely filed in accordance with Procedural Rule 6 of the Board and is otherwise substantively inadequate.

5. The Motion of Respondent White to intervene pro se was made orally at the hearing and stated good cause as provided by Rule 4 of the Board.

6. The Board has received and duly considered adequate, substantial evidence to support its decision herein, and that decision is supported by the evidence.

7. The Board has authority to enter the Order set forth below and such Order is just and reasonable.

8. The granting of the Petitioner's application, as submitted, would result in the protection of correlative rights and would assist in preventing the waste of gas and associated hydrocarbon substances from the Desert Creek formation in the Ucolo field.

9. A drilling unit of 300.14 acres comprising the N $\frac{1}{2}$  of Section 10, Township 36 South, Range 26 East, SLBM, should be established to prevent the waste of gas and associated hydrocarbon substances, to avoid the drilling of unnecessary wells and to protect the correlative rights of all parties holding interests in the area.

10. The drilling unit of 300.14 acres is not smaller than the maximum area that can be efficiently and economically drained by one well.

11. The permitted well location in the drilling unit should be the same as the location of Ucolo Well No. 2 in the SW $\frac{1}{4}$ NE $\frac{1}{4}$  of Section 10, T36S, R26E.

#### ORDER

#### IT IS THEREFORE ORDERED:

1. A drilling unit of 300.14 acres, comprising the N $\frac{1}{2}$  of Section 10, Township 36 South, Range 26 East, SLBM, is hereby established for the development and production of gas and associated hydrocarbon substances from the Desert Creek formation underlying said Section 10.

2. Ucolo Well No. 2 shall be the permitted well for the single drilling unit and is the one and only well for the particular drilling unit in which the well is located.

3. The Motions for Continuance of Respondents Cowling et al. and Respondent White are denied.

4. The Motion to Intervene by Respondent White is granted.

Entered this \_\_\_\_\_ day of March, 1985.

BOARD OF OIL, GAS & MINING

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

Approved as to form:

\_\_\_\_\_  
Assistant Attorney General