NIRB Application for Screening #125994
Pelly Lake Remediation

Application Type:	New
Project Type:	Site Cleanup/Remediation
Application Date:	8/27/2024 11:32:10 AM
Period of operation:	from 2025-07-01 to 2025-09-30
Project Proponent:	Rachel Theoret-Gosselin INAC Building 969 Federal Road, PO Box 2200 Iqaluit Nunavut X0A 0H0 Canada Phone Number:: 867-222-1732, Fax Number:: 867-975-4286

DETAILS

Non-technical project proposal description

English: The Pelly Lake Site (the Site) is a former airstrip and fuel cache site. It was reportedly used as a base and airstrip from 1954 to 1956 by Spartan Air Services, who was contracted by the Federal Government to take aerial photographs of the region. The Site is located approximately 6 km to the northeast of Pelly Lake, within the Kivalliq region of Nunavut (7327399 N and 407062 E) (Lat: 66.053538° Long: -101.052295°) The nearest communities are Baker Lake (250 km southeast of Pelly Lake) and Gjoa Haven (350 km northeast of Pelly Lake). The Site is uninhabited and located on Crown land. Throughout the years, various materials and structures were left at the Site, the Remedial Action Plan (RAP) indicates several dilapidated structures, 49 x 1,000-gallon fuel tanks, 710 barrels of petroleum products (including oil lubricants, aviation fuel, oil, tar, and soil contaminated with tar, and 101 cans of aviation oil), pieces of equipment, and the remains of a "Mosquito" aircraft. Investigations confirm that the site contains impacted sediment that poses a risk to human and ecological health, as well as hazardous and non-hazardous debris. A limited cleanup was reportedly conducted in 1996 but did not remove everything from the Site.The project that is the subject of the environmental impact assessment (EIA) is the remediation of the Site (the "Project"). Crown-Indigenous and Northern Affairs Canada (CIRNAC) is the Proponent. The Project will involve the demolition of buildings, removal of hazardous and non-hazardous debris, the excavation and packaging of lead impacted sediments exceeding the ecological component values (70 mg/kg) from the Canadian Council of Ministers of the Environment (CCME) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health for agricultural land use (CCME 1999).Following the assessment of the site through scientific and traditional/local knowledge, the development of the Remedial Options Analysis, and the community engagement sessions, the recommended remediation option are excavation and southern off-site disposal of all impacted sediments, hazardous debris and non-hazardous debris with the exception of large non-hazardous debris that will be left on-site and unpainted wood debris that will be burned on-site. Due to challenging access to the site, equipment requirements will be kept to a minimum.The proposed work is anticipated to be completed in two stages encompassing two summers and one winter. Phase 1 will occur over 8-12 weeks in Summer 2025 with the mobilization of the project team and equipment, execution of the remedial works and demobilization of equipment. Phase 2 will occur over 4-8 weeks in Winter 2026 with the demobilization of waste materials and extend into Summer 2026 with a final inspection and removal of any remaining items. Personnel and staff will be housed during Summer 2025 on Site in a temporary camp and water, wastewater and waste management will be required. It is anticipated that the site cleanup will require approximately 12 to 15 workers on Site completing the cleanup activities. Wildlife monitors, equipment operators and labourers will be sourced from local communities where possible.In the short term, species and their habitats are expected to be impacted. The majority of this impact will be in the form of disturbance from the presence of humans and machinery and the accompanying noise, dust and activity. There is the possibility of more serious impacts from spills, fires, erosion and sedimentation and encounters with wildlife, however, these will be mitigated by the development of a comprehensive set of management plans developed, reviewed, and approved prior to commencing work. Ultimately, any short term negative impacts are anticipated to be offset by an overall improved environment and habitat to support species in their medium and long-term future.The execution of the remedial plan will be competitively procured, with the contractor making final decisions regarding the implementation strategy.

