

Gas Migration

Guideline PNG026

November 2015

Revision 1.0

Governing Legislation:

Act: *The Oil and Gas Conservation Act*

Regulation: *The Oil and Gas Conservation Regulations, 2012*

Record of Change

Revision	Date	Author	Description
0	September 2001	PNG	
1.0	November 2015	PNG	Updated to facilitate IRIS implementation in 2015

When abandoning a well ensure all rules and regulations are met as per “The Oil and Gas Conservation Regulations, 2012 (OGCR)”. The following is a guideline regarding gas migration processes.

Please be advised the Ministry of the Economy (ECON) will continue to conduct spot checks to confirm the accuracy of submitted data.

Definition of Gas Migration: Gas from contacted stratigraphic units within the well is present at surface in soils around the outermost string of well casing.

A. Wells cased for production

- If gas is found, the incident must be immediately communicated to the relevant field office, at which time the severity of the gas migration or surface casing vent should be discussed. The Ministry field office staff will then recommend one of the following:
 - Stop known gas migration/vent blows prior to well completion.
 - Stop significant gas migration/vent blows prior to or during production.
 - Stop gas migration/vent blows prior to final abandonment.
- All wells must be checked for gas migration prior to final abandonment operations being conducted and a certified copy of the test results submitted to the Ministry.
- Final abandonment operations may not be conducted until gas migration to surface around a well bore has been mitigated to the satisfaction of the Ministry area field office.

B. Wells abandoned as dry holes

(Note: Abandoned dry holes are only approved by special request from the Ministry of the Economy)

- If gas is found inside the surface casing after running abandonment plugs, the well shall immediately be re-entered and the abandonment plugs reset.
- If gas is found to be migrating around the outside of the surface casing after running cement plugs, the well shall be immediately re-entered and remedial operations undertaken to stop the gas migration.
- All wells must be checked for gas migration prior to final abandonment operations being conducted and a certified copy of the test results submitted to the appropriate Ministry area office.

C. Previously abandoned wells

- If gas is found migrating to the surface around a previously abandoned well the well shall be re-entered by the responsible operator and the gas migration remediated to the satisfaction of the Ministry area field office. The operator must obtain a licence to re-enter the well and receive authorization to repair the well prior to conducting work.

D. Gas migration to surface and around a well bore

- Any amount of gas found migrating to surface outside of a wellbore must be remediated to the satisfaction of the appropriate Ministry field office.