

DEPARTMENTAL MEMORANDUM



PROVINCE  
OF  
MANITOBA

DATE .....

TO Mr. M. J. Gobert .....

Petroleum Division .....

FROM J. G. Cowan .....

Deputy Minister .....

SUBJECT Oil and Natural Gas Conservation Board, North December 29, 1961 .....

Virden Scallion Unit No. 1, Public Hearing.

I have your memo of December 22nd in connection with the above matter and I am somewhat concerned regarding the proposals which you bring forward, as for instance, "the exact questions should be decided upon by the Board in advance of the hearing". Our discussions would be with the operators and if the questions etc. were decided in advance I would be concerned in case the Board hearing took on the appearance of being "cut and dried".

After all, the parties making the application to the Board must establish their case before they qualify for an order. In other words, the onus is on the operators to produce at the hearing evidence etc. which will satisfy the Board that they are entitled to the order.

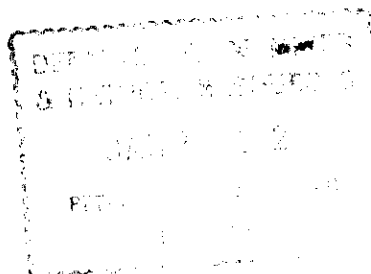
I note that Mr. McRae, Chairman of the Legal Committee, has suggested a meeting and has set forth certain matters which would be helpful to them if they were able to discuss them with us.

Hearings of this type have taken place in Saskatchewan and possibly Alberta also. If so, the rules and procedures etc. should be available to the <sup>solicitors</sup> for the operators. I believe that you attended at least one hearing in Saskatchewan and I imagine you would have a pretty good idea regarding the procedures which should be adopted. If so, this information should also be available or could be made available for the solicitors for the operators.

On the other hand, provided we can definitely avoid the "cut and dried aspect" I have no particular objection to a meeting, although I must state again that I see no particular advantage so far as the Department is concerned. There may well be advantages however, so far as solicitors for the operators are concerned.

J. G. Cowan.

JGC/ch



# COPY

M.J. Gobert

J. G. Cowan, Q.C.

Deputy Minister

Oil and Natural Gas Conservation Board  
North Virden Scallion Unit No. 1  
Public Hearing

December 22, 1961.

It would appear likely that within the next few months the Board will receive an application for a hearing, under Section 73 (1) of The Mines Act, to consider the operation of a part of the North Virden Scallion Field as a unit.

I would recommend that:

- (a) Rules of procedure for the conduct of the hearing should be established.
- (b) The line of questioning and, in some phases, the exact questions should be decided upon by the Board in advance of the hearing.
- (c) The applicants be advised as to the material which the Board will require to be contained in the submission or to be made available to the Board at the hearing.
- (d) A meeting with representatives of the Operators and the Board be arranged to discuss the above and establish the ground rules.

I have discussed this with Mr. R. R. McDaniel and he concurs and will forward some suggestions for our consideration.

Mr. Stew McRae, Chairman of the Legal Committee, phoned December 21st and suggested that a meeting with representatives of operators would be helpful to them so that they would know

- (a) how to prepare their submission,
- (b) what the submission should contain,
- (c) how they would be expected to present their submission.

# COPY

As Mr. Swanson advised you, the base period for tract participation has been advanced and all tract factors are being re-calculated. With respect to the Royalty Interests, Mr. McRae's committee wished to show these as percentages of the royalty interest held by each owner rather than as a decimal interest in the tract. This would save manual calculation time, avoid certain arbitrary adjustments and more closely indicate the interest held.

I told Mr. McRae that I would recommend to the Board that this be accepted.

A handwritten signature, possibly "J. S. Richards", written in dark ink. The signature is stylized and appears to be written over a faint, illegible mark.

c.c. J. S. Richards

MCDANIEL CONSULTANTS LTD.  
*Oil and Gas Reservoir Evaluations*

December 5, 1961

C  
O  
Mr. J.S. Richards  
Director of Mines  
Department of Mines and Natural Resources  
Mines Branch  
901 Norquay Building  
401 York Avenue  
Winnipeg 1, Manitoba

Dear Sir,

P  
Y  
Pursuant to your letter of November 27, 1961, we have reviewed the latest draft copy of the North Virden Scallion plan for unit operation. It would appear that the majority of points which we have raised with respect to this plan for unit operations have now been incorporated in this document. There would still appear to be several minor points which may or may not have been discussed with the operators. A brief description of these points has been given hereinafter in this letter.

Definitions (D)

It was noted that Mountain Standard Time has been employed for the effective data. We would therefore question that this should be Central Standard Time. This same comment would follow throughout the plan.

5.09 - (Part V - 5)

Although it may not be appropriate, there does not appear to be any plan for the reporting on the performance of the unitized area to either the operators or the royalty holders. It

Department of Mines and Natural Resources - 2.

C would be anticipated that some report would be made to the Oil and Gas Conservation Board on a periodic basis. It is therefore believed that such reports be also given to each operator who in turn may or may not report to their respective royalty holders.

6.03 (d) - (Part VI - 3)

O It is noted that the operating committee are to determine and fix any of the proper charges to be made by the unit operator under Section 28.07 (k). It is felt that this should also be applicable to Parts "a", "b" and "c" of part (J) of 28.07. Under "J" (iii) ("a"), a monthly charge for certain operations has been set out. We question that amount of such charges even though subject to revision, be incorporated in a compulsory plan.

7.03 - (Part VII - 3)

P In this section it does not appear to be explicit that if the operator employs his own equipment in one form or another that it would be at fully competitive rates. Furthermore, it is felt that some provision of proof of competitive rates might be incorporated in this section.

8.08 (3) - (Part VIII - 2)

Y Although it is common practice in most such plans to employ an interest rate in the order of six percent it would seem more realistic that such a provision might be made on the basis of the "basic bank interest rate" that exists at the time such a rate would be employed. It is believed that this would result in a fair cost for such funds. We note that the six percent interest rate has been used in a number of instances and that these comments would be applicable in all such cases.

8.07 - (Part VIII - 5)

It would appear that the operator would be able to confiscate the proceeds of the sales of the working interest owner's share of the unitized substances for defaulting on any particular payment. It is evident from this section that the royalty owners' share of such payments would also be confiscated at that time.

Department of Mines and Natural Resources - 3.

C Although this might be a reasonable step in a voluntary unitization plan, we believe that it being compulsory such confiscation may not be reasonable. In effect, once an area is unitized on a compulsory basis it may well be deemed that the operators collectively have an obligation to all the royalty interests.

8.09 -(Part VIII - 8)

O It is believed that the amount of pre-Unit expenses should at least be reasonably set out or at least a maximum established in view of the fact that this is a compulsory plan. In effect it is believed only reasonable that each operator should know at the time of unitization what expenses have been incurred.

19.03 -(Part XIX - 2)

P It is understood that under a voluntary plan a section such as 19.03 might well be incorporated for the purposes of avoiding combines legislation. In view of the fact that this is a compulsory plan it is not believed realistic to incorporate such a section in the plan.

General

Y It would be assumed that in reviewing this plan, the operators wish to receive only your comments as to the wording of the plan and not as to the actual division of interests as given in this plan. The tract participation factors and interests given in this plan would be under the scrutiny of the Oil and Gas Conservation Board at the time of the hearing. In effect, we believe that the hearing should not be a matter of formality and that the operators should anticipate that the participation factors as set out in the plan may be questioned.

MCDANIEL CONSULTANTS LTD.

*Oil and Gas Reservoir Evaluations*

Department of Mines and Natural Resources - 4.

C  
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P  
Y

Although the points set out in this letter are not believed to be of a critical nature, it was felt that these items should be brought to your attention. Should you desire any further discussion with respect to these matters, please do not hesitate to contact the writer.

Sincerely yours,

MCDANIEL CONSULTANTS LTD.

Copy (<sup>Original</sup><sub>Signed</sub>) *R. R. McDaniel*

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Per: R. R. McDaniel, P. Eng.

RRM/jes

INTER-DEPARTMENTAL MEMORANDUM



PROVINCE  
OF  
MANITOBA

DATE December 1, 1961.

TO Mr. J. G. Cowan, Q.C.,  
Deputy Minister.

J. S. Richards,  
Director of Mines.

SUBJECT Plan for Unit Operation -  
North Virden Sealion Unit No. 1

We have reviewed the latest draft of the above plan of Unit Operation, which you forwarded to Mr. Gobert, designated as V4.

Attached hereto are our observations under the following headings:

- (1) Requested Alterations;
- (2) Minor Items and Typographical Errors.

It is assumed that you will wish to forward these to Mr. Swenson.

*J. S. Richards.*

JSR:lm  
Enc.

✓ c.c. Senior Petroleum Engineer.



REQUESTED ALTERATIONS

Section 102 (d) Request the use of Central Standard Time <sup>OK</sup> in this Section and in Section 7.07 and Section 16.03.

Section 11.02 and  
Section 17.02 Are these two Sections in uniformity.

Section 15.01 (b) 2nd & 3rd lines - delete phrase, "to the <sup>Noted</sup> person entitled to the share".

PART XXI Certain well names should be changed to:

B.A. Union Milne 2-34-11-26  
B.A. Union Milne 3-34-11-26 <sup>OK</sup>  
B.A. Union Milne 4-34-11-26

Landa et al Drynan Scallion 15-2-11-26  
Landa et al Drynan Scallion 16-2-11-26  
Landa et al Drynan Scallion 7-2-11-26 <sup>Noted</sup>  
Landa et al Drynan Scallion 10-2-11-26

Should the last group above not be in numerical order.

PART XXI Request that the participating interests be totalled for each Tract, when divided.

Tract Number 3-12 should be 3-11  
4-12 should be 4-11  
5-12 should be 5-11

3-14 should be 3-15  
4-14 should be 4-15

PART XXV Lease Number 55 should be for 0.48 acres not 48 acres. <sup>OK</sup>

Lease Number 57 should except LSD's 8 and 16 not 6 and 16. <sup>OK</sup>

There does not appear to be a lease for that portion of the C.P.R. right-of-way lying in the NW/4 Sec. 15-11-26 or NE/4 Sec. 16-11-26.

PART XXVI Page 2.

Tract number 3-12 should be 3-11  
4-12 should be 4-11 <sup>OK</sup>  
5-12 should be 5-11

*Page 22003  
54135*

The Royalty Owners Interest of The Minister in Tract Number 16-10 is shown as .03360 in this Part, whereas in Part XXV Lease Number 7 it is shown as .03361.

PART XXI Well name on Electrical Log should be -  
Calstan Scallion Prov. SWD 9-16-11-26. <sup>Noted</sup>

# MINOR ITEMS AND TYPOGRAPHICAL ERRORS

- 102 (o) 1st line - should not "parcels" be singular. *not done*
- 2.04 4th last line - "Unitized" misspelled. *not done*
- 4.05 (b) 6th last line - should "Proportion" be capitalized. *not done*
- 4.06 2nd last line - "Outside" misspelled. *not done*
- 8.08 8th last line - should not "Participation Interests" read "Participating Interests". *not done*
- 9.01 5th last line - "overriding" misspelled. *not done*
- 10.01 8th last line - should not "leases" be capitalized. *not done*
- 10.03 5 Are "Produced Water Disposal Facilities" synonymous with "Salt Water Disposal Facilities". *not done*
- 10.03 6 1st line - should not "of" read "or". *not done*
- 11.03 5th last line - should not "and" read "an". *not done*
- 12.02 4th last line - should not "Owners" be singular. *not done*
- 13.01 8th last line - should not "Title" be plural. *not done*
- 15.01 1st line - should not "or" read "of". *not done*
- 16.05 last line - should "Effective Date" be capitalized. *not done*
- 17.03 (c) 2nd line - should "Well" be capitalized. *not done*  
9th last line - should not "Owners" be singular.

PART XXI The Official Well Name Register makes some use of lower case letters in well names with the exception of the company name abbreviation "CEGO" and the abbreviation "Prov." is followed by a period. *ok*

Calstan Scallion Prov. SWD 9-16-11-26

PARTXXVlll - where figures are spelled out in this Part they are capitalized whereas they are not in the remaining Parts of the Plan.

- 28.01 (a) 2nd line - should not "interest" be plural.
- 28.01 (c) (i) & (ii) - should not "condition" be capitalized.
- 28.01 (c) 1V - 4th line "commensurate" misspelled.
- 28.07 (c) 10th line - should not "Part (d)" read "paragraph (c)". *not done*

- 28.07 (j)      6th line      - should not "Section 27.07 (b)" read "Section 28.07 (b)".
- 28.08 (i)      2nd line      - should not "charge" read "charged". *ok*
- 28.11          last para. 3rd line - suggest insertion of "the" to read "of the rates".
- 28.12 (b)      4th line      - "major equipment" not defined. *ok*
- 28.12 (f)      3rd line      - "shall" misspelled. *ok*

Uniformity in use of capitals in marginal notes appears lacking.

*ok*

# OIL AND GAS CONSERVATION BOARD

PROVINCE OF ALBERTA

PLEASE REFER TO FILE NO. \_\_\_\_\_

G. W. GOVIER, P.ENG.,  
DEPUTY CHAIRMAN

A. F. MANYLUK, P.ENG.,  
BOARD MEMBER

VERNON MILLARD,  
ACTING BOARD MEMBER

603 - 6TH AVENUE S.W.

CALGARY, ALBERTA

November 27, 1961

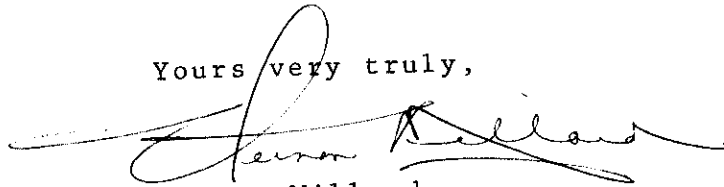
Mr. M. J. Gobert,  
Senior Petroleum Engineer,  
Mines Branch,  
Department of Mines and Natural Resources,  
Government of the Province of Manitoba,  
Box 42, Legislative Building,  
Winnipeg, Manitoba.

Dear Bert:

The Board has received your letter dated November 21st regarding unit agreements. Mr. Macleod advises me that the notice in the Gazette that you refer to in your letter pertains to the Order in Council obtained by the Department of Mines and Minerals in order to provide them with authority to sign a unit agreement as a royalty owner. The Board does not record its approval of unit agreements in the Alberta Gazette.

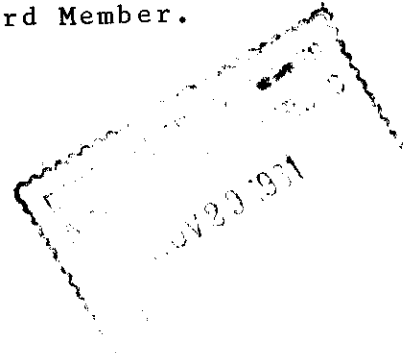
It should be pointed out, however, that in the case of the Turner Valley unit agreements notification with regard to the Order in Council was recorded due to special provisions in The Turner Valley Unit Operations Act. This Act provides for compulsory unitization in the Turner Valley Field.

Yours very truly,



Vernon Millard,  
Acting Board Member.

VM:ce



# COPY

November 27, 1961.

Mr. R. R. McDaniel,  
President,  
McDaniel Consultants Ltd.,  
305 Hamford Building,  
608 - 7th Street, S.W.,  
Calgary, Alberta.

Dear Mr. McDaniel:

I am enclosing herewith copy of a letter from Mr. L. A. Swanson, Chairman, North Virden Scallion Operators Committee, dated November 21st, together with one copy of the latest draft of the North Virden Scallion Plan for Unit Operation referred to in Mr. Swanson's letter.

We would appreciate receiving any comments you may care to make, as soon as possible.

Yours very truly,

J. S. Richards,  
Director of Mines.

JSR:lam  
Encs.

c.c. Mr. J. G. Cowan, Q.C.,  
Deputy Minister.

Mr. M. J. Gobert,  
Senior Petroleum Engineer.

7-9-1

# THE CALIFORNIA STANDARD COMPANY

MEDICAL ARTS BUILDING 409A 6TH AVENUE S.W. CALGARY ALBERTA

November 21, 1961.

Mr. J. G. Cowan,  
Deputy Minister,  
Department of Mines and  
Natural Resources,  
OTTAWA, Ontario.

Dear Sir:-

## Re: North Virden Scallion Unitization

We have please find ten copies of the latest draft of the North Virden Scallion plan for Unit Operation identical with the one we have. As we are today sending copies of the draft to the operators and have scheduled a meeting for tomorrow we are sending you the draft in order that all probable comments can be made prior to the presentation board hearing.

We have the enclosures reflect all the changes made at our August meeting with Messrs. Dutka, McGinnis and others. We would be glad if you will review the latest draft of the plan and if you have any comments you might wish to make on the draft, please let us know as soon thereafter as possible.

Yours very truly,

L. A. SWANSON, Chairman  
NORTH VIRDEN SCALLION OPERATORS COMMITTEE.

LA 11/21

11/21

*Copy of letter and 8 copies  
of draft to Mr. Hobart  
23/11/61*

# **The California Standard Company**

7TH AVENUE & RAILLAN STREET • VIRDEN, MANITOBA  
MAILING ADDRESS, P.O. BOX 100

October 12, 1961.

Mr. J. G. Cowan,  
Chairman,  
The Oil & Natural Gas Conservation Board,  
Miner Branch,  
Box 42,  
Legislative Buildings,  
WINNIPEG 1, Manitoba.

Dear Sir:

Re: North Virden Scallion Field

At an informal meeting between representatives of the Board and The California Standard Company held on February 21, 1961, it was requested that The California Standard Company provide additional exhibits for the Grindal and Calite Zones to show the relationship of porosity footage and production characteristics, similar to those submitted for the Cherty Zone. The requested exhibits are being forwarded under separate cover.

Yours very truly,

L. A. SHANNON  
Vice - President.

JGR/jp

## INTER-DEPARTMENTAL MEMORANDUM

FROM J.G. Cowan  
Deputy Minister

SUBJECT California Standard -  
North Virden Scallion Unitisation



DATE

TO Mr. J.S. Richards  
Director of Mines

DEPARTMENT OF MINES  
NATURAL RESOURCES

OCT 23 1961 October 20, 1961.

DIRECTOR OF MINES

In this connection I am enclosing copy of Mr. McCrae's letter to me of September 25. Incidentally, I received a letter from him yesterday requesting a reply. I had not replied because the following statement in his letter confused me:

"and the mineral title is now held by Charles Vinck as to an undivided one quarter interest, and by The Canada Permanent Trust Company as to an undivided three quarter interest, and Vinck has nominated The Canada Permanent Trust Company as the depository for the payment of all monies.

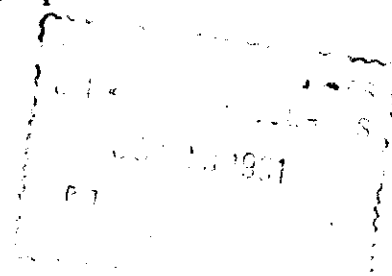
"It would appear that Vinck would be entitled to one quarter of the royalty and the Trust Company three quarters, although we do not have any real proof of this, etc."

What confused me was his statement that the title is held by Vinck and the Trust Company and particularly in view of this his statement "although we do not have any real proof of this". In other words, what better proof could he possibly have than the fact that the title was in the name of Vinck and the Trust Company?

In such circumstances I phoned Mr. McCrae yesterday afternoon and we had a rather lengthy discussion as I had some difficulty in persuading him that in Manitoba at least and under the Torrens system people dealing with land are entitled to rely on the register, that is the records in the Land Titles Office. Mr. McCrae admitted that the situation was the same in Alberta and also appeared to admit that he had not considered that they would be entitled to rely on the register.

He then asked if we would insist that they again search all the titles before incorporating the information in the agreement. I intimated to him that surely they were paying the royalties in accordance with the ~~matches~~ which they originally obtained and it appeared to me that they were entitled to continue to so pay until they were officially notified that an interest had been transferred. I pointed out to Mr. McCrae that unless this proposition was sound it simply meant that each month before paying the royalties they would have to search the titles which to me is a ridiculous proposition.

Mr. McCrae still appeared to have some reservations, particularly regarding the specific interest of each royalty holder. This concern apparently stems from the particular case which he had in mind, namely the Vinck case. The Trust Company holds three-quarters. Vinck holds one-quarter. Vinck has named the Trust Company as depository to distribute his one-quarter interest. In other

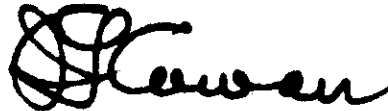




2.

words, in this particular case the Trust Company distributes the whole 100%. It may well be, of course, that Vinck's instructions to the Trust Company provide for distribution of his one-quarter share to perhaps quite a number of royalty owners. This in my opinion is a matter which does not concern us.

Finally, Mr. McCrae stated that he would have no objection to the inclusion of the information provided the clause contained the expression: "According to our records the royalty owners and the percentage of their interests are as follows:....." or to like effect. I see no particular merit, or for that matter, no particular objection to his suggestion and it was agreed that he would proceed accordingly.

A handwritten signature in dark ink, appearing to read "J.G. Cowan". The signature is stylized with a large, looped initial "J" and a cursive "Cowan".

J.G. Cowan.

JGC/mm

Enc.

C

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T

THE CALIFORNIA STANDARD COMPANY

October 18, 1961.

Mr. J. G. Cowan,  
Deputy Minister,  
Department of Mines and Natural Resources,  
Winnipeg, Manitoba.

Dear Sir:

Re: North Virden Scallion  
Unitization

I am wondering if you have yet had an opportunity of considering the question I raised in my letter to you of September 25th, 1961. I would be pleased to have your advice at your convenience.

Yours very truly,

"S. A. McCrae, Chairman,  
North Virden Legal Committee.

THE CALIFORNIA STANDARD COMPANY

September 25, 1961.

Mr. J.G. Cowan,  
Deputy Minister,  
Department of Mines and Natural Resources,  
Winnipeg, Manitoba.

Dear Sir:

Re: North Virden Scallion  
Unitization

You will recall your August 11th comments under the heading "Requested Alterations and Additions" as well as our discussion in Winnipeg relative to your request that we include a new part in the Plan which would show the Royalty Owners in and to the respective Tracts and their interest in each Tract. Although we agreed with you in Winnipeg that we would prepare such a Part, it now appears doubtful if the interests of the Royalty Owners in the Tracts can be stated with any assurance as to accuracy.

The problem can best be explained by reference to the NE of 9-11-26 W.1 in which The California Standard Company is the Working Interest Owner. The original lease was taken from Charles Winck and contains a clause to the effect that the lessee is not bound to recognize any partial assignment of interest. There have been assignments of interest and the mineral title is now held by Charles Vinck as to an undivided one quarter interest, and by The Canada Permanent Trust Company as to an undivided three quarter interest, and Vinck has nominated The Canada Permanent Trust Company as the depository for the payment of all monies.

It would appear that Vinck would be entitled to one quarter of the royalty and the Trust Company three quarters, although we do not have any real proof of this, and under the circumstances would be very reluctant to have this information go into the Plan and become part of the Order, when in fact it may be inaccurate. The problem is common to many of the leases and under the circumstances we wonder if you would reconsider and advise whether you require this information.

If you require any further information in this connection we would be glad to discuss the problem with you on the telephone, or if you wish, I would be pleased to come to Winnipeg to discuss the matter with you.

Yours very truly,

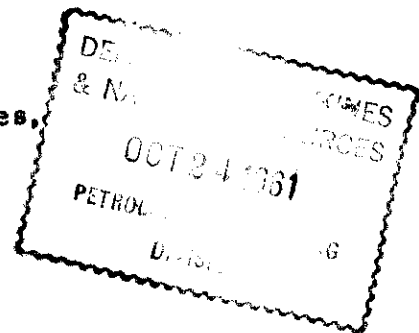
"S. A. McCrae, Chairman,  
North Virden Legal Committee.

*McDaniel Consultants Ltd.*  
Oil and Gas Reservoir Evaluations

October 23, 1961.

C  
O  
P  
Y  
Director of Mines,  
Department of Mines and Natural Resources,  
901 Norquay Building,  
401 York Avenue,  
Winnipeg 1, Manitoba.

Attention Mr. J.S. Richards



Dear Sir,

We have reviewed the report on the North Virden Scallion field recently prepared by the California Standard Company. We believe that this report will be of considerable assistance in analysing the proposed unitization scheme. The general methods employed in the recovery estimates are reasonable. It would appear that a number of innovations have been added in an attempt to answer certain questions we have poised in the past.

We plan to make a more detailed analysis of certain phases of the report and will advise you of the results when completed.

Sincerely yours,

McDANIEL CONSULTANTS LTD.

Copy (Original Signed) R. R. McDaniel

Per: R.R. McDaniel, P. Eng.

# COPY

October 10, 1961.

Mr. R. R. McDaniel,  
President,  
McDaniel Consultants Ltd.,  
231 - 8th Avenue, West,  
Calgary, Alberta.

Dear Mr. McDaniel:

Attached hereto copy of the up-dated "Reservoir Study  
of the North Virden Scallion Field", submitted by The California  
Standard Company.

We would appreciate any comments you may care to make  
in regard to this Study.

Yours very truly,

  
J. S. Richards,  
Director of Mines.

JSR:lsu  
Enc.  
Registered Mail

c.c. Mr. J. G. Cowan, Q.C.,  
Deputy Minister.

Mr. M. J. Gobert,  
Senior Petroleum Engineer,  
with one copy of above Study.

October 3, 1961.

McDaniel Consultants Ltd.,  
231 - 8th Avenue West,  
Calgary, Alberta.

Attention: Mr. R. R. McDaniel

Dear Rod:

Can you suggest where and how I could get a copy of "Oil Production after Breakthrough as Influenced by Mobility Ratio" by Dyes, A.B., Candle, B.H., and Erickson, R.A. - Journal of Petroleum Technology, April, 1954, p.27.

Best regards.

Yours very truly,

  
M. J. Gobert,  
Senior Petroleum Engineer.

MJG/h

September 29th, 1961.

Mr. J. G. Cowan, Deputy Minister,  
Department of Mines and Natural Resources,  
352 Legislative Building,  
WINNIPEG 1, Manitoba.

Dear Mr. Cowan:

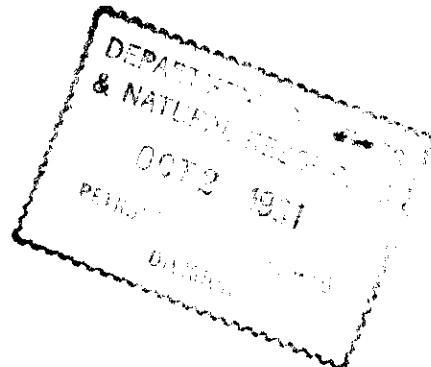
Enclosed please find three copies of the up dated  
Reservoir Study of the North Virden Scallion Field.

