

## *Appendix 2-A*

### *Consultation Materials*

MURRAY RIVER COAL PROJECT

**Application for an Environmental Assessment Certificate / Environmental Impact Statement**

# Environmental Assessment of the Proposed *Murray River Coal Project*

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## Open House *and* Invitation to Comment

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HD Mining International (Proponent) is proposing to construct an underground coal mine, approximately 12.5 kilometres south of Tumbler Ridge (proposed Project). The proposed Project is anticipated to have an annual production of six million tonnes of metallurgical coal over 31 years.

The proposed Project is subject to review under British Columbia's *Environmental Assessment Act*. An environmental assessment certificate must be issued before any work can be undertaken on the proposed Project.

However, prior to submission of an application (Application) for a certificate by the Proponent, Environmental Assessment Office of British Columbia (EAO) must first approve Application Information Requirements (AIR).

The AIR will specify the studies to be conducted and the detailed information to be provided by the Proponent in its Application. EAO has now received the draft AIR from the Proponent and invites comments on this draft.

To provide information about the AIR, EAO invites the public to attend an **Open House**. There will be *two* Open Houses:

at: **Super 8 Motel**  
1440 Alaska Highway, Dawson Creek  
on: **June 4, 2013**  
from: **5:00pm to 8:00pm**

and

at: **Tumbler Ridge Community Centre**  
340 Front Street, Tumbler Ridge  
on: **June 5, 2013**  
from: **5:00pm to 8:00pm**

EAO will be available to answer questions about the assessment process. The Proponent will be able to provide information relating to the proposed Project.

There are 30 days for the submission of comments by the public in relation to the draft Application Information

Requirements. The comment period will begin on May 21, 2013 and end on June 20, 2013. All comments received during this comment period in relation to the Application Information Requirements will be considered.

The intention of seeking public comments is to ensure that all potential effects – environmental, economic, social, heritage and health – that might result from the proposed Project are identified for consideration as part of the assessment process. At this stage of the process, the primary intent is to receive feedback about the studies or information required for a comprehensive environmental assessment.

After taking public comments into account, EAO will finalize the AIR and issue them to the Proponent.

EAO accepts public comments through the following ways:

- **By Online Form at**  
<http://www.eao.gov.bc.ca>
- **By Mail:**  
Michael Peterson, Project Assessment Manager  
Environmental Assessment Office  
PO Box 9426 Stn Prov Govt  
Victoria BC V8W 9V1
- **By Fax:**  
Fax: 250-356-7477

An electronic copy of the AIR and information regarding the environmental assessment process are available at [www.eao.gov.bc.ca](http://www.eao.gov.bc.ca). Copies of the AIR are also available for viewing at these locations:

Tumbler Ridge: Public Library, Town Hall  
Dawson Creek: Public Library, City Hall  
Peace River Regional District Office, Dawson Creek

If you are unable to participate at this time, there will be an additional comment period during the Application review stage when you will also be able to provide comments to the EAO on the proposed Project.

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**NOTE:** All submissions received by EAO during the comment period in relation to the proposed Project are considered public and will be posted to the EAO website.

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Please join us on Saturday,  
November 24. We'd like to  
meet you and share informa-  
tion about:

Long-term benefits of the  
Murray River Project

Monkman Commons Housing  
Development



How to be heard  
through the upcoming  
BC Environmental  
Assessment public  
consultation

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# Community Open House

Saturday, November 24, 2012  
1:00pm - 3:00pm

Trend Mountain Hotel  
375 Southgate Street  
Tumbler Ridge  
Banquet Room



hd Mining

[www.hdminingintl.com](http://www.hdminingintl.com)



Please join us for a  
**COMMUNITY OPEN HOUSE**

Learn more about:

- The Murray River Project
- New community housing
- The BC Environmental Assessment Process and how to be heard

**SATURDAY**  
**NOVEMBER 24<sup>TH</sup>, 2012**  
**1:00PM – 3:00PM**  
AT THE  
**THE TREND MOUNTAIN HOTEL**  
375 Southgate Street  
Tumbler Ridge

[www.hdminingintl.com](http://www.hdminingintl.com)

#### Earthquakes from page 16

Between 2009 and 2011 there was a controversy around the earthquakes occurring in the Horn River Basin. The OGC released a report on the matter this year. A close town to the issues was Fort Nelson. The report from the OGC says, "The investigation has concluded the events observed within remote and isolated areas of the Horn River Basin between 2009 and 2011 were caused by fluid injection during hydraulic fracturing in proximity to pre-existing faults."

