

The EAO's Assessment of a Request for Non-Material Amendment

Murray River Coal Project
EA Certificate #M15-03

Requested by:
HD Mining International Ltd

March 23, 2018

Pursuant to Section 7(1) of Certificate #M15-03 and Section 19 of the Environmental Assessment Act, S.B.C. 2002, c.43

1. OVERVIEW OF REQUEST

The Murray River Coal Project (Project) is an underground coal mine, located approximately 12.5 kilometers south of Tumbler Ridge. HD Mining International Ltd. (HD Mining) received Environmental Assessment Certificate (EAC) #M15-03 under the BC *Environmental Assessment Act* (Act) for the Project on October 1, 2015. The Environmental Assessment (EA) assessed the underground coal mine and supporting surface infrastructure, including a coal processing facility, 230 kilovolt (kV) transmission line and substation, and natural gas pipeline. The Project also required a federal EA under the *Canadian Environmental Assessment Act*, and federal authorization for the Project was granted on December 13, 2017.

On December 12, 2017, HD Mining submitted a memorandum to the Environmental Assessment Office (EAO) outlining nine (9) proposed changes to the project (see Table 1 and Figures 1 and 2). HD Mining requested a determination on the materiality of the proposed changes, and requested that the Certified Project Description (CPD) of the EAC be amended to include these changes if they are determined to be not material in nature. The full text of HD Mining’s request for non-material amendment and an accompanying memo is posted on the EAO Project Information and Collaboration (EPIC) website at <https://projects.eao.gov.bc.ca/p/murray-river-coal/docs?folder=51>.

The request was made in accordance with section 7(1) of the Project EAC, which states that the Holder may submit a written request to the Executive Director of the EAO seeking a determination that proposed changes to the project described in Schedule A (the CPD) are not material in nature. If the Executive Director determines that the proposed changes to the project are not material in nature, then the Executive Director may make a decision to amend Schedule A pursuant to section 19(3) of the Act. If the Executive Director determines that the proposed changes to the project are material in nature, then the Holder must apply to the Executive Director to amend Schedule A pursuant to section 19(1) of the Act.

Eight of the proposed changes are in relation to approved project components identified in the CPD and EA application. While Proposed Change 2, a Ventilation Air Methane (VAM) oxidizer, was not identified in the CPD or EA application, it is proposed as an additional mitigation measure for methane management and is required under the federal authorization. In a subsequent memorandum clarifying the proposed changes, HD Mining withdrew Proposed Change 9 from the request.

Table 1: List and Description of Proposed Project Changes

Proposed Change	Description
1: Relocation of 230 kV transmission line and tie-ins to the BC Hydro grid and substation	Install the 230 kV transmission line (including the BC Hydro tie-in and substation) in the same corridor as the 10 kV transmission line
2: Addition of VAM oxidizer for methane management	Include a VAM oxidizer in the surface infrastructure for the management of methane emissions
3: Relocation of M19A Creek Crossing	Relocate the planned bridge crossing over the M19 Creek closer to the coal preparation plant

Table 1: List and Description of Proposed Project Changes

Proposed Change	Description
4: Additional Unsuitable Material Stockpiles	Add additional unsuitable stockpiles to planned overburden and soil storage areas
5: Realignment of Water Discharge Pipeline	Realign the water discharge pipeline to accommodate additional unsuitable material stockpiles
6: Remapping of M19A Creek Riparian Buffer	Remap M19A riparian buffer to align with site-specific knowledge of streamlines
7: Realignment of Gas Pipeline	Realign the natural gas pipeline to follow the access road to the mine site
8: Addition of Laydown Area	Add a laydown area to stage and organize building materials, equipment, and personnel
9: Change to Secondary Shaft Layout	Request withdrawn in subsequent clarification memorandum

2. COORDINATED PERMITTING PROCESS FOR THE PROJECT

After the EAC was issued, HD Mining applied for provincial authorizations to construct and operate the Project. In April 2017, HD Mining submitted a joint application for *Mines Act* (MA) and *Environmental Management Act* (EMA) permits, along with various applications related to access and ancillary infrastructure (e.g. License to Cut, Water License, and License of Occupation). A coordinated review of HD Mining’s applications was undertaken by the Mine Review Committee (MRC) led by the Major Mines Permitting Office (MMPO).

The project design that was submitted as part of HD Mining’s applications for MA/EMA permits differs slightly from the CPD contained in Schedule A of the EAC (as shown on Figure 1). The request for a non-material amendment identifies proposed changes to the CPD that, if approved, would align with the project design described in the proposed MA/EMA permits (as shown on Figure 2).

The MRC has now completed its review of the applications submitted by HD Mining through the coordinated review process. During the screening and review phases, the MRC tracked the issues and technical comments that were provided by members of the MRC. Major technical questions and concerns have been addressed in the proposed permit conditions. Draft MA and EMA permits have now been developed and were reviewed by HD Mining, First Nations, and the MRC. The MMPO has advised the EAO that the final MRC summary report and proposed permits are expected to be delivered to the statutory decision-makers for decision in March 2018.

Under section 9 of the Act, no other provincial authorizations may be issued for a project that requires an EA until the project has a valid EAC. As the project design submitted as part of HD Mining’s application for proposed MA/EMA permits differs from the CPD, the MA and EMA permits may not be issued until the EAC is amended to reflect the proposed design. Once the Executive Director has made a decision under section 19(1) or 19(3) of the Act on proposed changes to the Project, permitting agencies can then make a decision on the permit applications submitted as part of the MRC process.