We have sent copies to Mr. J. S. Richards and Mr.  
M. J. Gobert, under separate cover.

Yours very truly,

  
J. F. ROSS

JFR:jka  
Enclosures (3)



September 15, 1961.

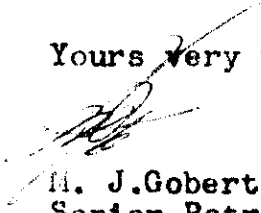
McDaniel Consultants Ltd.,  
231 - 8th Avenue West,  
Calgary, Alberta.

Attention: Mr. R. R. McDaniel

Dear Sir:

Further to our recent letters, attached herewith are comments by The British American Oil Company Limited as to production fluctuations in certain wells operated by this company in the North Virden Scallion Field.

Yours very truly,



H. J. Gobert,  
Senior Petroleum Engineer.

MJG/h





THE BRITISH AMERICAN OIL COMPANY LIMITED

PRODUCERS - REFINERS - MARKETERS

PRODUCTION AND PIPE LINE DEPARTMENT

P.O. Box 328  
Estevan, Saskatchewan  
September 12, 1961

Department of Mines and Natural Resources  
Mines Branch  
Petroleum Engineering Division  
Box 42, Legislative Building  
Winnipeg, Manitoba

Attention: Mr. E. J. Robert  
Senior Petroleum Engineer

Dear Sir:

In reply to your letter dated July 31, 1961, regarding production changes at two wells in the North Virden Scallion Field, please be advised as follows:

- 5-28-11-26 This well showed an increase in production in March, 1960. During the preceding months of January and February the well was shut in due to trouble with frozen flowline. In March this trouble was overcome and the well was placed back on production. Therefore, an increase in production, in the month of March was evident.
- 6-28-11-26 This well showed an increase in production during the month of December, 1959. The bottom hole pump in the well was inspected and repaired in the second week of December and this resulted in the increased production.

We trust you will find these explanations satisfactory. Should you have any other questions regarding these or other wells, please do not hesitate to contact us.

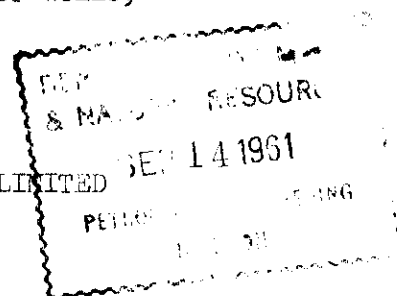
Yours truly,

THE BRITISH AMERICAN OIL COMPANY LIMITED

*J. S. Hart*

J. S. Hart

Area Production Manager



*M. J. Gobert  
Sec. 1.*

September 11, 1961.

McDaniel Consultants Ltd.,  
231 - 8th Avenue West,  
Calgary, Alta.

Attention: Mr. R.R. McDaniel, Pres.

Dear Sir:

Further to our recent letters, attached herewith are comments by Sun Oil Company regarding fluctuations in production of wells, operated by that company, in the North Virden Scallion Field.

Yours very truly,

M. J. Gobert,  
Senior Petroleum Engineer.

MJG/h

# SUN OIL COMPANY

CANADIAN PRODUCTION DIVISION

805 - 8TH AVE. W.

P.O. DRAWER 39

CALGARY, ALBERTA

CANADA

G. E. DUNLAP

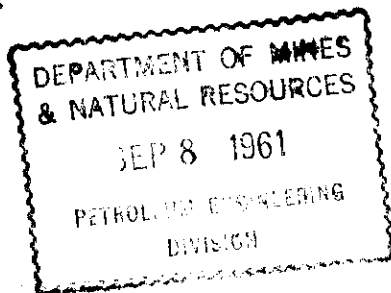
MANAGER

L. E. MILLER

ASSISTANT MANAGER

M. E. AUSTIN

SUPT. OPERATING DEPT.



Box 1300,  
Virden, Man.  
Sept. 5, 1961

Department of Mines and Natural Resources  
Petroleum Engineering Division  
Box 42, Legislative Bldg,  
WINNIPEG 1, Man.

ATT: Mr. M. J. Gobert.

Re: North Virden Scallion Field Production Rate Changes

Dear Sir:

Enclosed are our explanations for the producing rate changes as noted on the rate vs. time curves for the wells in question.

5-21-11-26 (Apr. 59) The decrease in oil production at this well was the result of a salt water break through from our C.N.S.W.D. 8-20-11-26. The following month the amount of salt water disposed at C.N.S.W.D. 8-20 was decreased with a resulting increase in oil production at 5-21.

10-22-11-26 (May 59) Because of the lack of gas in some sections of the N.V.S. field, well testing is often a problem. Retesting of 10-22 showed that the assumed rate of production decline on this well was in error and that the well was actually producing more oil than we were crediting to it.

6-23-11-26 (Sept. 58) Similiar reasoning applies here as with 10-22 except that the rate of production decline was assumed to be less than actually was the case. Retesting indicated that the well was being credited with oil that it was not producing.

4-26-11-26 (Sept. 58) Similiar reasoning applies as with 6-23.

5-26-11-26 (Dec. 57) An increase in oil production at this well was the result of W.O.#1, a 7,000 # (sand) strata-frac.

7-27-11-26 (Dec. 57) An increase in production at this well was the result of W.O.#1, a 10,000 # (sand) petrol frac.

16-27-11-26 (Jan. 58) An increase in production at this well was the result of W.O.#1, a 5,000 # (sand) acid frac.

DMB/h

Yours truly,  
(for) *H. J. Berry*  
D. M. Burney

August 21, 1961.

McDaniel Consultants Ltd.,  
231 - 8th Avenue West,  
CALGARY, Alta.

Attention: Mr. R. R. McDaniel

Dear Sir:

Further to our recent letters, attached herewith are  
remarks regarding fluctuation in production from Shell Oil  
Company and Canadian Superior Oil Ltd.

Yours very truly,



M. J. Gobert,  
Senior Petroleum Engineer.

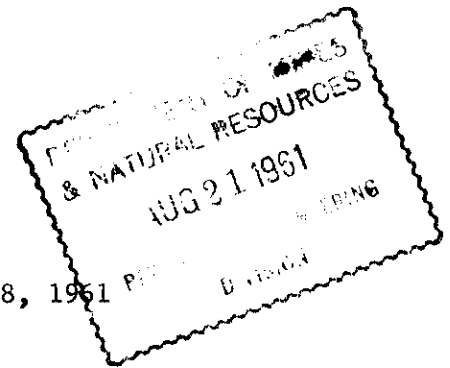
MJG/h

# CANADIAN SUPERIOR OIL LTD.

703 SIXTH AVENUE S.W.

CALGARY, ALBERTA

AMHERST 3-7810



August 18, 1961

Department of Mines & Mineral Resources  
Mines Branch  
Petroleum Engineering Division  
911 Norquay Building  
401 York Avenue  
WINNIPEG 1, Manitoba

Attention: Mr. J. Gobert  
Senior Petroleum Engineer

Dear Sir:

## Re: North Virden Scallion Field

In reply to your letter dated July 31, 1961 regarding production rate changes for certain Canadian Superior operated wells in the North Virden Scallion Field, we wish to offer the following comments.

Cdn-Sup Dome Veldhouse 2-16  
Lsd. 2-16-11-26-WPM

The production decrease noted for April and May, 1955 is believed to be attributed to lease inaccessibility resulting from road bans. We are unable to explain the decrease in production indicated for November 1957 from available records.

Cdn-Sup Dome Veldhouse 7-16  
Lsd. 7-16-11-26-WPM

The production decrease noted for April and May, 1955 is believed to be attributed to lease inaccessibility resulting from road bans.

Cdn-Sup Veldhouse 8-16  
Lsd. 8-16-11-26-WPM

The production decrease noted for April and May, 1955 is believed to be attributed to lease inaccessibility resulting from road bans.

Cdn-Sup Tapp 1-22  
Lsd. 1-22-11-26-WPM

We are unable to explain the production increase indicated for July, 1957 from available records.

CANADIAN SUPERIOR OIL LTD.

- 2 -

Cdn-Sup Tapp 7-22  
Lsd. 7-22-11-26-WPM

We are unable to explain the production decrease indicated for July, 1957 from available records.

Cdn-Sup Tapp 8-22  
Lsd. 8-22-11-26-WPM

The increase in production noted in July and August, 1959 resulted from well workover. Stimulation treatment consisted of an 8000# sandfrac using 20/40 mesh sand.

Cdn-Sup Dome Whiteford 9-28  
Lsd. 9-28-11-26-WPM

The well was stimulated in October, 1959 using 18,000# of 20/40 mesh sand. Following this treatment the oil production increased for a two-month period then suddenly decreased in February, 1960 for several months before returning to near the level of production following workover. We have no explanation for this production behavior other than the possibility of sand having detrimental effects on pumping equipment.

Yours very truly,

CANADIAN SUPERIOR OIL LTD.



(for) L. R. Miskew  
D. L. Bohannon  
Chief Engineer

LRM/ejb



EXPLORATION & PRODUCTION

SHELL OIL COMPANY OF CANADA, LIMITED  
P. O. Box 380  
Regina, Saskatchewan

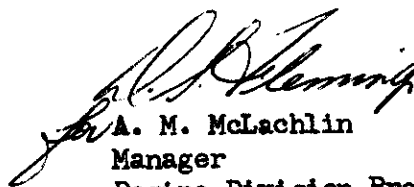
August 17, 1961

Department of Mines and Natural Resources  
Mines Branch  
Petroleum Engineering Division  
911 Norquay Building  
401 York Avenue  
WINNIPEG 1, Manitoba

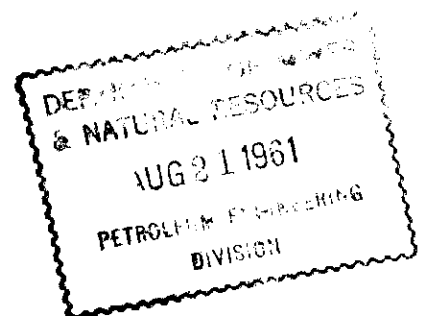
Dear Sirs:

As requested in your letter of July 31, 1961 we attach a tabulation summarizing our conclusions regarding the cause of certain fluctuations in the production rate of our wells in the North Virden Scallion field, Manitoba.

Yours very truly,

  
A. M. McLachlin  
Manager  
Regina Division Production

Attachment



SHELL OIL COMPANY OF CANADA

COMMENTS REGARDING CERTAIN FLUCTUATIONS IN THE PRODUCING RATE  
OF WELLS IN THE NORTH VIRDEN SCALLION FIELD, MANITOBA.

Shell Moir 10-21-11-26      Increase November 1957      Decrease March 1957

We are unable to explain the gradual decrease in production during the first half of 1957 followed by a gradual increase in the second half of the year since our records do not show that any remedial treatment or mechanical adjustment was made to the well. An increase in production during August 1958 resulted from an acid treatment with 1500 gal acid in July 1958.

Shell Moir 11-21-11-26      Increase November 1957

Our records show that this well did not produce during November 1957 as a result of being shut-in for a bottom-hole pressure survey.

Shell Moir 15-21-11-26      Increase September 1957

This well does not appear to have shown an increase in September 1957 but rather in October 1957 as a result of an acid-frac with 2500 gallons retarded H.V. acid plus 2500 pounds of sand.

Shell Moir 4-33-11-26      Increase January 1958      Decrease December 1957

The decrease in December 1957 apparently resulted from partial plugging of the formation, since the well showed an increase in production during January 1958 following an acid treatment of 1000 gals. acid.

Shell Moir 5-33-11-26      Increase September 1957      Decrease February & August 1957

Our records show a decrease in production in February and July (not August as above). The decrease in February was due to a faulty pump which was serviced March 14, 1957. The decrease in July was apparently due to partial plugging of the formation since an increase in production was noted in September following an acid petrofrac on August 23, 1957 of 2500 gals. acid plus 2500 lbs. sand.

Shell Moir 11-33-11-26      Decrease July 1958

Again we can only surmise that the decrease in July was due to partial plugging of the formation since the well showed an increase in production during August 1958 following an acid treatment with 1500 gallons XFMW 15% HCl.

Shell Moir 12-33-11-26      Increase March 1957      Decrease February 1957

Production began decreasing sharply in January 1957 and continued into February 1957. On March 15, 1957 the well was treated with 750 gallons XFMW 15% HCl and the production increased.



*Northwestern  
Saw - in  
flowed this*

*Mr. Smith*

# **The Canadian Sawmills Company**

MEDICAL ARTS BUILDING, 329A - 6TH AVENUE S.W., CALGARY, ALBERTA.

L. A. SWANSON  
V.P. PRESIDENT  
PRODUCTION

DEPARTMENT OF MINES  
& NATURAL RESOURCES

August 16, 1961 AUG 18 1961

DIRECTOR OF MINES

Mr. J. G. Conn,  
Deputy Minister,  
Department of Mines and Natural Resources,  
OTTAWA, Ontario.

Dear Mr. Conn:

Your letter of August 11, 1961, with comments and suggestions on the North Virden Unit Plan documents, has been received.

As soon as your suggestions can be reviewed by our Committee, we will contact you regarding further meetings and discussions.

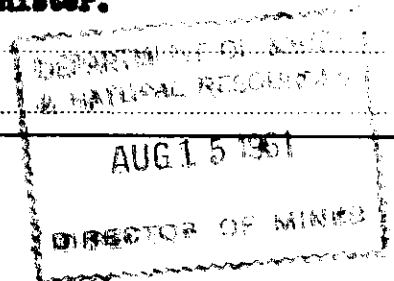
Yours very truly,

*L. A. Swanson*  
L. A. SWANSON.

LAG:ST

DEPARTMENT OF MINES  
& NATURAL RESOURCES  
AUG 18 1961  
PETROLEUM ENGINEERING  
DIVISION

## INTER-DEPARTMENTAL MEMORANDUM

FROM **J. S. Richards,**  
**Director of Mines.**PROVINCE  
OF  
MANITOBADATE **August 11, 1961.**TO **Mr. J. G. Cowan, Q.C.,**  
**Deputy Minister.**SUBJECT **Plan for Unit Operations -**  
**North Virgin Sealion Unit No. 1.**

Attached hereto suggested draft letter to Mr. L. A. Samson, in respect to the above-mentioned plan. The attached comments are in accordance with the points agreed to in the discussion which Mr. Gebart and I had with you on August 4th.

Your attention is directed to the paragraph in the letter which states we are willing to recommend amendments to Sections 79 (1) and 80 (2) of The Mines Act. In our opinion, Sections 1102 and 808 of the Plan, which conflict with the Act, are necessary and, consequently, it is suggested that the Act be amended accordingly. This will be discussed further in a separate memo.

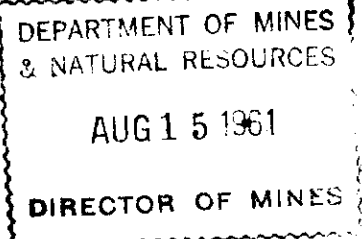
A handwritten signature of J. S. Richards.  
**J. S. Richards.****JSR:lan**  
**Enc.**A handwritten arrow pointing from the left margin to the title.  
**s.e. Senior Petroleum Engineer.**

PROVINCE OF MANITOBA  
DEPARTMENT OF MINES AND NATURAL RESOURCES, WINNIPEG, CANADA

COPY

August 11, 1961.

Mr. L.A. Swanson, Chairman,  
North Virden Scallion Operators Committee,  
c/o The California Standard Company,  
329A-6th Avenue, S.W.,  
Calgary, Alberta.



Dear Mr. Swanson:

With reference to your letter of June 23rd and our meeting in Calgary on July 20, we have reviewed the draft Plan for Unit Operation of the North Virden Scallion Unit No. 1, and our comments are attached herewith under the headings:

1. Requested Alterations and Additions,
2. Suggestions and questions,
3. Minor Items and Typographical errors.

We have no comment to offer with respect to Part III "Tract Participation" or Section 2507(k) "District and Administrative Overhead", as we feel these matters can only be considered by the board following the Public Hearing. The above in our opinion would appear to preclude the execution of this agreement by the royalty owners prior to such a hearing.

Sections 808 and 1102 would appear to conflict with Sections 80(2) and 79(1), respectively, of "The Mines Act", and if these sections are to remain in the agreement as drafted, it appears to us that appropriate amendments to "The Mines Act" would be necessary.

Should your Committee feel it necessary, we will be pleased to meet with them at any mutually agreeable time to discuss the draft.

Yours very truly,

"J.G. COWAN"

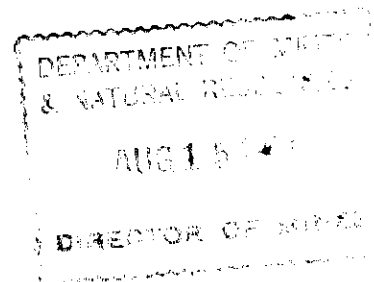
J.G. Cowan,  
Deputy Minister.

spd and sent 15/8/61

/ms  
cc. Mr. J.S. Richards (2)  
Att.

August 11, 1961.

Mr. L. A. Samson, Chairman,  
North Virden Seallion Operators Committee,  
c/o The California Standard Company,  
329A - 6th Avenue, S.W.,  
Calgary, Alberta.



Dear Mr. Samson:

With reference to your letter of June 23rd and our meeting in Calgary on July 20th, we have reviewed the draft Plan for Unit Operation of the North Virden Seallion Unit No. 1, and our comments are attached herewith under the headings:

1. Requested Alterations and Additions.
2. Suggestions and Questions.
3. Minor Items and Typographical Errors.

We have no comment to offer with respect to Part III "Trust Participation" or Section 2307 (k) "District and Administrative Overhead", as we feel these matters can only be considered by the Board following the Public Hearing. This, in our opinion, will preclude the execution of this agreement by the Royalty Owners prior to such a hearing.

Sections 808 and 1102 would appear to conflict with Sections 80(2) and 79 (1), respectively, of "The Mines Act", and we are prepared to recommend amendments to "The Mines Act".

Should your Committee feel it necessary, we will be pleased to meet with them at any mutually agreeable time to discuss the draft.

Yours very truly,

J. G. Cowan,  
Deputy Minister.

c.c. Senior Petroleum Engineer.

*Revised  
(See letter above)*

August 16, 1961.

Sun Oil Company,  
Box 1300,  
Virden, Manitoba.

Attention: Mr. H. Berry

Re: North Virden Scallion Field

Dear Sir:

On July 26th I handed Mr. Burmey a list of producing rate changes noted in the Rate vs. Time curves plotted for certain wells operated by your company in the above field and asked him to pass it to you for explanation.

For your convenience, the list is reproduced herewith.

	<u>Dates of Producing Rate Changes</u>	
	<u>Increase</u>	<u>Decrease</u>
5-21-11-26		April/59
10-22-11-26	May/59	
6-23-11-26		Sept./58
4-26-11-26		Sept./58
5-26-11-26	Dec./57	
7-27-11-26	Dec./57	
16-27-11-26	Jan./58	

Your assistance in this would be appreciated.

Yours very truly,

M. J. Gobert,  
Senior Petroleum Engineer.

MJG/h

August 15, 1961

M.J.Gobert

J. G. Cowan, C.C.

Plan for Unit Operation

North Virden Scallion Unit No. 1

Further to our memo of July 17, 1961, we have shipped, under separate cover, the comparison between the Plan and the Model Form used in Saskatchewan.

c.c. J. S. Richards

A handwritten signature in dark ink, appearing to be 'J. S. Richards', written in a cursive style.

NORTH VIRDEN SCALLION FIELD

SUN OIL COMPANY

	<u>Dates of Producing Rate Changes</u>	
	<u>Increase</u>	<u>Decrease</u>
5-21-11-26		April/59
10-22-11-26	May/59	
6-23-11-26		Sept./58
<del>16-23-11-26</del>	<del>June/59</del>	
4-26-11-26		Sept./58
5-26-11-26	Dec./57	
7-27-11-26	Dec./57	
16-27-11-26	Jan./58	

August 14, 1961.

McDaniel Consultants Ltd.,  
231 - 8th Avenue West,  
Calgary, Alberta.

Attention: Mr. R. R. McDaniel

Dear Sir:

Further to our recent letters, Fargo Oils Ltd., and our records cannot account for the production increases for the following wells -

	<u>Increase</u>
9 - 14 - 11 - 26	September/60
16 - 14 - 11 - 26	August/60
2 - 26 - 11 - 26	May/59

Yours very truly,

  
M. J. Gobert,  
Senior Petroleum Engineer.

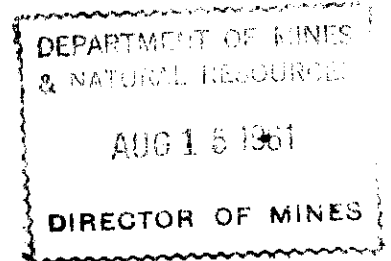
MJG/h



COPY

August 11, 1961.

R. J. S. GIBSON, Esq., Director,  
Manitoba Mining Operators Committee,  
400 - 10th Avenue West,  
Winnipeg, Manitoba.



Dear Mr. Gibson:

With reference to your letter of June 2nd and our meeting in Winnipeg on July 20, we have reviewed the draft Plan for joint operation of the North West Mining Unit No. 1, and our comments are set out hereunder under the headings:

1. Comments, Alterations and Additions,
2. Questions and Questions,
3. Alterations and Typographical errors.

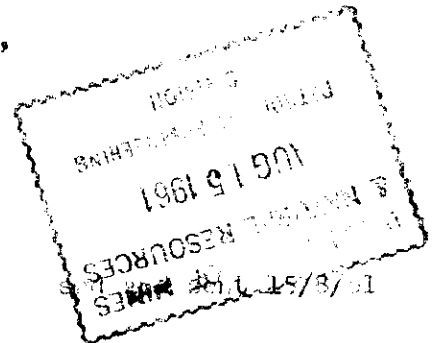
We have no comment to offer with respect to Part III "Direct Participation" or Section 260 (k) "District and Sub-Districtive Overlays", as we feel these matters can only be considered by the Board following the public hearing. The above in our opinion would appear to preclude the execution of this agreement by the royalty owners prior to such a hearing.

Sections 100 and 1102 would appear to conflict with sections 10(2) and 79(1), respectively, of "The Mines Act", and if these sections are to remain in the agreement as drafted, it seems to us that appropriate amendments to "The Mines Act" would be necessary.

Since your Committee feel it necessary, we will be pleased to meet with you at any mutually agreeable time to discuss the matter.

Yours very truly,

"J. S. Gibson"  
J. S. Gibson,  
Deputy Minister.



/ms

cc. Mr. J. S. Richards (2)

Att.

August 10, 1961.

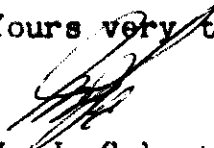
McDaniel Consultants,  
231 - 8th Avenue West,  
Calgary, Alta.

Attention: Mr. R. R. McDaniel

Dear Sir:

Further to our recent letters, attached herewith is  
a letter from Imperial Oil Limited, explaining production  
fluctuations on certain wells.

Yours very truly,



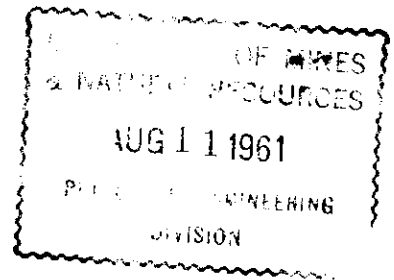
M. J. Gobert,  
Senior Petroleum Engineer.

RJG/h

# *Fargo Oils Ltd.*

140-6TH AVENUE S.W.  
CALGARY, ALBERTA

*Executive Offices*  
MEADOWS BUILDING  
DALLAS 6, TEXAS



9th August, 1961.

Mr. M.J. Gobert,  
Senior Petroleum Engineer,  
Department of Mines & Natural  
Resources,  
Government of the Province of  
Manitoba,  
Box 42 Legislative Building,  
WINNIPEG, 1, Manitoba.

Dear Sir:

We thank you for your letter of July 31st, 1961,  
in which you advised us you have been plotting decline  
curves for our wells in the North Virden-Scallion field.

We have reviewed the files for the wells listed  
on your attached list, and are presently at a loss to ex-  
plain the increases in the production rates at the dates  
shown. However, it appears that we could justify an increase  
for the wells listed for the year prior to the period shown.

If, upon checking the curves for these wells, you  
find the dates for the increase were listed in error, we will  
be happy to again review our files and advise you of the de-  
tails of the stimulation treatments for the wells listed.

Yours very truly,

FARGO OILS LTD.

OJW/sc

  
O. J. Wilson

August 8, 1961.

McDaniel Consultants Ltd.,  
231 Eighth Avenue West,  
Calgary, Alta.

Attention: Mr. R. R. McDaniel,  
President

Dear Sir:

Further to my letter of July 31st, the following information has been received.

1-16-11-26 In December, 1956 the oil production decreased to 158 barrels from 433 barrels the previous month. Subsequent months show an increase back up to the level of previous rates. This well produces into a four well battery and the low rate in December can only be explained through the inconsistent nature of individual well tests which are used to prorate the battery production. The increase in rate during March, 1957 is in keeping with the increase in total battery production during that month and it must be assumed that the overall producing efficiency must have been higher during March.

5-24-11-26 The increase in production during April, 1959 is a result of putting the well on production in the latter part of that month after a two month shut-in period. The daily rate during April is consistent with that of the months prior to being shut in. The well was subsequently worked over on July 19, 1959; with a 25,000 lb. sandfrac in 15,000 gallons of lease crude.

6-24-11-26 The change in productivity during August and September, 1959 is attributable to a rework performed on July 18, 1959 in which this well was treated with a 14,500 lb. sandfrac in 10,000 gallons of lease crude. The decrease in production in January, 1958 is a result of that well being shut in during most of that month. The daily rate is consistent with prior and subsequent months.

11-26-11-26 and 12-26-11-26 These two wells produce into a common battery and the decrease of production on 12-26 and the corresponding increase on 11-26 during May, 1960 must be attributed to more accurate individual well tests being obtained during that month. It should be realized, of course, that accurate well tests are sometimes difficult to obtain during the cold winter months.

5-3-12-26 This well increased in production during August, 1960. The explanation for this is not apparent. The volumes of oil produced from this well are quite low and the possible error in prorating to this well from a test would be quite small considering the overall battery production.

We hope these comments are of assistance to you in interpreting the decline curves. Although every effort is made to prorate individual well production from the measured battery production as accurately as possible, you are not doubt aware of the erratic behavior of individual well tests from month to month. We feel, however, that these inconsistencies are not great over the expected life of the well and are not serious insofar as the extrapolation of producing characteristics is concerned.

