

Shale Gas Regulations in Alberta: Control Well Requirements

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Summary

New resource types such as Coalbed Methane and Shale Gas (SHG) have unique gas storage mechanisms as compared to conventional gas. The collection of data for Shale Gas (SHG) production in Alberta are now in place and in the Oil and Gas Conservation Regulations as control well requirements. Further details on the control well requirements may be found at the Energy Resources Conservation Board website.

Required data collection captures the different data elements that are not the same as data requirements for conventional pools. Before SHG was separated from conventional gas in the regulations, previous intent was to determine P^* or P_i , AOF per zone, and to use porosity and permeability from geophysical logs to calibrate to core tests. Now, for this unconventional resource, the intent is to determine P_{Δ} , a flow measurement on individual completions, and there is no reliance on geophysical logs for porosity and permeability. The data from control wells for SHG are needed to quantify SHG production and the resource.

The data collected before regulations were changed to reflect new resource types was used for volumetric reserves calculation based on reservoir engineering. Now there is more application to generate a gas deposit style calculation with gas possibly present in all lithologies. Reserves calculations is needed specifically for SHG to fulfill the ERCB mandate indicating to the people of Alberta what resource development is possible and what the impacts are relative to resource management.