Figure 1: EAC #M15-03 Murray River Coal Project Overview Map October 1, 2015

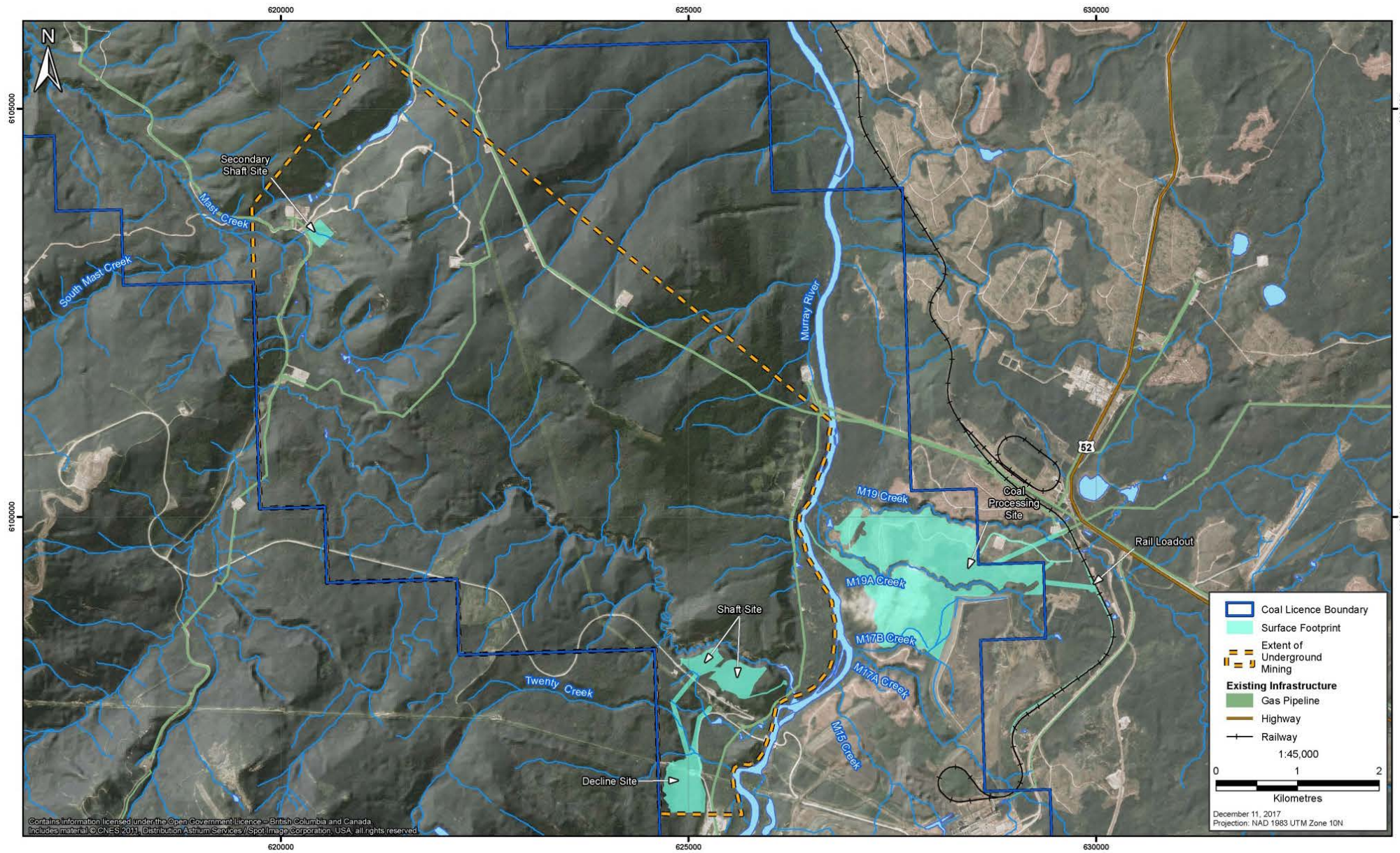
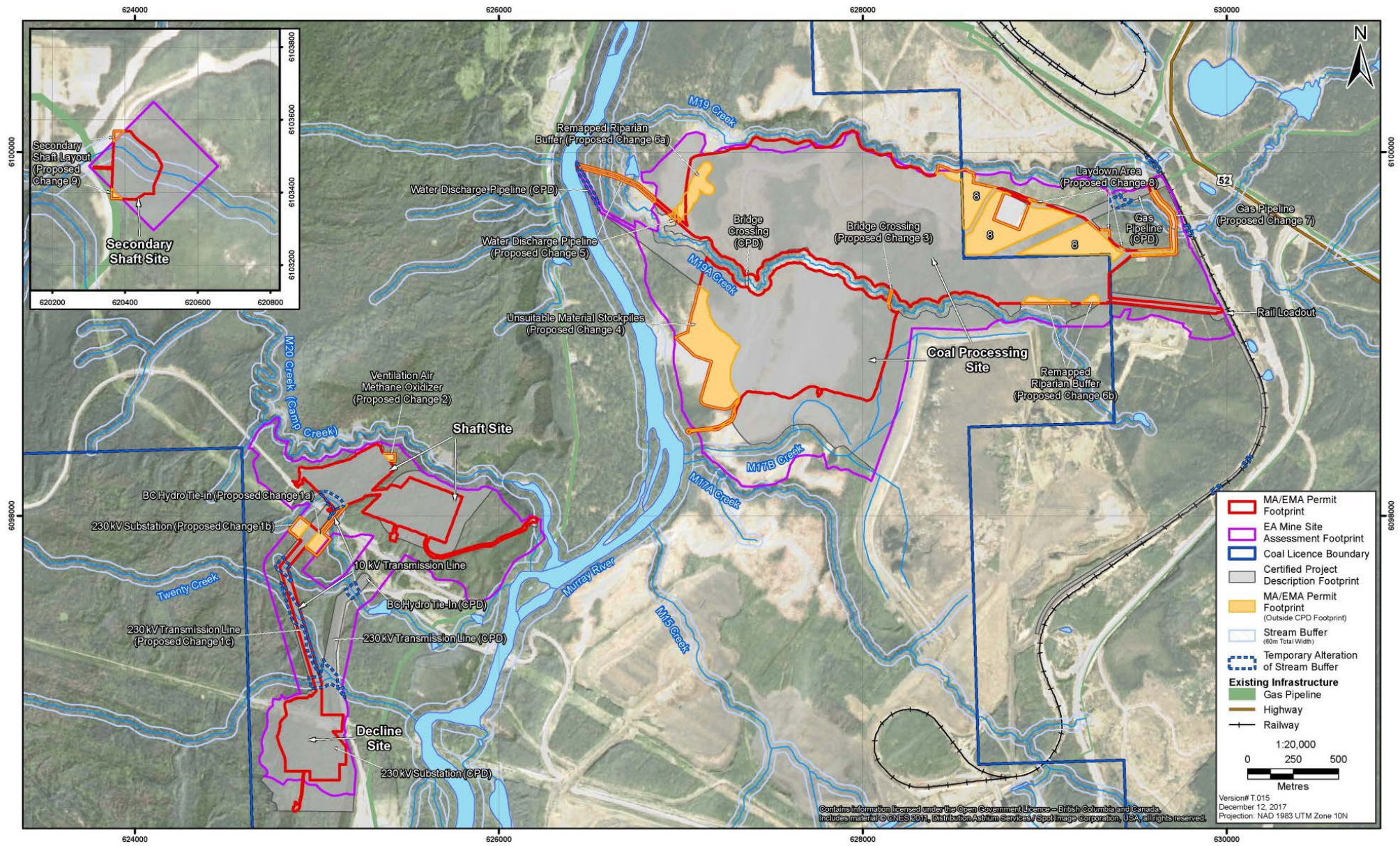


