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DOME PETROLEUM LIMITED

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- Business Development
- Gas Utilization

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Petroleum Resources Branch
Ministry of Mines and Petroleum Resources
Parliament Buildings
Victoria, British Columbia
V8V 1X4

1978-09-29 *26*

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9600	2	5	0	3	7	9	7		

Attention: Mr. W. L. Ingram
Senior Development Engineer

RECEIVED

Dear Sir:

OCT 05 1978

Re: Application to Commingle Gas
Production from the Bluesky and
Dunlevy Formations,
Dome CanDel N. Buick a-69-F/94-A-14

PETROLEUM RESOURCES
BRANCH

23799 *015449*

1. Dome Petroleum Limited, as operator of the Dome CanDel N. Buick a-69-F well, hereby applies for approval of a scheme to commingle gas production from the Bluesky and Dunlevy formations in the a-69-F wellbore.
2. Between 1978-03-16 and 1978-04-01, an attempt was made to dually complete the Dome CanDel N. Buick a-69-F well in the Bluesky and Dunlevy formations. In the course of the workover:
 - a) the plug in the packer apparently lost a prong, allowing gas to flow through the packer.
 - b) hydraulic jars were lost downhole and could not be fished out.
 - c) segregation between the two formations may have been lost behind pipe.

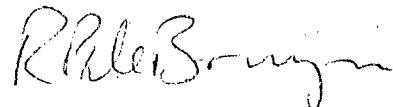
We believe that further attempts to regain segregation between the Bluesky and Dunlevy formations cannot be justified due to high anticipated workover costs, the possibility of badly damaging either or both zones during the workover, and the possibility that further attempts to regain segregation will not be successful.

If this application is not approved, Dome anticipates that the Dunlevy zone will have to be abandoned, resulting in a lower recovery of gas from this zone.

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3. In support of this application, Dome submits the following:
- a) The tops of the Bluesky and Dunlevy formations as penetrated by the a-69-F well are vertically separated by 88 feet (26.8m).
 - b) The compositions of the natural gas produced from each of the formations are very similar. These analyses are attached hereto.
 - c) Original formation pressures in each formation were very similar: 1317 psia (9081 kPa) in the Bluesky, and 1307 psia (9012 kPa) in the Dunlevy. It is estimated that a-69-F Dunlevy production lowered the Dunlevy reservoir pressure by several hundred psia (approximately 1750 kPa). Offsetting well production has probably lowered the Bluesky reservoir pressure slightly.
 - d) Neither the Bluesky nor the Dunlevy has shown a tendency to reservoir water drive in the vicinity of Dome CanDel N. Buick a-69-F and surrounding wells. We believe that no incremental reservoir losses will result from commingling production from the two zones in the wellbore, and that further workovers, with the associated possibility of damaging or losing a zone, pose a greater threat to conservation.
 - e) Offsetting wells are completed in the Bluesky (Dome CanDel N. Buick b-48-F/94-A-14) and in the Dunlevy (Dome CanDel N. Buick b-66-F/94-A-14) formations. Individual zones pressure behavior may be monitored through these wells.
4. Thank you for your consideration of this application:

Cordially,



R. P. DeBruyn, P. Eng.
Gas Utilization Engineer

RPD/ten

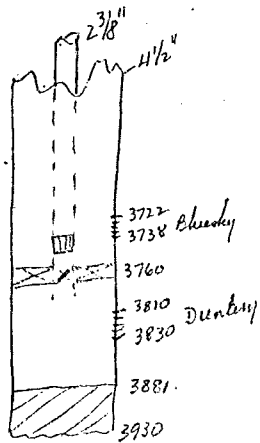
Attachments

xc: CanDel Oil Ltd. (Mr. R. J. Forgie)
Columbia Gas Development of Canada Ltd. (Mr. K. C. Wig)
Maligne Resources Ltd. (Mr. A. Ziebart)

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re: N. Buick a-69-F/94-H-14

Comingley Blueky & Dumbay

after workover, with FWG plug in
tbg but approx 1/4" dia. opening in plug
and bars lost in region of sliding sleeve
conditions are :-

