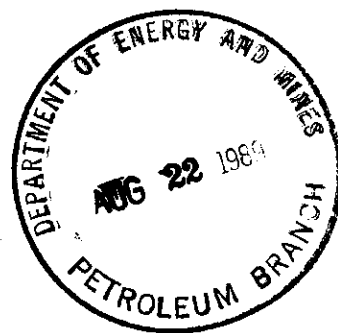




1300 SUN LIFE PLAZA III
112 - 4th AVENUE S.W.
CALGARY, ALBERTA, CANADA T2P 0H3
TELEPHONE (403) 261-0743



August 11, 1989

Royalty Interest Owners
Waskada Unit No. 4
(Addressee List Attached)

Gentlemen:

Re: Waskada Unit No. 4
Unit Agreement and Unit Operating Agreement Revisions

Enclosed for your records are revisions to pages A-1, A-2, A-3, A-4 and A-5 contained in Exhibit A of the Waskada Unit No. 4 Unit Agreement. Also enclosed is a revision to Exhibit D of the subject Unit Operating Agreement. Omega Hydrocarbons Ltd. has recently purchased the working interest of Enron Oil Canada Ltd., the attached revisions reflect this change. As well these revisions include the amalgamation of Musketeer Energy Ltd. into Amoco Canada Resources Ltd. and the amalgamation of Camel Oil & Gas Ltd. into Consolidated Trans-Canada Resources Ltd.

Yours truly,

OMEGA HYDROCARBONS LTD.

R.A. Brekke
Chairman, Operating Committee

c.c.: Unit File
Accounting
Land

**WASKADA UNIT NO. 4
ROYALTY INTEREST OWNERS**

ADDRESSEE LIST

M.D. Allison
3720 Garland Street
Wheat Ridge, Colorado
U.S.A. 80033

The Canada Trust Company
230 Portage Avenue
Box 881
Winnipeg, Manitoba
R3C 2S6

Department of Energy and Mines
Mineral Resources Division
Petroleum Branch
555 - 330 Graham Avenue
Winnipeg, Manitoba
R3C 4E3

E.A. McGregor
Box 164
Waskada, Manitoba
ROM 2E0

M.E. McGregor
Box 164
Waskada, Manitoba
ROM 2E0

John H. Spelliscy
14 Taggart Street
Regina, Saskatchewan
S4S 4G4

A.I. Hainsworth
11633 - 203rd Street
Maple Ridge, B.C.
V4X 4T8

Reston Resources Ltd.
2311 - 12th Street S.W.
Calgary, Alberta
T2T 3N7

J.W. Hainsworth
P.O. Box 433
Deloraine, Manitoba
ROM 0M0

Shell Canada Resources Limited
400 - 4th Avenue S.W.
Calgary, Alberta
T2P 2H5

Petroventures Resources Ltd.
1400, 630 - 6th Avenue S.W.
Calgary, Alberta
T2P 0S8

Page Petroleum Ltd.
10th Floor
635 - 8th Avenue S.W.
Calgary, Alberta
T2P 3M3

Bran Van Enterprises Ltd.
240 - 1st Street
Brandon, Manitoba
R7A 5Z9

Consolidated Trans-Canada Resources Ltd.
350, 708 - 11th Avenue S.W.
Calgary, Alberta
T2R 0E4

Sceptre Resources Ltd.
2600, 250 - 6th Avenue S.W.
Calgary, Alberta
T2P 3H7

Amoco Canada Resources Ltd.
3300, 333 - 7th Avenue S.W.
Calgary, Alberta
T2P 2H8



1300 SUN LIFE PLAZA III
112 - 4th AVENUE S.W.
CALGARY, ALBERTA, CANADA T2P 0H3
TELEPHONE (403) 261-0743

December 4, 1986

Royalty Interest Owners
Waskada Unit No. 4
(Addressee List Attached)

Gentlemen:

Re: Waskada Unit No. 4
Revised Exhibits



Enclosed is a copy of Exhibit "A" to the Unit Agreement for the captioned unit revised to reflect numerous changes due to various assignments, amalgamations, name changes and correction of errors and inconsistencies.

Yours truly,

OMEGA HYDROCARBONS LTD.

A handwritten signature in cursive script, appearing to read "R.A. Beamish".

R.A. Beamish
Joint Interest Coordinator

cc: Manitoba Petroleum Branch

Encl:

RAB/tct

**WASKADA UNIT NO. 4
ROYALTY INTEREST OWNERS**

ADDRESSEE LIST

M.D. Allison
3720 Garland Street
Wheat Ridge, Colorado
U.S.A. 80033

The Canada Trust Company
230 Portage Avenue
Box 881
Winnipeg, Manitoba
R3C 2S6

Department of Energy and Mines
Mineral Resources Division
Petroleum Branch
555 - 330 Graham Avenue
Winnipeg, Manitoba
R3C 4E3

E.A. McGregor
Box 164
Waskada, Manitoba
ROM 2E0

M.E. McGregor
Box 164
Waskada, Manitoba
ROM 2E0

John H. Spelliscy
14 Taggart Street
Regina, Saskatchewan
S4S 4G4

A.I. Hainsworth
11633 - 203rd Street
Maple Ridge, B.C.
V4X 4T8

Reston Resources Ltd.
2311 - 12th Street S.W.
Calgary, Alberta
T2T 3N7

J.W. Hainsworth
P.O. Box 433
Deloraine, Manitoba
ROM 0M0

Shell Canada Resources Limited
400 - 4th Avenue S.W.
Calgary, Alberta
T2P 2H5

Petroventures Resources Ltd.
1400, 630 - 6th Avenue S.W.
Calgary, Alberta
T2P 0S8

Page Petroleum Ltd.
1100, 335 - 8th Avenue S.W.
Calgary, Alberta
T2P 1C9

Bran Van Enterprises Ltd.
240 - 1st Street
Brandon, Manitoba
R7A 5Z9

Camel Oil & Gas Ltd.
200, 708 - 11th Avenue S.W.
Calgary, Alberta
T2R 0E4

Sceptre Resources Ltd.
2600, 250 - 6th Avenue S.W.
Calgary, Alberta
T2P 3H7

Musketeer Energy Limited
c/o Dome Petroleum Limited
3300, 333 - 7th Avenue S.W.
Calgary, Alberta
T2P 2H8

Thompson, Dorfman, Sweatman

Barristers
and
Solicitors

500 Bank of Canada Building
3 Lombard Place
Winnipeg, Canada
R3B 1N4

General Telephone (204) 957-1930
Telecopier (204) 943-6445
Telex 07 55470
Cable Address: Thompson

D.A. Thompson, Q.C., LL.D.
Walter L. Ritchie, Q.C.
Hon. Nathan Nurgitz, Q.C.
David A. Balfour, Q.C.
Barré W. Hall
Donald G. Baizley, Q.C.
William D. Hamilton
Donald G. Douglas
Sergio Pustogorodsky
Cheryl M. Hall
Neil F. Trenholm
Robin M. Kersey
James G. Edmond
R. Stephen Chipman
E. Doreen Kelly
Antoine F. Hacault

Irwin Dorfman, Q.C., LL.D.
R.A.L. Nugent, Q.C.
Bruce S. Thompson
P. Michael Sinclair
G.V. Brickman, Q.C.
William G. Percy
Richard H.G. Adams
Thomas W. Kirk
Paul J. Brett
William J. Burnett
Dunlop H. Kells
Kenneth S. Maclean
Karen I. Simonsen
Dianne P. Paskewitz
William M. Molloy

Alan Sweatman, Q.C.
F.J. DeVrieze
Alan MacInnes, Q.C.
A.L. Clearwater
G. Stanley Farwell
Michael T. Green
Robert J.M. Adkins
Douglas N. Abra
J. David Brett
Gregory J. Taiton
Ellen P. Leibl
James A. Ripley
B. Douglas Tait
Brian D. Gordon
F. Derek Woods
Peter G. Muir

Writer's Direct Telephone

(204) 934- 2480

October 2, 1985

Province of Manitoba
Department of Energy & Mines
Petroleum Branch
555 - 330 Graham Ave.
Winnipeg
R3C 4E3

Att'n: Mr. L. R. Dubreuil
Chief Petroleum Engineer

Re: Great American Energy Inc.,
Ballantyne et al v.
Omega Hydrocarbons Ltd.,
Canada Permanent Trust Co.
and Troy Oils Ltd.
Our File G 6993 ALC/KS



Dear Sirs:

You may recall that we are solicitors for Great American Energy Inc., Melvin Ballantyne and several other individuals who are the owners of fractional interests in the mines and minerals in the east half of Section 13-1-26 WPM. Our clients acquired these interests in the early 1950's and have owned them since that time, with caveats registered at all times in Boissevain Land Titles Office to protect their ownership interests.

In or about 1977, without the knowledge or consent of the individual mineral owners, Canada Permanent Trust purported to lease their interests to Omega Hydrocarbons Ltd. and in return, Omega, relying on that lease, obtained drilling permits for a number of wells. We understand that since in or about 1980, Omega has been producing petroleum from all wells drilled on the east half of Section 13-1-26 WPM.

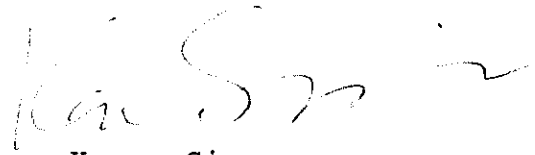
In or about 1979, the various fractional mineral owners leased their interests to Great American Energy. Both Great American Energy Inc. and the mineral owners are now seeking a declaration with respect to their said interests, together with an accounting for all monies due to them in respect of same. In order to assist in quantifying their claim to date, we would appreciate receiving from you copies of all of your records evidencing the amount of petroleum produced from the east half of Section 13-1-26 WPM, and if you keep such records, the prices that Omega Hydrocarbons Ltd. secured for same. We would be pleased to pay any photocopying charges.

We look forward to hearing from you. If you have any questions, please do not hesitate to call.

Yours truly,

THOMPSON, DORFMAN, SWEATMAN

Per:

A handwritten signature in cursive script, appearing to read "Karen Simonsen", written in dark ink.

Karen Simonsen

KS/ce

→ 2

Attention: Jan Henderson,
Land Clerk

Re: Effective Dates
Waskada Unit No. 4
Waskada Unit No. 5

Enclosed for your information is a notice of change in the membership and the mailing address of The Oil and Natural Gas Conservation Board.

**THE OIL AND NATURAL GAS
CONSERVATION BOARD**

Wm. McDonald,
Deputy Chairman

Enclosure

b.c. Petroleum Branch (



HYDROCARBONS LTD.

1300 SUN LIFE PLAZA III
112 - 4TH AVENUE S.W.
CALGARY, ALBERTA, CANADA T2P 0H3
TELEPHONE (403) 261-0743

April 11, 1985



Department of Energy and Mines
Winnipeg, Manitoba
555 - 330 Graham Avenue
Winnipeg, Manitoba
R3C 4E3

ATTENTION: Dr. Ian Haugh, Deputy Chairman

Dear Sir:

Re: Waskada Unit No. 4
Effective Date

Please be advised that the official Effective Date for the subject Agreement is June 1, 1984.

Kindly accept this letter as formal notice of the aforementioned.

We trust that all is in order, however should you have any questions please do not hesitate to contact the undersigned.

Thank you.

Yours very truly,

OMEGA HYDROCARBONS LTD.

Jan Henderson
Land Clerk

:jmh

February 21, 1985

Aikins, MacAuley & Thorvaldson
30th Floor
360 Main St.
Winnipeg, Man.
R3C 4G1

Attention: Mr. M. Trachtenberg

Dear Sir:

Re: Waskada Unit No. 4

Further to our conversation of today enclosed are the following:

1. Tract Factor calculations showing remaining recoverable oil in place for the Waskada Unit No. 4.
2. Excerpts from "Waskada Model Study - Lower Amaranth Pool". This was submitted by Omega in support of its application to conduct pressure maintenance operations. Please note that as this prediction was made with the benefit of limited production history, its results can be considered approximate only. Also note, the model was run using an area somewhat smaller than Unit No. 4 and therefore the results can only be used as relative volumes. The model predicts an approximate life of 9 years from commencement of gas injection (the extrapolation is mine).

I hope this information is of use to you. Should you require additional assistance, don't hesitate to call.

Yours sincerely,

Original Signed By
L. R. DUNNEILL

L. R. Dunneill
Chief Petroleum Engineer
Petroleum Branch

LND/eb



MANITOBA

THE OIL AND NATURAL GAS CONSERVATION BOARD
309 LEGISLATIVE BUILDING
WINNIPEG, MANITOBA
R3C 0V8

June 6, 1984

Omega Hydrocarbons Ltd.
630 - 330 Fifth Avenue S.W.
Calgary, Alberta
T2P 0L4

Attention: Mr. T. J. Hall
President

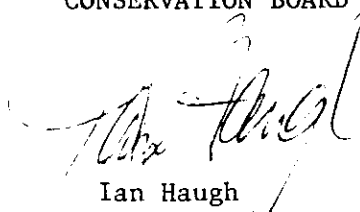
Dear Sirs:

Re: Waskada Unit No. 4
Unitization Order No. 31

Enclosed for your records is a copy of Oil and Natural Gas Conservation Board Order No. 31. This Order was approved by the Lieutenant Governor in Council on May 30, 1984; verbal notification of this approval was given to your office on May 31st. We expect that the Unitization Order will be published in the next issue of the Manitoba Gazette.

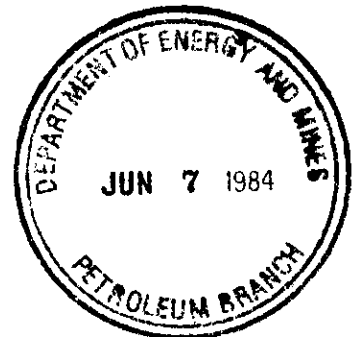
Yours sincerely

THE OIL AND NATURAL GAS
CONSERVATION BOARD


Ian Haugh
Deputy Chairman

IH/ra
Enclosure

bc: Marc Eliesen
J. F. Radgwall
H. Clare Master



SCHEDULE "A"

Manitoba Regulation 127/84

Being

THE OIL AND NATURAL GAS CONSERVATION BOARD

UNITIZATION ORDER NO. 31

Pertaining to the Unitized Management, Operation and
Further Development of Waskada Unit No. 4

Made and Passed Pursuant to "The Mines Act", being
Chapter M160 of the Revised Statutes of Manitoba,
by The Oil and Natural Gas Conservation Board

(Filed:)

WHEREAS, subsection 76(1) of "The Mines Act" provides in part as follows:

"76(1) The board, upon its own motion, may, or, upon the application of a working interest owner of a tract that exceeds a spacing unit in area, and that is within the pool, field, or part thereof, shall hold a hearing to consider the advisability or necessity for the operation of a pool, field, or part thereof, as a unit.

76(3) If the board is of the opinion that the operation of the pool, field or part thereof, as a unit would prevent waste therein having regard

- (a) to the production and recovery of oil and gas;
 - (b) to the gathering and processing of gas;
 - (c) to the disposal of salt water produced;
 - (d) to the rights of each owner to a reasonable opportunity of recovering or receiving the oil and gas in which he has an interest or the equivalent thereof without being required to drill unnecessary wells or to incur other unnecessary expenses therefor; and
 - (e) to any other circumstance pertaining to the drilling for or production of oil and gas;
- the board may, with the approval of the Lieutenant Governor in Council, order that the pool, field, or part thereof, be operated as a unit";

AND WHEREAS, the Board has received an application, dated February 17, 1984, from Omega Hydrocarbons Ltd. as working interest owner of a portion of the Waskada Lower Amaranth A Pool requesting that the Board proceed with steps to effect a unitization order for the proposed Waskada Unit No. 4;

AND WHEREAS, the Board held a hearing on May 23, 1984 for the purpose of hearing representations with respect to the application by Omega Hydrocarbons Ltd.;

AND WHEREAS, Omega has submitted as exhibits at the said hearing, a document entitled "Unit Agreement, Waskada Unit No. 4" and documents indicating the consent of 100% of the working interest owners and 95.5159 percent of the royalty interest owners to the said Unit Agreement, Waskada Unit No. 4;

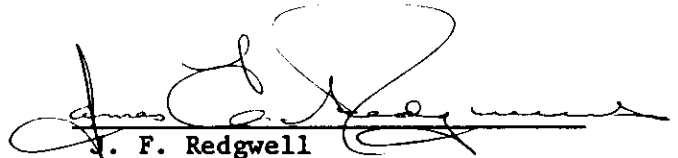
NOW, THEREFORE, the Board Orders that:

1. Effective at the hour of eight o'clock in the forenoon, official time, on the first day of June, A.D., 1984, a certain part of the Waskada Field to be known as the Unit Area, and outlined on Attachment No. 1 to this Order shall be operated in accordance with the Unit Agreement, Waskada Unit No. 4 and shall be known as the Waskada Unit No. 4.
2. Exhibit A being an excerpt from the Unit Agreement, and attached hereto, shall be published in the Manitoba Gazette.

Oil and Natural Gas Unitization
Order No. 31, made and passed
this 29th day of May, A.D.,
1984 at the City of Winnipeg,
in the Province of Manitoba by
The Oil and Natural Gas
Conservation Board.