Figure 2: Proposed Changes to the Murray River Coal Project



3. REVIEW PROCESS FOR THE NON-MATERIAL AMENDMENT REQUEST

The EAO engaged with permitting agencies including the Ministry of Energy, Mines and Petroleum Resources (EMPR), Major Mines Permitting Office (MMPO), Ministry of Forests, Lands, Natural Resource Operations and Rural Development and Ministry of Environment and Climate Change to better understand the proposed changes in relation to the ongoing permitting processes and any potential adverse effects.

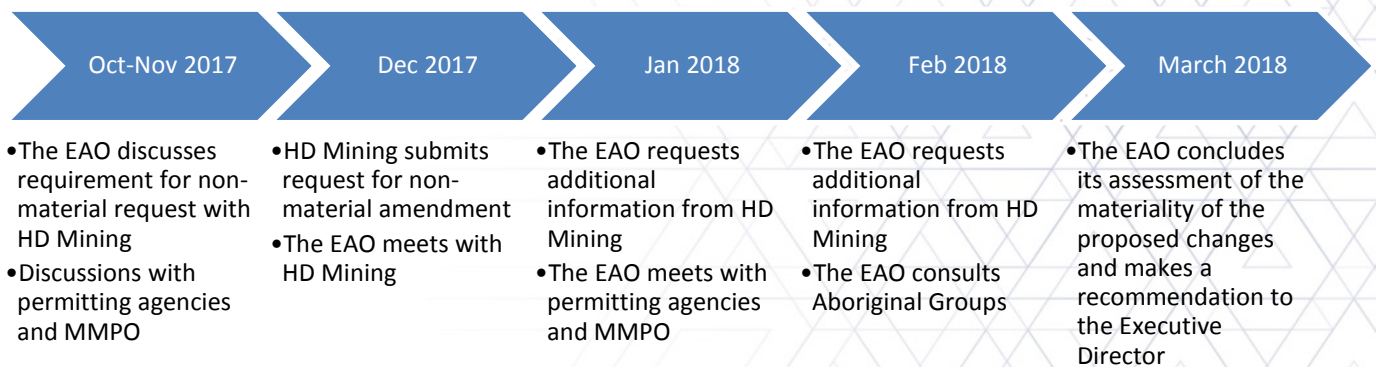
On February 1, 2018, the EAO sought feedback from Aboriginal Groups regarding HD Mining’s request for a non-material amendment of the Project’s EAC, and the materiality of the proposed changes to the Project. Saulneau First Nations, West Moberly First Nations and McLeod Lake Indian Band provided consolidated feedback on the proposed changes on February 22, 2018 (see Section 4 for more information on consultation with Aboriginal Groups).

The EAO requested additional information related to the proposed changes from HD Mining on January 30, 2018, and on February 14, 2018. In response, HD Mining submitted supplementary information on February 9 and 16, 2018. As a result of the EAO’s information requests, HD Mining also removed Proposed Change 9, associated with the secondary shaft site, from their non-material amendment request. Proposed Change 9 is not part of the five-year mine plan assessed by the MRC as part of the joint MA/EMA application. The engineering design for this infrastructure will be completed later in the mine life, and HD Mining has acknowledged that in the future, when the secondary shaft site is to be developed, deviation from the CPD would require amendment of the EAC.

To remain apprised of any issues with the proposed changes arising in the permitting process, the EAO participated in regular meetings with the MRC and MMPO. A key topic of discussion with these agencies was how the proposed MA/EMA permits, along with the EAC conditions, would contribute to the mitigation of potential adverse effects. As the coordinated review of the MA/EMA permit applications was underway, the EAO made every effort to align the review process for the requested non-material amendment of the EAC with the MRC process timelines.

