



# Performance Review of In Situ Oil Sands Schemes Approval 9403, 9404E

Approvals 9403E, 9404E • Calgary • April 2, 2008

Pelican Lake Development Team, Brian Starr - Group Lead



# Agenda

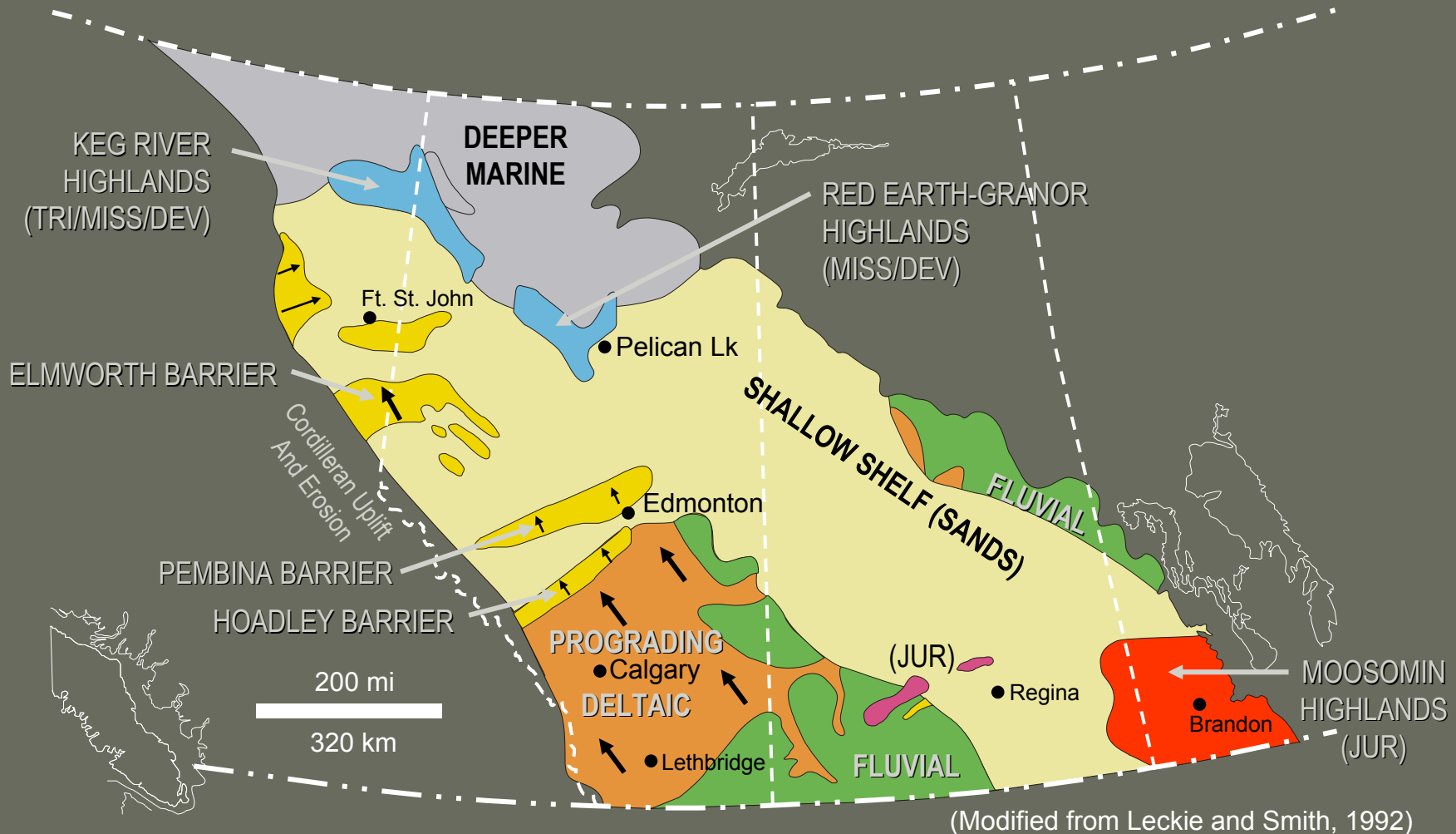
- **Geological Overview**
- **For Each Approval**
  - Current Approval Status
  - Field Performance
  - Key Learnings
  - Future Plans
- **EUB Issues**
- **Compliance**