The report goes on to state, "The Commission makes seven recommendations based on the investigation, which include the submission of microseismic reports; establishment of a notification and consultation procedure; studying the relationship of hydraulic fracturing parameters on seismicity, and upgrading and improving BC's seismograph grid and monitoring procedures. In addition, the Commission has initiated a broader study with the University of British Columbia. The intent of this research is to provide insights into predicting the location and magnitude of seismic

events based on hydraulic fracturing parameters, geomechanics and to establish protocols for prediction, detection, monitoring and mitigation of these events."

As Kao stated above, being able to predict earthquakes is still out there in a gypsy's magical glass ball, though technology has come a long way. Especially, because the earthquakes in the Horn River Basin much like here in the Montney Basin region are smaller on the Richter scale. The report from the OGC states, "A search of the areas in the National Earthquake Database from 1985 to present shows no detected seismicity in the Horn River Basin prior to 2009."

Kao says, "The number of seismic events does appear to increase with the operation of fracking activity in the Horn River Basin."

The OGC and NRC have established a formal collaboration to enhance seismic monitoring capabilities for the region. Kao says, "We want to learn more about the nature of the induced seismicity and how it's related to fracking operations and their control parameters. We are actively working on this research. We really need clear evidence in order to draw conclusion as the topic is becoming more and more sensitive."

Freidrich says in regards to the report and the collaboration with NRC, "One of the recommendations was to increase the amount of seismic monitoring in Northeastern BC as a whole. Looking at all of Northeastern BC is the direction all the initiatives are going. Majority of the fracking activity in the province is in Northeastern BC. From our perspective having the increased monitoring will give BC a better idea of what's happening underneath the ground."

During the presentation from the OGC here in Tumbler Ridge, the main focus of the discussion was based around our aquifer and the group presented a very convincing argument as to why fracking cannot harm our aquifer. However, Mayor Darwin Wren still has concerns fracking has the potential to harm our main water source. What happens if there is an earthquake, be it fracking induced or natural?

There are different ways the Tumbler Ridge aquifer could get harmed through the practice of nearby fracking and there is also a chance it could not get harmed at all. Or on the extreme side, similar to what happened to the hot springs near Haida Gwaii, the water could just disappear. Kao says, "The

aquifer is a very complex system. Around the world there has been quite a bit of documentation indicating when earthquakes occur, the water system sometimes reacts. That is something that has been documented very widely around the world. The latest example is what occurred in the Haida Gwaii area. Right after the earthquake, the residences noticed their hot spring dried up," Kao continues, "That means the occurrence of earthquakes sometimes does have an impact on hydrological systems. It happens, people document it, but no one can say it will happen every time earthquakes occur. There are other factors that may affect the interaction between earthquake systems and hydrological systems. It becomes a very difficult issue to answer."

The chance of our aquifer suddenly drying up due to fracking induced earthquakes is probably unlikely, but not out of the question. Mayor Wren points to his biggest concern. "I was talking to a few people down in Victoria at the UBCM about fracking. Would we be able to enforce no fracking within say five km of the aquifer?"

Wren continues, "In some ways no, probably not, but if we move forward with the resolution anyway it's going to raise the profile of the issue. There are other areas where they have misjudged and have destroyed some aquifers," he continues, talking about the connection between fracking and earthquakes. "With fracking you're pumping all this liquid down there. The notion is the bedrock is going to protect the aquifer. An earthquake cracks the barrier of the bedrock. If it cracks, that stuff is going into the water, there's no doubt about it. The earthquake itself would open channels for the liquid to flow. In theory they are saying the bedrock is the protection. With an earthquake, that theory isn't going to hold."

There still needs to be much research done into the connection between fracking and earthquakes. With the research being done and the events near Fort Nelson, there seems to be some correlation between the two. Since the technology does not exist to predict earthquakes or to be able to detect blind faults, the practice of fracking too close to the Tumbler Ridge aquifer could, for some, seem risky. The bottom line is we just don't know yet, but is the safety of our water source something we're willing to roll the dice on?

