

## SUMMARY

The analysis for this Environmental Assessment was conducted in a collaborative effort between the Montana Department of Environmental Quality (MDEQ), Montana Board of Oil and Gas Conservation (MBOGC) and the Bureau of Land Management-Miles City Field Office (BLM). The purpose of this partnership was to process the Powder River Gas, LLC - Coal Creek Project Plan of Development (POD) Environmental Assessment in a way as to ensure that Coal Bed Natural Gas (CBNG) exploration and development occurs in an orderly, efficient and environmentally responsible manner that provides measures to protect the environment and surface owner assets.

Powder River Gas filed the Coal Creek Project Plan of Development and Applications for Permit to Drill (APD's) for the 8 federal wells, on August 18, 2003, with the BLM's Miles City Field Office. Powder River Gas, LLC, has proposed to drill 16 exploratory wells on 8 locations of private surface, with 8 wells on private minerals and 8 wells on federal minerals. Powder River Gas also proposes to test these 16 new wells and 2 existing wells for CBNG potential. The project area is located in Sections 6 and 7, T. 8 S., R. 41 E., in Big Horn County, southeastern Montana. The Plan of Development has been approved by the Montana Board of Oil & Gas Conservation; however, drilling permits have not been approved pending completion of an environmental analysis. Powder River Gas proposes to begin these operations after receipt of necessary approvals, with completion of these operations late 2004 or early 2005.

The proposed 16 wells would be completed in the Wall and Flowers-Goodale coal seams in the Tongue River Member of the Fort Union Formation. The wells would be logged, tested and shut in if commercial quantities of gas are encountered. Gas, water and electric lines will be installed in corridors to assist with the testing process. The proposal is to treat water produced from the wells prior to discharging it into the Tongue River at a MDEQ approved discharge point. No gas production facilities are part of this proposed action. After testing is completed, the wells would be shut-in.

Following testing operations, the wells would be plugged according to federal requirements if no commercial quantities of gas are discovered or when the wells are no longer needed. If commercial quantities of CBNG are determined, Powder River Gas will be required to submit an additional POD for associated production facilities or any additional infield development. The POD submittal will be required to have a Montana Environmental Policy Act/National Environmental Policy Act analysis and public comment performed before any approvals are authorized.

Field onsite inspections of the proposed well locations and associated infrastructure were conducted on September 16, 2003. During field visits to each of the proposed locations (on-sites), all areas of proposed surface disturbance were inspected to ensure that potential impacts to natural resources would be minimized. The pipeline from the Long Federal 5-6 well was moved to reduce surface disturbance, resulting from the field inspection.

Relevant issues identified to the Powder River Gas proposal and the focus of this analysis include wildlife habitat fragmentation and disturbance, effects to cultural resources, reclamation of disturbed areas associated with construction activities, development of new two-track roads, effects to soils by drilling and construction activities, cumulative impacts (past, present and reasonably foreseeable actions) of CBNG exploration and development, surface water quality, depletion of springs and wells, and air quality

The analysis documented in this Environmental Assessment (EA) provides the basis for MDEQ, MBOGC and BLM decisions established by the Coal Creek POD, the 2003 *Montana Statewide Final Oil and Gas EIS and Amendment of the Powder River and Billings RMPs* (MT FEIS), and other referenced environmental analyses. The agencies must decide whether or not to approve the individual wells, infrastructure and water treatment on or for the benefit of leases associated with the proposed project.

Various actions and management options were analyzed in three alternatives. The potential environmental, social and economic effects from the actions described in each alternative, are disclosed according to individual resource topics. The agencies have identified Alternative C, Powder River Gas proposed POD/APD's, as the Preferred Alternative.

## GLOSSARY

**APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK (APD):** The Department of Interior permit application form needed to authorize oil and gas drilling activities on federal minerals.

**COAL BED NATURAL GAS (aka COAL BED METHANE):** A clean-burning natural gas found inside and around coal seams. The gas has an affinity to coal and is held in place by pressure from groundwater. Producing coal bed natural gas involves drilling into coal seams and discharging groundwater to release the gas.

**CUMULATIVE IMPACT:** The impact on the environment that results from the positive or negative impacts of an action when added to other past, present and reasonable foreseeable future actions, regardless of what agency or person performed such action(s).

**CONDITION OF APPROVAL (COA):** Requirements imposed on the applicant under which condition the approval of an Application for a Permit to Drill or a Sundry Notice is approved.

### **LEASE:**

1. An oil and gas lease is a contract which grants the lessee the rights to drill for and remove oil and gas deposits in the leased lands, subject to the terms and conditions incorporated in the lease.
2. The tract of land, on which a lease has been obtained, where producing wells and production equipment are located.

**MINERAL DRAINAGE:** An offsetting producing well that removes oil or gas from a Federal or Indian lease.

**MITIGATION MEASURES:** Methods or procedures developed for the purpose of reducing or eliminating the impacts of an action. Mitigation may be built into the proposed project or required in an alternative as a condition of approval.

**PROPOSED ACTION:** An individual action or a combination of actions proposed on or to benefit federal leases.

**SPLIT ESTATE:** Surface and minerals of a given area in different ownerships. Frequently, the surface is privately-owned while the minerals are federally-owned.

## ABBREVIATIONS/ACRONYMS

AO	Authorized Officer
APD	Application for Permit to Drill
ARM	Administrative Rules of Montana
BACT	Best Available Control Technology
BLM	Bureau of Land Management
BMPs	Best Management Practices
CBNG	Coal Bed Natural Gas
COA	Conditions of Approval
CWA	Federal Clean Water Act
DNRC	Montana Department of Natural Resources and Conservation
EA	Environmental Assessment
EC	Electrical Conductivity
FLPMA	Federal Land Policy Management Act
ft-amsl	Feet Above Mean Sea Level
FWS	Fish and Wildlife Service
GPM	Gallons Per Minute
GWIC	Groundwater Information Center
MAAQs	Montana Ambient Air Quality Standards
MAQP	Montana Air Quality Permit
MBOGC	Montana Board of Oil and Gas Conservation
MBMG	Montana Bureau of Mines and Geology
MCA	Montana Codes Annotated
MEPA	Montana Environmental Policy Act
MDEQ	Montana Department of Environmental Quality
MLA	Mineral Leasing Act
MPDES	Montana Pollution Discharge Elimination System
MT FEIS	Montana Statewide Final Environmental Impact Statement (2003)
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
POD	Project Plan of Development
PSD	Prevention of Significant Deterioration
RFD	Reasonably Foreseeable Development
RFFA	Reasonable Foreseeable Future Actions
RMP	Resource Management Plan
SAR	Sodium Adsorption Ratio
SHPO	State Historic Preservation Office
SSS	Special Status Species
SUPPP	Storm Water Pollution Prevention Plan
SWQATR	Surface Water Quality Analysis Technical Report
T/E	Threatened/Endangered
TDS	Total Dissolved Solids
THPO	Tribal Historic Preservation Office
USGS	United States Geological Survey
WLS	Western Land Service
WMP	Water Management Plan
WMPP	Wildlife Monitoring Protection Plan
WNV	West Nile Virus
WQA	Montana Water Quality Act (75-5-101 et seq, MCA)
WY FEIS	Wyoming Environmental Impact Statement (2003)