ALAMOS GOLD INC.

Lynn Lake Gold Project
Environmental Impact Statement

Federal IR Responses
Round 2, Package 2
Extract of response to IAAC-R2-57
Marcel Colomb First Nation Baseline and Mitigation Table

Stantec

Prepared by:

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June 3, 2022

Table Error! No text of specified style in document.**-1 Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
Marcel Colomb First Nation – *information obtained through Alamos Indigenous engagement program current to May 9, 2022*						
Atmospheric Environment						
Issues and Concerns MCFN expressed concern about potential atmospheric environment effects, including potential project effects on air quality, which may affect hunting and fishing habitats. MCFN expressed concerns that mine pollution (including mining dust, chemicals, and contaminants) may contaminate the air and enter the food chain. MCFN identified historic or future air contamination pathways affecting MCFN health and livelihood as a central concern. MCFN stated that the atmospheric environment assessment was focused on mine infrastructure and air quality guidelines within the LAA and RAA; from MCFN's perspective the assessment lacked the Project's contribution of additional metals or contaminants (however small the contribution may be) to the further degradation of the environment and the exacerbation of the bioaccumulation / magnification processes. MCFN maintains that this information is necessary to determine the impact of the Project on the overall health of the trophic chain, including humans. MCFN asked for details on the ambient nighttime light baseline program, effects assessment, and proposed mitigations. MCFN expressed concern about potential atmospheric environment effects, including potential project effects on air quality and stated that mine pollution (including mining dust and other mine contaminants) may contaminate the air and water and enter the food chain. MCFN expressed concern that dust from the Project will land on traplines and in the water. Trappers reported east winds picking up dust from tailings ponds and settling on Lynn Lake. MCFN commented that dust fall from the Project could contribute to exacerbating biomagnification and bioaccumulation issues, whether on land or in water and wetlands.	Locations: MCFN has identified sites, locations or areas related to current use activities within the LAA where members may be present and may potentially be affected by changes to air quality from the Project. See the Wildlife and Indigenous Hunting and Trapping, Fish and Indigenous Fishing, Vegetation and Indigenous Plant Harvesting, Trails and Travelways, and Indigenous Physical and Cultural Heritage sections of this Table. Based on this information, Indigenous receptors were identified to evaluate air quality effects at 38 locations within the air quality LAA in the EIS. Additionally, 17 receptor locations were identified in Black Sturgeon reserve, 76 receptor locations were identified in Lynn Lake and 28 human receptor locations (e.g., remote cottages, trapper cabins, recreation sites) were identified outside of Black Sturgeon reserve and Lynn Lake. Indigenous receptors were selected early in the assessment process and represent potential receptor locations rather than specific individual use sites. These potential locations include traplines, lakeshores near fishing locations, and cabins and camps where there is a potential for extended (overnight) occupancy. A list of the Indigenous receptors is provided in the response to IAAC-115, Table IAAC-115-1. The Indigenous receptors are presented on Map 6-1 in Chapter 6 of the EIS. Map 6-1 has been updated to include identifiers for all special receptors, corresponding to the identifiers in Table IAAC-115-1. The updated map is presented as Map IAAC-115-26 in the response to IAAC-115.	EIS: Chapter 6, Section 6.1.2.1 Chapter 6, Section 6.1.3 Chapter 6, Section 6.4.1.4 Chapter 6, Section 6.7 Chapter 19, Section 19.4 Chapter 19, Section 19.4.4 Chapter 19, Section 19.7 Chapter 19, Section 19.9.1.3 Chapter 23, Section 23.4 Chapter 23, Section 23.5.7 Federal IR responses: IAAC-18 IAAC-46 IAAC-115 IAAC-123 IAAC-125 IAAC-127 IAAC-R2-03 IAAC-R2-52 IAAC-R2-97	As stated in Chapter 6, Section 6.1.3 of the EIS, Project construction and operation will result in change to ambient air quality through atmospheric dispersion of air emissions from Project equipment and activities. The air quality assessment focuses on potential environmental effects during Project operation because the operation phase has the greatest potential for adverse effects to air quality. The estimated air emissions, including dust, associated with Project construction are less than the emissions from the worst-case year of operation. Emissions during construction include diesel exhaust emissions from mobile equipment and fugitive dust emissions from construction activities. Emissions during operation include diesel exhaust emissions from mining equipment, fugitive dust emissions from mining activities, including blasting, and emissions associated with the mill feed storage area and crushing plant and the ore milling and processing plant.	Mitigation measures to manage and reduce diesel exhaust emissions from off-road equipment and vehicles, and fugitive dust emissions from construction and mining activities during construction and operation are described in Section 8.1. The application of relevant actions in the Air Quality Management and Monitoring Plan (Chapter 23, Section 23.5.7) to reduce effects on the environment from dust and air emissions. Mitigation measures, adaptive management plan and air quality monitoring plan will be in place to manage the Project air quality effects. The responses to IAAC-125, IAAC-127 and IAAC-R2-92 provide additional information on the proposed mitigation measures and the Air Quality Management and Monitoring Plan. As described in IAAC-125 and IAAC-R2-92, if the ambient air quality monitoring program indicates that the ambient TSP, PM_{10} or $PM_{2.5}$ concentrations are greater than Manitoba AAQC, additional mitigations to reduce dust emissions will be implemented. The additional dust mitigation measures could include: • Increased watering frequency on haul roads and access roads. • Application of water spray on stockpiles and TMF dry banks during high winds and dry conditions and if visible dust events are observed. • Installation of wind barriers as practical during high winds and dry conditions and if visible dust events are observed. • Temporary suspension of construction and mining activities during high wind conditions.	The responses to IAAC-125 and IAAC-127 provide a high-level summary of the Air Quality Management and Monitoring Plan including details on the measured parameters, proposed monitoring locations, schedule, monitoring methods, reporting mechanisms, and information sharing. The response to IAAC-92 provides details on the TARP which will identify specific measurable and reportable triggers for the implementation of the adaptive management for dust emissions. As described in IAAC-125 and IAAC-127, continuous meteorological monitoring and continuous monitoring of ambient air TSP, PM_{10} and $PM_{2.5}$ concentrations will be implemented during Project construction and operation in conjunction with emissions mitigation to assess the effectiveness of the dust mitigation and to evaluate the need for more rigorous dust mitigation. Monitoring stations will be installed to measure both, background ambient particulate matter (PM) concentrations (in an upwind location from the Project sites) and ambient PM concentrations influenced by the Project (in downwind locations). Continuous meteorological monitoring stations (each with a 10 m tower) will be installed at Gordon and MacLellan sites and will provide real time meteorological data to assist in the implementation of adaptive management for dust emissions. Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, including the proposed Air Quality Management and Monitoring Plan, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	As stated in Chapter 6, Section 6.4 of the EIS, air emissions from Project construction and operation activities will result in a change in air quality. The air quality assessment estimates air emissions from the planned Project activities and uses an atmospheric dispersion model to predict the potential changes in ambient air quality associated with Project emissions. The air quality assessment considers substances for which there are applicable air quality objectives and standards adopted by either or both Manitoba Conservation and Climate and Environment and Climate Change Canada. The predicted effects are assessed relative to these criteria. As stated in Chapter 6, Section 6.4.1.4 of the EIS, for both the Gordon and MacLellan sites, the maximum predicted ground-level concentrations of the substances of interest due to Project construction and operation activities are below the provincial ambient air quality criteria (AAQC) along and outside the Project boundary except for the maximum predicted 1-hour NO_2, SO_2 and CO concentrations, and maximum predicted 24-hour TSP and PM_{10} concentrations. Exceedances of the 1-hour AAQC for NO_2, SO_2 and CO are predicted to occur only on the Project boundary and are limited to a maximum of two hours per year. No exceedances of the 1-hour AAQC for NO_2, SO_2 and CO are predicted at Indigenous receptors. Concentrations of PM are greater than the provincial AAQC outside the Project boundary due primarily to fugitive dust emissions, and therefore, an ambient air quality monitoring program will be implemented to monitor ambient concentrations of PM during construction and operation. As stated in Chapter 6, Section 6.1.2.1, and responses to IAAC-18 and IAAC-R2-52, Indigenous receptor locations were incorporated into the assessment for atmospheric environment. Indigenous knowledge for the selection of Indigenous receptors was obtained through the Indigenous engagement program for the Project, including Project-specific TLRU studies; and review of publicly available literature containing TLRU information for Indigenous Nations engaged on the Project. Indigenous receptors were incorporated into the atmospheric environment assessment to model potential air quality effects to Indigenous land users. Occasional exceedances of the 2025 1-hour NO_2 CAAQS are anticipated at three Indigenous receptor locations near the Gordon site and at three Indigenous receptor locations near the MacLellan site. For these locations, exceedances are anticipated to occur less than 1% of the time and are predominantly single events separated by prolonged periods where the air quality meets the CAAQS. Engagement and publicly available current use information revealed no known areas of extended occupancy with 1 km of the Gordon or MacLellan sites. As noted in Chapter 19, Section 19.4.4, the PDA and surrounding areas have been previously disturbed by mining activity and the anticipated change to noise, dust, and visual disturbance are likely to be incremental. The air quality assessment (Chapter 6) considered the following substances: • Nitrogen dioxide (NO_2) • Carbon monoxide (CO) • Sulphur Dioxide (SO_2) • Hydrogen Cyanide (HCN)

[1] Documents submitted by Alamos to IAAC and appearing on IAAC Project Registry. These include the May 2020 Environmental Impact Statement, federal Information Request responses, and supplemental filings submitted to IAAC

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MCFN stated that Chapter 6 of the EIS predicts particulate emissions concentration over multiple water bodies and MCFN is concerned that particulates will reach water and settle or land and be carried by runoff. *Recommendations made by Marcel Colomb First Nation* MCFN recommended that Alamos proceed with appropriate and representative testing of the mercury content as well as selenium content within dustoff and dustfall. Sources: Alamos Indigenous engagement program Stantec, with Marcel Colomb First Nation. 2018 Results of Hemmera third-party review of the EIS on behalf of MCFN						• Total suspended particulate (TSP) matter with an aerodynamic diameter less than 30 µm • Respirable particulate matter (PM_{10}) with an aerodynamic diameter less than 10 µm • Fine particulate matter ($PM_{2.5}$) with an aerodynamic diameter less than 2.5 µm • Total particulate deposition (dustfall) • Diesel particulate matter (DPM) • Metals (7 metal species associated with diesel exhaust and 18 metal species contained in ore, mine rock, overburden and tailings) • Individual Volatile Organic Compounds (VOCs) (10 VOCs associated with diesel exhaust) • Polycyclic Aromatic Hydrocarbons (PAHs)(16 PAHs associated with diesel exhaust). Total particulate deposition (dustfall) and deposition of metals were modelled in the air quality LAA, including deposition over lakes. The predicted dustfall and deposition of metals in the LAA during Project operation were used for the human health assessment (Chapter 18). See the Indigenous Health Conditions section of this Table for discussion of potential effects of dustfall and deposition of metals through consumption of country foods by Indigenous peoples. Baseline nighttime lighting measurements confirmed that the light levels in the study area were typical of light levels in remote towns. The light trespass measurements were representative of a naturally dark environment. The sky glow measurements were higher than anticipated for a rural area, however the measurements were impacted by the nighttime light from the presence of the Aurora Borealis. The baseline nighttime lighting program and results are presented in the “Lynn Lake Gold Project (LLGP): Ambient Lighting Baseline Technical Data Report” (2017). In 2019, the Town of Lynn Lake confirmed that there were no new substantial sources of nighttime light in the area, validating the 2015 monitoring results – refer to the “Lynn Lake Gold Project (LLGP): Ambient Lighting Baseline Technical Data Validation Report” (2019). A Light Emissions Impact Assessment was also conducted to support the preparation of the EIS. The findings are presented in the “Lynn Lake Gold Project: Light Emissions Impact Assessment, Technical Modelling Report” (2020). The assessment concluded that the light emissions from the operation of the Project can be designed to be within the International Commission on Illumination (CIE) guidelines at the nearest communities and receptors (including residential, fishing camps and trapping areas). Predictions at the receptor locations were representative of sparsely inhabited rural areas – similar to the existing ambient lighting environment. The Project’s light design incorporates the use of full cut-off LED luminaires and was developed in accordance with the guidelines and recommendations of the International Dark Sky Association and CIE to limit illuminance off site and reduce incidence of light trespass. A Light Management Plan was not warranted as the lighting for the Project will be designed to meet applicable criteria. As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of

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						monitoring locations. Results of follow-up and monitoring will be summarized in annual reports. Alamos is currently in discussion with MCFN regarding concerns and recommendations shared following the third-party review of the EIS. Alamos anticipates resolving outstanding issues with MCFN through agreements negotiated outside the EIS process.
Noise and Vibration						
Issues and Concerns MCFN expressed concerns about sensory effects, such as noise from Project construction and operation, impacting animals, their movement and thus hunters and trappers. MCFN expressed concern that mines will scare animals from the area and will cause trappers to lose their livelihoods. MCFN expressed concern about noise, including helicopters. MCFN identified concerns related to noise and vibration and potential impacts on the nearby MCFN community and various pursuits (traditional, recreational, commercial) within the LAA. MCFN stated that adherence to provincial guidelines (for blasting as an example) may not be sufficient to address MCFN's concerns and MCFN members want to have a clearer description of the actual noise impacts from the Project. MCFN identified noise during Project construction and operation posing a potential perceived or real safety/security risk to harvesters resulting in harvesters avoiding a preferred or required site to harvest. *Recommendations made by Marcel Colomb First Nation* MCFN recommended that Alamos provide MCFN advance notification of construction work that has the potential to increase local noise to help manage awareness and acceptance. MCFN recommended that Alamos minimize unnecessary noise by keeping all equipment well maintained. MCFN recommended that Alamos commit to a community feedback process to help give voice to the concerns, observations, and experiences of MCFN members.	Locations: MCFN has identified sites, locations or areas related to current use activities within the LAA where members may be present and may potentially be affected by changes to noise and vibration from the Project. See Wildlife and Indigenous Hunting and Trapping, Fish and Indigenous Fishing, Vegetation and Indigenous Plant Harvesting, Trails and Travelways, and Indigenous Physical and Cultural Heritage. Based on this information, Indigenous receptors were identified to evaluate noise and vibration effects at ten locations for Gordon Site and 13 locations for MacLellan Site in the EIS. Indigenous receptors were selected early in the assessment process and represent potential receptor locations rather than specific individual use sites. These potential locations include traplines, lakeshores near fishing locations, and cabins and camps where there is a potential for extended (overnight) occupancy. The receptor locations are presented in Map 7-1 and Map 7-2 in Chapter 7 of the EIS.	EIS: Chapter 7, Section 7.1.2.1 Chapter 7, Section 7.1.1 Chapter 7, Section 7.1.3 Chapter 7, Section 7.4 Chapter 7, Section 7.4.1.2 Chapter 7, Section 7.4.1.4 Chapter 7, Section 7.4.2.2 Chapter 7, Section 7.4.2.4 Chapter 7, Section 7.7 Chapter 19, Section 19.4 Chapter 19, Section 19.4.4 Chapter 19, Section 19.7 Chapter 19, Section 19.9.1.3 Chapter 23, Section 23.4 Chapter 23, Section 23.5.8 Federal IR responses: IAAC-18 IAAC-134 IAAC-135 IAAC-R2-03 IAAC-R2-94 IAAC-R2-97 IAAC-R2-98 IAAC-R2-99	As stated in Chapter 7, Section 7.1.3, Project activities during construction, operation and decommission/closure will result in emissions of noise and vibration. Potential environmental effects may occur through a change in noise levels, or through a change in vibration levels. As described in Chapter 7, Section 7.4.1.2, during construction, noise emissions from activities such as site preparation, utility and infrastructure development, and processing facility construction will result in a change in noise levels. During operation, noise emitted from the processing facility and mobile equipment (i.e., haul trucks) will result in a change in noise levels. In the decommissioning/closure phase, noise emissions from excavation and reclamation activities will result in a change in noise levels. As described in Chapter 7, Section 7.4.2.2, during construction, activities such as site preparation, utility and infrastructure development, and processing facility construction will result in a change in vibration levels. Project construction activities such as earthworks, piling, and drilling were considered to cause potential vibration effects. During the operation phase, blasting activities at both the Gordon and MacLellan sites will result in ground-borne vibration and air overpressure. The vibration effects from ground vibration and air overpressure on human receptors were considered. In the decommissioning/closure phase, excavation and reclamation activities will result in a change in vibration levels.	Design and practice to reduce noise and vibration as described above in Section 8.1. Blasting procedures that mandate maximum blast charges and minimum time delays as described in Section 8.1 above. The application of relevant actions in the Noise and Vibration Management Plan (Chapter 23, Section 23.5.8) to reduce effects on the environment from noise disturbances. Mitigation measures, adaptive management plan, and monitoring plans will be in place to manage the Project noise and vibration effects. Reponses in IAAC-R2-94, IAAC-R2-97, IAAC-R2-98, and IAAC-R2-99 provides addition information on proposed mitigation measures that will reduce noise and vibration effects.	As described in IAAC-134, the Noise and Vibration Management Plan will include protocols that would serve to inform communities and land users of blasting or an anticipated blasting schedule ahead of time such that local receptors can prepare, and the resulting nuisance and startle responses are reduced. IAAC-135 provides a high-level summary of the Noise and Vibration Management Plan including details on the measurement parameters; schedule; methods and characteristics of monitoring activities; reporting mechanisms; regulatory instruments; reporting; and information sharing. Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, including the Noise and Vibration Monitoring Plan, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN. Reponses in IAAC-R2-94, IAAC-R2-97, IAAC-R2-98, and IAAC-R2-99 provides addition information on proposed adaptive management, follow-up, and monitoring plans that will reduce noise and vibration effects.	As stated in Chapter 7, Section 7.4 of the EIS, Noise emission from Project construction and operation activities will result in a change in noise levels. During operation, blasting activities will result in ground-borne vibration and air overpressure. During construction, noise emission from activities such as site preparation, utility and infrastructure development, and processing facility construction will result in a change in noise and vibration levels. During operation, noise emitted from the processing facility and mobile equipment (i.e., haul trucks) will result in a change in noise levels. The blasting activities at both the Gordon and MacLellan sites will result in ground-borne vibration and air overpressure. In the decommissioning/closure phase, noise emissions from excavation and reclamation activities will result in a change in noise levels. As stated in Chapter 7, Section 7.1.1 of the EIS, the noise assessment employs Health Canada Noise Guidance thresholds for annoyance and low frequency noise effects for Indigenous receptors. The vibration assessment employs the United States Federal Transit Administration (FTA) annoyance target for heavy construction equipment (e.g., excavators, compactors, piling equipment, and haul trucks) related vibration effects and the Ontario Ministry of Environment, Conservation, and Parks vibration thresholds for blasts related vibration effects for Indigenous receptors. As stated in Chapter 7, Section 7.4.1.4 of the EIS, predicted noise levels due to Project construction and operation activities from the Gordon and MacLellan sites are below Health Canada thresholds for annoyance and low frequency noise effects at all Indigenous receptors. As stated in Chapter 7, Section 7.4.2.4 of the EIS, ground borne vibration due to heavy construction equipment such as excavators, compactors, piling equipment, and haul trucks was assessed for the construction phase. The predicted vibration levels are below the annoyance targets established by FTA. The closest receptors to potential construction activities at the Gordon site or the MacLellan site are both located at a distance of more than 1 km. These receptors are located at sufficient distances that annoyance due to construction equipment vibration is unlikely. During the operation phase, predicted vibration levels due to blast-related activities at both Gordon and MacLellan sites are below the MECP vibration thresholds at all Indigenous receptors with the application of mitigation measures. Mitigation measures include blasting procedures that mandate maximum blast charges and minimum time delays as described in Section 8.1 above. See Wildlife and Indigenous Hunting and Trapping section of this Table for assessment of effects of blasting on wildlife behaviour and hunting and trapping success. As stated in Chapter 7, Section 7.1.2.1, and responses to IAAC-18 and IAAC-R2-97, Indigenous receptor locations were incorporated into the assessment for noise and vibration. Indigenous knowledge for the selection of Indigenous receptors was obtained through the Indigenous engagement program for the Project, including Project-specific traditional land and resource use (TLRU) studies; and review of publicly available literature containing TLRU

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Sources: Alamos Indigenous engagement program Results of Hemmera third-party review of the EIS on behalf of MCFN						information for Indigenous Nations engaged on the Project. The noise and vibration assessment applied Indigenous receptors to model potential effects to Indigenous land users. Noise levels predicted at Indigenous receptor locations are predicted to be below both the Health Canada and the WHO noise guidelines. Engagement and publicly available current use information revealed no known areas of extended occupancy within 1 km of the Gordon or MacLellan sites. As noted in Chapter 19, Section 19.4.4, the PDA and surrounding areas have been previously disturbed by mining activity and the anticipated change to noise, dust, and visual disturbance are likely to be incremental. IAAC-R2-95 and IAAC-R2-96 provides additional information on the noise effect of Project and non-Project related activities along PR391. IAAC-R2-98 address the concerns when Indigenous land users are present within one kilometre of the PDA during Project activities that may result in elevated noise and vibration levels. The response addresses potential effects, including sensory disturbance, avoidance behaviours, effects to current use and the ability to exercise rights, and potential health effects. In addition, the response describes adaptive management and follow-up and monitoring measures that will be implemented to monitor for potential Project-related effects of noise and vibration to Indigenous receptors that may be present within one kilometre of the PDA. Response in IAAC-R2-99 provides further details regarding Alamos' communication plan with respect to blasting. MCFN will be informed of blasting activities and monitoring results. The Indigenous Environmental Advisory Group will be established such that blast monitoring results or an anticipated blasting schedule (i.e., regularity and changes) will be communicated to Indigenous Nations ahead of time on an ongoing basis. Alamos is committed to open and transparent engagement throughout the life of the Project. Alamos will maintain ongoing communication with Indigenous Nations such that Indigenous Nations are given sufficient notice in advance of blasting activities and concerns regarding the blasting schedule or effects of blasting. The Indigenous Environmental Advisory Group will provide a communication mechanism to distribute information and accept inquiries from Indigenous Nations. In addition, Alamos maintains a local office/presence in Lynn Lake that facilitates ongoing communications with members of the local community, stakeholders, and interested government officials (on an as needed basis). Alamos will maintain an office at the mine site and will consider maintaining a smaller office in Lynn Lake during Project operation to further facilitate communication. As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports. Alamos is currently in discussion with MCFN regarding concerns and recommendations shared following the third-party review of the EIS. Alamos anticipates resolving outstanding issues with MCFN through agreements negotiated outside the EIS process.