# Geological Setting

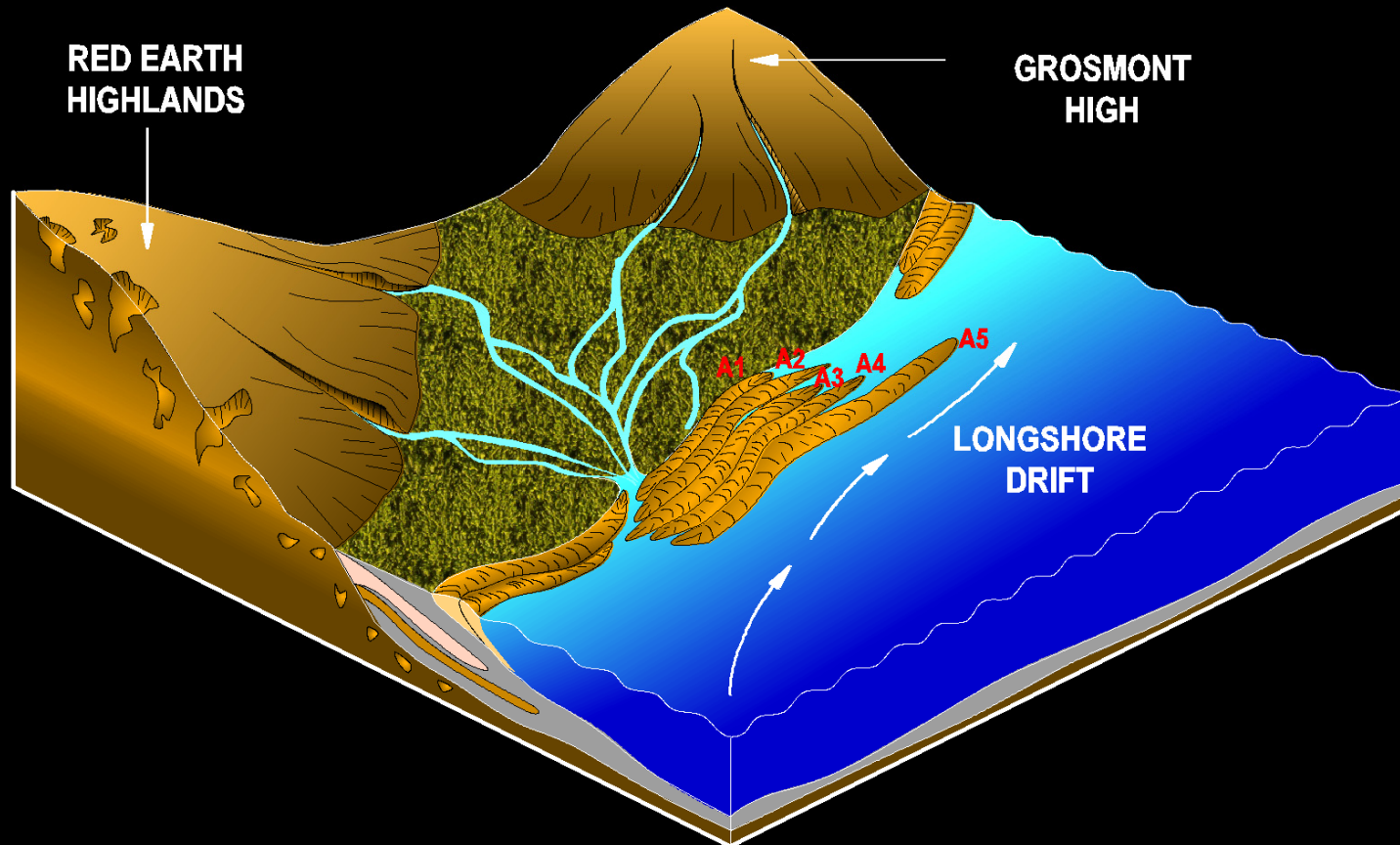


# Paleogeography of the Wabiskaw and Stratigraphic