The review process timeline is provided in Figure 3.

Figure 3: Review Process Timeline



4. ABORIGINAL CONSULTATION

During the provincial EA process that led to the issuance of the Project's EAC, the EAO consulted and engaged with Treaty 8 First Nations regarding the potential impacts of the Project on their established Treaty 8 rights to hunt, trap and fish. As outlined in the Section 11 Order issued in December 2012, the Project area lies in, or is in the vicinity of, the traditional use territories of West Moberly First Nations, Saulteau First Nations, and McLeod Lake Indian Band. As such, these three groups were consulted during the EA regarding potential adverse effects on their Treaty 8 rights. Also in accordance with the Section 11 Order, the EAO notified Fort Nelson First Nation, Prophet River First Nation, Doig River First Nation, Blueberry River First Nations, and Halfway River First Nation of key project milestones. The EAO also provided notifications of key project milestones to Horse Lake First Nation in accordance with a Section 13 Order issued in December 2014.

Consultation Undertaken by the EAO

In alignment with the consultation undertaken during the EA, the EAO consulted with Saulteau First Nations, West Moberly First Nations, McLeod Lake Indian Band and Horse Lake First Nation on HD Mining's request for a non-material amendment of the EAC and whether the proposed changes are material in nature. On February 1, 2018, the EAO provided the four groups with information about the proposed changes and requested feedback by February 22, 2018.

Three days in advance of the letters being sent, the EAO attended a MRC consultation meeting and informed Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band of EAO's review process with respect to the request for a non-material amendment.

Horse Lake First Nation did not respond to the EAO's February 1, 2018 letter. Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band provided consolidated feedback on the proposed changes on February 22, 2018. These three Aboriginal Groups provided feedback regarding the impact of the relocated project components on riparian areas and water quality relating to the relocation of the M19A Creek crossing (Proposed Change 3), the realignment of the water discharge pipeline (Proposed Change 5), and the realignment of the natural gas pipeline (Proposed Change 7). The Aboriginal Groups also provided feedback that the mass and footprint of the additional unsuitable material stockpiles (Proposed Change 4) was not incorporated into the project's Groundwater Model and Water Quality, and that geochemical characterization of the 'unsuitable' material had not been performed.

Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band expressed similar concerns through the MRC process and provided comments to the MRC on February 26, 2018, regarding the proposed changes under consideration by the EAO. Throughout the MRC process, Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band raised concerns with water quality for all mines operating in their territory and requested all mines meet the drinking water guidelines at the end of the discharge pipe to ensure that community members can practice their Treaty Rights in the area without concerns of water contamination.

The EAO reviewed and discussed the concerns raised by First Nations with MMPO and EMPR to better understanding how the EMA/MA permits would address Aboriginal Groups' concerns, and has come to

the conclusion that through the proposed MA/EMA permit conditions, management plans, and the conditions of the EAC, the Aboriginal Groups' concerns and comments have been adequately addressed.

On February 21, 2018, Saulteau First Nations provided the EAO with a letter of support for the Project and advised that Saulteau First Nations supports the Project, and will not oppose or challenge the approval required for the construction and operations of the project. Saulteau First Nations also indicated that they had signed an agreement with HD Mining that provides a package of benefits to Saulteau First Nations and that appropriately accommodates the potential impacts on their rights and interests. Saulteau First Nations' expectation is that future permits and amendments that may result in new or increased impact on the environment or its Section 35 rights, or an impact that is significantly different in kind, degree or location as currently planned, would still undergo Crown consultation with Saulteau First Nations. On March 13, 2018, West Moberly First Nations provided the EAO with a similar letter of support for the Project and indicated they had also signed an agreement with HD Mining that provides a package of benefits to West Moberly First Nations and this agreement had appropriately addressed the potential impacts on their rights and interests.

Once the Executive Director has made a decision on whether the eight proposed changes to the Project are not material in nature, the EAO will respond to the February 22, 2018, coordinated response from Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band, with the decision and rationale for the decision.

Consultation Undertaken by HD Mining

Since 2012, HD Mining has engaged with Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band in a First Nations Independent Technical Review (FNITR) process. The FNITR evaluates technical documents and information relating to the project with the objective to seek resolution to issues raised by the three Aboriginal Groups in relation to the Project directly with HD Mining.

Since the completion of the provincial EA process, HD Mining and the FNITR have been developing work plans for the following management plans: Vegetation and Invasive Plant Management; Adaptive Water Management; Fish and Fish Habitat; Wetland Management; Subsidence Management; Contaminants of Potential Concern; and Wildlife and Caribou. The work plans include commitments and timelines for the completion of specific deliverables by HD Mining during the construction and operation of the project. In a letter provided to Saulteau First Nations on February 21, 2018, HD Mining committed to addressing outstanding concerns raised through the FNITR process through further discussion, completion, and implementation of work plans, in particular relating to water quality and caribou.

HD Mining also responded to concerns raised throughout the MRC process and through continued development of management plans and ongoing monitoring activities for the Project. HD Mining provided a copy of that February 21, 2018, letter of commitment to regulatory authorities, including the EAO.

As noted above, HD Mining recently signed agreements with both Saulteau First Nations and West Moberly First Nations. The EAO understands that HD Mining is currently negotiating a Mutual Benefits Agreements with McLeod Lake Indian Band.

The joint application for MA/EMA permits was provided to the potentially affected Treaty 8 Aboriginal

Groups during the November 2016 screening of the application by the MMPO through the MRC and during the formal review of the application in April 2017. As part of the FNITR process, HD Mining met with Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band on December 4, 2017, to review the proposed project design changes in advance of submitting the December 11, 2017, memorandum to the EAO. No specific issues were raised during the meetings.