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Groundwater						
Issues and Concerns MCFN expressed concerns about water becoming contaminated from mine pollution MCFN noted concern about contamination from mine rock, mines, and tailing piles entering the water and travelling into creeks, streams, and lakes, including Keewatin River, and Eldon, Cockeram, Moses, Mary, Anson, Granville, and Sickle lakes as a result of the MacLellan site MCFN identified historic or future water contamination pathways affecting MCFN health and livelihood as a central concern *Recommendations made by Marcel Colomb First Nation* MCFN recommends securing tailing piles. MCFN recommends water quality monitoring. Sources: Alamos Indigenous engagement program Stantec, with Marcel Colomb First Nation. 2018 Results of Hemmera third-party review of the EIS on behalf of MCFN	Locations: MCFN mentioned places and geographic features in reference to water quality. Within the PDA: • Keewatin River intersects the PDA at the MacLellan site Within the LAA: • Cockeram Lake Within the RAA: • Anson Lake • Eldon Lake • Mary Lake • Moses Lake • Sickle Lake The following locations are outside the RAA (distance from PDA): • Granville Lake (33 km)	EIS: Chapter 2, Section 2.3.1.1 Chapter 2, Section 2.3.2.1 Chapter 8, Section 8.1.2.1 Chapter 8, Section 8.1.3 Chapter 8, Section 8.2.2.2 Chapter 8, Section 8.4.3.2 Chapter 8, Section 8.7 Chapter 9, Appendix 9E Chapter 23, Section 23.4 Chapter 23, Section 23.5.4 Chapter 23, Section 23.5.3 Chapter 23, Section 23.5.5 Federal IR responses: IAAC-27 IAAC-39-1 IAAC-73 IAAC-108 IAAC-R2-03 IAAC-R2-08 IAAC-R2-24 IAAC-R2-32	As stated in Chapter 8, Section 8.1.3 of the EIS, potential environmental effects of the Project include change in groundwater quantity and/or flow and change in groundwater quality. Project activities will result in changes in groundwater recharge and changes to groundwater levels and flow. A decrease in groundwater levels may result in loss of yield to dug or drilled wells, reducing their ability to meet water supply requirements. A decrease in groundwater levels and changes in the natural groundwater flow could affect discharge to nearby surface water bodies.	Relevant mitigation measures for groundwater and surface water as described above in Section 8.1 are predicted to avoid or reduce effects on the quality and quantity of groundwater available for use by Indigenous Nations. Groundwater and surface water quality will also be mitigated through the application of relevant actions in the Groundwater Monitoring and Management Plan (Chapter 23, Section 23.5.4 of the EIS) and the Surface Water Monitoring and Management Plan (Chapter 23, Section 23.5.5 of the EIS) to address unanticipated effects to groundwater through an adaptive management approach.	Acid rock drainage and metal leaching from the collection and tailings ponds will be mitigated through the application of relevant actions in the Acid Rock Drainage and Metal Leaching Management and Monitoring Plan (Chapter 23, Section 23.5.3). As described in IAAC-108, the Groundwater Monitoring and Management Plan and Surface Water Monitoring and Management Plan will include include groundwater and surface water quantity (flows, level, pumped volumes, as applicable) and quality (general chemistry and select dissolved metals) monitoring with an adaptive management component. The adaptive management component will include triggers and thresholds for groundwater and surface water quantity and quality that alert to changing conditions and allow flexibility to address/accommodate new circumstances, adjust monitoring, implement new mitigation measures, and/or modify existing measures, if required. See response to IAAC-R2-04 for additional detail on parameters to be considered, thresholds or triggers and adaptive management measures that may be implemented. See response to IAAC-73, Table IAAC-39-1, and IAAC-R2-02 for further details on the conceptual Groundwater Monitoring Plan; elaborating on the detail provided in the EIS. See response to IAAC-R2-24 part c) and d), IAAC-R2-02, and IAAC-R2-32 for further details on the conceptual Surface Water Quality Monitoring Plan. See also response to IAAC-R2-02. As described in IAAC-27, mitigation measures for acid rock drainage and metal leaching include, but are not limited to: Monitoring, collection, and recycling of contact water during operation. Blending PAG and non-PAG mine rock during operation and encapsulation with overburden and soil at closure. This strategy was found to be effective based on monitoring of historical rock storage at the Gordon site. Covering TMF with overburden and soil at closure. Rehabilitation of temporary features (e.g., ore pads) at closure. Flooding pits to prevent development of ARD/ML from materials exposed on pit walls.	As stated in Chapter 8, Section 8.2.2.2 of the EIS, there are no known groundwater supply users identified within the LAA or RAA. The Black Sturgeon Reserve, located between the Gordon and MacLellan sites, is supplied with potable water from a water treatment facility that withdraws water from Hughes Lake. As presented in Chapter 2, Section 2.3.1.1 and Section 2.3.2.1 of the EIS, seepage/runoff collection ditches will be constructed around the perimeter of each stockpile/storage area and directed to a series of sumps and/or small ponds at topographic lows. Water collected in the sumps and/or small ponds will be pumped to a site water management pond for management and/or treatment (if required) prior to discharge. If the water level within the collection pond is below the natural groundwater elevation, then an inward hydraulic gradient to the pond will be maintained and the potential for seepage to groundwater will be limited. If the water level in the pond is above the natural groundwater level, then there is potential for minor amounts of seepage from the pond to groundwater. At the Gordon site, the seepage collection ditches were not included in the groundwater flow model (Chapter 8, Section 8.4.3.2 of EIS) because seepage from the collection ditches and ponds to groundwater would discharge to the open pit during operation where the water is captured by open pit dewatering and would be treated, if required, to meet regulatory discharge criteria prior to discharge to the environment. At the MacLellan site, the effect of seepage collection ditches was included in the groundwater flow model (Chapter 8, Section 8.4.3.2 of EIS) for the MacLellan site and incorporated into the assessment of effects of the Project for groundwater as portions of the seepage collection system are located beyond the capture zone associated with open pit dewatering. Water from the seepage collection ditches is pumped to collection ponds and/or the TMF. As stated in Appendix 9E of Chapter 9 of the EIS, modelling of the collection ponds' water quality indicates the quality of water within the collection ponds will meet Schedule 4 MDMER and short-term CWQG-FAL and MWQSOG-FAL over the life of mine for the Expected and Upper-Case scenarios. As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports. Alamos is currently in discussion with MCFN regarding concerns and recommendations shared following the third-party review of the EIS. Alamos anticipates resolving outstanding issues with MCFN through agreements negotiated outside the EIS process.

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					Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, including the Groundwater Monitoring and Management Plan and Surface Water Monitoring and Management Plan, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	
Surface Water						
Existing Conditions MCFN reported that the water in some lakes is lower than it once was. MCFN reported observing chemical sludge in some waterways. MCFN reported that members used to chop holes through lake ice for drinking water. MCFN reported that several natural springs, located near Eden Lake, Hughes Lake, and Michaluck Bay near Westdal Lake, were used as traditional drinking water sources. *Issues and Concerns* MCFN expressed concern about water quality, which may affect hunting and fishing habitats. MCFN expressed concerns about water becoming contaminated from mine pollution and expressed doubts relating to the use of melted snow as water because of potential contamination from the mine. MCFN noted concern about contamination from mine rock, mines, and tailing piles entering the water and travelling into creeks, streams, and lakes, including Keewatin River, and Eldon, Cockeram, Moses, Mary, Anson, Granville, and Sickle lakes as a result of the MacLellan site. MCFN expressed specific concern about contamination from the Gordan site because water will flow downstream and past Swede Lake. MCFN identified historic or future water contamination pathways affecting MCFN health and livelihood as a central concern, with mercury and selenium being a specific concern.	Locations: MCFN mentioned places and geographic features in reference to water quality. Within the PDA: • Keewatin River intersects the PDA at the MacLellan Site Within the LAA: • Cockeram Lake • Swede Lake • Michaluck Bay near Westdal Lake partially intersects the LAA Within the RAA: • Anson Lake • Eldon Lake • Hughes Lake • Mary Lake • Moses Lake • Sickle Lake The following locations are outside the RAA (distance from PDA): • Eden Lake (16 km) • Granville Lake (33 km)	EIS: Chapter 9, Section 9.1.2.1 Chapter 9, Section 9.1.3 Chapter 9, Section 9.4 Chapter 9, Section 9.7 Chapter 10, Section 10.1.2 Chapter 10, Section 10.1.4 Chapter 10, Section 10.4.2 Federal IR responses: IAAC-26 IAAC-108 IAAC-R2-03	As stated in Chapter 9, Section 9.1.3, of the EIS, potential environmental effects of the Project include change in surface water quantity and change in surface water quality. Changes to lake levels and stream flows may occur as a result of water diversion, extraction, storage, or discharge of surface water during construction, operation, and closure of the open pits, TMF, MRSAs, and associated mine infrastructure. Changes in surface water quality may occur through mine effluent releases during construction, operation, and closure of the open pits, TMF, MRSAs, and associated mine infrastructure.	Relevant mitigation measures for surface water quantity and quality as described above in Section 8.1 are predicted to avoid or reduce effects on the quality and quantity of surface water available for use by Indigenous Nations. Groundwater and surface water quality will also be mitigated through the application of relevant actions in the Groundwater Monitoring and Management Plan (Chapter 23, Section 23.5.4 of the EIS) and the Surface Water Monitoring and Management Plan (Chapter 23, Section 23.5.5 of the EIS) to address unanticipated effects to groundwater through an adaptive management approach.	As described in IAAC-26, a Closure Plan will be developed to restore Project sites to a satisfactory condition, in accordance with provincial legislation and guidelines, such that no long-term adverse effects on surface water quality or aquatic biota in the downstream receiving environment will occur. The Closure Plan will include methods for progressive reclamation and decommissioning of the Project and for re-establishing drainage patterns at both sites. The objectives of the Closure Plan include: • Stabilizing Project sites to physically, chemically, and biologically encourage terrestrial and aquatic repopulation. • Providing reasonable paths for surface drainage. • Discharging contact water in compliance with effluent surface water and groundwater quality criteria. A detailed Closure Plan that conforms with *The Mines and Minerals Act – Mine Closure Regulation* will be submitted to Manitoba Agriculture and Resource Development prior to the commencement of Project construction. As described in IAAC-108, the SWMMP will include monitoring of water quantity (stream flows, lake levels) and water quality downstream of the TMF at the MacLellan site and the MRSAs at the MacLellan and Gordon sites. The objectives of the plan will be to: • Establish and/or maintain reference monitoring sites to differentiate between natural seasonal or climatic variability in surface water quantity and quality and potential Project effects as the Project progresses.	As stated in Chapter 9, Section 9.4 of the EIS, this assessment uses federal and provincial guidelines for drinking water and freshwater aquatic biota to screen potential adverse effects to surface water quality and federal environmental flow needs guidance to screen potential adverse effects to surface water quantity during construction, operation, and decommissioning/closure of the Gordon and MacLellan sites. Surface water quality may be affected by construction of mine components, including ore pads and ore processing facilities; construction of utilities, infrastructure and other facilities, site water management including open pit dewatering, ongoing mine water collection and storage, and discharge of site surface water, and groundwater seepage. Mine activities during operation are also anticipated to affect local runoff, evapotranspiration, and infiltration characteristics, change effective contributing catchment areas, and change local groundwater pathways and levels. Surface water quantity during operation will primarily be affected by additional flows to Gordon and Farley lakes and to downstream waterbodies as a result of the dewatering of the existing East Pit and Wendy pits during construction, the development and dewatering of the open pit and the use of interceptor wells for groundwater management during operations and refilling of the open pit during closure. Surface water quantity may be affected by water withdrawals and water discharges from and to Keewatin River during operations at the MacLellan Site as well as changes to the catchment area upstream of Minton Lake. At the MacLellan site, water from the collection ponds will either be used for processing or discharged to Keewatin River. At the Gordon site, water from the collection ponds will be discharged to Farley Lake. Surface water quality modeling at the MacLellan Site predicts that effluent that would be discharged from the collection pond to Keewatin River will meet all effluent concentration limits set out in Schedule 4 of the MDMER and all federal and provincial short-term (acute) water quality guidelines in all months in all years and that no water quality parameters would exceed long-term (chronic) federal and provincial water quality guidelines in Keewatin River immediately downstream of the Project. Surface water quality modeling at the Gordon Site predicts that effluent that would be discharged from the collection pond to Farley Lake would meet all effluent concentration limits in the MDMER and all federal and provincial short-term guidelines. Fluoride and phosphorus are the only two water quality parameters predicted to exceed long-term federal or provincial water quality guidelines in Farley Lake. However, neither of these exceedances are predicted to extend to Swede Lake, the next lake downstream from Farley

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Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
MCFN also expressed concern that post closure pit water chemistry has not been modelled. TMF and MRSA seepage combined with the pit lake water will discharge effluent elevated in metals to the Keewatin River for at least 100 years post closure. The cumulative uncertainty between the various geochemical models presents a substantial risk for Indigenous land users in the region who utilize the downstream environment. *Recommendations made by Marcel Colomb First Nation* MCFN recommends securing tailing piles. MCFN recommends water quality monitoring. MCFN recommended that Alamos develop or finance the development of both a mercury diagnosis program and a selenium diagnosis program that will include lakes of importance to MCFN and connected lakes as well as other water bodies that would sustain MCFN fisheries. Sample mercury and methylmercury in lake water, sediments, interstitial water within areas suspected of being the site of biomethylation, plankton and benthic invertebrates in a manner adequate to ensure appropriate diagnosis. Sample selenium in lake water, sediments, plankton and benthic invertebrates in a manner adequate to ensure appropriate diagnosis. MCFN recommended that Alamos commit to identifying important mercury and selenium sources and sinks and to come up with solutions that will slow or break the mercury cycling in the area. MCFN recommended that Alamos commit to adding no detectable levels of mercury or selenium to the environment as result of Project operations. Sources: Alamos Indigenous engagement program Stantec, with Marcel Colomb First Nation. 2018 Results of Hemmera third-party review of the EIS on behalf of MCFN					• Monitor potential changes in lake level and stream flows downstream of the TMF and MRSAs, to validate water balance model predictions and assess the effectiveness of mitigation measures, in response to construction, operation, and closure of the Gordon and MacLellan sites. • Monitor potential change in water quality in lakes and stream downstream of the TMF and MRSAs, to validate water quality model predictions and assess the effectiveness of mitigation measures, in response to construction, operation, and closure of the Gordon and MacLellan sites. Maintain a surface water quantity and surface water quality monitoring network sufficient to evaluate if quantitative thresholds are exceeded and to assess effectiveness of subsequent adaptive management measures. See response to IAAC-R2-02 and IAAC-R2-04 for additional detail on parameters to be considered, thresholds or triggers and adaptive management measures that may be implemented. As described in IAAC-110, mitigation measures that could be implemented in the unlikely event that water quality in the collection ponds is found to exceed the limits are: • Treatment of contact water with treatment technologies selected based on the concentration of the parameters of concern (e.g., coagulation/flocculation and sedimentation or filtration, ion exchange, chemical precipitation and/or biological treatment). • Piping of contact water from the Gordon site further downstream to waterbodies (e.g., Ellystan Lake) or watercourses (i.e. Hughes River) with greater assimilative capacity. • Passive treatment (i.e., fertilization, induced stratification), of pit water at closure to minimize changes in water quality in Keewatin River tributary KEE3-B1 Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, including the GMP, were	Lake. See the Fish and Indigenous Fishing Section of this Table for assessment of potential effects to surface water on fish and fish habitat. See the Indigenous Health Conditions section of this Table for assessment of potential effects to surface water on Indigenous land users in the LAA. As stated in Chapter 9, Section 9.4.3, changes in surface water quality are not predicted to extend beyond the LAAs at the Gordon Site and the Maclellan Site. Therefore, changes in surface water quality due to the Project are not predicted to extend as far downstream as Hughes River at the Gordon Site or downstream of Cockeram Lake at the MacLellan Site. Downstream effects from the Gordon site will occur in lakes and streams within the Ellystan Lake watershed, a sub-watershed in the Hughes River system. Based on the Expected Case modelling scenario, measurable changes in surface water quality from the Project are not expected to exceed water quality guidelines beyond Swede Lake, approximately 5 km downstream from the Gordon site PDA. While changes in surface water quantity are predicted to occur in Farley Creek downstream of Farley Lake, no measurable changes in stream flows or lake levels are predicted to occur in Swede Lake or any lake or stream downstream of Swede Lake. Downstream effects from the MacLellan site will occur in portions of the Cockeram River watershed and the Keewatin River watershed. Based on the Expected Case modelling scenario, measurable changes in surface water quality from the Project are not expected to exceed water quality guidelines beyond Minton Lake (located approximately 0.5 km from the PDA) or Keewatin River beyond the confluence with the Lynn River, approximately 3 km downstream of the MacLellan site PDA. As stated in Chapter 9 Section 9.4.2.2, the effects to water quality in Minton Lake are predicted to occur due to groundwater seepage from the TMF and MRSA and not surface water discharges. Therefore, changes to water quality in Minton Lake are not expected to occur until the post-closure phase of the Project. As stated in IAAC-R2-23 and IAAC-R2-24, this delay will allow Alamos Gold to monitor water quality in the seepage collection ditches around the TMF and MRSA and to develop additional mitigation should monitoring show it to be necessary. Additionally, Alamos Gold will monitor water quality in Minton Lake during all phases of the Project, including post-closure, until it is determined that water quality downstream of the Project consistently meets relevant CWQG-FALs or MWQSOGs as per the SWMMP. As stated in response to IAAC-R2-16, Alamos has identified discharging groundwater to the Hughes River via an approximately 8 km long pipeline adjacent to the mine access road as a potential contingency measure should groundwater treatment prove to be ineffective (i.e., ineffective defined in this case as not reducing iron concentrations below the long-term CWQG-FAL guidelines at the edge of the mixing zone in Farley or Gordon lakes). As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports. Alamos is currently in discussion with MCFN regarding concerns and recommendations shared following the third-party review of the EIS. Alamos anticipates resolving outstanding issues with MCFN through agreements negotiated outside the EIS process.

