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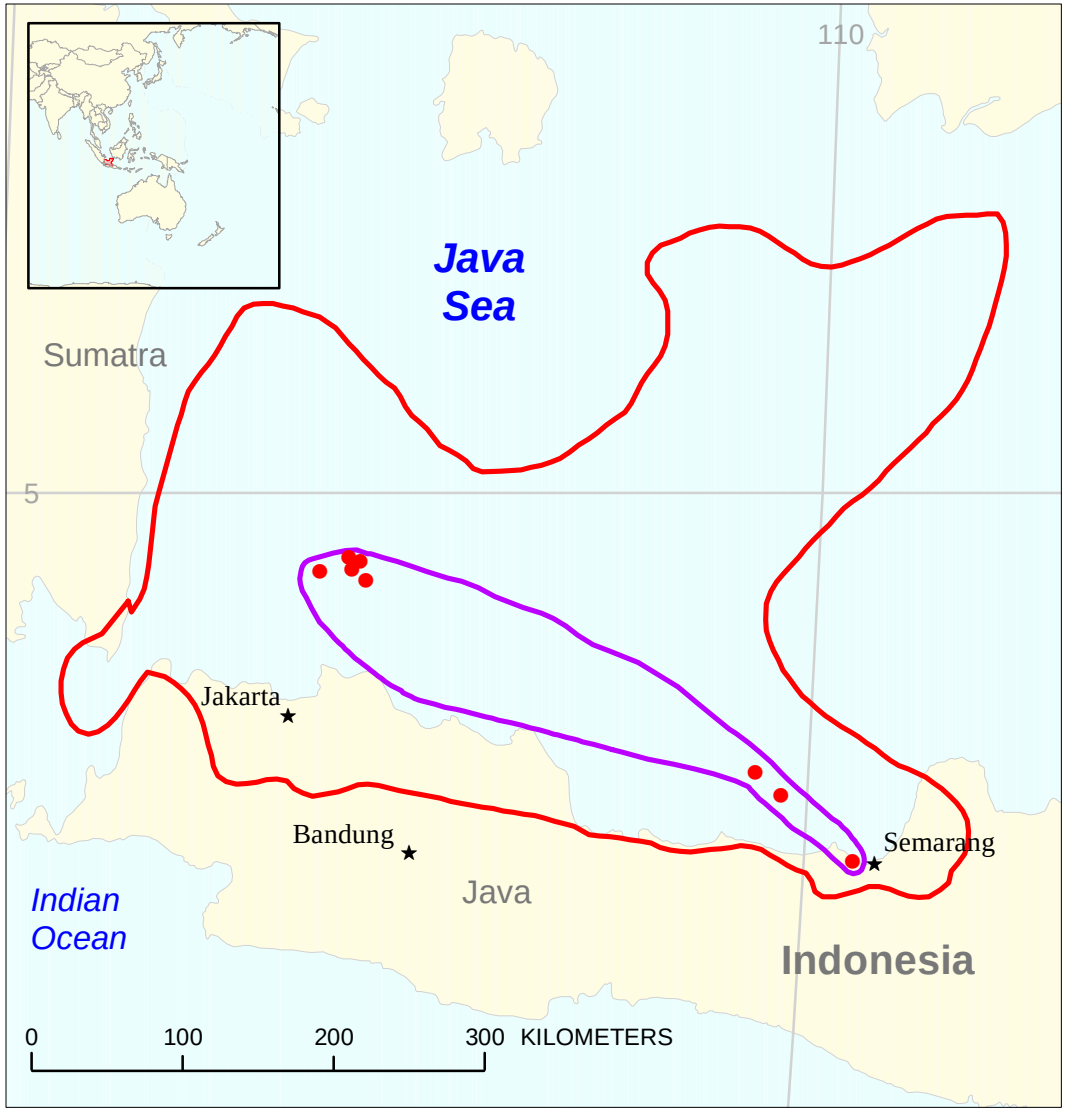
Biogenic Gas
Assessment Unit 38240301



Biogenic Gas Assessment Unit 38240301
Northwest Java Basin Geologic Province 3824

Geologic Summary

Detailed map of this assessment unit

Exploration/Discovery-History Data
- Plots of Known Field Sizes
- Plots of Grown Resources
- Tables

Assessment Input Data

Assessment Results
-
- This assessment unit was not
- assessed quantitatively.

USGS PROVINCE: Northwest Java Basin (3824) **GEOLOGIST:** M.G. Bishop

TOTAL PETROLEUM SYSTEM: Tertiary-Parigi (382403)

ASSESSMENT UNIT: Biogenic Gas (38240301)

DESCRIPTION: Offshore platform carbonate or biogenic gas sourced reservoirs. The reservoired gas can be very dry and has as much as 98 percent methane.

SOURCE ROCKS: The source rocks are Eocene marine highstand carbonates of the Batu Raja Formation, or Middle Cibulakan Member deposited on a shallow platform and as reef complexes on paleohighs.