Ian Haugh
Deputy Chairman
The Oil and Natural Gas
Conservation Board



J. F. Redgwell
Member
The Oil and Natural Gas
Conservation Board

ATTACHMENT NO. 1
UNIT AREA
WASKADA UNIT NO. 4

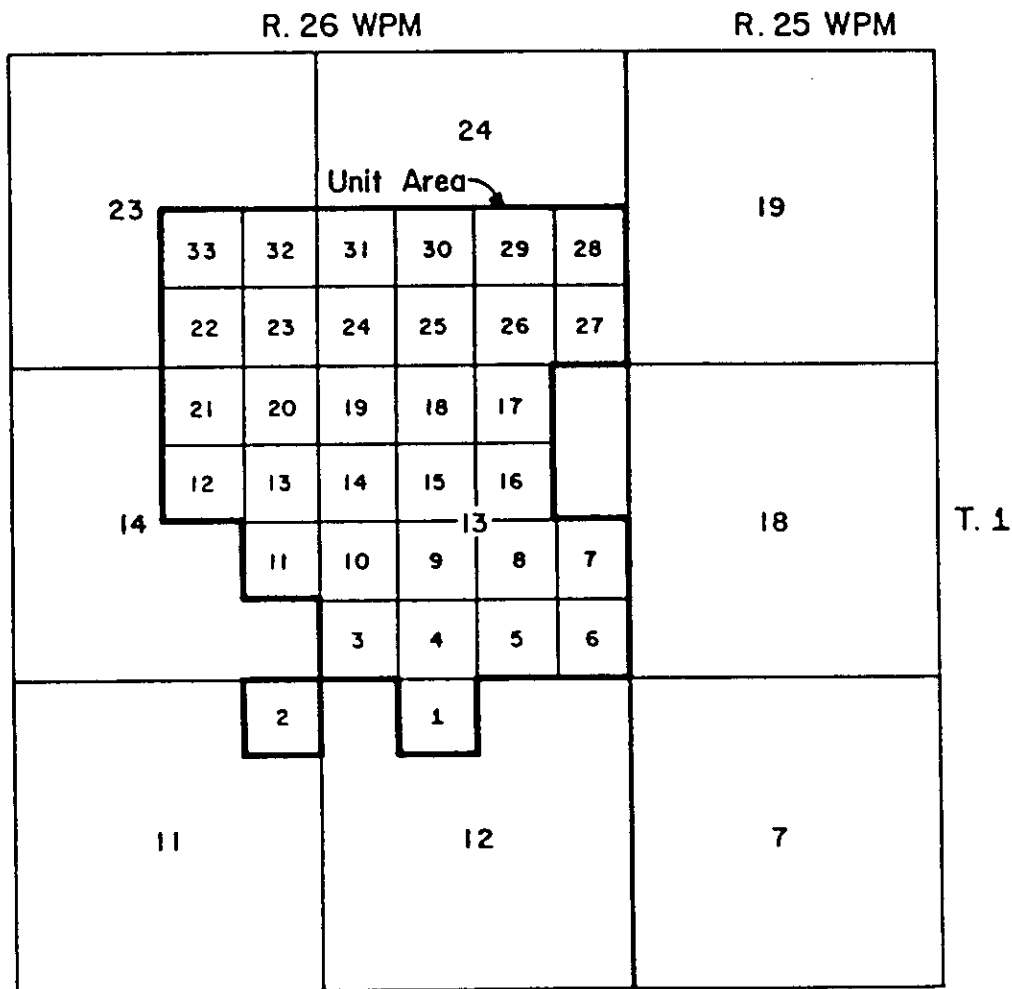


EXHIBIT "A"

Attached to and made part of an agreement entitled
"Unit Agreement - Waskada Unit No. 4"

TRACT No.	Land Description (Lsd)	Excepted Zone	Working Interest		Royalty Interests		Tract Participa- tion (%)
			Working Interest Owner	Share of Working Interest (%)	Royalty Interest Owner	Share of Royalty Interest (%)	
1	14-12-1-26 WPM	Mission Canyon	Omega	100	Canada Trust Co.	100	1.1689
2	16-11-1-26 WPM	Mission Canyon	Omega K-Tel	83.334 16.666	Manitoba Dept. of Energy & Mines	100	1.3842
3	4-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor	50 50	1.8286
4	3-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor	50 50	1.9034
5	2-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor Canada Permanent	50 25 25	3.0665
6	1-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor Canada Permanent	50 25 25	3.4744
7	8-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor Canada Permanent	50 25 25	1.7801
8	7-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor Canada Permanent	50 25 25	3.2610
9	6-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor	50 50	1.9456

EXHIBIT "A"

Attached to and made part of an agreement entitled
"Unit Agreement - Waskada Unit No. 4

TRACT No.	Land Description (Lsd)	Excepted Zone	Working Interest		Royalty Interests		Tract Participation (%)
			Working Interest Owner	Share of Working Interest (%)	Royalty Interest Owner	Share of Royalty Interest (%)	
10	5-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd (1) E.A. & M.E. McGregor	50 50	2.0452
11	8-14-1-26 WPM	Mission Canyon	Omega	100	M.K. & E.M. Hainsworth	100	2.4484
12	10-14-1-26 WPM	Mission Canyon	Omega	100	A.I. Hainsworth	100	3.4459
13	9-14-1-26 WPM	Mission Canyon	Omega	100	A.I. Hainsworth	100	2.6651
14	12-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor	50 50	1.8680
15	11-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor	50 50	2.6703
16	10-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor Canada Permanent	50 25 25	2.8791
17	15-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor Canada Permanent	50 25 25	3.4752
18	14-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor	50 50	2.8756

EXHIBIT "A"

Attached to and made part of an agreement entitled
"Unit Agreement - Waskada Unit No. 4"

TRACT No.	Land Description (Lsd)	Excepted Zone	Working Interest		Royalty Interests		Tract Partially (%)
			Working Interest Owner	Share of Working Interest (%)	Royalty Interest Owner	Share of Royalty Interest (%)	
19	13-13-1-26 WPM	Mission Canyon	Omega	100	Kaiser Oil Ltd. (1) E.A. & M.E. McGregor	50 50	2.7258
20	16-14-1-26 WPM	Mission Canyon	Omega	100	A.I. Hainsworth	100	3.2008
21	15-14-1-26 WPM	Mission Canyon	Omega	100	A.I. Hainsworth	100	3.1240
22	2-23-1-26 WPM	Mission Canyon	Omega	100	J.W. Hainsworth	100	3.0039
23	1-23-1-26 WPM	Mission Canyon	Omega	100	J.W. Hainsworth	100	3.7560
24	4-24-1-26 WPM	Mission Canyon	Omega Andex	75 25	G.F. McArthur (1) E.A. & M.E. McGregor J. Spellisey	25 25 50	5.0351
25	3-24-1-26 WPM	Mission Canyon	Omega Andex	75 25	G.F. McArthur E.A. & M.E. McGregor J. Spellisey	25 25 50	3.7649
26	2-24-1-26 WPM	Mission Canyon	Omega	100	Manitoba Dept. of Energy & Mines	100	4.0603
27	1-24-1-26 WPM	Mission Canyon	Omega	100	Manitoba Dept. of Energy & Mines	100	3.6786

Attached to and made part of an agreement entitled
"Unit Agreement - Waskada Unit No. 4"

TRACT No.	Land Description (Lsd)	Excepted Zone	Working Interest		Royalty Interests		Tract Participa- tion (%)
			Working Interest Owner	Share of Working Interest (%)	Royalty Interest Owner	Share of Royalty Interest (%)	
28	8-24-1-26 WPM	Mission Canyon	Omega	100	Manitoba Dept. of Energy & Mines	100	4.0093
29	7-24-1-26 WPM	Mission Canyon	Omega	100	Manitoba Dept. of Energy & Mines	100	4.4039
30	6-24-1-26 WPM	Mission Canyon	Omega Anex	75 25	G.F. McArthur (1) E.A. & M.E. McGregor J. Spellisey	25 25 50	3.9644
31	5-24-1-26 WPM	Mission Canyon	Omega Anex	75 25	G.F. McArthur (1) E.A. & M.E. McGregor J. Spellisey	25 25 50	3.9819
32	8-23-1-26 WPM	Mission Canyon	Omega	100	J.W. Hainsworth	100	4.3373
33	7-23-1-26 WPM	Mission Canyon	Omega	100	J.W. Hainsworth	100	2.7781 100.0000%

NOTES:

- 1) On Tracts 3 through 10 inclusively and Tracts 12 through 21 inclusively a gross overriding royalty is held by Marvin D. Allison.
- 2) On Tract 2 there are gross overriding royalties held by Francana, Page and Petroventures on Omega Hydrocarbons' interests.
- 3) On Tracts 26, 27, 28 and 29 there are gross overriding royalties held by Reston Resources and Culch Resources.
- 4) On Tracts 24, 25, 30 and 31 there is a gross overriding royalty held by Shell.



MANITOBA

Order in Council

ON MATTERS OF STATE

No. 649

To The Honourable the Lieutenant Governor in Council

The undersigned, the Minister of ENERGY and Mines

submits for approval of Council a report setting forth that:

WHEREAS subsection 76(1) of The Mines Act, being Chapter M160 of the Revised Statutes of Manitoba provides as follows:

"76(1) The board, upon its own motion, may or, upon the application of a working interest owner of a tract that exceeds a spacing unit in area, and that is within the pool, field, or part thereof, shall hold a hearing to consider the advisability or necessity for the operation of a pool, field, or part thereof, as a unit.";

AND WHEREAS, subsection 76(3) of the said Act provides as follows:

"76(3) If the board is of the opinion that the operation of the pool, field, or part thereof, as a unit would prevent waste therein having regard

- (a) to the production and recovery of oil and gas;
- (b) to the gathering and processing of gas;
- (c) to the disposal of salt water produced;
- (d) to the rights of each owner to a reasonable opportunity of recovering or receiving the oil and gas in which he has an interest or the equivalent thereof without being required to drill unnecessary wells or to incur other unnecessary expenses therefor; and
- (e) to any other circumstance pertaining to the drilling for or production of oil and gas;

the board may, with the approval of the Lieutenant Governor in Council, order that the pool, field, or part thereof, be operated as a unit.";

AND WHEREAS, The Oil and Natural Gas Conservation Board has received an application, dated February 17, 1984, from Omega Hydrocarbons Ltd. as a working interest owner of a portion of the Waskada Lower Amaranth A Pool requesting that the Board proceed with steps to effect a Unitization Order for the proposed Waskada Unit No. 4;

AND WHEREAS, The Oil and Natural Gas Conservation Board held a hearing on May 23, 1984 to consider the application by Omega Hydrocarbons Ltd.;

AND WHEREAS, Omega Hydrocarbons submitted, as exhibits at the said hearing, a document entitled "Unit Agreement, Waskada Unit No. 4" and documents indicating the consent to the said Unit Agreement of one hundred percent of the working interest owners and in excess of seventy-five percent (95.5159%) of the royalty interest owners;

AND WHEREAS, it is deemed advisable to approve Unitization Order No. 31 of The Oil and Natural Gas Conservation Board set out in the Schedule hereto;

THEREFORE, he, the Minister, recommends

THAT, Unitization Order No. 31 of The Oil and Natural Gas Conservation Board, set out in the Schedule annexed hereto be approved in accordance with Subsection 76(3) of The Mines Act.

Signature

Wilson D. Parssail

Initiating Department/Agency	
Department/Agency	Authorized Officer
<i>NE</i>	
Approved By	
C.S.C.	Finance
Signed as to form by:	
<i>Andrew C. Wilkerson</i>	
Litigation Branch:	Initials
Legislative Counsel: C	<i>C</i>

IN THE EXECUTIVE COUNCIL CHAMBER, WINNIPEG

Upon consideration of the foregoing report and recommendation Council advises that it be done as recommended.

30 May 1984
Date

Howard Beaulieu
President or Presiding Member

AT GOVERNMENT HOUSE IN THE CITY OF WINNIPEG

Approved and Ordered this 30th day of May A.D. 1984

c. - H. Clare Moster ;
file Waskada Unit No. 4
x.-ref. file no. 25.1
June 7, 1984 - ra

Samuel M. Cuyler
Lieutenant Governor

BY THE

DEPARTMENT OF ENERGY AND MINES

SUBJECT:

The Oil and Natural Gas Conservation Board Unitization Order No. 31 -
Waskada Unit No. 4

BACKGROUND:

The Oil and Natural Gas Conservation Board, by issuance of Board Order No. PM 41, dated January 31, 1984, approved a scheme, proposed by Omega Hydrocarbons Ltd. for the enhancement of oil recovery in a portion of the Waskada Lower Amaranth A Pool by injection of natural gas. In that the scheme involves conversion of specific producing wells for gas injection, formation of a Unit to equitably distribute income from the project is essential.

Omega has obtained consent to the proposed Unit Agreement from 100% of the working interest owners and approximately 95.5% of the royalty interest owners. The remaining royalty interest is held in the name of The Canada Permanent Trust Company. The ownership of this royalty interest is the subject of an ongoing civil litigation and as a result, Canada Permanent Trust feels it would be imprudent for the Trust Company to enter into any agreement regarding this interest at this time.

The Mines Act authorizes The Oil and Natural Gas Conservation Board to require operation of a field, pool or part thereof as a Unit if the Board is of the opinion that such operation is in the interests of conservation.

Omega Hydrocarbons Ltd. by its application dated February 17, 1984 requested that the Board initiate steps to effect a Unit Order in the area of the proposed gas injection scheme (proposed Waskada Unit No. 4). On May 23, 1984, the Board held a hearing to consider the application by Omega. Following the hearing, Unitization Order No. 31 was made and passed by the Board on May 29, 1984.

It is noted that subsection 83(1) of The Mines Act states that an Order issued pursuant to subsection 76(3) of the Act does not transfer or otherwise affect a mineral title.

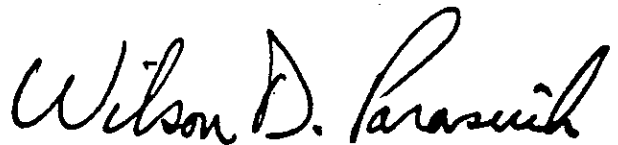
RECOMMENDATION:

That approval be given to Unitization Order No. 31 in accordance with subsection 76(3) of The Mines Act.

COMMUNICATION:

1. Publication of the Unitization Order in the Manitoba Gazette with copies sent to the applicant and the intervenor at the hearing.

DATE TYPED: May 29, 1984



Wilson D. Parasiuk
Minister

May 31, 1984

Aikins, MacAulay & Thorvaldson
Barristers and Solicitors
Third Floor
333 Broadway
Winnipeg, Manitoba
R3C 0T1

Attention: Mr. Murray N. Trachtenberg

Dear Sirs:

Re: Omega Hydrocarbons Ltd.
Unitization Order
Waskada Unit No. 4
Your file no. 830827

Your letter of May 30, 1984 has been received by the Board
and its contents noted.

Yours sincerely

THE OIL AND NATURAL GAS
CONSERVATION BOARD

ORIGINAL SIGNED BY
IAN HAUGH

Ian Haugh
Deputy Chairman

IH/ra

p.c. - Marc Eliesen, Chairman
J. F. Redgwell, Member



Aikins, MacAulay & Thorvaldson

BARRISTERS AND SOLICITORS

SIR JAMES AIKINS K.B. LL.D. (1879-1925)
G. H. AIKINS O.C. LL.D. (1910-1984)

JOHN A. MACAULAY O.C. LL.D. LL.D. (1919-1978)
RON G. S. THORVALDSON O.C. (1925-1989)

A. LORNE CAMPBELL O.C. LL.D. LL.D.
RUGER J. HANSELL O.C.
MORDEcai FREEDMAN O.C.
KARL R. KOSTER O.C.
JOHN N. MERRICK
J. TIMOTHY SAMSON
ROLAND B. DAVIS
ROD E. STEPHANSON
FRANCES M. STATHAM
J. JANE EVANS
DAVID M. MURPHY
JAMES J. HOSKIN
RICHARD J. TAYLOR
G. TODD CAMPBELL
LISA M. COLLINS

W. STEWARD MARTIN O.C.
MICHAEL J. MERRICK O.C.
ANDREW J. TOLSON
EDMUND H. MCDONALD
MANUEL E. H. KOSTER O.C.
JOHN J. LAMONT
CHARLES L. CHAPPELL
GERALD D. PARKINSON
DAVID G. MILL
J. JOHN M. BEAR
JANE E. JONES
MURRAY N. TRACHTENBERG
ROBERT L. SQUALL
J. MILTON CHRISTIANSEN
BETTY A. JENNIFER

JOHN S. LAMONT O.C.
A. J. MERRICK
JAMES E. FORAN
ROBERT L. MERRICK O.C.
HAROLD H. KOSTER
LARRY H. GRANE
JOHN R. MACARTHUR
JOEL A. WEINSTEIN
E. BRUCE PARKER
DAVID L. JENNIFER
CHARLES L. WILSON
G. BRUCE TAYLOR
FRANK LAYTON
LORNE T. SPIVAK
J. DALE STEWART

COUNSEL THE HONOURABLE SAMUEL FREEDMAN O.C. LL.D.