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Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
					sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN	
Wildlife and Indigenous Hunting and Trapping[2]						
Existing Conditions MCFN identified various named places and geographic features where hunting and trapping occurs. These are listed in column 2. MCFN observed that wildlife species such as bear, deer, beaver, muskrat, waterfowl, and various species of migratory and non-migratory birds are inseparably linked to MCFN culture, providing numerous tangible (e.g., sustenance, ceremonial and/or spiritual purposes), intangible (e.g., teaching the traditional use activities of hunting and trapping) and socio-economic (e.g., guiding and commercial fishing) values. Preferred areas for hunting and trapping are selected from either an environmental perspective, due to healthy and abundant resources, or from a cultural perspective, due to ease of access to the wildlife harvesting area, long-term history of use or because of tranquil, undisturbed environmental surrounds supportive of the harvesting activity such as hunting. The lakes of interest to MCFN for hunting and fishing activities include: Cockeram Lake, Swede Lake and the Keewatin River, Hughes Lake, Moses Lake, Sickle Lake, Chepil Lake, Granville Lake, and Eden Lake. MCFN hunting and trapping areas of interest are listed in column 2. MCFN advised that 20 additional lakes located outside the RAA are frequented by MCFN for hunting and trapping activities with the closest being 12.5 km from the PDA and the furthest being 75 km from the PDA (these 20 additional lakes have not been identified by name). MCFN stated that hunting is a major activity completed by MCFN members and their ancestors since they first lived in northern Manitoba.	Species identified by Marcel Colomb First Nation: moose, bear, caribou (woodland, unspecified), deer, duck, goose, grouse (spruce, unspecified), swan, Arctic loon, chicken, beaver, ptarmigan, fox, lynx, marten, mink, muskrat, otter, porcupine, rabbit, squirrel, wolf (gray, timber), wolverine, weasel, frog, skunk, and crane (sandhill) Other wildlife species in the RAA commonly understood to be harvested by Indigenous Nations: badger, fisher, and racoon Locations: MCFN described and mapped 81 site-specific locations related to wildlife (34 hunting and 47 trapping); see Attachment A-3 – MCFN TLRU Study, Figures 2a and 2b. Nine of these mapped locations overlap the PDA, 15 overlap the LAA, and 22 overlap the RAA. The remaining locations mapped by MCFN are outside the RAA. MCFN also mentioned places and geographic features where hunting and trapping occurs. Within the PDA: • Hughes River intersects the PDA at the Gordon site Within the LAA: • Mile 7 • Cockeram Lake • Swede Lake • Simpson Lake partially intersects the LAA	EIS: Chapter 12, Section 12.0 Chapter 12, Section 12.1.3 Chapter 12, Section 12.1.2 Chapter 12, Section 12.2.2.2 Chapter 12, Section 12.4 Chapter 12, Section 12.4.2.4 Chapter 12, Section 12.4.4 Chapter 17, Section 17.1.3 Chapter 17, Section 17.1.4 Chapter 17, Section 17.4.3 Chapter 17, Section 17.7 Chapter 23, Section 23.4 Chapter 23, Section 23.5.14 Federal IR responses: IAAC-07 IAAC-11 IAAC-R2-03 IAAC-R2-119 Table IAAC-163-2 Table IAAC-163-3 IAAC-164	The Project has the potential to affect wildlife and wildlife habitat as well as the availability and access to traditionally harvested animals and hunting and trapping areas. Alamos acknowledges that the information about hunting and trapping by MCFN presented in this table should not be considered comprehensive. Alamos has conservatively assumed that there is the potential for hunting and trapping by MCFN to occur throughout the RAA and that species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be hunted or trapped by MCFN. As stated in Chapter 12, Section 12.1.3 of the EIS, the potential environmental effects of the Project include change in wildlife habitat, change in wildlife mortality risk, and change in wildlife health. As stated in Chapter 17, Section 17.1.4 of the EIS, the Project has the potential to result in change to the availability of resources currently used for traditional purposes, and through a change in access to resources or areas currently used for traditional purposes. The Project has the potential to cause adverse effects to traditional hunting and trapping that require mitigation and monitoring to manage effectively. This could occur through the direct or indirect loss or alteration of habitat due to vegetation clearing, sensory disturbance (e.g., avoidance), and/or edge effects; vehicular collisions, human-wildlife conflicts, and indirect change in mortality risk	Relevant mitigation measures for wildlife and wildlife habitat as described above in Section 8.4 are predicted to avoid or reduce effects on traditionally important species and resources. Relevant mitigation measures for land and resource use as described above in Section 8.5 are predicted to avoid or reduce effects on access for hunting by Indigenous Nations. Relevant mitigation measures for current use of lands and resources for traditional purposes as described above in Section 8.7 are predicted to avoid or reduce effects to hunting and trapping and to loss, alteration or restriction of access to traditionally used resources or areas. The Wildlife Management and Monitoring Plan (WMMP; Chapter 23, Section 23.5.14) will be implemented to reduce unanticipated effects on wildlife and wildlife habitat and will use an adaptive management approach. As described in Table IAAC-163-2, Project-specific activity restrictions for sensitive wildlife areas or features have been developed and will be adhered to in the absence of provincial guidelines. As described in Table IAAC-163-3, additional mitigation measures for wildlife include, but are not limited to: • Adhere to the provincial recommended development setback and timing restriction guidelines for birds and the Project-specific activity restriction guidelines, including for bird species (e.g., raptors) that breed outside of the breeding period for migratory birds.	As described in IAAC-11 and IAAC-164, the WMMP will describe the location of interventions, planned protocols, lists of measured parameters, analytical methods employed, schedule, and resources required as well as parameters to be monitored, methodology and equipment to be used, frequency, duration of monitoring, adaptive management triggers, and reporting. The WMMP includes the commitment to continue the remote camera survey and sharing the results with provincial wildlife authorities and interested Indigenous Nations. The objective of the remote camera study is to assess the presence/absence of woodland caribou in the LAA and RAA and the measurable parameter for the remote camera study is the presence/absence of woodland caribou in the LAA and RAA. Incidental information will also be collected on other wildlife species such as moose and gray wolf. Decision triggers and thresholds for action will be incorporated into the WMMP to outline planned actions if woodland caribou are detected within the LAA or RAA, depending on the Project phase. As stated in response to IAAC-R2-122, Alamos has committed to supporting a collaring program in partnership with the Province, pending provincial and federal Lynn Lake Gold Project approvals, to help understand the current ranges of woodland caribou within the KMU. Additionally, if woodland caribou ranges are delineated within the LAA following the collaring program, Alamos will provide additional support, to be negotiated with the Province. Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, including the Wildlife Monitoring and Management Plan, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and	As stated in Chapter 12, Section 12.4, Project effects associated with the loss or alteration of habitat, wildlife mortality risk, and wildlife health may result in a localized shift in the distribution or abundance of some species within the LAA. However, the RAA remains relatively undisturbed, and the Project will not pose a threat to the long-term persistence and viability of wildlife species in the RAA. As stated in Chapter 17, Section 17.4 of the EIS, adverse residual effects on the availability of resources currently used for traditional purposes and access to resources or areas currently used for traditional purposes will occur through construction, operation, and decommissioning/closure. Site preparation activities will require the removal of upland and wetland habitat from the PDA and once cleared, the PDA will provide no suitable habitat for traditionally hunted and trapped species. In the case of beavers and other aquatic mammals, water management could have direct and indirect effects on resource availability. Human-wildlife encounters may occur at on-site facilities and may lead to wildlife mortality through elimination of problem wildlife such as black bear or fox. Sensory disturbance (i.e., noise, vibration, light) has the potential to disturb wildlife and change the use of habitat around the site or highway and may contribute to avoidance of the area by traditional harvesters. During operation, Project-related transportation within the LAA is the primary activity with potential to cause wildlife mortality and change the availability of traditionally harvested resources. With mitigation, the residual environmental effects from the Project on the current use are not anticipated to result in the long-term loss of availability of traditional use resources or access to lands relied on for traditional use practices in the LAA and RAA. It is expected that the ability of Indigenous Nations to continue traditional practices outside of the PDA will be maintained. The PDA and surrounding area have been previously disturbed by mining activity and transportation infrastructure. The Gordon site represents approximately 269 ha of provincial Crown land, or about 1.8% of Crown land available in the LAA. The PDA for the MacLellan site contains approximately 938 ha of municipally administered land, or about 6.5% of the total Crown land area within the LAA. Site preparation activities will require the removal of 1,210 ha of upland and wetland habitat for the PDA, which represents 0.7% of the wildlife habitat available in the RAA. A pre-construction hibernacula survey was undertaken in fall 2021 and none detected within the LAA. Raptor pre-construction nest survey will be completed in spring 2022. As stated in IAAC-07, access roads to both the Gordon and MacLellan sites from Provincial Road 391 (PR 391) are currently gated, as both are existing historical mine sites. No new access modifications or restrictions are currently planned for the access roads. Indigenous and public use of these roads are, and will continue to be, restricted during construction, operation, and decommissioning. During that time, Indigenous peoples, and the public will have to use alternative means to enter areas beyond the gates, just as they currently do with the existing gates. After mine closure, access will no longer be restricted. Although there is no planned fence line to enclose the Gordon or MacLellan site PDAs, and both gates were in place before the Project, indirect

[2] Combines discussion of potential effects, mitigation measures, residual effects, monitoring and follow-up for the Wildlife and Wildlife Habitat VC (Chapter 12 of the EIS) and the Current Use VC (Chapter 17 of the EIS)

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MCFN reported that since the 1950s, many hunters do not hunt caribou anymore due to the decrease in population, including in traditional caribou hunting areas such as McGavock Lake. MCFN explained that trapping is still used as an economic practice but is no longer a major source of revenue due to a decline in fur prices. MCFN reported that moose populations have decreased, and their movements have become unpredictable. Moose populations left the Cockeram Lake area when the McLellan mine was operating but have moved back since the mine closed. MCFN explained that there is more pressure on animals, including moose, caribou, beaver, wolves, and other furbearers, due to increased access and hunting. MCFN has reported animal population decline among amphibians, large game, furbearers, and some bird species. MFCN reported that there is less hunting near Lynn Lake because of tailings contamination. MCFN reported that moose appear to be discolored inside. *Issues and Concerns* MCFN expressed concern about effects on caribou populations, affecting hunting success. MCFN expressed concerns about habitat degradation due to vegetation clearing, increased hunting, increased traffic interactions and the impact on hunting success. MCFN expressed doubts about the consumption of wild foods, including hunted and trapped foods. MCFN expressed concerns about the contamination of wildlife and wildlife habitat. MCFN expressed concerns that herbicide use, including along railways, affects and kills animals such as rabbit, martens, and moose and that the chemicals are moving through the food chain. MCFN expressed concern that mines will scare animals from the area and will affect trappers' livelihoods.	Within the RAA: • Anson Lake • Black Sturgeon Reserve • Cartwright Lake • Chepil Lake • Carr Lake • Ellystan Lake • Goldsand Lake • Huet Lake • Hughes Lake • Lake Wetikoeekan • Little Brightsand Lake • Lynn Lake • Mary Lake • McVeigh Lake • Moses Lake • Muskeg Lake • Sickle Lake • White Owl Lake The following locations are outside the RAA (distance from PDA): • Dunsheath Lake (12.5 km) • Eden Lake (16 km) • Gemmel Lake (21 km) • Numakoos River (26 km) • Chicken Lake (29 km) • Ghost Lake (32 km) • Granville Lake (33 km) • Dunphy Lakes (34.5 km) • Douglas McKay Lake (39 km) • Glasspole Lake (39 km) • Laurie River (39 km) • McGavock Lake (41 km) • Koshelanyk Lake (45 km) • Fox Lake Mine (47 km)	IAAC-169	due to predation and harvest pressure; an increased risk of exposure of wildlife to contaminants; increase in hunting pressure by non-Indigenous people; or loss, alteration, or restriction of access (including trails and travelways) to current lands and resources used for traditional purposes.	• The Contractor and relevant Project staff shall be provided with relevant results of pre-construction surveys to identify known locations of environmentally sensitive features (e.g., migratory bird nests, dens). • Schedule vegetation clearing activities to occur outside the woodland caribou calving and calf-rearing period from May 1 to June 30. In the unlikely event that woodland caribou are detected within the LAA, site preparation activities will also be postponed until after June 30. • Follow best management practices for open pit dewatering; rescue and relocate amphibians prior to dewatering, install amphibian exclusion screens on intake pumps. • Alamos will continue the remote camera survey to share the results with provincial wildlife authorities and interested Indigenous Nations (e.g., for woodland caribou and wolverine). • Alamos will undertake pre-constructions surveys for bat hibernacula and raptor nests. • Alamos will monitor beaver activity to help manage and regulate the effects of beaver activity on the surface hydrology of Gordon Lake and Farley Lake, retain important fish habitat, and reduce Project-related beaver mortality risk. • Noise and light abatement measures for machinery and buildings will be used where practicable to reduce sensory disturbance to wildlife.	as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	effects on access may result from sensory disturbances such as noise and dust during construction, operation, and decommissioning as indicated in Chapter 17, Section 17.4.3 of the EIS. Alamos made efforts to limit the PDAs to these previously disturbed lands to limit environmental effects to VCs including the Current Use of Land and Resources for Traditional Purposes and Indigenous and Treaty rights. As stated in the response to IAAC-169, the Wildlife and Wildlife Habitat VC effects assessment incorporated species of importance to Indigenous Nations as focal species (Table 12-1 in Chapter 12, Section 12.1.2 of the EIS), and as such, assessed them relative to the potential Project-related environmental effects of change in habitat, mortality risk, and wildlife health. Species of importance to Indigenous Nations were identified through engagement, Project-specific TLRU studies, a review of publicly available literature, and past project experience and included the species identified by Indigenous Nation. While the residual effects were not presented by species or group as was done with migratory birds and species at risk, they were included in the overall residual effects assessment and subsequent characterization of environmental effects for the construction, operation, and decommissioning/closure phases. For example, Chapter 12, Section 12.4.2.4 describes residual effects to change in habitat and indicates, "Wildlife and wildlife habitat important to current land and resources users for traditional purposes most likely to be affected by the loss of terrestrial and wetland habitats include migratory (e.g., olive-sided flycatcher) and non-migratory (e.g., ruffed grouse [*Bonasa umbellus*]) birds, furbearers (e.g., American marten), and moose." See response to IAAC-169 for additional information. The Project is not anticipated to result in unacceptable health effect on wildlife health (e.g., through contamination) as determined by the Ecological Risk Assessment (see Chapter 12, Section 12.4.4. of the EIS). Regardless, various plans under the Environmental Management and Monitoring Plan will monitor emissions, discharges, and wastes generated by the Project (including chemicals of potential concern, where applicable) in accordance with relevant regulatory guidelines (see response to IAAC-R2-119). Unforeseen effects to wildlife can be incorporated into the WMMP though the adaptive management process. Woodland caribou was included in the assessment of effects on the Wildlife and Wildlife Habitat VC as a focal species (as a species at risk; Table 12-1 in Chapter 12, Section 12.0 of the EIS) and habitat loss for the species was also included as a measurable parameter used to characterize the residual effect of the Project on wildlife and wildlife habitat (Table 12-2 in Chapter 12, Section 12.1.3 of the EIS). There has been no evidence to suggest the contemporary range of woodland caribou includes the LAA (see Chapter 12, Section 12.2.2.2 of the EIS) and the loss of caribou habitat is small, indirect, and the existing conditions for woodland caribou in the LAA are highly disturbed by both anthropogenic (e.g., historical mine sites, PR 391) and natural (i.e., forest fires) disturbances, with only 21% of the LAA undisturbed habitat (see Chapter 12, Section 12.4.2.4. of the EIS). As stated in response to IAAC-R2-122, Alamos has committed to supporting a collaring program in partnership with the Province, pending provincial and federal Lynn Lake Gold Project approvals, to help understand the current ranges of woodland caribou within the KMU. Additionally, if woodland caribou ranges are delineated within the LAA following the collaring program, Alamos will provide additional support, to be negotiated with the Province. Overall, the Project is anticipated to result in minor post-construction residual effects to woodland caribou as the contribution to habitat disturbance is limited and woodland caribou have not been shown to occupy the LAA. Additionally, the loss is temporary as this habitat will no longer be considered disturbed following site decommissioning/closure, which will also reclaim previously disturbed habitat for woodland caribou.

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Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
MCFN expressed concerns about potential Project-related damage to traplines and about limited access to traplines as a result of gated roads. MCFN remarked that impacts to key phases of animal lifecycle in specific locations and how these will affect Indigenous harvesting of that animal in another location are not well identified. MCFN remarked that if contaminants were in the lakes of interest to MCFN, any animals that feed on fish or invertebrates from these waterbodies would become contaminated through food chain processes. MCFN commented that waterfowl are known to accumulate selenium and lead, for example, which may cause nest failure as well as mortality of adult birds. MCFN stated that potential effects of exposure pathways for COPCs on geese or swans, which consume relatively large amounts of sediment and are hunted by MCFN, have not been assessed. MCFN noted that sensory disturbances such as changes in atmospheric air quality, noise, vibrations, or light can result in potential displacement of wildlife due to habitat avoidance. A change in sensory conditions may also affect the quality of MCFN members' sensory experience and the success of the harvest. MCFN observed that Chapter 12 of the EIS concludes noise-related effects to wildlife may persist for 1 km around the mine site; MCFN are concerned that noise disturbance may alter distributions of harvested wildlife and thus affect hunting success. MCFN stated that Project-related changes in sensory conditions (such as noise) may have been adequately assessed in the PDA, however, within the LAA and those portions of the RAA closest to project activities appear to be not as thoroughly assessed (if at all) within the context of reducing a quality harvesting experience by changing the desirability of the surrounding environmental conditions conducive to a quality experience. MCFN expressed concern about wildlife mortality due to the Project, particularly wildlife species that are harvested by MCFN. Chapter 12 of the EIS references that only 25-50% of the numbers of wildlife killed by vehicle collisions are reported. No correction factor for under-reporting was	• Rabbit Lake (51 km) • Reindeer Lake (60 km) • Seahorse Lake (62 km) • Trophy Lake (65 km) • Oyster Lake (74 km) • Rosie Lake (75 km)					Barren-ground caribou is a subspecies of caribou that ranges across the taiga forests and tundra north of the boreal forest and is discussed in Chapter 12, Section 12.2.2.2. The occurrence of barren-ground caribou range in the RAA is considered historical, as the contemporary southern range extent of the Beverly-Qamanirjuaq herd terminates north of the RAA (BQCMB 2014, COSEWIC 2016b). Background review indicates that it is unlikely that barren-ground caribou would traverse through the RAA. There is no indication that the species has been observed or hunted in the RAA in recent times and the species has not been explicitly included in the assessment of effects on the Wildlife and Wildlife Habitat VC as it will not interact with the Project. As stated in the EIS in Chapter 17, Section 17.4, adverse residual effects on the availability of resources currently used for traditional purposes and access to resources or areas currently used for traditional purposes will occur through construction, operation, and decommissioning/closure. Because the PDA is within the disturbed context of existing mine sites and includes an existing provincial highway, change to hunting and trapping is expected to be incremental, with indirect effects, such as sensory disturbance, extending into the LAA. However, the Project will not pose a threat to the long-term persistence and viability of wildlife species in the RAA. With mitigation, the residual environmental effects from the Project on the current use are not anticipated to result in the long-term loss of availability of traditional use resources or access to lands relied on for traditional use practices in the RAA. It is expected that the ability of Indigenous Nations to continue traditional practices outside of the LAA will be maintained. The ecological risk assessment (ERA) was modelled using information from previous studies that looked at COPC transmission in the environment. To confirm and add local data, exposure point concentrations were gathered for 31 metals in soil, vegetation, small mammals, surface water, sediment, and fish tissue, and for two criteria air contaminants (particulate matter - PM2.5 and PM10) in air. As described in Section 18.4, the Project modeled ecological risk to wildlife including moose, rabbit, and ducks (mallard, lesser scaup). The Project is not releasing any COPC that would bioaccumulate (including mercury and selenium) and lead to effects on waterfowl or other wildlife using waterbodies in the region. Section 12.4.2 of the EIS acknowledges effects to distribution of wildlife in the LAA (1 km buffer of the PDA) due to disturbance (noise, activity). Noise-related effects to wildlife have the potential to occur beyond 40 dBA. The distance at which the mean volume of construction and operational activities around the mine site attenuates to 40 dBA is approximately 1 km (Chapter 7). Sensory disturbance from the Project will therefore temporarily increase the degree of altered habitat effectiveness up to approximately 1 km from the PDA. Some wildlife species may respond to noise disturbance by avoiding portions of the LAA or relocating to inhabit other areas of the RAA where an abundance of undisturbed habitat remains. Adding a correction factor to traffic mortality estimates presented in the EIS would not alter the conclusions that, following the application of mitigation measures (e.g., speed limits, signage), mortality risk to wildlife is considered a low magnitude effect (I.e., a measurable change in the abundance of wildlife in the LAA is not anticipated, although temporary local shifts in distributions in the LAA might occur). Wildlife mortality reporting by Project personnel is part of the Wildlife Management and Monitoring Plan for both construction and operation phases. As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of

