

PROVINCE OF BRITISH COLUMBIA
MINISTRY OF ENERGY AND MINES

PERMIT

APPROVING WORK SYSTEM AND RECLAMATION PROGRAM

(Issued pursuant to Section 10 of the *Mines Act* R.S.B.C. 1996, c.293)

Permit: **C-224**

Mine #: **1640340**

Issued to: **Peace River Coal Inc.
PO Box 919
Tumbler Ridge, British Columbia
V0C 2W0**

for work located at the:

Trend Mine

This permit contains the following sub-sections:

Issue Date

Permit

March 18, 2005

Approving Work System

March 18, 2005

Approving Reclamation Program

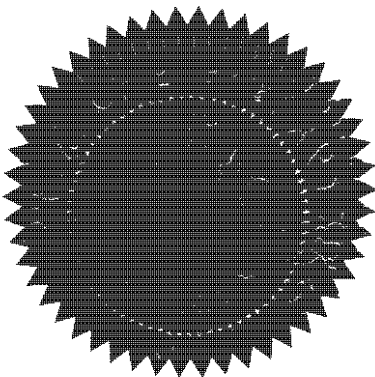
January 25, 2007

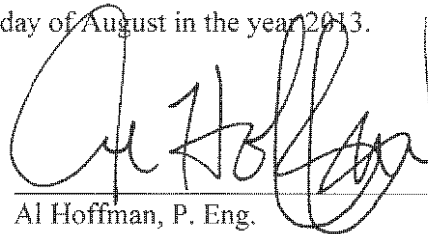
Approving Work System & Reclamation Program

Amendments

As listed on the attached.

Amended at Victoria, British Columbia this 7th day of August in the year 2013.




Al Hoffman, P. Eng.
Chief Inspector of Mines

Amendments

March 6, 2006	Approving Power Line Construction and Automated Rail Loadout Facility
April 18, 2006	Approving Fine Coal Wash Circuit Addition
December 8, 2006	Change of Name
June 29, 2011	Approving Selenium Water Treatment Pilot Test Work
February 23, 2012	Approving PAG Waste Management Plan Revision
August 7, 2013	Approving Roman Phase I Construction

PERMIT AMENDMENT

APPROVING ROMAN PHASE 1 EARLY CONSTRUCTION WORKS

Permit: **C-224**

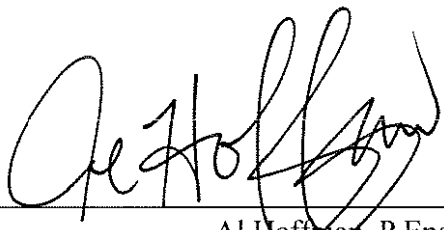
Mine #: **1640340**

Issued to: **Peace River Coal Inc.
PO Box 919
Tumbler Ridge, British Columbia
V0C 2W0**

for work located at the:

Trend-Roman Mine

Amended at Victoria, British Columbia this 7th day of August in the year 2013.



Al Hoffman, P.Eng.
Chief Inspector of Mines

PREAMBLE

An application for amendment of Permit C-224, entitled "Phase 1 Trend-Roman Mine Application for Amendment to *Mines Act* Permit C-224 to Incorporate Minor Amendments for Early Works" (Document 1) dated March 15, 2013 was filed with the Chief Inspector of Mines (Chief Inspector) on April 4, 2013 in accordance with Section 10(6) of the *Mines Act*.

Notice of such filing was published in the British Columbia Gazette on May 23, 2013.

The following information was also filed with the Chief Inspector and forms part of the application:

- Report entitled “Trend – Roman Project, Water Management Construction, Site Specific Surface Erosion and Sediment Control Plan”, by Anglo American Metallurgical Coal, dated July 12, 2013 (Document 2).
- Revised section 10.3 of the Mines Act Application entitled “Wildlife Protection and Monitoring Plan”, by Anglo American, by Peace River Coal Inc. dated July 15, 2013 (Document 3).
- Report entitled “Trend-Roman Project, Water Management Construction Procedure for Field Identification of Suitable Rock Fill Materials”, by Anglo American, dated July 12, 2013 (Document 4).
- Report entitled “Trend-Roman Water Management Project: RP2 Dyke & Sedimentation Pond”, by Norwest Corporation, dated July 16, 2013 (Document 5).
- Report entitled “Trend-Roman Water Management Project: RP1 Dyke & Sedimentation Pond” by Norwest Corporation, dated July 17, 2013 (Document 6).

Environmental Assessment Certificate #M12-02 was issued for this project by the Environmental Assessment Office under the authority of the *Environmental Assessment Act* S B C 2002, C.43 (Act), on December 14, 2012 for this project.

The application was referred to other agencies on May 9, 2013 in accordance with Part 10.3.1 of the Code. Several meetings of the Roman Mine Review Committee (RMRC) were held to review the application: June 26, 2013, July 5, 2013 and July 8, 2013 in Fort St. John, July 4, 2013 in Prince George, and July 10, 2013 by conference call.

This permit contains the requirements of the Ministry of Energy and Mines. It also is compatible, to the extent possible, with the requirements of other provincial ministries. The amount of security required by this permit and the manner, to which this security may be applied, will also reflect the requirements of those ministries. However, nothing in this permit limits the authority of other provincial ministries to set other conditions, or to act independently, under their respective permits and legislation.

Decisions made pursuant to this permit by staff of the Ministry of Energy and Mines will be made in consultation with other provincial ministries and federal departments and agencies, within reasonable timeframes. Where these decisions directly affect the Ministry of Environment or the Ministry of Forests, Lands and Natural Resource Operations, all decisions will be made in concurrence with the appropriate Manager or Director.

The mine is located in the Treaty 8 Territory of BC established under section 35(1) of the Constitution Act, 1982. It lies in the consultative area of the West Moberly First Nations, Sauteau First Nations, and McLeod Lake Indian Band (“First Nations”). The province also consulted with the Doig River First Nation, Prophet River First Nation and Halfway River First Nation.

These First Nations have expressed their interests regarding potential impacts to their asserted or established rights during pre-permit consultations between the First Nations and the Province. Those issues that Peace River Coal Inc. was not able to resolve through discussion with First Nations have been resolved through commitments by Anglo American/Peace River Coal Inc. to implement additional studies or management plans. These commitments are described in a letter entitled "*Commitments of Anglo American/Peace River Coal Inc. to Treaty 8 First Nations With Respect to Phase One Trend-Roman Mine Amendment Permit*" dated July 17, 2013.

CONDITIONS

The Chief Inspector hereby approves the application subject to compliance with the following conditions:

A. General

1. Compliance with *Mines Act* and Code

All work shall be in compliance with all sections and parts of the *Mines Act* and Code, and the owner, agent or manager (herein called the Permittee) shall obey all orders issued by the Chief Inspector or designate.

2. Departure from Approval

The Permittee shall notify the Chief Inspector and the district Inspector of Mines, in writing of any intention to materially depart from either the plan of the work system or the program for the protection and reclamation of the surface of the land and watercourses to any substantial degree, and shall not proceed to implement the proposed changes without the written authorization of the Chief Inspector.

3. Limitations of Approval

This permit approves the construction of sediment ponds RP1 and RP2, water collection ditches RN1, RN2 and RN3, as well as soil salvaging from these areas and associated access road development.

4. Mineral Tenures

Development, including surface disturbance and works, encompassing approximately 1875 ha (includes rail load-out) held by Peace River Coal Inc. (Figures 1 and 2) is authorized under permit C-224.

5. Mine Permit

This Permit is not transferable or assignable.

6. Planned Commitments

The Permittee shall provide to the Chief Inspector and First Nations, an update of the commitments made by the Permittee to address First Nations issues, as described in a letter addressed to the Chief Inspector dated July 17, 2013, entitled "*Commitments of Anglo American/Peace River Coal Inc. to Treaty 8 First Nations With Respect to Phase One Trend-Roman Mine Amendment Permit*". The reporting shall be included in the Annual Reclamation Report and in any other format and frequency defined in the commitments.

B. Mine Plan

1. Sedimentation Ponds RP1 and RP2

(a) Design

- (i) The designs of RP1 to the 1449.5m elevation and RP2 to the 1353.5m elevation are approved. Sealed "For Construction" drawings shall be maintained on-site during construction and made available to any Inspector of Mines upon request.
- (ii) In accordance with Section 10.1.5 of the Health, Safety and Reclamation Code, Sediment Pond RP2 is declared a major impoundment and shall be designed and operated in accordance with the Canadian Dam Association Dam Safety Guidelines for a high consequence structure.
- (iii) Sediment pond RP2 shall be fully lined with a geomembrane to minimize seepage of contaminant loadings to the environment.

(b) Construction

- (i) Engineering supervision of sediment pond construction shall include sufficient field reviews to ensure that the ponds RP1 and RP2 are constructed in general conformance with the design.
- (ii) The prepared foundation of embankments shall be inspected by the geotechnical engineer of record prior to the placement of fill.

(c) Operation, Monitoring and Reporting

- (i) Prior to the operation of sedimentation pond RP2, the Permittee shall develop and submit to the Chief Inspector, a final Operation, Maintenance, and Surveillance (OMS) Manual and a final Emergency Preparedness Plan (EPP). The OMS shall include thresholds and response criteria for the piezometers. The EPP shall incorporate the results of an inundation study. The OMS and EPP shall be updated periodically as required.
- (ii) An "as-built" report shall be submitted to the Chief Inspector for sedimentation ponds RP1 and RP2 within 3 months of the completion of construction. The "as-built" report shall include results of QA/QC monitoring and sampling data.
- (iii) Both RP1 and RP2 sedimentation ponds shall be included in the site-wide annual inspections of dam embankments. The inspections shall be submitted to the Chief Inspector by March 31 of the year following the inspection. Any recommendations relating to health and safety or geotechnical stability shall be promptly responded to in writing to the Chief Inspector.
- (iv) Dam safety reviews for the RP2 sedimentation pond shall be conducted in accordance with the Canadian Dam Association Dam Safety Guidelines. The first Dam Safety Review shall be conducted by December 31, 2021.

(d) Closure

When RP1 and RP2 are no longer needed to meet water quality requirements, both ponds shall be decommissioned in accordance with the recommendations of a qualified professional engineer.

2. Water Collection Ditches RN1, RN2 and RN3

(a) Design

- (i) The Permittee shall construct RN-1, RN-2, and RN-3 in accordance with the design.
- (ii) To minimize seepage of contaminant loadings to the environment, the portion of the water collection ditch RN1 conveying elevated contaminant loadings shall be lined with a geomembrane.

(b) Construction

Construction of the water collection ditches shall be overseen by the engineer of record to ensure they are constructed in accordance with the design and that any recommendations arising from the geotechnical review are fully implemented.

(c) Operation, Monitoring and Reporting

(i) The Permittee shall submit “as-built” drawings of all erosion and sediment control and water management features within 3 months of completion.

(ii) Water collection ditches shall be included in the site wide annual inspections of dam embankments and water management infrastructure.

3. Access Roads

Cut slopes and fill slopes in excess of 5 metres in height shall be inspected by a qualified geotechnical engineer prior to putting the road into use.

4. Soil Stockpiles

Soil stockpiles shall be constructed in accordance with the design.

C. Protection of the Land and Watercourses

1. Waste Rock Handling and Mitigation

(a) Cut materials with the potential for acid rock drainage (PAG) shall not be used for construction purposes.

(b) All cut materials from RP2 excavation shall be classified using the procedures outlined in the “Trend –Roman Project Water Management Construction Procedure for Field Identification of Suitable Rock Fill Materials”.

(c) Prior to construction, analytical testing of representative rock samples from the area shall be completed to determine the classification of rock strata across the planned excavation zone.

- (d) PAG materials shall be handled in accordance with the approved PAG Waste Management Plan, dated July 2011, and the conditions of the February 23, 2012 *Mines Act* permit amendment.
- (e) All analytical data and a material handling summary shall be included in the Annual Reclamation report.

2. Water Management and Water Treatment

- (a) Water collection ditches shall not be connected to sediment ponds RP1 and RP2 until authorized by the Chief Inspector.
- (b) The Permittee shall have initial selenium water treatment works operating effectively by June 30, 2014.
- (c) Installation of additional water treatment works shall be completed in time to ensure protection of environmental quality.
- (d) All water treatment works must be approved by the Chief Inspector.

3. Sediment and Erosion Control

(a) General

- (i) Grubbing shall be limited to the water management and sediment control features, access roads and soil stockpile areas that are approved by this permit.
- (ii) The Permittee shall implement progressive reclamation where possible to control erosion on all areas of the mine.
- (iii) Longer-term erosion control shall be achieved through landform configuration, the development of maintenance-free vegetation covers, and self-sustaining drainage control features and watercourses.
- (iv) The site-specific severity of compaction shall be assessed and surface preparation shall occur in a manner that minimizes the severity of compaction prior to and after placement of reclamation medium, unless there is a need to inhibit water infiltration to avoid metal leaching.

- (v) All roads not being retained for the designated end land use shall be fully re-configured to conform to adjacent landscape unless long-term stability requirements dictate otherwise.

(b) Erosion and Sediment Control Plan

- (i) At least 15 days prior to the initiation of construction activities, excluding timber clearing, the Permittee shall submit to the Chief Inspector for review and approval, a detailed Erosion and Sediment Control Plan. The plan shall contain information on the following:
 - extent of clearing,
 - riparian and vegetative buffers that will remain adjacent to affected tributaries
 - schedule of grubbing, and construction activities and implementation of erosion and sediment control prescriptions,
 - site-specific prescriptions for all construction activities,
 - site-specific prescriptions for soil and overburden stockpiles,
 - pre- and post-construction drainage pathways,
 - temporary water and sediment control management measures,
 - road run-off management,
 - contingency plans,
 - monitoring plans for erosion and sediment control effectiveness, and,
 - inspection, maintenance, and reporting plans.
- (ii) The frequency of regular monitoring and inspection shall be specified in the Erosion and Sediment Control Plan. The monitoring frequency shall be increased during periods of increased risk.
- (iii) Implementation of the Erosion and Sediment Control Plan shall be overseen by a qualified third-party professional and construction progress reports, which include information on site conditions and monitoring results, shall be submitted to the Ministry of Environment and to the Chief Inspector monthly.

4. Soil Salvage and Storage

- (a) The Permittee shall salvage and stockpile soil, overburden and till materials, to the extent practical, for use in reclamation activities. Stockpiled materials shall not be used as fill unless approved by the Chief Inspector prior to disposal.

- (b) Salvage stockpiles shall be located in areas that minimize disturbance and handling requirements during site preparation and mine operations. Stockpiles shall be clearly marked to ensure that they are protected during construction and mining activities. The locations, origins and quantities of materials stockpiled shall be documented and reported in the Annual Reclamation Report.
- (c) To reduce the potential for erosion and establishment of invasive plant species during the storage period, stockpiled materials shall be re-vegetated using a certified weed-free seed mix consisting of native or annual agronomic species.
- (d) Surface preparation of stockpiles shall minimize compaction prior to placement of medium being placed during final reclamation.
- (e) During final placement of reclamation materials, surface preparation shall occur in a manner that promotes end land use objectives.

5. Vegetation Management

- (a) The Permittee shall limit vegetation disturbance to those areas approved in the permit application. Where only tree falling without grubbing is required, efforts shall be made to reduce ground disturbance to minimize soil erosion and maximize the regeneration potential of the site.
- (b) Woody debris, including stumps, roots, limbs and rotting logs, that is generated during clearing and grubbing operations shall be stockpiled to the extent practical in designated stockpile areas for subsequent use in the reclamation program.
- (c) Woody debris may be chipped or burned only if it can be shown that the quantity of woody debris is not required for reclamation purposes or that burning is needed due to insect hazards.
- (d) Coarse chipping, mulching and burying of large woody debris is acceptable if required by other regulations. If woody debris is not intimately incorporated in the replaced soil, nutrient levels shall be monitored to determine if other amendments, such as fertilizer, are necessary for maintenance of nutrient levels in the soil.
- (e) The Invasive Plant Management Plan shall be implemented at the initiation of construction activities. Purchased seed that is used for reclamation shall be certified weed-free.

- (f) Revegetation programs shall be designed to restore wildlife habitat and traditional aboriginal uses where appropriate. Revegetation practices shall be conducted to provide appropriate species and densities that are similar to naturally occurring ecosites at similar elevations and climatic conditions. Riparian areas shall be revegetated with appropriate riparian species.
- (g) Reclamation procedures shall be supervised by fully trained, qualified personnel to ensure that appropriate revegetation techniques are followed.
- (h) The Permittee shall submit to the Chief Inspector for review, a detailed site-wide vegetation monitoring program that specifies the sampling parameters and performance criteria that will be used to evaluate the success of revegetation, and addresses how the reclamation program will achieve end land use objectives. Monitoring of predicted secondary succession in cleared but non-grubbed areas shall be included in the monitoring program. The vegetation monitoring program shall be submitted to the Chief Inspector as a standalone report by March 31, 2014.

6. Wildlife Protection

- (a) The Permittee shall implement the Caribou Mitigation and Monitoring Plan at the start of construction to prevent and mitigate impacts to Caribou and other wildlife.
- (b) The Permittee shall during the site reclamation period ensure linear corridors, not otherwise required for operations of the site, are managed and reclaimed in a manner that minimizes wildlife movement from area of low elevation to alpine environments.
- (c) The Permittee shall, where reasonably possible, avoid wildlife sensitive periods during construction activities.
- (d) Pursuant to Part 1.6.9 of the Code, the Mine Manager shall incorporate into the mine safety program, a no fishing, hunting or shooting policy for the mine permit area (Figure 1). The Permittee shall implement this policy for all employees and contractors at the site.