THIRD FLOOR
333 BROADWAY
WINNIPEG, MANITOBA
CANADA R3C 9T1

TELEPHONE (204) 957-0050

TELEX: 07-587612
CABLE ADDRESS "AIKINS"
TELECOPIER (AUTOMATIC) (204) 957-0840

PLEASE REFER TO

Murray N. Trachtenberg
FILE NO.

830827

May 30, 1984

The Oil and Natural Gas
Conservation Board
c/o Department of Energy
and Mines
5th Floor
Eaton Executive Place
330 Graham Avenue
WINNIPEG, Manitoba

ATTENTION: DR. IAN HAUGH
DEPUTY CHAIRMAN

DELIVERED

THE OIL AND NATURAL GAS
CONSERVATION BOARD
WINNIPEG, MANITOBA

MAY 30 1984

RECEIVED

Dear Sirs:

RE: OMEGA HYDROCARBONS LTD. REQUEST
FOR UNITIZATION ORDER - WASKADA
UNIT NO. 4

This will confirm my presentation to the Board at the public hearing held on May 23, 1984 at 2:00 o'clock p.m. As I indicated at that time, we are the solicitors for Canada Permanent Trust Company, which is shown as one of the royalty interest owners on a number of the tracts listed in Exhibit "A" to the proposed Unit Agreement filed with the Board by Omega Hydrocarbons Ltd.

As the Board is aware, Canada Permanent Trust Company has not granted its approval to the proposed Unit Agreement.

Canada Permanent Trust Company holds title to an undivided one-quarter interest in the mines and minerals in the East half of Section 13, Township 1, Range 26 as trustee for a Mr. Robert Stead. This interest is the subject matter of ongoing litigation commenced by a number of individual plaintiffs, as well as a corporate plaintiff, Great American Energy Inc., in the Manitoba Court of Queen's

p.c. - J. F. Redgwell
May 31, 1984 - IH/ra

...2/

Bench, Western Judicial District. The claims involve allegations that the individual plaintiffs are the rightful owners of certain fractional interests in the undivided quarter interest for which Canada Permanent Trust Company holds title, and that the corporate plaintiff Great American Energy Inc. has obtained valid leases of same from the individual plaintiffs.

On or about June 16, 1977 Canada Permanent Trust Company entered into a lease agreement with Troy Oils Ltd. in respect of the interest for which it held title, which lease was subsequently assigned to Omega Hydrocarbons Ltd. All of the plaintiffs allege that Canada Permanent Trust Company was not authorized to enter into the lease agreement.

On March 28, 1984 the plaintiffs filed Certificates of Lis Pendens against the undivided quarter interest for which Canada Permanent Trust Company holds title.

Mr. Robert Stead, is a party adverse in interest to Canada Permanent Trust Company, and as such, it is extremely unlikely that our client would be able to obtain any instructions from him with regard to approving or opposing the proposed unitization order.

As I indicated to the Board at the hearing, Canada Permanent Trust Company does not oppose the granting of the order sought by the applicant Omega Hydrocarbons Ltd. We do wish to draw to the Board's attention however, that in light of the ongoing litigation, there may be jurisdictional restraints on the Board at this time to make an order pursuant to Section 76 of The Mines Act. As well, the Board may deem it necessary to have Mr. Stead and the plaintiffs in the litigation notified of the application before the Board, and afford them an opportunity to make representations.

I indicated at the hearing that it is not the position of Canada Permanent Trust Company that the Board is unable to entertain the application or that Mr. Stead and the plaintiffs must be notified. This is a matter for the Board itself to determine, in accordance with its own understanding of its procedures and practices, and scope of its own authority.

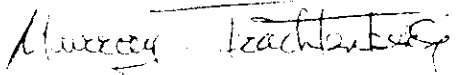
As I stated at the Board hearing, nothing said then, or contained in this letter should be interpreted or construed in any manner as recognizing the claims or allegations of Mr. Stead, and the plaintiffs in the litigation involving our clients.

We did wish however to draw the Board's attention to the ongoing litigation, in order that it may be fully apprised of all the circumstances concerning Canada Permanent Trust Company's refusal to grant its approval to the proposed unitization order.

In the event that you have any questions as a result of this letter, I would be pleased to discuss the matter further with you at your convenience.

Yours truly,

AIKINS, MacAULAY & THORVALDSON

Per: 
MURRAY N. TRACHTENBERG

MNT/jg

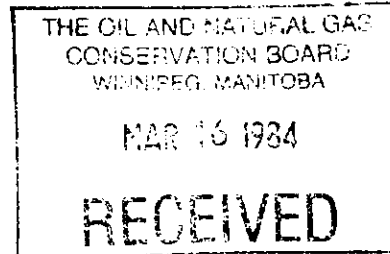
c.c. Mr. R. J. Handlon
Pitblado & Hoskin
(Solicitors for Omega
Hydrocarbons Ltd.)



Hold per
Notice of Hearing
by Board

March 13, 1984

Manitoba Department of
Energy and Mines
The Oil and Natural Gas
Conservation Board
309 Legislative Building
Winnipeg, Manitoba
R3C 0V8



Attention: Ian Haugh
Deputy Chairman

Dear Sir:

RE: Proposed Waskada Unit No. 4

With reference to your letter of February 28, 1984, please find enclosed 6 copies of the Waskada Unit No. 4 Agreement as per you request.

Yours truly,

OMEGA HYDROCARBONS LTD.

R. F. Emerson
Land Manager

RFE/smp
Encls.

p.c. - H. Clare Moster (w/6 attachments)
March 16, 1984 - IH/ra



Bob-

Re: Unit 4 Hearing

- ① Please check with Dr Haugh to see if the Board in planning on taping the proceedings and if so
 - who is arranging for recording equip
 - who is acting as Hearing secretary
- ② Are there any specific questions you suggest the Board should ask at the hearing?
- ③ An initial draft Order could be proceeded with ~~on~~ case it is desired to have the Unit approved prior to June 1st to have June 1st the effective date.

Looking into the above now may save some last minute panicking later!

70m

SUBMISSION TO CABINET
BY THE
DEPARTMENT OF ENERGY AND MINES

SUBJECT:

The Oil and Natural Gas Conservation Board Unitization Order No. 31 -
Waskada Unit No. 4

BACKGROUND:

The Oil and Natural Gas Conservation Board, by issuance of Board Order No. PM 41, dated January 31, 1984, approved a scheme, proposed by Omega Hydrocarbons Ltd. for the enhancement of oil recovery in a portion of the Waskada Lower Amaranth A Pool by injection of natural gas. In that the scheme involves conversion of specific producing wells for gas injection, formation of a Unit to equitably distribute income from the project is essential.

Omega has obtained consent to the proposed Unit Agreement from 100% of the working interest owners and approximately 95.5% of the royalty interest owners. The remaining royalty interest is held in the name of The Canada Permanent Trust Company. The ownership of this royalty interest is the subject of an ongoing civil litigation and as a result, Canada Permanent Trust feels it would be imprudent for the Trust Company to enter into any agreement regarding this interest at this time.

The Mines Act authorizes The Oil and Natural Gas Conservation Board to require operation of a field, pool or part thereof as a Unit if the Board is of the opinion that such operation is in the interests of conservation.

Omega Hydrocarbons Ltd. by its application dated February 17, 1984 requested that the Board initiate steps to effect a Unit Order in the area of the proposed gas injection scheme (proposed Waskada Unit No. 4). On May 23, 1984, the Board held a hearing to consider the application by Omega. Following the hearing, Unitization Order No. 31 was made and passed by the Board on May 29, 1984.

It is noted that subsection 83(1) of The Mines Act states that an Order issued pursuant to subsection 76(3) of the Act does not transfer or otherwise affect a mineral title.

RECOMMENDATION:

That approval be given to Unitization Order No. 31 in accordance with subsection 76(3) of The Mines Act.

COMMUNICATION:

1. Publication of the Unitization Order in the Manitoba Gazette with copies sent to the applicant and the intervenor at the hearing.

DATE TYPED: May 29, 1984

Wilson D. Parasiuk
Minister

T's presentation:

2:00 - 2:40

CPT undiv $\frac{1}{4}$ int ^{in E $\frac{1}{2}$ Section 13} (Trustee for Mr. Robert Stead)

Stead says CPT acted without his direction
 \therefore he won't give CPT any direction to do anythg

others say they have interests
" " " " based to BAE

CPT feel they have interest

CPT doesn't

certificates of his Powers have been filed

CPT just want to bring info to B's att
so Bd. fully aware of complete situation
BEFORE making any decisions.

(See 83 of Act)

PROPOSED OUTLINE OF HEARING

- I. Chairman:
 - introductory remarks
 - introducing Board members
 - introducing Department personnel and their function, (i.e.: secretary etc.)
- II. Secretary:
 - Establish purpose of hearing
 - Read notice
 - Indicate who notice sent to
 - Indicate acknowledgements received
 - Ask chairman to enter notice as Exhibit No. 1
- III. Chairman:
 - Indication of procedure
 - Representatives to introduce themselves and their staff, each to state qualifications
 - Asking that any evidence to be considered by the Board to be filed as an exhibit.
 - Asking if there are any questions.
 - Asking applicant to proceed.
- IV. Applicant:
 - Introduce representatives, indicate qualifications
 - File documentation (secretary records exhibits).
 - Review submission
- V. Board:
 - Question applicant on the submission
 - Ask if anyone wishes to make an intervention
- VI. Intervenors:
 - Introduce themselves, state qualifications
 - File any exhibits
 - State intervention
- VII. Board:
 - Question intervenor on its submission
- VIII. Applicant:
 - Concluding remarks
- IX. Board:
 - Concluding remarks
 - Process to be followed
 - When decision will be made
 - How it will be conveyed to interested parties

PUBLIC HEARING

CHEVRON STANDARD LIMITED
RUNDLE PETROLEUMS LTD.

July 5, 1978

EXHIBITS FILED:

1. Notice of Hearing, copies of Notice published in the Manitoba Gazette and Virden-Empire Advance, a list of oil and natural gas lessees and mineral owners notified by the Board.

Chevron Standard Limited — Page 3

2. Application to amend the "Plan for Unit Operation Governing the Unitized Management Operation and Further Development of Virden-Roselea Unit No. 1" and responses of the Working Interest Owners thereto.
- 2A. Appendix "C" - Virden-Roselea Unit No. 1: Summary list of Working Interest Owners' responses, name and their participating interests.
3. Application to amend the "Plan for Unit Operation Governing the Unitized Management Operation and Further Development of Virden-Roselea Unit No. 2" and responses of the Working Interest Owners thereto.
- 3A. Appendix "C" - Virden-Roselea Unit No. 2: Summary list of Working Interest Owners' responses, names and participating interests.
4. Application to amend the "Plan for Unit Operation Governing the Unitized Management Operation and Further Development of Virden-Roselea Unit No. 3".
5. Application to amend the "Plan for Unit Operation Governing the Unitized Management Operation and Further Development of Daly Unit No. 3".
6. Application to amend the "Plan for Unit Operation Governing the Unitized Management Operation and Further Development of Routledge Unit No. 1".
7. Application to amend the "Plan for Unit Operation Governing the Unitized Management Operation and Further Development of North Virden Scallion Unit No. 1".
8. Affidavit of Service by Margaret Anne Simi including lists of the Working Interest Owners in the following Units to whom notices were sent:

Virden-Roselea Unit No. 1
Virden-Roselea Unit No. 2
Virden-Roselea Unit No. 3
Routledge Unit No. 1
North Virden Scallion Unit No. 1
Daly Unit No. 3

CHAIRMAN:

The Oil and Natural Gas Conservation Board is now in Session. Now before we begin and I know you have met the Members of the Board, but in case you don't remember their names I will re-introduce them. On my right is Dr. Ian Haugh who is Vice-Chairman of the Board and on my left is Mr. Jim Redgwell who is the new member of the Board and my name is Jack Roper. For this Hearing Clare Moster, the gentlemen in the light suit — so that I don't get my colour wrong — he is the Director of the Petroleum Branch and he will act as the Secretary for this Hearing and his assistant is Sam Elsayed who is also his assistant in the Petroleum Branch. The lady at the back is Evelyn Torwart and she will be trying to keep the names straight and who is talking when. So when she has to type these notes from the tapes she'll be able to — it'll be a little easier for her because the last time we — she had a lot of difficulty and I don't blame her because trying to get straight who said what and who asked what question and things like that and taking that from the tape when you haven't been present is very difficult. With those few remarks, I'd ask Mr. Moster to establish the purpose of the sitting of the Board.

MOSTER:

The purpose to today's Hearing is to hear applications made to the Board under The Mines Act by Chevron Standard Limited and Rundle Petroleum Ltd. The following is the wording of the Notice of Hearing:

A Public Hearing will be held in Board Rooms A and B, 989 Century Street, Winnipeg, Province of Manitoba on July 5th, 1978, commencing at 9:00 a.m. official time, for the purpose of hearing representations with respect to:

1. Applications by Chevron Standard Limited, as Unit Operator, for certain amendments to The Plan for Unit Operation Governing the Unitized Management Operation and Further Development of each of the following Units:

- (1) Viriden-Roselea Unit No. 1
- (2) Viriden-Roselea Unit No. 2
- (3) Viriden-Roselea Unit No. 3
- (4) North Viriden Scallion Unit No. 1
- (5) Routledge Unit No. 1
- (6) Daly Unit No. 3.

PER:

2. An application by Rundle Petroleums Ltd., as Unit Operator of Daly Unit No. 1, to:

- (1) Enlarge Daly Unit No. 1 to include the following tract:
Legal Subdivision 15, Section 5,
Township 10, Range 28 WPM
- (2) Exempt the subject tract from the Maximum Permissible Rate of Production for the Daly Field.
- (3) Make certain amendments to the "Plan for Unit Operation Governing the Unitized Management Operation and Further Development of Daly Unit No. 1".
- (4) Expand the water injection system in Daly Unit No. 1 to include three additional water injection wells.

Particulars of the above applications may be obtained from the office of the Petroleum Branch at 989 Century Street, Winnipeg, Manitoba R3H 0W4.

Written submissions in respect to the subjects of the hearing must be submitted to the Board at 989 Century Street, Winnipeg, Manitoba R3H 0W4 on or before July 3rd, 1978.

Dated at Winnipeg, Manitoba this 6th day of June, 1978.

Signed by J. S. Roper, Deputy Chairman, Oil and Natural Gas Conservation Board.

Acknowledgment . . . pardon me.

On behalf of the Oil and Natural Gas Conservation Board I have caused copies of the Notice of Hearing to be sent by double registered mail to the following mineral owners and mineral lease holders:

Chevron Standard Limited, Calgary, Alberta
Rundle Petroleums Ltd., Calgary, Alberta
Canada Permanent Trust Co., Winnipeg, Manitoba
Mr. Charles Fenton Schock, c/o Bank of Nova Scotia, Calgary, Alberta
Ms. K. Cecil Brady and Ms. H. Boyle Clifford, c/o Canada Permanent Trust Co., Regina, Saskatchewan
Mr. Theodore Patrick Clifford, c/o Can. Permanent Trust Co., Regina, Saskatchewan
Canadian Superior Oil Limited, Calgary, Alberta
Mrs. Dora Holmes, Carnegie, Oklahoma, U. S. A.

Acknowledgement was received of delivery of all Notices sent. One insertion of the Notice of Hearing was also published in the Manitoba Gazette Volume 107, No. 24 of the date June 17, 1978 plus in the Virden-Empire Advance Newspaper issue of the date June 14, 1978. Mr. Chairman would you like to have the Notice and the related information filed as Exhibit No. 1.

AIRMAN: Yes, please. The Board has decided to hear the application for Daly Unit No. 3 in this Hearing pursuant to Subsection 20.6(a) of The Plan of Unit Operation for the subject unit since 100% of the Working Interest Owners have agreed in writing to a re-hearing of such application.

The Board will proceed with Chevron's applications first and the Board will deal with the amendments in each unit Agreement separately starting with Virden-Roselea Unit No. 1, followed by Virden-Roselea Unit No. 2 and then Virden-Roselea Unit No. 3, Daly Unit No. 3, Routledge Unit No. 1 and then North Virden Scallion Unit No. 1. For Rundle's application, The Board will proceed in the order of items as listed in the Notice of the Hearing.

I would ask the party who is going to represent each applicant to identify himself and other members of his staff who may be participating in giving the evidence to support the application. I would further ask that party to outline the procedure to be taken in dealing with the legal documentation and technical support for the submission. For the purpose of the record each applicant is requested to identify each of the documents to be filed as exhibits with the Board prior to giving evidence plus any additional material which it may wish to file in support of its application during the Hearing, as required.

Are there any questions?

PASHELKA: No Mr. Chairman. May I proceed.

CHAIRMAN: Yes, if you would..

PASHELKA: Thank you. My name is Richard A. Pashelka, P-a-s-h-e-l-k-a, representing Chevron Standard Limited. We have a panel of three which I will introduce to you right now. On my immediate right I have Mr. Donald Mahura who is the supervisor of Joint Ventures and Units; Mr. Glen Cruickshank, in the centre, who is the Chairman of all the Operating Committees of all these Units now under discussion and Mr. John D. Scott. Both Mr. Scott and Mr. Cruickshank have appeared before the Board, Mr. Chairman, and I don't think they need be qualified any further but Mr. Mahura has not and I would ask him to qualify himself now.