Equivalents





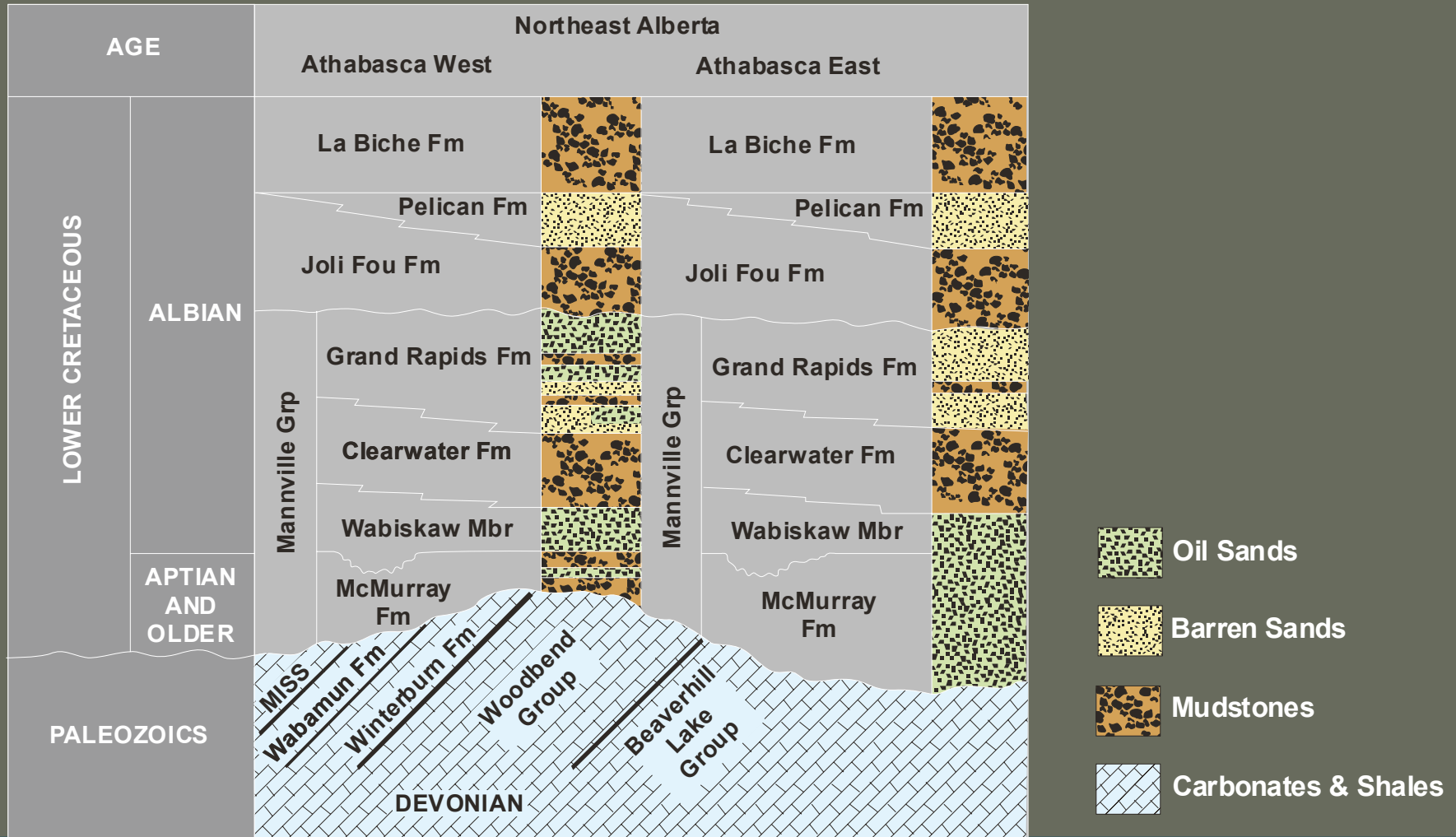
# Wabiskaw Depositional Model Pelican Lake Area



