



December 13, 2018

Permit: M-232
ORCS: 16080-01
Mine #: 100019

Mr. Bruce Bando
Chieftain Metals Inc.
Chieftain Metals Corp.
c/o Grant Thornton Ltd. (Court Appointed Receiver)
11th Floor, 200 King Street West
Box 11 Toronto, ON M5H 3T4

Email: Bruce.Bando@ca.gt.com

Dear Mr. Bando:

Re: Notice of Escalating Enforcement Action for Tulsequah Chief Mine

Tulsequah Chief Mine (the Mine) is located on the Tulsequah River, in the traditional territory of the Taku River Tlingit First Nation. The Mine is currently owned by Chieftain Metals (the Permittee), which received a *Mines Act* permit to conduct limited operations in relation to the Mine in 2011. The Permittee also holds a permit under the *Environmental Management Act* (EMA) with respect to discharge site runoff and effluent from the Mine Site. Currently, the Permittee is out of compliance with legislative and permit conditions applicable to the Mine. This non-compliance includes toxic effluent discharge overflowing from an exfiltration pond on the Mine into the Tulsequah River.

Numerous orders, notices, and warnings have been issued by me, as Chief Inspector of Mines (the Chief Inspector), and other officials representing the Province of British Columbia (the Province) regarding ongoing non-compliance with provincial legislation and permit conditions. Despite ample opportunity to address contamination issues, the Mine continues to be out of compliance with these regulatory requirements. This letter serves as final notice, as Chief Inspector, I will be taking action to enforce the *Mines Act* and ensure the necessary remediation is implemented at the Mine.

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Ministry of
Energy, Mines
and Petroleum Resources

Health, Safety and
Permitting Branch

Mailing Address:
PO Box 9320
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The Mine has been in care and maintenance since 2012 and pursuant to the definition under the *Mines Act* is a closed mine.

Summary of Compliance Issues to Date:

Orders and Notices Issued Under *Mines Act*

On October 24, 2016, inspection orders were issued to the Permittee pursuant to section 15 (4.1) of the *Mines Act* for non-compliance with section 21 of the *Mines Act* and section 10.1.5 of the Health, Safety and Reclamation Code for Mines in British Columbia (the Code).

On July 4, 2017 and October 27, 2017, pursuant to section 35(1) of the *Mines Act*, orders were issued to the Permittee regarding ongoing compliance issues related to health, safety, and the environment at the Mine. As laid out in the order of October 27, 2017, this includes a requirement to develop a remediation plan, non-compliance with part 10.7.20 of the Code regarding failure to implement remediation strategies to address water quality impacts to the receiving environment, as well as permit conditions pertaining to protection of the land and watercourses.

Despite notice in accordance with section 10(8) of the *Mines Act*, issued on October 27, 2017, the mine site remains out of compliance with these orders, the *Mines Act*, and *Mines Act* permit M-232.

Compliance Responses Issued Under *Environmental Management Act*

On May 11, 2012, the Ministry of Environment (ENV) issued an Advisory for the accidental release of mine water. This was followed by a Warning issued for an unauthorized bypass of the water treatment plant on July 24, 2012, and subsequently a Notice of Non-Compliance for a sludge pond seep on December 6, 2012. Further Advisories of Non-Compliance were issued on January 16, 2013 for not monitoring in accordance with the Discharge and Receiving Environment Authorization Amendment, and on October 15, 2015 for an unauthorized bypass of approved works.

On October 24, 2016, the Permittee was referred to the Conservation Officer Service (COS) for an investigation of non-compliance with permit #105719 for an unauthorized bypass of the Interim Acid Water Treatment Plant (IAWTP), which resulted in the unauthorized discharge of toxic effluent.

On August 27, 2017, the Permittee was again referred to the COS for investigation of an unauthorized bypass of the IAWTP, failure to maintain the authorized works, not submitting discharge and receiving environment monitoring results, and not submitting the 2016 annual report.

The Mine continues to be out of compliance with EMA permit #105719 with respect to failing to submit monitoring results, the bypass of works and the resulting unauthorized discharge of toxic effluent directly into the receiving environment.

Actions Taken by the Province to Address Immediate Hazards

On September 6, 2016, the Ontario Superior Court appointed Grant Thornton LLP as receiver (the Receiver) over all of the Permittee's assets, undertakings and properties. On September 26, 2016, the Chief Inspector's Office (CIO) accessed the letter of credit provided by the Permittee for \$1.2 million in reclamation security.