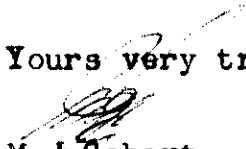
13-34-11-26 Feb./59 - mechanical due to pump plugging. Pump pulled March 20, cleaned up wax and "gyp", back on production at 40 b/d. rate with gradual decline.

7-5-12-26 Acidized with 6 bbls. XFMW acid on October 24, 1958. Continual production decline necessitated shutting the well down in December, 1959.

9-5-12-26 Acidized with 150 gal. XFMW acid in September 1958, and since that time has declined to approximately the same monthly production rate that existed immediately prior to the acid treatment.

Further information will be forwarded as received.

Yours very truly,

  
M.J. Gobert,  
Senior Petroleum Engineer.

MJG/h



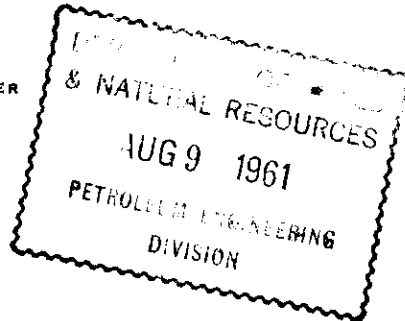
# IMPERIAL OIL LIMITED

1825 McINTYRE STREET, REGINA, SASKATCHEWAN, CANADA

PRODUCING DEPARTMENT - REGINA DIVISION

R. E. FLANDERS  
DIVISION PRODUCTION MANAGER

E. 832



August 7, 1961

File: 04.341

Mr. M. J. Gobert,  
Senior Petroleum Engineer,  
Department of Mines & Natural Resources,  
Mines Branch,  
Petroleum Engineering Division,  
Box 42, Legislative Building,  
WINNIPEG, Manitoba.

Dear Sir:

Re: North Virden-Scallion Field  
Production Data

In answer to your letter of July 31, 1961 regarding production data on three Imperial wells in the North virden-Scallion field, we can supply the following information.

Imperial Scallion 1-33M-11-26

	<u>Days</u>	<u>Oil</u> Bbl.	<u>Gas</u> Mcf	<u>Water</u> Bbl.	<u>Daily Oil</u> Bbl.
May 1958	31	114	17	153	3.7
June	30	57	9	129	1.9
July	23	47	7	90	2.0
Aug.	4	12	2	20	3.0
Sept.	3	16	2	27	5.3

..... /2

August 7, 1961

	<u>Days</u>	<u>Oil</u> <u>Bbl.</u>	<u>Gas</u> <u>Mcf</u>	<u>Water</u> <u>Bbl.</u>	<u>Daily Oil</u> <u>Bbl.</u>
Oct. 1959	3	23	3	-	7.7
Nov.	5	36	5	-	7.2
Dec.	24	59	9	-	2.5
Jan.	31	54	8	-	1.7

The daily average production of this well appears very erratic regardless of number of days produced in a month. Our records show no workovers performed after December 15, 1957. No apparent reason is given in production records for the drop in days produced per month for the 17 month period July 1958 to December 1959.

Imperial Scallion 9-33M-11-26

In your letter you show an increase in November 1957 for Imperial Scallion 9-33M-11-26. Our production records show a decrease in November as follows:

	<u>Days</u>	<u>Oil</u>	<u>Gas</u>	<u>Water</u>	<u>Daily Oil</u>
Aug. 1957	31	381	57	1	12.3
Sept.	30	201	36	2	8.0
Oct.	31	158	24	-	5.1
Nov.	25	64	10	-	2.6
Dec.	25	82	12	-	3.3
Jan. 1958	15	68	10	-	6.5

We have no explanation for this decrease nor for the increase in December and January; no workovers have been performed on this well.

Imperial Scallion 10-33M-11-26

For Imperial Scallion 10-33M-11-26 there is a suggested production decline in March 1958. A 20,000 pound sandfrac, performed on March 7, 1958, resulted in the production increase in April as shown below.

...../3


E. 832

- 3 -

August 7, 1961

	<u>Days</u>	<u>Oil</u>	<u>Gas</u>	<u>Water</u>	<u>Daily Oil</u>
Jan. 1958	31	944	142	39	30.5
Feb.	28	342	51	6	12.2
Mar.	18	131	20	30	7.3
April	27	616	92	2375	22.8
May	30	868	130	2150	28.9
June	30	996	149	2076	33.2

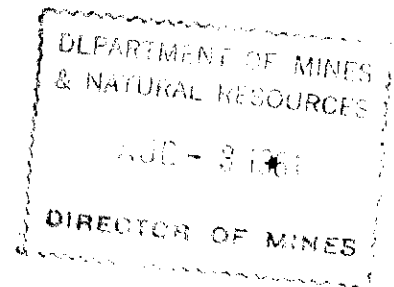
Yours very truly,

  
\_\_\_\_\_  
M. M. Hanna,  
Division Engineer

ETC /lpm  
Day (2)



MCDANIEL CONSULTANTS LTD.  
*Oil and Gas Reservoir Evaluations*



August 2, 1961.

C  
O  
Director of Mines,  
Department of Mines and Natural Resources,  
Mines Branch,  
901 Norquay Building,  
401 York Avenue,  
Winnipeg 1, Manitoba.

Attention Mr. J.S. Richards

P  
Dear Sir,

Y  
In regard to your letter of July 28, 1961 we have briefly reviewed the comments of Mr. Gobert and Mr. Tallin on the Plan of Unit Operation, North Virden Scallion Unit No. 1 as prepared by the operators. As you are aware we have discussed this document with the operators and a number of the points covered by the aforementioned comments were reviewed. In view of the lengthy nature of the discussion, it is believed that it would not be reasonable to attempt a written review at this time. It is suggested, however, that the operators be given both the comments made by Mr. Gobert and Mr. Tallin for their perusal and then a meeting of all parties concerned be held. It is believed that such an approach would eliminate a considerable number of the contentious or questionable points.

In reviewing this matter, one point becomes evident which was not discussed at our meeting with the operators. This point deals with the participation basis. It would appear that the operators are desirous of having the entire agreement approved so that the royalty owners will only be contacted once. Should this be the case it would seem that they are also seeking

McDANIEL CONSULTANTS LTD.  
*Oil and Gas Reservoir Evaluations*

Director of Mines - 2.

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approval of the method of establishing a participation formula. The writer assumed that this matter could only be settled at the Hearing. It is evident, however, that a clear understanding of this point should be reached with the operators. Although we have not concluded our studies in this regard, we would agree with Mr. Gobert's analysis in that wide variations would be obtained in the participation basis depending on the formula that is employed. It would seem that you cannot assure the operators that this basis will not be altered and that they will not be required to approach the mineral owners a second time. In effect, the form of this document and the actual effect of it appear to the writer to be completely separate considerations.

We would appreciate your comments in regard to the aforementioned discussion.

Sincerely yours,

McDANIEL CONSULTANTS LTD.

Copy (*Original*  
*Signed*) *R. R. McDaniel*

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Per: R.R. McDaniel, P. Eng.

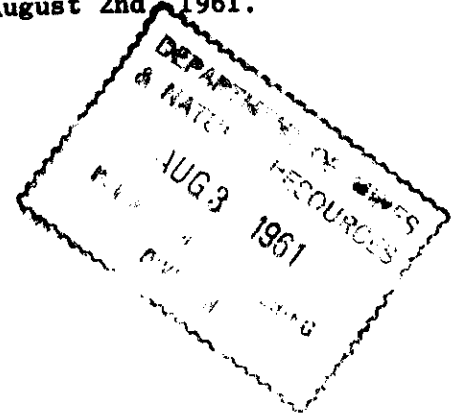
# DOME PETROLEUM LIMITED

C. S. DUNKLEY  
VICE-PRESIDENT

706—7TH AVENUE SOUTH WEST  
CALGARY, ALBERTA

TELEPHONE  
AMHERST 9-4951

August 2nd 1961.



Department of Mines and Natural Resources,  
Mines Branch, Petroleum Engineering Division,  
Box 42, Legislative Building,  
WINNIPEG 1, Manitoba.

Attention: Mr. M.J. Gobert

Dear Sir:

In reply to your letter of July 31, 1961 containing inquiries regarding change in producing rate on certain Dome wells in the North Virden Scallion Field, we would make the following comments:

- ✓ 1-16-11-26 In December, 1956 the oil production decreased to 158 barrels from 433 barrels the previous month. Subsequent months show an increase back up to the level of previous rates. This well produces into a four well battery and the low rate in December can only be explained through the inconsistent nature of individual well tests which are used to prorate the battery production. The increase in rate during March, 1957 is in keeping with the increase in total battery production during that month and it must be assumed that the overall producing efficiency must have been higher during March.
- ✓ 5-24-11-26 The increase in production during April, 1959 is a result of putting the well on production in the latter part of that month after a two month shut-in period. The daily rate during April is consistent with that of the months prior to being shut in. The well was subsequently worked over on July 19, 1959; with a 25,000 lb. sandfrac in 15,000 gallons of lease crude.
- ✓ 6-24-11-26 The change in productivity during August and September, 1959 is attributable to a rework performed on July 18, 1959 in which this well was treated with a 14,500 lb. sandfrac in 10,000 gallons of lease crude. The decrease in production in January, 1958 is a result of that well being shut in during most of that month. The daily rate is consistent with prior and subsequent months.
- ✓ 11-26-11-26 and 12-26-11-26 These two wells produce into a common battery and the decrease of production on 12-26 and the corresponding increase on 11-26 during May, 1960 must be attributed to more accurate individual well tests being obtained during that month. It should be

.....2

Department of Mines and Natural Resources.....

realized, of course, that accurate well tests are sometimes difficult to obtain during the cold winter months.

✓ 5-3-12-26 This well increased in production during August, 1960. The explanation for this is not apparent. The volumes of oil produced from this well are quite low and the possible error in prorating to this well from a test would be quite small considering the overall battery production.

✓ We hope these comments are of assistance to you in interpreting the decline curves. Although every effort is made to prorate individual well production from the measured battery production as accurately as possible you are no doubt aware of the erratic behavior of individual well tests from month to month. We feel, however, that these inconsistencies are not great over the expected life of the well and are not serious insofar as the extrapolation of producing characteristics is concerned.

Yours very truly,



C. S. Dunkley.

MEM:mw

E. H. VALLAT LTD.

8 MICHAEL BUILDING  
3RD STREET WEST AT 9TH AVENUE  
CALGARY, ALBERTA

August 2, 1961.

Petroleum Engineering Division  
Department of Mines and Natural Resources  
911 Niquay Bldg.  
Winnipeg 1, Manitoa.

Attention Mr. M.J.Gobert

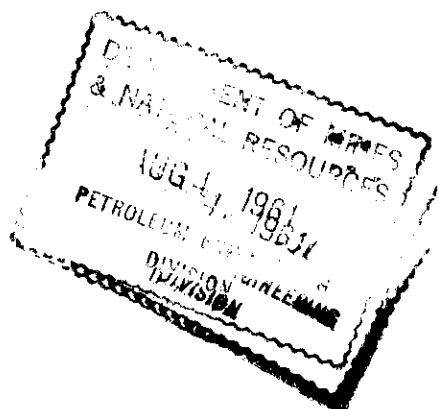
Dear Bert,

The note on the attached sheet which you sent over will,  
we trust, answer your questions.

Regret I was unable to be present when your associates  
were here to discuss the proposed North Virden Unit but I was  
headed for the Arctic that day.

Regards,

*Gene*



NORTH VIRDEN SCALLION FIELD

E. H. VALLAT LTD.

Dates of Producing Rate Changes

Increase

Decrease

✓13-34-11-26

✓Feb./59

✓mechanical due to pump plugging.  
Pump pulled March 20, cleaned up  
wax and "gyp", back on production  
at 40 b/d. rate with gradual  
decline.

Aug. 2, 1961.



INTER-DEPARTMENTAL MEMORANDUM

FROM J. S. Richards,  
Director of Mines.



PROVINCE  
OF  
MANITOBA

DATE August 2, 1961.

TO Mr. J. G. Cowan, Q.C.,  
Deputy Minister.

*fite*  
SUBJECT Plan for Unit Operations -  
North Virden Scallion Unit No. 1.

Attached hereto copy of a memo from Mr. Gebert commenting on Mr. Tallin's memo of July 13, 1961. The following additional comments are offered:

Part IX -- Mr. Tallin suggests that this part be amended so that all subsequent amendments to The Mines Act in respect to royalties would amend the Plan. What is in doubt is whether the Working Interest Owners would be agreeable to a provision of this nature.

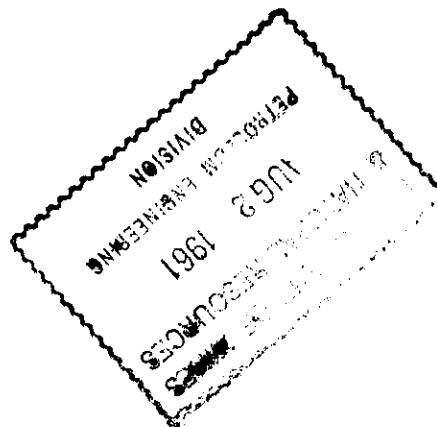
Part XVI, Section 1604 -- Probably this section is only intended to refer to an interest held by a Working Interest Owner. If this is made clear, it would remove Mr. Tallin's objection.

Section 1607 -- It is not clear, to me, what the phrase "surrender or release" means. If this means that all rights go back to the lesser who then becomes the Working Interest Owner, there would appear to be no objection.

*J. S. Richards.*  
J. S. Richards.

JSR:lm  
Enc.

✓ c.c. Senior Petroleum Engineer.



**Canadian Export Gas & Oil Ltd.**

**A. F. Beck**  
President

203 Oil Exchange Building  
Calgary, Alberta

Telephone AMherst 6-4651

August 1, 1961

Department of Mines & Natural Resources  
Petroleum Engineering Division  
911 Norquay Building  
401 York Avenue  
Winnipeg 1, Manitoba

Attention: Mr. M.J. Gobert

Dear Sirs:

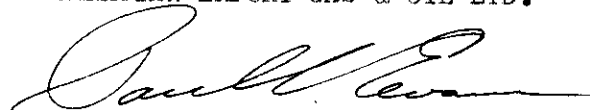
Reference is made to your letter of July 31, 1961 concerning producing rates on some wells in the North Virden Scallion Field and following are our comments:

<u>Location</u>	<u>Remarks</u>
✓ 7-5-12-26	Acidized with 6 bbls. XFMW acid on October 24, 1958. Continual production decline necessitated shutting the well down in December, 1959.
✓ 9-5-12-26	Acidized with 150 gal. XFMW acid in September, 1958 and since that time has declined to approximately the same monthly production rate that existed immediately prior to the acid treatment.

If there is any further information you desire, please advise and I will be happy to supply it.

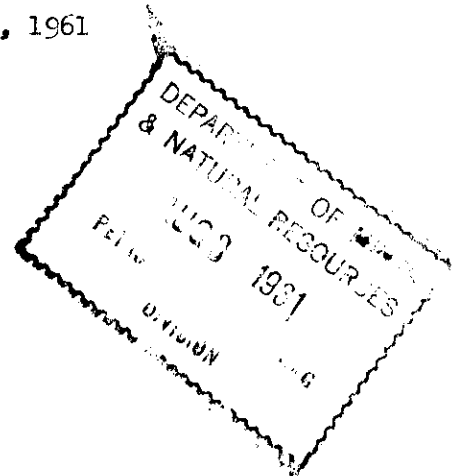
Very truly yours,

CANADIAN EXPORT GAS & OIL LTD.



Paul C. Evans  
Vice-President i/c Production

PCE:id





M. J. Gobert

J. S. Richards

Plan for Unit Operation

August 1, 1961

→ North Virden Scallion Unit No. 1

The following comments are made respecting Mr. R. H. Tallin's memo of July 13, 1961.

Mr. Tallin makes no reference to Part 1 - Interpretation of the Unit Agreement - thus infers by omission that it is in conformance with The Mines Act whereas, in fact, there is considerable discrepancy between the definitions in the Unit Agreement and those in The Mines Act.

I do not agree with Mr. Tallin that Part 11 adequately sets out the purpose and intent of the proposed unitization.

Part 1V provides for use of the Unitized Substances whereas Section 90 of the Regulations provides in part -

"90. The royalty levied and collected by the Crown on all products of any location . . . ."

Part VI Part 603(k) gives the Operating Committee power to amend the Accounting Procedure and thus the Plan.

Part 1X Do not agree that the proposed amendment to the Mines Act would affect the Unit Agreement.

Part XVI Part 1607 provides for surrender of a mineral lease whereas, in fact, each mineral lease participates until termination of Unit.

Part XXI Part 1907 should be deleted in its entirety.

Part XXV Essentially, I am in agreement with Mr. Tallin. It is simply a matter of clarification between payments made with respect to mineral leases and surface leases.



(1)

~~Suggest the following should be changed, added, deleted or amended.~~

Part 1 ~~request that~~ Sections be ~~put~~ in alphabetical order.

Section 202<sup>1026</sup> should include need to prevent waste, to obtain ultimately the greatest possible recovery of the Unitized Substances ~~and to protect equity.~~

~~Section 301~~  
Section 407 Section 90 (a) of the Regulations under "The Mines Act" provides that Royalty is to be paid to the Crown: "90 (a) on all products other than natural gas, including all products obtained by separation, absorption or in any other manner, twelve and a half per centum thereof free and clear of any deduction whatsoever . . .".

Section 503(c) provision should be made for the Chairman of the Board to be notified as to the Unit Operator appointed.

Section 504 4th line - after Committee, add "and Chairman of the Board".

Section 603(k) should be amended to - "Subject to the approval of the Board, to amend Part ~~XXV~~ hereof from time to time whether in whole or in part".

~~Section 807~~ <sup>Spall</sup> 1st line - amend to, "Unit Operator shall, subject to Section 734 (k) (i) (A) and (B) of "The Mines Act", have a lien upon the interest of . . .".

~~Section 2001~~ <sup>Spall</sup> 9th line - amend to "Plan shall terminate, subject to the approval of the Board, and be at an end upon the concurring . . .".

~~Section 2002~~ <sup>Spall</sup> ~~Plugging and abandoning in accordance with rules, orders and regulations where applicable.~~

Section 2006 3rd line - amend to "shall be heard by the Board before  
(a) 3 years from the Effective Date or  
→ (b) a majority or  
(c) the Board on its own motion may hold a re-hearing.

Part XXI This Part should be preceded by or have incorporated in it a list of all wells, taken over by the Unit Operator under Part X, showing correct well name including legal description of well site as contained in the Department of Mines and Natural Resources Well Name Register.

This Part should be followed by a part similar to:  
"The lands in the Province of Manitoba which comprise the North Virden Scallion Unit No. 1 are as follows:

Legal Description of the Unit Area"

PART XX11

Map of Unit Area should show wells with a recognized legend

PART XX111

(a) Figures under Land Description to be prefixed by Lsd. to indicate legal description of parcels involved.

If more than one working interest owner, the percentage interest of each should be shown.

Tract Participation factors should be sub-totalled by lease and quarter section.

This Part should be followed by a part similar to the following:

"Subject to any disposition, the following outline sets forth prima facie the respective Royalty Owners in and to the respective Numbered Tracts in the Unit Area.

Numbered Tract

(List tracts)

Royalty Owner

(List Royalty Owner and  
interest for each tract)

No provision has been made for:

- (a) Adding to Unit Area
- (b) Window Acreage
- (c) Fringe Acreage

~~CONFIDENTIAL~~

- Section 102 (t) re proper government authority, would it not be reasonable to have uniformity throughout. See Sections 603, 1103, 1703 and 2507(c).
- Section 102(V) Would this exclude any well drilled only to the Virden Member or one now plugged back to the Virden Member.
- Section 203(a) Are the leases actually amended prior to the filing of the Plan in accordance with Part XIV.
- Section 204 5th, 6th & 7th lines - "deems advantageous to the Unitized Strata or disadvantageous". Would meaning not be clearer if reference was made to operations on or production from the Unitized Strata.  
It might be helpful to follow Section 204 by a section to the effect that:  
"Nothing contained in this agreement shall be construed as imposing upon any Royalty Owner any obligation to pay for any of the expenses of this unitization or for any development, equipment or operating expense unless such Royalty Owner is obligated to pay for the same by terms of any oil and gas lease or other contract".
- Section 404 16th line - could this be worded more clearly to indicate short term purchase contracts, with provision for notice to be given to Unit Operator when authority is revoked.
- Section 508 12th line - should not reference be made to Sections 505 and 601.
- Section 705*  
Section 805 2nd page - 11th line, why - "the same shall bear interest at six (6%) per cent", whereas Section 803 11th line states "the same shall, at Unit Operator's discretion, bear interest at the rate of six (6%) per cent". Similarly, query with respect to Section 806.
- Section 808*  
Section 901 → Who pays taxes levied under "The Mineral Taxation Act". This Section and Sections 1104, 1106, 1202 and 2507 refer to lease rentals and payments. Could distinction between mineral leases and surface leases be made clearer.
- Section 1102 Would assignment of these surface rights be filed with Land Titles Office.  
Provision contained in the last 4 lines would appear to conflict with Section 79(1) of "The Mines Act".

Section 1203

Last line - what is significance of phrase - "prior to date hereof". Why so limited?

Section 1501 (b)

Should not the word "Tract" be substituted for the phrase "person entitled to the share".

Is the royalty share fully protected under this Section?

*Section 1601*  
Section 1604

*and the royalty share is not protected under this Section*  
2nd para. Intent not clear - would appreciate an explanation.

Section 1607

Why is this Section necessary. Would not surrender of any Lease constitute an amendment to the Plan and recalculation of all Tract Participation Factors.

~~Section 1703~~

2nd page - 5th last line - ~~would it be advisable to insert -~~  
~~"in accordance with the applicable laws, rules, etc."~~

Section 1907

Should this Section not be deleted. Surely, right to elect arises from U.S. law and is not restricted by an Order of the Board.

*Section 1907*  
*is not a right to elect but a right to participate in the profits of the tract*  
*and the right to elect is not restricted by an Order of the Board*  
*Section 1907 should be deleted*

*Section 2503 (b) (1) (A) (i) - suggest phrase "and the royalty share is not protected under this Section"*  
*Section 2503 (b) (1) (A) (ii) - suggest phrase "and the royalty share is not protected under this Section"*

MINOR ITEMS: *and*

Sections

102(c) ~~Suggest that any reference to time should be uniform. See Sections 707 and 1603.~~

~~102(d) Suggest well name should be Galston Scallion Prov. SWD 9-16-11-26.~~

102(t) 1st line misprint "allocated".

102(x) Should this not read - "pursuant to Part V hereof".

~~102(y) Suggest that any well names contained in this part should be the complete correct name or if the reference is to Tracts that the full legal description be used.~~

404 9th line, misprint "operation".

405(b) 8th line should read - "or Tracts from which the Oil sold was produced in excess of . . .".

601 3rd line "Order" should be replaced by "Plan".

603(c) Should this not read - "pursuant to Section 705".

~~706 9th line - suggest addition of phrase "or sold" after phrase "in kind".~~

803 2nd last line - insert for after "provided".

805 2nd line. It is assumed that this refers to capital costs and capital expenses.

1002 6th line - misprint "accepted".

1202 3rd last line, should this not read "Working Interest Owner".

1401 last line "The Mines Act".

1601 ~~3rd line - suggest word "subsequently" be inserted immediately before word "acquires".~~

1702 ~~Side note should read "Plan affects only Unitized Strata".~~

2502 2nd line should read "Section 1003".

~~2503 1st line should not phrase "purchased or acquired and", follow word "equipment".~~

2504 Should read "See Sections 803, 805 and 806".

2505 Last line should read "Section 2513".

2507(c) Last line should read "Section 2507(b)".

2507(d) 6th and 9th lines should read "Section 2507(b)".

2507(f) Last line should read "Section 2511".

2507(j) Should read "Section 1802".

2507(k) 1st para. should read Section 2507(b).  
2nd para. Part 602(e) should read Section 603(d).

~~2507(k) (iii)(b) 5th line suggest phrase "or on injection" should follow phrase "on production".~~

2507(k) (iii) (c) 4th line should read "Section 2507 (k)(iii)(b)"  
6th line suggest A.F.E. should be spelled out.

2509 3rd line should read "Section 2508".

2512(d) 3rd line should read "Section 1009".

2512(e) 6th line should read "Section 1009".

2512(f) 3rd line should read "Section 1009".

2512(g) 3rd line should read Section 1009".

SUGGESTIONS AND QUESTIONS

- Section 102 (t) ✓ Re proper government authority, would it not be reasonable to have uniformity throughout. See Sections 603, 1103, 1703 and 2507 (c). *102(e)*.
- Section 102 (V) ✓ Would this exclude any well drilled only to the Virden Member or one now plugged back to the Virden Member. *also and for the*
- Section 203 (a) ✓ Are the leases actually amended prior to the filing of the Plan in accordance with Part XIV. *102(e)*
- Section 204 ✓ 5th, 6th & 7th lines - "deems advantageous to the Unitized Strata or disadvantageous". Would meaning not be clearer if reference was made to operations on or production from the Unitized Strata. *in the case of the Unitized Strata*
- It might be helpful to follow Section 204 by a section to the effect that:
- ✓ "Nothing contained in this agreement shall be construed as imposing upon any Royalty Owner any obligation to pay for any of the expenses of this unitization or for any development, equipment or operating expense unless such Royalty Owner is obligated to pay for the same by terms of any oil and gas lease or other contract".
- Section 404 *to be* ✓ 16th line - could this be worded more clearly to indicate short term purchase contracts, with provision for notice to be given to Unit Operator when authority is revoked. *all plan*
- Section 508 ✓ 12th line - should not reference be made to Sections 505 and 601. *(in 11/1/60)*



- Section 708 ✓ 9th line - suggest addition of phrase "or sold" after phrase "in kind".
- Section 804 ✓ 4th line - suggest date be left blank.
- Section 805 ✓ 2nd page - 11th line, why - "the same shall bear interest at six (6%) per cent", whereas Section 803 - 11th line states "the same shall, at Unit Operator's discretion, bear interest at the rate of six (6%) per cent". Similarly, query with respect to Section 806.
- Section 808 ✓ Appears to be in conflict with 80 (2) of "The Mines Act".
- Section 901 Who pays taxes levied under "The Mineral Taxation Act". This Section and Sections 1104, 1106, 1202 and 2507 refer to lease rentals and payments. Could distinction between mineral leases and surface leases be made clearer.
- Section 1102 Could assignment of these surface rights be filed with Land Titles Office.  
 ✓ Provision contained in the last 4 lines would appear to conflict with Section 79(1) of "The Mines Act".
- Section 1203 ✓ Last line - what is significance of phrase - "prior to date hereof". Why so limited?
- Section 1501 (b) ✓ Should not the word "Tract" be substituted for the phrase "person entitled to the share".  
 Is the royalty share fully protected under this Section?