After J. Newsome

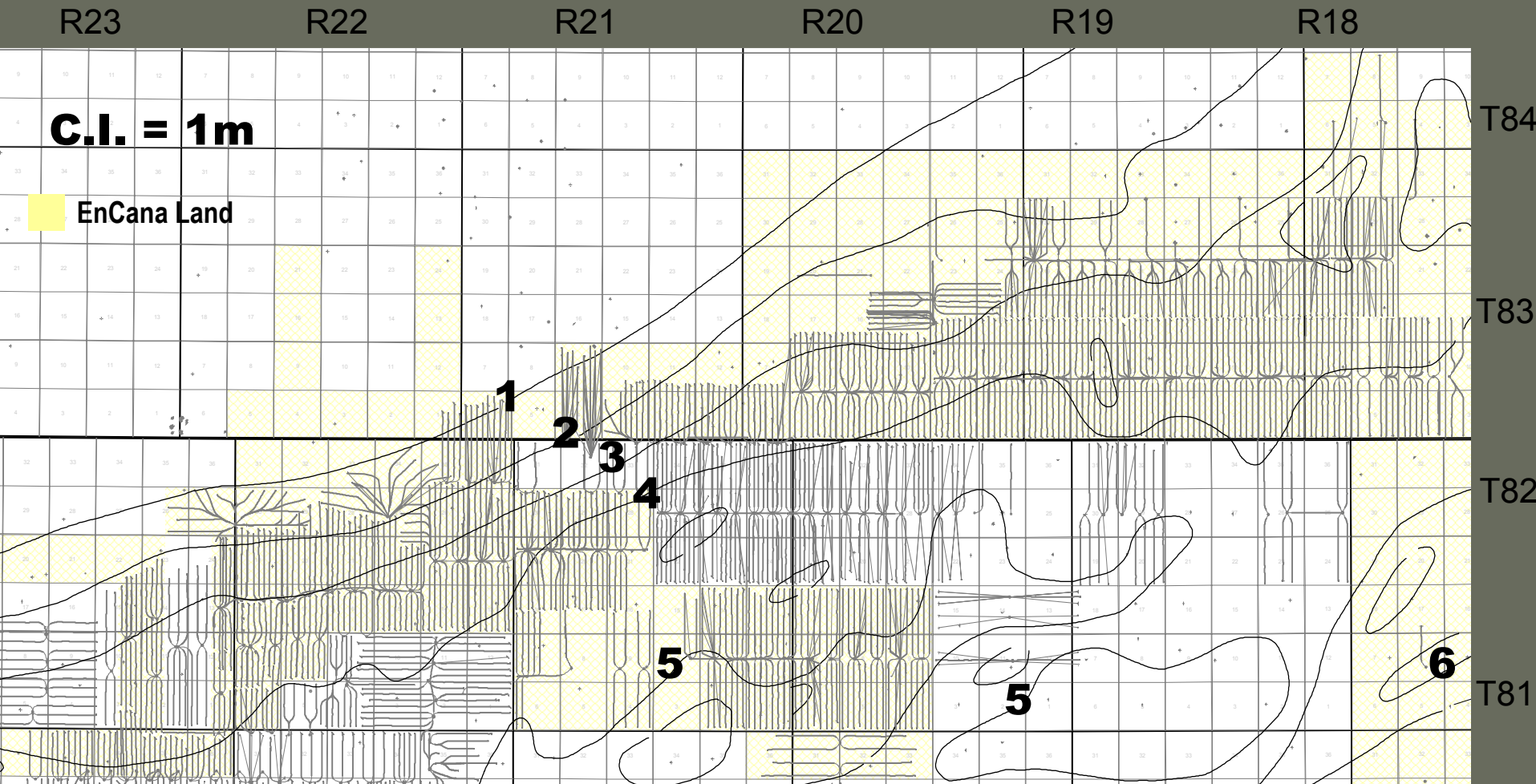


# Cretaceous Stratigraphy of the Athabasca Oil Sands Area



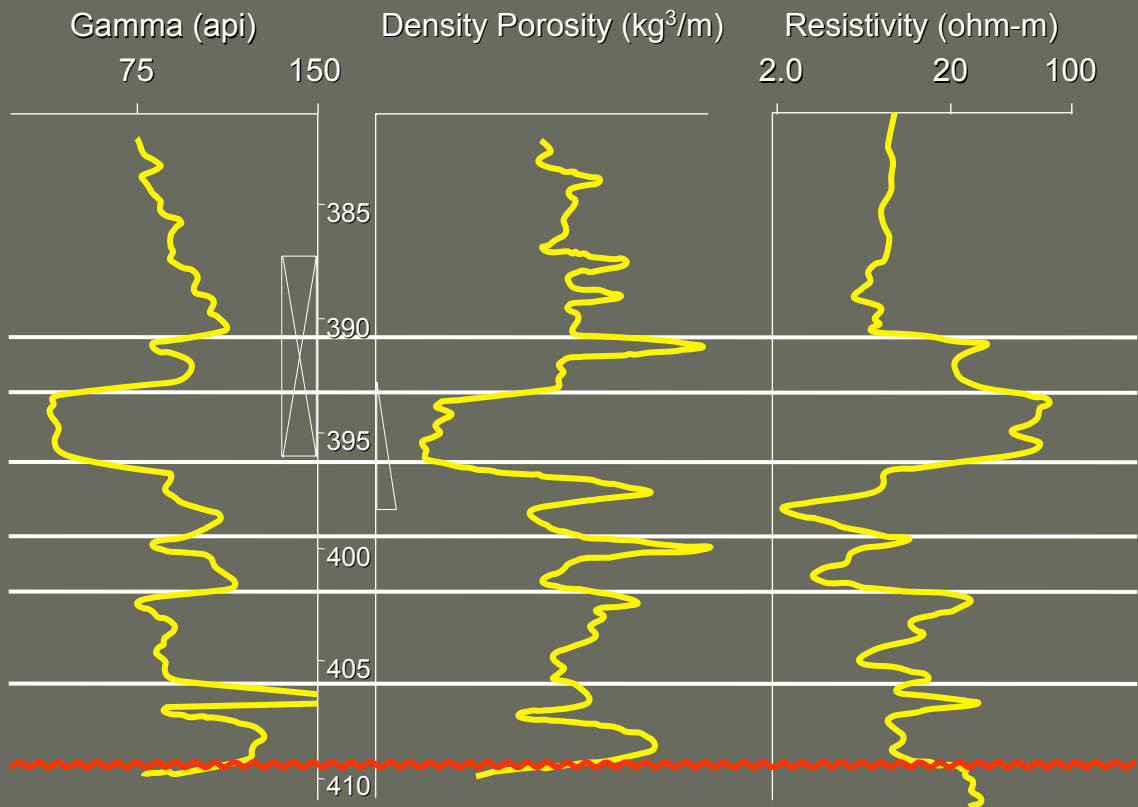


# Pelican Lake Net Pay Map





# Pelican Lake Reference Well AECO G 14-4-83-20W4M



**K.B. 627.1m**  
**G.L. 623.3m**

Clearwater

Wabiskaw "A" (T31)  
Wabiskaw Porosity (T21)

Base Wabiskaw Porosity

Wabiskaw B (T15, E14)  
Wabiskaw C (T11)

McMurray (T105, E10)

Sub-Cretaceous Unconformity  
(Paleozoic Carbonates)