## Chetwynd Dental Associates

Dr. Vik Grewal is pleased to announce the clinic's extended office hours:

Monday through Friday  
9:00 am to 5:00 pm  
Some evenings and Saturdays

We offer the following services:

- Conscious mild & moderate sedation including nitrous oxide
- In office whitening and take home
- Gentle and thorough teeth cleaning
- Flexible scheduling
- Restorative and cosmetic Dentistry
- Oral Cancer Screening



New patients and emergencies welcome  
4717 – 51 Street, Chetwynd, BC

**1-250-788-2113**

## MURRAY RIVER PROJECT

### I HEARD ABOUT THIS OPEN HOUSE THROUGH:

The newspaper  A friend/family member  A community organization (which one: \_\_\_\_\_)  Other

I LIVE IN/NEAR: \_\_\_\_\_ (Community)

### I'M INTERESTED IN KNOWING MORE ABOUT (check as many which apply and provide details):

Environmental effects, actions taken to protect the environment: \_\_\_\_\_

Social effects, actions taken to strengthen the regional community: \_\_\_\_\_

Economic effects, actions taken to build a strong NE community through diverse opportunities: \_\_\_\_\_

Health effects, actions taken to ensure a healthy workforce, environment and community: \_\_\_\_\_

Heritage effects, actions taken to project the historical values of the region and the community: \_\_\_\_\_

SPECIFICALLY, I HAVE CONCERNS ABOUT: \_\_\_\_\_

I WOULD LIKE TO LEARN MORE ABOUT: \_\_\_\_\_

**YES, I WOULD LIKE TO RECEIVE EMAILS AND BE INFORMED ABOUT THE PROJECT.** Please add me to your distribution list:

Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Address: \_\_\_\_\_ Date: \_\_\_\_\_

Thank you for sharing your views with HD Mining International Ltd.  
(Please utilize the back of this card for further comments)



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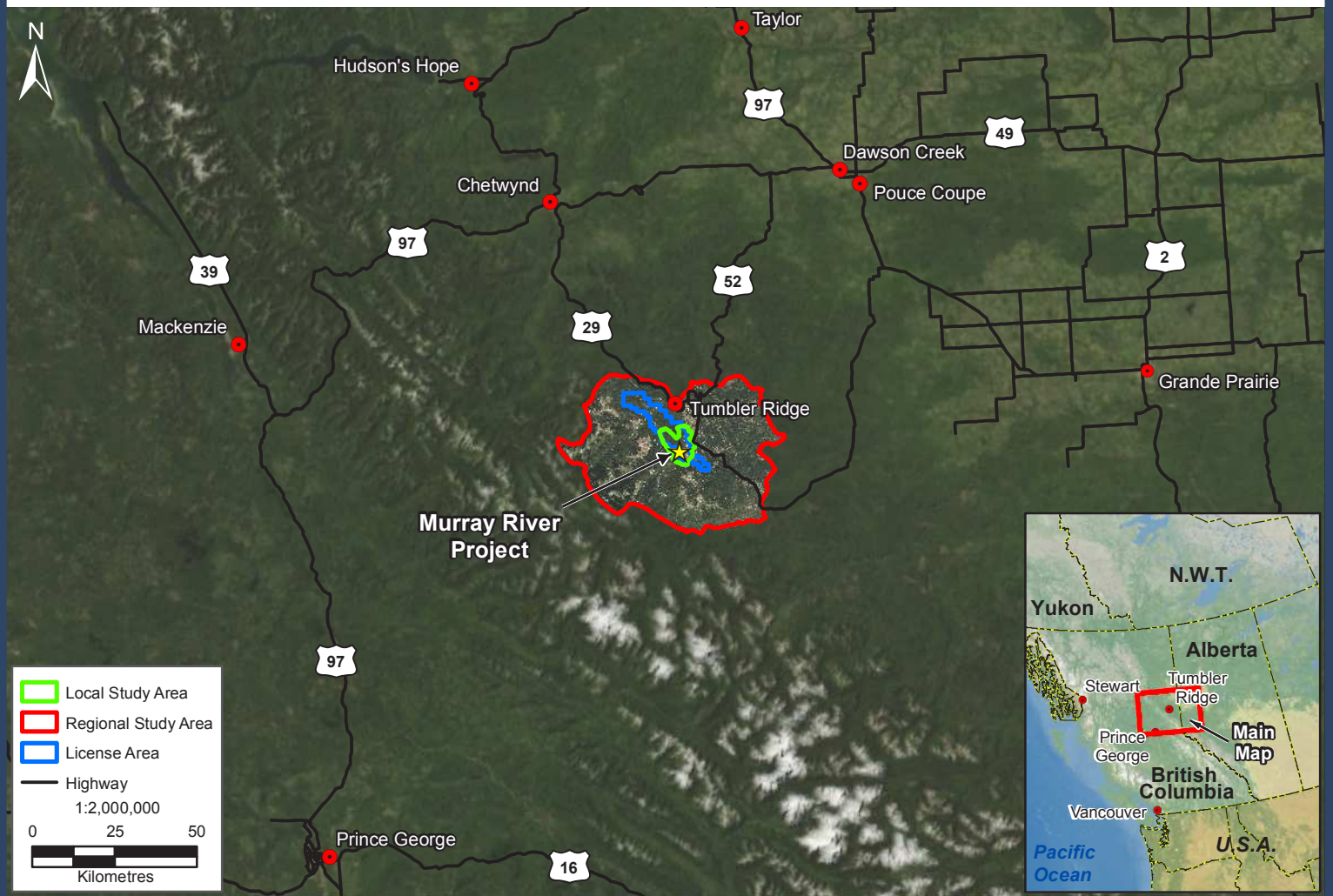
# MURRAY RIVER COAL PROJECT