- Section 1601 ✓ 3rd line - suggest word "subsequently" be inserted before word "acquires". *and then*
- Section 1604 ✓ 2nd para. Intent not clear - would appreciate an explanation. *and then*
- Section 1607 ✓ Why is this Section necessary. Would not surrender of any Lease constitute an amendment to the Plan and recalculation of all Tract Participation Factors. *as per order of the Board*
- Section 1907 ✓ Should this Section not be deleted. Surely, right to elect arises from U.S. law and is not restricted by an Order of the Board. *with it*
- Section 2503 (a) ✓ 1st line - should not phrase "purchased or acquired and", follow word "equipment". *deleted*
- Section 2507 (k) (i) (b) ✓ 5th line - suggest phrase "or an injection" should follow phrase "on production". *deleted*

REQUESTED ALTERATIONS AND ADDITIONS

- Part 1 ✓ Sections to be in alphabetical order. *agreed.*
- Section 102 (c) ✓ Any reference to time should be uniform. See Sections 707 and 1603. *agreed.*
- Section 102 (c) ✓ Well name should be Galstan Scallion Prov. SWD 9-16-11-26. *agreed.*
- Section 202 ✓ Should include need to prevent waste, to obtain ultimately the greatest possible recovery of the Unitized Substances. *agreed.*
- Section 301 ✓ Well names contained in this part should be the complete correct name or if the reference is to Tracts, the full legal description is to be used. *agreed.*
- Section 407 ✓ Section 90 (a) of the Regulations under "The Mines Act" provides that Royalty is to be paid to the Crown: "90 (a) on all products other than natural gas, including all products obtained by separation, absorption or in any other manner, twelve and a half per centum thereof free and clear of any deduction whatsoever. . . ."
- Section 503 ✓ (c) Provision should be made for the Chairman of the Board to be notified as to the Unit Operator appointed. *agreed.*
- Section 504 ✓ 4th line - after Committee, add "and Chairman of the Board". *agreed.*
- Section 603 ✓ (k) Should be amended to - "Subject to the approval of the Board, to amend Part XXV hereof from time to time whether in whole or in part". *agreed.*
- Section 807 ✓ 1st line - amend to, "Unit Operator shall, subject to Section 73 4 (k) (i) (A) and (B) of "The Mines Act", have a lien upon the interest of . . .". *agreed.*

Section 703 ✓ 2nd page - 4th last line - insert "in accordance with the applicable laws, rules, regulations and orders". *agreed*

Section 2001 ✓ 9th line - amend to "Plan shall terminate, subject to the approval of the Board, and be at an end upon the concurring . . .". *agreed*

Section 2002 ✓ 13th line - insert "in accordance with the applicable laws, rules, regulations and orders". *agreed*

Section 2006 ✓ 3rd line - amend to "shall be heard by the Board before

- ch*
- (a) 3 years from the Effective Date or
  - (b) a majority of the Working Interest Owners, owning at least seventy-five (75%) per cent of the Participating Interests, have agreed, in writing, to such application for a re-hearing of the matters herein provided for, or for amendments to this Plan or
  - (c) the Board on its own motion may hold a re-hearing. *agreed*

Part XXI ✓ This Part should be preceded by or have incorporated in it a list of all wells, taken over by the Unit Operator under Part X, showing correct well name including legal description of well site as contained in the Department of Mines and Natural Resources Well Name Register.

✓ This Part should be followed by a part similar to:

"The lands in the Province of Manitoba which comprise the North Virden Scallion Unit No. 1 are as follows:

Legal Description of the Unit Area"

PART XXII *Agreed.* Map of Unit Area should show wells with a recognized legend.

PART XXIII (a) Figures under Land Description to be prefixed by Lsd. to indicate legal description of parcels involved.

✓ If more than one working interest owner, the percentage interest of each should be shown.

✓ Tract Participation factors should be sub-totalled by lease and quarter section.

✓ This Part should be followed by a part similar to the following:

"Subject to any disposition, the following outline sets forth prima facie the respective Royalty Owners in and to the respective Numbered Tracts in the Unit Area.

✓ Numbered Tract

(List tracts)

Royalty Owner

(List Royalty Owner and interest for each tract)

PART XXIV ✓ Well name to be as in Section 102 (c).

No provision has been made for:

(a) Adding to Unit Area

(b) Window Acreage

(c) Hinge Acreage

✓ (d) Execution of this Agreement by the Working Interest Owners

(e) Execution of this Agreement by the Royalty Owners.

MINOR ITEMS AND TYPOGRAPHICAL ERRORS

- Section 102 (t) ✓ 1st line - misprint "allocated".
- Section 102 (x) ✓ Should this not read - "pursuant to Part V hereof".
- Section 404 ✓ 9th line - misprint "operation".
- Section 405 (a) ✓ 3rd last line - misprint "prevailing".
- Section 405 (b) ✓ 8th line should read - "or Tracts from which the Oil sold was produced in excess of . . .".
- Section 601 ✓ 3rd line - "Order" should be replaced by "Plan".
- Section 603 (c) ✓ Should this not read - "pursuant to Section <sup>204</sup>~~205~~".
- Section 803 ✓ 2nd last line - insert for after "provided".
- Section 805 ✓ 2nd line - it is assumed that this refers to capital costs and capital expenses.
- Section 1002 ✓ 6th line - misprint "accepted".
- Section 1202 ~~No~~ 3rd last line - should this not read "Working Interest Owner".
- Section 1401 ~~No~~ last line - "The Mines Act".
- Section 1601 ✓ Marginal note should read "Plan" not "Order".
- Section 1702 ✓ Marginal note should read "Plan affects only Unitised Strata".
- Section 2502 ✓ 2nd line should read "Section 1003".
- Section 2504 ✓ Should read "See Sections 803, 805 and 806".
- Section 2505 ✓ Last line should read "Section 2513".
- Section 2507 (c) ✓ Last line should read "Section 2507 (b)".
- Section 2507 (d) ✓ 6th and 9th line should read "Section 2507 (b)".
- Section 2507 (f) ✓ Last line should read "Section 2511".

Section 2507 (j) ✓ Should read "Section 1802".

Section 2507 (k) ✓ 1st para. should read Section 2507 (b)

✓ 2nd para. Part 602 (e) should read Section 603 (d).

Section 2507 (k) ✓ (iii) (c) 4th line should read "Section 2507 (k) (iii) (b)".

✓ 6th line-suggest A.F.E. should be spelled out.

Section 2509 ✓ 3rd line should read "Section 2508".

Section 2512 (d) ✓ 3rd line should read "Section 1009".

Section 2512 (e) ✓ 6th line should read "Section 1009".

Section 2512 (f) ✓ 3rd line should read "Section 1009".

Section 2512 (g) ✓ 3rd line should read "Section 1009".

*agrad*

July 31, 1961.

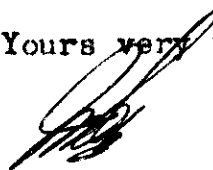
Imperial Oil Limited,  
1825 McIntyre St.,  
Regina, Sask.

Dear Sirs:

On reviewing the Rate vs. Cumulative and Rate vs. Time curves for wells in the North Virden Scallion Field, certain producing rate changes become apparent which our records do not explain.

Your comments with respect to those changes on the attached list would be appreciated.

Yours very truly,



M.J. Gobert,  
Senior Petroleum Engineer.

MJG/h



NORTH VIRDEN SCALLION FIELD

Imperial Oil Limited

DATES OF PRODUCING RATE CHANGES

	<u>Increase</u>	<u>Decrease</u>
1-33-11-26		June/58, Dec./59
9-33-11-26	Nov./57	
10-33-11-26		March/58

July 31, 1961.

Canadian Export Gas & Oil Ltd.,  
203 Oil Exchange Bldg.,  
Calgary, Alta.

Dear Sirs:

On reviewing the Rate vs Cumulative and Rate vs Time curves for wells in the North Virden Scallion Field, certain producing rate changes become apparent which our records do not explain.

Your comments with respect to those changes on the attached list would be appreciated.

Yours very truly,



M. J. Gobert,  
Senior Petroleum Engineer.

MJG/h

NORTH VIRDEN SCALLION FIELD

Canadian Export Gas & Oil Ltd.

Dates of Producing Rate Changes

Increase

Decrease

7-5-12-26

Nov./58

9-5-12-26

Sept./58

July 31, 1961.

The British American Oil Company Ltd.,  
Box 328,  
Estevan, Sask.

Attention: Mr. J. S. Hart,  
Area Production Manager

Dear Sir:

On reviewing the Rate vs Cumulative and Rate vs Time curves for wells in the North Virden Scallion Field, certain producing rate changes become apparent which our records do not explain.

Your comments with respect to those changes on the attached list would be appreciated.

Yours very truly,

  
M. J. Gobert,  
Senior Petroleum Engineer.

MJG/h

NORTH VIRDEN SCALLION FIELD

BRITISH AMERICAN OIL COMPANY LIMITED

Dates of Producing Rate Changes

	<u>Increase</u>	<u>Decrease</u>
5-18-11-26	March/60	
6-28-11-26	Dec./59	

July 31, 1961.

Shell Oil Company of Canada, Ltd.,  
Box 38,  
Calgary, Alta.

Dear Sirs:

On reviewing the Rate vs Cumulative and Rate vs Time curves for wells in the North Virden Scallion Field, certain producing rate changes become apparent which our records do not explain.

Your comments with respect to those changes on the attached list would be appreciated.

Yours very truly,



M.J. Gobert,  
Senior Petroleum Engineer.

MJG/h

NORTH VIRDEN SCALLION FIELD

SHELL OIL COMPANY OF CANADA, LTD.

	<u>Dates of Producing Rate Changes</u>	
	<u>Increase</u>	<u>Decrease</u>
10-21-11-26	Nov./57	March/57
11-21-11-26	Nov./57	
15-21-11-26	Sept./57	
4-33-11-26	Jan./58	Dec./57
5-33-11-26	Sept./57	Feb./57, Aug./57
11-33-11-26		July/58
12-33-11-26	March/57	Feb./57

July 31, 1961.

Dome Petroleum Limited,  
706 Seventh Avenue S.W.,  
Calgary, Alberta.

Attention: Mr. C. S. Dunkley

Dear Sir:

On reviewing the Rate vs Cumulative and Rate vs Time curves for wells in the North Virden Scallion Field, certain producing rate changes become apparent which our records do not explain.

Your comments with respect to those changes, on the attached list, would be appreciated.

Yours very truly,



M. J. Gobert,  
Senior Petroleum Engineer.

MJG/h



NORTH VIRDEN SCALLION FIELD

DOME PETROLEUM LTD.

	<u>Dates of Producing Rate Changes</u>	
	<u>Increase</u>	<u>Decrease</u>
1-16-11-26	March/57	Dec./56
5-24-11-26	April/59	
6-24-11-26	Sept./59	Jan./58
11-26-11-26	May/60	
12-26-11-26		April/60
5-3-12-26	Aug./60	

July 31, 1961.

Fargo Oils Ltd.,  
140 Sixth Avenue S.W.,  
Calgary, Alberta.

Attention: Mr. O. J. E. Wilson

Dear Sir:

On reviewing the Rate vs Cumulative and Rate vs Time curves for wells in the North Virden Scallion Field, certain producing rate changes become apparent which our records do not explain.

Your comments with respect to those changes, on the attached list, would be appreciated.

Yours very truly,

  
M. J. Gobert,  
Senior Petroleum Engineer.

HJG/h

NORTH VIRDEN SCALLION FIELD

FARGO OILS LTD.

Dates of Producing Rate Changes

	<u>Increase</u>	<u>Decrease</u>
9-14-11-26	Sept./60	
16-14-11-26	Aug./60	
2-26-11-26	May/59	

July 31, 1961.

Canadian Superior Oil Ltd.,  
703 Sixth Avenue S.W.,  
Calgary, Alta.

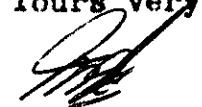
Attention: Mr. D. L. Bohannon

Dear Sir:

On reviewing the Rate vs Cumulative and Rate vs Time curves for wells in the North Virden Scallion Field, certain producing rate changes become apparent which our records do not explain.

Your comments with respect to those changes, on the attached list, would be appreciated.

Yours very truly,



M. J. Gobert,  
Senior Petroleum Engineer.

MJG/h

NORTH VIRDEN SCALLION FIELD

CANADIAN SUPERIOR OIL LTD.

	<u>Dates of Producing Rate Changes</u>	
	<u>Increase</u>	<u>Decrease</u>
2-16-11-26		April/55, Nov. /57
7-16-11-26		April/55
8-16-11-26		April/55
1-22-11-26	July/57	
7-22-11-26		July/57
8-22-11-26	June & July/59	
9-28-11-26		Feb./60

July 31, 1961.

E. H. Vallat Ltd.,  
8 Michael Bldg.,  
3rd St. W. at 9th Avenue,  
Calgary, Alberta.

Attention: Mr. E. H. Vallat

Dear Sir:

On reviewing the Rate vs Cumulative and Rate vs Time curves for wells in the North Virden Scallion Field, certain producing rate changes become apparent which our records do not explain.

Your comments with respect to those changes, on the attached list, would be appreciated.

Yours very truly,

  
M. J. Gobert,  
Senior Petroleum Engineer.

AJG/h

NORTH VIRDEN SCALLION FIELD

E. H. VALLAT LTD.

Dates of Producing Rate Changes

Increase

Decrease

13-34-11-26

Feb./59

July 31, 1961.

McDaniel Consultants Ltd.,  
231 Eighth Avenue West,  
Calgary, Alberta.

Attention: Mr. R. R. McDaniel,  
President

Dear Sir:

With reference to your letter of July 17, 1961, re production fluctuation, attached herewith is a list which explains most of them.

I believe that many are plotted in the expanded portion of the graph and the variations may appear more significant than they are.

The companies concerned have been requested to supply similar information on the ones omitted from the attached list.

Yours very truly,

  
M. J. Gobert,  
Senior Petroleum Engineer.

MJG/h



6-2-11-26	Expanded scale June/55 Test 4 to 1 BOPD Intermittent production in 1958 with down line. Rework Jan./58.
11-2-11-26	May/57 Test 10 to 5 BOPD June/59 Test 15 to 12 BOPD July/60 on production 19 days Nov./60 Pump change
13-2-11-26	May/58 Rework
14-2-11-26	Feb./57 Rework July/58 Test 20 to 12 BOPD Dec./59 Test 10 to 4 BOPD
9-9-11-26	Declining since 1956 June/59 Test 9 to 2 BOPD
15-9-11-26	Expanded scale Early 1955 considerable down time Jan./58 Test 6 to 1 BOPD Jan./59 Test 0.2 BOPD Shut in Feb./59
16-9-11-26	Oct./57 Rework
1-10-11-26	Oct./57 Rework
2-10-11-26	Mar./56 Rework
3-10-11-26	Aug./60 Rework Expanded scale
5-10-11-26	Mar./60 Pump change
6-10-11-26	Mar./56 Rework
7-10-11-26	Nov./55 Rework
8-10-11-26	Oct./55 Rework July/60 Pump change
9-10-11-26	Nov./55 Rework
15-10-11-26	Apr./56 Rework
16-10-11-26	Aug./57 Rework Feb./56 Test 20 to 7 BOPD Aug./56 Test 7 to 3 BOPD

1-11-11-26	May/59 Test 5 to 11 BOPD Jan./60 On production 8 days Dec./59 On production 8 days May/60 Test 13 to 5 BOPD
2-11-11-26	Aug/58 Test 8 to 15 BOPD May/57 On production 15 days
3-11-11-26	Nov./54 Test 21 to 9 BCPD June/55 Test 7 to 20 BOPD Sept./56 Test 24 to 10 BOPD May/59 Pump change July/59 Test 16 to 8 BOPD
6-11-11-26	Aug./56 Rework July/59 Test 6 to 1 BOPD May/60 Test 1 to 8 BOPD
8-11-11-26	Expanded Scale 1959 and 1960 production fluctuated 3 to 1 BOPD
12-13-11-26	March/60 Pump change
5-14-11-26	July/60 Rework
8-14-11-26	May/59 Rework
9-14-11-26	Aug./59 Rework
10-14-11-26	Oct./59 Rework
16-14-11-26	Sept./59 Rework
1-15-11-26	1956 Intermittent production June/60 Rework
2-15-11-26	Aug./59
3-15-11-26	March/59
7-15-11-26	Dec./59
8-15-11-26	April/59
9-15-11-26	Sept/59 April/59 Pump trouble

10-15-11-26	Jan./60	
11-15-11-26	Sept./59	
	April/59	Test 45 to 35 BOPD
14-15-11-26	Dec./60	Test 4 to 10 BOPD
16-15-11-26	June/60	Rework
15-16-11-26	March/59	Rework
3-22-11-26	June/60	Pump change
5-22-11-26	April/59	Rework
9-22-11-26	July/58	Rework
15-22-11-26	July/59	Rework
5-23-11-26	Sept./58	Rework
6-23-11-26	April/60	Rework
	May/60	Rework
9-23-11-26	Oct./59	Rework
11-23-11-26	Jan./58	Rework
12-23-11-26	Nov./59	Rework
13-23-11-26	Sept./59	Rework
14-23-11-26	Sept./59	Rework
15-23-11-26	Dec./59	Rework
16-23-11-26	June/59	Rework
3-24-11-26	Mar./59	Rework
11-24-11-26	Nov./59	Rework
12-24-11-26	Sept./59	Rework
13-24-11-26	Oct./59	Rework
4-26-11-26	Mar./60	Rework
6-26-11-26	Aug./57	Rework

7-26-11-26	Aug./57 Rework
8-26-11-26	July/60 Rework
6-27-11-26	Jan./58 Rework
8-27-11-26	July/60 Rework
9-27-11-26	Aug./60 Rework
10-27-11-26	July & Aug./60 Reworks
15-27-11-26	Oct. & Nov./60 Reworks
9-28-11-26	Nov./59 Rework
10-28-11-26	Aug./59 Rework
13-28-11-26	Sept./59 Rework
14-28-11-26	Mar./57 Rework
15-28-11-26	Dec./57 Rework
10-33-11-26	Apr./58 Rework ✓
11-33-11-26	July/60 Rework ✓
3-34-11-26	Jan./60 Rework
11-34-11-26	Oct./59 Rework
6-4-12-26	Oct./59 Rework
8-5-12-26	May & June/60 Reworks

July 20, 1961.

McDaniel Consultants,  
231 - 8th Avenue West,  
Calgary, Alta.

Attention: Mr. R. R. McDaniel

Re: North Virden Scallion Field

Dear Sir:

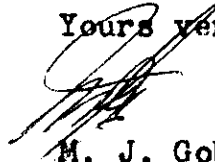
With reference to your letter of July 17, 1961, regarding changes in producing rate, would you confirm that the decline curves prepared by this office were checked against the decline curves prepared by The California Standard Company. All the reworks done by this Company are shown on their curves and account for some of the fluctuations. For example, our records show a rework on 13-2-11-26, in May 1958, with a resulting increase in production.

Secondly, wells on the following locations are not included in the unit area as presently proposed.

15-3-11-26	abd.	8-18-11-26	
16-3-11-26	abd.	10-18-11-26	
8-7-11-26		12-18-11-26	
15-7-11-26		15-18-11-26	SWD
5-8-11-26		16-18-11-26	
12-16-11-26		7-19-11-26	SWD
13-16-11-26		8-19-11-26	
14-16-11-26		9-19-11-26	
8-17-11-26		2-20-11-26	
12-17-11-26		4-20-11-26	
13-17-11-26		12-20-11-26	
15-17-11-26		10-34-11-26	SWD
7-18-11-26			

If you wish the information on these as well, will be pleased to supply it.

Yours very truly,

A handwritten signature in dark ink, appearing to be 'M. J. Gobert', written over the typed name.

M. J. Gobert,  
Senior Petroleum Engineer.

MJG/h

# COPY

July 28, 1961.

Mr. R. R. McDaniel,  
President,  
McDaniel Consultants Ltd.,  
231 - 8th Avenue, West,  
Calgary, Alberta.

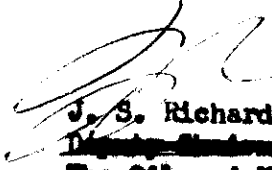
Dear Mr. McDaniel:

Attached hereto are the following:

1. Copy of a memo from Mr. Gobert to Mr. Cowan reviewing the Plan of Unit Operation, North Virden Scallion Unit No. 1.
2. Copy of a memo from the Assistant Legislative Counsel to the Attorney-General relative to the same material.

We would appreciate receiving your comments in respect to observations made in both these memoranda at your earliest convenience.

Yours very truly,

  
J. S. Richards,  
~~Deputy Minister,~~  
~~The Oil and Natural Gas~~  
~~Commissioner-General.~~

JSR:lam  
Enc.

c.c. Senior Petroleum Engineer.

July 13, 1961

*Recd  
July 24/61*

R. H. Tallin,

Hon. S. R. Lyon, Q.C.

Asst. Legislative Counsel

Attorney-General

**North Virden Seallion Unitisation Plan**

I have considered the plan for unit operation of the North Virden Seallion Unit No. 1. I cannot, of course, give an opinion on much of the agreement which relates to technical matters. There are, however, several parts on which I would like to make some comment.

Part II, in my opinion, is in conformity with the general intention of Part III of The Mines Act.

Part III deals with participation factors on which I can give no opinion.

Part IV, in my opinion, conforms with Part III of The Mines Act.

Parts V, VI, and VII, dealing with the operating committee and the unit operator, in my opinion conform with the intention of Part III of the Mines Act.

Part VIII deals with expenditures and liabilities and the unit operator's lien. Section 807 deals particularly with the operator's lien but does not clearly provide for the exclusion from the lien of royalties payable to the Crown or royalties payable to lessors who are freehold owners as required by Section 73(4)(k)(i) (A) and (B) <sup>of The Mines Act</sup>. The lien does not extend to the interest of working interest owners in the equipment that belongs to the unit area. These matters are required to be contained in any order of the board under subsection (4) of Section 73. Section 808 provides that each working interest owner shall contribute a portion of any unsatisfied indebtedness owing to the unit operator by any other working interest owner. This appears to be a contravention of subsection (2) of Section 80 of The Mines Act. Apart from these matters, Part VIII appears to be in



conformity with the intention of Part XII of The Mines Act.

Part IX deals with the responsibility for payment of royalties, etc. by the working interest owner. I believe that the Department of Mines and Natural Resources is considering recommending some amendments to The Mines Act which will deal with payment of royalties. If these amendments are enacted by the Legislature they may affect this Part. I would suggest that this Part be made subject to any laws of the Province that may be <sup>in force</sup> enforced from time to time respecting the payment of royalties, etc.

Parts X, XI, XII, XIII, XIV, and XV conform with the intention of The Mines Act.

Part XVI deals with the transfer of interests. Section 1603 deals with the time when the change of ownership will be recognized by the unit operator. It is my opinion that the working interest owner selling or assigning his interest should be responsible for making adjustments with the purchaser in connection with the sale or assignment in compliance with this section. Section 1604 prevents the disposition of an interest in the unit area unless a like disposition is made of a related interest in the unit facilities. In view of the fact that many royalty owners have no interest in the unit facilities, this section appears to be unnecessarily restrictive. The section should apply only to the interest of working interest owners in the area. Section 1608 provides a definition of the term "disposition". It might be advisable to exclude from the definition an assignment of the proceeds only or a portion of the proceeds from the sale of gas or oil from a tract. Apart from these matters, Part XVI, in my opinion, is in conformity with the intention of Part III of The Mines Act.

Part XVII deals with the rights of the working interest owners. Section 1702 permits a working interest owner to carry on surface operations which, under Section 79(1) of The Mines Act, would be prohibited. In this case, perhaps the deficiencies<sup>are</sup> in the legislation are where reference is made to the unit area without any provision for various operations related to various strata. Apart from this, Part XVII, in my opinion, is in conformity with the intention of Part III of The Mines Act.

Part XVIII deals with the insurance and liability of the unit operator. Section 1805 relieves the unit operator from any liability except for "gross negligence". I can see no reason why the unit operator should not be liable for his ordinary negligence. This, however, might be a matter which has been settled within the oil trade and my comment here is only a personal comment. However, there would be some difficulty in distinguishing between "ordinary negligence" and "gross negligence". Apart from this, Part XVIII, in my opinion, is in conformity with the intention of Part III of The Mines Act.

Part XIX is general in character. Section 1907 deals with a matter of the United States Law and I cannot comment upon it other than to say that if the plan were to become an order of the board, this would be a peculiar type of provision to have in the order. Apart from this, Part XIX, in my opinion, is in conformity with Part III of The Mines Act.

Part XX deals with the term of the plan. In view of the fact that the term of the plan depends upon the orders of the board, I believe that this Part should be made specifically subject to any order that the board may make revoking or cancelling the order. Section 2002 deals with the rights of the various working interest owners on the termination of the plan.

It might be advisable to make this section subject to any order of the board also. Section 2006 anticipates that no re-hearing of the matters contained in the plan would be received until 1935. This would seem to me to be a rather long period to impose upon royalty owners who have no voice in terminating the agreement under section 2001. Similarly, no mention is made of the royalty owners making an application for re-hearing on any matter contained in the agreement.

Parts XIX, XXII, XXIII, and XXIV are purely informative and I can give no opinion on them.

Part XXV deals with accounting procedures. Section 2507 provides that rentals and royalties paid by a unit operator on behalf of a working interest owner shall be charged to the common account. In view of the fact that under the provisions of Part IX, a working interest owner is responsible for paying all royalties, etc., section 2507(a) appears to be somewhat confusing. I believe that what is referred to here are the surface rentals which are taken over for the purpose of operating the unit. If this is the case, clause (a) should be made clear and if this is not the case then the conflict between 2507(a) and Part IX should be resolved. Apart from this, Part XXV appears to be in conformity with the intention of Part III of The Mines Act.

I am returning herewith the draft plan together with Mr. Whitney's memorandum to which I have attached a list of some minor errors in the plan.



R. H. Tallin.

C

Att.

May 17, 1961.

J.G. Cowan, Q.C.

Deputy Minister.

Mr. Robert

Plan of Unit Operation

North Western Seallion Unit No. 1

*Ask Toronto General to  
send.*

An attempt has been made to review this document from several viewpoints, but it should be emphasized that time has not permitted a critical analysis.

(a) Voluntary Unitization -

Section 71 (2) of "The Mines Act" requires only Board approval of a unitization agreement where the Working Interest Owners and Royalty Owners are parties to the agreement.