Table Error! No text of specified style in document.**-1** **Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
used during the calculations of the numbers of animals potentially lost due to wildlife-vehicle collisions and the number of animals that will likely be killed during collisions is potentially much greater than is reported in the EIS. MCFN indicated that knowledge of MCFN's preferred or required hunting or trapping locales is needed to develop mitigation to avoid or reduce access constraints. MCFN expressed a concern regarding potential loss or decrease in trapper livelihoods if animals normally trapped scatter due to sensory disturbances MCFN commented that sensory disturbance (i.e., noise, vibration, light) have the potential to disturb wildlife and change the use of habitat around the site or highway and may contribute to avoidance of the area by traditional harvesters MCFN expressed concern regarding noise during Project construction and operation disturbing wildlife potentially resulting in wildlife dispersal resulting in potential loss or decrease in trapper/hunting success MCFN expressed concern that noise (i.e., blasting and helicopters) will negatively affect traditional migratory and non-migratory bird harvesting seasons. MCFN expressed concerns about noise during Project construction and operation leading to a potential change in the quality of the harvesting experience. MCFN indicated that there is insufficient information regarding the sedimented particles within land or lakes used by wildlife and fish harvested by MCFN. From MCFN's perspective, the contribution of additional metal particles to the degradation of the environment and the uptake by wildlife in areas key to their lifecycle has not been adequately addressed. *Recommendations made by Marcel Colomb First Nation* MCFN requested clarification on access restrictions within the PDA and LAA, including harvesting areas, and access to those areas as it pertains to gates, shooting restrictions and signage. MCFN stated that exploratory helicopter fights over the Black Sturgeon Reserve during moose and goose hunting season is to be avoided so as to avoid infringement of Treaty rights.						monitoring locations. Results of follow-up and monitoring will be summarized in annual reports. Alamos is currently in discussion with MCFN regarding concerns and recommendations shared following the third-party review of the EIS. Alamos anticipates resolving outstanding issues with MCFN through agreements negotiated outside the EIS process

Table Error! No text of specified style in document.**-1** **Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
MCFN suggested that Alamos establish a fund which MCFN can administer according to agreed-upon principles to pay for various mitigation measures, (e.g., building cabins and trails). MCFN requested Alamos commit to compensation being paid to trappers for complete or partial loss of trapline use. MCFN suggested Alamos commit to undertake an active sampling, study and monitoring program (e.g., of harvested wildlife), with MCFN playing a lead role in the program design and implementation. MCFN proposed that Alamos commit to restrictions on certain activities in the LAA (e.g., blasting and exploratory helicopter flights) during traditional harvesting seasons such as moose and goose hunting seasons. MCFN proposed further development of communication protocols regarding pre-construction and construction-phase activities that may increase local noise. MCFN suggested Alamos negotiate access restrictions and protocols with MCFN. MCFN recommended that as much as possible work be scheduled to avoid noisy construction activities during bird nesting periods, or peak harvesting seasons (e.g. spring goose hunt). <u>Sources:</u> Alamos Indigenous engagement program Stantec, with Marcel Colomb First Nation. 2018 Results of Hemmera third-party review of the EIS on behalf of MCFN						

Table Error! No text of specified style in document.**-1** **Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
Fish and Indigenous Fishing[3]						
Existing Conditions MCFN identified various named places where fishing occurs. These are listed in column 2. MCFN has reported that fishing is an important food source, and that spring and summer are the best seasons to harvest fish. MCFN has reported that the Simpson Lake whitefish population was "totally depleted" after the Farley Lake Mine was opened. MCFN reported that MCFN members fish for subsistence and commercially. MCFN explained that decreased fish populations, including whitefish and sturgeon in some lakes, are caused by increased fishing pressures and overfishing. MCFN noted that the fish in Cockeram Lake have been impacted as a result of historical tailings seepage. MCFN reported that the Manitoba Government advised that fish in Cockeram Lake and Laurie Lake were not safe to eat. *Issues and Concerns* MCFN expressed concerns about fish and fish habitat effects from water quality impacts MCFN expressed concerns that fish could be contaminated from Project pollution. MCFN has reported a decline in sturgeon population, which was attributed to inappropriate actions by some land users. MCFN reported that whitefish have declined in population in Swede and Ellystan lakes. MCFN observed that only a few of the waterbodies fished by MCFN were sampled The lakes currently used for fishing by MCFN include: Cockeram Lake, Swede Lake and the Keewatin River (which were sampled by Alamos), as well as Hughes Lake, Moses Lake, Sickle Lake, Chepil Lake, Granville Lake, and Eden Lake (which were not sampled by Alamos) The following lakes were identified as lakes used for commercial fishing purposes by MCFN: Barrington Lake, Cockeram Lake, and Goldsand Lake (which were sampled	Species identified by Marcel Colomb First Nation: northern pike (jackfish), whitefish, sturgeon, walleye (pickerel), goldeye, trout (lake), and suckers. Other fish species in the RAA commonly understood to be harvested by Indigenous Nations: Arctic grayling, perch, minnows, mariah (burbot), and sauger. Locations: MCFN described and mapped 48 locations related to fishing; see Attachment A-3-MCFN TLRU Study, Figures 2a and 2b. Seven o these mapped locations overlap the PDA, 13 overlap the LAA, and 15 overlap the RAA. The remaining locations mapped by MCFN are outside the RAA. MCFN also mentioned places where fishing occurs. Within the PDA: • Keewatin River intersects the PDA at the MacLellan site • Hughes River intersects the PDA at the Gordon site (salmon spawning) Within the LAA: • Cockeram Lake • Swede Lake • Simpson Lake partially intersects the LAA Within the RAA: • Barrington Lake • Chepil Lake • Eagle River • Ellystan Lake • Gallagher Lake • Goldsand Lake • Hughes Lake • Lake Wetikoeekan	EIS: Chapter 10, Section 1.2.1 Chapter 10, Section 10.1.3 Chapter 10, Section 10.4.3.1 Chapter 10, Section 10.7 Chapter 17, Section 17.1.3 Chapter 17, Section 17.1.4 Chapter 17, Section 17.4 Chapter 17, Section 17.4.3 Chapter 17, Section 17.7 Chapter 23, Section23.4 Chapter 23, Section 23.5.5 Chapter 23, Section 23.5.15 Chapter 23, Section 23.5.17 Federal IR responses: IAAC-07 IAAC-48 IAAC-55 IAAC-R2-03	The Project has the potential to affect fish and fish habitat as well as the availability and access to fish and fishing areas. Alamos acknowledges that the information about fishing by MCFN presented in this table should not be considered comprehensive. Alamos has conservatively assumed that there is the potential for fishing by MCFN to occur throughout the RAA and that fish species commonly understood to be harvested by Indigenous peoples that occur within the RAA may be fished by MCFN. As stated in Chapter 10, Section 10.1.3 of the EIS, the potential environmental effects of the Project include change in fish habitat (including the potential permanent alteration or destruction of fish habitat); and change in fish health, growth, and survival. As stated in Chapter 17, Section 17.1.4 of the EIS, the Project has the potential to result in change to the availability of resources currently used for traditional purposes, and through a change in access to resources or areas currently used for traditional purposes. The Project has the potential to cause adverse effects to traditional fishing that require mitigation and monitoring in order to be managed effectively. Adverse effects could occur through change in physical habitat due to mine infrastructure; altered lake levels and streamflow (timing, duration, volume) for surface water due to construction of water management facilities and open pits; lethal effects due to dewatering, infilling, blasting, change in angling pressure, or entrainment in water intakes; change in water quality parameters that influence habitat suitability: dissolved oxygen, temperature, total suspended solids; or chronic or acute toxicity effects due to changes in water and sediment	Relevant mitigation measures for surface water as described above in Section 8.1 are predicted to avoid or reduce effects on the quality and quantity of surface water available for use by Indigenous Nations. Relevant mitigation measures for fish and fish habitat as described above in Section 8.2 are predicted to avoid or reduce effects on traditionally important species and resources. Relevant mitigation measures for land and resource use as described above in Section 8.5 are predicted to avoid or reduce effects on access for fishing by Indigenous Nations. Relevant mitigation measures for current use of lands and resources for traditional purposes as described above in Section 8.7 are predicted to avoid or reduce effects to fishing and to loss, alteration, or restriction of access to traditionally used resources or areas. The application of relevant actions in the EEMP are intended to verify the Project's compliance with the applicable mining effluent regulations (Chapter 23, Section 23.5.17). An EEMP will be developed in accordance Schedule 5 of the MDMER under the federal *Fisheries Act*, and the *Metal Mining Technical Guidance for Environmental Effects Monitoring* by ECCC (2012). The application of relevant actions in the Surface water Monitoring and Management Plan (Chapter 23, Section 23.5.5 of the EIS) are intended to address unanticipated effects to surface water through adaptive management. The application of relevant actions in the Fish Habitat Offsetting Plan (Chapter 23, Section 23.5.15 of the EIS) are intended to offset unavoidable harmful alteration, disruption, or destruction of fish habitat.	A detailed Closure Plan that conforms with *The Mines and Minerals Act – Mine Closure Regulation* will be submitted to Manitoba Agriculture and Resource Development prior to the commencement of Project construction. As described in IAAC-48 and IAAC-55, details of the AEMP and SWMMP will be developed during the permitting phase of the Project. However, it is expected that the AEMP will include monitoring and adaptive management of fish and fish habitat while the SWMMP will include monitoring and adaptive management of groundwater, surface water quantity and surface water quality at the Gordon and Maclellan sites. Monitoring is expected to include data collection "before" and "after" mine construction at "impact" sites downstream of the Project and at "control" sites in unaffected waterbodies to allow for statistical assessment of various groundwater, stream flow, water quality, and fish population metrics in a 'before-after control-impact' type study design. The AEMP and SWMMP will also include the location, timing, frequency, and duration of sampling, the sampling methods to be used, the parameters to be monitored, and the quantitative thresholds that will trigger adaptive management actions. Adaptive management triggers will be developed to provide an early indication of any unanticipated changes in water levels, stream flows, or water quality, that may pose lethal or sublethal effects to fish so that mitigation measures can be altered or added, if necessary, before any threshold is exceeded. These adaptive management actions may include, but not necessarily be limited to: • A hierarchical plan to investigate the potential causes of trigger level exceedances to determine if the exceedance is due to measurement error, equipment malfunction, a single anomalous event, a regional phenomenon, or a Project-related effect. • A hierarchical plan to implement remedial actions to supplement existing mitigation measures or to implement new mitigation measures to reduce or eliminate the trigger exceedance. • A plan to report Project-related trigger or threshold exceedances to the appropriate federal and provincial agencies, and to local Indigenous Nations.	As stated in Chapter 10, Section 10.4.3.1, effects on fish and fish habitat at the Gordon site will occur during construction and operations due to increased discharge in Farley Creek. However, this effect is not expected to extend beyond the LAA to Hughes River. Increased discharge to Farley Creek may have implications for fish species using Farley Creek for spawning, such as northern pike and white suckers. However, the change in flow is not expected to adversely affect the habitat in Farley Creek or its use by fish. See response to IAAC-R2-39 for additional information regarding life history, habitat requirements, and environmental sensitivity information for the fish species known to inhabit, or potentially inhabiting, the LAA. Potential increases in water levels in Gordon and Farley lakes are expected to be within the range of natural variability in these lakes which are continually affected by beaver activity. Loss of fish habitat in the existing diversion channel during construction would be immediately offset by construction of the new diversion channel. Effects on fish and fish habitat in Keewatin River at the MacLellan site are not expected to occur because the change in discharge in Keewatin River is predicted to be <2% which is well below the thresholds identified by DFO as likely to cause negative effects to aquatic ecosystems that support commercial, recreational, or Aboriginal fisheries. Predicted decreases in water levels in Minton Lake will be within the range of natural variability in lake levels, which are driven by natural beaver activity at the lake outlet. The loss of the East Pond is not predicted to have a measurable effect on fish in Keewatin River because East Pond only supports a resident population of brook sticklebacks. Loss of East Pond will be counterbalanced by implementation of offsets in the RAA as part of Alamos' Fish Habitat Offsetting Plan. As stated in Chapter 10, Section 10.4.3.1, effects of POPCs on fish health, growth, or survival are predicted to be negligible for both the Gordon and MacLellan sites. While exceedances of guidelines are predicted to occur for fluoride and phosphorus in Farley Lake at the Gordon site, and for total aluminum, total arsenic, total and dissolved cadmium, total copper, and fluoride in Minton Lake (cadmium only), Keewatin River (total aluminium only), and the unnamed Keewatin River tributary KEE3-B1 at the MacLellan site, these exceedances are only marginally higher than federal or provincial guidelines and are not expected to result in measurable changes in fish health, growth, or survival in any waterbody or watercourse downstream of the Project. Predicted POPCs do not necessarily mean that adverse effects will occur in fish or aquatic biota. This is because guidelines are typically developed to protect the most sensitive species at a provincial or federal level (which may not be present at the site), often incorporate uncertainty factors, and include conditions that may not be relevant at a local or regional level. In addition, some guidelines do not incorporate the most recent science about the toxicity of a parameter to fish or aquatic biota. For these reasons, adverse effects to fish and aquatic biota are unlikely to occur at the concentrations predicted by the water quality models. As stated in the EIS in Chapter 17, Section 17.4, adverse residual effects on the availability of resources currently used for traditional purposes and access to resources or areas currently used for traditional purposes will occur through construction, operation, and decommissioning/closure. Water development and control activities will include the dewatering of the existing pits and re-alignment

[3] Combines discussion of potential effects, mitigation measures, residual effects, monitoring and follow-up for the Fish and Habitat VC (Chapter 10 of the EIS) and the Current Use VC (Chapter 17 of the EIS)

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by Alamos) as well as Cartwright Lake, Anson Lake, Wasekwan Lake, and Dunsheath Lake (which were not sampled by Alamos) MCFN noted that pike in Barrington and Goldsand lakes showed elevated levels of mercury and that water quality in Cockeram Lake showed some metal contamination. MCFN stated that although the EIS may not demonstrate mercury or selenium related issues to be caused by the Project, there nevertheless appears to be mercury and selenium bioaccumulation and biomagnification in the area and Alamos does not characterize the ways that the Project will contribute (or not) to that issue. *Recommendations made by Marcel Colomb First Nation* MCFN recommended that Alamos establish a fish tissue sampling program in collaboration with MCFN whereby fish that are fished by community members are also sampled for mercury content. The fish tissue sampling program should also sample for other contaminants that have the potential to bio-magnify and to bio-accumulate, such as lead and hexavalent chromium. MCFN recommended that Alamos develop or finance the development of both a mercury diagnosis program and a selenium diagnosis program that will include lakes of importance to MCFN and connected lakes as well as other water bodies that would sustain MCFN fisheries. Sample mercury and methylmercury in lake water, sediments, interstitial water within areas suspected of being the site of biomethylation, plankton and benthic invertebrates in a manner adequate to ensure appropriate diagnosis. Sample selenium in lake water, sediments, plankton and benthic invertebrates in a manner adequate to ensure appropriate diagnosis. MCFN recommended that Alamos commit to identifying important mercury and selenium sources and sinks and to come up with solutions that will slow or break the mercury cycling in the area. MCFN recommended that Alamos commit to adding no detectable levels of mercury or selenium to the environment as result of Project operations.	• Little Brightsand Lake • Lynn Lake • Lynn River • Moses Lake The following locations are outside the RAA (distance from PDA): • Dunsheath Lake (12.5 km) • Eden Lake (16 km) • Wells Lake (25 km) • Granville Lake (33 km) • McGavock Lake (41 km) • Russell Lake, including Big Sand Point (58 km)		quality from mine effluent releases; increase in fishing pressure by non-Indigenous people; or loss, alteration, or restriction of access (including trails and travel ways) to current lands and resources used for traditional purposes.		See response to IAAC-R2-02 and IAAC-R2-04 for additional detail on parameters to be considered, thresholds or triggers and adaptive management measures that may be implemented. Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, including the Aquatic Environment Management Plan, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	of the existing diversion channel at the Gordon site, which may affect the availability of fish. Fish health may be affected by wastes, emissions, and water management activities. However, changes in the distribution and abundance of fish species relied upon by Indigenous Nations within the LAA are not expected. With mitigation, the residual environmental effects from the Project on the current use are not anticipated to result in the long-term loss of availability of traditional use resources or access to lands relied on for traditional use practices in the LAA and RAA. It is expected that the ability of Indigenous Nations to continue traditional practices outside of the PDA will be maintained. As stated in IAAC-07, access roads to both the Gordon and MacLellan sites from Provincial Road 391 (PR 391) are currently gated, as both are existing historical mine sites. No new access modifications or restrictions are currently planned for the access roads. Indigenous and public use of these roads are and will continue to be restricted during construction, operation, and decommissioning. During that time, Indigenous peoples, and the public will have to use alternative means to enter areas beyond the gates, just as they currently do with the existing gates. After mine closure, access will no longer be restricted. Although there is no planned fence line to enclose the Gordon or MacLellan site PDAs, and both gates were in place before the Project, indirect effects on access may result from sensory disturbances such as noise and dust during construction, operation, and decommissioning as indicated in Chapter 17, Section 17.4.3 of the EIS. Alamos made efforts to limit the PDAs to these previously disturbed lands to limit environmental effects to VCs including the Current Use of Land and Resources for Traditional Purposes and Indigenous and Treaty rights. As summarized in Section 10.2 of Chapter 10 of the EIS (Potential Effects to Fish and Fish Habitat) and as described in greater detail in the “Fish, Fish Habitat, and Fish Tissue Baseline Technical Data Report (Stantec 2017), Cockeram Lake, Goldsand Lake, Swede Lake, and the Keewatin River were sampled for fish, fish tissue, and/or assessed for habitat conditions as part of baseline studies conducted in 2015 and 2016. Goldsand Lake was sampled as an upstream reference site for monitoring potential effects to fish and fish habitat downstream of the Maclellan Site. In addition, water quality samples were collected in these lakes and river and, in 2017 and 2018, from the following lakes downstream of Cockeram Lake in the Keewatin River watershed to delineate the downstream extent of contamination from the former East Tailings Management Area (ETMA) on the Lynn River: Moses, Sickle, and Granville lakes. Hughes Lake, Dunsheath Lake, and Chepil Lake were not sampled because they are located upstream of the confluence of the Hughes River and the Ellystan Lake outlet, the lake outlet ultimately draining water from the Gordon Site to the Hughes River. Barrington Lake and Wasekwan Lake were not sampled because they are not located in the same watersheds as the MacLellan and Gordon Sites. Eden Lake was not sampled because it was considered too far downstream for any potential effects to fish and fish habitat to occur due to construction, operation, or closure of the Gordon Site. Anson Lake was not sampled because Moses and Sickle lakes were sampled upstream and downstream and any changes in Anson Lake could be interpreted from these other data. Cartwright Lake was not sampled because it is not directly downstream of the MacLellan Site or past contamination from the ETMA. Elevated mercury concentrations in water, sediment, or fish in Goldsand or Barrington Lakes are not from past or present mining activities because there are no historic or active mines in the Keewatin River watershed or Barrington River watersheds upstream of these lakes. As stated in the response to IAAC-R2-17, Alamos does not consider the Project to be a significant source of mercury because: 1) the predicted mercury loads coming off the mine rock, overburden, ore stockpiles, and pit walls are

