

STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

ALASKA OIL AND GAS CONSERVATION COMMISSION

July 30, 1991

3001 PORCUPINE DRIVE
ANCHORAGE, ALASKA 99501-3192
PHONE: (907) 279-1433
TELECOPY: (907) 276-7542

ADMINISTRATIVE APPROVAL NO. AIO 9.4

Re: Amend Rule 6 of Area Injection Order (AIO) No. 9

W. F. Simpson
Manager, Regulatory Affairs
Shell Western E&P Inc
601 West 5th Ave. Suite 810
Anchorage, AK 99501-2257

Dear Mr. Simpson:

Shell Western E&P Inc. (SWEPI), as operator of the central portion of the Middle Ground Shoal (MGS) field, by letter dated June 26, 1991, requested modification to Rule 6 of AIO No. 9 (as amended by AA No. AIO 9.2, 9.2-A and 9.3-A). The modification would allow a lower surface pressure for testing the mechanical integrity of MGS well No. A34-14RD2. Past experience has shown that pressuring the annulus to the required pressure of .25 psi/ft multiplied by the true vertical depth of the casing shoe may damage the tubing/packer integrity in wells equipped with a retrievable packer. To minimize the risk of such damage, yet still confirm casing integrity, SWEPI requests authorization to test MGS well No. A34-14RD2 using a surface pressure of 1000 psig.

The Commission has determined that MGS well No. A34-14RD2 does not inject into, through, or above an underground source of drinking water, and therefore less stringent requirements for testing mechanical integrity may be approved per 20 AAC 25.450. The Commission concludes that the mechanical integrity of the MGS well No. A34-14RD2 will be demonstrated if the casing annulus holds 1000 psig surface pressure for 30 minutes with less than a 10 percent leakoff.

Therefore, as provided by "Rule 9 Administrative Relief," Rule 6 is amended to read:

Rule 6 Demonstration of Tubing/Casing Annulus Mechanical Integrity

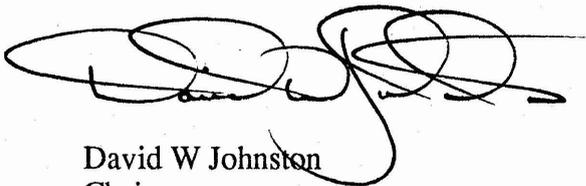
- a. A schedule must be developed and coordinated with the Commission which ensures that the tubing/casing annulus for each injection/disposal well is pressure tested prior to initiating injection and at least once every four years thereafter. A test surface pressure of 1500 psi or 0.25 psi/ft multiplied by the vertical depth of the packer, whichever is greater, but not to exceed a hoop stress greater than 70% of the casing's minimum yield strength, must be held for 30 minutes with no more than a 10% decline.

July 30, 1991

Page 2

- b. As an alternative, injection/disposal wells may be survey-tested to verify that fluids injected are confined to designated injection strata using an EPA approved method every other year for wells with tubing-to-casing pressure communication. The proposed test method and detailed operations program shall be submitted to the Commission for approval on Form 10-403 prior to testing the well.
- c. The Commission must be notified at least 24 hours in advance to enable a representative to witness the test.
- d. The tubing-casing annulus of Middle Ground Shoal Well No. A34-14RD2 shall be tested to 1000 psig surface pressure. This pressure must be held for 30 minutes with no more that a 100 psi decline to qualify as a valid test. Daily monitoring of the annulus pressure between integrity tests shall be performed. Should the well be worked over and permanent packers installed the testing criteria of paragraphs a. and b. shall take effect.

Sincerely,



David W Johnston
Chairman

BY ORDER OF THE COMMISSION