## Project Overview

HD Mining International Ltd. (HD Mining) is proposing to develop the Murray River Coal Project (the Project), an underground mine located 12.5 km southwest of Tumbler Ridge, BC (see project map).

The Murray River project would annually produce about 6 million tonnes of metallurgical clean coal over 31 years. The project footprint is approximately 200 hectares. Coal would be transported by rail to the Ridley Terminal in Prince Rupert, BC.

The Project would provide approximately 600 direct jobs and 700 indirect jobs. Capital investment is estimated at \$300 million and corporate annual tax revenues are estimated to be over \$100 million.





## 201%Project Activities

HD Mining has received provincial government approvals to extract a 100,000 tonne bulk sample of coal. HD Mining ZSs preparW the site and \_ [ [ Y will start in the XS^ of 20#%. The bulk sample will be fdS` ebadVW fa fZVD[V Vk FVd\_ [ S^ in Prince Rupert where it will be shipped to China.

The proposed Project will be subject to a review under British Columbia's Environmental Assessment Act and the 5S` SV[S` 7 h[da` \_ WfS^ Assessment 3UFz : 6 ? [ [ Y [e UgdW f'k X` S [ [ Y Bda VWF WY [ Wd Y S` V bdWScf Y S` W h[da` \_ WfS^ SeeWe\_ Wfz : D Mining [e S'ea engaging with Treaty 8 First Nations and local communities during the EA process.



Lay down with core rods on project site



Recording water flow measurements



Core samples



Plant identification for baseline study



Winter fieldwork

HD Mining has retained Rescan Environmental Services Ltd. (Rescan) to undertake environmental and socio-economic studies which are required as part of the EA process. Rescan is conducting studies in the following areas: surface and groundwater quality and quantity, wildlife, fisheries, meteorology and air quality, archaeology, aquatics, geochemistry, terrain and soils, vegetation and ecosystems, land use and

socio-economic. These studies, currently underway, are necessary to establish the current state of the bio-physical and human environment in order to identify potential effects and measures to avoid or manage potential effects. HD Mining is undertaking engineering studies related to mine facilities and other infrastructure.



