



Ref. No. 841005

1984 11 30

Petro Canada Resources
P.O. Box 2844
Calgary, Alberta
T2P 3E3

Attention: Jong I. Lee, P. Eng.

Dear Sir:

Re: Application for Good Engineering Practice Area
PEX Osprey a-45-J/94-A-15, Osprey - Halfway 'A'

PEX GEP Project #2 (4)
(Conc. Prod.)

This will acknowledge receipt of your application dated 1984 11 22, requesting approval of a Good Engineering Practice area and allowable for the well Pex Osprey a-45-J/94-A-15.

This is to advise that your application is approved as the well a-45-J is located in a pool which is being produced under a concurrent production scheme. The conditions of this approval are as follows:

1. The GEP area consists of units 34, 35, 44, and 45-J/94-A-15.
2. The gas allowable for the area, based on volumetric gas reserves in the area of approval, is $6.9 \times 10^3 \text{ m}^3/\text{d}$.
3. This approval could be modified at a later date if deemed appropriate through a change in circumstances.

Yours truly,

PETROLEUM RESOURCES DIVISION

A.G.T. Weaver
A.G.T. Weaver
Director, Engineering and Operations
(604) 387-5993

PSA:lgu

cc: D.L. Johnson

Petro Canada

Form 38

3729



Well Authorization No. _____

U.W.I. 200/A-045-J/094-A-15/0

MINISTRY OF MINES AND PETROLEUM RESOURCES
PETROLEUM RESOURCES BRANCH

APPLICATION FOR DAILY GAS ALLOWABLE
INDIVIDUAL WELL

Form to be submitted in duplicate to the Petroleum Resources Branch, Ministry of Mines and Petroleum Resources, Victoria, B.C.

Initial Application/Revision No. _____

Well name PACIFIC OSPREY Location a-45-J/94-A-15

Field OSPREY Pool HALFWAY

Depth to top of gas column 1178.4 KB obtained from Logs

Depth to bottom of gas column 1181.4 KB obtained from Logs

Factors	Nominal Values	Owner's Calculations		Branch Calculations
		Values Obtained from	Values Used in This Calculation	
Average net pay thickness (h)		Logs	3.0	1.6
Average net porosity (φ)	Fraction	Logs	0.164	0.16
Average interstitial water (C)	0.25	Logs	0.29	0.266
Initial pool pressure at MPP P _i (kPa)		Engineering & Geological Reference Book Page 509	9 542	9598
Initial supercompressibility factor (Z _i)		Estimate	0.865	0.831
Assumed abandonment pressure P _a (kPa)		Calculated	1 100	1130
Abandonment supercompressibility factor (Z _a)		Engineering & Geological Reference Book Page 509	1.000	0.977
Assigned area (A)		Engineering & Geological Reference Book Page 509	258	148
Formation temperature (T°K)		Estimate	329	327

Recoverable raw gas (10⁶m³) = 28.43819 × 10⁻⁸ Ah φ (1-C) $\left(\frac{P_i}{Z_i} - \frac{P_a}{Z_a}\right) \frac{1}{T}$ 78 10⁶m³ 25.1

Unadjusted daily gas allowable (10³m³/d) = 7.79128 × 10⁻³ Ah φ (1-C) $\left(\frac{P_i}{Z_i} - \frac{P_a}{Z_a}\right) \frac{1}{T}$ 21.3 10³m³/day 6.9

Dated at Calgary this 24 day of October 1984.

Signed by J. I. Lee Company Petro-Canada Inc.

Position Engineering Supervisor, Reservoir/Development

COST RELATED FACTORS:

DEPTH: 10
LOCATION: 7
AGE: 4

(For Branch use only)

APPROVAL

Off-target penalty factor 1.0 Water penalty factor _____

Daily gas allowable 6.9 10³m³, before water penalty factor.

Date effective October 24/84 Pool Halfway A

Field OSPREY

Dated Nov. 30 1984

Officer of the Branch

REX" SEP Subject "7 (4) admin"