A joint inspection of the Mine was carried out by officials of the CIO and ENV on September 26, 2016 with respect to compliance with requirements under the *Mines Act* and EMA. In addition to numerous non-compliances with the legislation and permits (**Appendix A**), the officials identified two immediate hazards. First, hazardous chemicals were not stored in secure containers, but were left exposed at the Mine. Second, the exfiltration pond receiving discharge from the Mine was overflowing from numerous locations along its perimeter. The officials identified that the exfiltration pond may pose a risk if not immediately mitigated, including the risk of uncontrolled flooding of water and sediment into the Taku River. This was raised in a previous inspection report to the Permittee from October 15, 2015, stating the exfiltration pond was not built in accordance with the designs previously provided to the Province. The design, construction, or operation of the exfiltration pond that currently exists at the Mine was not approved through a permit under the *Mines Act*. Additionally, the Permittee was ordered to appoint a mine manager as required by the *Mines Act*.

The findings of the September 26, 2016 joint inspection were provided to the Receiver through an Inspection Record from ENV and a Report of Inspector of Mines Reclamation, both dated October 24, 2016. The latter was issued pursuant to section 15 of the *Mines Act*, and included four inspection orders including for the Permittee to take immediate action with respect to two hazards:

- 1) to remove/secure all hazardous products from the mine site, and
- 2) to take immediate action to alleviate the overflow and risk of uncontrolled flooding and sediment release identified in relation to the exfiltration pond.

In October 2016, the Province contracted SLR Consulting to conduct water sampling, sediment sampling and a fisheries habitat assessment at the Mine site, and to prepare an aquatic ecological risk assessment (AERA) based on the samples taken.

In a letter to the Chief Inspector dated November 7, 2016, the Receiver asserted it had not taken possession of the Mine, and was not obliged to do so under the Court's Order. In this letter, the Receiver stated that they did not believe it was necessary to appoint a mine manager because the Mine had been in Care and Maintenance since 2012.

The failure to appoint a mine manager is contrary to the requirement under section 21 of the *Mines Act*, which requires a mine manager to be appointed and acting at all times. Section 10.6.2 of the Code requires an owner, agent, or manager to:

- 1) continue to carry out the conditions of the permit, and
- 2) carry out a program of site monitoring and maintenance after a mine ceases operation.

No action was taken by the Permittee or the Receiver to address the two hazards identified on the Mine site in the October 24, 2016

Report of Inspector of Mines Reclamation.

In December 2016, the CIO hired a contractor to store and properly secure all chemicals remaining on site. The Permittee and the Receiver were advised by letter in August 2017 regarding further works the CIO would be undertaking in September 2017, in relation to the exfiltration pond to address the immediate stability concerns. A spillway was constructed to convey the overflow from the exfiltration pond. The CIO spent a total of \$140,313.00 to complete these works, which addressed only the immediate hazards on the site, and to complete the 2016 AERA detailed below.

At this time, contamination and acid rock drainage from the Mine continues to flow directly into the Tulsequah River and associated waterways.

Water Quality Issues

In April 2017, the results of the AERA were submitted to ENV by SLR Consulting. The AERA calculated risk estimates for fish, fish eggs, and aquatic invertebrates using maximum concentrations for contaminants of potential concern that were specific to zones of the Mine site. The AERA showed that risk estimates were highest near the discharge zone, because multiple undiluted and untreated sources of mine waste were discharging into the Tulsequah mainstem and side channels. The AERA determined that, proximate to the discharge zone, metal concentrations posed unacceptable risks to fish, fish eggs and pelagic invertebrates. These results were posted online in July 2017.

During 2017, the CIO carried out a compliance review in relation to the Mine, including requirements under the *Mines Act* permit M-232, annual reports submitted by the Permittee, and the AERA. In particular, the CIO reviewed the Permittee's performance in relation to the requirement to collect and treat acid waters discharged from the mine portals, through which waters are being discharged directly into the receiving environment. Through this review, it was confirmed that the Permittee was out of compliance with the conditions of their *Mines Act* permit pertaining to protection of the land and watercourses as well as requirements under the Code.

On October 27, 2017, the Permittee was issued an order pursuant to section 35(1) of the *Mines Act* requiring it to provide the Chief Inspector with a remediation plan (Plan) setting out remediation strategies and how they will be implemented to mitigate the discharge of acid waters into the receiving environment, and to address the exceedance of provincial water quality standards by discharges into the environment. The order specified that the Plan include:

- 1) consideration of required mine reclamation activities that would contribute to mitigation efforts, and
- 2) capital and operating costs associated with the implementation of the plan.