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Sources: Alamos Indigenous engagement program Stantec, with Marcel Colomb First Nation. 2018 Results of Hemmera third-party review of the EIS on behalf of MCFN						too small to increase concentrations in the receiving environment by more than 20% or above federal or provincial water quality guidelines for the protection of freshwater aquatic life; 2) the Project will not flood any wetlands or upland areas that could introduce new sources of inorganic mercury and organic nutrients to the water and increase the activity of mercury methylating bacteria. The TMF has been designed as a zero-discharge facility. See the Accidents and Malfunctions section of the Table for Project design and safety measures to reduce environmental effects of the TMF. As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports. Alamos is currently in discussion with MCFN regarding concerns and recommendations shared following the third-party review of the EIS. Alamos anticipates resolving outstanding issues with MCFN through agreements negotiated outside the EIS process
Vegetation and Indigenous Plant Harvesting[4]						
Existing Conditions MCFN identified various named places and geographic features where plant harvesting occurs. These are listed in column 2. MCFN reported that plant harvesting has been an integral part of the MCFN culture since they first inhabited northern Manitoba. MCFN noted that berries are harvested in the summer into the early fall and that berry picking is often best in newly burned areas. MCFN reported that medicinal plants were harvested in the summer and noted that the abundance of medicinal plants has declined. MCFN reported that medicines are not as potent as they used to be and there is less sap in the trees. *Issues and Concerns* MCFN is concerned that contamination from the mines and that it will harm plants and impact medicines. MCFN expressed concerns about ingesting country foods including vegetation. MCFN expressed concern about potential Project effects to soil.	Species identified by Marcel Colomb First Nation: birch, white spruce, poplar, jack pine, moss, bear berry, blackberry, blueberry, chokecherries, cranberry, crowberry, eye berry, gooseberry, hipberry, juniper berry, mooseberry, “orange-coloured berries (possibly cloudberries)”, moss berry, raspberry, Saskatoon berry, strawberry, tobacco, wild carrot, Labrador tea, beaver pineapple (small yellow pond lily, *posakan*), rat root, Seneca root, mint, chaga fungus/mushroom, spruce gum, herbs, pineapple root, bear root, and frog’s ear moss. Other plant species and fungus in the RAA commonly understood to be harvested by Indigenous Nations: pin cherry, red berry, lavender tree, trembling aspen, willow, and nuts (unspecified). Locations: MCFN described and mapped 24 locations related to plant gathering; (see Attachment A-3 – MCFN TLRU Study, Figures 2a and 2b.) One of these mapped locations overlaps the PDA, 4 overlap the LAA, and 10 overlap the RAA. The	EIS: Chapter 11, Section 11.1.2.1 Chapter 11, Section 11.1.3 Chapter 11, Chapter 11.4.2 Chapter 11, Section 11.4.3 Chapter 11, Section 11.7 Chapter 17, Section 17.1.3 Chapter 17, Section 17.1.4 Chapter 17, Section 17.4 Chapter 17, Section 17.4.3 Chapter 17, Section 17.7 Chapter 23, Section 23.4	The Project has the potential to affect vegetation and wetlands as well as the availability and access to traditionally harvested plants and plant harvesting areas. Alamos acknowledges that the information about plant harvesting by MCFN presented in this table should not be considered comprehensive. Alamos has conservatively assumed that there is the potential for plant harvesting by MCFN to occur throughout the RAA and that plants commonly understood to be harvested by Indigenous peoples that occur within the RAA may be harvested by MCFN. As stated in Chapter 11, Section 11.1.3 of the EIS, the potential environmental effects of the Project include change in landscape diversity; change in vegetation community diversity; change in species diversity; and change in wetlands function. As stated in Chapter 17, Section 17.1.4 of the EIS, the Project has the potential to result in change to the availability of resources currently used for	Dust suppression, as described above in Section 8.1 is predicted to avoid or reduce sensory disturbance to Indigenous harvesters. Dust mitigation measures, as described above in Section 8.1, are predicted to avoid or reduce dust emissions and deposition effects to habitat or traditionally harvested species. Relevant mitigation measures for vegetation and wetlands as described above in Section 8.3 are predicted to avoid or reduce effects on traditionally important species and resources. Relevant mitigation measures for land and resource use as described above in Section 8.5 are predicted to avoid or reduce effects on access for plant gathering by Indigenous Nations. Relevant mitigation measures for current use of lands and resources for traditional purposes as described above in Section 8.7 are predicted to avoid or reduce effects to plant gathering and to loss, alteration or restriction of access to traditionally used resources or areas.	As described in IAAC-149, measures to manage clearing activities on Project sites to reduce effects on plant resources/re-generation post-closure include: • Vegetation clearing will be conducted using mechanical/manual practices. • Sensitive areas adjacent to the PDA, such as wetlands, will be buffered by 30 m, where possible, and clearly marked prior to clearing. • Limits of vegetation clearing will be clearly marked and marking maintained for the duration of construction. • The limits of vegetation clearing will be visually examined to confirm limits are clearly marked and that clearing works stay within approved work areas. • Grading will be directed away from wetlands, where practicable. • Cross drainage will be maintained to allow water to move freely from one side of the road to the other in areas of permanent or temporary access roads. • Project disturbed areas will be re-seeded with native plants, including plants of interest to Indigenous communities.	The PDA and surrounding area have been previously disturbed by mining activity and transportation infrastructure. The Gordon site represents approximately 269 ha of provincial Crown land, or about 1.8% of Crown land available in the LAA. The PDA for the MacLellan site contains approximately 938 ha of municipally administered land, or about 6.5% of the total Crown land area within the LAA. Site preparation activities will require the removal of 1,210 ha of upland and wetland habitat for the Gordon and MacLellan PDAs, which represents 0.7% of the habitat available in the RAA. As stated in Chapter 11, Chapter 11.4.2 of the EIS, vegetation clearing at both the Gordon and MacLellan sites will result in habitat patch loss and reduction. However, both sites are currently classified as developed; at closure both sites will be reclaimed to mostly native upland or reclaimed upland plant communities and result in a positive change to landscape diversity in the RAA for the long-term. Reclaimed areas will support mainly native plants but will not re-establish existing native areas or return currently disturbed areas to pre-disturbance condition. Commercially available native plants used for reclamation will be selected in consultation with MCFN and other Indigenous groups. As stated in Chapter 11, Section 11.4.3 of the EIS, construction and operation at the Gordon site is anticipated to cover 269.4 ha of the LAA and would directly affect mostly upland plant communities that are common and distributed throughout the Gordon LAA. Plant communities that are relatively uncommon in the LAA (having less than two percent cover in the LAA), would be mainly unaffected by the Project development. With the use of mitigation measures, the direct and indirect loss of plant communities and species diversity including plant species of interest to Indigenous Nations will be relatively small compared to the RAA. The abundance of upland native areas will increase by 0.4% with reclamation of currently disturbed areas, and the abundance of wetlands will decrease by 0.6% in the RAA.

[4] Combines discussion of potential effects, mitigation measures, residual effects, monitoring and follow-up for the Vegetation and Wetlands VC (Chapter 11 of the EIS) and the Current Use VC (Chapter 17 of the EIS)

Table Error! No text of specified style in document.**-1 Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
MCFN remarked that there is no certainty that the habitat produced after reclamation will be equivalent in suitability to that which was lost, especially wetland habitat (important for moose, beaver and waterfowl). MCFN expressed doubt that habitat will 'return to existing conditions' and much of the habitat loss should be considered a permanent effect. *Recommendations made by Marcel Colomb First Nation* MCFN indicated that plant harvesting sites require protection from vegetation clearing and management practices. MCFN recommends monitoring of vegetation clearing by an Elder. Sources: Alamos Indigenous engagement program Stantec, with Marcel Colomb First Nation 2018	remaining locations are outside the RAA. MCFN also mentioned places and geographic features where plant harvesting occurs. Within the LAA: • Cockeram Lake Within the RAA: • Anson Lake • Black Sturgeon Reserve • Frances Lake • Goldsand Lake • Hughes Lake • Lake Wetikoeekan • Lynn Lake • Moses Lake • Muskeg Lake The following locations are outside the RAA (distance from PDA): • Eden Lake (16 km) • Churchill River (32 km) • Granville Lake (33 km) • Laurie River (39 km) • McGavock Lake (41 km) • Fox Lake Mine (47 km) • Russell Lake (58 km) • Pukatawagan (122 km)	Chapter 23, Section 23.5.7 Federal IR responses: IAAC-07 IAAC-46 IAAC 123 IAAC-125 IAAC-127 IAAC-149 IAAC-R2-03	traditional purposes, and through a change in access to resources or areas currently used for traditional purposes. The Project has the potential to cause adverse effects to traditional plant harvesting that require mitigation and monitoring in order to be managed effectively. Adverse effects could occur through fragmentation of habitat due to vegetation clearing; direct loss or alteration of native vegetation due to vegetation clearing; indirect alteration of native vegetation from the introduction or establishment of regulated weeds, vegetation control (i.e., herbicide application) or deposition of dust and contaminants; direct loss or alteration of wetland area or change in wetland type from vegetation clearing or alteration of surface or groundwater flow patterns; or indirect loss or alteration of wetland area, structure, or function or loss, alteration, or restriction of access (including trails and travelways) to current lands and resources used for traditional purposes.	The application of relevant actions in the Air Quality Management Plan (Chapter 23, Section 23.5.7) are intended to reduce effects on the environment from dust and air emissions. As described in IAAC-149, measures to manage clearing activities on Project sites to reduce effects on plant resources/re-generation post-closure include: • Vegetation clearing will be conducted using mechanical/manual practices. • Sensitive areas adjacent to the PDA, such as wetlands, will be buffered by 30 m, where possible, and clearly marked prior to clearing. • Limits of vegetation clearing will be clearly marked and marking maintained for the duration of construction. • The limits of vegetation clearing will be visually examined to confirm limits are clearly marked and that clearing works stay within approved work areas. • Grading will be directed away from wetlands, where practicable. • Cross drainage will be maintained to allow water to move freely from one side of the road to the other in areas of permanent or temporary access roads. • Indigenous communities will be provided opportunities to harvest food and medicinal plants prior to construction	As described in IAAC-46, The Air Quality Monitoring plan will include adaptive management based on defined particulate matter concentrations at prescribed distances from dust sources. As described in IAAC 123, a dust control efficiency of 75% on the haul roads and access roads will be achieved throughout the life of the Project by application of water at a minimum frequency of every 8 hours during summer and increasing the watering frequency in dry summer days and high wind conditions and if measured ambient PM concentrations are in exceedance of the Manitoba AAQC. As described in IAAC-125, if the ambient air quality monitoring program indicates that the ambient TSP, PM_{10} or $PM_{2.5}$ concentrations are greater than Manitoba AAQC, additional mitigations to reduce dust emissions will be implemented. The additional dust mitigation measures could include: • Increased watering frequency on haul roads and access roads. • Temporary suspension of construction and mining activities during high wind conditions. As described in detail in IAAC-125 and IAAC-127, continuous meteorological monitoring and continuous ambient air monitoring of ambient TSP, PM_{10} and $PM_{2.5}$ concentrations will be implemented during Project construction and operation in conjunction with emissions mitigation to assess the effectiveness of the dust mitigation and to evaluate the need for more rigorous dust mitigation. Monitoring stations will be installed to measure both, background ambient particulate matter (PM) concentrations (in an upwind location from the Project sites) and ambient particulate matter concentrations influenced by the Project (in downwind locations). Continuous meteorological monitoring stations (each with a 10 m tower) will be installed at Gordon and MacLellan sites and will provide real time meteorological data to assist in the implementation of adaptive management for dust Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, including the Vegetation and Wetlands Management Plan, were sent to each Indigenous Nation engaged on the	As stated in Chapter 17, Section 17.4 of the EIS, adverse residual effects on the availability of resources currently used for traditional purposes and access to resources or areas currently used for traditional purposes will occur through construction, operation, and decommissioning/closure. Site preparation activities will require the removal of upland and wetland habitat for the PDA; Once cleared, the PDA will provide no suitable habitat for traditionally harvested plants. During construction, the availability of traditionally harvested plants in the LAA may be affected by the emission of dust, soil and soil compaction caused by Project-related transportation such as ore hauling and heavy equipment. There may be perceived loss of plant species and plant harvesting sites due to dust deposition; plants and berries covered in dust may be avoided by Indigenous Nations. With mitigation, the residual environmental effects from the Project on the current use are not anticipated to result in the long-term loss of availability of traditional use resources or access to lands relied on for traditional use practices in the LAA and RAA. It is expected that the ability of Indigenous Nations to continue traditional practices outside of the PDA will be maintained. As stated in IAAC-07, access roads to both the Gordon and MacLellan sites from Provincial Road 391 (PR 391) are currently gated, as both are existing historical mine sites. No new access modifications or restrictions are currently planned for the access roads. Indigenous and public use of these roads are and will continue to be restricted during construction, operation, and decommissioning. During that time, Indigenous peoples, and the public will have to use alternative means to enter areas beyond the gates, just as they currently do with the existing gates. After mine closure, access will no longer be restricted. Although there is no planned fence line to enclose the Gordon or MacLellan site PDAs, and both gates were in place before the Project, indirect effects on access may result from sensory disturbances such as noise and dust during construction, operation, and decommissioning as indicated in Chapter 17, Section 17.4.3 of the EIS. Alamos made efforts to limit the PDAs to these previously disturbed lands to limit environmental effects to VCs including the Current Use of Land and Resources for Traditional Purposes and Indigenous and Treaty rights. As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports. Alamos is currently in discussion with MCFN regarding concerns and recommendations shared following the third-party review of the EIS. Alamos anticipates resolving outstanding issues with MCFN through agreements negotiated outside the EIS process.

Table Error! No text of specified style in document.**-1** **Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
					Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	
Trails and Travelways[5]						
Existing Conditions MCFN identified various named places and geographic features where travel occurs. These are listed in column 2. MCFN reported that MCFN is dependent on adequate trails and travelways. Historically and currently, travel is seasonally restricted and depends on the conditions of lakes and rivers. MCFN reported that members live in cabins or camps and travel extensively using long-established trails and routes over land and on water. Some travelways are overlapped by the MacLellan PDA or intersected by Gordon Lake access road. MCFN has noted several travel routes used for hunting and trapping: a north to south winter road to White Owl Lake and an east to west trail from Westdal Lake. MCFN also identified a travel route from Elizabeth Lake, Manson Lake, and Ellystan Lake. MCFN reported a Bombardier trail that connected the community of Lynn Lake to the community of South Indian Lake. MCFN noted that MCFN generally travelled by canoe in the spring, summer, and fall, and by dog sled team or snowmobile in the winter. MCFN reported numerous travelways from Lynn Lake and Pukatawagan. *Issues and Concerns* MCFN reported that ice roads were deteriorating faster with the change in climate. MCFN indicated that all-season access came about with mine development and railway construction, which changed the experience of the lands and increased access to traditional areas and expressed concerns about the impact increased access has on traditional resources.	Locations: MCFN described and mapped 36 travel features; see Attachment A-3 – MCFN TLRU Study, Figures 3a and 3b. Six of these mapped locations overlap the PDA, 7 overlap the LAA, and 13 overlap the RAA. The remaining locations mapped by MCFN are outside the RAA. MCFN also mentioned places and geographic features where travel occurs. Within the PDA: • Bombardier trail (from South Indian Lake) intersects the PDA at the Gordon site • Travel route connecting Churchill River to Vandekerkhove Lake overlaps the PDA at the MacLellan site Within the LAA: • Cockeram Lake • Swede Lake • Simpson Lake partially intersects the LAA (seasonal access, canoe or dog team) • Travel route from Reindeer Lake to Churchill River, Chepil Lake and Hughes Lake overlaps the LAA • Winter road from Muskeko Lake to Ospawakun Lake, from Swede Lake to Eden Lake, and from Swede Lake to White Owl Lake intersects the LAA Within the RAA: • Black Sturgeon Reserve	EIS: Chapter 15, Section 15.1.2.1 Chapter 15, Section 15.1.3 Chapter 15, Section 15.4.3 Chapter 15, Section 15.7 Chapter 15, Section 15.9 Chapter 16, Section 16.1.2 Chapter 16, Section 1.2.1 Chapter 16, Section 16.1.3 Chapter 16, Section 16.7 Chapter 16, Section 16.9 Chapter 17, Section 17.1.3 Chapter 17, Section 17.1.4 Chapter 17, Section 17.4.3 Chapter 17, Section 17.4.3.3 Chapter 17, Section 17.7 Federal IR responses: IAAC-07 IAAC-202 IAAC-R2-03 IAAC-R2-37	The Project has the potential to affect trails and travelways used by MCFN, as well as access to harvesting sites and locations of cultural importance. Alamos acknowledges that the information about use of trails and travelways by MCFN presented in this table should not be considered comprehensive. Alamos has conservatively assumed that there is the potential for use of trails and travelways by MCFN to occur throughout the RAA. As stated in Chapter 15, Section 15.1.3 of the EIS, the potential environmental effects of the Project include change to land use and change in resource use. As stated in Chapter 16, Section 16.1.3 of the EIS, the potential environmental effects of the Project include change to heritage resources, including historic and/or precontact trails. As stated in Chapter 17, Section 17.1.4 of the EIS, the Project has the potential to result in change in access to resources or areas currently used for traditional purposes. The Project has the potential to cause adverse effects to existing trails and travelways in the LAA that require mitigation and monitoring in order to be managed effectively. Adverse effects could occur through loss, disturbance or restriction of access to trails and travelways due to brush or topsoil removal, compaction, vehicle traffic, grading for access roads and infrastructure, and mine infrastructure construction; destruction of context of historic or precontact trails; or loss, alteration, or restriction of access to lands and resources used for traditional purposes. Increased	Relevant mitigation measures for land and resource use as described above in Section 8.5 are predicted to avoid or reduce effects on access and use of trails and travelways in the LAA by Indigenous Nations. As described above in Section 8.6, inadvertent discoveries of heritage resources, including previously unrecorded historic or precontact trails, will be reported to provincial authorities, as required under provincial heritage legislation. Procedures to follow for chance finds are documented in the Heritage and Cultural Resource Protection Plan (HCRPP). The Manitoba Historic Resources Branch has reviewed recommendations and mitigation measures outlined in heritage permit reports and concurred with the proposed mitigation measures (Historic Resources Branch 2017). Relevant mitigation measures for current use of lands and resources for traditional purposes as described above in Section 8.7 are predicted to avoid or reduce effects to related to loss, alteration or restriction of access to traditionally used resources or areas. As described in IAAC-202, mitigation to limit changes in access to lands and resources currently used for traditional purposes will include: • Ongoing engagement with Indigenous Nations regarding their concerns, mitigation of potential Project effects on traditional land and resource use, and potential monitoring, as well as consideration of mitigation measures proposed by Indigenous Nations.	As stated in Chapter 15, Section 15.9, land and resource use activities within the RAA are the subject of ongoing planning, management, regulatory enforcement, and monitoring by the federal, provincial, and municipal governments. This includes the monitoring and collection of information on, for example, municipal land use, hunting, trapping, and fishing activity, and development for the purposes of licensing, enforcement, and resource management. Alamos has provided, and will continue to provide, Project information to relevant agencies and organizations. As stated in Chapter 16, Section 16.9 of the EIS Alamos and its construction contractors will abide by requirements issued by the provincial regulator for site avoidance, excavation, or heritage resource monitoring. The HCRPP describes the intervention mechanism to be applied during construction and operation of the Project to allow Alamos to safeguard cultural and heritage resources discovered or disturbed during the construction and operation of the Project. If cultural and heritage resources are found, Alamos and its contractors will leave all artifacts in situ, that is, in the same position, and will not remove objects from the site until advised by a permitted archaeologist. There will be no activities within a 50 m radius buffer until the archaeologist has completed an archaeological investigation. No reports related to any such find and its analysis will be published, other than such reports provided to the HRB or other agencies, as may be required by law. The protocol for the chance discovery of archaeological materials during construction or operation are documented in the HCRPP. Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28,	The PDA and surrounding area have been previously disturbed by mining activity and transportation infrastructure. The Gordon site represents approximately 269 ha of provincial Crown land, or about 1.8% of Crown land available in the LAA The PDA for the MacLellan site contains approximately 938 ha of municipally administered land, or about 6.5% of the total Crown land area within the LAA. The Project has potential to impact access to areas of traditional use and traditional resources during construction and operation. Access to traditional resources or areas for current use can be affected through the direct loss or alteration of trails or travelways, restrictions on the ability to navigate to and through current use areas, or limitations on the ability to undertake current use activities in proximity to the Project. Loss and alteration can result from direct physical disturbance or destruction (e.g., destruction of a traditional trail), physical deterrents or obstructions (e.g., the processing facility, Wendy and East pits, and the diversion channel between Gordon and Farley lakes) that prevent access or increase effort required either spatially or temporally, changes in the landscape (e.g., vegetation clearing) that make an aspect of a trail or travelway unrecognizable either partially or completely, or changes in the conditions (e.g., construction traffic) required for current use of trails and travelways. As stated in Chapter 17, Section 17.4.3.3., clearing of natural vegetation or earthworks, including digging of channels or infilling of ponds, cannot be avoided during Project construction. These activities have the potential to remove or obstruct trails or travelways through the Gordon or MacLellan sites. Travel along the Bombardier trail through the PDA will be altered, but not stopped as Indigenous land users will be rerouted around the PDA. Roads and access routes that result from the Project may affect access to resources by causing Indigenous Nations to seek alternate routes to areas and sites. Indirect effects associated with the restriction of access along the Gordon site access road could occur within the LAA to traditional harvesters who have used the access road to get to lakes outside of the LAA. As stated in IAAC-07, access roads to both the Gordon and MacLellan sites from Provincial Road 391 (PR 391) are currently gated, as both are existing historical mine sites. No new access modifications or restrictions are currently planned for the access roads. Indigenous and public use of these roads are and will continue to be restricted during construction, operation, and decommissioning. During that time, Indigenous peoples, and the public will continue to use alternative means to enter areas beyond the gates, just as they currently do with the existing gates. After mine closure, access will no longer be restricted. Although there is no planned fence line to enclose the Gordon or MacLellan site PDAs, and both gates were in place before the Project, indirect effects on access may result from sensory disturbances such as noise and dust during construction, operation, and decommissioning as indicated in Chapter 17, Section 17.4.3 of the EIS. Alamos made efforts to limit the PDAs to these previously disturbed lands to limit environmental effects to VCs including the Current Use of Land and Resources for Traditional Purposes and Indigenous and Treaty rights.