# Pelican Lake Wabiskaw “A” Typical Reservoir Parameters

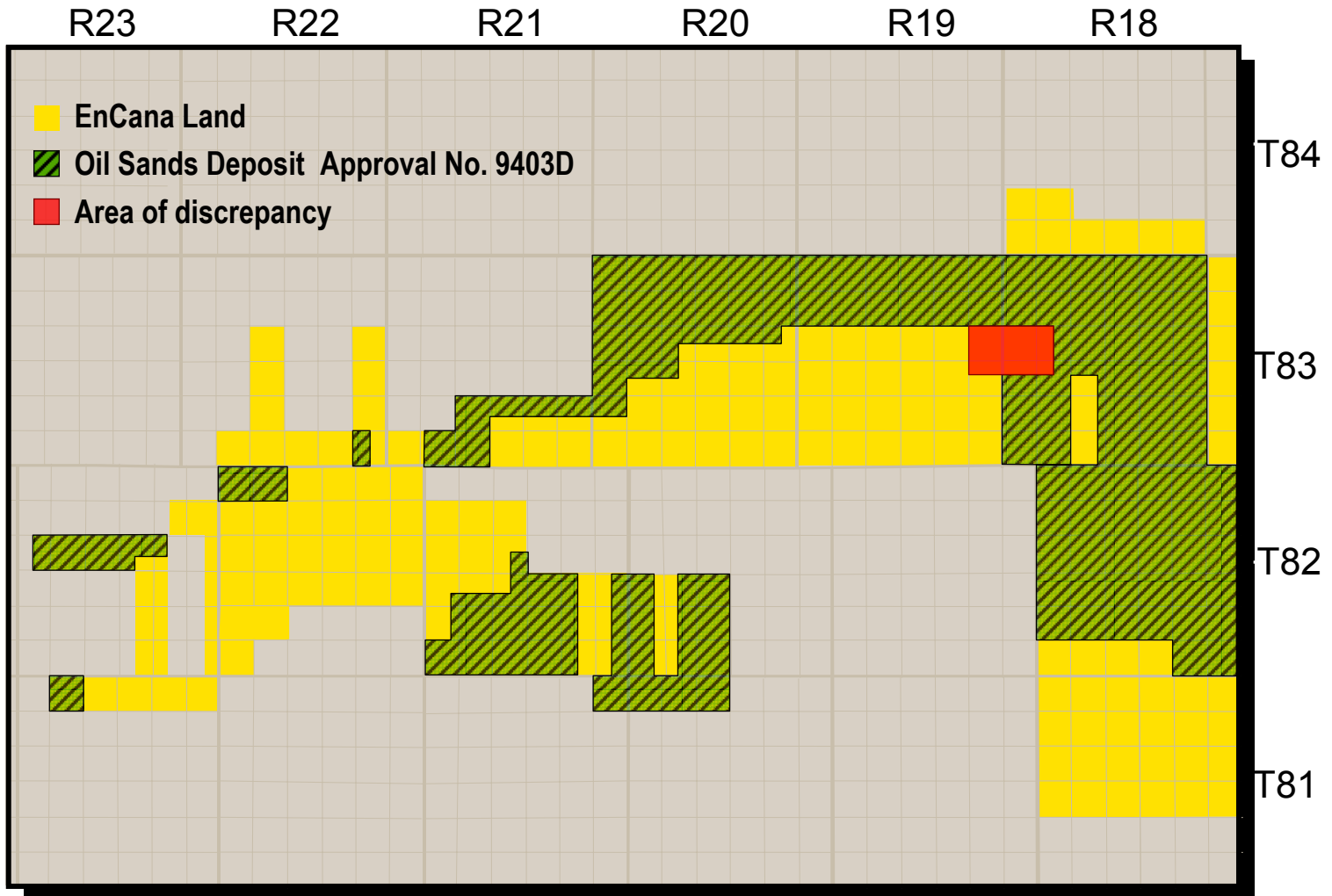
- Depth: 350m - 450m
- Thickness: 3m
- Porosity: 30%
- Permeability: 300 - 3000 md
- Temperature: 17° C
- Initial Reservoir Reserve: 1800 - 2400 kPa
- Water Saturation: 30%
- Oil Viscosity (live oil) 300 - 5000+ cp
- Oil Gravity: 13.5° - 16.5° API