IRMAN: Okay Mr. Mahura, please.

MAHURA: My name is Donald Matthew Mahura. Graduated from the University of Alberta with a Bachelor of Science in Petroleum Engineering in May 1955. Joined the California Standard Company, which is now Chevron Standard Limited, June 1, 1955 in the Producing Department. Was a drilling and production engineer with assignments in the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia. Appointed to the position of Area Supervisor in the Red Deer Area June 1963; subsequently Area and Unit Superintendent in the Edmonton and Slave Lake Areas. Appointed Co-ordinator of Unit and Joint Ventures Producing Department January 1, 1976 to the present time. Registered as a Professional Engineer in May 1961 and currently am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicist of Alberta.

CHAIRMAN: Thanks

PASHELKA: I'll now file the documentation, Mr. Chairman. Virden-Roselea Unit No. 1 and the consents thereto, I believe should be Exhibit No. 2; Virden-Roselea Unit No. 2 should be Exhibit No. 3; Virden-Roselea Unit No. 3 application and consents thereto, Exhibit No. 4 — will be Exhibit No. 4; Daly Unit No. 3 application and consent thereto will be Exhibit No. 5; Routledge Unit No. 1 application and consents thereto Exhibit No. 6; North Virden Scallion Unit No. 1 application and consents thereto, Exhibit No. 7. I would also like to file, Mr. Chairman, revised Appendix C for Virden-Roselea Unit No. 1 and Virden-Roselea Unit No. 2. So Appendix C, Virden-Roselea Unit No. 1, will become Exhibit

MOSTER: 8

PASHELKA: You want to do it 8 or 2A — it's up to you.

MOSTER: This just pertains to Virden-Roselea Unit No. 1

PASHELKA: That's correct.

MOSTER: Mr. Chairman you'd like to file this as Exhibit 2A.

CHAIRMAN: Number 2A and that is Appendix C.

MOSTER: Appendix C amendments to Virden-Roselea Unit No. 1.

WASKADA UNIT NO. 4
WORKING AND ROYALTY INTEREST OWNER
ADDRESSEE LIST

Marvin D. Allison
3720 Garland Street
Wheat Ridge, Colorado
U.S.A. 80033

Canada Permanent Trust Company
311 - 6th Avenue S.W.
Calgary, Alberta
T2P 0R6

Canada Trust Company
230 Portage Avenue
Box 881
Winnipeg, Manitoba
R3C 2S6 ✓

Department of Energy and Mines
Mineral Resources Division
Petroleum Branch
989 Century Street
Winnipeg, Manitoba
R3H 0W4

Gulch Resources Ltd.
1701, 300 - 5th Avenue S.W.
Calgary, Alberta
T2P 3C4

Francana Oil & Gas Ltd.
2600 Bow Valley Square 4
250 - 6th Avenue S.W.
Calgary, Alberta
T2P 3H7

Arthur Irwin Hainsworth
11633 - 203rd Street
Maple Ridge, B.C.
V4X 4T8

John Wilfred Hainsworth
2826 Harding Street
Regina, Saskatchewan
S4V 0X9

Elizabeth Maude Hainsworth ✓
Waskada, Manitoba
ROM 2E0

Mabel Kathleen Hainsworth ✓
Waskada, Manitoba
ROM 2E0

Kaiser Oil Ltd.
P.O. Box 6800, Stn. D
800 - 6th Avenue S.W.
Calgary, Alberta T2P 0N1

George Franklin McArthur ✓
240 - 1st Street S.W.
Brandon, Manitoba
R7A 2W5

Edmund Albert McGregor ✓
Box 164
Waskada, Manitoba
ROM 2E0

Mary Elizabeth McGregor ✓
Box 164
Waskada, Manitoba
ROM 2E0

Page Petroleum Ltd.
1100, 335 - 8th Avenue S.W.
Calgary, Alberta
T2P 1C9

Petroventures Resources Ltd.
1400, 630 - 6th Avenue S.W.
Calgary, Alberta
T2P 0S8

Reston Resources Ltd.
2311 - 12th Street S.W.
Calgary, Alberta
T2T 3N7

John Spellisey
14 Taggart Street
Regina, Saskatchewan
S4S 4G4

Andex Oil Co. Ltd.
1501, 500 - 4th Avenue S.W.
Calgary, Alberta
ATTN: Mr. Chuck Haywood

WASKADA UNIT NO. 4
WORKING AND ROYALTY INTEREST OWNER
ADDRESSEE LIST

K-Tel Petroleum Ltd.
940, 808 - 4th Avenue S.W.
Calgary, Alberta

ATTN: Mr. Ernie Pelzer

Shell Canada Resources Ltd. \
400 - 4th Avenue S.W.
Calgary, Alberta

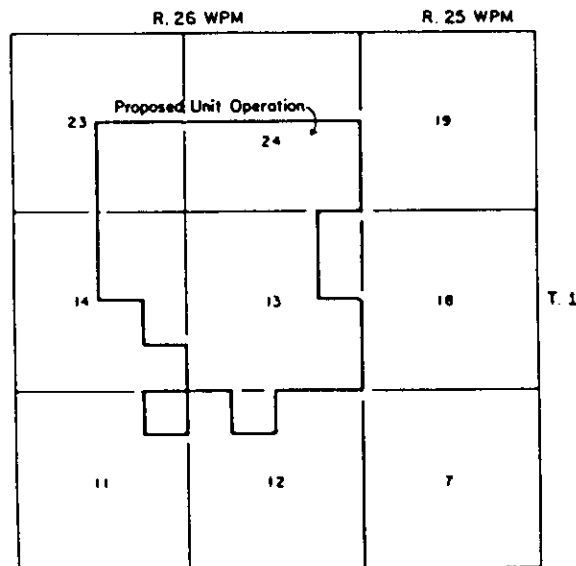


MANITOBA
DEPARTMENT OF ENERGY AND MINES

THE OIL AND NATURAL GAS CONSERVATION BOARD
309 LEGISLATIVE BUILDING
WINNIPEG, MANITOBA
R3C 0V8

NOTICE OF HEARING

A Public Hearing will be held in the boardroom of the Department of Energy and Mines located in Room 544 on the fifth floor of Eaton Executive Place, 330 Graham Avenue, Winnipeg, Manitoba on May 23, 1984 commencing at 2:00 P.M. for the purpose of hearing representations with respect to a Plan, proposed by Omega Hydrocarbons Ltd., for Unit Operation of the portion of the Waskada Lower Amaranth A Pool outlined below.



Copies of material filed in support of the application by Omega Hydrocarbons Ltd., may be examined by affected parties at the office of the Manitoba Petroleum Branch located at 555 - 330 Graham Avenue, Winnipeg, Manitoba.

THE OIL AND NATURAL GAS
CONSERVATION BOARD

Ian Haugh
Deputy Chairman

Dated at Winnipeg, Manitoba,
this *8th* day of *May*, 1984.

<u>NAME</u>	<u>NOTICE SENT</u>	<u>CONFIRMATION OF RECEIPT</u>
Canada Trust Company Winnipeg, Man.	May 9, 1984	<u>MAY 11, 1984</u>
Canada Permanent Trust Co. Calgary, Alberta	"	<u>May 23, 1984</u>
Arthur Irwin Hainsworth Maple Ridge, B. C.	"	<u>May 18/84</u>
John Wilfred Hainsworth Regina, Sask.	"	<u>MAY 18/84</u>
Elizabeth Maude Hainsworth Waskada, Man.	"	<u> </u>
Mabel Kathleen Hainsworth Waskada, Man.	"	<u>MAY 11, 1984</u>
Kaiser Oil Ltd. Calgary, Alta.	"	<u>May 15/84</u>
George Franklin McArthur Brandon, Man.	"	<u>MAY 14, 1984</u>
Edmund Albert McGregor Waskada, Man.	"	<u>MAY 11, 1984</u>
Mary Elizabeth McGregor Waskada, Man.	"	<u>MAY 18, 1984</u>
John Spellisey Regina, Sask.	"	<u>May 17, 1984</u>
Andex Oil Co. Ltd. Att: Chuck Haywood Calgary, Alberta	"	<u>May 15, 1984</u>
	May 16, 1984	<u> </u>

<u>NAME</u>	<u>NOTICE SENT</u>	<u>CONFIRMATION OF RECEIPT</u>
K-Tel Petroleum Ltd.(Ernie Pelzer) Calgary, Alta.	May 9, 1984	<u>May 14/84</u>
Omega Hydrocarbons Ltd.(G. E. Patey) Calgary, Alberta	May 16, 1984	<u> </u>



- SPECIAL DELIVERY -

May 2, 1984

Manitoba Department of Energy and Mines
The Oil and Natural Gas Conservation Board
Eaton Place
555 - 330 Graham Avenue
Winnipeg, Manitoba
R3C 4E3

THE OIL AND NATURAL GAS
CONSERVATION BOARD
WINNIPEG, MANITOBA

MAY 3 1984

RECEIVED

Attention: Dr. Ian Haugh
Deputy Chairman

Dear Sir:

RE: Waskada Unit No. 4

Please find enclosed copies of the execution pages for the following
Working Interest and Royalty Owners:

Arthur Irwin Hainsworth
George Franklin McArthur
Camel Oil & Gas Ltd.
Francana Oil & Gas Ltd.
Marvin D. Allison
Page Petroleum Ltd.
Manitoba Department of Energy and Mines
K-Tel Petroleum Ltd.
Omega Hydrocarbons Ltd.
John Wilfred Hainsworth
John Wilfred Hainsworth for Elizabeth M. Hainsworth
and Mabel K. Hainsworth as Trustee
The Canada Trust Company

I trust that all is in order, however, should you have any questions,
please do not hesitate to contact the undersigned.

Yours truly,

OMEGA HYDROCARBONS LTD.

Shelly Pearce
Land Clerk

:smp
Encls.

cc: Ed Wyse

1503.

Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504.

Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: December 21st, 1983

WITNESS

G. P. Clarke
G. Patricia Clarke
22311 - 119th Avenue
Maple Ridge, B.C.
Secretary

Arthur Irwin Hainsworth
ARTHUR IRWIN HAINSWORTH

AFFIDAVIT OF EXECUTION

NADA)
PROVINCE OF)
To Wit:)

I, G. PATRICIA CLARKE

of Maple Ridge in the Province of British Columbia
do hereby depose and say:

1. THAT I was personally present and did see ARTHUR IRWIN
HAINSWORTH named in the within instrument, who is (one)
personally known to me to be the person(s) named therein, duly sign, seal and execute
the same for the purposes named therein.

2. THAT the same was executed at Maple Ridge in the
Province of British Columbia, and that I am the subscribing witness
hereto.

3. THAT I know the said ARTHUR IRWIN HAINSWORTH
and he (XXXXXX) is (XXXXXXXXXXXXXXX) in my belief of the full age of eighteen
years.

SWORN before me at Maple Ridge)
in the Province of British Columbia this)
21st day of December A.D. 1983)

A Notary Public)
in and for the Province)

G. Patricia Clarke
G. PATRICIA CLARKE

of British Columbia
LAURENCE WINIFORD ANDERSON
SOLICITOR

My Appointment Expires December 31st, 19

1303. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1304. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: 20/2/83

[Signature]

Frank M. G. [Signature]

WITNESS

AFFIDAVIT OF EXECUTION

CANADA)
PROVINCE OF)
To Wit:)

I, Michael J. [Signature]
of [Signature] in the Province of Manitoba,
make oath and say:

1. THAT I was personally present and did see Frank McArthur
named in the within instrument, who is (are)
personally known to me to be the person(s) named therein, duly sign, seal and execute
the same for the purposes named therein.

2. THAT the same was executed at Brandon in the
Province of Manitoba, and that I am the subscribing witness
thereto.

3. THAT I know the said Frank McArthur
and he (or she) is (or they are each) in my belief of the full age of eighteen
years.

SWORN before me at Brandon)
in the Province of Manitoba this)
30 day of December A.D. 1911)
Michael J. [Signature])
A Commissioner for Oaths [Signature] the Province)
of Manitoba)

[Signature]

My Appointment Expires December 31st, 1911

1003. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1004. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: February 9, 1974

WITNESS

Ray C. Huffman
RAY C. HUFFMAN

VICE PRESIDENT
LAND

1503.

Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504.

Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: 12 12 22Francis Oil & Gas Ltd

WITNESS

[Signature]
W.D. KNOWLES
SENIOR VICE PRESIDENT
ENGINEERING AND OPERATIONS

[Signature]
G.H. JOHNSTON
Vice President, Land & Contracts

1501. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: 12/16/83

Pauline Hestates
WITNESS

Marvin D. Allison

AFFIDAVIT OF EXECUTION

CANAD)
INCE OF)
To Wit:)

I, Pauline Hostetter
Lakewood in the ^{State} Province of Colorado,

oath and say:

1. THAT I was personally present and did see MARVIN D. ALLISON
named in the within instrument, who is (are)
personally known to me to be the person(s) named therein, duly sign, seal and execute
same for the purposes named therein.

2. THAT the same was executed at Lakewood in the
^{State} Province of Colorado, and that I am the subscribing witness
thereto.

3. THAT I know the said MARVIN D. ALLISON
he (or she) is (or they are each) in my belief of the full age of eighteen
years.

Subscribed before me at Lakewood, Colorado)
County Jefferson this)
the 16th day of December A.D. 1983)
Pauline Hostetter)
Commissioner for Oaths Pauline Hostetter the Province)

Appointment Expires ~~December 31st~~ 19 Aug 27, 1984

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date:

January 20, 1984

A. L. L.

WITNESS

1.03. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1.04. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: January 11/84.

[Signature]
WITNESS

Wilson D. Brasil
Minister of Energy and Mines

1133. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: Jan 3 / 84 K-tel Petroleum Ltd.

Ernie Stokomski Lawrence Van A
WITNESS Vice President - Operations

AFFIDAVIT OF EXECUTION

CANADA)
PROVINCE OF MANITOBA)
To Wit:)

I, James Holmberg
of Winnipeg in the Province of Manitoba
make oath and say:

1. THAT I was personally present and did see Laurence Vesch
named in the within instrument, who is (are)
personally known to me to be the person(s) named therein, duly sign, seal and execute
the same for the purposes named therein.

2. THAT the same was executed at Winnipeg in the
Province of Manitoba, and that I am the subscribing witness
thereto.

3. THAT I know the said Laurence Vesch
and he (or she) is (or they are each) in my belief of the full age of eighteen
years.

SWORN before me at Winnipeg)
In the Province of MANITOBA this)
7th day of JAN. A.D. 1934)

A Commissioner for Patents Manitoba the Province)
of MANITOBA

My Appointment Expires December 31st, 19

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: FEB 16 1984

OMEGA HYDROCARBONS LTD.

WITNESS

[Signature]
PRESIDENT

[Signature]
SECRETARY

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date:

January 2nd 1964

Edward W. Hainsworth

WITNESS

John W. Hainsworth

AFFIDAVIT OF EXCULSION

C DA)
PROVINCE OF)
To Wit:)

I, John J. [illegible]
of the County of [illegible] State of [illegible] in the Province of [illegible],
do hereby make oath and say:

1. THAT I was personally present and did see Tommy D. Reed
Heinrich named in the within instrument, who is (are)
personally known to me to be the person(s) named therein, duly sign, seal and execute
the same for the purposes named therein.

2. THAT the same was executed at Manila in the Province of Manila, and that I am the subscribing witness thereto.

3. THAT I know the said Paul Michael Vincent
and he (~~or she~~) is (~~or they are each~~) in my belief of the full age of eighteen
years.

SWORN before me at LAUREL
in the Province of INDIANA this
2nd day of February A.D. 1904
John H. [Signature]
A Commissioner for Oaths the Province

17. 10/12/2012

~~My Appointment Expires December 31st, 19~~

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date:

January 3, 1954
Barbara H. Hainsworth

WITNESS

John W. Hainsworth

AFFIDAVIT OF EXECUTION

CANADA)
PROVINCE OF)
To Wit:)

I, James Thompson
of the said Province of Ontario in the Province of Ontario,
make oath and say:

1. THAT I was personally present and did see James Thompson
James Thompson named in the within instrument, who is (are)
personally known to me to be the person(s) named therein, duly sign, seal and execute
the same for the purposes named therein.

2. THAT the same was executed at London in the
Province of Ontario, and that I am the subscribing witness
thereto.

3. THAT I know the said James Thompson
and he (~~or she~~) is (~~or they are each~~) in my belief of the full age of eighteen
years.

SWORN before me at London)
In the Province of Ontario this)
2nd day of January A.D. 1901)
A Commissioner for Oaths James Thompson)
of Ontario)

My Appointment Expires December 31st, 1901

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: March 25, 1984

WASKADA OIL GROUP #2:
The Canada Trust Company

Per: *R. L. L. L.*

Per: *[Signature]*

WITNESS

Trustee *ADMINISTRATOR*

AFFIDAVIT OF EXECUTION

CANADA)
PROVINCE OF)
To Wit:)

I, KIMBERLY ROBERT IRVING, Trust Trainee
of The Canada Trust Company in the Province of Manitoba,
make oath and say:

1. THAT I was personally present and did see Fred Burgess/Jean Fikkert ^{AP 17}
Fikkert ^{17/11} named in the within instrument, who is (are)
personally known to me to be the person(s) named therein, duly sign, seal and execute
the same for the purposes named therein.