[5] Combines discussion of potential effects, mitigation measures, residual effects, monitoring and follow-up for the Land and Resource Use VC (Chapter 15 of the EIS), the Heritage Resources VC (Chapter 16 of the EIS), and the Current Use VC (Chapter 17 of the EIS)

Table Error! No text of specified style in document.**-1 Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
Recommendations made by Marcel Colomb First Nation MCFN recommends the creation of a permanent travel route between Lynn Lake and Pukatawagan to connect the communities and increase opportunities. Sources: Stantec, with Marcel Colomb First Nation. 2018	• Canoe route from Churchill River through Granville, Sickle, Hughes, and Chepil lakes • Chepil Lake • Elizabeth Lake • Ellystan Lake (seasonal access, canoe or dog team) • Goldsand Lake • Hughes Lake • Little Brightsand Lake • Lynn Lake • Sickle Lake • Travel route from Elisabeth Lake to Manson Lake and Ellystan Lake • Westdal Lake (winter road) • White Owl Lake (winter road) • Water route from Black Sturgeon Reserve to Dunsheath Lake along Hughes River intersects the RAA The following locations are outside the RAA (distance from PDA): • Travel route from Sickle Lake to Willis Lake (19 km) • Travel route from Pukatawagan to Drybrough siding, through Laurie River, McGavock Lake, and Eager Lake (19 km) • Churchill River (32 km) • Granville Lake (33 km) • Travel route from McGavock Lake cabin to Jackson Lake (43 km)		access by non-Indigenous land users may also occur, which will have a negative effect on access to resources and areas for Indigenous Nations.	• Ongoing engagement with Indigenous Nations involved on the Project, including discussion of development and implementation of Project-specific environmental management and monitoring plans.	2021 (registered mail). No comments were received from MCFN.	As stated in Chapter 15, Section 15.4.3 and IAAC-R2-37, Keewatin River within the PDA is a non-scheduled navigable waterway where navigation is possible (e.g., canoe/kayak), however, the continued use of Keewatin River as a recreational canoe route is not expected to be affected by the Project. As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports.

Table Error! No text of specified style in document.**-1 Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
Indigenous Physical and Cultural Heritage[6]						
Existing Conditions MCFN identified various named places and geographic features associated with physical and cultural heritage. These are listed in column 2. MCFN reported that Goldsand Lake is culturally important and there are possible burial sites in the area. Hughes Lake and Eden Lake are also reported to have burials near their shores. MCFN noted that there are burials throughout the region. MCFN reported that there are numerous cabins and camps along trails used frequently by MCFN land users, including active and abandoned sites. MCFN reported that camps are located wherever resources are abundant. MCFN explained that Mile 7 is a gathering site and camp where traditional teachings occur. MCFN reported a sweat lodge site at Swede Lake. MCFN recorded one sacred site and two habitation areas adjacent to PR 391. MCFN recorded one habitation area near Pump Lake, two habitation areas near Swede Lake. MCFN reported that knowledge transmission between generations often occurs while on the trapline. MCFN identified a teaching location along a trapline at Mile 7 camp and reported that an Elder takes some children to Dunsheath Lake to camp, hunt, and fish for sturgeon. *Issues and Concerns* MCFN reported that railway construction and mine development has changed the experience of the land. MCFN expressed concerns regarding potential unmarked graves as a result of vegetation clearing. MCFN expressed concerns about potential Project effects on heritage resources.	Location: MCFN described and mapped 32 habitation areas and 6 cultural areas, including 3 burials; see Attachment A-3 – MCFN TLRU Study, Figures 3a, 3b, 4a, and 4b. Of these mapped locations, 7 habitation areas overlap the LAA and 13 overlap the RAA. One cultural/sacred area overlaps the LAA and 1 overlaps the RAA. No burials were identified within the LAA or RAA. The remaining locations mapped by MCFN are outside the RAA. MCFN also mentioned places and geographic features associated with physical and cultural heritage. Within the PDA: • Keewatin River intersects the PDA at the MacLellan site (harvesting camp) • Hughes River intersects the PDA at the Gordon site Within the LAA: • Mile 7 (teaching camp) • Cartwright Lake overlaps the LAA (harvesting camp) • Cockeram Lake • Swede Lake (cabins) Within the RAA: • Barrington Lake (harvesting camp) • Black Sturgeon Reserve • Chepil Lake • Eagle Lake (cabins, harvesting camp) • Elizabeth Lake (cabins, harvesting camp) • Goldsand Lake (cabins, burials, harvesting camp)	EIS: Chapter 15, Section 15.1.2.1 Chapter 15, Section 15.1.3 Chapter 15, Section 15.7 Chapter 16, Section 16.1.2.1 Chapter 16, Section 16.1.3 Chapter 16, Section 16.4.2.3 Chapter 16, Section 16.7 Chapter 16, Section 16.9 Chapter 17, Section 17.1.3 Chapter 17, Section 17.1.4 Chapter 17, Section 17.7 Chapter 19, Section 19.1.2.5 Chapter 19, Section 19,4 Chapter 19, Section 19.4.4 Chapter 19, Section 19.7 Chapter 19, Section 19.9.1.3 Federal IR responses: IAAC-R2-03	The Project has the potential to affect Indigenous physical and cultural heritage important to MCFN, including archaeological sites, habitation sites, cultural and spiritual sites, burial sites, teaching areas, and cultural landscapes. Alamos acknowledges that the information about MCFN physical and cultural heritage presented in this table should not be considered comprehensive. Alamos has conservatively assumed that there is the potential for archaeological sites, habitation sites, cultural and spiritual sites, burial sites and other heritage features important to MCFN to occur throughout the RAA. As stated in Chapter 15, Section 15.1.3 of the EIS, the potential environmental effects of the Project include change in land use and change in resource use. As stated in Chapter 16, Section 16.1.3 of the EIS, the potential environmental effects of the Project include change to heritage resources, including historic and precontact sites and artifacts. As stated in Chapter 17, Section 17.1.4 of the EIS, the Project has the potential to result in change to traditional cultural and spiritual sites and areas. As stated in Chapter 19, Section 19.1.2.5 of the EIS, the Project has the potential to result in direct or indirect effects to Indigenous physical and cultural heritage (including physical objects, sites or places, and attributes), such that their value to Indigenous peoples is compromised or reduced. The Project has the potential to cause adverse effects to Indigenous physical and cultural heritage in the RAA that requires mitigation and monitoring to manage effectively. This could	As described above in Section 8.6, inadvertent discoveries of heritage resources, including previously unrecorded historic or precontact trails, will be reported to provincial authorities, as required under provincial heritage legislation. Procedures to follow in the event of chance finds are documented in the HCRPP. Alamos anticipates notifying Indigenous Nations regarding inadvertent discoveries of heritage resources through the Indigenous Environmental Advisory Committee. The Manitoba Historic Resources Branch has reviewed recommendations and mitigation measures outlined in heritage permit reports and concurred with the proposed mitigation measures (Historic Resources Branch 2017). Relevant mitigation measures for current use of lands and resources for traditional purposes as described above in Section 8.7 are predicted to avoid or reduce effects to Indigenous physical and cultural heritage. Relevant mitigation measures described above in Section 8.11 are predicted to avoid or reduce effects to Indigenous physical and cultural heritage. .	As stated in Chapter 16, Section 16.9 of the EIS Alamos and its construction contractors will abide by requirements issued by the provincial regulator for site avoidance, excavation, or heritage resource monitoring. The HCRPP describes the intervention mechanism to be applied during construction and operation of the Project to allow Alamos to safeguard cultural and heritage resources discovered or disturbed during the construction and operation of the Project. If cultural and heritage resources are found, Alamos and its contractors will leave all artifacts in situ, that is, in the same position, and will not remove objects from the site until advised by a permitted archaeologist. There will be no activities within a 50 m radius buffer until the archaeologist has completed an archaeological investigation. No reports related to any such find and its analysis will be published, other than such reports provided to the HRB or other agencies, as may be required by law. The protocol for the chance find of archaeological materials during construction or operation are documented in the HCRPP. Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	The PDA and surrounding area have been previously disturbed by mining activity and transportation infrastructure. The Gordon site represents approximately 269 ha of provincial Crown land, or about 1.8% of Crown land available in the LAA. The PDA for the MacLellan site contains approximately 938 ha of municipally administered land, or about 6.5% of the total Crown land area within the LAA. As noted in Chapter 19, Section 19.4.4, the PDA and surrounding areas have been previously disturbed by mining activity and the anticipated change to noise, dust, and visual disturbance are predicted to be incremental. As stated in Chapter 16, Section 16.4.2.3, there are no known archaeological sites in the Gordon PDA and predictive modelling indicates that there is low potential for heritage resources at the Gordon site. In the MacLellan PDA, none of the proposed Project components interact with known heritage resources. Heritage resources identified within the MacLellan PDA are related to historical mining activities. The MacLellan site is described as having a low to moderate potential for heritage resources. Should any heritage or cultural resources be encountered, Alamos will implement the HCRPP. As stated in Chapter 19, Section 19.4.5,3, no Indigenous physical and cultural heritage sites have been identified through the Indigenous engagement program for the Project that directly intersect Project components or physical disturbances. Indigenous physical and cultural heritage sites outside the PDA will not be directly disturbed; effects as a result of the Project to sites outside the PDA would only be expected as a result of disturbance though noise or air emissions. Should any Indigenous physical and cultural heritage sites not currently known to Alamos be found that directly intersect Project components or physical disturbances, residual effects to these sites will be of high magnitude because these sites will be permanently removed. No direct physical effects are predicted to the sacred site and two habitation areas identified by MCFN adjacent to PR 391 as the road is already in existence, and only traffic volumes will change with the Project. These sites may experience indirect effects from wastes and emissions due to their proximity to PR 391 and the increase in traffic. The habitation areas identified by MCFN near Pump Lake and Swede Lake may also experience sensory disturbances due to light, dust, and noise. These sites may also experience effects due to the removal of visual buffers during site clearing and exclusion or restricted access due to security, fencing or water management activities. The use of best management practices is expected to reduce the risk of changes in direct and indirect changes in sites and areas. As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports.

[6] Combines discussion of potential effects, mitigation measures, residual effects, monitoring and follow-up for the Land and Resource Use VC (Chapter 15 of the EIS), the Heritage Resources VC (Chapter 16 of the EIS), the Current Use VC (Chapter 17 of the EIS), and Assessment of Effects to Indigenous Peoples (Chapter 19 of the EIS)

Table Error! No text of specified style in document.**-1** **Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
Recommendations made by Marcel Colomb First Nation MCFN recommends protection for unmarked burials. Sources: Alamos Indigenous engagement program Stantec, with Marcel Colomb First Nation. 2018	• Hughes Lake (burials, harvesting camp) • Lake Wetikoeekan (harvesting camp, cabins) • Little Brightsand Lake • Lynn Lake • Muskeg Lake (harvesting camp, cabins) • Sickle Lake (harvesting camp) The following locations are outside the RAA (distance from PDA): • Dunsheath Lake (teaching camp; 12.5 km) • Eden Lake (harvesting camp, campsite, cabins, burials; 16 km) • Mouth of Hughes and Churchill rivers (harvesting camp, cabins; 27 km) • Churchill River (32 km) • Dunphy Lake (harvesting camp; 34 km) • Glasspole Lake (harvesting camp, cabin; 39 km) • McGavock Lake (harvesting camp, 41 km) • Rabbit Lake (harvesting camp, 51 km) • Southern Indian Lake (harvesting camp, cabins; 55 km) • Highrock (camps, cabins; 100 km)		occur directly through construction activities that create soil disturbance through means such as brushing, removal of vegetation, removal of soil, grading, and compaction from vehicular traffic. Dewatering has the potential to affect sites by creating overland water flows. Effects may also occur indirectly through sensory disturbances from air and noise emissions and visual disturbances. Changes to the environment, including qualitative changes, may affect the cultural value or importance of sites and areas.			

Table Error! No text of specified style in document.**-1** **Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
Indigenous Health Conditions[7]						
Issues and Concerns MCFN expressed concerns about mine activities contaminating country foods, making people sick. MCFN expressed concerns about the cumulative health effects from industrial activities on the health of vulnerable people. MCFN suggested that that additional sampling is required to understand baseline conditions of the lakes of interest to MCFN and potential effects to human health from hunting and trapping activities in these preferred locations. MCFN commented that extent of contamination in wild meats was assessed solely by modelling; no samples were tested. MCFN remarked that the focus of the air quality studies seems to be human respiratory health, and not on pathways to traditional food sources. MCFN indicated that additional information is required to assess potential impacts to Indigenous health based on occasional exceedances of nitrogen dioxide (NO_2), diesel particulate matter (DPM), sulphur dioxide (SO_2), carbon monoxide (CO), total suspended particles (TSP), and respirable particulate matter with an aerodynamic diameter less than PM_{10}. *Recommendations made by Marcel Colomb First Nation* MCFN stated that monitoring health and wellness would be necessary. MCFN recommended that Alamos discuss and develop with MCFN a mercury testing program for members of the Nation. MCFN recommended that Alamos also test for other contaminants that have the potential to bio-magnify and to bio-accumulate, such as lead and hexavalent chromium for members of the Nation. Sources: Alamos Indigenous engagement program Stantec, with Marcel Colomb First Nation. 2018	Locations: MCFN has identified sites, locations or areas within the LAA where members may harvest country foods. See the Wildlife and Indigenous Hunting and Trapping, Fish and Indigenous Fishing, Vegetation and Indigenous Plant Harvesting sections of this table.	EIS: Chapter 9, Section 9.1.2.1 Chapter 9, Section 9.1.3 Chapter 9, Section 9.7 Chapter 10 Chapter 10, Section 10.1.2.1 Chapter 10, Section 10.1.3 Chapter 10, Section 10.7 Chapter 11 Chapter 11, Section 11.1.2.1 Chapter 11, Section 11.1.3 Chapter 11, Section 11.7 Chapter 12 Chapter 12, Section 12.1.2.1 Chapter 12, Section 12.1.3 Chapter 12, Section 12.7 Chapter 18 Chapter 18, Section 18.1.2.1 Chapter 18, Section 1.3 Chapter 18, Section 18.4.1 Chapter 18, Section 18.7 Chapter 19, Section 19.1.4.2 Chapter 19, Section 19.4.2 Chapter 19, Section 19.4.3	The Project has the potential to affect Indigenous health conditions for Indigenous people living or harvesting within the LAA. Alamos acknowledges that the information about MCFN health conditions presented in this table should not be considered comprehensive. Alamos has conservatively assumed that there is the potential for the Project to result in elevated potential human health effects for Indigenous people who reside within the LAA, or who reside outside the LAA but harvest country foods or engage in spiritual or cultural activities within the LAA. As stated in Chapter 18, Section 18.4.1 of the EIS, Project activities during the construction, operation, and decommissioning/closure phases are anticipated to release emissions, discharges, and wastes into the environment that could change the chemical quality of air, soil, sediment, and water. As stated in Chapter 19, Section 19.1.4.2, Indigenous health conditions may be affected through ingestion of COPCs, which could include exposure through ambient air, soil, water, and sediment, as well as through the consumption of wild meat, fish tissue, and vegetation. The Project may affect Indigenous health conditions by altering or deterring the harvest and consumption of country foods by changing the value or perceived quality of country foods. Project-related atmospheric emissions, such as vehicle exhaust and rock and ore dust, and water discharges, including effluent and seepage could increase the concentrations of COPC in ambient air, soil, water, and sediment and ultimately in vegetation, wild meat, and fish tissue consumed by Indigenous people. Noise from site preparation or mine operation may also affect Indigenous health conditions,	Dust suppression, as described above in Section 8.1 is predicted to avoid or reduce sensory disturbance to Indigenous harvesters Dust mitigation measures, as described above in Section 8.1, are predicted to avoid or reduce dust emissions and deposition effects to habitat or traditionally harvested species. Air pollution mitigation measures as described above in Section 8.1 and Section 8.4 are predicted to avoid or reduce environmental degradation and disturbance to wildlife. Relevant mitigation measures for wildlife and wildlife habitat as described above in Section 8.4 are predicted to reduce effects on traditionally important species and resources. Relevant mitigation for vegetation and wetlands as described above in Section 8.3 are predicted to avoid or reduce effects on traditionally important species and resources. Relevant mitigation measures for current use of lands and resources for traditional purposes as described above in Section 8.7 are predicted to avoid or reduce effects to Indigenous health conditions. Relevant mitigation measures described above in Section 8.11 are predicted to avoid or reduce effects to Indigenous health conditions. The application of relevant actions in the Surface water Monitoring and Management Plan (Chapter 23, Section 23.5.5 of the EIS) are intended to reduce effects on water quality/quantity from the use and management of water for the Project. The application of relevant actions in the Groundwater Monitoring and Management Plan (Chapter 23, Section 23.5.4), including a detailed groundwater monitoring program at each site, with monitoring wells at select locations are intended to	As described in IAAC-48 and IAAC-55, details of Aquatic Effects Monitoring Plan (AEMP) will be developed during the permitting phase of the Project. However, it is expected that this AEMP will include monitoring and adaptive management of groundwater, surface water quantity surface water quality, and fish and fish habitat at the Gordon site. Monitoring is expected to include data collection "before" and "after" mine construction at "impact" sites downstream of the Project and at "control" sites in unaffected waterbodies to allow for statistical assessment of various groundwater, stream flow, water quality, and fish population metrics in a 'before-after control-impact' type study design. The AEMP will also include the location, timing, frequency, and duration of sampling, the sampling methods to be used, the fish tissue parameters to be monitored, and the quantitative thresholds that will trigger adaptive management actions. Adaptive management triggers will be developed to provide an early indication of any unanticipated increases in fish tissue metal concentrations that may pose lethal or sublethal effects to fish so that mitigation measures can be altered or added, if necessary, before any fish tissue threshold is exceeded. These adaptive management actions may include, but not necessarily limited to: • A hierarchical plan to investigate the potential causes of trigger level exceedances to determine if the exceedance is due to measurement error, equipment malfunction, a single anomalous event, a regional phenomenon, or a Project-related effect. • A hierarchical plan to implement remedial actions to supplement existing mitigation measures or to implement new mitigation measures to reduce or eliminate the trigger exceedance. • A plan to report Project-related trigger or threshold exceedances to the appropriate federal and provincial agencies, and to local Indigenous Nations. As described in IAAC-108, the Surface Water Monitoring and Management Plan will include monitoring of water quantity (stream flows, lake levels) and water quality downstream of the TMF at the MacLellan site and the MRSAs at the MacLellan and Gordon sites. The objectives of the plan will be to:	Alamos notes that the PDA and surrounding area have been previously disturbed by mining activity and transportation infrastructure. The Gordon site represents approximately 269 ha of provincial Crown land, or about 1.8% of Crown land available in the LAA. The PDA for the MacLellan site contains approximately 938 ha of municipally administered land, or about 6.5% of the total Crown land area within the LAA. As noted in Chapter 19, Section 19.4.4, the PDA and surrounding areas have been previously disturbed by mining activity and the anticipated change to noise, dust, and visual disturbance are predicted to be incremental. Potential effects from release of emissions, discharges and wastes have been assessed for the wildlife and wildlife habitat VC (Chapter 12), vegetation and wetlands VC (Chapter 11), surface water VC (Chapter 9), and fish and fish habitat VC (Chapter 10). The conclusions regarding the effects of Project emissions, discharges and wastes for each of those VCs have been carried forward into the Human Health assessment in Chapter 18 to assess effects on human health; the Human Health assessment applied Indigenous receptors to model potential effects to Indigenous land users. Based on the information obtained through the Indigenous engagement program for the Project, including TLRU Reports, Indigenous receptor locations identified in the LAA were used in models to predict potential effects to atmospheric environment, noise and vibration, and human health. Indigenous receptor locations reflect places that may be used for hunting, trapping, fishing, plant gathering, or camping/shelter and other cultural practices within the LAA and represent potential receptor locations rather than individual use sites. These potential locations include traplines, lakeshores near fishing locations, and cabins and camps where it there is a potential for extended (overnight) occupancy. Prior to submission of the EIS, Alamos identified no known areas of extended occupancy with 1 km of the Gordon or MacLellan sites through either the Indigenous engagement Program for the Project or review of publicly available sources. The assessment of Indigenous health conditions in Chapter 19, Section 19.4.3 assumed that Indigenous peoples that reside within the RAA or that reside outside the RAA but harvest within the RAA consume higher levels of country foods. The conclusions of the Human Health assessment were brought forward to the assessment of Indigenous health conditions in Chapter 19, Section 19.4.2. The human health risk assessment used the predicted dustfall and deposition of metals data to predict soil concentrations and uptake into vegetation and wildlife consumed by Indigenous receptors. Modeled surface water concentrations were used to predict concentrations in fish, and both ingestion of surface water and consumption of fish were quantitatively evaluated. The potential for dustfall and deposition of metals to affect surface water quality was not evaluated based on previous assessments that suggest deposition of particulates to water bodies has a negligible effect on water quality (and by extension, human health). Baseline sampling completed to support the human health and ecological risk assessment included analysis for about 20 metals, including cadmium, chromium, mercury, lead, and selenium. These metals were measured in traditional plants (berries and tea), other terrestrial wild plants that could be consumed by wildlife, small mammal tissues, and fish and supported the assessment of pathways to traditional food sources, As detailed in the human health and ecological risk assessment (Appendix H), Project-related health risks from food consumption pathways are negligible.