Section 72 (1) Provides for the Lieutenant-Governor-in-Council to authorize the minister on behalf of the Crown to become a party to a unitization agreement and,

Section 72 (2) Provides for the Lieutenant-Governor-in-Council to authorize the minister on behalf of the Crown to enter in an agreement for the calculation of royalty based on such an agreement.

In this case the approval of the Board would be almost automatic and since a Public Hearing would not be involved our main concern would be with respect to protection of Crown equity in the several crown parcels based upon the Participation Factors proposed in such an agreement.

(b) Non-Voluntary Unitization -

Sections 73 to 83 inclusive of "The Mines Act" provide for unitization where 100% of the Working Interest Owners and the Royalty Owners are not parties to the agreement and an order of the Board is required to effect unitization.

The present plan appears to have been drafted to provide for such a possibility and might then be considered from the following aspects:

1. As a Royalty Owner.
2. As to whether the statutory requirements of "The Mines Act" have been provided for.

3. As to whether the intent, purpose and object of Parts II and III of "The Mines Act" are achieved.
4. Part by part discussion of the draft as to intent, form, effect of each Part on 1 to 4 above and any omissions.
5. Comparison with existing Unit Agreements already in effect in Alberta and Saskatchewan.

Mr. Swanson's letter invited your assistance as a Royalty Owner and with this in mind the following comments are offered.

1. As a Royalty Owner the Crown are interested in the following parcels contained within the boundaries of the proposed unit:

Section 11-11-26	9 producing wells, on lsd. 1,2,3,4, 5,6,7,8 and 12.
NE/4 Sec. 16-11-26	4 producing wells and 1 salt water disposal well on lsd. 9, 10, 15 and 16
NW/4 Sec. 24-11-26	3 producing wells on lsd. 11, 12, and 13.

In addition to the above, if provision is made for "fringe acreage" or "window acreage" the Crown would be effected in the remainder of Section 11 and the eastern portion of Section 29.

As a Royalty Owner the Crown's interest in the Plan might be considered to be confined to

- (a) Tract Participation - to ensure that the Crown is given the opportunity of obtaining its just and equitable share of the production from the pool.
- (b) Protection of Royalty Share from liens etc.
- (c) Effect on individual leases to the extent that they are modified and amended by this Plan.

The Tract Participation Factors listed in Part XXIII are calculated by the method described in Part III. This method based entirely on production, is a departure from the historical methods which employ, to varying degrees, factors relating to reservoir characteristics such as oil in place, feet of pay, porosity, etc.

The determination of the basis for calculation of the Tract Participation Factors with a view to maintaining equity between leases will be the main function of the Board at a Public Hearing.

To illustrate the complexity of this phase, attached herewith is a comparison of Participation Factors for the Crown Leases involved, using only a few of the many possible well and production variables. A comparison based upon the infinite number of reservoir variables has not been attempted.

Parts dealing with Royalty are summarized below:

Part 102 (i) - similar to definition in "The Mines Act" - "Unitized Substances" has been substituted for oil and gas.

"Lease" substituted for subsisting oil and gas lease

Phrase "or other contract relating to oil and gas" has been deleted.

Part 202 - provides for the unitization of Working Interest Owners and Royalty Owners interests so that operations may be conducted without regard to separate leases as though the Unitized Strata were covered by a single lease subject to all the terms and conditions of the agreement.

It might be helpful to follow Part 204 by a Part to the effect that; "Nothing contained in this agreement shall be construed as imposing upon any Royalty Owner any obligation to pay for any of the expenses of this unitization or for any development, equipment or operating expense unless such Royalty Owner is obligated to pay for the same by terms of any oil and gas lease or other contract.

Part 203 (a) & (b)

- Amends, maintains and provides for continuation of the leases and infers payment of Royalty on basis of Tract Participation Factors.

Part 301 - is explanatory as to the method of calculation of Tract Participation Factors.

Part 401 - provides for all Unitized Substances produced and saved to be apportioned among and allocated to the tracts in accordance with their respective Tract Participation Factors.

- Part 403 - Royalty Owners shall accept royalty calculated on the allocated production in full settlement -----on Unitized Substances under their respective leases.
- Part 406 - No payments shall be due or payable to Royalty Owners on any substance which is deemed to be an Outside Substance.
- Part 407 - Allows the Working Interest Owners to use as much of the Unitized Substances as they deem necessary and provides that such Unitized Substances used, injected or lost shall be excluded in allocating production and therefore no royalty would be payable.
- The Crown (Mines Branch) has always required that royalty be paid on Crown oil used.
- Part 803 - Authorizes the Unit Operator to enforce the lien described in Part 807 upon the respective interests of a defaulting Working Interest Owner.
- Respective interests are assumed to include production in which case it is not clear that the royalty share is excluded.
- Part 807 - Unit Operators Lien - although it does not relieve defaulting Working Interest Owner of liability to pay royalty, protection of such royalty interest would be clearly indicated by reference to Section 73 4 (k) (1) (A) & (B) of "The Mines Act".
- Part 901 - Places the responsibility for royalty payments on each Working Interest Owner for the leases contributed by it to the Unit Area.
- Part 1501 - Paragraph (a), (b) & (c) of this Part are almost identical in wording to Section 85 (a), (b) & (c) of "The Mines Act", but both, in my opinion, place the onus of approving the title or determining the dispute on the Unit Operator by the wording of (b)

If in (b) the phrase "person entitled to the share" was deleted and the word Tract inserted the intent of this part would be maintained.

Royalty share should be excluded from any order of the court of Queen's Bench.

- Part 1901 - I do not understand this Part but if Royalty Owner is otherwise adequately protected, have no comment.
- Part 2001 - Provides for the termination of the Plan.
- Part 2004 - Leases revert to original status.
- Part 2005 - Provides for each Working Interest Owner to notify their respective Royalty Owners within 30 days of the termination of the Plan.
- Part XXIII - Royalty Owners and the Royalty Owners Interests are not shown, Nor is there provision for these to execute this document as to their interests.

2. I believe that the Department of the Attorney General will review this draft critically with respect to the statutory provisions.

I have checked each Section of "The Mines Act" and the draft appears to be in good agreement with the exception of some definitions which have been altered necessarily and those Parts mentioned in the Discussion of the Draft and the comments on Royalty Owner. These are:

- Part 603 (k) - any amendment to Part XXV authorized by this Part might require a re-hearing by the Board.
- Parts 803, 807 - Section 73, (k) (i) (A) & (B) of "The Mines Act" excludes royalty share.
- Part 1501 (a), (b) & (c)
- Identical to Section 85 (a), (b) & (c) of "The Mines Act". Suggest that both should be amended as suggested in comments under Royalty Owner.
- Part 1607 - would surrender of leases constitute an amendment to the plan and require a re-hearing by the Board.



- Part 2001 - Section 73 4 (1) of "The Mines Act" would provide for termination of plan and Section 87 (4) requires the Board to send copies of order rescinding the plan to District Registrar.
- Part 2006 - Re-hearings would be dealt with under Section 75, (1), (2), (3), (4) and (5) of "The Mines Act."

3. The intent, purpose, and object of Parts II and III (of "The Mines Act") are:

- (a) to effect the conservation of the oil and gas resources of the province;
- (b) to prevent waste in the production of oil and gas;
- (c) to regulate all operations for the production of oil or gas in such manner that the greatest economically practicable recovery thereof by prudent and proper operations and practices may be realized;
- (d) to give each owner the opportunity of obtaining his just and equitable share of the production of any pool; and
- (e) to afford each owner a reasonable opportunity to recover or receive 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.

It will be the responsibility of the Board at the Public Hearing to make certain that the various phases of the Plan do indeed effect the intent, purpose and object of Parts I and III in accordance with Section 58 of "The Mines Act".

4. See attached.

5. The draft is similar to the Model Form Plan of Unit Operation used by the Province of Saskatchewan.

In the Province of Alberta I believe that the Unit Operating Agreement and the Royalty Owner's Unitization Agreement are usually separate documents.

A direct comparison, phrase by phrase, with the Model Form has been commenced and will be completed before the Public Hearing.



M.J. Gobert,  
Senior Petroleum Engineer.

WJG/lk

Attach.

#### 4. Discussion of the Draft - Part by Part

##### SUMMARY

It would appear that the Draft lacks or has not provided fully for the following:

1. List of Unit Wells ✓
2. Working Interest Owners Interests
3. List of Royalty Owners
4. Royalty Owners Interests
5. Royalty Owners Interests not fully protected.
6. Provision for adding to Unit Area
7. Provision for Window Acreage.
8. Provision for Fringe Acreage.
9. Plan of Secondary Recovery, flood pattern, etc.

##### PART 1

Why should these not be in alphabetical order. ✓ S

"Effective Date" 102 (c) ✓ - Standard Time

Part 707 7.00 am of the first day

Part 1603 7.00 am Central Standard Time

"Unit Operator" 102 (g) - why a unanimous vote. This precludes a majority from contracting operation of the Unit.

"Participating Interest" 102 (h) respective working interests not shown in Part ~~XXXX~~ 111.

"Royalty Owner" 102 (i) - similar to definition in The Mines Act. "Unitized Substances" has been substituted for oil and gas. "Lease" substituted for subsisting oil and gas lease.

Q *Q* Phrase, "or other contract relating to oil and gas" has been deleted.

"Unit Area" 102 (k) - does a list of parcels, Part XXIII and a plan Part XXII, constitute a legal description of the unit area and a legal description of each tract included in the unit area as required by Section 73, 4 (b) & (c) of "The Mines Act" should an Order of the Board be required.

*NB* *S*

"Unit Operated Wells" 102 (m) is this broad enough to include salt water disposal wells not completed in the Unitized Strata and wells which are inactive at the Effective Date. See Part 1001.

*Q*

"Unitized Strata" 102 (o) suggest well name should be changed to Calstan Scallion SWD 9-16-11-26 here and in Part XXVI.

*Q*

"Spacing Unit" 102 (t) misprint "allocated" ✓  
Why not direct reference to the Department or uniformity throughout.  
Part 603 "any governmental or regulatory body"  
Part 1103 "any governmental body having jurisdiction."  
Part 1703 same as Part 1103  
Part 2507 (c) "governmental authority"  
Section 57 (h) of "The Mines Act" includes "the subsurface regions vertically beneath an area so allocated".

*Should Unitized  
Substances be  
included for  
spacing unit*

*Q*

"well" 102 (v) Would this exclude any well drilled only to the Virden Member or one now plugged back to the Virden Member.

*Q*

"Operating Committee 102 (x) should this not read - pursuant to Part V hereof.

*Q*

PART 1

Operation as Unit

202

I believe the Board would consider it necessary to include in the purpose of operation as a unit the need to prevent waste and to obtain ultimately the greatest possible recovery of the Unitized Substances with protection of equity.

Amendment of Leases

203

(a) Are the leases actually amended until the plan is filed in accordance with Part XIV.

Insert in Part 11

It might be helpful to follow Part 204 by a Part to the effect, that:

"Nothing contained in this agreement shall be construed as imposing upon any Royalty Owner any obligation to pay for any of the expenses of this unitization or for any development, equipment or operating expense unless such Royalty Owner is obligated to pay for the same by terms of any oil and gas lease or other contract.

Authority for Operations

204

5th, 6th & 7th lines - "deems advantageous to the Unitized Strata or disadvantageous." Would meaning not be clearer if reference was made to operations on or production from Unitized Strata.

PART 111

Tract Participation

Any well names shown in Part 301 should be the full correct well name or if they are tracts, the full legal description.

I have no further comment. This will be main point of Public Hearing before the Board at a later date.

PART 1V

Failure to Take in Kind

404

9th line misprint - "operation"  
16th line - am aware of the intent but believe that it could be more clearly worded to indicate short term purchase contracts. Should not provision be made for notice to be given to Unit Operator when authority is revoked.

~~404 no cumulative production available~~  
~~404 no cumulative~~

✓  
405(a) cumulative production allowable  
405(b) cumulative production allowable.  
Add (the) Oil in 5th line

Underproduction

405 (c) 1st line - why "any interested person" and not working interest owner.

Use of Unitized  
Substances

407

As a Royalty Owner, the Mines Branch has always insisted that royalty be paid on oil which is used such as in a crude oil burning treater.

S

## PART V

Organization of the  
Operating Committee

Could the sequence be improved. Operating Committee is referred to earlier in the Plan.

Representations on the  
Operating Committee

502

5th & 6th lines - does not singular include plural.

503 (a)

7th & 8th lines - same comment as for Part 502 above.

S 503 (c)

should notify Chairman of the Board as to Unit Operator.

Change of  
Representative

504 S

4th line - after Committee, add - "and Chairman of the Board".

Polls

508

Q  
12th line refers to Part 505 where voting interest equal to the Participating Interest. Should not some provision be made here for % necessary to carry a motion or resolution or reference made to Part 601. Last line - if all are in agreement, I presume failure to vote could be considered as an affirmative vote. Same provision in last line of Part 601.

## PART VI

Voting

601 ✓ 3rd line - "Order" should be replaced by "Plan".

Rights Granted the  
Operating Committee

603 ✓ (c) Should Part 505 not read Part 705.

603 (k) If an order of the Board is required, amendment to Part XXV Accounting Procedure would require a re-hearing.

*See* →

*Suggest Approval  
By Unit Operator*

## PART VII

701 (d) how does Unit Operator determine a "bona fide dispute".

Release from duties

~~707~~ ✓ 4th line - should this not be 7.00 a.m. Standard Time as in Part 102 (c) or should both be Central Standard Time as in Part 1603.

Surrender of  
Operating Rights

708 *and* Surely this surrender would take place, "at the effective time of the release", not upon selection of a successor, or does Part 709 govern.

9th line - suggest addition of words "or sold" after phrase "in kind".

11th line - "papers" I believe refers to the mass of technical data etc., specified in Part 1001, last line. How would this liability be disposed of except by new unit operator assuming the duties and obligation and charging the costs to the former Unit Operator.

## PART VIII

Unit operator to make  
initial payments

803 ✓ Last line - what are "the respective interests" Would this not be limited to production in which case should not royalty share be exempted by reference to Section 734 K (1) (A) & (B) of "The Mines Act" which excludes the royalty interest if an Order of the Board is required.

Capital Fund

805 ✓ 2nd line - it is assumed that this means capital costs and capital expenses.

2nd Page - 11th line - why "the same shall bear interest at six (6%)" whereas Part 803, 11th line - states "the same shall, at Unit Operators discretion bear interest at the rate of six (6%)".

Operating Fund

806 Q Similar comment re interest as in Part 805.

Unit Operators Lien

807 § 2nd para. 5th line - contrary to 73 & k (1) (A) & (B) which excludes royalty interest share if an Order of the Board is required.

2nd page 7th line - reference to "provisions contained in Section 808" not understood.

Contributions to Unit Operator

808 4th line - what would be considered "reasonable efforts".

Pre-unit Expense

809 2nd line - how is reasonable cost arrived at.

PART IX

901 Provides for each working interest owner to pay "lease rentals", etc., whereas Parts 1104 & 1106 provides for Surface Charges to Common Account,

Q Part 1202 "Each working interest owner shall . . . . make all payments to maintain the Lease . . . . in full force and effect," and Part 2507 states Unit Operator shall charge the Common Account with (a) Rentals and Royalties . . . ."



PART X

Warranty

1002 ✓

6th line - misprint "accepted".

2nd page - 3rd line - why Operating Committee and not Unit Operator.

Does this section mean that Unit Operator cannot charge operating costs for the first 60 days.

Controllable Equipment

1003

Are vehicles other than automobiles, included in "Controllable Equipment".

Appointment of  
Inventory Committee

1005

Would not this Part precede Part 1004.

PART XI

Surface Rights Required

1102

Would assignment of these surface rights be filed with Land Titles Office.

Surface Charges to  
Common Account

1104

Does this Part and Part 1106 conflict with Part 901 which provides for each Working Interest Owner to pay lease rentals.

PART XII

Maintenance of Leases

1202 ✓

2nd page - 3rd line. - why owners and not owner.

Liability for Loss of  
Title

1203

last line - what is significance of phrase "prior to date hereof".

PART XIV

Filing

1401 ✓

last line - "The Mines Act".

PART XV

Disputes

1501 Q

(a), (b) & (c) - these Parts are almost identical in wording to Section 85 (a), (b) & (c) of "The Mines Act", but both, in my opinion, place the onus of approving the title or determining the dispute on the Unit Operator by the wording of (b).

Is full protection of Royalty Interest provided for in this Part.

PART XVI

Plan binding on  
Successors

1601 ✓

3rd line - would "subsequently acquires" clarify intent. Side note should read "Plan" not "Order".

When change of Ownership  
binding

1603 ✓

7th line - 7.00 am Central Standard Time. See Part 102 (c) and Part 707.

Disposition

1604 Q

2nd para. - intent not at all clear.

No surrender of lease  
without consent

1607 Q

Would this Part and Part 1604 constitute amendments to the Plan and be filed as such with the Land Titles Office or require a re-hearing by the Board if an Order of the Board is required.

## PART XVII

Order affects only  
Unitized Formation

1702 ✓

Side note should read - "Plan affects only  
Unitized Strata."

Abandonment of Wells

1703

2nd page - 5th last line - insert in accordance with the applicable laws, rules, regulations and orders.

3rd page - 2nd last line - why reasonable satisfaction.

## PART XVIII

Unit Operators Liability 1805

3rd & 4th lines - gross negligence or wilful misconduct - surely this is too strong.

## PART XIX

No Right of Partition

1901

I do not understand this Part but if Royalty Owner is otherwise adequately protected, have not comment.

No Co-operative  
Marketing

1903

Believed to be protection against investigation as a combine but does seem to be at variance with the probability that the Unit Operator will market all the Unitized Substances. *and Part 603 was phrase*

Duties separate not  
Joint or Collective

1905

Part 2501 (a) refers to Joint Property.

## PART XX

Term of Plan

2001

3rd line "paying quantities"? If an Order of the Board is required, Section 734 (1) provides for termination of the plan.

Section 87 (4) provides for the Board to send copies of order rescinding approval of an agreement or an order of the Board to the District Registrar and the Chief Mining Recorder.

Rights on Termination  
of Plan

2002 Would not the Unit Operator arrange for the salvaging, liquidation and other distribution etc., and when this has been completed, the Plan would terminate.

~~2003~~ S Should plugging and abandoning in accordance with rules, orders and regulations be inserted where applicable.

Operation shall cease

2004 filing of a rescinding Order of the Board with District Registrar etc., required.

2005 does, "within thirty (30) days of such termination", mean 30 days prior to or 30 days after termination.

Re-hearings  
Amendments

2006 S This Part refers to a re-hearing which would apply only if an Order of the Board had been issued in which case Sections 75 (1), (2), (3), (4) and (5) would have a hearing

PART XXI

Salt Water Disposal  
Wells

S I would suggest that this Part be followed by a list of all wells taken over by the Unit Operator under Part X, by the recognized name, and legal description of well site as shown in the Department of Mines and Natural Resources Well Name Register.

PART XXII and  
XXIII

Should an order of the Board be required, do these  
Parts fulfil the requirements of Section 73 (h)  
as to:

- (a) a legal description of the unit area, and
- (b) a legal description of each tract included  
in the unit area.

PART XXIV

Would suggest that this Part be followed by a Part  
similar to the following.

Subject to any disposition the following outline  
sets forth prima facie the respective royalty  
owners in and to the respective Numbered Tracts  
in the Unit Area.

Numbered Tract

Royalty Owner

(List tracts in  
numerical order)

(List royalty owner  
for each tract)

PART XXV

Statements and Billings

2503 (a) ✓

Detailed statement of equipment "purchased or  
acquired" and ordinarily considered con-  
trollable -----.

Charge to Common  
Account

2507 (a)

Part 901 places responsibility for payment of  
rentals and royalties on individual Working  
Interest Owner.

2507 (k) ✓

2nd paragraph Part 602 (e) should be Part 602 (d)

2507 (k) (i), (ii), & (iii)

is there a distinction between division in (i) and  
(iii) and district in (ii).

2507 (k) (iii) (b) ✓

should not words "or on injection" follow "when  
the well is on production",

2507 (k) (c) ✓

A.F.E. - Authority for Expenditure.

2511

Would cost of vehicles other than automobiles be  
charged under this Part.

2512 (c)

5th line "by resolution". What's voting procedure.

PART XXVI

✓ Well name should be changed to Galstan Scallion *Prov.*  
SWD 9-16-11-26.

**McDANIEL CONSULTANTS LTD.**

*Oil and Gas Reservoir Evaluations*

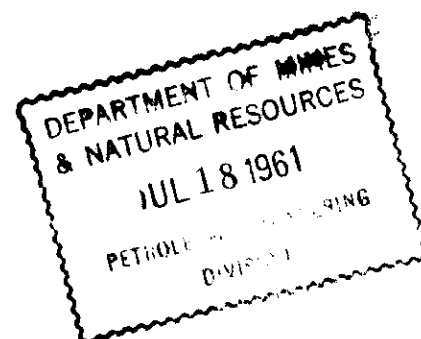
R. R. McDANIEL, P.ENG.  
ROBERT S. BLACKETT, P.ENG.



July 17, 1961.

Director of Mines,  
Dept. of Mines and Natural Resources,  
Mines Branch,  
901 Norquay Building,  
401 York Avenue,  
Winnipeg 1, Manitoba.

Attention Mr. J.S. Richards



Dear Sir,

Pursuant to your request we have reviewed the production charts for the various wells in the proposed North Virden Scallion field unit area. A number of fluctuations were indicated in the performance characteristics for which we have no record of any workovers or operation changes. (See attached tabulation) Although some of the changes indicated on this list are of a relatively minor nature it is believed that by obtaining the detailed information on these fluctuations from either your files or directly from the operators a more thorough knowledge of the performance characteristics of the wells in question could be facilitated.

Sincerely yours,

McDANIEL CONSULTANTS LTD.

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

Per: R.R. McDaniel, P. Eng.

NORTH VIRDEN SCALLION FIELDCHANGES IN PRODUCING RATEAS NOTED FROM DECLINE CURVES

\_\_\_\_\_ *Review*  
 \_\_\_\_\_ *unknown*

<u>Location</u>	<u>Dates of Producing Rate Changes</u>	
	<u>Increase</u>	<u>Decrease</u>
✓ 6- 2-11-26W1 ✓ <i>S. 100</i>	Sept. /56, Sept. /57 <u>Jan. /58</u>	June /55, July /58
✓ 11- 2-11-26W1 ✓	Aug. /57, March /58	June /57
✓ 13- 2-11-26W1 ✓	<u>May /58</u>	
✓ 14- 2-11-26W1 ✓	<u>Feb. /57, June /57</u>	
15- 3-11-26W1 <i>See also</i>	Nov. /58, June /59	
16- 3-11-26W1 <i>See also</i>	Dec. /56, March /57	Dec. /59
8- 7-11-26W1 <i>Pope</i>	July /60	
15- 7-11-26W1 <i>Pope</i>	Oct. to Dec. /60	
5- 8-11-26W1 <i>Pope</i>	Nov. /59, March /60	Aug. /59
✓ 9- 9-11-26W1 ✓	<u>July /58</u>	<u>June /59</u>
✓ 15- 9-11-26W1 ✓	<u>March /55</u>	<u>Feb. /55, Jan. /58</u>
✓ 16- 9-11-26W1 ✓	<u>Oct. /57</u>	
1- 10-11-26W1 ✓	<u>Oct. /57</u>	
2- 10-11-26W1 ✓	<u>March /56</u>	
3- 10-11-26W1 ✓	<u>Aug. /60</u>	<u>Oct. /60</u>
5- 10-11-26W1 ✓	<u>March /60</u>	
6- 10-11-26W1 ✓	<u>March /56</u>	
7- 10-11-26W1 ✓	<u>Nov. /55</u>	
8- 10-11-26W1 ✓	<u>Oct. /55, July /60</u>	
9- 10-11-26W1 ✓	<u>Nov. /55</u>	
15- 10-11-26W1 ✓	<u>April /56</u>	
16- 10-11-26W1 ✓	<u>Aug. /57</u>	<u>Feb. /56, Aug. /56</u>
1- 11-11-26W1 ✓	<u>May /59, Jan /60</u>	<u>Dec. /59, May /60</u>
2- 11-11-26W1 ✓	<u>Aug. /58</u>	<u>May /57</u>
3- 11-11-26W1 ✓	<u>June /55, May /59,</u> <u>May /60</u>	<u>Nov. /54, Sept. /56</u>
6- 11-11-26W1 ✓	<u>Aug. /56, May /60</u>	<u>July /59</u>
8- 11-11-26W1 ✓	<u>July /57</u>	



<u>Location</u>	<u>Dates of Producing Rate Changes</u>	
	<u>Increase</u>	<u>Decrease</u>
✓12-13-11-26W1 ✓	<u>March/60</u>	<u>Feb. /60</u>
5-14-11-26W1 <i>Sum</i>	<u>July/60</u>	
8-14-11-26W1 <i>Don't</i>	<u>May/59</u>	
→ 9-14-11-26W1 <i>Don't</i>	<u>Aug. /59, Sept. /60</u>	
10-14-11-26W1 <i>"</i>	<u>Oct. /59</u>	
→ 16-14-11-26W1 <i>"</i>	<u>Sept. /59, Aug. /60</u>	
✓1-15-11-26W1	<u>Oct. /56, June/60</u>	<u>May/56</u>
✓2-15-11-26W1 ✓	<u>Aug. /59</u>	
✓3-15-11-26W1 ✓	<u>March/59</u>	
✓7-15-11-26W1 ✓	<u>Dec. /59</u>	
✓8-15-11-26W1 ✓	<u>April/59</u>	
✓9-15-11-26W1 ✓	<u>Sept. /59</u>	<u>April/59</u>
✓10-15-11-26W1 ✓	<u>Jan. /60</u>	
✓11-15-11-26W1 ✓	<u>Sept. /59</u>	<u>April/59</u>
✓14-15-11-26W1 ✓	<u>Dec. /60</u>	
✓16-15-11-26W1 ✓	<u>June/60</u>	
1-16-11-26W1 ✓ <i>Don't</i>	<u>March/57</u>	<u>Dec. /56</u>
2-16-11-26W1 ✓ <i>Don't</i>	<u>Oct. /58, April/55,</u> <u>Nov. /57</u>	<u>April/55, Nov. /57</u>
7-16-11-26W1 ✓ <i>Don't</i>		<u>April/55</u>
8-16-11-26W1 ✓ <i>"</i>		<u>April/55</u>
Aut → 12-16-11-26W1	<u>Jan. /59</u>	
✓13-16-11-26W1	<u>Sept. /58</u>	
✓14-16-11-26W1	<u>March/59</u>	<u>Feb. /59</u>
✓15-16-11-26W1	<u>June/58, March/59</u>	<u>April/58</u>
Aut { 8-17-11-26W1 <i>West Adm.</i>	<u>July/60</u>	
✓12-17-11-26W1	<u>March/58, July/58,</u> <u>May/59</u>	<u>Aug. /57</u>
✓13-17-11-26W1	<u>Aug. /59</u>	
Aut { 15-17-11-26W1 <i>West Adm.</i>	<u>May/59, Oct. &amp; Nov. /60</u>	
7-18-11-26W1 <i>Don't</i>	<u>April/59, May/60</u>	<u>April/59</u>
8-18-11-26W1 <i>"</i>	<u>May/60</u>	<u>March/60</u>
10-18-11-26W1 <i>West Adm.</i>		<u>March/60</u>
12-18-11-26W1 <i>Don't</i>	<u>May/60</u>	<u>Oct. /59</u>
15-18-11-26W1 <i>West Adm. Sub.</i>	<u>Dec. /58</u>	<u>Sept. /58</u>
16-18-11-26W1 <i>"</i>	<u>Nov. &amp; Dec. /59</u>	