2. THAT the same was executed at Winnipeg in the
Province of Manitoba, and that I am the subscribing witness
thereto.

3. THAT I know the said Fred Burgess/Jean Fikkert ^{17/11}
and he (or she) is (or they are each) in my belief of the full age of eighteen
years.

SWORN before me at Winnipeg)
In the Province of Manitoba this)
21 day of March A.D. 1955)
[Signature])
A Commissioner for Oaths W. ANDERSON the Province)
of Manitoba

Commission
My Appointment Expires April 30 1955
December 31st, 19

March 14, 1984

The Oil and Natural Gas
Conservation Board
309 Legislative Building
Winnipeg, Manitoba
R3C 0V8

Attention: Dr. Ian Haugh
Deputy Chairman


Dear Sir:

Re: Request for Unitization Order -
Waskada Unit No. 4

As mentioned in our March 13 letter, Petroventures' approval was imminent and in fact was received today. Attached is a copy of their counterpart.

Yours truly

OMEGA HYDROCARBONS LTD.



Ed Wyse
Petroleum Engineer

Encs.

c.c. D. Emerson
G. Patey
T.J. Hall

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of the agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement on the date shown below.

Date: March 13, 1984

REVENUE RESOURCES LTD

WITNESS

[Signature]



HYDROCARBONS Ltd.

TELEPHONE: (403) 261-0743

630 - 330 FIFTH AVENUE S.W., CALGARY, ALBERTA T2P 0L4

March 13, 1984

The Oil and Natural Gas
Conservation Board
309 Legislative Building
Winnipeg, Manitoba
R3C 0V8

Attention: Dr. Ian Haugh
Deputy Chairman

Dear Sir:

Re: Request for Unitization Order -
Waskada Unit No. 4

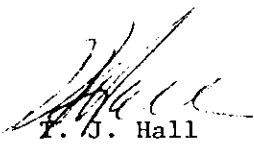
Further to our letter of February 17, this is to inform you that Omega has obtained sufficient approvals to meet the requirements of Section 76 of the Mines Act and that there are no impediments to Unitization Order.

Referring to the attached status report, Omega has received 100% Working Interest approval and 76.5% Royalty Interest approval. One overriding royalty interest approval is outstanding, however Petroventures has indicated to us that receipt is imminent. Attached are copies of the execution pages from the counterparts signed by Andex, the McGregors, Spellisey, Reston and Shell. These counterparts have been received since our February 17 correspondence.

Please keep us advised as to the date of the hearing.

Yours truly

OMEGA HYDROCARBONS LTD.


F. J. Hall
President

c.c. D. Emerson
G. Patey
E. Wyse

/s

Waskada Unit No. 4
Party Approval Status
as of March, 1984

Working Interest

Approved:	Omega	95.5827%
	Andex	4.1866
	K-Tel	0.2307
		<u>100.0000%</u>

Royalty Interest

Approved:	Dept. of E & M	17.536300%	Not Approved:	Cda Perm	4.484075%
	MK & EM Hains	2.448400		Cda Trust	1.168900
	AI Hainsworth	12.435800		Kaiser	17.894400
	JW Hainsworth	13.875500			<u>23.547375%</u>
	GF McArthur	4.186575			
	EA & ME McGreg.	17.596900			
	J Spellisey	8.373150			
		<u>76.452625%</u>			

Overriding Royalties

Approved: M.D. Allison, Francana, Page, Camel (Gulch), Reston, Shell

Not Approved: Petroventures.

AFFIDAVIT OF EXECUTION

CANADA)
PROVINCE OF)
To Wit:)

I, James McInnes
of Regina in the Province of Saskatchewan
make oath and say:

1. THAT I was personally present and did see John Spallone
named in the within instrument, who is (are)
personally known to me to be the person(s) named therein, duly sign, seal and execute
the same for the purposes named therein.

2. THAT the same was executed at Regina in the
Province of Saskatchewan, and that I am the subscribing witness
thereof.

3. THAT I know the said John L. Spallone
and he (or she) is (or they are each) in my belief of the full age of eighteen
years.

SWORN before me at Regina)
in the Province of Saskatchewan this 11th day of June A.D. 1920)
of Regina)
A Commissioner for Oaths 11 the Province)
of Saskatchewan)

My Appointment Expires December 31st, 1921

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each ,
on the date shown below.

Date: March 10, 1984

John Miller

WITNESS

John D. Miller

Spillway

1503.

SALVAGING EQUIPMENT AFTER Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504.

Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: February 17, 1984

Deborah A. Hansen

E. A. M. Gray

WITNESS

E. A. M. Gray

AFFIDAVIT OF EXECUTION

CANADA _____)
PROVINCE OF _____)
To Wit: _____)

I, DEBORAH ANN SHANNON,
of the Postal District of Pierson,
Legal Secretary, in the Province of Manitoba,
make oath and say:

1. THAT I was personally present and did see EDMUND ALBERT MCGREGOR
_____ named in the within instrument, who is ~~(are)~~
personally known to me to be the person~~(s)~~ named therein, duly sign, seal and execute
the same for the purposes named therein.

2. THAT the same was executed at Melita, in the
Province of Manitoba, and that I am the subscribing witness
hereto.

3. THAT I know the said EDMUND ALBERT MCGREGOR
and he ~~(or she)~~ is ~~(or they are each)~~ in my belief of the full age of eighteen
years.

WORN before me at the Town of Melita,
in the Province of Manitoba this
17th day of February A.D. 1984
[Signature]
Commissioner for Oaths _____ the Province _____)

DEBORAH ANN SHANNON
NOTARY PUBLIC
IN AND FOR THE PROVINCE OF MANITOBA

NOTARY PUBLIC

IN AND FOR THE PROVINCE OF MANITOBA

Appointment Expires December 31st, 1984

AFFIDAVIT OF EXECUTION

CANADA)
PROVINCE OF)
To Wit:)

I. DEBORAH ANN SHANNON,

of the Postal District of Pierson, _____ in the Province of Manitoba,
~~Legal Secretary,~~
 make oath and say:

1. THAT I was personally present and did see MARY ELIZABETH McGREGOR

_____ named in the within instrument, who is (are)
personally known to me to be the person(s) named therein, duly sign, seal and execute
the same for the purposes named therein.

2. THAT the same was executed at the Town of Melita, in the
Province of Manitoba, and that I am the subscribing witness
thereto.

3. THAT I know the said MARY ELIZABETH McGREGOR

and ~~he (or she)~~ is ~~(or they are each)~~ in my belief of the full age of eighteen years.

SWORN before me at Melita,
in the Province of Manitoba this
17th day of February A.D. 1984

A Commissioner for Oaths _____ the Province
 of _____
 IN AND FOR THE PROVINCE OF MANITOBA

My Appointment Expires December 31st, 19

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: February 17, 1984

Dale A. Shannon

WITNESS

Mary E. McGregor

Mary E. McGregor

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working-Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: FEBRUARY 27 1986

SHELL CANADA RESOURCES LIMITED

WITNESS

SECRETARY

Shell

1503. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1504. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement each on the date shown below.

Date: February 1, 1961

WITNESS

RLES LTD.

Reston

AFFIDAVIT OF EXECUTION

CANADA)
PROVINCE OF)
To Wit:)

I, Donna Annette Fournier
of Calgary in the Province of Alberta,
make oath and say:

1. THAT I was personally present and did see A. B. Macdonald
named in the within instrument, who is (are)
personally known to me to be the person(s) named therein, duly sign, seal and execute
the same for the purposes named therein.

2. THAT the same was executed at Calgary in the
Province of Alberta, and that I am the subscribing witness
thereto.

3. THAT I know the said A.B. Macdonald
and he (or she) is (or they are each) in my belief of the full age of eighteen
years.

SWORN before me at Calgary)
in the Province of Alberta this)
23 day of February A.D. 1984)
Barbara Adeline Burgoyne)
A Commissioner for Oaths the Province)
of Alberta)

Donna A Fournier

BARBARA ADELINE BURGOYNE

Commissioner for Oaths in and
for the Province of Alberta

My Commission Expires December 31st, 1985

1.03. Salvaging Equipment Upon Termination

The Royalty Owners grant the Working Interest Owners the right for a period of 6 months after termination of this agreement to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with unit operations.

1.04. Notice to Royalty Owners

The Working Interest Owners shall give notice in accordance with their Leases to their respective Royalty Owners of the termination of this agreement within 30 days thereafter.

IN WITNESS WHEREOF the Parties have executed this agreement as on the date shown below.

Date: FEB 23 1984

ANDEX OIL CO. LTD.

DAE
WITNESS

B. M. M. M.
PRESIDENT

Andex

Omega

① June 4th date for Gas Plant opening is suitable for Minister & Deputy Minister.

② Unit 4

- what was settled with IH regarding hearing?
- is it Omega's intention to proceed with Unit 4 of entire orig area, including E 1/2 - Sec 13
- consents for Unit Agreement still not received from:

K Tel 0.2307 %
Omega ?

supposedly
acquired
but not
submitted

MK & EM Harris	2.448400	} 32.99%
AI Hainsworth	12.435800	
SW "	13.875500	
GF McArthur	4.186575	

not ?
acquired

Canada Trust (14-12) 1.168900 %

Canada ~~Perm~~ ^{Permont} (E 1/2 - 13) 4.484075 %

1/2 of it in all
12-13

Kaiser Oil (E 1/2 - 13) 17.894400 %

Omega

- ① Has a date for ~~the~~ gas plant going been confirmed ~~Apr~~ (June 2nd?)
-

② Hearing for Unit 4

- is Omega still wishing to proceed with ^{orig} (full) Unit area
- have 75% of WIO's consented?
RIO's " ?
- what date for hearing has be discussed?
-

Bob Clare

Waskoda Unit No 4

Does Kaiser have interest
in E $\frac{1}{2}$ -13-1-26 only
or does it apply to all of
Sec. 13?

Sorry - All of Section 13

50% interest.

PROPOSED
WASKADA UNIT NO 4.
CONSENTS RECEIVED

WORKING INTERESTS

INDEX

4.1866

→ 4 1866

Royalty

Dept of Energy & Mines 17 536300

Mary E McGregor } 17 546900
E H McGregor }

E H McGregor S
J Spellman B 373150

→ 43.506350

Omega also claim to have received consents from:

Working Interest Owners

Omaya - 95 5827

K Tel - 2307

95-8134

TOTAL

100 0000

and

Royalty Owners

MK + EM Hairs 2.448400

AI Hainsworth 12 435800

JW Hainsworth 13 8753'00

G F McArthur 4 186575 → 32.940275

TOTAL

76. 4526250

These consents have not yet been submitted

Consents not received yet are

Canada Permanent Trust
311- 6th Ave SW.
Calgary, Alberta
T2P 0K6

~~44~~ 4 464075

(E 1/2 -13-1-26)

Canada Trust Company
230 Portage Ave.
Box 881
Winnipeg, Man
R3C 2S6

1168900

(14-12-1-26)

Kaiser Oil Ltd
P.O. Box 6800
Station D
800 6th Ave SW
Calgary, Alberta
T2P 0N1

12 894400

(E 1/2 13-1-26)

All overriding royalty interests have executed the
unit agreement. We have only three consents. No consents
have been submitted for

MD Allison

Francina

Page

Camel (Galch)

-136-

February 28, 1984

Omega Hydrocarbons Ltd.
630, 130 - 5th Avenue S.W.
Calgary, Alberta
T2P 0L4

Attention: Mr. T. J. Hall

Dear Sirs:

Re: Proposed Waskada Unit No. 4

Your letter of February 17, 1984 requesting that the Board "proceed with steps to affect a Unitization Order, under Section 76 of The Mines Act, for the proposed Waskada Unit No. 4" is acknowledged.

It is noted that Section 76 of The Mines Act requires the Board to hold a hearing prior to issuing a Unitization Order. In this regard, the Board is preparing a notice of hearing and you will be informed in the near future of the date, time and place of the hearing.

The Board requests that Omega provide six (6) copies of the proposed Unitization Agreement which will be made available for inspection by parties affected by the proposed agreement.

Yours sincerely,

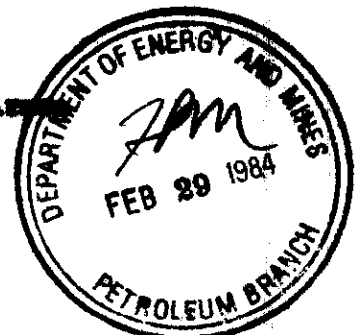
THE OIL AND NATURAL GAS
CONSERVATION BOARD

ORIGINAL SIGNED BY
IAN HAUGH

Ian Haugh
Deputy Chairman

LKD/lk

b.e. Petroleum Branch ✓



February 17, 1984

The Oil and Natural Gas
Conservation Board
309 Legislative Building
Winnipeg, Manitoba
R3C 0V8

Attention: Dr. Ian Haugh
Deputy Chairman



Dear Sir:

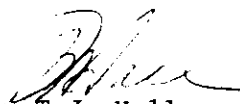
Re: Request for Unitization Order -
Waskada Unit No. 4

Omega Hydrocarbons Ltd. formerly requests that the Oil and Natural Gas Conservation Board proceed with steps to affect a Unitization Order, under Section 76 of the Mines Act, for the proposed Waskada Unit No. 4. The Board has already been supplied with our gas flood application as it pertains to this Unit and Omega will supply copies of the counterparts to the Unit Agreement as soon as we have 75% of the Royalty Interest owners signed. The McGregor's apparently will have there documents in the mail to us tomorrow therefore we are very close to that goal.

Attached is a status report on the approval of Parties to the Unit Agreement. Please advise us as to any additional information that may be required and also to the possible need for a hearing.

Yours truly,

OMEGA HYDROCARBONS LTD.


T.J. Hall
President

c.c. D. Emerson
G. Patey
E. Wyse

Enclo:

p.c. - H. Clare Moster
Feb. 21/84 - IH/ra

TJH/tt

WASKADA UNIT NO. 4
PARTY APPROVAL STATUS
as of February 16, 1984

Working Interest

Approved: Omega	95.5827%	Not Approved: Andex	4.1866%
K-Tel	<u>0.2307%</u>		<u> </u>
	95.8134%		4.1866%

Royalty Interest

Approved: Dept of E & M	17.5363%	Not Approved: Cdn Permanent	4.4841%
MK & EM Hains	2.4484%	Cdn Trust	1.1689%
A.I. Hains	12.4358%	Kaiser Oil	17.8944%
J.W. Hains	13.7755%	E.A. & M.E.	17.5969%
G.F. McArthur	4.1866%	McGregor	
	<u> </u>	John Spellisey	<u>8.3732%</u>
	<u>50.4826%</u>		<u>49.5175%</u>

Overriding Royalties

Approved: M.D. Allison	Not Approved: Petroventures
Francana	Reston
Page	Shell
Camel (Gulch)	

January 17, 1984

Omega Hydrocarbons Ltd.
630 - 330 - 5th Avenue S.W.
Calgary, Alberta
T2P 0L4

Attention: Mr. G. E. Patey,
Vice President, Production

Dear George:

Re: Waskada Unit No. 4 - Unit Agreement

Enclosed is a copy of the Waskada Unit No. 4 Unit Agreement which has been executed by the Minister on behalf of the Crown as a royalty owner.

Yours sincerely,

Original Signed By
L. R. DUBREUIL

L. R. Dubreuil
Chief Petroleum Engineer

LRD/lk

b.c. Dr. I. Haugh



MANITOBA

ON MATTERS OF STATE

Order in Council

No. 45

To The Honourable the Lieutenant Governor in Council

The undersigned, the Minister of.....Energy and Mines
submits for approval of Council a report setting forth that:

WHEREAS section 75 of "The Mines Act", being Chapter M160 of the Revised Statutes of Manitoba, provides as follows:

"75(1) Where the Crown is a working interest owner or royalty owner of a tract of land, the Lieutenant Governor in Council may authorize the minister, on behalf of the Crown, to enter into a unitization agreement for the unit operation of the pool or field, or part thereof, within which the tract is situated.

75(2) Notwithstanding any other provision of this Act or of an agreement or other disposition made under this Act, the Lieutenant Governor in Council may authorize the minister, on behalf of the Crown, to enter into an agreement for the calculation of the royalty payable to the Crown on the oil and gas produced from a unit area that includes a tract that is subject to the payment of a royalty to the Crown."

