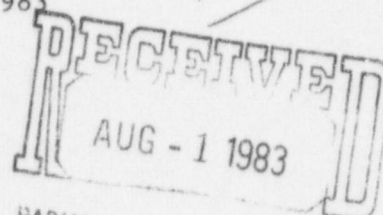


Mobil Oil Corporation

P.O. BOX 17772
DENVER, COLORADO 80217

July 28, 1983

Mr. Sam Simpson
Project Manager
Uranium Licensing Section
Radiation Protection Bureau
Environmental Improvement Division
P. O. Box 968
Santa Fe, New Mexico 87503



RADIATION PROTECTION BUREAU

RESTORATION PROGRAM
CROWNPOINT SECTION 9
PILOT IN-SITU LEACH PROJECT

Dear Mr. Simpson:

In regard to our letter of July 13, 1983 requesting your concurrence in the addition of hydrogen sulfide to the well field at the Section 9 Pilot Plant, we wish to amend our request to also include ferrous sulfate as another reducing agent to be tested.

The addition of ferrous sulfate would be limited so as not to exceed 600 mg/l SO_4 or 20 mg/l Fe in the aquifer during the test period. The initial testing would be conducted using wells 209, 213, 215, and 219 as producers and wells 208, 211, 214, 217, and 220 as injectors. The time anticipated for testing and evaluation (of either the hydrogen sulfide or the ferrous sulfate) will be approximately six months. The positive effect of adding the ferrous sulfate is to maintain the aquifer redox potential in a reduced state similar to pre-leach conditions.

In order to implement the testing program, no new equipment will need to be installed. The same (existing) mixing tank and feed system utilized for the sodium sulfide test will be employed in utilizing ferrous sulfate. There are no irreversible environmental, water quality, or leachability effects projected to result from the addition of the reducing agent to the well field. Short term effects will include slightly elevated concentration levels, with respect to total dissolved solids, due to higher iron and sulfate levels during testing. It is anticipated that during the six month testing period the TDS will range from 800 mg/l to 1200 mg/l, the sulfates will range from 100 mg/l to 600 mg/l and the iron will range from 100 mg/l to 200 mg/l in the well field. While concentration levels are expected to increase during the test period (while the reducing agent is being used), continuation of the ground water flushing method after the test period ends will again reduce these parameters to the low pre-test levels. No adverse effect will result with respect to the ability to initiate leaching of the uranium ore in the future when mining operations are again conducted in this area.

In our judgement it is necessary to add additional reducing agents to aid in our efforts to restore the aquifer to pre-leach conditions. It is hoped that

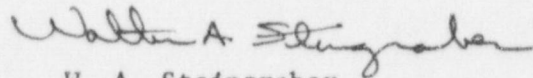
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Mr. David G. Boyer
July 28, 1983
Page 2

the addition of ferrous sulfate will effect the further reduction of dissolved molybdenum. Mobil will provide your office with a summary of the test procedures and results when all testing has been completed.

We ask for your timely concurrence with our proposed testing program as described above so that we may initiate work as soon as possible. If you have nay questions please contact me.

Sincerely,



W. A. Steingraber
Permitting Coordinator

WAS/ld

cc: D. A. Bauer
T. Griffith
p.f.

*Letter prepared on Aug 5, 1983
in response to this request.
SAH*