		Dates of Producing Rate Changes	
Location		Increase	Decrease
Cont	7-19-11-26W1 <i>Largo sub.</i>	Sept. /58	
	8-19-11-26W1 ~	Sept. /59	
	9-19-11-26W1 ~	July/59	
cont	2-20-11-26W1 <i>See</i>	Dec. /58	
	4-20-11-26W1 ~	Nov. /58, Feb. /59	
	12-20-11-26W1 ~	Dec. /58, May, /59	April/60
	✓5-21-11-26W1 <i>See</i>		<u>April/59</u>
	10-21-11-26W1 <i>See</i>	Nov. /57	<u>March/57</u>
	11-21-11-26W1 ~	<u>Nov. /57</u>	
	15-21-11-26W1 ~	<u>Sept. /57</u>	
	1-22-11-26W1 <i>Cad. Lip</i>	July/57	Nov. /57
	✓3-22-11-26W1 ~	<u>June/60</u>	
	✓5-22-11-26W1 ~	<u>April/59</u>	
	7-22-11-26W1 <i>Cad. Lip</i>		<u>July/57</u>
	8-22-11-26W1 ~	<u>June &amp; July/59</u>	
	9-22-11-26W1 <i>See</i>	<u>July/58</u>	
	10-22-11-26W1 ~	<u>May/59</u>	
	15-22-11-26W1 ~	<u>July/59</u>	
	5-23-11-26W1 <i>See</i>	Sept. /58	
	6-23-11-26W1 ~	<u>April/60, May/60</u>	<u>Sept. /58</u>
	✓9-23-11-26W1 ~	<u>Oct. /59</u>	
	✓11-23-11-26W1 ~	<u>Jan. /58</u>	
	✓12-23-11-26W1 ~	<u>Nov. /59</u>	
	✓13-23-11-26W1 ~	<u>Sept. /59</u>	
	✓14-23-11-26W1 ~	<u>Sept. /59</u>	
	✓15-23-11-26W1 ~	<u>Dec. /59</u>	
	✓16-23-11-26W1 ~	<u>June/59</u>	
	3-24-11-26W1 <i>Same</i>	March/59	
	5-24-11-26W1 ~	<u>April/59</u>	
	6-24-11-26W1 ~	<u>Sept. /59</u>	<u>Jan. /58</u>
	✓11-24-11-26W1 ~	<u>Nov. /59</u>	
	✓12-24-11-26W1 ~	<u>Sept. /59</u>	
	✓13-24-11-26W1 ~	<u>Oct. /59</u>	
	2-26-11-26W1 <i>Largo</i>	May/59	
	3-26-11-26W1 <i>See</i>		<u>April/59</u>
	4-26-11-26W1 ~	<u>March/60</u>	<u>Sept. /58</u>
	5-26-11-26W1 ~	<u>Dec. /57</u>	

Location	Dates of Producing Rate Changes	
	Increase	Decrease
6-26-11-26W1 <i>Scm</i>	<u>Aug. /57</u>	
7-26-11-26W1 <i>Tango</i>	<u>Aug. /57</u>	
8-26-11-26W1 <i>"</i>	<u>July/60</u>	<u>Sept. /58</u>
11-26-11-26W1 <i>Home</i>	<u>May/60</u>	
12-26-11-26W1 <i>"</i>		<u>April/60</u>
✓6-27-11-26W1	<u>Jan. /58</u>	
7-27-11-26W1 <i>Scm</i>	<u>Dec. /57</u>	
8-27-11-26W1 <i>"</i>	<u>July/60</u>	
9-27-11-26W1 <i>"</i>	<u>Aug. /60</u>	
10-27-11-26W1 <i>"</i>	<u>July &amp; Aug. /60</u>	
15-27-11-26W1 <i>"</i>	<u>Oct. &amp; Nov. /60</u>	
16-27-11-26W1 <i>"</i>	<u>Jan. /58</u>	
5-28-11-26W1 <i>B.A.</i>	<u>March/60</u>	
6-28-11-26W1 <i>"</i>	<u>Dec. /59</u>	
9-28-11-26W1 <i>Ca. Sup.</i>	<u>Nov. /59</u>	<u>Feb. /60</u>
10-28-11-26W1 <i>"</i>	<u>Aug. /59</u>	
11-28-11-26W1 <i>B.A.</i>		<u>April/60</u>
12-28-11-26W1 <i>"</i>	<u>Oct. /58, Dec. /58</u>	<u>June/57</u>
13-28-11-26W1 <i>"</i>	<u>Sept. /59</u>	
14-28-11-26W1 <i>"</i>	<u>March/57</u>	
15-28-11-26W1 <i>Ca. Sup.</i>	<u>Dec. /57</u>	
1-33-11-26W1 <i>Sup.</i>		<u>June/58, Dec. /59</u>
4-33-11-26W1 <i>Shell</i>	<u>Jan. /58</u>	<u>Dec. /57</u>
5-33-11-26W1 <i>"</i>	<u>Sept. /57</u>	<u>Feb. /57, Aug. /57</u>
9-33-11-26W1 <i>Link</i>	<u>Nov. /57</u>	
10-33-11-26W1 <i>"</i>	<u>April/58</u>	<u>March/58</u>
11-33-11-26W1 <i>Shell</i>	<u>July/60</u>	<u>July/58</u>
12-33-11-26W1 <i>"</i>	<u>March/57</u>	<u>Feb. /57</u>
3-34-11-26W1 <i>B.A.</i>	<u>Jan. /60</u>	
4-34-11-26W1 <i>"</i>		<u>June/56, June/57</u>
* ✓10-34-11-26W1 <i>Tango Sec'd.</i>		<u>Sept. /57</u>
11-34-11-26W1 <i>"</i>	<u>Oct. /59, June/60</u>	
13-34-11-26W1 <i>Vallat</i>		<u>Feb. /59</u>
5- 3-12-26W1 <i>Home</i>	<u>Aug. /60</u>	
✓6- 4-12-26W1 <i>"</i>	<u>Oct. /59</u>	
7- 5-12-26W1 <i>Old</i>	<u>Nov. /58</u>	
8- 5-12-26W1 <i>"</i>	<u>May &amp; June/60</u>	
9- 5-12-26W1 <i>"</i>	<u>Sept. /58</u>	

16-16

Test 11/5 20 to 7 BOPD

Test Aug 10 7 to 3 BOPD

17-17

Test 5 to 11 BOPD

Dec 18 9 O.P. 6 days. Jan 10 00 8 days

Test April 60 13 to 5 BOPD ✓

18-18

Aug 15 6 test 8 to 15 BOPD

May 197 O.P. 18 days

19-19

Nov 15 4 test 31 to 1 BOPD

Aug 18 6 test 1 to 20 BOPD

Sep 15 6 test 25 to 10 BOPD

April 18 4 Pump Change

July 18 6 test 16 to 8 BOPD

20-20

July 18 9 test 6 to 1 BOPD

May 18 5 test 1 to 8 BOPD

21-21

Expanded Scale

10:00 60 Prod fluctuating 3 to 1 BOPD

22-22

Feb 19 60 Pump Change

23-23

1956 Intermittent Production

6-2 Expanded Scale

June/55 Test 4 to 1 BOPD

Intermittent Prod. in 1958 w/ down time. Res. in Jan/55.

11-2

May/56 Test 10 to 5 BOPD

June/59 Test 15 to 12 BOPD

July/60 on prod 19 days

Nov/60 Pump change.

13-2

Remark May/55

14-2

June/58 Test 20 to 12 BOPD

Dec/59 Test 10 to 4 BOPD

1-9

1956 Decline

Test June/59 9 to 2 BOPD

2-9

Expanded Scale

Early/55 Considerable down time

Jan/58 New Test 6 BOPD to 1

Jan/59 Test 0.2 BOPD

Shut in Feb/59

10

Expanded Scale

Prod. in Aug/60

10-10

Mar/60 Pump change 10 to 20 BOPD

9-15

April/59 Longfellow's

11-15

April/60 Last Change #52 15 km

14-15

Dec/60 test change #610 20 km

3-22

June/61 Longfellow's

5-22

June/61 Black.

NORTH VIRDEN SCALLION FIELD

THE CALIFORNIA STANDARD COMPANY

<u>Location</u>	<u>Dates of producing Rate Changes</u>	
	<u>Increase</u>	<u>Decrease</u>
6-2-11-26	Sept./56, Sept./57	June/55, July/58
11-2-11-26	Aug./57, Mar./58	June/57
14-2-11-26	June/57	
9-9-11-26	July/58	June/59
15-9-11-26	March/55	Feb./55, Jan./58
3-10-11-26		Oct./60
8-10-11-26	July/60	
16-10-11-26		Feb./56, Aug./56
1-11-11-26	May/59, Jan./60	Dec./59, May/60
2-11-11-26	Aug./58	May/57
3-11-11-26	June/55, May/59 May/60	Nov./54, Sept./56
6-11-11-26	May/60	July/59
8-11-11-26	July/57	
12-13-11-26	March/60	Feb./60
1-15-11-26	Oct./56	May/56
9-15-11-26		April/59
11-15-11-26		April/59
14-15-11-26	Dec./60	
3-22-11-26	June/60	
16-23-11-26	June/59	

**T. G. EASTLAND WELL SERVICES LTD.  
SUBSURFACE PRESSURE SURVEY**

**Well:** West Canadian Scallion  
**Location:** Lsd. 15-18-11-26  
**Date:** June 23, 1961  
**Time on Bottom:** 7:07 to 7:37 p.m.  
**Time Shut In:**  
**Shut-in Period:**  
**Run Depth:** 2122 K.B.  
**Datum Depth:** 2122 K.B.  
**Fluid Level:** -  
**B.H. Temperature:** 102°F  
**Gauge No.** 2403N

<u>Depth</u> <u>ft</u>	<u>Press.</u> <u>psig</u>	<u>Fluid</u> <u>Grad.</u> <u>psi/ft</u>
0	0	
2122	778	.368

<u>Time</u>	<u>Press. @</u> <u>Run Depth</u>	<u>Press. @</u> <u>Datum</u>
7:07 pm	778	778
7:37 pm	778	778

500

1000

Depth in Ft.  
K.B.

1500

2000

2500

Pressure at Run Depth = Datum Depth 778 psig

0 100 200 300 400 500 600 700 800 900



INTER-DEPARTMENTAL MEMORANDUM



FROM Deputy Chairman,  
The Oil and Natural Gas  
Conservation Board

DATE July 7, 1961.

TO Mr. M. J. Gobert,  
Member,  
The Oil and Natural Gas  
Conservation Board

SUBJECT Plan for Unit Operation.

I have reviewed the "Plan for Unit Operation", submitted in respect to North Virden Scallion.

Would you incorporate the following brief comments with your own, and forward the combined effort to the Chairman of the Board:

508. Maybe its none of our business, but how can a poll by telegram be binding? Should failure to vote be considered affirmative?

601. Provides that a stipulated percentage is required to "defeat" a motion. Does not say same percentage is required to pass a motion. It appears that one operator holding 35% and two small operators not sufficiently interested to vote could approve or reject any proposal.

Part VI - 2 (c). What are rights of Unit Operator pursuant to Section 505?

Part VII - 1 (c). Why doesn't the Department get its production returns by the 15th?

707 and 709. Provides for appointment of new Unit Operator. These sections do not state how. If control is effected by paragraph (f) on page VI - 2, shouldn't it say so?

709. Top of page VII - 5. Suggest word "contemporaneously" should be "simultaneously".

804. Budget approved by Working Interest Owners. Why not Operating Committee?

807. Could this lien work to the disadvantage of the royalty owner?

1001. "wells" should be "Wells".

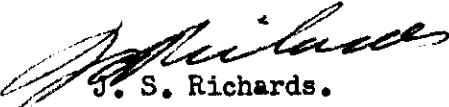
1202. 5th, 6th, and 7th lines. Do these words mean "excepting only obligations arising out of this agreement"?

2--Mr. M. J. Gobert,  
Member,  
The Oil and Natural Gas  
Conservation Board -- July 7, 1961.

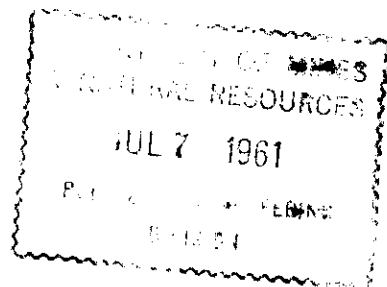
1703. Page VIII - 3. You will note this section infers that casing will be salvaged.

2001. Should not termination also require Board approval?

2006. This apparently prohibits the Board from rehearing the Plan. It is true that the Act permits the Board to provide that no rehearing may be held before a specified date. However, I do not think the statute provides that no rehearing shall be held, nor that the Board would desire to bind itself to this extent.

  
J. S. Richards.

JSR:db



COPY

July 6, 1961.

Mr. R. R. McDaniel,  
McDaniel Consultants Ltd.,  
231 - 8 Av., West,  
Calgary,  
Alberta.

Dear Mr. McDaniel:

Enclosed, herewith, North Virden Scallion  
Field Rate - Cumulative Decline Curves; together with a copy  
of the letter of transmittal from Mr. J. G. Trowell, District  
Production Superintendent, The California Standard Company.

This is the only copy of the material which  
we have. Consequently, we would request that it be returned  
after it has served your purpose.

Yours very truly,

  
J. S. Richards,  
Director of Mines.

JSR:db

Encs. 2.

Registered Mail  
Mr. M. J. Gobert,  
Senior Petroleum Engineer.



# THE CALIFORNIA STANDARD COMPANY

7TH AVENUE & RAGLAN STREET • VIRDEN, MANITOBA

MAILING ADDRESS: P.O. BOX 100

July 4, 1961.

File: 607.7.

REGISTERED

Mr. M.J. Gobert,  
Senior Petroleum Engineer,  
Mines Branch,  
Box 42,  
Legislative Building,  
WINNIPEG 1, Manitoba.

Dear Sir:

North Virden Scallion Field  
Rate - Cumulative Decline Curves

We have pleasure in enclosing a binder containing ozalid prints of Rate - Cumulative Decline Curves for wells in the North Virden Scallion Field.

Order of presentation is alphabetically by Companies with-  
in the proposed North Virden Scallion Unit #1 area,  
followed by curves for a number of wells from the west  
flank area that is excluded from the proposed Unit #1 area.

The decline curves are being sent in response to a request  
made by the Board during a meeting on February 21, 1961  
between Board members and personnel of The California  
Standard Company.

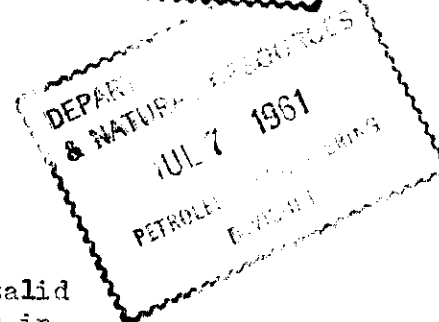
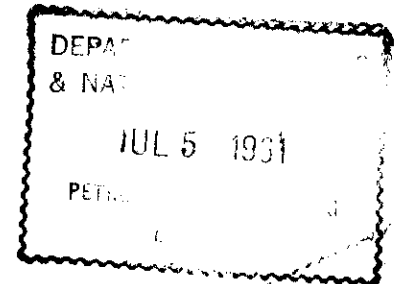
Yours very truly,

J. G. TROWELL,  
District Production Superintendent.

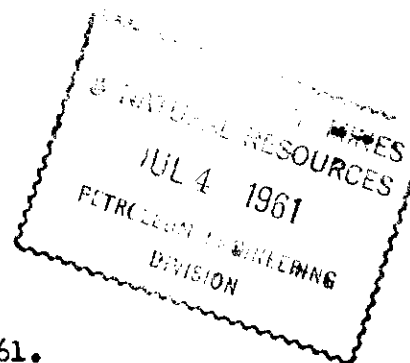
JGT/jp

Encl.

cc: Ross/Dutka



COPY



July 4, 1961.

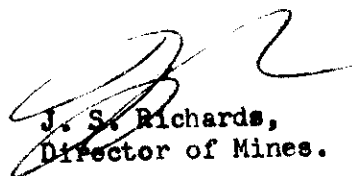
Mr. R. R. McDaniel,  
McDaniel Consultants Ltd.,  
231 - 8 Av., West,  
Calgary,  
Alberta.

Dear Mr. McDaniel:

Enclosed, herewith, copy of a "Plan for Unit Operation, Governing the Unitized Management, Operation and Further Development of North Virden Scallion Unit No. 1", which has been submitted to the Crown as a Royalty Owner in the proposed Unit Area by the North Virden Scallion Operators Committee.

It has been proposed that a meeting be held, in either Calgary or Winnipeg, to discuss the Plan with two or three members of each of the Legal and Engineering Sub-Committees of the Operators Committee. This meeting will likely be held around July 27th. We hope that you will find it possible to attend this meeting. In the interim, we would appreciate receiving any comments you may care to make in respect to the proposed Plan.

Yours very truly,

  
J. S. Richards,  
Director of Mines.

JSR:db

Registered Mail.

c. c. for: Mr. M. J. Gobert,  
Senior Petroleum Engineer.

Director of Mines

COPY

July 4, 1961.

Mr. J. G. Cowan, C.C.,  
Deputy Minister.

North Virden Scallion Unit No. 1.

As previously stated, we concur completely with the suggestion in your memo of July 3rd that the Plan for Unit Operation, in respect to the above Unit, be forwarded to the Attorney-General for his comments. As Mr. R. H. Tallin assisted in drafting the amendments to The Mines Act in respect to unitization, it is suggested that he would be the logical individual to review the proposed Plan, if it is possible to obtain his help.

We agree that, in view of the large number of individuals from industry involved, Calgary appears to be the logical place for the suggested meeting. This would also make it easier for Mr. McDaniel to attend. A copy of the Plan has been forwarded to Mr. McDaniel.

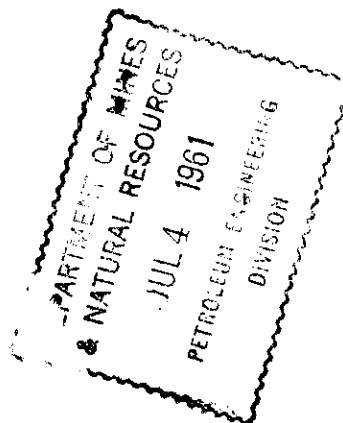
In view of the fact that this material is submitted to the Crown as a Royalty Owner for approval as to form, it is suggested that it would suffice if you were to represent this department, assisted by the Attorney-General's representative and Mr. McDaniel.

In the meantime, we will review the draft, and prepare our comments.

JSR:db

c. c. for: Mr. M. J. Gobert,  
Senior Petroleum Engineer.

*[Signature]*  
J. S. Richards.



J.G. Cowan  
Deputy Minister

Mr. J.S. Richards  
Director of Mines

North Virden Scallion Unit No. 1.

July 3, 1961.

I am enclosing:

1. copy of Mr. Swanson's letter to me of June 23,
2. copy of Mr. Swanson's further letter to me of June 28,
3. seven copies of the draft of the proposed plan of unitization.

You will note in his letter of June 23 that Mr. Swanson suggests a meeting either in Winnipeg or Calgary at which they would be represented by two or three members each of the Legal and Engineering Committees along with Mr. Trowell. I take it that Mr. Swanton quite likely Mr. Knox also would attend.

There would be some advantages to us, of course, in holding the meeting in Calgary as that is Mr. McDaniel's home base. On the other hand, with such a large delegation representing California Standard it seems somewhat of an imposition to ask them all to travel from Calgary to Winnipeg. It is my understanding that you propose to take a couple of weeks' holidays starting July 10. In such circumstances I would propose to advise Mr. Swanton that we would not be ready for the meeting until the week commencing July 24. This, of course, is subject to confirmation when you check with Mr. Gobert tomorrow.

I expect the Minister back in the office on Wednesday morning and he might decide that a copy should be forwarded to the Attorney-General's for his comments. As this is an extremely complicated document, the Attorney-General conceivably might want his legal man to sit in on the discussions either here or in Calgary. Due to the large number that would have to travel from Calgary to Winnipeg, the Minister might feel that it would be a concession to them if we went to Calgary. I will arrange to discuss the matter with him on Wednesday morning.

J.G. Cowan.

JGC/ms  
Att.

*cf. Mr. Sw. But Engineer*

# **The Canadian Scallion Committee**

MEDICAL ARTS BUILDING, 329A - 6TH AVENUE S.W., CALGARY, ALBERTA.

June 29, 1961.

Mr. J.G. Cowan,  
Deputy Minister,  
Department of Mines and Natural Resources,  
Deputy Minister's Office,  
Winnipeg 1, Manitoba.

Sir:

Re: North Virden Scallion Unit No. 1

In acknowledgement of yours of June 26th we enclose herewith the ten (10) copies of the draft of the proposed Plan of Utilization of the North Virden Scallion Field which were inadvertently omitted from our letter of June 23, 1961.

We apologize for any inconvenience this may have caused you.

Yours very truly,

L.A. THANSON, Chairman  
NORTH VIRDEN SCALLION OPERATORS COMMITTEE

SAM/eh

Encl.

*G. for Sr. Pet. Engineer.*



# THE CALIFORNIA STANDARD COMPANY

MEDICAL ARTS BUILDING 329A 6TH AVENUE S.W. CALGARY, ALBERTA.

June 23, 1961.

Mr. J.G. Cowan,  
Deputy Minister  
Department of Mines and Natural Resources,  
100 Legislative Building,  
Winnipeg 1, Manitoba.

Sir:

Re: North Virden Scallion Unit No. 1

Enclosed herewith please find ten (10) copies of a draft of the proposed Plan of unitization of the North Virden Scallion Field, prepared with a view to applying to the Oil and Natural Gas Conservation Board under Section 21 of The Oil and Gas Act for Order that the proposed Unit Area be operated as a unit.

The Working Interest Owners have reviewed and approve the enclosure in substantially its present form, except that in Parts XXIII and XXIV covering Tract Participation, names of Working Interest Owners and Royalty Owners, Participation Interest, etc., there are very definitely some inaccuracies which will be required to be corrected. There may also be some changes required in Part XXV, i.e. The Accounting Procedure. Inasmuch as the Crown is a Royalty Owner in the proposed Unit Area we felt we should solicit your comments and assistance in preparing the proposed Plan, and we would be obliged if you would review the enclosure and meet with representatives of the Working Interest Owners to discuss any comments or suggestions you may wish to make. We would be prepared to meet with you in Winnipeg or Calgary and would be glad to hear from you where and when it will be convenient to meet. We would propose bringing to any discussion two or three members of each of the Legal and Engineering Committees along with our Mr. Trowell.

If you require any additional copies of the Plan please do not hesitate to ask.

Trusting to hear from you shortly, we are,

Yours very truly,

L.A. SWANSON, Chairman,  
NORTH VIRDEN SCALLION OPERATORS COMMITTEE

Re: 1.

RAM/47

*cf. for St. Pet. Engineer*

*Manitoba  
Survey  
Dept.*

# THE CALIFORNIA STANDARD COMPANY

7TH AVENUE & RAGLAN STREET • VIRDEN, MANITOBA

MAILING ADDRESS: P.O. BOX 100

June 5, 1961.

Department of Mines & Natural Resources,  
Mines Branch,  
Petroleum Engineering Division,  
Box 42,  
Legislative Building,  
WINNIPEG 1, Manitoba.

Attention: J.M. Stokes  
Chief Clerk

Dear Sir:

Please find attached two copies of the following:-

Virden Roselea Field B.H.P. Survey  
North Virden Scallion Field B.H.P. Survey

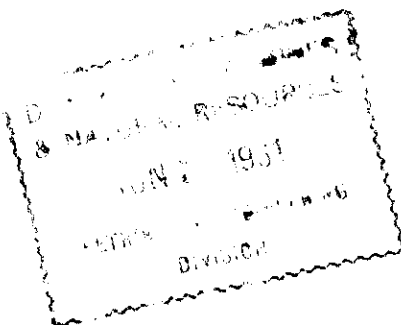
Yours very truly,

*J. G. Trowell*

J. G. TROWELL,  
District Production Superintendent.

DSB/jp

Attach



T.C. EASTLAND well services Ltd.

SUBSURFACE PRESSURE SURVEY      DATE May 19, 1961      POOL VIRDEN - ROSELLEA - SOUTH

Well Name	Location W1M	Time Press. Meas'd.	Date 1961	Shut-in Period hours	Tubing Press. psig	Casing Press. psig	Fluid Level feet	Fluid Grad. psi/ft	Gas Grad. psi/ft	Temp. at Run Depth of	Run Depth feet	Datum Depth feet	Press. at Run Depth psig	Press. at Datum psig	Gauge No.	Remarks
Cal Stan Virden 9-24	9-24-10-26-W1	7:06p	May 19	Susp.	0	-		201	-	84	2005	2005	403	403	2403N	
Cal Stan S Virden	10-1-10-26-W1	6:03p	"	"	73	-		258	-	84	2003	2003	589	589	2403N	
Cal Stan S Virden	14-12-10-26-W1	5:01p	"	"	0	-		131	-	83	2002	2002	262	262	2403N	

T.C. EASTLAND — well services ltd.