AND WHEREAS Omega Hydrocarbons Ltd. is the holder of Crown Oil and Natural Gas Lease No. 801-087 covering the South East quarter of Section 24, in Township 1, Range 26 WPM;

AND WHEREAS Omega Hydrocarbons Ltd. has an interest in Crown Oil and Natural Gas Lease No. 791-023 covering all of Section 11, in Township 1, Range 26 WPM;

AND WHEREAS Omega Hydrocarbons Ltd. is proposing to unitize its operations in part of the Waskada Lower Amaranth A Pool as Waskada Unit No. 4, which unit includes the tracts described as Legal Subdivisions 1, 2, 7 and 8 of Section 24 and Legal Subdivision 16 of Section 11, both in Township 1, Range 26 WPM;

AND WHEREAS Omega Hydrocarbons Ltd. has requested agreement for the proposed unitization from the Crown as the royalty owner of the subject tracts;

AND WHEREAS in order to accomplish the more efficient and economical development and production of the oil and gas resources of the Waskada Lower Amaranth A Pool, it is deemed advisable for the Crown to enter into the said unitization agreement;

THEREFORE, he, the Minister, recommends:

THAT the Minister of Energy and Mines be authorized to enter into the Unit Agreement for Waskada Unit No. 4 in the form hereto annexed and marked as Schedule "A", or any form to the like effect.

Initiating Department/Agency	
Department/Agency	Authorized Officer
	<i>me</i>
Approved By	
C S C	Finance
Approved as to form by:	
Name	<i>CS</i>
Initials	
<i>CS</i>	
Civil Litigation Branch or Legislative Counsel	

p.c. H. Clare Moster
file Waskada Unit No. 4
x-file no. 25.84
January 13/84 - ra

Signature

Wilson P. Parasci

IN THE EXECUTIVE COUNCIL CHAMBER, WINNIPEG

Upon consideration of the foregoing report and recommendation Council advises that it be done as recommended.

11 January 1984
Date

David S. Smith
President or Presiding Member

AT GOVERNMENT HOUSE IN THE CITY OF WINNIPEG

Approved and Ordered this 11th day of January A.D. 1984

Gene M. Cymak
Lieutenant Governor

UNIT AGREEMENT

WASKADA UNIT NO. 4

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September 9, 1983

Manitoba Department of Energy and Mines
Petroleum Branch
975 Century Street
Winnipeg, Manitoba
R3H 0W4

Attention: Mr. Bob Dubreuil

Dear Bob:

RE: Waskada Field - Lower Amaranth Pool
Proposed Waskada Unit No.'s 2, 3 and 4



As discussed in our September 8 telephone conversation enclosed is a map showing the proposed unit outlines and the details of the proposed Tract Participation Factor calculations.

The following brief explanation is to help explain the calculation method. The procedure was somewhat complicated and therefore this explanation may not adequately explain the procedure or the reasons for doing it this way. Please do not hesitate to call me with any questions or comments.

Calculation Method

- 1) An unadjusted tract factor was calculated for each tract using the same formula used for Waskada Lower Amaranth Unit No. 1. It is based on Remaining Recoverable Oil in Place assuming consistent water saturation of 45% and recovery factor of 25%. In three tracts; 16-22-1-26, 16-11-1-26 and 14-12-1-26 the area was reduced to account for the wells' very poor performance and to accommodate the opinion that there is not a full spacing to be drained from these wells.
- 2) It was decided that a portion of the tract factor should be productivity based and that both oil rate and water cut should be considered. For the sake of a consistent comparison between tracts of the same unit the first four production months were chosen:

- a) An average oil rate was calculated for each tract and for the total unit. Each tract's oil rate was then compared to the average for the total unit by dividing the average into it. An oil rate factor is thus generated that is unity for an average well. Any well that has not yet established a production history is assigned an oil rate factor of unity.
 - b) Similarly a percent oil factor is calculated by calculating the individual tracts oil cut to the average of the unit's.
 - c) A remaining recoverable oil in place factor is calculated by dividing the Unadjusted Tract Factor by an average for the unit.
- 3) To arrive at an adjusted tract factor it was decided to base 2/3 on the basis of the remaining oil in place and 1/3 on the basis of production. Of the 1/3 that is production based; 2/3 would be based on oil cut and 1/3 would be based on oil rate. It was felt that oil cut needed to be weighted more heavily than oil rate because we were not able to consistently generate acceptable values for S_w for use in the calculation of remaining recoverable oil in place. The resulting weighting then was 2/3 on oil in place, 2/9 on oil cut and 1/9 on oil rate.

This calculation method has been discussed with the other working interest owners involved (Unit 4 only has other working interest owners) and while we are still awaiting their feed back the initial reaction was favourable. We feel this method while more complicated, more equitably allocates unit shares and tends to reduce the effects of anomalous values for oil in place.

Yours truly,

OMEGA HYDROCARBONS LTD.



Ed Wyse
Petroleum Engineer

EW/sp

cc: George Patey
Jack Hall

TRACT FACTOR CALCULATIONS FOR WASKADA LOWER AMARANTH UNIT NUMER 4

TRACT	TRACT LOCN	POR-M	CUMOIL	AREA	REM	REC	OQIP	UNADJUSTED TRACT FACTOR
1	1412001261	.72	195.9	8		7273		.010398
2	1611001261	1.07	233.8	8		10866		.015535
3	0413001261	.64	488.1	16		12790		.018286
4	0313001261	.52	813.5	16		9975		.014261
5	0213001261	1.01	1123.5	16		19831		.028352
6	0113001261	1.16	3401.6	16		20665		.029544
7	0813001261	.42	680.0	16		8034		.011486
8	0713001261	1.19	1161.9	16		23527		.033636
9	0613001261	.91	557.9	16		18322		.026195
10	0513001261	.65	498.5	16		12987		.018568
11	0814001261	.80	1562.7	16		15035		.021495
12	1014001261	1.39	323.9	16		28514		.040767
13	0914001261	.94	1323.6	16		18178		.025990
14	1213001261	.55	833.1	16		10578		.015123
15	1113001261	.88	709.6	16		17547		.025088
16	1013001261	1.05	1213.3	16		20571		.029410
17	1513001261	1.08	3264.5	16		19142		.027368
18	1413001261	1.06	1762.7	16		20229		.028921
19	1313001261	1.06	1600.0	16		20391		.029154
20	1614001261	1.02	2800.0	16		18362		.026252
21	1514001261	1.06	259.9	16		21732		.031070
22	0223001261	1.18	482.7	16		23998		.034311
23	0123001261	1.51	2858.1	16		28469		.040703
24	0424001261	2.13	163.8	16		44027		.062946
25	0324001261	1.40	216.2	16		28829		.041218
26	0224001261	1.65	1468.2	16		32764		.046843
27	0124001261	1.08	680.3	16		21726		.031062
28	0824001261	1.19	.0	16		24689		.035298
29	0724001261	1.64	2541.5	16		31483		.045012
30	0624001261	1.26	199.9	16		25941		.037088
31	0524001261	1.52	178.4	16		31357		.044831
32	0823001261	1.58	670.1	16		32110		.045908
33	0723001261	.94	.0	16		19502		.027882

P-000000

100
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Inter-Departmental Memo

Date December 20, 1983

To The Oil and Natural Gas
Conservation Board:
Marc Eliesen, Chairman
Ian Haugh, Deputy Chairman
J. F. Redgwell, Member

From L. R. Dubreuil
Chief Petroleum Engineer

Telephone

Subject CROWN CONSENT TO WASKADA UNIT NO. 4

Omega Hydrocarbons Ltd. is proposing to separately unitize certain parts of its operations in the Waskada Lower Amaranth A Pool. The proposed Unit Agreement for Waskada Unit No. 4 includes five tracts (Lsd.'s) for which the Crown is the royalty interest owner (i.e. mineral rights owner). Section 74 of The Mines Act states that before a Unitization Agreement may be put into effect, it must be approved by The Oil and Natural Gas Conservation Board. It further states that the Board shall not approve an Agreement unless the royalty owners have agreed to the unit operation. Therefore, Omega has submitted two copies of the proposed Unit Agreement for the Waskada Unit No. 4 for approval (execution) by the Minister as an affected royalty owner.

Section 75 of The Mines Act states that the Minister, with the authorization of the Lieutenant Governor in Council, may enter such agreements on behalf of the Crown as a royalty owner.

Recommendation:

That a recommendation be made to the Minister that he:

1. Request authorization from Cabinet to permit him to enter into the Waskada Unit No. 4 unitization agreement on behalf of the Crown (draft OIC attached) with respect to Lsd. 16 of Section 11-1-26 (WPM) and the South East quarter of Section 24-1-26 (WPM).
2. Execute the attached two copies of the Unit Agreement for Waskada Unit No. 4 as a royalty owner.

Discussion:

Tracts containing Crown owned mineral rights in the proposed Waskada Unit No. 4 are as follows:

- 1) Lsd 16 of Section 11-1-26 WPM. This tract is held under Crown Oil and Natural Gas Lease No. 791-023 covering all of Section 11 by Francana Oil and Gas and Page Petroleums. The Lease area was subsequently farmed out to Omega and one well was drilled on Lsd 16 in July 1982. The well was completed in the Lower Amaranth Formation and is currently a sub-marginal oil well

with a last reported production rate of 0.13 m³/day of oil and a water-oil ratio (WOR) of 148.2 m³/m³ (July 1983 figures). Due to its location in the Pool, the well should make a useful contribution to a pressure maintenance scheme in the Unit Area as a possible future gas injection well, as proposed by Omega.

- 2) The South East quarter of Section 24-1-26 WPM. The four tracts comprising the quarter section are held under Crown Oil and Natural Gas Lease No. 801-087, covering the quarter section, by Omega Hydrocarbons Ltd. A total of six wells (four are completed in the Lower Amaranth) have been drilled on this lease during the period from January 1981 to August 1983. The four wells completed in the Lower Amaranth are all good oil producers and form an integral part of the proposed pressure maintenance scheme. One well, Omega Waskada Prov. 7-24-1-26 WPM has been proposed by Omega for conversion to gas injection, while the remaining three Lower Amaranth wells, Omega Waskada Prov. 1-24LAm-1-26 WPM, Omega Waskada Prov. 2-24-1-26 WPM and Omega Waskada Prov. 8-24LAm-1-26 WPM are to be retained as producers. The remaining two wells, Omega Waskada Prov. 1-24-1-26 WPM and Omega Waskada Prov. 8-24-1-26 WPM are completed in the Mission Canyon Formation and are not included in the Unit Agreement. The Unit Agreement does, however, provide for inclusion of such wells should it become apparent that the wells were being unduly affected (either positively or negatively) by pressure maintenance operations in the Lower Amaranth (refer Clause 902 - Page 12).

By inclusion of these Tracts in the Unit, the Crown will receive royalties based on allocated Unit production. The Branch has reviewed the Tract Participation Factors proposed for the tracts and feels they are reasonable.

The proposed Unit Agreement is of essentially the same format as the Unit Agreements for the Waskada Unit No. 2 and the Waskada Unit No. 3. The suggested changes noted in the original copies of these agreements that were submitted are all included in the proposed Unit Agreement for the Waskada Unit No. 4.

Clause 1301 of the proposed Unit Agreement specifically states that the execution of the agreement by the Minister is strictly as an owner of Royalty Interest (i.e. similar to any freehold mineral owner). Therefore, by such execution, the Minister is not approving the Unit Agreement. Such approval may only be done by the Board pursuant to Section 74 of The Mines Act.

L. R. Dubreuil



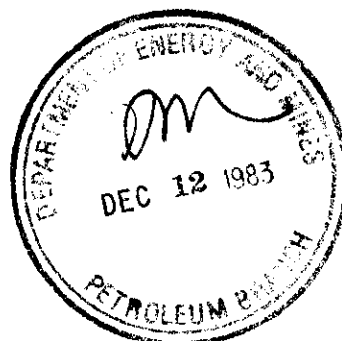
HYDROCARBONS Ltd.

TELEPHONE: (403) 261-0743

630-330 FIFTH AVENUE S.W., CALGARY, ALBERTA T2P 0L4

December 7, 1983

TO: All Royalty & Working
Interest Owners
Proposed Waskada Unit No. 4
(Addressee List Attached)



Dear Sir/Madam:

INTRODUCTION

Omega Hydrocarbons is presently in the final stages of constructing a gas plant at Waskada to remove propane, butane and condensate from the solution gas being produced along with the oil. The plant is expected to start up early in 1984.

In anticipation of this event, a reservoir engineering model study was done to determine the feasibility of re-injecting the lean gas effluent from the plant into the Lower Amaranth formation as a form of pressure maintenance. The model study results indicate that gas re-injection will have essentially the same effect on increasing ultimate oil recovery as waterflood with the obvious beneficial side effects of conserving this resource for possible future use and dramatically reducing the environmental impact of flaring this gas.

In June, 1983, Omega applied to the Manitoba Oil and Natural Gas Conservation Board for approval of the scheme and indications are that approval of the scheme is imminent. In addition to this Board approval, in order to implement this gas recycling plan, Omega needs to have all Working and Royalty Interest Owners approve by signing a Unit Agreement.

Through this letter, and further discussion, as required; we hope to convince you that this project is to our mutual advantage. You would then indicate your approval by signing and returning one copy of the enclosed document "Unit Agreement - Waskada Unit No. 4". In order to assist you in the proper execution of this document we have enclosed a sample guide.

BASIC PLAN

We estimate that without pressure maintenance we would produce only 12%

.../2

of the original oil in place before the wells become uneconomic to produce and that this recovery can be increased to over 25% by gas flood.

To gas flood this pool it is necessary to convert about every fourth producing oil well to a gas injection well. Obviously if oil recovery is to be improved for the overall good in this way, it is necessary to compensate those people that have a vested interest in those oil wells that will become gas injection wells which explains the need for the Unit Agreement. The Unit Agreement is the document by which all the people with interest in all the wells in the Unit agree to share production, regardless of whether they are producers or injectors, on the basis of what portion of the recoverable oil is determined to be in their individual Tract. The calculated Tract Participation Factors are determined from a combination of well log analysis, core studies and production histories and are shown in Exhibit "A" of the Unit Agreement.

Exhibit "B" shows a map of the proposed Waskada Unit No. 4 outline. There are 33 tracts in the Unit representing 33 wells completed in the Lower Amaranth Pool. To gas flood we will initially be converting 7 of these wells into gas injection; the wells located in Tracts No.'s 10, 19, 17, 29, 31 and 33. Although it is intended that gas will also be injected into wells on Tracts No. 2 and 8 as well, these wells will temporarily be continued as oil producers until a dispute with a neighbouring operator is settled. These conversions will be done as soon as possible after all approvals have been received.

You will notice that there is a regular pattern to the location of the proposed gas injection wells. This type of pattern is referred to in the oil industry as a nine-spot pattern (because most gas injection wells are surrounded by 8 producing wells, i.e. 9 wells to a pattern). The proposed Waskada Unit No. 4 is an extension of an already existing water flood pattern in The Waskada Lower Amaranth Unit No. 1 and as such the location of the injection wells has been already predetermined. Retaining the same pattern as Waskada Lower Amaranth Unit No. 1 should maximize the sweep efficiency of this gas flood.

It should be pointed out that although Omega intends to gas flood the whole Unit area it is anticipated that in the future it may be necessary to convert certain gas injectors to water injectors. These conversions, as a result of a lack of gas or for any other technical reason, will be at the discretion of the Unit's Operating Committee with the approval of the Manitoba Conservation Board.

SUMMARY

Omega Hydrocarbons expects to receive approval from the Conservation Board

All Royalty & Working Interest Owners
Page 3

for this project in the next few weeks. We also hope to receive your approval as soon as possible to allow us to implement this project and save the solution gas that would otherwise be flared and lost.

Please signify your approval by signing and returning one copy of the Unit Agreement. The second copy is for your records. Feel free to call us collect (403) 261-0743 if you have any questions. Either myself or Mr. Ed Wyse, our Petroleum Engineer, would be happy to try to answer them. The Chief Petroleum Engineer for The Manitoba Petroleum Branch in Winnipeg, Mr. Bob Dubreuil, may also be consulted (204) 944-6574.

Yours truly,

OMEGA HYDROCARBONS LTD.

A handwritten signature in dark ink, appearing to read 'R.F. Emerson', is written over the typed name.