As part of the FNITR process, Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band provided comments to HD Mining on the proposed changes on February 7, 2018. Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band expressed concerns similar to those they provided to the EAO and requested further information from HD Mining. HD Mining provided a response consistent with their February 16, 2018, memo to the EAO that addressed specific concerns relating to the contents and context of the unsuitable material stockpile with other material in the CPD, water quality, and riparian area sensitivities. Saulteau First Nations, West Moberly First Nations, and McLeod Lake Indian Band received further clarification and detailed responses to their concerns by HD Mining and MA/EMA permitting agencies in response to their February 26, 2018, memo to the MRC.

5. CONSIDERATION OF SECTION 7(2) FACTORS

Section 7(2) of the Project EAC states that, in determining whether any changes to the Project activities proposed by the Holder are not material in nature, the Executive Director may consider, among other things:

- a. If the change request concerns the location of Project components, the proximity of the proposed location to the location referenced in Schedule A;
- b. The purpose of the proposed changes to Project activities described in the change request;
- c. Whether the proposed activities were considered in any regulatory or approval process that concluded after the date of this Certificate;
- d. Whether or to what extent the proposed activities or similar activities were considered in the application and assessment;
- e. Whether, after any consultation with Aboriginal Groups undertaken by the Holder or any further such consultation directed or undertaken by the Executive Director, the proposed activities may adversely affect Aboriginal Interests that were not (i) considered in the application and assessment, or (ii) considered in any regulatory or approval processes that concluded after the date of this Certificate; and
- f. Whether and to what extent the conditions in this Certificate constitute practical means of preventing or reducing any potential adverse effects that will, or are reasonably likely to, result from the proposed activities.

The EAO assessed the materiality of each of the eight proposed changes to the Project considering using the factors outlined in Section 7(2) of Schedule A of the EAC. Table 2 provides details of the analysis as

well as the EAO's conclusion for each of the proposed changes.

Summary of Table 2 Analysis

It is the EAO's view that the eight proposed changes to the Project are not material in nature. The EAO's analysis considered:

- The EAC's section 7(2) materiality factors;
- The EAC's CPD and conditions;
- The assessment footprint used in HD Mining's application for an EAC for the Project. As defined in the EA application, the assessment footprint is in an area that extends beyond the infrastructure footprint and allows for minor adjustments in the realized construction and operation of the Project;
- Review of the MA/EMA permitting process and proposed permit conditions;
- Comments from Aboriginal Groups.

All of the proposed changes were incorporated into the design that was submitted as part of HD Mining's joint application for MA/EMA permits and associated access and ancillary infrastructure. The proposed changes were incorporated into the MA and EMA permit areas, and are subject to the regulatory oversight and conditions under the MA, the EMA, the *Water Sustainability Act*, the *Coal Act*, the *Land Act*, and the *Forest Act*. The proposed MA and EMA permits for the Project include monitoring and qualified professional requirements that are congruent with the EAO's requirement for a qualified professional as the Independent Environmental Monitor. HD Mining is developing management plans that fulfill both the EAO's and other legislative requirements (e.g. the Runoff, Erosion and Sediment Control Plan fulfills EAC condition 16 and the proposed EMA and MA permit conditions).

The proposed changes align with project activities and infrastructure considered in the EA. A 230 kV transmission line (Project Change 1), a M19A bridge crossing (Project Change 3), overburden storage areas (Project Change 4), water management structures (Project Change 5), riparian and wetland areas (Project Change 6), and a natural gas pipeline (Project Change 7) were assessed and listed as project components in the CPD or the maps in Schedule A. While a VAM oxidizer (Project Change 2) was not included in the assessment, the addition of this component to the mine's surface infrastructure will improve greenhouse gas management. While a laydown area (Project Change 8) was not explicitly considered in the EA, the application notes that initial site preparation will require land clearing and other temporary infrastructure within the coal processing site.

As the proposed changes align with project activities and infrastructure considered in the EA, the potential adverse effects would be effectively mitigated by the EAC conditions in conjunction with the proposed MA/EMA permitting requirements. HD Mining must comply with the EAC conditions, and the proposed changes do not impact HD Mining's ability to meet these conditions.

There are 4 proposed changes (4, 5, 7 and 8) that fall outside of the EA Local Study Area (LSA) for Archeological and Heritage Resources (additional unsuitable material stockpiles, realigned water discharge pipeline and gas pipeline, and addition of a laydown area). HD Mining is developing a Heritage Management Plan (EAC condition 15) and the proposed MA permit will include a condition requiring field surveys before any mechanized surface disturbance in accordance with the *BC Heritage Conservation Act* to address any potential adverse effects for proposed changes that fall outside of the EA's LSA for Archeological and Heritage Resources.