D. Reclamation Program

1. Reclamation Security

Permit conditions Reclamation Security 1.(a) of the January 25, 2007 *Mines Act* permit amendment are hereby replaced with the following conditions:

- (a) Within 60 days of issuance of this permit, the Permittee shall cause to be deposited with the Minister of Finance additional security in the amount of Eleven Million Six Hundred Thousand dollars (\$11,600,000.00), bringing the total security for this permit to Eighteen Million Four Hundred Thousand dollars (\$18,400,000.00). The security will be held by the Minister of Finance for the proper performance of the approved program and all the conditions of this permit in a manner satisfactory to the Chief Inspector.

All other terms and conditions remain the same.

Figure 1

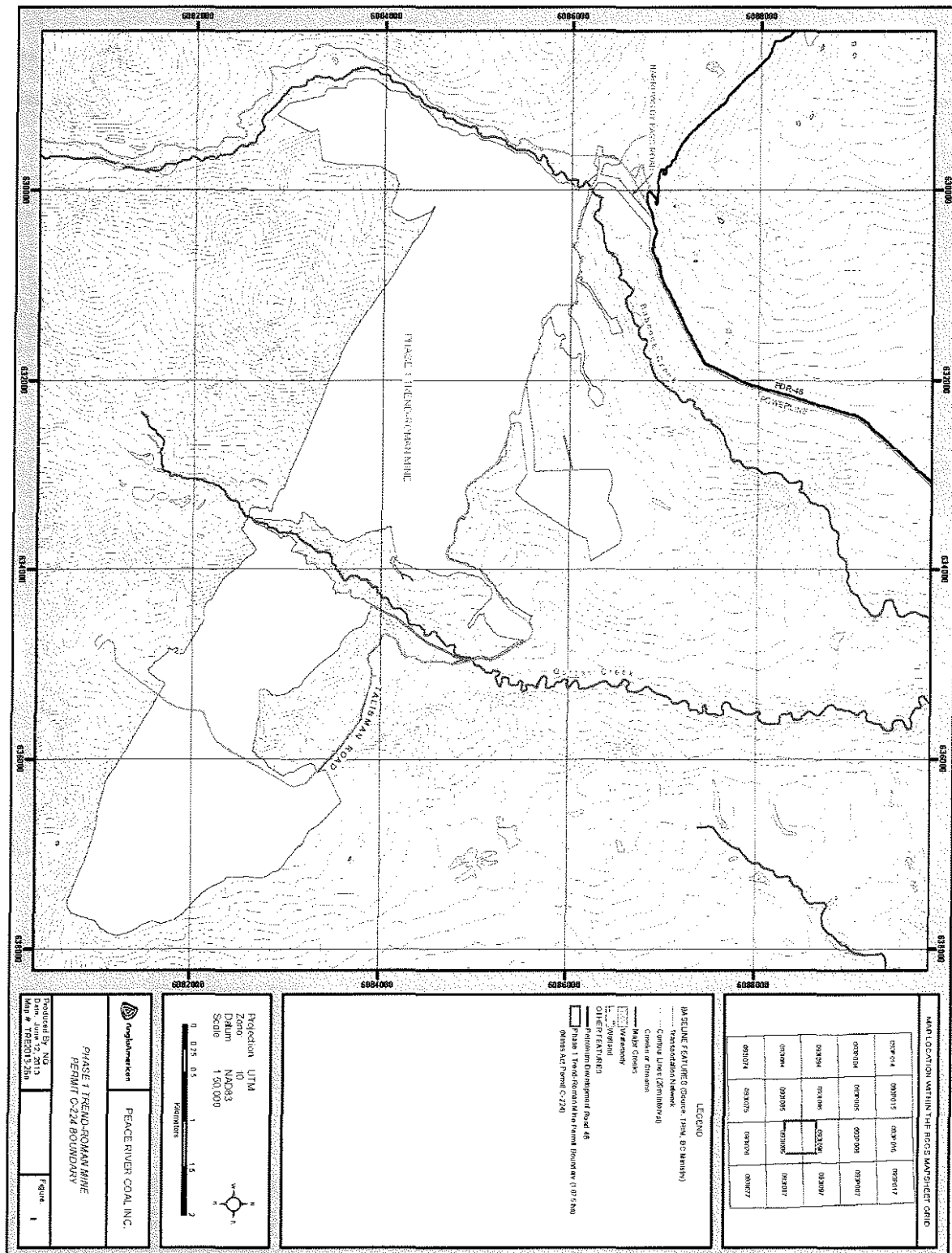


Figure 2