Measuring flow discharge on the Murray River

## Contact Information

For further information on the proposed Murray River Project please contact:

**Jody Shimkus:** Vice President, Environmental and Regulatory Affairs, HD Mining International Ltd.

Email: [jody.shimkus@hdminingintl.com](mailto:jody.shimkus@hdminingintl.com)

Phone: 604-689-8669

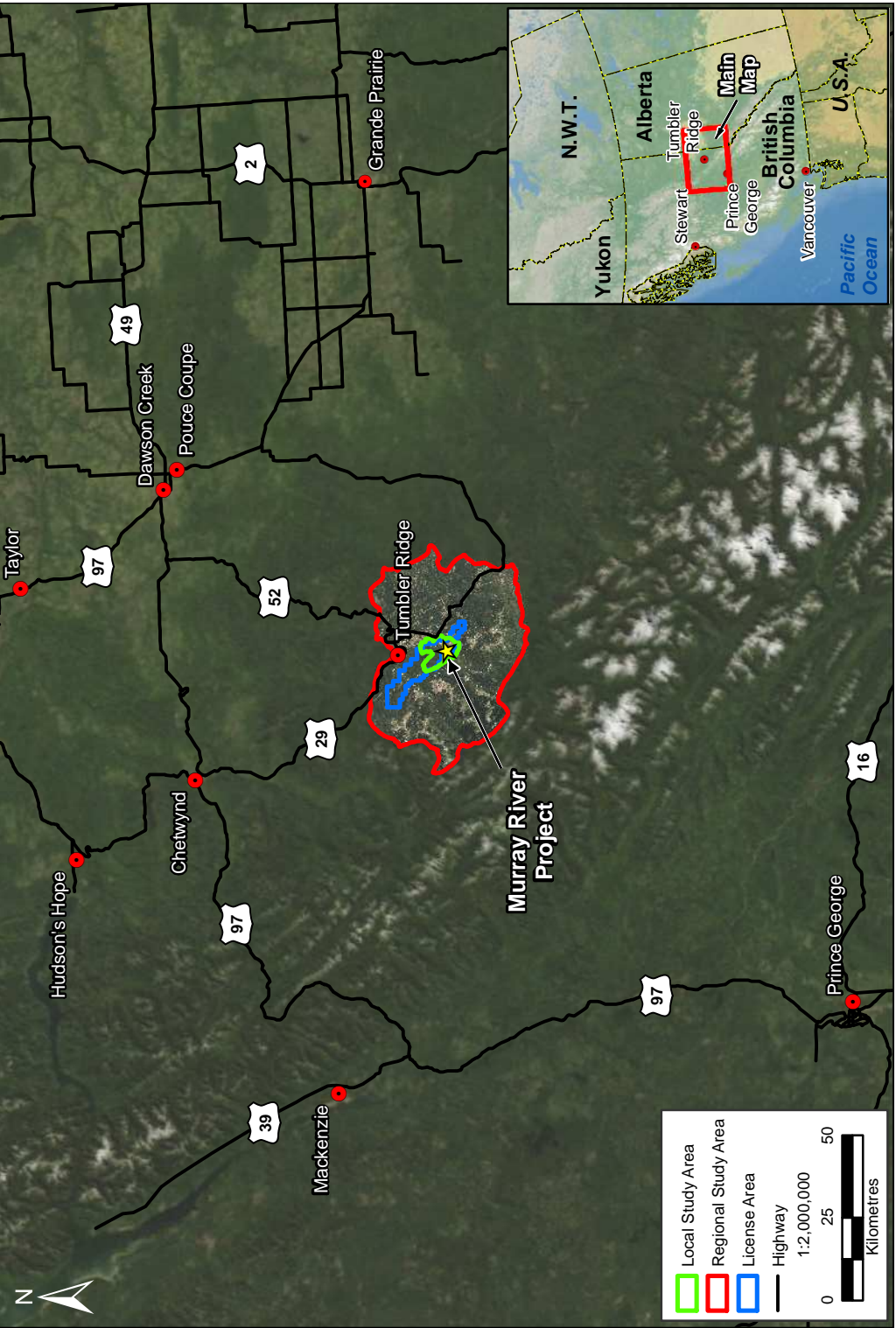
For further information on Rescan's environmental or socio-economic baseline studies please contact:





**Anne Currie:** Project Manager, Murray River Project

Email: [acurrie@rescan.com](mailto:acurrie@rescan.com)


Phone: 1-877-689-9460





-  Local Study Area
-  Regional Study Area
-  License Area
-  Highway

1:2,000,000



0 25 50  
Kilometres