Table 2. Summary of Section 7(2) Factors, Overall and by Proposed Change

Proposed Changes	a) Location		b) Purpose	c) Other Approvals	d) Considered in EA	e) Effect on Treaty 8 Rights	f) Extent EAC Conditions Can Address Potential Adverse Effects	Conclusion
Overall	<ul style="list-style-type: none"> Five proposed changes (1, 3, 5, 6, and 7) involve the relocation of Project components Three proposed changes (2,4,8) involve new or expanded infrastructure 	<ul style="list-style-type: none"> Increases overall Project footprint by 26.5 ha (36.8 hectares (ha) added and 10.3 ha removed) 	<ul style="list-style-type: none"> The proposed changes are the result of engineering refinements to the Project design The changes would be the that approved infrastructure and in some cases, reduce the CPD area 	<ul style="list-style-type: none"> The proposed changes are incorporated in the Project design reviewed during the coordinated MA/EMA permitting process 	<ul style="list-style-type: none"> The proposed changes are to Project activities and infrastructure that were considered in the EA process With the exception of 1.46 ha, all proposed changes are located within the EA mine site assessment footprint 	<ul style="list-style-type: none"> See Section 4 of report 	<ul style="list-style-type: none"> As the Project activities were largely considered in the EA, the potential adverse effects would be effectively mitigated by the EAC conditions in conjunction with the proposed MA/EMA permitting requirements HD Mining must comply with the EAC conditions, and the proposed changes do not impact HD Mining’s ability to meet these conditions 	<p><u>The proposed changes are not material in nature.</u></p>
1. Relocation of 230 kV transmission line, BC Hydro tie-in and substation	<ul style="list-style-type: none"> Within assessment footprint Adjacent to CPD footprint 	<ul style="list-style-type: none"> Reduction of CPD footprint by 4.5 ha 	<ul style="list-style-type: none"> Relocates the 230 kV transmission line into the same corridor as the 10 kV transmission line corridor listed in the EAC 	<ul style="list-style-type: none"> This design was reviewed during the coordinated MA/EMA permitting process 	<ul style="list-style-type: none"> A 230 kV transmission line, BC Hydro tie-in, and substation were considered in the EA 	<ul style="list-style-type: none"> No issues raised by FNs regarding the proposed change 	<ul style="list-style-type: none"> Conditions for Independent Environmental Monitor (IEM) (Condition 1) Wetland Management Plan (Condition 9) Fish and Fish Habitat Management (Condition 10) Wildlife Management Plan (Condition 11) Heritage Management Plan (Condition 15) Invasive Species Management Plan (Condition 17) Vegetation Management Plan (Condition 23) 	<p><u>Not Material.</u> Reasons include:</p> <ul style="list-style-type: none"> Located within the assessment footprint and adjacent to CPD footprint Results in a net CPD footprint reduction of 4.5 ha and reduces the need for temporary alteration of riparian buffers, fish and rare plants (dainty moon wort) No concerns raised by Aboriginal Groups regarding the proposed change Potential adverse effects are addressed by adherence to EAC and proposed MA/EMA permit conditions

Table 2. Summary of Section 7(2) Factors, Overall and by Proposed Change

Proposed Changes	a) Location		b) Purpose	c) Other Approvals	d) Considered in EA	e) Effect on Treaty 8 Rights	f) Extent EAC Conditions Can Address Potential Adverse Effects	Conclusion
2. Addition of VAM Oxidizer	<ul style="list-style-type: none"> • Within assessment footprint • Adjacent to CPD footprint 	<ul style="list-style-type: none"> • Addition of 0.2 ha to CPD footprint 	<ul style="list-style-type: none"> • Improves management of greenhouse gas (methane) 	<ul style="list-style-type: none"> • This design was reviewed during the coordinated MA/EMA permitting process 	<ul style="list-style-type: none"> • Greenhouse gas management considered in the EA • Constitutes an additional mitigation measure for methane 	<ul style="list-style-type: none"> • No issues raised by FNs regarding the proposed change 	<ul style="list-style-type: none"> • Conditions for IEM (Condition 1) • Wildlife Management Plan (Condition 11) • Heritage Management Plan (Condition 15) • Invasive Species Management Plan (Condition 17) • Air Quality and Dust Management Plan (Condition 18) • Vegetation Management Plan (Condition 23) 	<p><u>Not Material.</u> Reasons include:</p> <ul style="list-style-type: none"> • Located within the assessment footprint and adjacent to CPD footprint • Serves as additional mitigation measure for methane • No concerns raised by Aboriginal Groups regarding the proposed change • Potential adverse effects are addressed by adherence to EAC and proposed MA/EMA permit conditions
3. Relocation of M19A Creek Crossing	<ul style="list-style-type: none"> • Within assessment footprint • Adjacent to CPD footprint 	<ul style="list-style-type: none"> • No change in CPD area 	<ul style="list-style-type: none"> • Optimizes travel within mine site 	<ul style="list-style-type: none"> • This design was reviewed during the coordinated MA/EMA permitting process 	<ul style="list-style-type: none"> • CPD map contains a bridge crossing location 	<ul style="list-style-type: none"> • Saulteau First Nations, West Moberly First Nations, and McLeod Lake Indian Band provided feedback about the impact of the proposed change on water quality and riparian areas 	<ul style="list-style-type: none"> • Conditions for IEM (Condition 1) • Riparian Buffers (Condition 6) • Wetland Management Plan (Condition 9) • Fish and Fish Habitat Management (Condition 10) • Runoff, Erosion, and Sediment Control (Condition 16) • Traffic and Access Management Plan (Condition 22) 	<p><u>Not Material.</u> Reasons include:</p> <ul style="list-style-type: none"> • Located within the assessment footprint and adjacent to the CPD footprint • The coordinated permit review process has concluded and the proposed MA permit conditions include a condition on the protection of land and watercourses, and specifically address pre-construction ecosystems and habitat surveys that address Aboriginal Groups' concerns surrounding how current conditions will address environmental sensitivities relating to proposed Project Changes 3, 5 and 7 dealing with relocation and realignment of Project components. • EAC conditions and proposed EMA/MA permit requirements address impacts to water quality and riparian areas.