R.F. Emerson
Land Manager

c.c. E. Wyse
J. Hall
Ian Haugh, Conservation Board

RFE/tt

Based on Branch's
revised ϕm estimates

<u>OWNER</u>	<u>TRACTS</u>	<u>LANDS</u>	<u>$\Sigma' TF_{OM}$</u>	<u>$\Sigma' TF_{BR}$</u>	<u>$TF_{OM} - TF_{BR}$</u>
CROWN	2, 26, 27, 28, 29	16-11 SE 24	.172803	.178880	(0.006077)
McArthur McGregor Spelliscy	24, 25 30, 31	SW-24	.183872	.215065	(0.031193)
J.W. HAINSWORTH	22, 23 32, 33	SE 23	.149378	.137167	0.012211
AI HAINSWORTH	12, 13 20, 21	NE 14	.125011	.104498	0.020513
MK-EM HAINSWORTH	11	B-14	.020866	.023015	(0.002149)
Canada Trust Co	1	14-12	.010706	.008592	0.002114
Kaiser Oil EA+ME McGregor	3, 4, 9, 10 14, 15 18, 19	W $\frac{1}{2}$ 13	.176550	.189457	(0.012907)
Kaiser McGregor Can Perm Tr.	5, 6, 7, 8 16, 17	SE 13 LSD 10 & 15	.160478	.143436	0.017042

<u>TRACT</u>	<u>ϕ-m</u> ⁺⁺	<u>CumP</u>	<u>Perm Res</u>	<u>TFom</u>	<u>TFar</u>	<u>TFom - TFar</u>
14-12	0.50	218	4968	.010706	.008592	.002114
16-11	0.62	234	6198	.015974	.010719	.005255
4-13	0.49	577	9589	.018475	.016583	.001892
3-13	0.70	930	13593	.014339	.023507	(.009168)
2-13	1.30	1331	25640	.028543	.044341	(.015798)
1-13	0.60	4113	8335	.029023	.014414	.014609
8-13	0.60	829	11619	.011469	.020094	(.008625)
7-13	0.70	1284	13238	.034044	.022894	.011150
6-13	0.75	732	14828	.026396	.025643	.000753
5-13	1.00	613	20133	.018723	.034818	(.016095)
8-14	0.75	2252	13308	.020866	.023015	(.002149)
10-14	1.01	372	20582	.041406	.035594	.005812
9-14	0.70	1685	12838	.025916	.022202	.003714
12-13	0.72	1022	13916	.015112	.024066	(.008954)
11-13	0.62	806	12057	.025384	.020851	.004533
10-13	0.58	1299	10734	.029797	.018563	.011234
15-13	0.81	3430	13375	.027602	.023130	.004472
14-13	0.67	1956	11944	.02942	.020656	.008486
13-13	0.75	2068	13492	.028979	.023333	.005646
16-14	0.77	3185	12790	.026149	.022119	.004030
15-14	0.70	308	14215	.031540	.024583	.006957
2-23	0.80	497	16100	.034887	.027843	.007044
1-23	1.45	3483	26600	.040501	.046002	(.005501)
4-24	1.75	848	35459	.063044	.061322	.001722
3-24	1.50	1040	30080	.040735	.052020	(.011285)
2-24	1.40	1993	27053	.046894	.046785	.000109
1-24	1.00	1890	18857	.029842	.032611	(.002769)
8-24	0.90	988	17684	.034475	.030582	.003893
7-24	1.75	2663	33644	.045618	.058183	(.012565)
6-24	1.35	1349	26659	.036062	.046104	(.010042)

5-24	1.60	1034	32161	.044366	.055619	(.011253)
8-23	1.09	1415	21199	.045623	.036661	.008962
7-23	0.74	0	15353	.028367	.026551	.001816

578241

<u>OWNER</u>	TRACTS	T.F _{on}	T.F _{oe}	T.F _o - T.F _a
CROWN	2, 26, 27, 28, 29	.172803	.198412	(.025609)
MA McArthur, McGregor Spelliscy	24, 25, 30, 31	.183872	.238120	(.054248)
J.W. Hainsworth	22, 23, 32, 33	.149378	.126158	.023220
AI Hainsworth	12, 13, 20, 21	.125011	.074275	.050736
MK + EM Hainsworth	11	.020866	.039117	(.018251)
Canada Trust Co.	1	.010706	.008960	.001746
Kaiser Oil EA & ME McGregor	3, 4, 9, 10 14, 15, 18, 19	.176550	.184589	(.008039)
Kaiser/McGregor Can. Perm Trust	5, 6, 7, 8 16, 17	.160478	.130375	.030103

TF₀ - TF₃

ΔTF

TRACT	φ-m	Cum P	Rem Res *	T. F. OMEGA	T. F. RE. *	
14-12	.50	218	5187	.010706	.008960	.001746
16-11	.50	234	5171	.015974	.008933	.007041
4-13	.49	577	9589	.018475	.016565	.001910
3-13	.99	930	19609	.014339	.033874	(.019535)
2-13	1.30	1331	25640	.028543	.044292	(.015749)
1-13	0.30	4113	2111	.029023	.003647	.025376
8-13	0.79	829	15561	.011469	.026881	(.015412)
7-13	0.57	1284	10541	.034044	.018209	.015835
6-13	0.75	732	14828	.026396	.025615	.000781
5-13	1.00	613	20134	.018723	.034781	(.016058)
8-14	1.20	2252	22644	.020866	.039117	(.018251)
10-14	0.74	372	14980	.041406	.025877	.015529
9-14	0.48	1685	8274	.025916	.014293	.011623
12-13	0.87	1022	17027	.015112	.029413	(.014301)
11-13	0.49	806	9360	.025384	.016169	.009215
10-13	0.58	1299	10734	.029797	.018543	.011254
15-13	0.69	3430	10885	.027602	.018803	.008799
14-13	0.52	1956	8832	.029142	.015257	.013885
13-13	0.46	2068	7476	.028979	.012915	.016064
16-14	0.77	3185	12790	.026149	.022094	.004055
15-14	0.35	308	6953	.031540	.012011	.019529
2-23	0.80	497	16100	.034887	.027818	.007075
1-23	1.45	3483	26600	.040501	.045950	(.005449)
4-24	1.75	848	35459	.063044	.061254	.001790
3-24	1.50	1040	30080	.040735	.051962	(.018227)
2-24	1.40	1993	27053	.046894	.046733	.000161
1-24	1.00	1890	18857	.029842	.032525	(.002733)

* BASED on Petroleum Branches Interpretation.

8-24	1.50	988	30132	.034475	.052052	(.017577)
7-24	1.75	2663	33644	.045618	.058119	(.012501)
6-24	2.00	1349	40144	.036062	.069347	(.033285)
5-24	1.60	1034	32161	.044366	.055557	(.011191)
8-23	1.09	1415	21199	.045623	.036620	.009003
7-23	0.44	0	9129	.028367	.015770	.012597

WASKADA UNIT NO. 4 - TRACT FACTOR CALCULATIONS

REMAINING RECOVERABLE OIL IN PLACE FACTOR

TRACT	LAND DESCRIPTION	Por-M	<i>MBR</i> Cum. Oil (m ³)	Area (hA)	REM. REC. OIP (m ³)	<i>Br Rem Rel. OIP</i>
1	14-12-1-26 WPM	0.72	.50 218	8	7360	2251 5187
2	16-11-1-26 WPM	1.07	.50 234	8	10982	5171
3	4-13-1-26 WPM	0.64	.49 577	16	12701	9589
4	3-13-1-26 WPM	0.52	.44 930	16	9858	19609
5	2-13-1-26 WPM	1.01	1.3 1331	16	19623	25640
6	1-13-1-26 WPM	1.16	.86 4113	16	19953	2111
7	8-13-1-26 WPM	0.42	.79 829	16	7885	15561
8	7-13-1-26 WPM	1.19	.57 1284	16	23405	10541
9	6-13-1-26 WPM	0.91	.75 732	16	18147	14828
10	5-13-1-26 WPM	0.65	1.0 613	16	12872	20134
11	8-14-1-26 WPM	0.80	1.2 2252	16	14345	22644
12	10-14-1-26 WPM	1.39	.74 372	16	28466	14980
13	9-14-1-26 WPM	0.94	.48 1685	16	17817	8274
14	12-13-1-26 WPM	0.55	.87 1022	16	10389	17027
15	11-13-1-26 WPM	0.88	.49 806	16	17451	9360
16	10-13-1-26 WPM	1.05	.51 1299	16	20485	10734
17	15-13-1-26 WPM	1.08	.61 3430	16	18976	10885
18	14-13-1-26 WPM	1.06	.52 1956	16	20035	8832
19	13-13-1-26 WPM	1.06	.46 2068	16	19923	7476
20	16-14-1-26 WPM	1.02	.77 3185	16	17977	12790
21	15-14-1-26 WPM	1.06	.35 308	16	21683	6953
22	2-23-1-26 WPM	1.18	.8 497	16	23984	16100
23	1-23-1-26 WPM	1.51	1.45 3483	16	27844	26600
24	4-24-1-26 WPM	2.13	1.75 848	16	43342	35459
25	3-24-1-26 WPM	1.40	1.5 1040	16	28005	30080
26	2-24-1-26 WPM	1.65	1.4 1993	16	32239	27053
27	1-24-1-26 WPM	1.08	1.0 1890	16	20516	18858
28	8-24-1-26 WPM	1.19	1.58 988	16	23701	30132
29	7-24-1-26 WPM	1.64	1.75 2663	16	31362	33644
30	6-24-1-26 WPM	1.26	2.0 1349	16	24792	40144
31	5-24-1-26 WPM	1.52	1.6 1034	16	30501	32161
32	8-23-1-26 WPM	1.58	1.09 1415	16	31365	21199
33	7-23-1-26 WPM	0.94	.44 0	16	19502	9129
TOTAL:					687486	578884

578241*
revised

NOTES: 1) Remaining Recoverable Oil in Place calculated by the equation

$$u = (0.25)(10114) * \text{Area} * (1-0.4)/1.17 * \text{POR} - \text{M.} - \text{Cum Oil}$$

Where - Recovery Factor is assumed = 0.25
 - Water Saturation is assumed = 0.40
 - Oil formation volume factor measured = 1.17

2) Cumulative oil as of October 31, 1983.

J. W. Hainsworth

Rox-y

 $\frac{1}{4} \omega$

M. K. Hainsworth

Omega

SE 1/4

N. A. Loyalties (1/4)
G. F. McArthur (1/2)
D. E. McGregors (1/4)

INDEX

3W/4 DM ECH

473

G. F. McArthur ($\frac{1}{2}$)
D. E. McGray ($\frac{1}{4}$)
Miss Linda ($\frac{1}{4}$)

OMEGA . 183872
BRANCH . 215065

OMEGA . 177805
BRANCH . 178880

(11-91457124)

J. Hainsworth ($\frac{1}{3}$)
R. Hainsworth ($\frac{1}{3}$)
H. Meggison ($\frac{1}{3}$)

VOYAGER

J. W. Hainsworth

NEW ORLEANS

OMEGA

W^{1/2} OMEGA

clean

C. F. McArthur (1/4)
E. A. McE. McE. (1/4)
John Spellissey (1/4)

2/3

Tundra/
Brosco

7/22/22

down

Stats

Sw 1/4 Omega

DATE: 020816
SE 1/4

BA: 023015

OMEGA: 116500
BRANCH: 189457

OMEGA : . 160418
BRAXH : . 143436

FIRST FARLAND INVESTMENTS
MK+ EM Hainworthb

OMEGA
KTCL

ALL

Omega

0M: .010702

New Scope

6/3N

Based on:
Revised dm
estimates by
Pet. Br.
Hernfield Enterprises
NW 1/4 Sec 00

North - NW 1/4 Chevron, NE 1/4

M. J. Lee
Chevron

 $SW^{1/4}$ 8
$$TF_0 - TF_{AR} \geq 0.02$$
$$T_{\text{Fea}} - T_{\text{Fe}} \leq -0.02$$

WASADA PLANS EXTENDED

1

Or

23



WASAGA PLAINS ENTERPRISES

On

C

J.S. Seddon (1/3)
R.D. Jack (1/6)
L.Z. Blunckett
Canada Permanent Trust

TUNDEA /
Beosco
NW 1/4

Note: Based
only on volumetric
portion of T.F.

M.J. Lee
Chevron
SW 1/4

TF₀ - TF₈ ≥ 0.02

TF₀ - TF₈ ≤ 0.02

Based on
initial

Hernfield Enterprises
NW 1/4 Cherropef. Br NE 1/4

ph
numbers

New Scope

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SE 1/4
SW 1/4
OMEGA
ANDEX

SE 1/4
OMEGA
BRANCH

SW 1/4
OMEGA
BRANCH

C.F. McArthur (1/4)
EA + ME McGregor (1/4)
Spelling (1/4)

CROWN

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SW 1/4
OMEGA
BRANCH

SE 1/4
SW 1/4
OMEGA
BRANCH

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OMEGA
BRANCH

J.W. Hainsworth
Roxxy
SW 1/4

J. Hainsworth (1/3)
R. Hainsworth (1/3)
H. Meggison (1/3)
VOYAGER

NE 1/4

NE 1/4

NE 1/4

NE 1/4

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NE 1/4

NE 1/4

FIRST FARLAND INVESTMENTS
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TRACT FACTOR CALCULATIONS FOR WASKADA LOWER AMARANTH UNIT NUMBER 4

TRACT	LOCATION	UNADJUSTED TRACT FACTOR	FIRST EQUIP. MONTHS MON HRS	OIL OIL	PRIN- WATER	REM REC FACTOR	OIL RATE FACTOR	% OIL FACTOR	ADJUSTED TRACT FACTOR
1	14120012	1.0398196	4	2832	116.0	203.6	.6932	.4019	1.1477
2	16110012	1.5534838	4	2062	168.6	673.8	1.0357	.2216	1.3622
3	04130012	1.8285759	4	1402	141.1	188.6	1.2191	.4739	1.8221
4	03130012	1.4261103	4	1094	164.3	261.1	.9507	.4276	1.5712
5	02130012	2.8352212	4	2082	480.8	121.5	1.8901	.8839	3.0705
6	01130012	2.9544454	4	888	351.5	13.4	1.9696	1.0666	3.5444
7	08130012	1.1485782	4	2642	373.0	118.6	.7657	.8401	1.7871
8	07130012	3.3636449	4	1232	283.8	155.8	2.2424	.7148	3.2530
9	06130012	2.6194672	4	1152	58.9	207.2	1.7463	.2451	2.0570
10	05130012	1.8567508	4	2297	341.6	282.2	1.2378	.6063	2.0351
11	08140012	2.1495285	4	1486	333.5	283.7	1.4330	.5983	2.3194
12	10140012	4.0766929	4	941	195.7	172.3	2.7178	.5888	3.5736
13	09140012	2.5989794	4	2472	647.1	497.8	1.7327	.6258	2.6945
14	12130012	1.5122937	4	1804	407.8	356.4	1.0082	.5909	1.8893
15	11130012	2.5087928	4	2515	588.7	346.0	1.6725	.6974	2.6704
16	10130012	2.9410299	4	2412	507.5	370.2	1.9607	.6402	2.8710
17	15130012	2.7367518	4	2256	1334.0	240.7	1.8245	.9380	3.5216
18	14130012	2.8921430	4	2760	522.3	299.3	1.9281	.7039	2.8749
19	13130012	2.9154045	4	840	133.8	248.6	1.9436	.3874	2.5355
20	16140012	2.6251909	4	2712	995.6	86.8	1.7501	1.0184	3.2399
21	15140012	3.1070010	4	576	211.1	132.9	2.0713	.6795	3.2213
22	02230012	3.4310895	4	1064	259.4	319.1	2.2874	.4965	3.0969
23	01230012	4.0703164	4	2019	669.9	449.3	2.7135	.6627	3.8023
24	04240012	6.2945619	1	396	163.8	84.3	4.1964	.6509	5.1984
25	03240012	4.1217529	1	408	216.2	54.8	2.7478	.7865	3.9842
26	02240012	4.6842992	4	2243	672.6	613.7	3.1229	.5790	4.0868
27	01240012	3.1062195	2	1071	680.3	57.3	2.0708	.9821	3.7112
28	08240012	3.5297639	0	0	.0	.0	2.3532	.7042	3.3890
29	07240012	4.5011857	4	1752	651.0	132.6	3.0008	.9199	4.3977
30	06240012	3.7088170	1	414	199.9	16.0	2.4725	.9128	3.7953
31	05240012	4.4830998	1	408	178.4	91.4	2.9887	.6519	4.0118
32	08230012	4.5907718	2	1009	670.1	199.1	3.0605	.8209	4.5697
33	07230012	2.7882168	0	0	.0	.0	1.8588	.7042	2.8947
TOTALS							66.6667	22.2222	100.0000

TRACT FACTOR CALCULATIONS FOR WASKADA LOWER AMARANTH UNIT NUMBER 4

TRCT	LOCATION	UNADJUSTED TRACT FACTOR	FIRST FOUR MONTHS MON HRS	OIL OIL	PRIN- WATER	REM REC FACTOR	OIL RATE FACTOR	% OIL FACTOR	ADJUSTED TRACT FACTOR
1	14120012	1.0398196	4 2832	116.0	203.6	.3431	.1586	.5707	
2	16110012	1.5534838	4 2062	168.6	673.6	.5126	.3166	.3147	
3	04130012	1.8285759	4 1402	141.1	188.6	.6034	.3897	.6729	
4	03130012	1.4261103	4 1094	164.3	261.1	.4706	.5815	.6072	
5	02130012	2.8352212	4 2082	480.8	121.5	.9356	.8941	1.2551	
6	01130012	2.9544454	4 888	351.5	13.4	.9750	1.5325	1.5145	
7	08130012	1.1485782	4 2642	373.0	118.6	.3790	.5466	1.1929	
8	07130012	3.3636449	4 1232	283.8	155.8	1.1100	.8919	1.0150	
9	06130012	2.6194672	4 1152	58.9	207.2	.8644	.1980	.3480	
10	05130012	1.8567508	4 2297	341.6	282.2	.6127	.5758	.8610	
11	08140012	2.1495285	4 1486	333.5	283.7	.7093	.8689	.8496	
12	10140012	4.0766929	4 941	195.7	172.3	1.3453	.8052	.8361	
13	09140012	2.5989794	4 2472	647.1	497.8	.8577	1.0135	.8886	
14	12130012	1.5122937	4 1804	407.8	356.4	.4991	.8752	.8390	
15	11130012	2.5087928	4 2515	588.7	346.0	.8279	.9063	.9902	
16	10130012	2.9410299	4 2412	507.5	370.2	.9705	.8146	.9091	
17	15130012	2.7367518	4 2256	1334.0	240.7	.9031	2.2894	1.3319	
18	14130012	2.8921430	4 2760	522.3	299.3	.9544	.7327	.9995	
19	13130012	2.9154045	4 840	133.8	248.6	.9621	.6167	.5501	
20	16140012	2.6251909	4 2712	995.6	86.8	.8663	1.4213	1.4462	
21	15140012	3.1070010	4 576	211.1	132.9	1.0253	1.4189	.9648	
22	02230012	3.4310895	4 1064	259.4	319.1	1.1323	.9439	.7050	
23	01230012	4.0703164	4 2019	669.9	449.3	1.3432	1.2846	.9411	
24	04240012	6.2945619	1 396	163.8	84.3	2.0772	1.0589	.9243	
25	03240012	4.1217529	1 408	216.2	54.8	1.3602	1.3566	1.1169	
26	02240012	4.6842992	4 2243	672.6	613.7	1.5458	1.1610	.8221	
27	01240012	3.1062195	2 1071	680.3	57.3	1.0251	1.9851	1.3946	
28	08240012	3.5297639	0 0	.0	.0	1.1648	1.0000	1.0000	
29	07240012	4.5011857	4 1752	651.0	132.6	1.4854	1.4386	1.3062	
30	06240012	3.7088170	1 414	199.9	16.0	1.2239	1.2361	1.2962	
31	05240012	4.4830998	1 408	178.4	91.4	1.4794	1.1194	.9257	
32	08230012	4.5907718	2 1009	670.1	199.1	1.5150	2.0755	1.1657	
33	07230012	2.7882168	0 0	.0	.0	.9201	1.0000	1.0000	
	TOTALS					33.0000	33.5075	31.5550	