# Approval 9403 - Primary

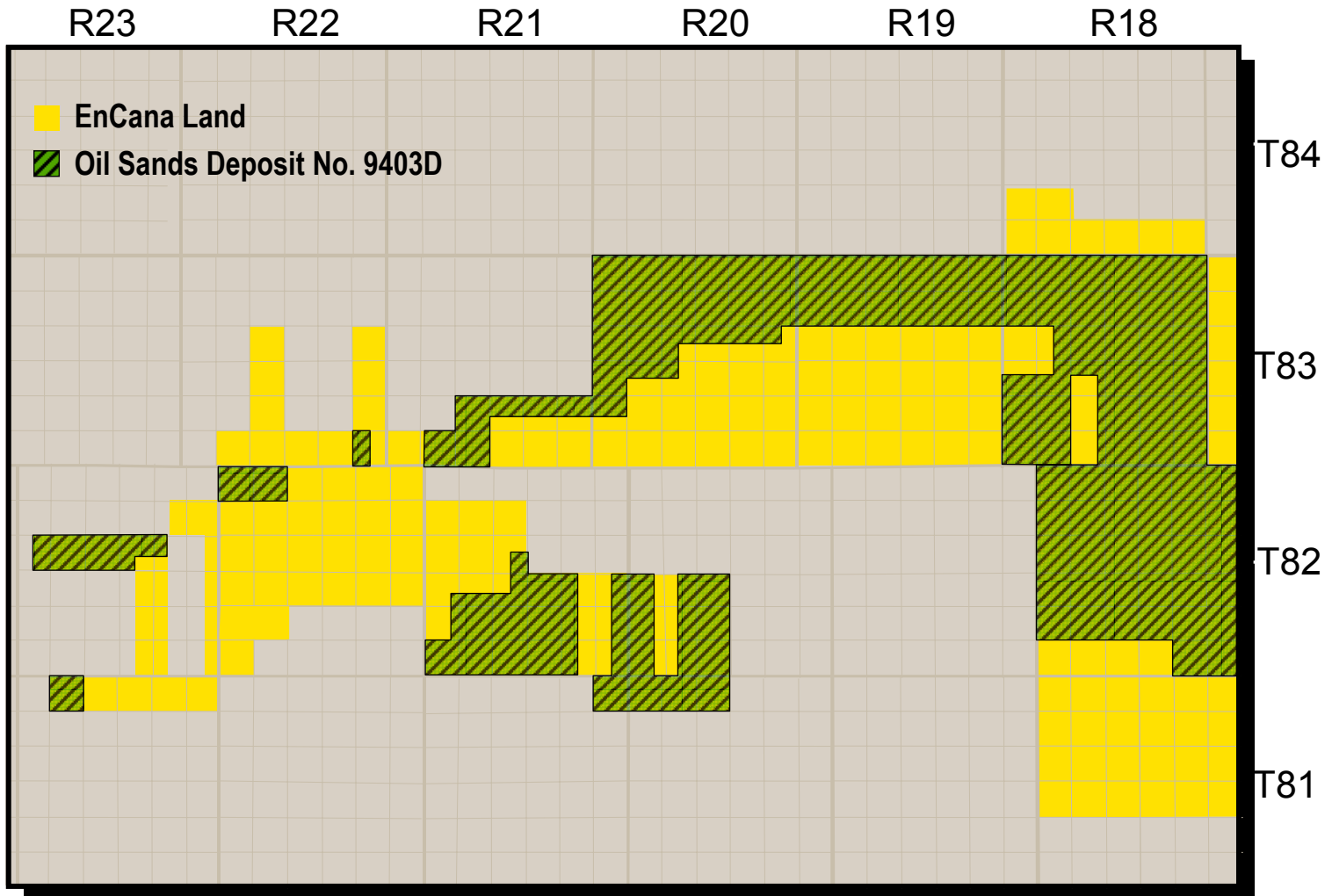


# Approval 9403D Approval Area



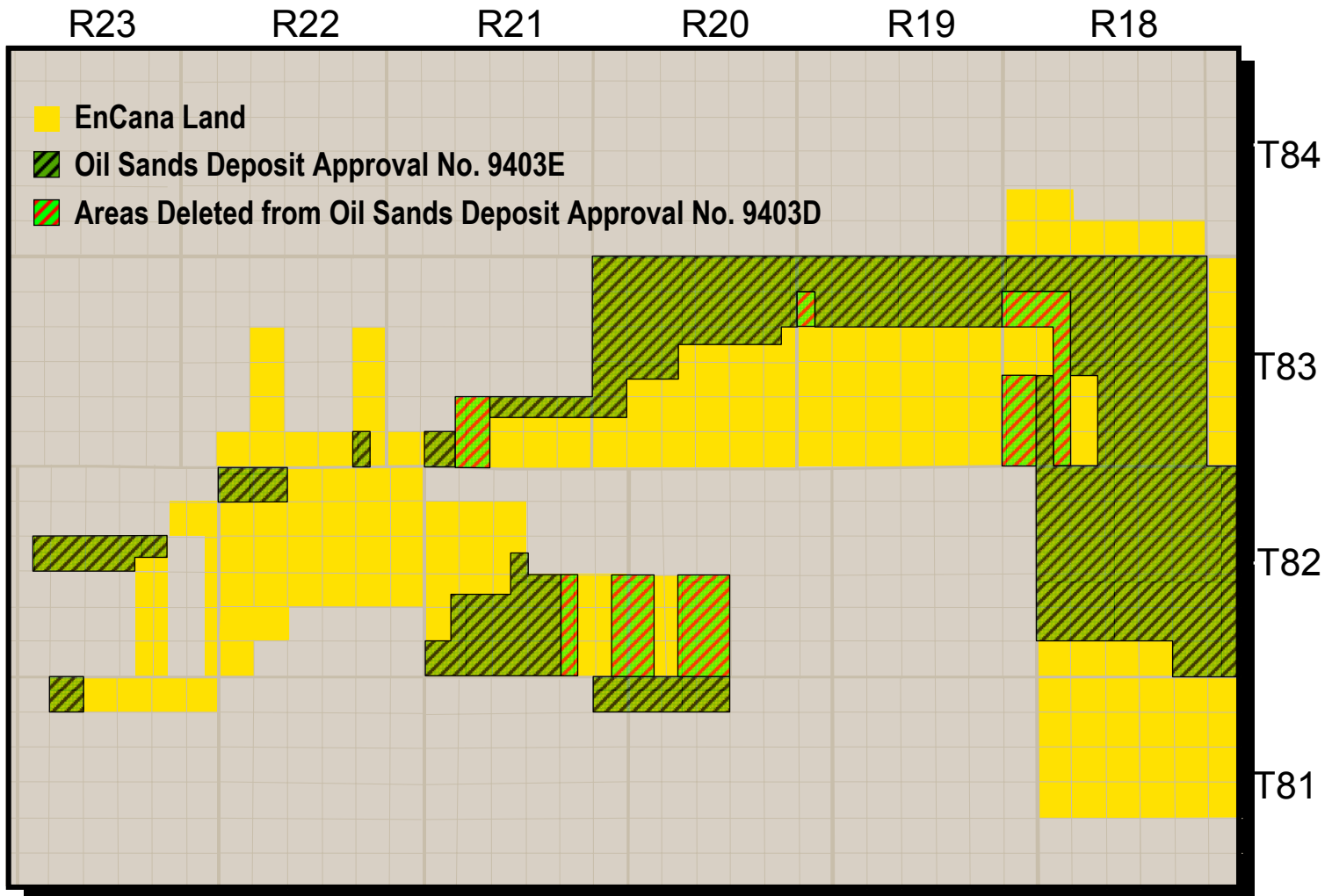


# Approval 9403D Approval Area





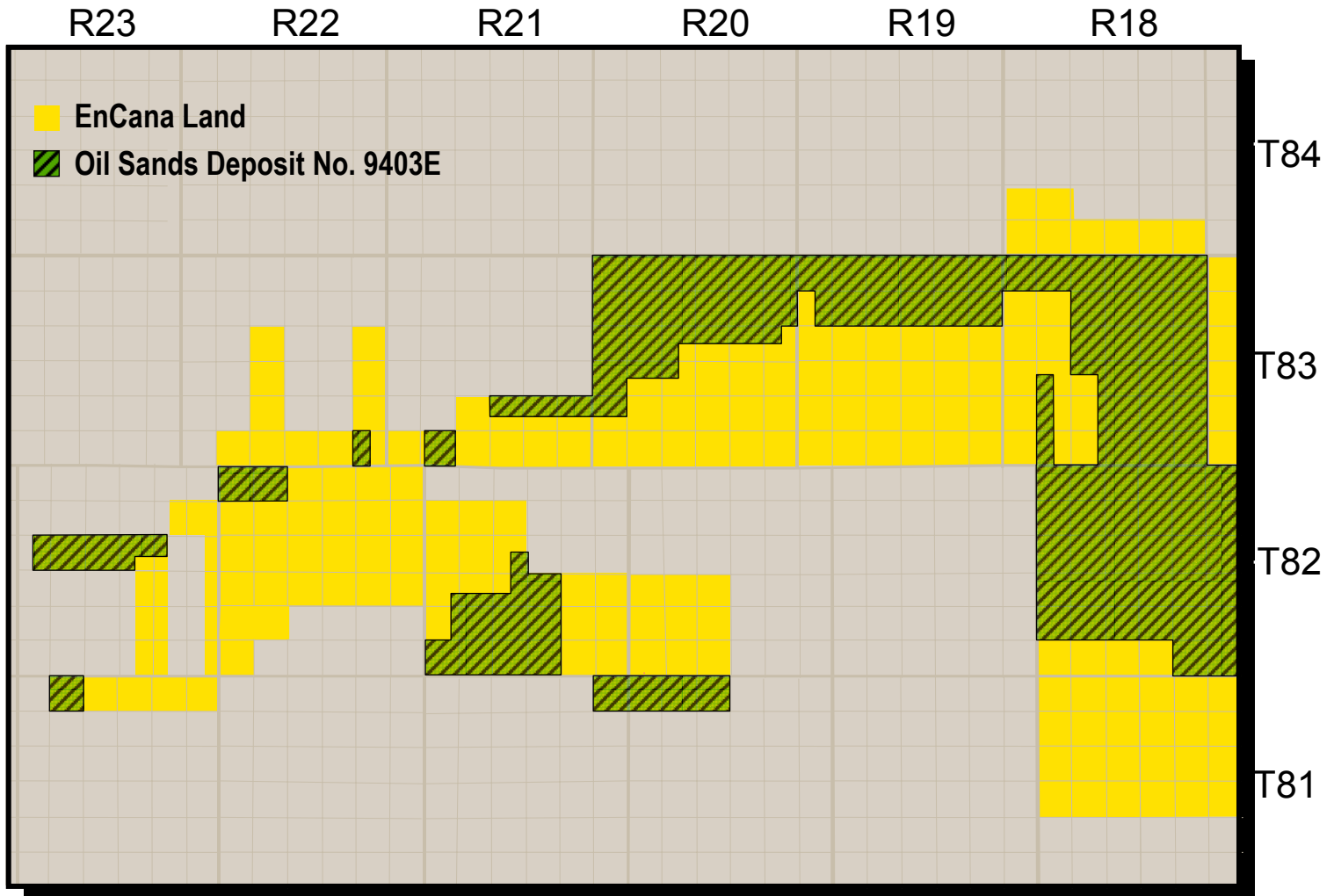
