



Gas Well AOF Tests

Basic Requirements:

All gas wells, with the exception of wells completed in the Milk River or Medicine Hat Sand, must be deliverability tested with an approved method prior to or within 30 days of being placed on production and after any recompletion or reworking which would change the flow characteristics of the well.

Milk River or Medicine Hat gas wells must also be flow tested - a single point flow test with a minimum flow time of 48 hours should be conducted. As with any other tests, this information must be submitted to the department.

A test to verify the stabilized flow capability of every gas well must be carried out during the second year of production. Normally all that is required for this test is a measure of the stabilized bottomhole flowing pressure and flow rate under stabilized operating conditions, followed by measurement of the reservoir pressure from a pressure buildup survey.

Notification:

The operator must inform the appropriate field office at least 24 hours in advance of test, giving details of the proposed test.

The Geology and Petroleum Lands Branch must be notified and permission must be obtained for any testing of potential gas wells on Crown permit lands or drilling reservations.

Approved Test Methods:

Approved test method is the four-point isochronal or modified isochronal method (section 73 of *The Oil and Gas Conservation Regulations, 1985*).

Extended flow periods shall not exceed 72 hours unless otherwise approved by Engineering Services. Maximum allowable volume of gas vented during test is 500 thousand cubic metres (17.7 mmcf). Approval by Engineering Services Branch is required for all tests involving variation from the requirements and restrictions listed above. Any such requests must be in writing, outlining the proposed test program in detail.

Other test methods such as a single point test must be approved on an individual well basis and will only be considered for wells with poor deliverability ie. for which flow stabilization times would be excessive or for re-testing of wells where an approved test has been previously conducted.

All gas vented during testing must be accurately metered and also flared.

Testing of gas wells should be into the pipeline if at all possible.

Test Design Criteria:

It is the operator's responsibility to design and conduct individual isochronal well tests so that an accurate estimate of open flow potential may be calculated.

The department may require the re-testing of a gas well if the test results are determined to be invalid. An approved reference for the design of deliverability tests is ERCB Guide G-3 "Gas Well Testing - Theory and Practice".

Isochronal flow periods must be of sufficient duration to eliminate wellbore storage effects. The extended flow period must be of sufficient duration to allow for stabilization of the flow rate.

Information to be Submitted:

The results of all gas well tests must be submitted to the department within 30 days of completion of the test on forms provided by the department or other approved formats.

Test results submitted shall include a complete analysis, raw data, field notes and a graph of the sandface deliverability.

A gas analysis should normally be carried out on each separate gas reservoir and the analysis should accompany the test results.

Department Contacts:

Field Offices:

Swift Current:	Ph. (306) 778-8252	Fax 778-8256
Kindersley:	Ph. (306) 463-5400	Fax 463-5405
Lloydminster:	Ph. (306) 825-6434	Fax 825-6433

Engineering Services Branch:

Rick McLean:	Ph. (306) 787-2596	Fax 787-2478
Fred Ochieng:	Ph. (306) 787-2600	

Geology and Petroleum Lands Branch:

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