With respect to the Plan, the order acknowledged that SLR Consulting had been contracted on behalf of West Face Capital Inc. to produce a report that could address the order requirements and that this report might be considered as meeting the requirements of the October 27, 2017 order "provided that the report addresses the objectives set out in the scoping document for the report provided to EMPR on August 29, 2017".

The October 27, 2017 order served as notice under section 10 (8) of the *Mines Act* for the Permittee to remedy a failure to comply with a condition of the M-232 permit to the satisfaction of the Chief Inspector by November 30, 2017 or face escalating enforcement action.

An extension to February 28, 2018 from the November 30, 2017 deadline was granted on receipt of a request from the Receiver dated November 2, 2017.

On February 12, 2018, the CIO received the SLR Tulsequah Remediation Concepts Report, prepared by SLR Consulting on behalf of West Face Capital Inc.

Following a comprehensive review of the SLR Report, the Permittee was advised by letter on August 8, 2018 that there was outstanding information that needed to be submitted before the Permittee could be considered to be in compliance with the Order, namely:

- a plan (including costing) for the disposal of sludge produced as a by-product of the water treatment system;
- an implementation plan that clearly articulates the timeline in which the recommended remediation strategies will be implemented; and
- the estimated long-term capital and operating costs of water treatment.

The letter required the Permittee to submit the outstanding information to the Chief Inspector by October 8, 2018. Further, it stated if the deadline was not met, escalating enforcement action may be pursued and/or further action taken by the Chief Inspector, or delegate, to ensure that necessary remediation is implemented at the site. No revisions to the Plan were submitted by the October 8, 2018 deadline.

Conclusion

The Permittee remains in non-compliance with the *Mines Act*. In accordance with section 10(8) of the *Mines Act*, as Chief Inspector, in order to scope the costs, timelines and the level of remediation and reclamation required at the site to mitigate contamination from the Mine, I issued a Request for Proposals (RFP) on November 6, 2018.

To date, the security held by the CIO has been used to complete the AERA and to carry out the physical works undertaken by the CIO in 2016 and 2017 to contain hazardous waste at the Mine and mitigate risks at the exfiltration pond. The remaining \$1,154,687 will be put towards the implementation of the reclamation and remediation of the Mine. Any costs exceeding the security will be considered debt due, as per section 17(3) of the *Mines Act*, and, as I set out in my letter to you of July 26, 2017, any costs not covered by the security will be secured by a super-priority lien under section 14.06(7) of the *Bankruptcy and Insolvency Act* on the real property or immovable affected by the environmental condition and any other real property or immovable of the Permittee that is contiguous with that real property or immovable and that is related to the activity that caused the environmental condition.

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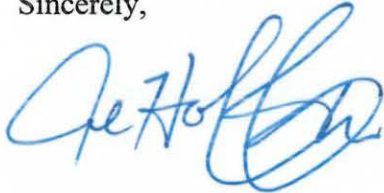
It is my understanding that this lien would have priority over any secured creditors and can attach to interests in real property such as the mineral titles held by the Permittee.

On behalf of the Province, I would like to emphasize that the ongoing impacts to fish and fish habitats, and to Indigenous rights as a result of contamination from the Mine, are not acceptable.

The Taku River Tlingit First Nation has communicated their ongoing concerns with the Mine and its impacts to their Indigenous rights to the Ministry and the Province intends to take steps to address these concerns as soon as possible.

If you require clarification on any items outlined in this letter, please contact Diane Howe, Deputy Chief Inspector of Abandoned Mines, Diane.Howe@gov.bc.ca or (250) 952-0183.

Sincerely,



Al Hoffman, P.Eng.
Chief Inspector of Mines

AH/MB

cc: Tania Demchuk, Deputy Chief Inspector, Compliance and Enforcement, EMPR
Diane Howe, Deputy Chief Inspector, Abandoned Mines, EMPR
Mark Messmer, Chief Gold Commissioner, Mineral Titles, EMPR

