

July 25, 2024

0200-2700-55140-07

Jonathan Wright, P. Eng.
Chief Engineer
Aitken Creek Gas Storage ULC
11304 – 100 Avenue
Fort St. John, British Columbia, V1J 1Z9

Dear Mr. Wright:

**RE: NATURAL GAS STORAGE; ORDER 84-35-001 AMENDMENT #6
AITKEN CREEK FIELD – GETHING ‘A’ POOL**

The Aitken Creek Storage reservoir project has been reviewed and amended to conform to current pressure, measurement, maintenance and reporting requirements.

The pool discovery well, Aitken Gas Aitken d-043-L/094-A-13 (WA 1173), was drilled in October 1962 and began production in December 1962, initially as an oil pool with gascap. Approval for operation of the Gething ‘A’ pool as a gas storage project was granted in July 1984. Currently, there are nine active storage wells in the project. The storage wells may be operated as injection wells, production wells or both; depending on operational needs.

The following Order is attached;

- 1) Order 84-07-001 Amendment #6 designating a Gas Storage Reservoir within the Aitken Creek field – Gething ‘A’ pool, as a Special Project under section 75 of the Energy Resource Activities Act.

This amended approval includes a maximum wellhead injection pressure (MWHIP) of 14,905 kPa, consistent with current operating requirements. The ultimate reservoir pressure is limited to 15,220 kPa. The next casing inspections, required every 5 years as condition i), must be completed by December 31, 2024. An annual report is required as outlined in the attached Order condition j).

Should you have any questions, please contact Michelle Gaucher at (250) 419-4482 or the undersigned at (250) 419-4430.

Sincerely,



Ron Stefik, P.L.Eng.
Supervisor, Reservoir Engineering
Oil and Gas Commission

Attachment

ORDER 84-07-001 Amendment #6

- 1 Under Section 75(1)(c.1) of the Energy Resource Activities Act (ERRA), the Aitken Creek Gething 'A' pool is designated as a special project for storage of natural gas within the following area;

94-1-13 Block L Units: 13-16, 23-26, 32-36, 42-46, 52-58, 62-68, 76-79, 86-89

- 2 Under section 75(2)(a) of the Act, I specify the following:

a) The underground natural gas storage project must be designed, constructed, operated and abandoned in accordance with the relevant sections of CSA Standard Z341 as amended from time to time except as otherwise required by this Order.

b) Inject natural gas only, into the Gething 'A' pool through the wells listed below:

Well Name	WA	Status
AITKEN GAS AITKEN d- 044-L/094-A-13	1186	ACT GAS STORAGE
AITKEN GAS AITKEN d- 035-L/094-A-13	1227	ACT GAS STORAGE
AITKEN GAS AITKEN d- 045-L/094-A-13	1310	ACT GAS STORAGE
AITKEN GAS AITKEN b- 043-L/094-A-13	2985	ACT GAS STORAGE
AITKEN GAS AITKEN a- 046-L/094-A-13	6841	ACT GAS STORAGE
AITKEN GAS HZ AITKEN a- 045-L/094-A-13	8233	ACT GAS STORAGE
AITKEN GAS ET AL HZ AITKEN c- 024-L/094-A-13	10612	ACT GAS STORAGE
AITKEN GAS ET AL HZ AITKEN c- 024-L/094-A-13	10614	ACT GAS STORAGE
AITKEN GAS ET AL HZ AITKEN a- 055-L/094-A-13	10616	ACT GAS STORAGE

- c) Not exceed an injection pressure, measured at the wellhead, of 14,905 kPag or the pressure required to fracture the formation, whichever is lesser.
- d) Continually measure and record the wellhead and annulus pressures electronically.
- e) Cease injection upon reaching a maximum formation pressure of 15,220 kPaa, measured at the datum depth of 387 mSS.
- f) Cease injection and notify the Regulator immediately if hydraulic isolation is lost in any wellbore or the formation.
- g) Include the injection and production operating hours and the maximum injection pressure value on the monthly Petrinex statement.
- h) Annually test all wells for surface casing vent flow.
- i) For wells operated without packer and tubing, a casing inspection log is required every 5 years.
- j) An annual progress report must be submitted to the Regulator by July 1. The progress report must contain the following:
 - i. Details of any workover or treatment program done on any well or wells with reasons for the workovers and results of the work completed.
 - ii. A discussion of any changes in injection equipment and operations that effect injection pressure, storage pool pressure or production rate.
 - iii. A general review of the operation of the project including identification of problems, remedial action taken and results of the remedial action on project performance.
 - iv. A tabulation of the results of the annual packer isolation tests, including any observation, production or injection well with packers present.
 - v. A tabulation of the results of annual surface casing vent flow (SCVF) tests for all wells.
 - vi. A table and a plot of the volume of gas injected into and produced from the pool, on a monthly, annual, and cumulative basis,
 - vii. A table and a plot of the net volume of gas stored in the pool monthly,
 - viii. The representative composition of the gas produced from the pool during the reporting period,
 - ix. A summary of the pressure data measured in the pool during the reporting period, including well license numbers, date tested, test type and bottom hole pressures,
 - x. An interpretation of the performance of the project including an updated material balance analysis with an estimation of the maximum and minimum reservoir pressure attained during the report period, and a discussion of any anomalous behavior,

- xi. The current operating capability of the project including working gas, cushion gas, maximum and minimum deliverability/injectivity and maximum, average and minimum injection pressure.
- xii. Plans for project optimization or operational changes in the next reporting year period.



Ron Stefik, P.L. Eng.
Supervisor, Reservoir Engineering
BC Energy Regulator

DATED AT the City of Victoria, in the Province of British Columbia, this 25th day of July, 2024.

Advisory Guidance for Order 84-07-001 Amendment #6

- I. Annual packer isolation tests are required to be conducted and the associated report must be submitted to the Regulator within 30 days of test completion, as per section 16(3) of the *Drilling and Production Regulation*.
- II. Injected fluids must be metered and the injection pressure measured at the wellhead, as per section 74 of the *Drilling and Production Regulation*.
- III. Monthly injection (or production) statements must be submitted to Petrinex as per Section 75 of the *Drilling and Production Regulation*.