MATURATION: The lower Miocene Batu Raja Formation is described as being in the oil window.

MIGRATION: Migration would primarily occur by vertical and lateral movement into highly porous and permeable carbonates.

RESERVOIR ROCKS: The overlying biohermal carbonates of the Pre-Parigi and Parigi formations are the primary reservoir rocks.

TRAPS AND SEALS: The Pliocene to Pleistocene Cisubuh Formation is composed of claystones that act as seals for the reef and bioherm type traps.

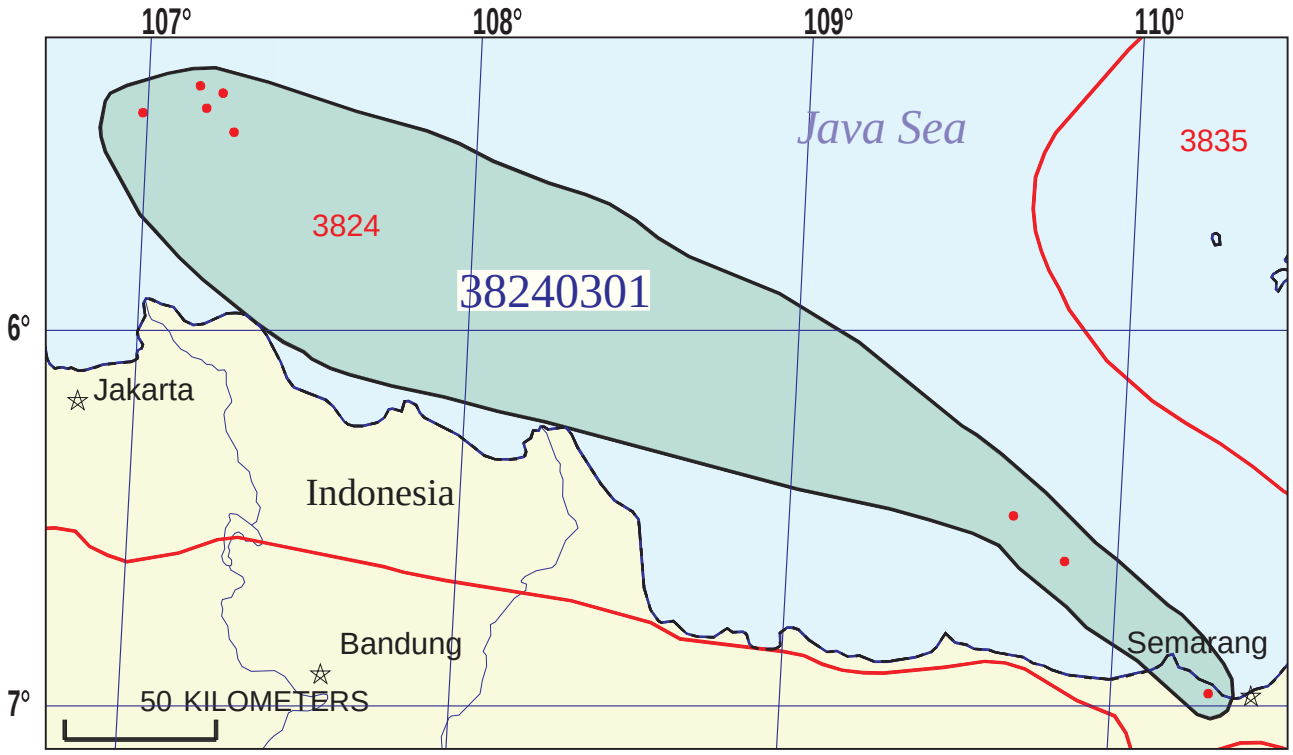
REFERENCES:

Carter, D., and Hutabarat, M., 1994, The geometry and seismic character of mid-Late Miocene carbonate sequences, SS area, offshore northwest Java: Proceedings of the Twenty Third Annual Convention, Indonesian Petroleum Association, v. 1, p. 323-338.

Haposan, N., Mitterer, R.M., and Morelos-Garcia, J.A., 1997, Differentiation of oils from the NW Java Basin into three oil types based on biomarker composition, *in* Howes, J.V.C., and Noble, R.A., eds., Proceedings of an International Conference on Petroleum Systems of SE Asia and Australasia: Indonesian Petroleum Association, p. 667-679.

Noble, R.A., Pratomo, K.H., Nugrahanto, K., Ibrahim, A.M.T., Prasetya, I., Mujahidin, N., Wu, C.H., and Howes, J.V.C., 1997, Petroleum systems of Northwest Java,, Indonesia, *in* Howes, J.V.C., and Noble, R.A., eds., Proceedings of an International Conference on Petroleum Systems of SE Asia and Australasia: Indonesian Petroleum Association, p. 585-600.