Appendix A

Ministry Responsible	Legislation/Permit Requirements	Requirement Description	Compliance
Energy and Mines	10.7.20 Health Safety and Reclamation Code for Mines in British Columbia	If water quality from any component of the mine results in exceedances of applicable provincial water quality standards in the receiving environment, when required by the Chief Inspector, remediation strategies shall be implemented for as long as is necessary to mitigate the problem.	Out of Compliance
Energy and Mines	Permit M-232 C.1.(a) Protection of the Land and Watercourses	The Permittee shall collect and treat all water discharging from the 5200, 5400 and 5900 level portals.	Out of Compliance
Energy and Mines	Permit M-232 C.1.(c) Protection of the Land and Watercourses	All drainage collection and treatment facilities shall be operated and maintained for as long as is necessary to achieve environmental protection requirements, as required by the Chief Inspector.	Out of Compliance
Energy and Mines	Permit M-232 C.1.(d) Protection of the Land and Watercourses	The Permittee shall track the volume and quality of drainage inputs and outputs of the treatment system (including pH, acidity, metal concentrations), as well as the volume of lime used and sludge volumes generated. This information shall be reported in the Annual Reclamation Report.	Out of Compliance
Energy and Mines	Permit M-232 C.2.(a) Protection of the Land and Watercourses	A long term sludge storage plan shall be submitted to the Chief Inspector by December 15, 2013.	Out of Compliance
Energy and Mines	Permit M-232 C.4. Protection of the Land and Watercourses	The Annual Reclamation Report shall include data and interpretation of site water quality monitoring outlined in the Environmental Monitoring and Surveillance Plan as well as a summary of the operation of the acid-water treatment plant, reagent use, water quality trends and updated cost estimate for operating and maintaining the acid water treatment system and sludge facility.	Out of Compliance

Appendix A

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Energy and Mines	Permit M-232 2.(a)(b) Reclamation Program	Continue to carry out the conditions of the permit in conformity with Part 10 of the Code, and carry out a program of site monitoring and maintenance.	Out of Compliance
Energy and Mines	Permit M-232 2.(b)(i) Work System	Regular inspection of sediment control ponds, perimeter diversion and collection ditches shall be undertaken and the results included in the annual Inspection report for the storage facilities.	Out of Compliance
Energy and Mines	Permit M-232 2.(b)(ii) Work System	The Permittee shall implement a Maintenance and Surveillance Manual prepared by a qualified professional for all water management structures, diversion channels and stream crossings.	Out of Compliance
Energy and Mines	Permit M-232 5.(a)(iii) Protection of the Land and Watercourses	In the event that the mine site drainage is not of acceptable discharge quality, the Permittee shall collect and treat, or otherwise mitigate drainage for as long as is necessary.	Out of Compliance
Energy and Mines	Permit M-232 2.0 Contingency Reclamation and Closure Plan	In the event the project does not proceed with further mine development, the Permittee shall follow the contingency closure plan as detailed in the Application, Section 11.4, for those areas of the mine affected by the activities of this permit. In addition the Permittee shall submit a report providing the status of the work system and a breakdown of outstanding liabilities, a compilation of all monitoring data and a schedule for completion of final reclamation and closure works.	Out of Compliance
Environment	Environmental Management Act	Environmental Management Act 6(2): Subject to subsection (5), a person must not introduce or cause or allow waste to be introduced into the environment in the course of conducting a prescribed industry, trade or business.	Out of Compliance
Environment	Permit 105719	Any bypass of the authorized works is	Out of

Appendix A

Ministry Responsible	Legislation/Permit Requirements	Requirement Description	Compliance
	2.1 Bypasses	prohibited unless the approval of the Director is obtained and confirmed in writing.	Compliance
Environment	Permit 105719 2.3 Maintenance of Works and Emergency Procedures	The authorized works must be inspected regularly and maintained in good working order. In the event of an emergency or condition beyond the control of the Permittee which prevents effective operation of the authorized works or leads to an unauthorized discharge, the Permittee must take appropriate remedial action and notify the Director immediately. The Director may reduce or suspend operations to protect the environment until the authorized works have been restored, and/or corrective steps taken to prevent unauthorized discharges.	Out of Compliance
Environment	Permit 105719 5.1 Reporting of Monitoring Results	Field and lab monitoring results, including a summary of non-compliances and corrective actions taken, shall be submitted to the Regional Waste Manager, Environmental Protection or designate within 30 days of the end of the month in which the monitoring occurred. Submissions are to be in tabulated and/or graphical formats approved by the Director, and will include interpretation comments.	Out of Compliance
Environment	Permit 105719 5.7 Annual Report	The Permittee shall submit an annual report by March 31 st of each year, with the first report submitted on March 31, 2013. The annual report shall include, but not be limited to: summaries of the operation of the treatment facilities and other pollution control works; the discharge quality and quantity; sludge quality and quantity; sampling and analytical requirements; analysis and interpretation of trends in environmental monitoring data, and recommendations for improvements to water management and pollution control works and monitoring programs.	Out of Compliance