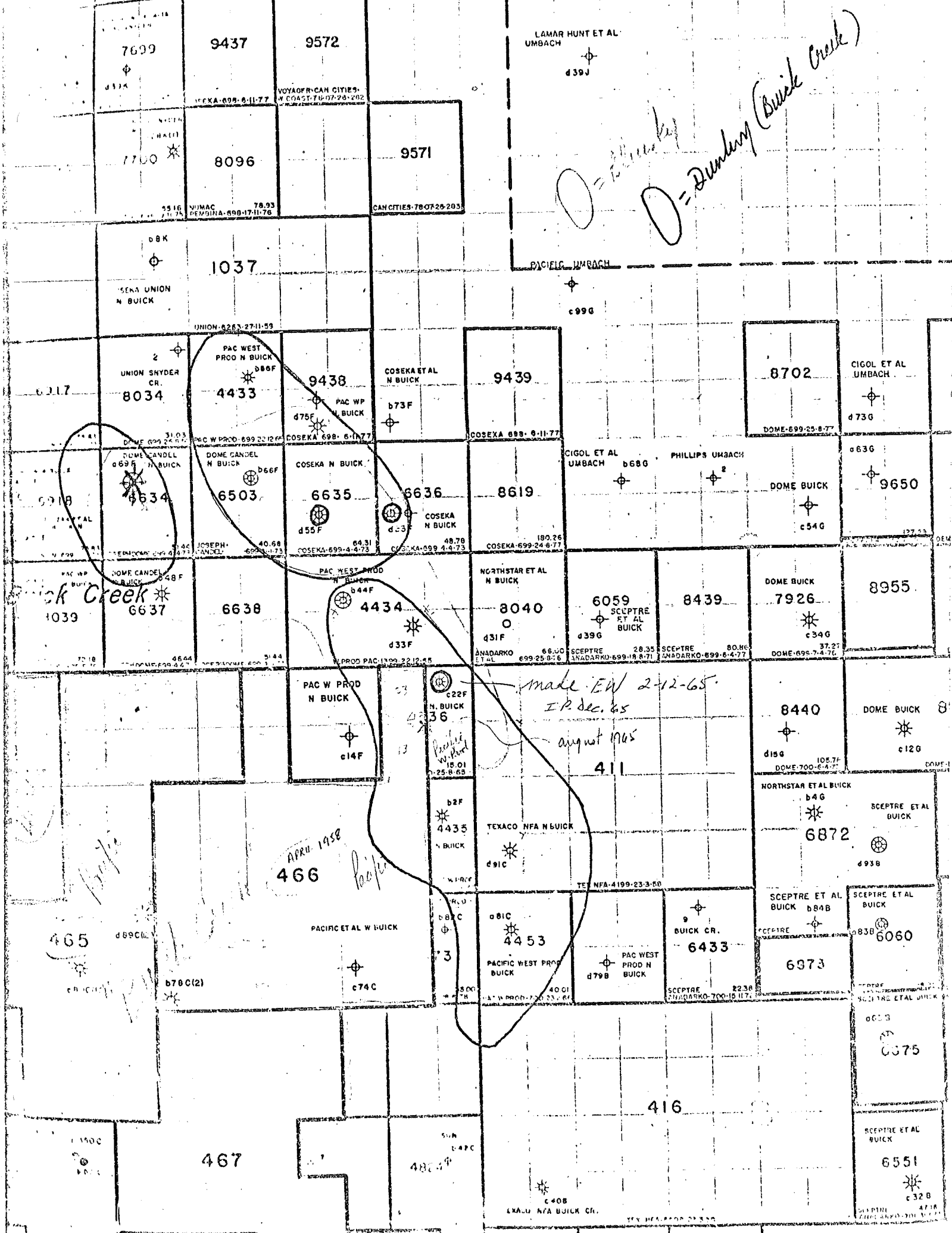


Sliding sleeve closed
will produce up annulus
assume all (100%) of production
will be from Blueky - due
to apparent pressure diff. between
zones.

"Recent communication
between zones is probably
in the formation as a result
of Pac jobs.

Estimate Blueky $P_{ws} \approx 1160$

" Dumbay " ≈ 880



7609 9437 9572

LAMAR HUNT ET AL
UMBACH
439J

1700 8096 9571

O = Dunkley (Buick Creek)

1037

PACIFIC UMBACH
c99G

8034 4433 9438 4338 COSEKA ET AL N BUICK 9439

8702 CIGOL ET AL UMBACH
4730

6534 6503 6635 6636 8619

PHILLIPS UMBACH
89650 DOME BUICK
c54G

6637 6638 4434 8040 6059 SCEPTRE ET AL BUICK 8439

8955 DOME BUICK
c34G

PAC W PROD N BUICK
c14F

*made EW 2-12-65
I.P. Dec. 65
August 1965
411*

8440 DOME BUICK
c12G

466

4435 TEXACO NFA N BUICK
491C

6872 SCEPTRE ET AL BUICK
4938

PACIFIC ET AL W BUICK
c74C

4453 PACIFIC WEST PROD BUICK
d79B

6433 SCEPTRE ET AL BUICK
6060

465

416

6973

467

480

6551 SCEPTRE ET AL BUICK
c32B