[7] Combines discussion of potential effects, mitigation measures, residual effects, monitoring and follow-up for the Human Health VC (Chapter 18 of the EIS) and Assessment of Effects to Indigenous Peoples (Chapter 19 of the EIS)

Table Error! No text of specified style in document.**-1 Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
Results of Hemmera third-party review of the EIS on behalf of MCFN		Chapter 19, Section 19.4 Chapter 19, Section 19.4.3.3 Chapter 19, Section 19.4.4 Chapter 19, Section 19.7 Chapter 19, Section 19.9.1.3 Chapter 23, Section 23.4 Chapter 23, Section 23.5.4 Chapter 23, Section 23.5.5 Chapter 23, Section 23.5.17 <u>Federal IR responses:</u> IAAC-48 IAAC-55 IAAC-108 IAAC-110 IAAC-R2-03 IAAC-R2-84 IAAC-R2-88	particularly for or Indigenous people living in the LAA.	reduce effects on groundwater using an adaptive management approach. The application of relevant actions in the Environmental Effects Monitoring Plan (Chapter 23, Section 23.5.17) to monitor discharge water in compliance with federal and provincial regulatory requirements will be implemented in the event discharge is required. As described in IAAC-110, mitigation measures that could be implemented in the unlikely event that water quality in the collection ponds is found to exceed the limits are: • Treatment of contact water with treatment technologies selected based on the concentration of the parameters of concern (e.g., coagulation/flocculation and sedimentation or filtration, ion exchange, chemical precipitation and/or biological treatment). • Piping of contact water from the Gordon site further downstream to waterbodies (e.g., Ellystan Lake) or watercourses (i.e., Hughes River) with greater assimilative capacity.	• Establish and/or maintain reference monitoring sites to differentiate between natural seasonal or climatic variability in surface water quantity and quality and potential Project effects as the Project progresses. • Monitor potential changes in lake level and stream flows downstream of the TMF and MRSAs, to validate water balance model predictions and assess the effectiveness of mitigation measures, in response to construction, operation, and closure of the Gordon and MacLellan sites. • Monitor potential change in water quality in lakes and streams downstream of the TMF and MRSAs, to validate water quality model predictions and assess the effectiveness of mitigation measures, in response to construction, operation, and closure of the Gordon and MacLellan sites. • Maintain a surface water quantity and surface water quality monitoring network sufficient to evaluate if quantitative thresholds are exceeded and to assess effectiveness of subsequent adaptive management measures. See response to IAAC-R2-02 and IAAC-R2-04 for additional detail on parameters to be considered, thresholds or triggers and adaptive management measures that may be implemented. Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	As stated in Chapter 19, Section 19.4.3.3, it is anticipated that effects to Indigenous health conditions would primarily be experienced by Marcel Colomb First Nation, the only Indigenous Nation with a reserve located within the LAA and RAA. However, other Indigenous Nations may also experience residual effects as a result of the Project, through members traveling to the Lynn Lake area to harvest and consume country foods. The Project is not anticipated to cause population-level effects to plant, animal, and fish species, including those harvested as country foods within the Indigenous Health Conditions RAA. As the value or perceived quality of country foods is subjective Alamos will provide opportunities for Indigenous Nations to discuss potential mitigation if concerns about the value of country food are identified. The health risks associated with inhalation of carcinogenic COPCs in the Indigenous Health Conditions RAA were found to be below the acceptability benchmarks established by Health Canada (i.e., acceptable). The health risks associated with inhalation of non-carcinogenic COPCs in the Indigenous Health Conditions RAA were below acceptability benchmarks, with the exception of 1-hour NO_2 concentrations at two Indigenous Receptor locations. For Potential Indigenous Receptors north of Gordon PDA exceedances are anticipated to occur less than 1% of the time and are predominantly single events separated by prolonged periods where the air quality meets the CAAQS. For Potential Indigenous Receptors near the MacLellan PDA exceedances are anticipated to occur less than 1% of the time. As these areas were not identified as habitation sites and exceedances are anticipated to occur at night it is less likely that people would be present and potentially exposed to the risk. Based on these results it is reasonable to conclude that occasional exceedances of the 2025 1-hour NO_2 CAAQS represent a negligible human health risk for people who may be in the area. As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports. Alamos is currently in discussion with MCFN regarding concerns and recommendations shared following the third-party review of the EIS. Alamos anticipates resolving outstanding issues with MCFN through agreements negotiated outside the EIS process.

Table Error! No text of specified style in document.**-1 Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
Indigenous Socio-economic Conditions[8]						
Existing Conditions MCFN indicated that a lack of opportunities and amenities in the community is causing social problems. MCFN reported that the experience of the land has changed since mine, road, and rail development has created year-round access to traditional areas. As a result, members are seeking additional employment in mining and mineral exploration, outfitting and guiding for sport hunting and fishing, surveying, mechanics, and commercial fishing to supplement trapping MCFN stated that registered trap lines 32, and 36 are held by members. The YTC is a community youth trap line MCFN reported that commercial fishing is important to the wage-based economy. MCFN members participated in commercial fisheries in a large area between Granville and Sickle lakes, as well as at Galligher, Goldsand, Wells, Barrington, Swede, Simpson, Ellystan, and Dunsheath lakes. Species fished commercially by MCFN included walleye (pickerel), northern pike (jack fish), whitefish, and trout. Fish were sold to the Co-op in Leaf Rapids and Winnipeg. MCFN advised that some members of the MCFN work as guides for visiting hunters and fishers. *Issues and Concerns* MCFN expressed interest in economic opportunities related to the Project and more local opportunities. MCFN expressed concern with potential adverse effects of the Project, including lack of capacity to benefit from the Project, and the potential lack of training, which could have effects on the Project-related opportunities available to the community. MCFN expressed concern about damage or depreciation of MCFN's water hauling equipment required by Project activities. MCFN expressed concern that trappers to lose their livelihoods due to mine activities scaring animals away.	Commercial fish species identified by Marcel Colomb First Nation: walleye (pickerel), northern pike (jack fish), whitefish, and trout. Locations: MCFN mentioned places and geographic features associated with socio-economic conditions. Within the LAA: • Swede Lake • Simpson Lake partially intersects the LAA Within the RAA: • Barrington Lake • Ellystan Lake • Gallagher Lake • Goldsand Lake • Sickle Lake The following locations are outside the RAA (distance from PDA): • Dunsheath Lake (12.5 km) • Wells Lake (25 km) • Granville Lake (33 km)	EIS: Chapter 13, Section 13.1.2.1 Chapter 13, Section 13.1.3 Chapter 13, Section 13.4.2.2 Chapter 13, Section 13.7 Chapter 14, Section 14.1.2.1 Chapter 14, Section 14.1.3 Chapter 14, Section 14.4.2 Chapter 14, Section 14.4.2.3 Chapter 14, Section 14.4.3.3 Chapter 14, Section 14.4.5 Chapter 14, Section 14.7 Chapter 19, Section 19.4 Chapter 19, Section 19.4.4.1 Chapter 19, Section 19.9.1.3 Chapter 19, Section 19.7 Chapter 23, Section 23.4 Chapter 23, Section 23.5.8 Chapter 23, Section 23.5.14 Federal IR responses: IAAC-202 IAAC-R2-03 IAAC-R2-06	The Project has the potential to affect Indigenous socio-economic conditions for Indigenous people living or working within the LAA. Alamos acknowledges that the information about MCFN health conditions presented in this table should not be considered comprehensive. Alamos has conservatively assumed that there is the potential for effects to services and infrastructure, commercial activities, and economic opportunities available to Indigenous people within the RAA. As stated in Chapter 13.1.3, the potential effects of the Project include changes to local and regional labour force, changes to local and regional business, and changes to local and regional economy. As stated in Chapter 14, Section 14.1.3, the potential effects of the Project include changes in housing and temporary accommodations, changes in local services and infrastructure, changes in transportation and infrastructure, and changes in community wellbeing. As stated in Chapter 19, Section 19.4.4.1, potential effects of the Project include increased pressure on traditional resources, effects on municipal and emergency services; increased vehicle traffic; and capacity for Indigenous Nations to benefit from the Project. The Project may affect Indigenous socio-economic conditions through: • Increased labour demand leading to fewer workers available for local positions and an increase in wages; • Project spending could affect local and regional businesses, including those owned or operated by Indigenous Nations;	Mitigation measures for the loss of traditionally harvested resources such as fish, plants, and wildlife are described in Section 8.2, Section 8.3, and Section 8.4. Relevant mitigation measures for land and resource use as described above in Section 8.5 are predicted to avoid or reduce effects for the potential increase in human activities affecting harvesting and land-based learning which may have socio-economic effects. Mitigation measures to enhance beneficial effects of the Project and mitigate effects to community wellbeing are described above in Section 8.5. The application of relevant actions in the Noise Monitoring Plan (Chapter 23, Section 23.5.8) to reduce effects on the environment from noise disturbances. The application of relevant actions in the Wildlife Monitoring and Management Plan (Chapter 23, Section 23.5.14) to reduce unanticipated effects on wildlife and wildlife habitat using an adaptive management strategy.	During construction and operation, the Project is expected to primarily result in positive effects on the local and regional labour force, businesses, and economy. Alamos will implement mitigation and management measures to increase local and regional content (i.e., positive effects); however, the extent to which workers and business participate in Project-related opportunities is largely external to Alamos (e.g., the extent to which local workers seek employment with the Project and local business participate in procurement opportunities). Government departments, public agencies, and private-sector companies that deliver community services and infrastructure will monitor the ongoing demand for community services as part of their normal planning practices. Therefore, no follow-up and monitoring program on the part of Alamos is required. As described in IAAC-202, Alamos is committed to development of a plan for working with Indigenous-owned businesses to enhance their potential for successfully bidding on Project contracts regarding the supply of goods and services. Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	Alamos notes that the PDA and surrounding area have been previously disturbed by mining activity and transportation infrastructure. The Gordon site represents approximately 269 ha of provincial Crown land, or about 1.8% of Crown land available in the LAA. The PDA for the MacLellan site contains approximately 938 ha of municipally administered land, or about 6.5% of the total Crown land area within the LAA. As indicated in Chapter 14, Section 14.4.5, community wellbeing could be affected through changes to employment and income as a result of the Project, and these effects could extend to Indigenous peoples. Levels of disposable income could be affected in both positive and adverse ways. These effects could occur through increased employment for local Indigenous people. While Project-related employment is anticipated to be primarily beneficial, as it will result in increased household income, a sudden change in discretionary income may also result in changes in spending decisions that could cause adverse social outcomes for Indigenous Nations. As stated in Chapter 14, Section 14.4.2, increased demand on local services, including education, health, and emergency services as a result of the Project, is anticipated to be minimal. Project workers will be housed at a dedicated camp and the Project will contract its own first aid facilities. There could be an economic benefit to services due to spending by workers and contractors. As stated in Chapter 14, Section 14.4.2.3, the Project is not expected to place additional demands on local power, water, and wastewater services and infrastructure. Power, water, and wastewater systems for the Project will be independent of the Town of Lynn Lake and Marcel Colomb First Nation's community on Black Sturgeon Reserve lands. As indicated in Chapter 14, Section 14.4.3.3, due to increased haulage on PR 391 and the existing surface conditions of the road being rated as in need of repairs, the road will require increased maintenance activity and at least one 6-km section of the road will need to be resurfaced prior to hauling operation beginning. Alamos is in discussions with Manitoba Infrastructure regarding the need for upgrades to PR 391 and/or weight exception requirements to support the Project. As described in Chapter 13, Section 13.4.2.2, Alamos will inform residents and Indigenous Nations of job and procurement opportunities during all Project phases and implement a policy of local hiring where priority is given to the workers from the LAA, followed by other parts of the RAA, other parts of Manitoba, and other parts of Canada. Alamos notes that the possibility of hiring MCFN to transport water and sewage for the Project was initially raised by MCFN, however, the Project does not plan to use MCFN water hauling equipment. As stated in response to IAAC-R2-06, Alamos will develop work packages that consider the capacity and capabilities of local and regional businesses and plan for working with local and Indigenous-owned businesses to enhance their potential for successfully bidding on Project contracts regarding the supply of goods and services. Alamos will establish a virtual Information and Opportunity Portal, which will provide an online resource with Project information and updates, reporting on regulatory conditions and requirements, and employment and contracting opportunities, training, and benefits. Indigenous Nations will also be able to upload labour force availability to the Portal.

[8] Combines discussion of potential effects, mitigation measures, residual effects, monitoring and follow-up for the Labour and Economy VC (Chapter 13 of the EIS), Community Services, Infrastructure, and Wellbeing (Chapter 14 of the EIS), and Assessment of Effects to Indigenous Peoples (Chapter 19 of the EIS)

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Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
MCFN expressed concerns about Socio-Economic effects and impacts to community services and infrastructure. MCFN explained that the presence of an operating mine in the area may have impacts on visitor perception of the health of the fish and wildlife that recreational fishers and hunters come to harvest, as well as their visitor experience. The presence of the mine may thus affect this source of revenue to MCFN. *Recommendations made by Marcel Colomb First Nation* MCFN expressed the need for a Community Liaison to mentor MCFN trainees and employees as well as the need for programming and funding for social programming to address socio-economic issues. MCFN is interested in establishing accommodation measures in the event that traplines located in proximity to the Project are affected. MCFN expressed that reopening the mine sites would increase employment opportunities and benefit the MCFN community. Sources: Alamos Indigenous engagement program Stantec, with Marcel Colomb First Nation. 2018 Results of Hemmera third-party review of the EIS on behalf of MCFN			• Project-related employment may increase disposable income, change the demographics of nearby communities, result in changes to sense of place, and alter participation in traditional and family-related activities; • Increased demand for temporary housing and accommodations may affect off-reserve members of Indigenous Nations; • Increased demand for fire and police, water and waste services, may affect Indigenous use and reliance on these services. • Increased traffic on PR 391 resulting in deterioration of the main access road used by Indigenous peoples and communities; • Increased pressure on wildlife and fish due to an increase in recreational hunters and anglers; • Changes to commercial activities that Indigenous peoples engage in, such as fishing, hunting, trapping, gathering.			As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports.
Indigenous or Treaty Rights						
Existing Conditions MCFN reported that MCFN's traditional territory surrounds the MacLellan site and that MCFN members should be encouraged to make use of this land. *Issues and Concerns* MCFN expressed concerns about Indigenous and Treaty Rights, Indigenous Agreements and Protocols. *Recommendations made by Marcel Colomb First Nation* MCFN expressed interest in compensation offered for effects on traditional activities.	Locations: MCFN has identified sites, locations or areas related to current use activities within the LAA where members may be present and exercising Indigenous or Treaty rights in relation to the Project. See the Wildlife and Indigenous Hunting and Trapping, Fish and Indigenous Fishing, Vegetation and Indigenous Plant Harvesting, Trails and Travelways, and Indigenous Physical and Cultural Heritage sections of this table.	EIS: Chapter 19, Section 19.1.3 Chapter 19, Section 19.4 Chapter 19, Section 19.4.4 Chapter 19, Section 19.9.1.3 Chapter 19, Section 19.7 Chapter 19, Section 19.9.3.2	The Project has the potential to affect Indigenous or Treaty rights, including the rights to hunt, trap, fish, and gather resources on unoccupied Crown lands. Following Agency guidance, Alamos acknowledges that the environmental review is not a rights determination process and the assessment of Indigenous or Treaty rights is not intended to define or delimit existing or asserted MCFN rights. As stated in Chapter 19, Section 19.1.3, the pathways through which changes to Indigenous or Treaty rights may occur include:	Relevant mitigation measures for fish and fish habitat, vegetation and wetlands, and wildlife and wildlife habitat as described above in Section 8.2, Section 8.3, and 8.4 are predicted to avoid or reduce effects on traditionally important species and resources, which may have impacts on practice based Indigenous or Treaty rights. Relevant mitigation measures for land and resource use as described above in Section 8.5 are predicted to avoid or reduce effects for the potential increase in human activities affecting harvesting and land-based learning which may have impacts on Indigenous or Treaty rights.	Alamos is committed to ongoing engagement with Indigenous Nations to better understand the nature and extent of the exercise of Indigenous and Treaty rights in relation to the Project and will consider MCFN recommendations to mitigate Project interactions with the exercise of their Indigenous and Treaty rights. As noted above in Section 10.1.5, through the Indigenous engagement program for the Project, Alamos has provided numerous opportunities for MCFN to share information about their Indigenous and Treaty rights. Alamos funded a Project-specific TLRU study for MCFN (See Section 10.1.4 above), held open houses and community meetings, to which all Indigenous Nations engaged on the Project were invited (See Section 10.1.2 above), and provided Marcel Colomb First Nation copies of the Feasibility Study, Project	Alamos acknowledges that MCFN is a signatory of Treaty 6 and may exercise Section 35 rights on unoccupied Crown land. Under the Manitoba Framework Agreement (1997), MCFN has a TLE allocation of 17,007 acres [approximately 6,882.49 ha]. As of 2017, MCFN has not signed the Agreement, so no lands have yet been converted to reserve land (CIRNAC 2017a). MCFN does not have any TLE parcels within the Project RAA. There is a 30 km Community Interest Zone (CIZ) surrounding the Black Sturgeon Reserve in the RAA. The purpose of the CIZ is to provide temporary protection of areas from development while the First Nation is involved in TLE selection or acquisition; however, it does not apply to lands where mining claims are staked or converted to leases. The PDA and surrounding area have been previously disturbed by mining activity and transportation infrastructure. The Gordon site represents approximately 269 ha of provincial Crown land, or about 1.8% of Crown land available in the LAA. The PDA for the MacLellan site contains approximately 938 ha of municipally administered land, or about 6.5% of the total Crown land area within the LAA.