Table 2. Summary of Section 7(2) Factors, Overall and by Proposed Change

Proposed Changes	a) Location		b) Purpose	c) Other Approvals	d) Considered in EA	e) Effect on Treaty 8 Rights	f) Extent EAC Conditions Can Address Potential Adverse Effects	Conclusion
<p>4. Addition of Unsuitable Material Stockpiles</p>	<ul style="list-style-type: none"> 0.06 ha <u>outside</u> of assessment footprint (part of ditch line and catch basin associated with the stockpiles) Adjacent to CPD footprint 	<ul style="list-style-type: none"> Addition of 10.8 ha to CPD footprint Falls outside of Heritage LSA 	<ul style="list-style-type: none"> Geotechnical investigation of material under coarse coal reject (CCR) piles that has found unsuitable material (overburden) that must be removed 	<ul style="list-style-type: none"> This design was reviewed during the coordinated MA/EMA permitting process 	<ul style="list-style-type: none"> Overburden, soil storage and CCR were considered in the EA The EAO understands that this unsuitable material is considered overburden 	<ul style="list-style-type: none"> Saulteau First Nations, West Moberly First Nations, and McLeod Lake Indian Band provided feedback about the increase in area and mass of overburden material, and how groundwater and water quality modelling would be affected by the proposed change 	<ul style="list-style-type: none"> Conditions for IEM (Condition 1) Groundwater and Surface Water Management Plan (Condition 21) Runoff, Erosion, and Sediment Control (Condition 16) Heritage Management Plan (Condition 15) Vegetation Management Plan (Condition 23) 	<p><u>Not Material</u>. Reasons include:</p> <ul style="list-style-type: none"> Largely within assessment footprint and adjacent to CPD area Overburden storage was assessed as part of the EA The additional overburden material presents a low geochemical risk and the erosion and sediment control measures in the EAC conditions and proposed EMA/MA permit conditions, including a proposed water management plan, will address Aboriginal Groups' concerns regarding impacts on groundwater and water quality. Section D.5. (c) of the proposed MA permit requires five year model updates beginning March 31, 2020. These updates are to verify assumptions and inputs of the models, and validate predictions based on on-going water quality monitoring. If updated water quality modelling and/or monitoring show deviations from predicted water quality, the permit holder will be required to update the model and develop and implement mitigation plans to ensure compliance with conditions of the proposed MA and EMA permits. While located outside the LSA for Archeological and Heritage Resources, HD Mining is developing a Heritage Management Plan (Condition 15) and the proposed MA permit will include a condition requiring field surveys before any mechanized surface disturbance in accordance with the <i>BC Heritage Conservation Act</i>.

Table 2. Summary of Section 7(2) Factors, Overall and by Proposed Change

Proposed Changes	a) Location		b) Purpose	c) Other Approvals	d) Considered in EA	e) Effect on Treaty 8 Rights	f) Extent EAC Conditions Can Address Potential Adverse Effects	Conclusion
5. Realignment of Water Discharge Pipeline	<ul style="list-style-type: none"> 1.4 ha <u>outside</u> of assessment footprint 220 metres away from certified route at its farthest point 	<ul style="list-style-type: none"> Addition of 0.4 ha to CPD footprint, as the realigned pipeline is shorter than originally proposed Falls outside of Heritage LSA 	<ul style="list-style-type: none"> Updated based on changes to CCR piles and unsuitable material piles design 	<ul style="list-style-type: none"> This design was reviewed during the coordinated MA/EMA permitting process 	<ul style="list-style-type: none"> A location is mapped in the CPD. The water discharge pipeline is considered a water management structure within the coal processing site and was considered in the EA 	<ul style="list-style-type: none"> Saulteau First Nations, West Moberly First Nations, and McLeod Lake Indian Band provided feedback that the new route crosses two additional riparian buffers (M19A Creek & wetlands) and passes under the creek 	<ul style="list-style-type: none"> IEM (Condition 1) Wetland Management Plan (Condition 9) Fish and Fish Habitat Management (Condition 10) Runoff, Erosion, and Sediment Control (Condition 16) Vegetation Management Plan (Condition 23) 	<p><u>Not Material</u>. Reasons include:</p> <ul style="list-style-type: none"> Relocates pipeline 220 metres from certified location at farthest point The coordinated permit review process has concluded and the proposed MA permit conditions include a condition on the protection of land and watercourses, and specifically address pre-construction ecosystems and habitat surveys that address Aboriginal Groups' concerns surrounding how current conditions will address environmental sensitivities relating to proposed Project Changes 3, 5 and 7 dealing with relocation and realignment of Project components. EAC conditions and proposed EMA/MA permit requirements address impacts to water quality. The sediment and erosion control plan is intended to deal with sediment loading issues related to construction activities. The water management plan required as part of the coordinated permitting process addresses water quality issues raised by Aboriginal Groups. While located outside the LSA for Archeological and Heritage Resources, HD Mining is developing a Heritage Management Plan (Condition 15) and the proposed MA permit will include a condition requiring field surveys before any mechanized surface disturbance in accordance with the <i>BC Heritage Conservation Act</i>.
6. Remapping of M19A Creek Riparian Area	<ul style="list-style-type: none"> Within assessment footprint Adjacent to CPD footprint 	<ul style="list-style-type: none"> Addition of 3.6 ha to CPD footprint 	<ul style="list-style-type: none"> Updated mapping and field work confirmed there was no visible stream channel where previously thought 	<ul style="list-style-type: none"> This design was reviewed during the coordinated MA/EMA permitting process 	<ul style="list-style-type: none"> Mapping of M19A creek and its tributaries identified in the EA application and review 	<ul style="list-style-type: none"> No issues raised by FNs regarding the proposed change 	<ul style="list-style-type: none"> Conditions for IEM (Condition 1) Wetland Management (Condition 9) Vegetation Management (Condition 23) 	<p><u>Not Material</u>. Reasons include:</p> <ul style="list-style-type: none"> As there was no visible channel, two areas that were originally considered 'riparian' are now considered 'wetlands' and were incorporated into the CPD Potential adverse effects addressed by adherence to EAC conditions, in particular those for wetlands