SUBSURFACE PRESSURE SURVEY      DATE May 19, 1961      POOL VIRDEN - ROSELLEA - SOUTH

Well Name	Location WIM	Time Press. Meas'd.	Date 1961	Shut-in Period hours	Tubing Press. psig	Casing Press. psig	Fluid Level feet	Fluid Grad. psi/ft	Gas Grad. psi/ft	Temp. at Run Depth of	Run Depth feet	Datum Depth feet	Press. at Run Depth psig	Press. at Datum psig	Gauge No.	Remarks
Cal Stan Virden 9-24	9-24-10-26-W1	7:06p	May 19	Susp.	0	-		201	-	84	2005	2005	403	403	2403N	
Cal Stan S Virden	10-1-10-26-W1	6:03p	"	"	73	-		258	-	84	2003	2003	589	589	2403N	
Cal Stan S Virden	14-12-10-26-W1	5:01p	"	"	0	-		131	-	83	2002	2002	262	262	2403N	



SUBSURFACE PRESSURE SURVEY

NORTH VIRDEN SCALLION POOL

May. 18 - 19, 1961

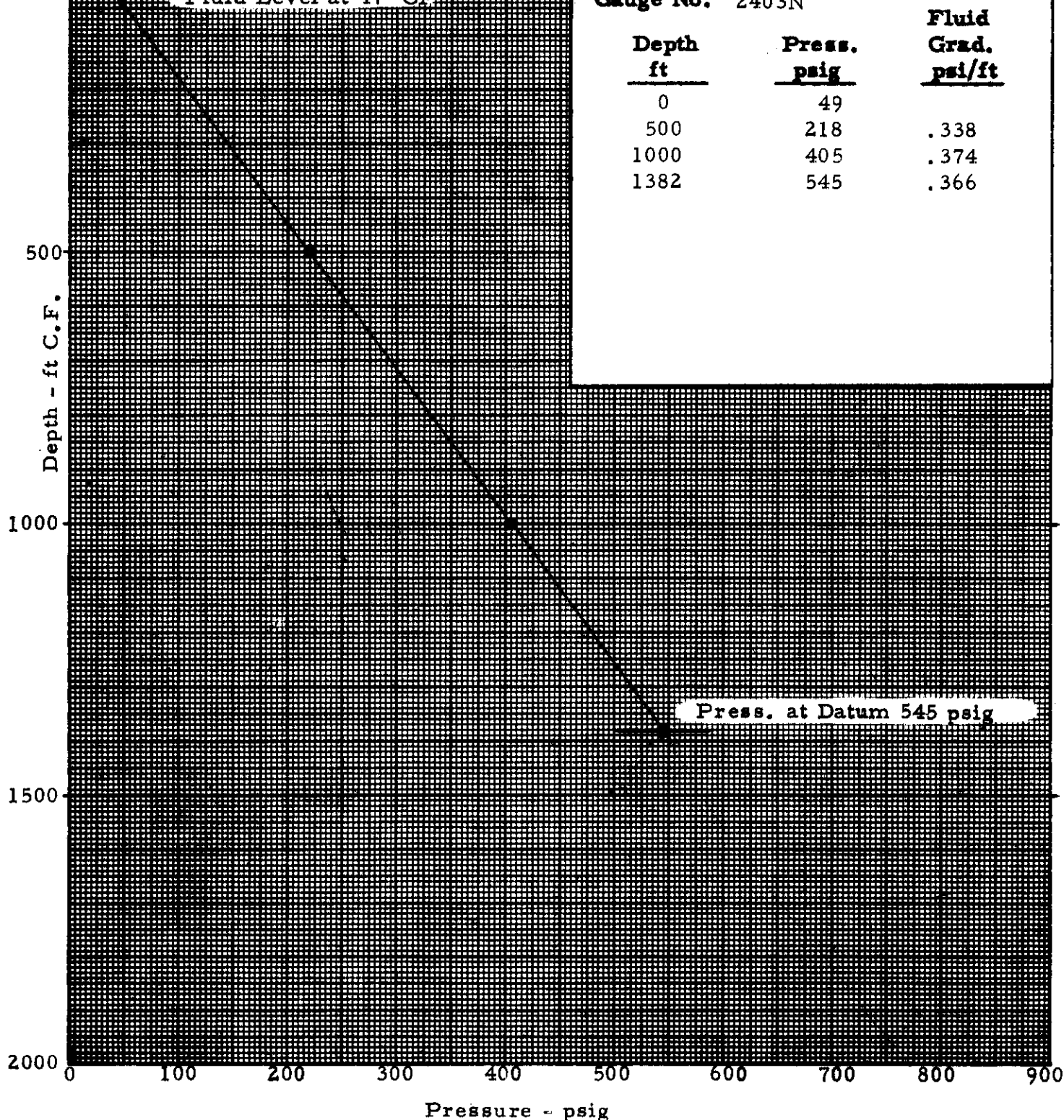
T.G. EASTLAND well services Ltd.

SUBSURFACE PRESSURE SURVEY DATE May 18-19/61 POOL NORTH VIRDEN SCALLION

Well Name	Location	Time Press. Meas'd.	Date	Shut-in Period hours	Tubing Press. psig	Casing Press. psig	Fluid Level feet	Fluid Grad. psi/ft	Gas Grad. psi/ft	Temp. at Run Depth of	Run Depth feet	Datum Depth feet	Press. at Run Depth psig	Press. at Datum psig	Gauge No.	Remarks
Cal Stan Scallion 6-2	6-2-11-26-W1	4:44p	May 18 1961	Susp.	0	-		357	-	83	1964	1964	702	702	2403N	
Cal Stan Scallion 3-10	3-10-11-26-W1	6:11p	"	"	0	-		056	-	83	1975	1975	111	111	2403N	
Sun Scallion 11-14	11-14-11-26-W1	11:42a	"	"	0	-		101	-	83	1982	1982	201	201	2403N	
Cal Stan Scallion 3-17	3-17-11-26-W1	10:11a	May 19	"	49	-	47	366	-	78	1382	1382	545	545	2403N	Gradient run.
Cal Stan Scallion	2-21-11-26-W1	7:07p	May 18	54.1	14	-		315	-	83	1994	1994	642	642	2403N	Shut-in 1 p.m. May 16 1961
"	"	12:58p	" 19	72.0	15	-		329	-	83	1994	1994	671	671	"	
"	"	8:16p	" 19	79.2	16	-		329	-	83	1994	1994	672	672	"	
Sun Scallion 4-23	4-23-11-26-W1	3:21p	May 18		0	-		103	-	83	1974	1974	203	203	2403N	
Cal Stan. Scallion	10-23-11-26-W1	Could not get in due to wax at 1120 ft from Tubing Bowl														
B. A. Scallion 2-34	2-34-11-26-W1	2:00p	May 19	Susp.	0			130	-	83	1973	1973	256	256	2403N	
C.E.G. Scallion 7-5	7-5-12-26-W1	11:36a	"	"	0	-		296	-	84	2011	2011	596	596	2403N	

**T. G. EASTLAND WELL SERVICES LTD.**  
**SUBSURFACE PRESSURE SURVEY**

Well: Cal Standard Scallion 3-17  
 Location: Lsd. 3-17-11-26-W1  
 Date: May 19, 1961  
 Time on Bottom: 9:56 to 10:00 a.m.  
 Time Shut In: Abandoned well  
 Shut-in Period: -  
 Run Depth: 1382 ft C.F.  
 Datum Depth: 1382 ft C.F.  
 Fluid Level: 47 ft C.F.  
 B.H. Temperature: 78°F  
 Gauge No. 2403N





SUBSURFACE PRESSURE SURVEY

NORTH VIRDEN SCALLION POOL

May 18-19, 1961



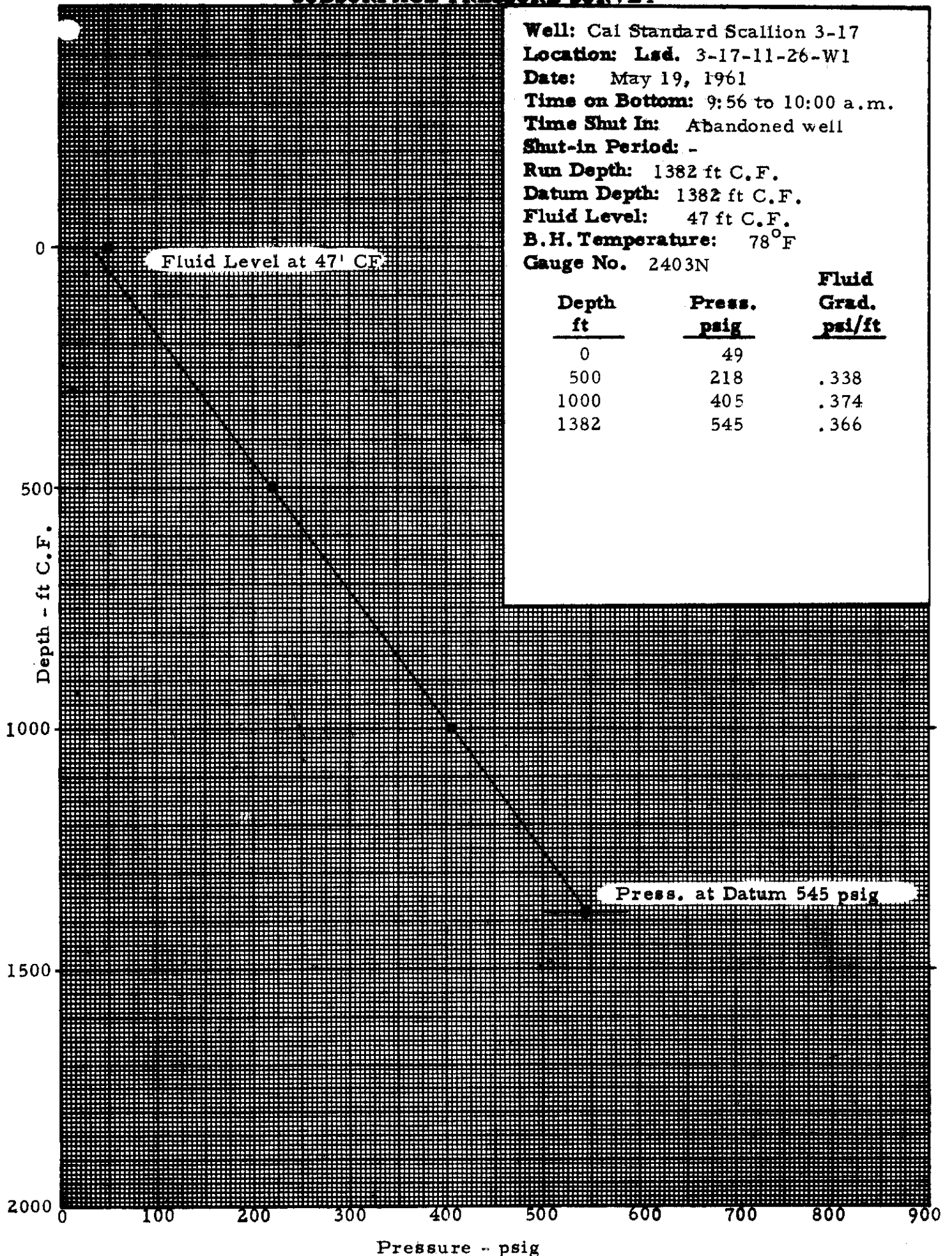
T.G. EASTLAND — well services Ltd.

SUBSURFACE PRESSURE SURVEY      DATE May 18-19/61      POOL NORTH VIRDEN SCALLION

Well Name	Location	Time Press. Meas'd.	Date	Shut-in Period hours	Tubing Press. psig	Casing Press. psig	Fluid Level feet	Fluid Grad. psi/ft	Gas Grad. psi/ft	Temp. at Run Depth of	Run Depth feet	Datum Depth feet	Press. at Run Depth psig	Press. at Datum psig	Gauge No.	Remarks
Cal Stan Scallion 6-2	6-2-11-26-W1	4:44p	May 18	Susp.	0	-		.357	-	83	1964	1964	702	702	2403N	
Cal Stan Scallion 3-10	3-10-11-26-W1	6:11p	"	"	0	-		.056	-	83	1975	1975	111	111	2403N	
Sun Scallion 11-14	11-14-11-26-W1	11:42a	"	"	0	-		.101	-	83	1982	1982	201	201	2403N	
Cal Stan Scallion 3-17	3-17-11-26-W1	10:11a	May 19	"	49	-	47	.366	-	78	1382	1382	545	545	2403N	Gradient run.
Cal Stan Scallion	2-21-11-26-W1	7:07p	May 18	54.1	14	-		.315	-	83	1994	1994	642	642	2403N	Shut-in 1 p.m. May 16 1961
"	"	12:58p	" 19	72.0	15	-		.329	-	83	1994	1994	671	671	"	
"	"	8:16p	" 19	79.2	16	-		.329	-	83	1994	1994	672	672	"	
Sun Scallion 4-23	4-23-11-26-W1	3:21p	May 18		0	-		.103	-	83	1974	1974	203	203	2403N	
Cal Stan. Scallion	10-23-11-26-W1	Could not get in due to wax at 1120 ft from Tubing Bowl														
B. A. Scallion 2-34	2-34-11-26-W1	2:00p	May 19	Susp.	0			.130	-	83	1973	1973	256	256	2403N	
C.E.G. Scallion 7-5	7-5-12-26-W1	11:36a	"	"	0	-		.296	-	84	2011	2011	596	596	2403N	

**T. G. EASTLAND WELL SERVICES LTD.  
SUBSURFACE PRESSURE SURVEY**

Well: Cal Standard Scallion 3-17  
 Location: Lsd. 3-17-11-26-W1  
 Date: May 19, 1961  
 Time on Bottom: 9:56 to 10:00 a.m.  
 Time Shut In: Abandoned well  
 Shut-in Period: -  
 Run Depth: 1382 ft C.F.  
 Datum Depth: 1382 ft C.F.  
 Fluid Level: 47 ft C.F.  
 B.H. Temperature: 78°F  
 Gauge No. 2403N

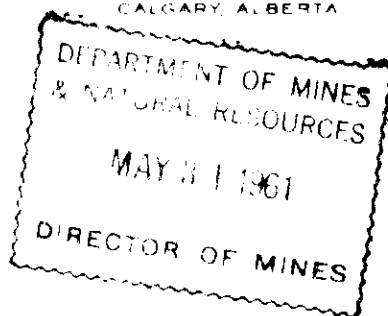


*No Encl*

*Fargo Oils Ltd.*

115 6TH AVENUE, N.E.  
CALGARY, ALBERTA

DALLAS, TEXAS



30th May, 1961

Mr. L.A. Swanson,  
The California Standard Company,  
Medical Arts Building,  
CALGARY, Alberta.

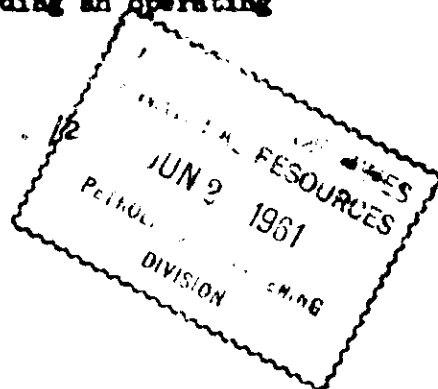
Dear Sir:

Re: North Virden Scallion Unit Operations

Thank you for your explanatory letter of May 16th, 1961. I had some difficulty in understanding the first paragraph on page two, in which you quote your field experience on direct labour and transportation cost at \$35.00 per well per month, whereas, previous information furnished by The California Standard Company indicated a cost of total well operation at \$150.00 per well per month, exclusive of district and head office overhead. The breakdown on the latter figure gave a labour and transportation cost far in excess of \$35.00 per well per month.

On page three of your letter you indicated that you have no objection to our obtaining bids for outside operation. Since The California Standard Company is Chairman of the Unitization Committee and since, in our opinion, such bids should be submitted to all of the working interest owners, we would like to request that you extend an invitation to bid to James A. Lewis Engineering, Ltd. The invitation should lay down the conditions under which you would accept a bid and the manner in which you wish it presented. Further, I am sure that James A. Lewis, or any other bidder, would need certain additional information which can be best obtained from you as Chairman of the Unitization Steering Committee.

As stated before, Fargo feels that the obtaining of an outside contractor's bid would be worthwhile and if it is indicated that an outside contractor can do a comparable job for less money, then serious consideration should be given to awarding an operating



Mr. L.A. Swanson

2.

30th May, 1961

contract to the bidder.

Thank you for your co-operation.

Yours very truly,

FARGO OILS LTD.

Dallas E. Hawkins, II

Dallas E. Hawkins, II  
Vice President and  
General Manager

DEH/ehd

cc Mr. J.S. Richards  
North Virden Operators

Mr. H. H. H. H. H.

- 1 Well Count-
- 2 Current Prod and  $\frac{1}{2}$  of 1958
- 3 Curr & End of 1958
- 4 Av. monthly to end of 1958 (will annex into total)

Summary ann.

1. 50% Current - 50% Curr.
  2.  $\frac{1}{3}$  each of 1, 2 & 3
  3. 50% 2 & 4
  4.  $\frac{1}{4}$  1, 2, 3 & 4.
  5.  $\frac{1}{3}$  wells 1, 2 & 4
- } & Plus same with W.O.R. penalties.

W.O.R. table.

Av. W. cut on last 6 months of 1958 approx 40% at end.

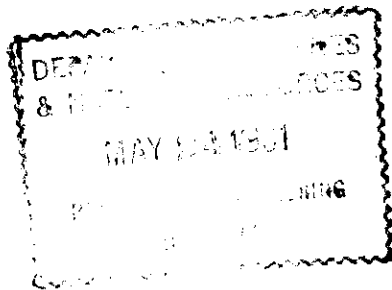
0 to 40% ninety penalty.

5% from up. 40-45' 0.9583  
 .8750  
 .7917  
 .7083  
 .6250  
 .5417  
 .4583  
 .3750  
 .2917  
 .2083  
 .1250

95 to 100% W. .0417

Ex. Rotation

2 instant Prod	53.43551
with	63.58941
Sum	11.84274
with	11.09267
W can	4.55433
with penalty	3.59996



*Section 2*  
May 16, 1961

Mr. Dallas B. Hawkins, II,  
Pargo Oils Ltd.,  
140 - 6th Avenue S. W.,  
CALGARY, Alberta.

Dear Sir:

It is indeed unfortunate that you were not present at the North Virden Scallion Operators Committee meeting on May 4 when the subject of operating costs was discussed.

The subject was introduced by Mr. J. H. Valant with a statement that, in his opinion, the costs were high and that bids for the operation should be obtained from independent Contractors. During this discussion I indicated to the group that we felt the charges for overhead and district expense as set up in the accounting procedure were reasonable, and were arrived at on a strictly cost basis, and had no element of profit in them, nor do they have any of the high overhead costs which burden large oil companies such as research, public relations, training, etc. As you will recall, at one of the previous meetings it was reported that the Accounting Committee, made up of most of the Operators in the North Virden Scallion Field, had reviewed these proposed charges and found them to be reasonable. During the discussion I made the statement that California Standard was not in favour of having an independent Contractor operate a project of this type, but the project should be operated by someone having a financial interest in the results obtained. This view was supported by some of the Operators present at the meeting. I did not wish to leave the impression with anyone that we would not join the Unit unless we were the operator.

As you well know, the cost of an operation of this type can be broken down into two major categories. First includes supervision, engineering, accounting, and other administrative costs. These are generally referred to as overhead and district expense. The other cost is a direct operating cost, which includes wages, minor maintenance and automotive costs. In the North Virden Scallion Unit, it has been proposed that overhead

May 16, 1961

and district expense be charged at a flat rate, temporarily established at \$63 per well per month. This cost is to be adjusted from time to time as conditions warrant. It was generally agreed that the direct operating charges should be billed directly to the Unit, although there have been suggestions that this also be charged on a flat rate. Also, during the discussion, I mentioned that we had received a proposal from an independent Contractor, and that we felt we could conduct the operation as cheaply or more cheaply than the proposal, although no figures were presented at the time. For your information, a copy of this proposal is attached. As you will note, the suggested price for direct field operations would be approximately \$65 per well. Our experience during the last year in the North Virden Scallion Field indicates that these costs have been approximately \$35 per month per well. We do not believe that under secondary recovery operations these charges should change materially. We certainly hope that they will go down due to an increased number of wells. You will also note that he proposes that the entire service could be performed for approximately \$105 to \$115 per well per month. We are confident that our charges as proposed would not exceed this amount and that with settled operations (after the first year) these costs should be less.

We believe that the suggested charge for overhead and district expense is reasonable and is in actual fact lower than many comparable operations in size and scope in Alberta and Saskatchewan. For your information, we are listing below several unit operations with which we are familiar, and the charges for overhead and district expense:

<u>Unit or Operation</u>	<u>Overhead and District Expense</u>
A	\$ 90
B	85
C	80
D	80
E	80
F	72
G	125
North Virden (Proposed)	63

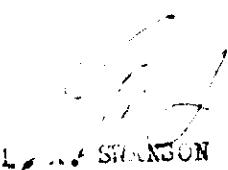
We have identified these Units by letter. However, if you wish further information on these operations, we would be glad to furnish it.

Mr. Dallas E. Hawkins, II -- 3

May 16, 1961

In your letter of May 5 you indicated that you were familiar with a responsible Contractor who does this business on a large scale. We would have no objection to your obtaining bids for such operations.

Yours very truly,



L. H. STINSON

LAS:DY

Att.

cc - Mr. J. S. Richards  
North Virden Operators



COPY

R. H. BARNES OIL SERVICES LTD.  
PRODUCTION MANAGEMENT, EXPLORATION  
WELLSITE GEOLOGY & COMPLETIONS  
28 CARDIFF PLACE  
CALGARY, ALBERTA.

February 10, 1961.

The California Standard Company,  
Medical Arts Building,  
Calgary.

Attention: Mr. L. A. Swanson

Dear Sir:

I have recently been informed that the North Virden field is very close to being unitised. I feel that an independent operator could save your company, as probable unit operator, considerable money and many headaches.

I believe that the actual field pumping operations could be handled for approximately \$65.00 per well per month. The price would be the same for producing, disposal and injection wells and we would include pumpers, foremen and Vehicles to pump the wells, gauge the tanks, ship the oil, provide daily production reports, and do minor lease maintenance.

Due to the large number of wells involved major lease maintenance could be provided at a rate considerably below the rates presently charged by the various service companies.

If you should decide that it would be preferable to use a third party to completely operate the unit, I believe that a complete service could be provided for approximately \$105.00 to \$115.00 per well per month. This service would include all the above services plus the selling of the oil, disbursing the income, competent field engineering supervision of field workovers, filing of reports, balancing of floods, etc. With this service you could eliminate the use of your staff in answering all the questions and etc which are invariably asked by the non-operating members of a unit.

---2---

The above prices are not firm since I would require considerable data plus a close look at present field operations before making them firm, however I do not believe that a firm offer would be very different from the above figures.

In addition I understand that you have a few wells in the Pembina field which are divorced from your main operations. I believe that I could make an attractive offer to handle these wells for you.

If the above is of interest to you please feel free to call me at AV 9-2809 or CH 3-2663.

Sincerely,

Original signed by Rex H. Barnes

Rex. H. Barnes

RHB/pb  
/DY

# *Fargo Oils Ltd.*

140, 8TH AVENUE WEST  
CALGARY, ALBERTA

U.S.A. - ASHLEY  
DALLAS 6 TEXAS



5th May, 1961

Mr. L.A. Swanson,  
North Virden Sealion Operators' Committee,  
California Standard Company,  
389A - 6th Avenue S.W.,  
CALGARY, Alberta.

Dear Sir:

Re: Operators' Committee Meeting, May 4th.

Due to unforeseen circumstances Fargo was not able to have a representative at the Meeting captioned above, however, we have been informed that the question of taking responsible bids from third party contractors was discussed. We understand that it was California Standard's position in regard to this matter that they would not join the Unit unless they were the operator.

As the purpose of a Unit is not necessarily to make any one party operator and as the Unit Agreement, as presently drafted, provides that anyone may be appointed operator and also since it is only good business to obtain the best price for the service required to be performed, we would like to urge two third party contractors be obtained to place a bid on this operation. Further, it is Fargo's position that this would be no criticism of the proposed rates of California Standard, but would simply be for the benefit of all operators, including California Standard, to ascertain the going rate for such an operation. Fargo further takes the position that unless such bids can be obtained, we will not be prepared to sign an Operating Agreement setting forth rates which have not been submitted for a comparison. At the present, the rates proposed by California Standard are in excess by a considerable amount of what it is costing Fargo for the same services.

Would you please take this under consideration. If you are agreeable, we would be willing to obtain at least one bid from a responsible contractor who is in this business on a large scale. The

. . . /2

Mr. L.A. Swenson

2.

5th May, 1961

present indications are that the proposed bid would be an appreciable amount less than California Standard's proposition.

Yours very truly,

FARGO OILS LTD.

ORIGINAL SIGNED  
DALLAS E. HAWKINS II

---

Dallas E. Hawkins, II  
Vice President and  
General Manager

DEH/ehd

cc Mr. J.S. Richards, ←  
Deputy Minister of Mineral  
Resources,  
Winnipeg, Manitoba

North Virden Scallion Operators.

April 3, 1961.

Mr. J. G. Trowell,  
District Production Superintendent,  
The California Standard Company,  
Box 100,  
Virden, Manitoba.

Re: North Virden Scallion Unit Agreement No. 1

Dear Jack:

Attached herewith are a few notes Win typed for me over the weekend and which were reviewed briefly by the Board between sitting of the Public Accounts Committee and the House. The point I wish to make is that the notes have not been given serious study by the Board, however, they do feel -

- (a) That even if it is to be a voluntary agreement that it should fit the framework of the Statutes, both as to language and intent, as closely as possible, since some later development requiring compulsory unitization such as an enlargement, might arise
- (b) Section 2.7 would appear to conflict with the Statutes requiring Royalty Owners' consents but is possibly our opinion and possibly not valid.
- (c) 76 (1) bottom page 7, in the opinion of the Board, underlined only because redundant.
- (d) Section 11.2 Subsequent Failure of Title. Board feels Section 85 applies only to Disputes, see Page 11.

(e) Section 12.1. Board feels that since Section 87 (1) is permissive that there would be no objection to Section 12.1.

I would repeat that the Board has given this a cursory examination only and are in no way adamant ~~it~~ it is to be voluntary unitization.

I will be in Virden for lunch on Wednesday, April 5.

Yours very truly,

  
M. J. Gobert,  
Senior Petroleum Engineer.

MJG/h

Comparison North Virginia Pollution Unit Agreement No. 1

Draft Von with revisions VIG --

In order to amend the lines

are. 3 5th line "fair and equitable share"

it defines, "just and equitable share".

