

ENDICOTT, IVISHAK OIL

Reference List

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http://www.state.ak.us/local/akpages/ADMIN/ogc/orders/co/co250_299/co299.htm

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Endicott, Ivishak Oil Pool

Summary

The Ivishak Oil Pool of the Endicott Field (“EIOP”) lies beneath the Beaufort Sea and within the Duck Island Unit, about 8 miles east of Prudhoe Bay Unit (“PBU”). The Sag Delta No. 9 exploratory discovered this pool in 1982 well. This pool is the accumulation of hydrocarbons that is common to, and correlates with, Sag Delta No. 9 between the measured depths of 12,069’ and 12,314’. The EIOP has been developed from the Main Production artificial island that is located approximately 4 miles offshore in 2 to 14 feet of water.¹ The pool has been producing continuously since July 1989. During the peak production years from November 1990 and November 1991, EIOP production ranged from 12,308 to 5,005 barrels of oil per day (“BOPD”), and averaged about 7,270 BOPD. Between December 1991 and June 1993, production dropped to an average of 2,650 BOPD. Since July 1993, production has slowly declined. During 2004, the EIOP averaged 83 BOPD from two production wells.²

Geology

The pool encompasses reservoirs assigned to the Triassic-aged Ivishak Formation, which is a member of the Sadlerochit Group. This formation was deposited in a marine shoreface environment.³ The pool is bounded to the south by a major fault and there appears to be numerous smaller faults within the accumulations. The pool encompasses an area of approximately 380 acres, and it appears to be separate from other, nearby accumulations based on pressure measurements and oil gravity. The base of the Ivishak oil column appears to be planar, and is underlain by a tar mat, which separates the oil from the underlying aquifer. No gas cap has been observed. Oil gravity averages 25° API within the pool. The temperature is 212°F at 10,000 feet true vertical depth. Original oil in place is estimated to be approximately 14 million stock tank barrels (STB).⁴

¹ Alaska Oil and Gas Conservation Commission, 1991, Conservation Order No.275, available online at: http://www.aogcc.alaska.gov/orders/co/co001_299/co275.htm

² Alaska Oil and Gas Conservation Commission, 2005, Production Database

³ Johnson, S., 1991, Alaska Oil and Gas Conservation Commission, Conservation Order No.275 file, Public Hearing Transcript of Proceedings, March 12, 1991, p. 11.

⁴ Alaska Oil and Gas Conservation Commission, 1991, Conservation Order No.275, available online at: http://www.aogcc.alaska.gov/orders/co/co001_299/co275.htm