Yaman, F., Ambismar, T., Bukhari, T., 1991, Gas exploration in Parigi and pre-Parigi carbonate buildups, NW Java Sea: Proceedings of the Twentieth Annual Convention, Indonesian Petroleum Association, v.1, p. 319-346.



Biogenic Gas
Assessment Unit - 38240301

EXPLANATION

- Hydrography
- Shoreline
- 3824 Geologic province code and boundary
- Country boundary
- Gas field centerpoint
- Oil field centerpoint
- 38240301 Assessment unit code and boundary

Projection: Robinson. Central meridian: 0

SEVENTH APPROXIMATION
NEW MILLENNIUM WORLD PETROLEUM ASSESSMENT
DATA FORM FOR CONVENTIONAL ASSESSMENT UNITS

Date:…….. 5/25/99
Assessment Geologist:…….. R.T. Ryder
Region:…….. Asia Pacific Number: 3
Province:…….. Northwest Java Basin Number: 3824
Priority or Boutique…… Priority
Total Petroleum System:…… Tertiary-Parigi Number: 382403
Assessment Unit:…… Biogenic Gas Number: 38240301
* Notes from Assessor

CHARACTERISTICS OF ASSESSMENT UNIT

Oil (<20,000 cfg/bo overall) **or** Gas (≥20,000 cfg/bo overall):… _____

What is the minimum field size?……. _____ mmboe grown (≥1mmboe)
(the smallest field that has potential to be added to reserves in the next 30 years)

Number of discovered fields exceeding minimum size:…… Oil: _____ Gas: _____
Established (>13 fields) _____ Frontier (1-13 fields) _____ Hypothetical (no fields) _____

Median size (grown) of discovered oil fields (mmboe):
1st 3rd _____ 2nd 3rd _____ 3rd 3rd _____
Median size (grown) of discovered gas fields (bcfg):
1st 3rd _____ 2nd 3rd _____ 3rd 3rd _____

Assessment-Unit Probabilities:

Attribute	Probability of occurrence (0-1.0)
1. **CHARGE:** Adequate petroleum charge for an undiscovered field ≥ minimum size……	
2. **ROCKS:** Adequate reservoirs, traps, and seals for an undiscovered field ≥ minimum size……	
3. **TIMING OF GEOLOGIC EVENTS:** Favorable timing for an undiscovered field ≥ minimum size	

Assessment-Unit GEOLOGIC Probability (Product of 1, 2, and 3):…….. _____

4. **ACCESSIBILITY:** Adequate location to allow exploration for an undiscovered field ≥ minimum size…… _____

UNDISCOVERED FIELDS

Number of Undiscovered Fields: How many undiscovered fields exist that are ≥ minimum size?:
(uncertainty of fixed but unknown values)

Oil fields:……min. no. (>0) _____ median no. _____ max no. _____
Gas fields:……min. no. (>0) _____ median no. _____ max no. _____

Size of Undiscovered Fields: What are the anticipated sizes (**grown**) of the above fields?:
(variations in the sizes of undiscovered fields)

Oil in oil fields (mmbo)……min. size _____ median size _____ max. size _____
Gas in gas fields (bcfg):……min. size _____ median size _____ max. size _____

Assessment Unit (name, no.)

_____

AVERAGE RATIOS FOR UNDISCOVERED FIELDS, TO ASSESS COPRODUCTS

(uncertainty of fixed but unknown values)

Oil Fields:	minimum	median	maximum
Gas/oil ratio (cfg/bo)……			
NGL/gas ratio (bngl/mmcfg)……			

Gas fields:	minimum	median	maximum
Liquids/gas ratio (bngl/mmcfg)……			
Oil/gas ratio (bo/mmcfg)……			

SELECTED ANCILLARY DATA FOR UNDISCOVERED FIELDS

(variations in the properties of undiscovered fields)

Oil Fields:	minimum	median	maximum
API gravity (degrees)……			
Sulfur content of oil (%)……			
Drilling Depth (m) ……			
Depth (m) of water (if applicable)……			

Gas Fields:	minimum	median	maximum
Inert gas content (%)……			
CO_2 content (%)……			
Hydrogen-sulfide content (%)……			
Drilling Depth (m)……			
Depth (m) of water (if applicable)……			

Assessment Unit (name, no.)

_____

ALLOCATION OF UNDISCOVERED RESOURCES IN THE ASSESSMENT UNIT TO COUNTRIES OR OTHER LAND PARCELS (uncertainty of fixed but unknown values)

1. _____ represents _____ areal % of the total assessment unit

Oil in Oil Fields:	minimum	median	maximum
Richness factor (unitless multiplier):……			
Volume % in parcel (areal % x richness factor):…			
Portion of volume % that is offshore (0-100%)……			

Gas in Gas Fields:	minimum	median	maximum
Richness factor (unitless multiplier):……			
Volume % in parcel (areal % x richness factor):…			
Portion of volume % that is offshore (0-100%)……			