#### Definitions

1.5 "petroleum substances" means crude oil, natural gas, condensate, and all other hydrocarbons (and their derivatives) and all fluids and substances associated therewith, or any of them, whether liquid, gaseous or mixed.

b7(b) "gas" means natural gas both before and after it has been subjected to any processing and includes all fluid hydrocarbons not defined as oil;

b7(d) "oil" means crude oil and all other hydrocarbons regardless of gravity, that are or can be recovered in liquid form from a pool through a well by ordinary production methods;

1.6 "Royalty Interest" means an interest, other than a working interest in, or right to receive a portion of, the Minimized Substances or a portion of the proceeds thereof, but shall not include the interest of any person, firm or corporation whose sole interest is as a purchaser of petroleum substances or any portion thereof after production.

1.7 "Royalty Owner" means an owner of a Royalty Interest.

57(g) "royalty owner" means a person, other than a working interest owner, who has any interest in a right to receive a portion of the oil and gas produced from any lands or a portion of the proceeds from the sale thereof, including a reversionary interest, a royalty interest reserved to the lessors named in any subsisting oil and gas lease, and any over-riding royalty interest, or an interest in a payment under, or encumbrance on, a lease or other contract relating to oil and gas that does not carry with it the right to search for or produce the oil and gas;

1.8 "Spacing Unit" means the area allocated by the proper government authority for each well drilled for the purpose of producing the petroleum substances.

57(h) "spacing unit" means

(i) an area allocated to a well for the purpose of drilling for and producing oil and gas; or

(ii) an area designated as an area that may be allocated to a well if a well is drilled;

and the subsurface regions vertically beneath an area so allocated or designated but, where a well is drilled to, or producing from, a specified pool, geological formation, or strata, or member, the surface regions vertically beneath the area allocated or designated for that well are limited to that specified pool, geological formation, or strata, or member;



1. "Tract" or "Numbered Tract" means each parcel of land described as such and given a tract number in Exhibit "A" and each parcel of land that may be from time to time added thereto pursuant to the provisions thereof.

57(1) "Tract" means a continuous area within a spacing unit or pool, as the case may be, within which

(i) one person has; or

(ii) two or more persons jointly have; or

(iii) two or more persons have an undivided interest in;

the right or an interest in the right to drill for and produce oil or gas either because of having individual, joint, or common title to the oil and gas or under an oil and gas lease from a person or persons having such an individual, joint, or common title to the oil and gas;

1.11 "Unit Area" means and comprises the lands set forth and described in Exhibit "C" and included within the boundaries of the solid black outline on the map attached hereto as Exhibit "B", excluding, however, those lands as shown cross-hatched on said Exhibit "B".

57(3) "unit area" means an area described in an agreement for the unit operation of the area approved under subsection (2) of section 71 or in an order for the unit operation of the area made under subsection (3) of section 77 or subsection (2) of section 76 or section 76;

1.16 "Working Interest" means the right in whole or in part to search for and produce the Unitized Substances, whether such right be derived from ownership in fee simple, from a petroleum and natural gas lease, natural gas lease, or other contract conferring such right, or from any other circumstances; and includes the interest of all parties to a carried interest agreement, but shall not include the interest of any person, firm or corporation whose services are engaged in the exploration of or production from the Unit Area and whose sole interest therein is a fee or other payment for such services; PROVIDED, that with respect to any party hereto where such right is derived from ownership in fee simple, seven-eighths (7/8ths) of all production allocated to the owner of such right shall be deemed to have been received by virtue of a Working Interest, and such owner shall be subject to the same obligations as to the said seven-eighths (7/8ths) of the said production as are the other owners of Working Interests, and one-eighth (1/8th) of the production allocated to him shall be recorded as production allocated to him by virtue of a Royalty Interest and such owner shall be subject and entitled to the rights, privileges and obligations of owners of Royalty Interests to that extent.

1.17 "Working Interest Owner" means an owner of a Working Interest.

57(c) "Working interest owner" means a person who has the right, in whole or in part, to search for and produce oil and gas from any lands and to appropriate the production

therefrom either for himself or for others having an interest therein or for both, whether such right is derived from ownership in fee simple, from a lease, or from any other disposition.

#### Exhibits

2.1 (a) Exhibit "A" describes the Tracts and sets forth the Tract Participation thereof with the names of the persons who are the owners of the Working in such Tract.

This is assumed to include the royalty interest owners tract participation as well as working interest owners.

2.6 Supplying of Exhibits Each time that an exhibit is revised, corrected or amended, Unit Operator shall supply the Department of Mines and Natural Resources with two (2) copies thereof, ----

Department of Mines and Natural Resources should read The Oil and Natural Gas Conservation Board with an additional copy to the Department as a royalty owner.

2.7 As soon as possible after the Effective Date and as soon as possible after the expiry of ninety (90) days therefrom, Exhibits "A" and "B" to this Agreement shall be revised if necessary in order to show only the Tracts which have become subject thereto. In the event of such revision, the Tract Participation of the Tracts shall thereupon be increased proportionately so that their summation equals one hundred (100%) per cent and such adjusted Tract Participations shall be set out in a revised Exhibit "A" and shall be effective from the Effective Date.

Does this not mean that all tracts are not necessarily

included at Effective Date and that inclusion or exclusion of Tracts is at option of Working Interest Owners.

5.1 (a) Why Working Interest Owners and not Unit Operator.

6.1 (c) Any Tract qualified pursuant to paragraph (a) hereof, but which has not been qualified pursuant to paragraph (b) hereof, which has become qualified as a Tract on any basis which may be negotiated between the owners of a Working Interest in such Tract and the Working Interest Owners then parties to this Agreement and the Operating Agreement.

It would appear that royalty owners consent not necessary.

8.2 Delivery of Unitized Substances in Kind. The Unitized Substances allocated to each Tract shall be delivered in kind to the Working Interest Owners entitled thereto. Such Working Interest Owners shall have the right to construct, maintain and operate within the Unit Area all necessary facilities for taking production in kind provided the same are so constructed, maintained and operated as not to interfere with unit operations. Any extra expenditures incurred by Unit Operator by reason of the delivery in kind of any portion of the Unitized Substances shall be borne by the party receiving the same.

Each Working Interest Owner receives his share of produced substances:

8.4 Failure to Take in Kind. To the extent that "any party",

Why not Working Interest Owner or Royalty Interest Owner.

8.4 Last 3 lines. Any Working Interest Owner not taking in kind may revoke at will the Unit Operator's authority hereunder by taking in kind all of its share of production not previously contracted for sale.

Would appear to conflict with 8.2 Delivery of Unitized Substances in Kind. The Unitized Substances allocated to each Tract shall be delivered in kind to the Working Interest Owners entitled thereto.

9.1 Use of Unitized Substances. Working Interest Owners may use as much of the Unitized Substances as they deem necessary - - -

Why not Unit Operator instead of Working Interest Owners.

10.1 Application for Enlargement. If a well capable of production of Petroleum Substances from any part of the Virden or Scallion Formations is drilled and completed in a Spacing Unit outside the boundaries of the Unit Area, any person or persons having the right to search for and produce such Petroleum Substances and having the right to appropriate such Petroleum Substances either for such person or persons or for others, may apply to the Working Interest Owners to enlarge the Unit Area to include the Virden and Scallion Formations underlying such Spacing Unit.

76(1) Notwithstanding section 75, the unit operator of a unit area, or the working interest owner of a tract adjoining a unit area, may apply to the board at any time to add to the unit area tracts that adjoin the unit area and that, in the opinion of the board, are in the same pool

or field as the unit area.

10.2 Approval of Enlargement of Unit Area and Re-calculation of Tract Participation. Upon the approval by the affirmative vote of the Working Interest Owners, as in the Operating Agreement provided, of the admission of any such Spacing Unit into the Unit Area, the Working Interest Owners shall give such Spacing Unit a Tract Participation and the Unit Operator shall thereupon assign a number to such Spacing Unit and upon such Spacing Unit becoming qualified as in Article VI hereof provided, the expressions "Tract" and "Unit Area" whenever used herein shall be deemed to include such Tract or Tracts. The Tract Participation of each Tract within the Unit Area excluding the Tract so added, shall be re-calculated and revised by multiplying the Tract Participation of each Tract immediately prior to such enlargement by the difference between one hundred (100%) per cent and the Tract Participation assigned to the Tract so admitted.

76 (2) Upon receiving an application under subsection (1), or upon its own motion, the board may hold a hearing to consider adding further tracts to the unit area.

(3) Upon holding a hearing under subsection (2), the board may, with the approval of the Lieutenant-Governor-in-Council, order that tracts that adjoin a unit area and that, in the opinion of the board, are within the same pool or field, be added to the unit area.

10.4 Effective Time of Enlargement. Any enlargement of the Unit Area and any adjustment of Tract Participations and made pursuant

the foregoing provisions of this Article, shall become effective at 7:00 A.M. Central Standard Time on the first day of the calendar month following the approval of the Working Interest Owners and the qualification of such Tract as in Section 10.2 hereof provided.

Order under 76 (3) would set Effective Date.

11.1(b) And line "Owners" not defined.

11.2 Subsequent Failure of Title. If the title of any Working Interest Owner to any Tract fails or is cancelled such Tract shall, upon Unit Operator being advised of such failure or cancellation, be excluded from the Unit Area unless any other party hereto is held or declared to own such Working Interest in which event such party shall be bound by all the terms and conditions of this Agreement and the Operating Agreement with respect to such Interest. If such party is a Royalty Owner it shall promptly execute three (3) copies of the Operating Agreement. If the person declared to own such Working Interest executes three (3) copies of this Agreement and the Operating Agreement, or counterparts or ratifications thereof, within ninety (90) days of the exclusion of such Tract from the Unit Area, then such Tract shall be re-included in the Unit Area as of 7:00 A.M. Central Standard Time, on the first day of the calendar month next succeeding such execution or ratification.

85. Where a dispute arises as to the person entitled to receive the share of oil or gas produced from a unit area or spacing unit allocated or apportioned to the owner of a tract therein, the unit operator or the operator of the spacing unit shall

(a) sell the share in respect of which the dispute arises;

(b) pay the portion of the costs and expenses allocated or apportioned to the person entitled to the share out of the proceeds of the sale; and

(c) pay the balance of the proceeds to a trust company to be held by it until settlement has been reached by the parties interested therein or until a judge of Her Majesty's Court of Queen's Bench for Manitoba has made an order with respect thereto.

12.1 Filing. The Unit Operator shall file this Agreement, and any revision, correction or amendment of the exhibits, with the Department of Mines and Natural Resources for the Province of Manitoba and with the appropriate Land Titles Office for the Province of Manitoba in accordance with the provisions of The Mines Act.

87. (1) Where an agreement is approved or an order is made by the Board under this Part, a copy of the agreement or order certified as being a true copy by the chairman or the deputy chairman of the board ~~may be filed with the district registrar~~ of each land titles district in which land affected by the agreement or order is situated and, if the land contains oil or gas that is the property of the Crown, with the chief mining recorder.

(2) Upon a certified copy of an agreement or order being filed under subsection (1) and upon the proper fees being paid, the district registrar, or chief mining recorder, shall make such entries in his records and do such other things as are necessary to give effect to the filing of the agreement or order.

(3) Where an agreement approved by, or an order made by, the board under this Part, is filed under subsection (1)



(a) in so far as it affects oil and gas that are the property of the Crown, with the chief mining recorder; and

(b) in so far as it affects other oil and gas, with a district registrar;

any interest in the oil and gas in land affected thereby is subject to, and each owner of a land affected thereby is bound by, the approved agreement or order as long as it is in effect.

#### Disputes

13.1 Disputes as to Title to Working Interest

13.2 Provision for Bond

13.3 Disputes as to Title to Royalty Interest

85 (a), (b) and (c) previous page, outlines procedure.

15.1 Transfers. Should these be filed with Board, Mining Recorder and Land Titles office.

16.3 It is not the intention of the parties hereto to create a partnership or an association in the nature of a partnership. The duties and obligations of the parties hereto are intended to be separate and not joint or collective, and nothing contained in this Agreement or in any agreement made pursuant hereto ever shall be construed to create a partnership or association or to impose a partnership duty, obligation or liability with respect to any one or more of the parties hereto.

57 (kl) "Unitization agreement" means an agreement made by the working interest owners in a pool or field to consolidate, merge or otherwise combine their interests in a unit operation;

16.4 Nothing in this Agreement shall be construed as providing directly or indirectly for any co-operative or joint sale or marketing of Unitized Substances.

#### Effective Date

17.1 The unitization provided for in this Agreement shall become effective at 7:00 A.M. Central Standard Time on the first day of the first calendar month following the date on which \_\_\_\_\_ per cent or more of the Tracts have become qualified as such, in accordance with the provisions of Article VI hereof; PROVIDED that if this Agreement has not become effective in the manner herein provided, or if not approved by the Conservation Board on or before the \_\_\_\_\_ day of \_\_\_\_\_, A.D. 1960, this Agreement shall thereupon terminate and be at an end.

73 (4) The board shall set out in an order made under subsection (3)

(a) the date on which it came into force;

#### Term

18.1 Subject to the provisions of Article XVII hereof, this Agreement shall become binding upon each party hereto when said party executes and delivers three (3) copies thereof to the Unit Operator and it shall enure to the benefit of, and be binding upon their respective heirs, executors, administrators, successors or assigns. This Agreement shall remain in full force and effect until all wells for the production of Unitized Substances in the Unit Area have been abandoned, plugged or otherwise disposed of; PROVIDED, HOWEVER, that this Agreement shall be terminated at such time as the Operating Agreement is terminated.

February 17th, 1961.

Mr. J. S. Richards,  
Deputy Chairman,  
The Oil and Natural Gas Conservation Board,  
Department of Mines and Natural Resources,  
WINNIPEG 1, Manitoba.

Dear Sir:

North Virden Scallion Field  
Manitoba

The North Virden Scallion Field was discovered in December, 1953. Follow-up drilling and development made it apparent in December of 1955 that eventually some form of pressure maintenance or secondary recovery would be necessary to obtain the maximum economic recovery of oil from this reservoir.

<u>Year</u>	<u>Wells</u>	<u>Oil</u>	<u>Production</u> <u>Water</u>	<u>Average</u> <u>Oil/Day</u>
1954	33	116,558	15,099	443
1955	119	876,910	89,891	2,402
1956	171	2,183,000	365,057	5,981
1957	226	2,347,994	787,148	6,433
1958	249	2,262,643	1,401,200	6,199
1959	261	1,930,505	1,802,604	5,289
1960	273	1,768,452	2,112,868	4,845
		<u>11,500,000±</u>	<u>6,500,000±</u>	

Estimated original oil in place

by 1958 March report	163,000,000 barrels
by 1960 estimate	175,000,000 barrels

Early in 1956 work was started on an engineering study. This study was completed in May, 1958. The report indicated a primary recovery of 12% or  $0.12 \times 163,000,000 = 20,000,000$  barrels.

continued ...

J. S. Richards

February 17th, 1961.

The attached chart showing water cut trend indicates a primary recovery of 21,000,000 barrels which is 12% of 175,000,000 barrels which is in close agreement with a 1960 estimate based on additional development.

The cumulative production to date of 11,500,000 barrels is 55% of estimated primary. From now on a more rapid decline in production can be expected. Early conversion to water flooding is essential.

Primary oil left	9,500,000 barrels
Estimated additional oil by water flood	17,500,000 barrels

To avoid unnecessary investment to protect against artificially induced cross-line migration unitization is needed. Unitization of a field or reservoir requires incentive. Incentive takes the form of additional oil recovery, lower producing costs, and additional income. On a field wide basis all of the above ingredients are substantiated in the March 1958 report. Now what the various field interests have to do is to decide upon an equity formula which will develop the optimum combination of the above ingredients to satisfy their individual interests.

To pursue the problem and work towards eventual unitization committees were officially established for this purpose on June 12th, 1958.

#### Operators Committee

June 12th, 1958	- (July 3rd, 1958 hearing of submission for pilot flood)
June 29th, 1959	- (Overall scheme for water flood proposed by Calstan)
February 23rd, 1960	- (Legal and Accounting Committees set up)
July 21st, 1960	- (Proposal for unitization submitted by Calstan)
December 8th, 1960	- (Closer agreement reached on equity formula 50% current 50% penalized average monthly)

#### Engineering Committee

April 6th, 1959	- (Program for equity run-outs)
July 23rd, 1959	- (Flood proposal with costs)

continued ...

J. S. Richards

February 17th, 1961

Engineering Committee - Continued

- March 9th, 1960 - (Equity discussions - water penalty)
- December 20th, 1960 - (Equity work-outs on IEM- well qualifications)

To understand the overall problem we have prepared a series of charts. Mr. Dutka will use these to show the consideration and thinking used in arriving at the proposed equity formula. This formula takes into consideration all factors to give each interest within the field an optimum share of the ingredients needed to supply the incentive for unitization:-

- (a) Additional oil recovery.
- (b) Lower producing costs.
- (c) Additional income.

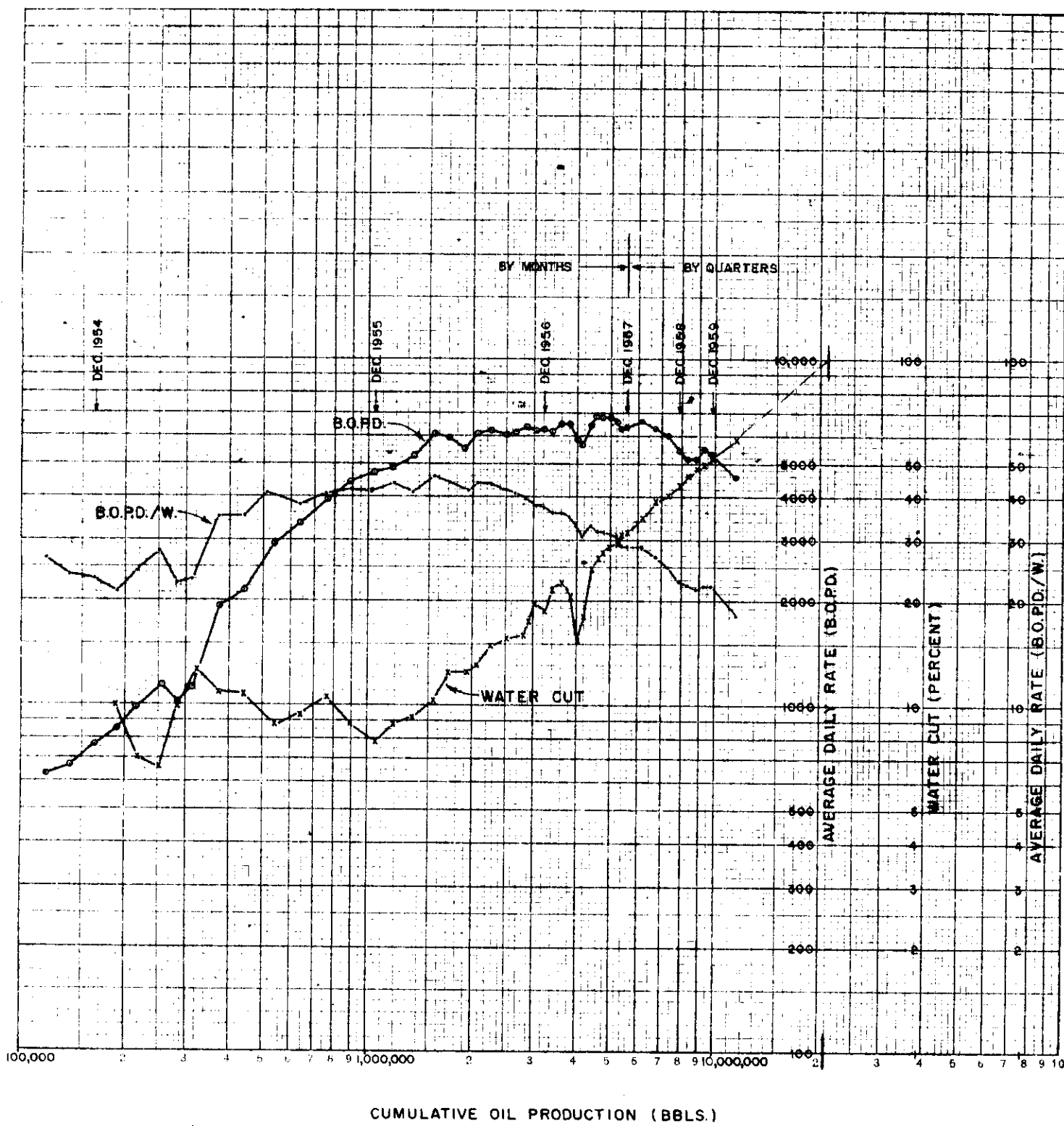
Yours very truly,

JFR:jka  
Attachments

  
JACK ROSS.

# NORTH VIRDEN SCALLION TOTAL PRODUCTION RATE vs. CUMULATIVE

LOGARITHMIC 359-120  
FUEL CELL SYSTEMS CO. DIV.  
S.A. SINGLES



# COPY

February 9, 1961.

Mr. E. H. Vallat,  
E. H. Vallat Ltd.,  
8 Michael Building,  
3rd Street West at 9th Avenue,  
Calgary, Alberta.

Dear Mr. Vallat:

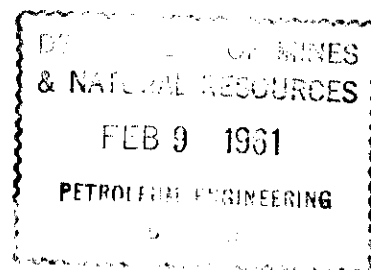
The delay in replying to your letter of December 21st, commenting on the proposed unitization of a major portion of the North Virden Scallion Field, has been owing to my absence from the office for a considerable period of time. Your comments in respect to possible anomalies are noted. I would like to say that the Board is prepared to hear any and all proposals both with respect to the method of facilitating pressure maintenance and the manner of unitization.

Yours very truly,

  
D. S. Richards,  
Deputy Chairman.

JSR:lsm

c.c. Mr. M. J. Gobert,  
Senior Petroleum Engineer.



COPY

February 9, 1961.

Mr. J. P. Ross,  
Chief Engineer,  
The California Standard Company,  
329A - 6th Avenue, S.W.,  
Calgary, Alberta.

Dear Mr. Foss:

I am pleased to confirm that the Board is able to grant your request for a meeting on February 21st, with representatives of your company, to discuss the basic reservoir data, pertaining to the North Virden Scallion Field, requested in the letter, over my signature, dated December 6, 1960.

The meeting will be held in Mr. J. G. Cowan's Office, Room 330, Legislative Building, Winnipeg 1, at 9.30 a.m.

Yours very truly,

  
J. S. Richards,  
Deputy Chairman.

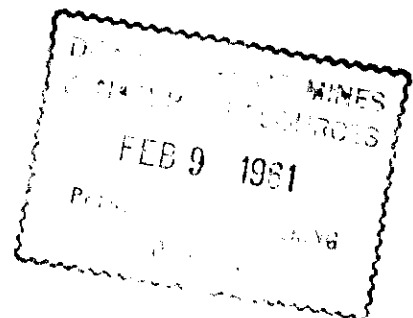
JSR:lsn

c.c. Mr. J. G. Trowell,  
The California Standard Company,  
Virden, Manitoba.

Mr. R. R. McDaniel,

Mr. J. G. Cowan, Q.C.,

Mr. M. J. Gobert,





MCDANIEL CONSULTANTS LTD.  
*Oil and Gas Reservoir Evaluations*

January 10, 1961.

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P  
Y

Province of Manitoba,  
Department of Mines and Natural Resources,  
Mines Branch,  
Petroleum Engineering Division,  
Room 2 - 232 Memorial Blvd.,  
Winnipeg 1, Manitoba.

Attention Mr. M.J. Gobert

Dear Sir,

In regard to your letter of January 3, 1961 we have reviewed the various correspondence in question. We are frankly somewhat confused as to E.H. Vallat Ltd.'s main concern in these matters. It would appear that they are concerned about the manner in which a pressure maintenance program would be carried out and possibly to a greater extent the manner in which equities would be divided. We would agree that a similar basis for participation should, if possible, be employed for any pilot test as would be used for a unit as a whole. It seems readily evident to us that both the prospectiveness of any project as well as the manner in which any such area would be unitized would be carefully considered by the Board.

E.H. Vallat Ltd. will no doubt be given ample opportunity to voice opinion if and when a public hearing is held. The question as to whether or not a pilot test should be undertaken is a matter to be decided by the Board but only

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*Oil and Gas Reservoir Evaluations*

Province of Manitoba - 2.

after careful consideration of the operators proposals. The area to be considered and the method of unitization would also have to be perused in similar manner. It would therefore appear reasonable to advise E.H. Vallat Ltd. that the Board is prepared to hear any and all proposals both with respect to the method of facilitating pressure maintenance and the manner of unitization. We would agree that it might not be prudent to advise E.H. Vallat Ltd. as to any attitude the Board may have towards a pilot flood. It is believed, however, the principals in which the Board is constituted, i.e. conservation, maximum recovery and best possible maintenance of equities must be adhered to in order to effect the greatest benefits to all concerned.

Sincerely yours,

MCDANIEL CONSULTANTS LTD.

Copy (Original Signed) R. R. McDaniel  
Per: R. R. McDaniel, P. Eng.

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# McDANIEL CONSULTANTS LTD.

*Oil and Gas Reservoir Evaluations*

R. R. McDANIEL, P.ENG.  
ROBERT S. BLACKETT, P.ENG.

231 EIGHTH AVENUE WEST  
CALGARY, ALBERTA  
TELEPHONE AMHERST 9-1683

January 10, 1961.

Province of Manitoba,  
Department of Mines and Natural Resources,  
Mines Branch,  
Petroleum Engineering Division,  
Room 2 - 232 Memorial Blvd.,  
Winnipeg 1, Manitoba.

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Province of Manitoba - 2.

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Sincerely yours,

McDANIEL CONSULTANTS LTD.

A handwritten signature in dark ink, appearing to read 'R.R. McDaniel', is written over a horizontal line.

Per: R.R. McDaniel, P. Eng.

January 3, 1961.

Mr. R.R. McDaniel, Pres.  
McDaniel Consultants,  
231 - 8th Avenue West,  
Calgary, Alberta.

Dear Sir:

Re: North Virden Scallion Proposed Unit

---

Attached herewith are copies of two letters from Mr. E.H. Vallat. The later one suggests that a pilot flood should be reconsidered before full scale operations are commenced.

As you know the Board did not rule out a pilot flood but did take exception to the proposed basis of participation as indicated in copies of correspondence herein enclosed.

My immediate reaction to Mr. Vallat's letter of December 21, 1960 was to so advise him. However this might strengthen his opposition to the main flood and further confuse the issue.

The basis of participation for any pilot flood must be applicable to the main part of the field and indeed, if agreement is ever reached on the participation factor, the initial operation may in fact be a pilot flood.

I would appreciate your comments.

Compliments of the Seasons,

Yours truly,

  
H.J. Gobert,  
Senior Petroleum Engineer.

MJG)lk