Table Error! No text of specified style in document.**-1 Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
MCFN stated that exploratory helicopter fights over the Black Sturgeon Reserve during moose and goose hunting season is to be avoided so as to avoid infringement of Treaty rights. Sources: Alamos Indigenous engagement program Stantec, with Marcel Colomb First Nation. 2018		Federal IR responses: IAAC-R2-03	• Loss or alteration of resources relied on to exercise a right. • Restricted or altered ability to access sites and areas associated with the exercise of a right. • Alteration of specific areas of cultural importance where rights are exercised. • Sensory disturbances or other changes which detract from use of the area or lead to avoidance of the area associated with the exercise of rights. • Indirect effects on cultural traditions, laws and governance systems that inform the way rights are exercised. • Change in disposition of Crown land, through sale or conversion from unoccupied to occupied, which may affect the ability to exercise rights. Change in disposition of Crown land may also constrain the selection of TLE lands under the MFA.	Relevant mitigation measures for current use of lands and resources for traditional purposes as described above in Section 8.7 are predicted to avoid or reduce effects to Indigenous health conditions. Relevant mitigation for Indigenous health conditions described above in Section 8.9 may also serve to avoid or reduce effects to the exercise of Indigenous and Treaty rights related to health effects for Indigenous people who reside within the LAA, or who reside outside the LAA but harvest country foods or engage in spiritual or cultural activities within the LAA. Relevant mitigation for Indigenous socio-economic conditions described above in Section 8.10 may also serve to avoid or reduce effects to the exercise of Indigenous and Treaty rights related to changes in community wellbeing. Relevant mitigation for Indigenous physical and cultural heritage described above in Section 8.11 may also serve to avoid or reduce effects to the exercise of Indigenous and Treaty rights related to the use of habitation sites, cultural and spiritual sites and areas, burial sites, teaching areas, and cultural landscapes.	Description, and draft Indigenous and Treaty rights assessment section of the EIS for review and feedback prior to submission of the EIS. Finally, an information package was sent to MCFN on May 28, 2021, which extended the opportunity to share additional concerns regarding potential adverse effects of the Project on their ability to exercise Treaty or Aboriginal rights, including the right to hunt, fish and trap for food and carry out traditional activities (See Section 10.1.2.1 above). An updated engagement log listing all communication between Marcel Colomb First Nation up to December 31, 2021 is included in Attachment A-2. Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	As noted in Chapter 19, Section 19.4.4, the PDA and surrounding areas have been previously disturbed by mining activity and the anticipated change to noise, dust, and visual disturbance are predicted to be incremental. As stated in Chapter 19, Section 19.9.3.2, The identification of Project interactions and the assessment of potential effects on Indigenous or Treaty rights considers both the exercise and practice and the conditions that support the exercise of the rights. The ability to exercise or practice Indigenous or Treaty rights, including harvesting rights and integral practices, traditions, and customs, depends upon the health of the land to support these practices. The potential effects of the Project on asserted or established Indigenous or Treaty rights are derived directly or indirectly from the physical effects of the Project on the environment. Consequently, the pathways for potential effects for the exercise and practice of Indigenous or Treaty rights are similar to those for the availability of and access to traditionally harvested resources and traditional sites and areas, as well as for the conditions that support the exercise of rights (including Indigenous health, Indigenous socio-economic conditions, and Indigenous physical and cultural heritage). Criteria for assessing the severity of impacts on Indigenous or Treaty Rights are defined in Chapter 19, Table 19-11. The assessment of impacts on Indigenous or Treaty rights considers both the exercise of rights and the conditions that support the exercise of the rights. Overall, with the implementation of mitigation measures, residual Project effects on the exercise or practice of Indigenous or Treaty rights in the Rights LAA are expected to reflect the residual effects predicted for current use, including the availability of and access to traditionally harvested resources and traditional sites and areas, as well as for the conditions that support the exercise of rights (including Indigenous health, Indigenous socio-economic conditions, Indigenous physical and cultural heritage). As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports.
Engagement						
Issues and Concerns MCFN expressed concerns about the consideration of TEK, TK, and TLRU information during the Project. MCFN expressed concerns about engagement and signaled doubts about the conclusions of the EIS and the regulatory process. MCFN expressed concern about the level of engagement with Indigenous Nations. *Recommendations made by Marcel Colomb First Nation* MCFN expressed interest in a Project partnership. MCFN recommends that Project contractors take cultural sensitivity training.	Locations: N/A	EIS: Chapter 3, Section 3.3 Chapter 3, Section 3.3.4.9 Alamos' Community Engagement Plan (Appendix 3A of the EIS) Supplemental Filing dated March 3, 2021 Second Supplemental Filing dated September 16, 2021	The potential environmental and socio-economic effects of the Project identified throughout this table are the subject of ongoing engagement with MCFN	Proposed mitigation measures listed above in Section 8 are the subject of ongoing engagement with MCFN.	Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	Chapter 3, Section 3.3 of the EIS outlines Alamos' objectives and approach to Indigenous engagement. Alamos is committed to open and transparent engagement throughout the life of the Project, from planning and design to construction, operation, and decommissioning, and will continue to work with participating Indigenous Nations to document and respond to concerns raised in relation to the Project and its potential effects. Additional reporting on Alamos' Indigenous engagement efforts is described in the Supplemental Filing dated March 3, 2021, and the Supplemental Filing dated September 15, 2021. As stated above in Section 10.1.2, Alamos has been engaging with Marcel Colomb First Nation since November 2014 to share Project information, obtain feedback, and document potential issues and concerns. Ongoing engagement has been conducted through telephone calls, letters, text messages and e-mails sent and received, in-person meetings. Engagement with Marcel Colomb First Nation has also included meetings with leadership, the appointed Community Liaison, and the Marcel Colomb Development Corporation, and community meetings. Marcel Colomb First Nation has also participated in site tours, workshops, field visits, career fairs and open houses hosted by Alamos. An updated engagement log listing all communication between Marcel Colomb First Nation up to December 31, 2021, is included in Attachment A-2.

Table Error! No text of specified style in document.**-1** **Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
MCFN recommended a Community Liaison to mentor MCFN trainees and employees. Sources: Alamos Indigenous engagement program		Federal IR responses: IAAC-R2-03				As noted above in Section 10.1.4, Alamos supported the completion of a Project-specific TLRU study by MCFN, which was received in March 2018. The results of the MCFN TLRU study were integrated into Chapter 17 and Chapter 19 of the EIS. At the request of MCFN, an Environmental/Elders committee was established by Alamos in February 2018 to monitor potential impacts of exploration and construction activities. Through working with this committee, Alamos has learned about important MCFN cultural practices and protocols. As stated in Chapter 3, Section 3.3.4.9, cultural awareness activities hosted by Marcel Colomb First Nation for Alamos employees were also held on December 12, 2019 including a ceremony and feast. On September 30, 2021, Alamos held a special event for Lynn Lake Gold Project personnel, with the participation of MCFN, in recognition of the National Day for Truth and Reconciliation. To address MCFN concerns about engagement on the EIS, Alamos has supported an independent community review of the EIS by Hemmera (a third-party environmental consultant). As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports.
Accidents and Malfunctions						
Existing Conditions MCFN reported that a spill occurred in the 1970s which caused furbearers and fish to die, with fish observed floating in Keewatin River. *Issues and Concerns* MCFN expressed concern about spills and contamination from the mine. MCFN expressed concern about the cost of remediation in the event of an accident or malfunction. Sources: Stantec, with Marcel Colomb First Nation. 2018	Locations: MCFN concerns about accidents and malfunctions are related to construction and operation of the Project physical works within the PDA. Keewatin River intersects the PDA at the MacLellan site.	EIS: Chapter 22, Section 22.4.2 Chapter 22, Section 22.6 Chapter 23, Section 23.4 Chapter 23, Section 23.5 Chapter 23, Section 23.5.4 Federal IR responses: IAAC-110 IAAC-137 IAAC-140 IAAC-R2-03 IAAC-R2-140 IAAC-R2-142	Accidents or malfunctions are events that occur outside the normal planned function or activity of the Project. Through good planning and design and the adoption of safety measures, the risks of accidents or malfunctions can be reduced or controlled. Potential accident and malfunction scenarios are described in Chapter 22, Section 22,4, Table 22-1 and include TMF malfunction, release of untreated contact water, ore milling and processing plant accident or malfunction, sewage treatment plant malfunction or discharge pipeline failure, fuel and hazardous materials spill, open pit slope failure, ore, overburden and mine rock storage area slope failure, over-blasting, fire/explosion, or vehicle accident.	As stated in Chapter 22, Section 22.5.1.1 Project design and safety measures to reduce environmental effects include constructing dams associated with the TMF on a bedrock foundation. The materials selected for the construction of the TMF dam are not susceptible to frost or subject to the effects of freeze – thaw cycles. The TMF is designed to mitigate for malfunctions with the presence of collection ditches and sump pits. Liquid tailings would be collected by collection ditches and sump pits and pumped back into the TMF. During operation, the implementation of a systematic performance monitoring program is critical to maintaining the physical integrity of the dams and ancillary structures at the TMF. Such a program will include environmental monitoring together with regular visual inspections of the facility and monitoring of piezometric levels within the containment dams. The Project will also follow the Canadian Dam Association Dam Safety Guidelines (CDA 2013, 2014) for design of containment structures for the TMF.	As stated in Chapter 22, Section 22.6, the Project is planned and designed to avoid accidents or malfunctions through the adherence to accepted design codes and standards. In the event of an accident or malfunction, emergency response procedures will be implemented reducing adverse effects to the environment. Chapter 23 further describes environmental management plans applicable to the Project, which will include communication roles and responsibilities, training requirements, and mitigation/response measures in the event of an unplanned accident or malfunction. As stated in Chapter 22, Section 22.4.2, Wherever contact water is stored, there exists potential for seepage. Foundation seepage will be controlled via low permeability seepage cutoffs. A downstream seepage collection system, consisting of a series of sumps in combination with a buried weeping tile or rockfill finger drain system, will be installed during the starter dam construction. Seepage water associated with the TMF will be collected and pumped back to the TMF. Geochemical testing and water quality modelling is ongoing and the potential effects for acid rock drainage and metal leaching to reach the environment will be mitigated by collecting and containing seepage/runoff and/or covering the tailings (wet, including water, and/or dry covers).The likelihood and overall risks associated with the	Alamos will provide emergency response services sufficient in capacity and capability to respond to emergency situations at the Project sites. The ERSPCP will facilitate response to emergency situations that could occur at the Project sites. The objective of the ERSPCP is to provide for emergency preparation and response as well as spill prevention and contingency planning in accordance with federal and provincial legislation and guidelines, and corporate policies and procedures, and best practices for the protection of human health and the environment. The scope of the plan will include, but is not limited to, response measures and contingency plans for spills and the releases of hazardous substances, accidents involving hazardous substances, medical emergencies, explosions, and fire. Measures will be prescribed for emergency response planning, training requirements, roles and responsibilities, step by step response protocols, requirements for clean-up equipment and materials, and contact and reporting procedures. The ERSPCP will include details of post-incident monitoring programs and response mechanisms (e.g., remediation) based on the results of monitoring. Additionally, the Emergency Communication Plan, contained within the ERSCP, will identify possible event types, means of communication and notification procedures in the event of an emergency, including communication with Indigenous Nations, and urgent and longer term communication. The ERSCP will include guidance on reporting and follow up related to accidents and malfunctions, including reporting to Indigenous Nations. As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports.

Table Error! No text of specified style in document.**-1** **Marcel Colomb First Nation Baseline and Mitigation Table**

Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
				Groundwater quality will also be mitigated through the application of relevant actions in the Groundwater Monitoring Plan (Chapter 23, Section 23.5.4 of the EIS) to address unanticipated effects to groundwater through an adaptive management approach.	release of untreated contact water during construction and operation have been classified as low in recognition of contingency planning and the implementation of engineering and quality controls during the design, construction, and operational phases to mitigate these risks. The Project follow-up and environmental monitoring and management plans will include a process of sharing of information related to accidents and malfunctions, including the provision of reports of monitoring and follow-up programs. The environmental monitoring plans are described in Chapter 23, Section 23.5 of the EIS and include plans such as an emergency response and spill prevention and contingency plan. As stated in response to IAAC-R2-140, a detailed instrumentation plan and specific triggers for the instrumentation (vibrating wire piezometers, inclinometers, monitoring wells) that would initiate an emergency response will be outlined during the detailed engineering phase as part of a triggered action response plan (TARP) and further updated / refined once the instrumentation has been installed. A description of the TARP will be incorporated into the Operation, Maintenance, and Surveillance manual for the TMF and will be tied to the site Emergency Response Plan. Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	

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Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
Cumulative Effects						
Existing Conditions MCFN reported that the experience of the land has changed since mine, road, and rail development has created year-round access to traditional areas. As a result, members are seeking additional employment in mining and mineral exploration, outfitting and guiding for sport hunting and fishing, surveying, mechanics, and commercial fishing to supplement trapping. MCFN reported that environmental damage has been done by mines in the past and are concerned about lasting impacts from the Project after the mine is closed. MCFN reported that a flood/overflow event in the 1960s created a contamination pathway to Sickle Lake through Keewatin River, which runs through Cockeram, Moses, Mary, and Anson lakes and Granville Lake, which impacted shore plants and fish. *Issues and Concerns* MCFN expressed concern about historical mining practice in northern Manitoba and their past effects on food, medicinal plants, animals, fish, air quality, acoustic environment, and water quality (including snow). MCFN expressed concerns about contamination from developments in the area, particularly during the construction and operation of mines and railways. MCFN expressed concern about contamination of the areas near the Project as well as potential effects on country foods, citing the Cockeram Lake fishery as an example of mining affecting the safe consumption of fish from the lake. MCFN expressed concern about the garbage left from historic mining activities, which animals such as rabbits consume, making them unsafe for human consumption, and the continuation of garbage accumulation with new projects. MCFN suggested that all of the historic mining in the area should have been considered in the cumulative effects assessment for its effects on fish and wildlife harvested by MCFN.	Locations: MCFN mentioned places associated with cumulative effects. Within the PDA: • Keewatin River intersects the PDA at the MacLellan site Within the LAA: • Cockeram Lake Within the RAA: • Anson Lake • Mary Lake • Moses Lake • Sickle Lake The following locations are outside the RAA (distance from PDA): • Granville Lake (33 km)	EIS: Chapter 4, Section 4.3.4 Chapter 6, Section 6.5 Chapter 7, Section 7.5 Chapter 8, Section 8.5 Chapter 9, Section 9.5 Chapter 10, Section 10.5 Chapter 11, Section 11.5 Chapter 12, Section 12.5 Chapter 13, Section 13.5 Chapter 14, Section 14.5 Chapter 15, Section 15.5 Chapter 16, Section 16.5 Chapter 17, Section 17.5 Chapter 18, Section 18.5 Chapter 19, Section 19.5 Federal IR responses: IAAC-R2-03	The effects of past and current projects relative to conditions prior to historic mining contribute to baseline conditions upon which Project effects are assessed. Conditions prior to historical mining activities are generally considered to be similar to currently undisturbed areas of the RAA for each VC. Changes in the interim (i.e., after the initiation of historic mining to the present day), where relevant, are reflected in the description of existing conditions for each VC. These existing conditions are the basis for determination of Project-related residual effects and cumulative effects with other past, present, and reasonably foreseeable future projects and activities. The project and activity inclusion list is provided in Chapter 4, Table 4D-2 (Appendix 4D) of the EIS.	Mitigation measures designed to avoid or reduce adverse residual effects will also serve to reduce the interaction of Project effects with the effects from other projects and activities. Proposed mitigation measures for all VCs are listed above in Section 8. It is also expected that ongoing and future projects will be developed using standard mitigation measures as appropriate to reduce cumulative environmental effects.	As noted in Chapter 4, Section 4.3.4, Alamos is committed to mitigation of potential cumulative effects through monitoring of the Project's potential effects and implementing adaptive management for unanticipated effects. In addition, Alamos will share information and knowledge with other proponents through its environmental assessment and monitoring reports to regulatory agencies, such as Manitoba Conservation and Climate. The Project follow-up and environmental monitoring and management plans will include a process of sharing of information related to accidents and malfunctions, including the provision of reports of monitoring and follow-up programs. The environmental monitoring plans are described in Chapter 23, Section 23.5 of the EIS and include plans such as an emergency response and spill prevention and contingency plan. Alamos will engage Indigenous Nations regarding the design and implementation of Project follow-up and monitoring programs, including evaluation of program results, and subsequent updates to the program. Information packages providing an overview of the proposed Environmental Monitoring and Management plans, were sent to each Indigenous Nation engaged on the Project for review and comment on April 21 (registered mail) and April 22 (email), 2021 and as part of a larger Project update package on May 28, 2021 (registered mail). No comments were received from MCFN.	The assessment of cumulative effects for the Project was conducted in accordance with the requirements under CEAA 2012, the Agency's Guidelines for the Project and with reference to Agency guidance documents (Operational Policy Statement for Assessing Cumulative Environmental Effects, Technical Guidance for Assessing Cumulative Environmental Effects). Cumulative environmental effects were assessed for each VC and where there are adverse residual effects that overlap spatially or temporally with effects of other physical activities, these are carried forward to a cumulative effects assessment. With respect to the specific concerns raised by MCFN regarding cumulative effects: • As stated in Chapter 9, Section 9.5, the Gordon and MacLellan sites will discharge into watercourses that eventually drain to Granville Lake at the southern edge of the RAA. However, Project residual effects are not predicted to extend beyond the Gordon and MacLellan site LAAs. Therefore, cumulative effects to surface water quality due to interactions with residual effects from other projects or activities in the RAA are not expected to occur. • As stated in Chapter 10, Section 10.5, there are no other projects or activities within the Gordon or MacLellan LAAs and, therefore, there is no potential spatial or temporal overlap of any residual effects from other projects with the residual effects of the Project. Therefore, cumulative effects of the Project and other reasonably foreseeable future Projects and activities on fish habitat are not anticipated. Sewage treatment facilities are outside of the LAA and not close enough to have physical overlap with the areas where Project. Any effects to water quality from future mineral exploration or mining from other Projects would likely be limited to a localized area downstream and would not overlap spatially, so no cumulative effects on fish health, growth, and survival would be expected. • As stated in Chapter 11, Section 11.5, cumulative effects on landscape diversity, community diversity, species diversity and wetland functions are predicted to be low because the landscape within the RAA is relatively intact and it is unlikely that large habitat patches will be lost from the RAA. No known project development is planned in areas of known SOCC occurrences in the RAA. No wetland class loss is expected as a result of cumulative effects. The Project will reduce wetland abundance 0.6% in the RAA. Future projects may further reduce wetland abundance; however, projects are expected to avoid wetland when possible and implement mitigation measures to reduce potential effects. The RAA is also largely intact and wetlands are currently abundant. • As stated in Chapter 12, Section 12.5, the RAA has been subject to a relatively low amount of anthropogenic disturbance and the Project and reasonably foreseeable future activities and projects will have a small contribution to the direct and indirect loss or alteration of wildlife habitat in the RAA, including for migratory birds, SAR and SOCC. There are no known projects within the reasonably foreseeable future whose scale or scope could be considered a substantive development and that would interact cumulatively with the Project to threaten the sustainability of wildlife population and their habitats in the RAA. As stated in response to IAAC-R2-03, should the Project be approved, Alamos will invite Indigenous Nations engaged on the Project to participate in an Indigenous Environmental Advisory Committee. Alamos anticipates that the Indigenous Environmental Advisory Committee will provide advice and facilitate the participation of interested Indigenous Nations in environmental aspects of ongoing Project activities, including development and implementation of the

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Consultation/Engagement Input	Species/Locations Identified	Relevant Regulatory Filings[1]	Potential Project Effects	Proposed Mitigation Measures	Monitoring and Follow Up	Additional Alamos Response
MCFN commented that while continuation of the camera trap program was identified by Alamos as a mitigation measure, it is unclear how continuation of this program serves to mitigate cumulative effects. *Recommendations made by Marcel Colomb First Nation* MCFN recommends budgeting for clean-up of the Project area. MCFN recommended that Alamos commit to a soil and vegetation study with the objective of assessing the cumulative effects of fugitive dust on soil and culturally important plants. Accumulation of metals in lichen and plants can be used to determine both historical and ongoing impacts from fugitive dust. MCFN recommend the previously mentioned mercury and selenium diagnosis studies include, as one of their objectives, the assessment of historical and future effects of mining. Sources: Alamos Indigenous engagement program Stantec, with Marcel Colomb First Nation. 2018 Results of Hemmera third-party review of the EIS on behalf of MCFN						follow-up and monitoring plans and the Closure Plan, as well as selection of monitoring locations. Results of follow-up and monitoring will be summarized in annual reports. Cumulative effects could be a topic for the Indigenous Environmental Advisory Committee.

LYNN LAKE GOLD PROJECT ENVIRONMENTAL IMPACT STATEMENT
Report on Baseline Conditions and Potential Project Effects for Indigenous Nations in Support of Response to Information Request IAAC-R2-57

ALAMOS GOLD INC.