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THE KAJI - SEMOGA DISCOVERY: A MANAGEMENT PARADIGM SHIFT

The giant Kaji-Semoga oilfield was discovered by Exspan, the oil and gas subsidiary of locally-domiciled Medco Energi Corporation in mid-1996, soon after acquisition of the Production Sharing Contract (PSC) areas in South Sumatra from the previous operator P.T. Stanvac Indonesia (PTSI) in late 1995. This prospective trend had been included in PTSI's prospect inventory for many years but remained undrilled due to concerns as to limited potential reserves (less than 1 million BO, risked, per individual structural culmination), perceived oil migration risks (the likelihood of finding gas only) and difficulties in distinguishing between bald basement and Baturaja limestone buildups from seismic.

Prior exploration in the PSC, the Rimau block, had met with only modest success, with discovery of some 14 million BO in seven fields over a twenty-year period**, all in sandstone reservoirs,** and a mere six million BO from nine exploration wells in the nine-year period prior to divestment!

Upon acquisition of the acreage, Medco's executive management agreed to a three well program without modification, as proposed by the ex-Stanvac local technical staff that had been retained in the takeover, in order to test the potential of the reef trend developed along the Northeastern edge of the Palembang High. The wells, sited at a spacing of 3 to 5 kilometers, were approved as a package, not on a contingency basis.

At that time, although the existing PTSI Work Program and Budget did not include funding to drill exploration wells, Headquarters charges had been budgeted. It was these funds that were then allocated to cover the cost of the exploration-drilling program! The new management was of the opinion that all the required technical studies had been accomplished, and that drill confirmation of the prospects was immediately justified. The three major "drivers" in this decision-making were that

a) Medco management applied a lower economic hurdle rate to prospect viability, thereby allowing smaller prospects to become sufficiently attractive to drill,

b) these prospects were ranked against other parts of the basin, not a worldwide portfolio basis and

c) if gas was found, Medco would find a market for it.

A fourth consideration (also valid under Stanvac operatorship) was the fact that the cost of drilling could be written off immediately against existing production from the Block.

Although the first well, Semoga-1, encountered only 7 feet of gas-bearing limestone, in contrast to the 150 feet of limestone predicted, it did confirm that migration of hydrocarbons extended as far as the Palembang High region. The new well data also permitted re-calibration of the seismic, allowing identification of bald basement. Furthermore, seismic modeling based on data from Semoga-1 suggested that the planned Sembada-1 location would encounter bald basement, therefore the drill-site was shifted down-dip to a position where the presence of Baturaja carbonate lithology could be identified with more certainty. The Sembada-1 well did in fact penetrate a thick limestone interval with a gas-oil contact, as did the Kaji-1 well, drilled to test the culmination located midway between Semoga and Sembada. The Low Proved Oil (LPO) encountered in the two wells suggested that the hydrocarbons at Kaji and Sembada are trapped beyond the structural spill point. These

results indicated that the stratigraphic trapping mechanism predicated in the pre-drill prognoses was indeed correct. Subsequent drilling demonstrated that the hydrocarbons found in the Sembada-1 well are actually part of the Kaji pool.

The exploration success at Sembada and Kaji ensured immediate approval of Semoga-2, proposed to target oil downdip from Semoga-1. Drilling results of the initial appraisal wells at Semoga in turn indicated that the Semoga pool is also stratigraphically trapped, with the oil-water contact at Semoga being approximately 200 feet higher than at Kaji.

Production startup, at an initial rate of 3,000 BOPD, was achieved within nine months of discovery, and daily production currently exceeds 60,000 barrels, from more than 120 wells. Reserves, on a 2P basis, as determined by a world-renowned engineering consultancy group, are estimated to exceed 200 million barrels, with cumulative production at year-end 2000 in excess of 40 million BO.