

ADMINISTRATIVE APPROVAL AIO 5.008

Mr. Hal Martin
Optimization Engineer
Unocal Alaska
P.O. Box 196247
Anchorage, AK 99519-6247

RE: Trading Bay Unit K-4RD [aka King Salmon 4RD] (PTD 173-042)
Request for Administrative Approval AIO 5

Dear Mr. Martin:

By letter application received October 10, 2005 Union Oil Company of California ("Unocal") requested administrative approval to resume water injection into the subject well. Based on an evaluation of the submitted information and review of the well file, the Alaska Oil and Gas Conservation Commission grants Unocal's request for administrative approval to resume water injection in the subject well per Rule 9 of Area Injection Order ("AIO") 005.

AOGCC finds the following:

1. This well has had known tubing x inner annulus ("T x IA") communication since at least 1992 and has been operating with Commission approval.
2. On May 6, 2004 Unocal reported that communication had been observed in the 7" x 9-5/8" casing annulus and the well was shut in.
3. In early April 2005, Unocal applied by sundry to return the well to injection so that diagnostic logging could be performed in support of an administrative approval. Since the well had exhibited leaks both in the tubing and in a casing, Unocal proposed to install an automatic shutdown valve activated by either an increase in pressure or injection rate.
4. Following review of available information, Unocal's application was approved on April 21 subject to installation of the alarms and shutdown, recording and submitting the daily injection rate and well pressure information and performing a subsequent temperature survey.
5. Actual injection did not begin until early August. While injecting, Unocal has been recording daily injection rate and well pressures and has provided this information to the Commission. In support of this application, Unocal has submitted a base-line and subsequent temperature log.

6. Based upon analysis of the submitted logging information, there is no evidence that the injected fluids are not being confined to the intended injection intervals. The rate/pressure information has not indicated any further pressure integrity loss.
7. At this time, Unocal is not proposing to repair the well to restore full integrity.
8. An aquifer exemption is in effect for all aquifers lying directly below McArthur River Field (Trading Bay Unit) [40 CFR 147.102(b)(2)(ii).]

Based on analysis of the submitted information, the Commission concludes that TBU K-4RD exhibits one competent barrier to release of well pressure and that the installed process alarms and automatic shutdown valve provide an additional layer of protection. Accordingly, the Commission believes that the well's condition does not compromise overall well integrity so as to threaten the environment or human safety.

AOGCC's administrative approval to continue water injection in Trading Bay Unit K-4RD [aka King Salmon 4RD] is conditioned upon the following:

1. Injection is limited to WATER ONLY;
2. Unocal shall monitor and record wellhead pressures [T/I/O] (tubing/inner annulus/outer annulus) and injection rate daily and submit this information to the Commission monthly;
3. Unocal shall perform a temperature log every two years to demonstrate continued production casing integrity;
4. The installed process alarms and shutdown valve shall be subject to testing similar to production well pilots and safety valves.
5. Unocal shall immediately shut in the well and notify the AOGCC upon any measurable change in well outer annulus pressure or any change in the injection rate/pressure relationship; and
6. After well shut in, AOGCC approval shall be required to restart injection.

As provided in AS 31.05.080, within 20 days after written notice of this decision, or such further time as the Commission grants for good cause shown, a person affected by it may file with the Commission an application for rehearing. A request for rehearing is considered timely if it is received by 4:30 PM on the 23rd day following the date of this letter, or the next working day if the 23rd day falls on a holiday or weekend. A person may not appeal a Commission decision to Superior Court unless rehearing has been requested.

DONE at Anchorage, Alaska and dated December 1, 2005.

John K. Norman
Chairman

Cathy P. Foerster
Commissioner