# Approval 9403E Approval Area





# Approval 9403E

## Approval Area

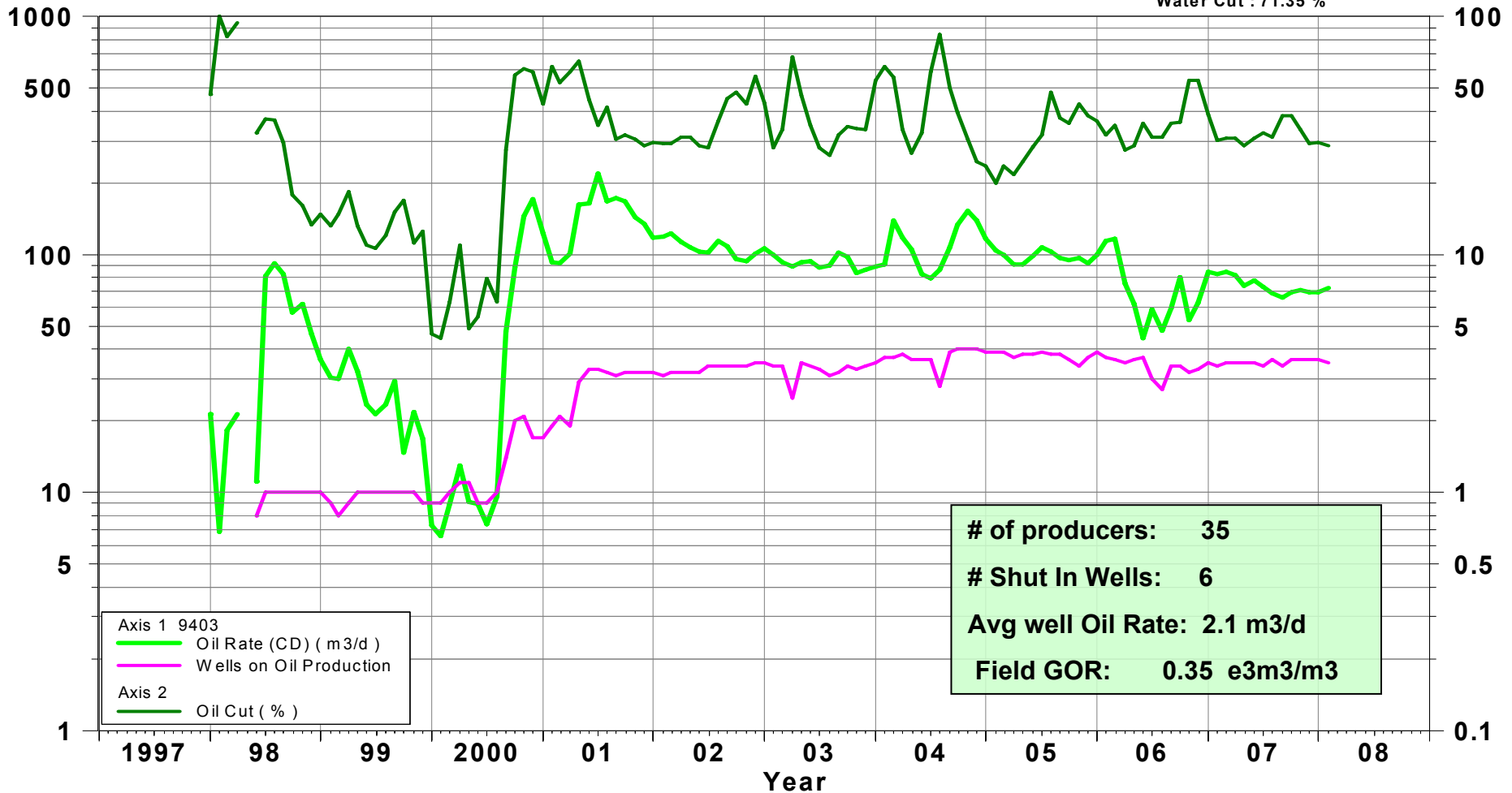




# Approval 9403 Primary Production History

Oil Rate (CD) : 72.29 m3/d  
 Liquid Rate (CD) : 252.36 m3/d  
 Water Cut : 71.35 %

Approval 9403E Primary Production



# of producers: 35  
 # Shut In Wells: 6  
 Avg well Oil Rate: 2.1 m3/d  
 Field GOR: 0.35 e3m3/m3





































































































