

ABSTRAK

Lokasi penyelidikan ini berada di Bagian Jawa Barat Utara, Propinsi Jawa Barat. Cekungan Jawa Barat Utara telah dikenal sebagai *hydrocarbon province*. Cekungan ini terletak diantara Paparan Sunda di Utara, Jalur Perlipatan Bogor di Selatan, daerah pengangkatan Karimun Jawa di Timur dan Paparan Pulau Seribu di Barat.

Lapangan "X" lapisan F blok IV dan V mempunyai *Original Gas In Place* (OGIP) sebesar 27.876.473.760 SCF yang mulai berproduksi pada 1980 dan 1997 dengan laju produksi Gas sebesar 8.906 MMSCFD. Sampai Maret 2006 lapisan F blok IV dan V memproduksi gas sebesar 2.675 MMSCFD, Meskipun dari kedua blok tersebut ada yang sempat berhenti tetapi melakukan (*reopening*) kembali, dan kadar air untuk blok IV sebesar 71% dan 0 % untuk blok V, dengan Kumulatif produksi Gas pada blok IV dan V lapisan F sebesar 17.056 BSCF.

Lapangan "X" memiliki beberapa lapisan dan blok yang mempunyai *Original Oil In Place* (OOIP), sebesar 27.182.508,81 STB yang mulai berproduksi pada tahun 1979 dengan laju produksi Minyak sebesar 5.874.08 BBL. Sampai tahun 2006 dari beberapa lapisan dan blok tersebut memproduksi Minyak sebesar 758.29 BBL. Nilai kadar air rata-rata per lapisan/blok sebesar 34%, dengan Kumulatif produksi Minyak dari beberapa lapisan/blok sebesar 2,987.533 MBBL.

Proses penyelesaian studi ini meliputi: mengetahui nilai sifat fisik batuan, menentukan jumlah Gas dan Minyak awal ditempat dan mengumpulkan data produksi yang dibutuhkan untuk menentukan jumlah cadangan Gas dan Oil pada lapangan "X" .

Berdasarkan hasil analisa petrofisik dan perhitungan OOIP, OGIP, RF, UR dan penentuan Remaining Reserve, maka distribusi nilai porositas yang disebar di lapangan "X" sebesar 0% - 1%, Saturasi air yang dimiliki pada bagian Tenggara lapangan "X" sekitar 195 dan 81% diisi oleh hidrokarbon, sebaran permeabilitas yang baik terdapat pada bagian Timur dan bagian Tenggara memiliki nilai permeabilitas yang cukup untuk lithologi batupasir kuarza, Lapangan "X" memiliki nilai OGIP sebesar 27.876.473.760 SCF dan OOIP memiliki nilai sebesar 27.182.508,81 STB. Perkiraan Recovery Factor Gas Sebesar 85,24% dan Recovery Factor oil sebesar 54,10%, Ultimate Recovery Gas memiliki nilai sebesar

2.376.190.623 Scf dan Ultimate recovery oil memiliki nilai sebesar 1.470.573,72 Stb. Sedangkan penentuan nilai Remaining Reserve untuk gas sebesar 25.500.283.137 Mscf dan oil sebesar 25.711.93509 Mstb.

ABSTRACT

The location of this investigation is in the northern part of West Java, West Java Province. North West Java Basin has been known as hydrocarbon province. This basin is located between the Sunda Shelf in the North, South Strip in folding Bogor, Jawa Karimun pengankatan areas in the East and in the West Exposure Thousand Island.

Field "X" layer F blocks IV and V have the Original Gas In Place (OGIP) amounted to 27,876,473,760 SCF which began production in 1980 and 1997 with a production rate of 8906 MMSCFD Gas. Until March 2006 the F layer of blocks IV and V produced gas amounted to 2,675 MMSCFD, Although of the two blocks there that had stopped but did (reopening) back, and the water content to block IV by 71% and 0% for block V, with cumulative production Gas in blocks IV and V by 17 056 F layer BSCF.

Field "X" has several layers and blocks that have the Original Oil In Place (OOIP), amounting to 27,182,508.81 STB which started production in 1979 with oil production rate amounted to 5.874.08 BBL. Up to 2006 of several layers and blocks the oil produced by 758.29 BBL. The value of the average water content per layer / block by 34%, with cumulative oil production of multiple layers / blocks at 2,987.533 MBBL.

The process of completion of the study include: knowing the value of physical properties of rocks, determining the amount of Gas and Oil in place early and collect production data needed to determine the amount of gas and oil reserves in the field "X".

Based on analysis of petrophysical and calculation OOIP, OGIP, RF, UR and determination Remaining Reserve, then the distribution of porosity values are deployed in the field "X" of 0% - 1%, saturation of water held in the Southeast of the field "X" around 195 and 81% filled by hydrocarbons, spread permeabilitas yang both located on the East and Southeast have sufficient permeability sandstone lithology kuarza, Field "X" has a value of 27,876,473,760 OGIP SCF and OOIP has a value of 27,182,508.81 STB. Estimated Gas Recovery Factor As much as 85.24% and oil Recovery Factor of 54.10%, Ultimate Recovery Gas has a value of 2,376,190,623 SCF and the ultimate recovery of oil has a value of 1,470,573.72 Stb. While the determination of the value of Remaining Reserve for gas and oil amounted to 25,500,283,137 MSCF for 25.711.93509 Mstb.