French: Le site du lac Pelly (le Site) constitue une ancienne piste d'atterrissage ainsi qu'une cache à essence. Le Site était utilisé comme base d'opération entre 1954 et 1956 par Spartan Air Services, qui était mandate par le gouvernement fédéral de prendre des photos aériennes de la région. Le Site se situe à environ 6 km au nord-est du lac Pelly, dans la région du Kivalliq au Nunavut (7327399 N and 407062 E) (Lat: 66.053538° Long: -101.052295°). Les communautés les plus proches sont Baker Lake (250 km au sud-est du lac Pelly) et Gjoa Haven (350 km au nord-est du lac Pelly). Le Site n'est actuellement pas occupé et se situe sur les terres de la couronne. Au fil des années, plusieurs matériaux et infrastructures ont été abandonnées sur le Site. Le plan d'assainissement indique plusieurs structures délabrées, 49 réservoirs à essence de 1,000 gallon, 710 barils de produits pétroliers (divers types), équipement varié et les restes d'un moteur d'avion Mosquito. Les évaluations confirment la présence de sédiment contaminés qui pose des risques pour la santé humaine et écologique, ainsi que d'autres débris dangereux et non-dangereux.Relation Couronne-Autochtones et Affaires du Nord Canada (RCAANC) est le proposant pour ce projet qui consiste à assainir le Site. Le projet impliquera de la démolition de

bâtisses, l'enlèvement de débris dangereux et non-dangereux, l'excavation et l'enlèvement de sédiments contaminés au plomb. Suite à l'évaluation des conditions du Site, de l'analyse des options d'assainissements, de la consultation publique, les méthodes d'assainissement préconisées sont l'excavation et l'enlèvement pour disposition dans une installation accréditée au sud de tous les sédiments contaminées, des débris dangereux et non-dangereux à l'exception de larges débris non-dangereux qui seront laissés sur le Site. Les débris de bois non peints seront également brûlés sur place. À cause de la difficulté d'accès au Site, les équipements utilisés seront minimaux. Les travaux sont proposés en deux phases s'étendant sur deux étés et un hiver. La Phase 1 sera de 8 à 12 semaines durant l'été 2025 pour la mobilisation des équipes, de l'équipement et l'exécution des travaux d'assainissement et de l'évacuation des équipements. La Phase 2 sera de 4 à 8 semaines durant l'hiver 2026 et consistera en l'évacuation des débris rassembler pendant la première phase et une inspection finale sera fait en été 2026. L'équipe sera loger dans un campement temporaire pendant la Phase 1 et un système de gestion de l'eau et des déchets sera nécessaire. Il est estimé qu'entre 12 et 15 travailleurs seront nécessaires pour la réalisation des travaux. Les surveillants pour la protection de la vie humaine contre les ours, les opérateurs de machinerie et les travailleurs seront recrutés localement le plus possible.L'ensemble des travaux ont été évalués par une évaluation d'incidences environnementales (EIA). Sur le court terme, les espèces et leur habitat seront probablement affectés par le projet. La majorité de ces effets seront sous forme de dérangement par la présence humaine et de machinerie, accompagnée de bruits, poussière et activités. Des effets plus importants sont possibles en cas de déversements, feux, érosion et sédimentation, et rencontre avec des animaux sauvages. Par contre, ces risques seront atténués par la mise en place d'un ensemble complet de plans de gestion développés, révisés et approuvés avant le début des travaux. Ultimement, les effets négatifs temporaires seront contrebalancés par une amélioration notable de l'environnement et l'habitat de ces espèces à long terme après le projet complété.