Table 2. Summary of Section 7(2) Factors, Overall and by Proposed Change

Proposed Changes	a) Location		b) Purpose	c) Other Approvals	d) Considered in EA	e) Effect on Treaty 8 Rights	f) Extent EAC Conditions Can Address Potential Adverse Effects	Conclusion
7. Realignment of Gas Pipeline	<ul style="list-style-type: none"> • Within assessment footprint • Adjacent to CPD footprint 	<ul style="list-style-type: none"> • Reduction of 1.4 ha to CPD footprint • Falls outside of Heritage LSA 	<ul style="list-style-type: none"> • Modified to follow access road to reduce disturbance 	<ul style="list-style-type: none"> • This design was reviewed during the coordinated MA/EMA permitting process 	<ul style="list-style-type: none"> • A natural gas pipeline within the coal processing site was considered in the EA 	<ul style="list-style-type: none"> • Saulteau First Nations, West Moberly First Nations, and McLeod Lake Indian Band provided feedback that the pipeline route crosses a different watercourse/ riparian area 	<ul style="list-style-type: none"> • Conditions for IEM (Condition 1) • Riparian Buffers (Condition 6) • Runoff, Erosion, and Sediment Control Plan (Condition 16) • Fish and Fish Habitat Management Plan (Condition 10) 	<p><u>Not Material</u>. Reasons include:</p> <ul style="list-style-type: none"> • Located within the assessment footprint and adjacent to CPD footprint • Proposed route is shorter than the current CPD and results in a reduction of CPD footprint • The coordinated permit review process has concluded and the proposed MA permit conditions include a condition on the protection of land and watercourses, and specifically address pre-construction ecosystems and habitat surveys that address Aboriginal Groups' concerns surrounding how current conditions will address environmental sensitivities relating to proposed Project Changes 3, 5 and 7 dealing with relocation and realignment of Project components. • While located outside the LSA for Archeological and Heritage Resources, HD Mining is developing a Heritage Management Plan (Condition 15) and the proposed MA permit will include a condition requiring field surveys before any mechanized surface disturbance in accordance with the <i>BC Heritage Conservation Act</i>.

Table 2. Summary of Section 7(2) Factors, Overall and by Proposed Change

Proposed Changes	a) Location		b) Purpose	c) Other Approvals	d) Considered in EA	e) Effect on Treaty 8 Rights	f) Extent EAC Conditions Can Address Potential Adverse Effects	Conclusion
8. Addition of Laydown Area	<ul style="list-style-type: none"> • Within assessment footprint • Adjacent to CPD footprint 	<ul style="list-style-type: none"> • Addition of 17.4 ha to the CPD footprint (11.8 ha under License of Occupation (LOO) and 5.6 ha additional area that is unsuitable for wildlife habitat) • Falls outside of Heritage LSA 	<ul style="list-style-type: none"> • To stage and organize building materials, equipment, and personnel during construction 	<ul style="list-style-type: none"> • This design was reviewed during the coordinated MA/EMA permitting process. It also requires a LOO 	<ul style="list-style-type: none"> • Initial site preparation that includes land clearing and other temporary infrastructure was considered in the EA 	<ul style="list-style-type: none"> • No issues raised by FNs regarding the proposed change 	<ul style="list-style-type: none"> • IEM (Condition 1) • Wildlife Management Plan (Condition 11) • Heritage Management (Condition 15) • Runoff, Erosion, and Sediment Control Plan (Condition 16) • Invasive Species Management (Condition 17) • Vegetation Management (Condition 23) • Waste Management (Condition 24) 	<p><u>Not Material</u>. Reasons include:</p> <ul style="list-style-type: none"> • Located within the assessment footprint and adjacent to CPD footprint • HD Mining has submitted an application for a LOO under the provincial <i>Land Act</i> for 11.8 ha of the laydown area, as it extends beyond the company’s coal license. While the area is unlikely to be disturbed, HD Mining has requested an additional 5.6 ha to be covered by the CPD and subject to the EAC conditions • Potential adverse effects addressed by adherence to EAC conditions and the proposed laydown area • While located outside the LSA for Archeological and Heritage Resources, HD Mining is developing a Heritage Management Plan (Condition 15) and the proposed MA permit and LOO will include a condition requiring field surveys before any mechanized surface disturbance in accordance with the <i>BC Heritage Conservation Act</i>.
9. Change to Secondary Shaft Layout	Removed from application, as not part of the 5 year mine plan. HD Mining was notified that an amendment may be required in future to accommodate this proposed change.							

6. CONCLUSIONS AND RECOMMENDATION

The EAO has assessed the materiality of each of the eight proposed changes to the Project considering the factors outlined in Section 7(2) of the EAC and it is the EAO's view that the proposed changes are not material in nature.

The EAO is satisfied that:

- Consultation with Aboriginal Groups regarding HD Mining's request for a non-material amendment of the EAC and the associated proposed changes to the Project has been adequately carried out by the EAO in conjunction with the coordinated MA/EMA permitting process and HD Mining, and that efforts to consult will be ongoing; and
- The conditions of the EAC combined with the requirements in the proposed MA and EMA permits and the regulatory oversight will address the concerns of Saulteau First Nations, West Moberly First Nations and McLeod Lake Indian Band and adequately accommodate potential impacts to their Treaty 8 rights from the proposed changes.

The EAO recommends that Schedule A of EAC #M15-03 be amended under Section 19(3) of the Act to include the eight proposed changes.