



August 23, 1999

3600-4580-59240-07
990443

Mr. Ron Bryant
Petro-Canada Oil and Gas
P.O. Box 2844
Calgary AB T2P 3E3

Dear Mr. Bryant:

**RE: CONCURRENT PRODUCTION APPROVAL, PETRO-CANADA UNIT #1
FORT ST. JOHN NORTH PINE "A" POOL**

The Commission has received a letter dated August 18, 1999, from Calahoo Petroleum Ltd. (Calahoo), stating concerns regarding the re-activation of the Fort St. John North Pine A Unit #1. Specifically, that the completion of well 13-14-83-18 in the gascap will allow the Unit to deplete reservoir energy and have a negative impact on pool oil recovery.

A Concurrent Production scheme was approved for Unit #1, covering a portion of the subject pool, on June 1, 1977, with a daily oil allowable of 53.1 m³ and a gas production limit of 56.3 e³m³. The approval of a concurrent scheme allows the simultaneous production of both gas and oil from an oil pool and eliminates the gas-oil ratio adjustment factor for the oil allowable, however the primary objective remains to maximize oil recovery. At this time there is no production from any of the oil wells within Unit #1.

Present production information indicates that there are three producing, high GOR, oil wells in the North Pine "A" pool, operated by Calahoo. As these wells are draining a portion of the gascap, as well as solution gas reserves, other wells in the pool remain entitled to gascap withdrawal. The total gas production limit for the Unit remains at 56.3 e³m³ per day. However, since the well 13-14 is not expected to contribute to pool oil recovery, an individual well daily gas allowable (DGA) is being issued to control gascap blowdown. Therefore, attached is a DGA of 19.8 e³m³ for the well PEX WP FT ST JOHN 13-14-83-18 (WA# 194).

A well producing under a DGA is subject to a "daily production limit", defined as a volume equal to 125% of the daily allowable. Please note that total gas production must not exceed the DGA multiplied by the number of days from the date of initial production to October 31, the end of the annual production period. Sections 87 through 89 of the *Drilling and Production Regulation* further define gas production restrictions.

Sincerely,

Bou van Oort, P. Eng.
Director
Engineering and Operations Branch

Attachment

cc: Dennis Taylor, Calahoo Petroleum Ltd.

**Approval Letters to Industry
GEP, SWD, CONCURRENT PROD,
PRESSURE MAINTENANCE,
WATERFLOOD, ETC.**

Copy

- Wellfile (originals)
- 59240
- Daily
- Resource Revenue
- R. Stefik
- G. Farr

Email

- D. Krezanowski
- S. Chicorelli

C. Gibson

ENGINEERING AND GEOLOGY BRANCH

PO Box 9329 Stn Prov Gov't, Victoria BC V8W 9N3 Tel: (250) 952-0302 Fax: (250) 952-0291

Location: 6th Flr 1810 Blanshard St. Victoria BC

P. S. Attarinala



OIL AND GAS COMMISSION

Mailing Address:
 Engineering and Geology Branch
 PO BOX 9329 STN PROV GOVT
 VICTORIA BC V8W 9N3

Location:
 1810 Blanshard St - 6th Fl
 Victoria BC V8T 4J1
 Phone: (250) 952-0302
 FAX: (250) 952-0291

APPLICATION FOR DAILY GAS ALLOWABLE (DGA)

Individual Well

Form must be submitted under the authority of the Petroleum and Natural Gas Act R.S.B.C. 1996, c. 361, Drilling and Production Regulation, s.88, to the Oil and Gas Commission, at the address noted above. Information collected on this form will be used for public record in accordance with s.57 of the Drilling and Production Regulation.

Initial Application

Revision No. _____

Well Name		PEX WP FT ST JOHN 13-14-83-18		Well Authorization No. 0194	
Field		Fort St. John		Pool North Pine "A"	
Factors	Units	Owner's Calculations		COMMISSION USE ONLY	
		Values Obtained from	Values Used in This Calculation	Branch Calculations	
Depth to top gas pay	mKb				
Depth to bottom gas pay	mKb				
Assigned area	A	hectares			260.6
Average net pay thickness	h	metres			1.9
Average net porosity	ϕ	fraction			0.146
Average water saturation (Nominal 0.25)	S_w	fraction			0.20
Initial pool pressure at MPP	P_i	kPaa			13,231
Formation temperature	T	K			325
Initial supercompressibility factor	Z_i				0.835
Recovery factor	R	fraction			.90
Unadjusted Daily Gas Allowable (10^3m^3) =		$\left(\frac{Ah\phi(1-S_w)P_i R}{35.16398TZ_i} \right) \left(\frac{1}{3.650} \right)$			19.8
Name			Position		
Signature			Company		
Date		Phone No.		FAX No.	

APPROVAL (for commission use only)

Off-target penalty factor	1.00	Daily gas allowable	19.8	10^3m^3
<i>(minimum UDGA is 60.0 10^3m^3 in accordance with Section 1 of the Drilling and Production Regulation)</i>				
Date Effective	August 23, 1999			
Field	Fort St. John	Pool	North Pine "A"	
Approval Date	August 23, 1999			