TRACT FACTOR CALCULATIONS FOR WASKADA LOWER AMARANTH UNIT NUMER 4

TRACT	TRACT LOCN	POR-M	CUMOIL	AREA	REM REC OOIIP	UNADJUSTED TRACT FACTOR
1	1412001261	.72✓	195.9	8	7273	.010398
2	1611001261	1.07✓	233.8	8	10866	.015535
3	0413001261	.64✓	488.1	16	12790	.018286
4	0313001261	.52✓	813.5	16	9975	.014261
5	0213001261	1.01✓	1123.5	16	19831	.028352
6	0113001261	1.16✓	3401.6	16	20665	.029544
7	0813001261	.42✓	680.0	16	8034	.011486
8	0713001261	1.19✓	1161.9	16	23527	.033636
9	0613001261	.91✓	557.9	16	18322	.026195
10	0513001261	.65✓	498.5	16	12987	.018568
11	0814001261	.80✓	1562.7	16	15035	.021495
12	1014001261	1.39✓	323.9	16	28514	.040767
13	0914001261	.94✓	1323.6	16	18178	.025990
14	1213001261	.55✓	833.1	16	10578	.015123
15	1113001261	.88✓	709.6	16	17547	.025088
16	1013001261	1.05✓	1213.3	16	20571	.029410
17	1513001261	1.08✓	3264.5	16	19142	.027368
18	1413001261	1.06✓	1762.7	16	20229	.028921
19	1313001261	1.06✓	1600.0	16	20391	.029154
20	1614001261	1.02✓	2800.0	16	18362	.026252
21	1514001261	1.06✓	259.9	16	21732	.031070
22	0223001261	1.18✓	482.7	16	23998	.034311
23	0123001261	1.51✓	2858.1	16	28469	.040703
24	0424001261	2.13✓	163.8	16	44027	.062946
25	0324001261	1.40✓	216.2	16	28829	.041218
26	0224001261	1.65✓	1468.2	16	32764	.046843
27	0124001261	1.08✓	680.3	16	21726	.031062
28	0824001261	1.19✓	.0	16	24689	.035298
29	0724001261	1.64✓	2541.5	16	31483	.045012
30	0624001261	1.26✓	199.9	16	25941	.037088
31	0524001261	1.52✓	178.4	16	31357	.044831
32	0823001261	1.58✓	670.1	16	32110	.045908
33	0723001261	.94✓	.0	16	19502	.027882

TRACT FACTOR CALCULATIONS FOR WASKADA LOWER AMARANTH UNIT NUMBER 3

TRACT	LOCATION	UNADJUSTED TRACT FACTOR	FIRST FOUR MONTHS MON HRS OIL WATER PRIN-	REM REC FACTOR	OIL RATE FACTOR	% OIL FACTOR	ADJUSTED TRACT FACTOR
1	04300012	6.7007020	4 2191 914.5 559.8	4.4671	1.2476	1.4766	7.1913
2	05300012	6.8173390	4 2280 151.3 327.0	4.5449	.1984	.7530	5.4963
3	11300012	5.1854284	4 2904 72.8 51.4	3.4570	.0749	1.3953	4.9272
4	09300012	6.0448912	4 2568 281.1 156.2	4.0299	.3272	1.5302	5.8873
5	16300012	5.7644415	4 2000 420.5 435.4	3.8430	.6285	1.1695	5.6409
6	15300012	6.2096145	4 1629 383.0 188.8	4.1397	.7028	1.5945	6.4370
7	14300012	5.7002344	4 2152 527.3 435.9	3.8002	.7324	1.3032	5.8357
8	13300012	7.9859928	4 1914 158.4 617.8	5.3240	.2474	.4858	6.0572
9	04310012	6.5551296	4 2121 597.9 255.1	4.3701	.8426	1.6685	6.8813
10	03310012	6.3646727	4 2328 820.0 43.0	4.2431	1.0529	2.2618	7.5578
11	02310012	5.8046987	4 2534 868.6 644.7	3.8698	1.0246	1.3663	6.2607
12	01310012	4.8309797	1 676 207.5 93.2	3.2207	.7786	1.5321	5.5314
13	08310012	8.0230557	1 555 266.0 137.9	5.3487	1.2157	1.4622	8.0266
14	07310012	6.6884994	1 53 2.5 9.4	4.4590	.1196	.4664	5.0451
15	06310012	7.1549952	4 1917 810.2 169.6	4.7700	1.2633	1.9684	8.0017
16	05310012	4.1693252	2 1024 258.1 54.2	2.7796	.6545	1.7884	5.2225
	TOTALS			66.6667	11.1111	22.2222	100.0000

TRACT FACTOR CALCULATIONS FOR WASKADA LOWER AMARANTH UNIT NUMBER 3

TRACT	LOCATION	UNADJUSTED TRACT FACTOR	FIRST FOUR MONTHS MON HRS	OIL	PRDN WATER	REM REC FACTOR	OIL RATE FACTOR	% OIL FACTOR	ADJUSTED TRACT FACTOR
1	04300012	6.7007020	4	2191	914.5	559.8	1.7864	1.0049	
2	05300012	6.8173390	4	2280	151.3	327.0	.2840	.5125	
3	11300012	5.1854284	4	2904	72.8	51.4	.1073	.9496	
4	09300012	6.0448912	4	2568	281.1	156.2	.4685	1.0414	
5	16300012	5.7644415	4	2000	420.5	435.4	.8999	.7960	
6	15300012	6.2096145	4	1629	383.0	188.8	1.0063	1.0852	
7	14300012	5.7002344	4	2152	527.3	435.9	1.0487	.8869	
8	13300012	7.9859928	4	1914	158.4	617.8	.3542	.3306	
9	04310012	6.5551296	4	2121	597.9	255.1	1.2065	1.1356	
10	03310012	6.3646727	4	2328	820.0	43.0	1.5076	1.5394	
11	02310012	5.8046987	4	2534	868.6	644.7	1.4671	.9299	
12	01310012	4.8309797	1	676	207.5	93.2	1.1148	1.0427	
13	08310012	8.0230557	1	555	266.0	137.9	1.7407	.9952	
14	07310012	6.6884994	1	53	2.5	9.4	.1713	.3175	
15	06310012	7.1549952	4	1917	810.2	169.6	1.8089	1.3397	
16	05310012	4.1693252	2	1024	258.1	54.2	.9371	1.2172	
	TOTALS					16.0000	15.9094	15.1244	

TRACT FACTOR CALCULATIONS FOR WASKADA LOWER AMARANTH UNIT NUMER 3

TRACT	TRACT LOCN	POR-M	CUMOIL	AREA	REM	REC	OOIP	TRACT FACTOR	UNADJUSTED
1	0430001251	1.50	1192.8	16	29927			.067007	
2	0530001251	1.49	464.4	16	30448			.068173	
3	1130001251	1.18	1321.5	16	23160			.051854	
4	0930001251	1.33	594.9	16	26998			.060449	
5	1630001251	1.29	1017.6	16	25746			.057644	
6	1530001251	1.39	1104.0	16	27734			.062096	
7	1430001251	1.28	1096.9	16	25459			.057002	
8	1330001251	1.75	639.0	16	35668			.079860	
9	0431001251	1.46	1013.1	16	29277			.065551	
10	0331001251	1.44	1448.8	16	28426			.063647	
11	0231001251	1.32	1460.2	16	25925			.058047	
12	0131001251	1.05	207.5	16	21576			.048310	
13	0831001251	1.74	266.0	16	35833			.080231	
14	0731001251	1.44	2.5	16	29873			.066885	
15	0631001251	1.62	1653.4	16	31956			.071550	
16	0531001251	.91	258.1	16	18621			.041693	

TRACT FACTOR CALCULATIONS FOR WASKADA LOWER AMARANTH UNIT NUMBER 2

TRACT	LOCATION	UNADJUSTED TRACT FACTOR	FIRST EQUATION MONIHS MON HRS	OIL	WATER	REM REC FACTOR	OIL RATE FACTOR	% OIL FACTOR	ADJUSTED TRACT FACTOR
1	16220012	.8795239	0	.0	.0	.5863	.0000	.0000	.5863
2	13230012	2.2198907	2	777	211.4	1.4799	.4031	.7585	2.6415
3	14230012	3.5898403	4	2584	743.4	2.3932	.4704	.9476	3.8112
4	03260012	3.3283720	4	2324	677.7	2.2189	.4768	1.3695	4.0652
5	04260012	3.7786512	4	2445	727.9	2.5191	.4868	.9517	3.9576
6	01270012	2.7555361	4	2011	441.4	1.8370	.3589	.7055	2.9014
7	02270012	3.0688218	4	2446	565.4	2.0459	.3779	.9706	3.3944
8	03270012	4.8173477	4	2680	157.8	3.2116	.0963	.3625	3.6703
9	04270012	5.4952824	4	2184	559.0	3.6635	.4185	.8780	4.9600
10	05270012	3.6211466	4	2456	453.8	2.4141	.3021	.5364	3.2526
11	06270012	4.8908807	1	338	81.9	3.2606	.3056	.5732	4.1394
12	07270012	3.0124315	4	2437	897.7	2.0083	.6023	.7638	3.3744
13	08270012	3.3991715	4	1983	729.3	2.2661	.6013	1.1308	3.9983
14	05260012	2.5135179	4	2292	1208.1	1.6757	.8618	1.4007	3.9383
15	06260012	5.1114289	4	2376	834.3	3.4076	.5741	1.4620	5.4438
16	11260012	2.6388822	4	1996	540.7	1.7593	.4429	.8950	3.0971
17	12260012	3.2320298	2	554	190.9	2.1547	.5105	1.4384	4.1035
18	09270012	3.3110254	4	2272	405.1	2.2074	.2915	.5283	3.0272
19	10270012	4.9134952	4	2338	799.2	3.2757	.5589	.7166	4.5511
20	11270012	3.7487905	0	0	.0	2.4992	.4155	.8312	3.7458
21	12270012	2.7853413	4	2562	732.9	1.8569	.4677	.9559	3.2806
22	13270012	4.9095848	1	404	154.8	3.2731	.4832	.8166	4.5728
23	14270012	3.7199536	0	0	.0	2.4800	.4155	.8312	3.7266
24	15270012	4.1094318	2	886	309.9	2.7396	.5182	1.1990	4.4568
25	16270012	4.0755957	2	728	138.4	2.7171	.2816	.3750	3.3737
26	13260012	3.1324121	4	1758	212.8	2.0883	.1979	.3529	2.6391
27	14260012	2.9918648	4	2603	287.0	1.9946	.1803	.3331	2.5080
28	03340012	3.9497496	4	2088	14.6	2.6332	.0114	.1383	2.7829
	TOTALS					66.6667	11.1111	22.2222	100.0000

TRACT FACTOR CALCULATIONS FOR WASKADA LOWER AMARANTH UNIT NUMER 2

TRACT	TRACT LOCN	POR-M	CUMDIL	AREA	REM	REC	OOIP	UNADJUSTED TRACT FACTOR
1	1622001261	1.22	.0	4		6328		.008795
2	1323001261	.78	211.4	16		15971		.022199
3	1423001261	1.32	1558.5	16		25827		.035898
4	0326001261	1.24	1779.9	16		23946		.033284
5	0426001261	1.41	2067.3	16		27186		.037787
6	0127001261	.99	714.5	16		19825		.027555
7	0227001261	1.10	742.7	16		22079		.030688
8	0327001261	1.68	196.0	16		34658		.048173
9	0427001261	1.95	920.2	16		39536		.054953
10	0527001261	1.31	1125.8	16		26052		.036211
11	0627001261	1.70	81.9	16		35187		.048909
12	0727001261	1.13	1770.8	16		21673		.030124
13	0827001261	1.31	2722.8	16		24455		.033992
14	0526001261	1.05	3700.5	16		18083		.025135
15	0626001261	1.87	2022.1	16		36774		.051114
16	1126001261	1.01	1968.7	16		18985		.026389
17	1226001261	1.13	190.9	16		23253		.032320
18	0927001261	1.18	659.9	16		23821		.033110
19	1027001261	1.76	1164.0	16		35350		.049135
20	1127001261	1.30	.0	16		26971		.037488
21	1227001261	1.04	1537.4	16		20039		.027853
22	1327001261	1.71	154.8	16		35322		.049096
23	1427001261	1.29	.0	16		26763		.037200
24	1527001261	1.44	309.9	16		29565		.041094
25	1627001261	1.42	138.4	16		29322		.040756
26	1326001261	1.10	285.2	16		22536		.031324
27	1426001261	1.06	466.5	16		21525		.029919
28	0334001261	1.39	421.4	16		28416		.039497

TRACT FACTOR CALCULATIONS FOR WASKADA LOWER AMARANTH UNIT NUMBER 2

TRACT	LOCATION	UNADJUSTED TRACT FACTOR	FIRST EQUIP MONTHS MON HRS	OIL OIL	PROD WATER	REM REC FACTOR	OIL RATE FACTOR	% OIL FACTOR	ADJUSTED TRACT FACTOR
1	16220012	.8795239	0	.0	.0	.2463	.0000	.0000	
2	13230012	2.2198907	2	777	211.4	.6216	.9701	.9126	
3	14230012	3.5898403	4	2584	743.4	1.0052	1.1322	1.1400	
4	03260012	3.3283720	4	2324	677.7	.9319	1.1476	1.6477	
5	04260012	3.7786512	4	2445	727.9	1.0580	1.1716	1.1451	
6	01270012	2.7555361	4	2011	441.4	.7716	.8638	.8488	
7	02270012	3.0688218	4	2446	565.4	.8593	.9097	1.1677	
8	03270012	4.8173477	4	2680	157.8	1.3489	.2317	.4361	
9	04270012	5.4952824	4	2184	559.0	1.5387	1.0073	1.0563	
10	05270012	3.6211466	4	2456	453.8	1.0139	.7272	.6454	
11	06270012	4.8908807	1	338	81.9	1.3694	.7355	.6896	
12	07270012	3.0124315	4	2437	897.7	.8435	1.4497	.9190	
13	08270012	3.3991715	4	1983	729.3	.9518	1.4474	1.3605	
14	05260012	2.5135179	4	2292	1208.1	.7038	2.0743	1.6853	
15	06260012	5.1114289	4	2376	834.3	1.4312	1.3819	1.7590	
16	11260012	2.6388822	4	1996	540.7	.7389	1.0661	1.0768	
17	12260012	3.2320298	2	554	190.9	.9050	1.2287	1.7305	
18	09270012	3.3110254	4	2272	405.1	.9271	.7017	.6356	
19	10270012	4.9134952	4	2338	799.2	1.3758	1.3453	.8621	
20	11270012	3.7487905	0	0	.0	1.0497	1.0000	1.0000	
21	12270012	2.7853413	4	2562	732.9	.7799	1.1258	1.1501	
22	13270012	4.9095848	1	404	154.8	1.3747	1.1631	.9824	
23	14270012	3.7199536	0	0	.0	1.0416	1.0000	1.0000	
24	15270012	4.1094318	2	886	309.9	1.1506	1.2472	1.4426	
25	16270012	4.0755957	2	728	138.4	1.1412	.6779	.4511	
26	13260012	3.1324121	4	1758	212.8	.8771	.4764	.4245	
27	14260012	2.9918648	4	2603	287.0	.8377	.4339	.4008	
28	03340012	3.9497496	4	2088	14.6	1.1059	.0275	.1664	
	TOTALS				159.3	28.0000	26.7435	26.7361	