

**ALOKASI PRODUKSI *WEEL COMINGLE* DAN
POTENSI PENGEMBANGAN LAPANGAN BERDASARKAN
ANALISIS *BUBBLE MAP* DI LAPANGAN “X”**

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ABSTRAK

Lapangan “X” merupakan asset dari perusahaan KSO. Pertamina EP Samudera Energi BWP Meruap yang terletak di Kecamatan Sarolangun, Kabupaten Sarolangun, Provinsi Jambi. Lapangan X terdiri dari 66 sumur produksi dan 2 sumur injeksi yang memproduksi secara *commingle* dengan total cadangan 97.200 MSTB, dan jumlah produksi perhari kurang lebih 1500 BOPD.

Untuk melakukan alokasi produksi pada lapangan “X”, digunakan metode *transmissivity* untuk mengetahui radius pengurasan dari masing- masing lapisan hingga dilakukan plot radius pengurasan kedalam *bubble maps*, kemudian dilakukan analisis sehingga didapatkan area potensi pengembangan lapangan.

Hasil yang didapat dari perhitungan alokasi produksi dengan *cumulative production* dari 68 sumur dengan masing-masing lapisan yang memproduksi dari bulan Juli 1996 sampai Juni 2018. Lapisan X-11 sebesar 1.474.815 STB, Lapisan X-12 sebesar 49.020 STB, lapisan X-21 sebesar 1.835.563 STB, lapisan X-23 sebesar 493.554 STB, lapisan X-24 sebesar 56.859 STB, lapisan X-25 sebesar 51.281 STB, lapisan X-31 sebesar 159.069 STB, lapisan X-42 sebesar 3.207.480 STB, lapisan X-51 sebesar 1.813.206 STB, lapisan X-52 sebesar 1.934.290 STB, lapisan X-53 sebesar 2.033.524 STB, lapisan X-54 sebesar 1.589.793 STB, lapisan X-63 sebesar 108.386 STB, lapisan X-64 sebesar 437.267 STB, lapisan X-62 sebesar 16.707 STB. Setelah didapatkan *cummulative production* masing-masing lapisan pada lapangan “X” selanjutnya dilakukan plot radius pengurasan ke dalam *contur maps*, sehingga didapatkan area yang berpotensi untuk dikembangkan. Hasil yang didapatkan dari *bubble maps* yaitu potensi *infill drilling* terhadap dua sumur, sumur A dengan lapisan X-21, X-54, X-42, X-53 dan sumur B dengan lapisan X-54, X-42, X-53. Kemudian untuk potensi *work over* untuk sumur M-10, M-45, M-48, M-46, M-47, M-38, M-12 dilapisan X-54, untuk sumur M-69, M-32, M-62, M-60, 53, M-47, M-38, M-56, M-46 dilapisan X-64, dan untuk sumur M-69, M-32, M-53, M-10, M-38, M-48 M-32, M-53, M-10, M-38, M-48 dilapisan X-53.

Kata Kunci : *well commingle, cummulative production, bubble maps, infill drilling, work over.*

**ALLOCATION OF COMINGLE WEEL AND
FIELD DEVELOPMENT PRODUCTION BASED ON
ANALYSIS OF BUBBLE MAP IN "X" FIELD**

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ABSTRACT

The "X" field is an asset of the KSO company. Pertamina EP Samudera Energi BWP Meruap which is located in Sarolangun District, Sarolangun Regency, Jambi Province. Field X consists of 66 production wells and 2 injection wells that produce commingle with a total reserve of 97,200 MSTB, and the production amount per day is approximately 1500 BOPD.

To allocate production on the "X" field, the transmissivity method is used and to find out the drain radius of each layer until the drain radius plot is inserted into the bubble maps, then an analysis is carried out so that there is a potential area for field development.

The results obtained from the calculation of production allocation by cumulative production from 68 wells with each layer producing from July 1996 to June 2018. Layer X-11 is 1,474,815 STB, Layer X-12 is 49,020 STB, layer X-21 amounting to 1,835,563 STB, layer X-23 of 493,554 STB, layer X-24 of 56,859 STB, layer X-25 of 51,281 STB, layer X-31 of 159,069 STB, layer X-42 of 3,207,480 STB, layer X- 51 amounting to 1,813,206 STB, layer X-52 of 1,934,290 STB, layer X-53 of 2,033,524 STB, layer X-54 of 1,589,793 STB, layer X-63 of 108,386 STB, layer X-64 of 437,267 STB, layer X-62 of 16,707 STB. After getting cummulative production of each layer on the "X" field, then do the drain radius plot into the contour maps, so that there is an area that has the potential to be developed. The results obtained from bubble maps are the potential for infill drilling of 2 wells, namely well A with layers X-21, X-54, X-42, X-53 and B well with layer X-54, X-42, X-53. Then for the work over potential of the well M-10, M-45, M-48, M-46, M-47, M-38, M-12, layer X-54, of the well M-69, M-32, M-62, M-60, 53, M-47, M-38, M-56, M-46, layer X-64, and of the well M-69, M-32, M-53, M-10, M-38, M-48 M-32, M-53, M-10, M-38, M-48 layer X-53.

Keywords : *well commingle, cummulative production, bubble maps, infill drilling, work over.*