Inuktitut: ᐅᐊᓕᐊᒃᓖᑦ ᑕᓯᐊᓂ ᐱᓕᕆᕕᐅᔪᖅ (ᐱᓕᕆᕝᕕᒃ) ᑎᖕᒥᓲᓄᑦ ᒥᑦᑕᕐᕕᐅᓚᐅᖅᓯᒪᕗᖅ ᐊᒻᒪᓗ ᐅᖅᓱᐊᓗᕐᑯᑎᒃᓴᓄᑦ ᐊᒃᔭᖅᓯᕝᕕᐅᕙᓚᐅᖅᓗᓂ. ᐅᖃᖅᑕᐅᓯᒪᕗᖅ ᐱᓕᕆᐊᓄᑦ ᐱᓕᕆᕝᕕᐅᕙᓚᐅᖅᓯᒪᓂᖓᑕ ᐊᒻᒪᓗ ᒥᑦᑕᕐᕕᐅᕙᓚᐅᖅᓯᒪᓂᖓᑕ 1954-ᒥᑦ 1956-ᒧᑦ ᓯᐹᕐᑕᓐ ᑎᖕᒥᓲᖅᑎᖕᒋᓐᓂᑦ, ᒐᕙᒪᑐᖃᒃᑯᓐᓂᑦ ᐱᓕᕆᔨᐅᕙᓚᐅᖅᓯᒪᔪᓂᑦ ᑎᖕᒥᓲᒃᑯᑦ ᐊᔾᔨᓕᐅᕆᔨᐅᓂᕐᒧᑦ ᐊᕕᒃᑐᖅᓯᒪᓂᖓᓃᑦᑐᓂᒃ. ᑖᒻᓇ ᐱᓕᕆᕝᕕᐅᔪᖅ ᑖᒻᓇ ᐱᓕᕆᕝᕕᐅᔪᖅ ᓄᓇ 6 ᑭᓗᒦᑕᓪᓕᐊᓂᒃ ᐅᐊᖕᓇᖅᐸᓯᐊᓃᑉᐳᖅ ᐅᐊᓕᐊᒃᓖᑦ ᑕᓯᐊᓂᑦ, ᑭᕙᓪᓕᐅᑉ ᐊᕕᒃᑐᖅᓯᒪᓂᖓᑕ ᐃᓗᐊᓃᓪᓗᓂ ᓄᓇᕗᒻᒥ (7327399 N ᐊᒻᒪᓗ 407062 E). ᓄᓇᓕᐅᔪᑦ ᖃᓂᓐᓂᖅᐸᐅᔪᑦ ᑕᒪᐅᖓ ᖃᒪᓂ'ᑐᐊᖅ (250 ᑭᓚᒦᑕᑦ ᑭᕙᑎᖅᐸᓯᐊᓂᑦ ᐅᐊᓕᐊᒃᓖᑦ) ᐊᒻᒪᓗ ᐅᖅᕼᐅᖅᑑᖅ (350 ᑭᓚᒦᑕᓪᓗᐊᓂᒃ ᐅᐊᖕᓇᖅᐸᓯᐊᓂ ᐅᐊᓕᐊᒃᓖᑦ). ᑖᒻᓇ ᐱᓕᕆᕝᕕᐅᔪᖅ ᐃᓄᖃᙱᑦᑐᖅ ᐊᒻᒪᓗ ᒐᕙᒪᑐᖃᒃᑯᑦ ᓄᓇᕐᑯᑎᖓᑦᑕ ᐃᓗᐊᓃᓪᓗᓂ. ᐅᑭᐅᑦ ᐊᑐᖅᐸᓪᓕᐊᓯᒪᑎᓪᓗᒋᑦ, ᐊᑦᑎᕇᙱᕐᑯᖅᓱᖅ ᓲᓇᕐᑯᑎᕝᕕᓃᑦ ᐊᒻᒪᓗ ᓇᑉᐸᖅᑎᒐᐅᓯᒪᔪᕝᕕᓃᑦ ᕿᒪᒐᐅᕙᒃᓯᒪᔪᑦ ᑕᐅᕙᓂ, ᐃᓕᖅᑯᓯᑐᖃᖓᓄᑦ ᐅᑎᖅᑎᑕᐅᓯᒪᓕᖅᑯᐸᓗᒍ ᐸᖅᓇᐅᑎᑦ (RAP) ᓇᓗᓇᐃᖅᓯᓯᒪᕗᑦ ᐊᒥᓲᖅᓚᐅᑉᓗᑎᒃ ᓱᕈᖅᑎᖅᐸᓪᓕᐊᓕᖅᑐᓂᒃ ᓇᑉᐸᖅᑎᑕᐅᓯᒪᔪᕕᓂᕐᓂᒃ, 49-ᖑᑉᓗᑎᒃ 1,000 ᒎᓇᓐᓂᒃ ᐅᖅᓱᐊᓗᖕᓄᑦ ᖃᑦᑕᐅᔭᕕᓂᕐᓂᒃ, 710-ᓂᒃ ᐅᖅᓱᐊᓗᒃᓴᒥᑦ ᓴᓇᔭᐅᓯᒪᔪᕕᓂᕐᓂᒃ (ᐃᓚᖃᖅᖢᒋᑦ ᐅᖅᓯᖅᑎᕈᑎᓂᒃ, ᑎᖕᒥᓲᓄᑦ ᐅᖅᓯᓂᒃ, ᐅᖅᓱᐊᓗᖕᓂᒃ, ᑖᕐᓂᒃ, ᐊᒻᒪᓗ 101-ᖑᑉᓗᑎᒃ ᑎᖕᒥᓲᓄᑦ ᐅᖅᓯᕐᑯᑎᓂᒃ ᐃᐳᐃᑦᑐᓂᒃ), ᓴᓇᕐᕈᑎᕕᓂᕐᓂᒃ, ᐊᒻᒪᓗ "ᒪᕐᑮᑐ" ᑎᖕᒥᓲᕕᓂᕐᒥᒃ. ᖃᐅᔨᓴᖅᑕᐅᓯᒪᓂᖏᑦ ᓇᓗᓇᐃᖅᓯᓯᒪᕗᑦ ᑕᒪᓐᓇ ᓄᓇ ᐱᑕᖃᕐᓂᖓᑕ ᓯᑎᒃᑎᓯᒪᑉᓗᓂ ᑭᓐᓂᑕᕐᒥᒃ ᐅᓗᕆᐊᓇᖅᑐᒥᒃ ᐃᓄᖕᓄᑦ ᐊᒻᒪᓗ ᓄᓇᒥ ᐆᒪᓂᖃᖅᑐᓄᑦ, ᐊᒻᒪᓗ ᑐᕐᑯᔾᔪᑎᐅᑐᐃᓐᓇᓇᕆᐊᖃᖅᑐᓂᒃ ᐅᓗᕆᐊᓇᖅᑐᓂᒃ ᐊᒻᒪᓗ ᐅᓗᕆᐊᓇᙱᑦᑐᓂᒃ ᐊᒃᑕᑯᓂᒃ. ᓴᓗᒻᒪᖅᓴᒐᐅᑉᓚᖕᓂᖃᓚᐅᕐᓂᖓᓄᑦ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓕᓚᐅᖅᑐᖅ 1996-ᒥ ᑭᓯᐊᓂᓗ ᑕᒪᐃᓐᓂᒃ ᐲᖅᑎᕆᓯᒪᓕᓚᐅᙱᒻᒪᑕ ᓄᓇᒥᑦ. ᑖᒻᓇ ᐱᓕᕆᐊᖑᑲᐃᓐᓇᖅᑐᖅ ᐱᔾᔪᑎᒋᔭᐅᓗᐊᖅᓯᓂ ᐊᕙᑎᐅᑉ ᐊᒃᑐᒐᐅᓯᒪᓕᖅᓂᖓᑕ ᖃᐅᔨᓴᐃᓂᐅᓕᖅᑐᒥᑦ (EIA) ᑐᕌᖓᑎᑕᐅᕗᑦ ᐃᓕᖅᑯᓯᑐᖃᖓᓄᑦ ᐅᑎᖅᑎᑕᐅᓯᒪᓕᖅᑯᐸᓗᒍ ᓄᓇ ᐱᓕᕆᓂᖃᕐᕕᐅᔪᖅ ("ᐱᓕᕆᐊᖑᔪᖅ"). ᐱᓕᕆᐊᖑᔪᖅ ᑖᒻᓇ ᐃᓚᖃᖅᑎᑕᐅᓂᐊᕐᐳᖅ ᐃᑐᑉᑎᒐᐅᓂᖏᓐᓂᒃ ᐃᒡᓗᕐᔪᐊᑦ, ᐅᓗᕆᐊᓇᖅᑐᑦ ᑐᕐᑯᔾᔪᑎᐅᑐᐃᓐᓇᓇᕆᐊᖃᖅᑐᑦ ᐊᒻᒪᓗ ᐅᓗᕆᐊᓇᙱᑦᑑᑉᓗᑎᒃ ᐊᒃᑕᑯᐃᑦ, ᓴᓪᓚᓚᐅᓂᖏᑕ ᐊᒻᒪᓗ ᐆᖅᑐᓚᐅᓂᖏᑕ ᐊᕿᑦᑐᔭᖃᖅᓯᒪᑉᓗᑎᒃ ᑭᓐᓂᑕᕐᓂᒃ ᐅᖓᑖᓄᐊᖅᓯᒪᔪᓂᒃ ᐆᓂᖃᖅᑐᕐᑯᑎᖃᕐᓂᖏᓐᓄᑦ ᑎᑭᓯᒪᑉᓗᑎᒃ (70 mg/kg) ᐅᖃᖅᑕᐅᓯᒪᔪᓂᑦ ᐊᕙᑎᓕᕆᓂᕐᒥ ᒥᓂᔅᑕᐃᑦ ᑲᓇᑕᒥ ᑲᑎᒪᔩᖏᑕ (CCME) ᑲᓇᑕᒥ ᒪᕐᕈᐅᑉ ᐱᐅᓂᖃᕐᓂᓇᔭᓇᐊᖃᖅᑖᖓᓄᑦ ᑐᑭᒧᐊᒍᑎᒃᓴᓇᔭᐅᔪᓄᑦ ᒥᐊᓂᓇᔭᐅᓂᖓᑕ ᐊᕙᑎᐅᑉ ᐊᒻᒪᓗ ᑭᒃᑯᑐᐃᓐᓇᑦ ᐋᓐᓂᐊᖃᕐᑕᐃᓕᒪᑎᑕᐅᓂᖏᓐᓄᑦ ᓄᓇᒥᒃ ᐊᑐᖅᐸᓐᓂᕐᓄᑦ (CCME 1999).ᐃᓕᖅᑯᓯᑐᖃᖓᓄᑦ ᓄᓇᐅᑉ ᐊᑎᖅᑎᑕᐅᓯᒪᓕᖅᓂᒃᓴᖓᓄᑦ ᐱᓕᕆᓂᖃᕐᕕᐅᓕᕈᓐᓇᖅᑐᑦ ᖃᐅᔨᕆᐊᖅᑕᐅᓯᒪᓕᐊᓂᒃᐸᑕ ᐊᒻᒪᓗ ᓄᓇᖃᖅᑎᕐᓂᒃ ᑲᑎᒪᖃᑎᖃᖅᑲᑦᑖᓂᒃᓯᒪᓕᖅᐸᑕ, ᐃᓯᒪᓕᐅᕈᑎᕐᔭᐅᓯᒪᓕᓚᐅᖅᐳᑦ ᐃᓕᖅᑯᓯᑐᖃᖓᓄᑦ ᐃᓕᖅᑎᑦᓯᓯᒪᓕᕐᓂᐊᕐᓂᕐᒥ ᐱᓕᓇᓂᖃᓕᕿᔭᔭᖅᒪᑕ ᓴᓪᓚᐃᓗᑎᒃ ᐊᒻᒪᓗ ᓂᒥᐊᓄᑦ ᐊᒃᑕᑰᖅᑕᐅᓯᒪᓕᕐᓂᐊᕐᓂᕐᒥᑕ ᑕᒪᕐᒥᒃ ᑭᓐᓂᑕᐃᑦ ᓈᒻᒪᙱᓐᓂᖃᓕᖅᓯᒪᔪᑦ, ᑐᕐᑯᔾᔪᑎᐅᑐᐃᓐᓇᓇᐊᖃᖅᑐᑎᒃ ᐅᓗᕆᐊᓇᖅᑐᓂᒃ ᐊᒃᑕᑯᐃᑦ ᐊᒻᒪᓗ ᐅᓗᕆᐊᓇᙱᑦᑐᑦ ᐊᒃᑕᑯᐃᑦ ᐱᖃᔭᐅᑎᓯᒪᓇᒥᑦ ᐊᙱᔩᑎᐅᑉᓗᑎᒃ ᐅᓗᕆᐊᓇᙱᑦᑐᑦ ᐊᒃᑕᑯᐃᑦ ᕿᒪᒃᑕᐅᓯᒪᓂᐊᕐᓗᑎᒃ ᓄᓇᒥ ᐊᒻᒪᓗ ᒥᖑᐊᖅᓯᒪᙱᓗᑎᒃ ᕿᔪᐃᑦ ᐊᒃᑕᑯᑦ ᐃᑯᐊᓪᓚᒃᑎᑕᐅᓯᒪᓕᕐᓂᐊᖅᑐᑦ ᓄᓇᒥ. ᐱᑦᑐᑎᒋᑉᓗᒍ ᐊᔪᕐᓇᕐᓂᖓ ᑎᑭᓯᒪᓕᓇᐊᒥᒃ ᑕᐅᕗᖓ ᓄᓇᒧᑦ, ᓴᓇᕐᕈᑎᖃᖅᑐᐃᑦ ᐱᓯᒪᓕᕋᓇᐅᓂᒃᓴᐅᕗᑦ ᐊᒥᓲᓐᓂᖓᓐᓂᑦ. ᐃᓯᒪᓕᐅᕈᑎᐅᔪᖅ ᐱᓕᕆᐊᖑᔪᒍᔾᔪᑎᒋᔭᓇᓕᕐᓂᖓᓄᑦ ᐃᓯᒪᓕᐅᕆᔭᐅᓯᒪᔪᖅ ᐱᔭᓐᓇᕐᑎᓯᓂᖅ ᓈᒻᒪᖕᒪᓕᑎᑦᑎᓂᖅ ᐱᓕᕆᐊᖑᓂᐊᖅᑐᑦ ᒪᕐᕈᐃᖕᓂ ᐊᐅᔭᓂ ᐊᒻᒪᓗ ᐊᑕᐅᓯᕐᒥ ᐅᑭᐅᖑᑎᓪᓗᒍ: ᐱᓕᕆᐊᖑᕙᓪᓕᐊᓂᖕᒥᑦ 1-ᖓ ᐱᓕᕆᓂᖃᕐᕕᐅᓂᐊᖅᐳᖅ 8-12 ᐱᓇᓱᐊᕈᓯᕐᓄᑦ ᐊᐅᔭᖓᓂ 2025 ᐱᓕᕆᐊᖃᓕᕆᐊᖅᑎᑕᐅᓂᕐᒥᑕ ᐱᓕᕆᐊᒥ ᐱᓕᕆᐊᖃᖃᑎᒌᖑᔪᑦ ᐊᒻᒪᓗ ᓴᓇᕐᕈᑎᒃᓴᖏᑦ; ᐱᒋᐊᖅᑎᑕᐅᓯᒪᓕᕐᓗᑎᒃ ᐃᓕᖅᑯᓯᑐᖃᖓᓄᑦ ᐅᑎᖅᑎᑦᓯᕙᓪᓕᐊᓂᕐᒥ ᐱᓕᕆᓂᐅᔪᓂᒃ ᐊᒻᒪᓗ

ᐊᑐᑭᓯᖅᑎᑕᐅᓂᖏᓐᓂᒃ ᓴᓇᖅᑭᑎᑦ. ᐱᓕᕆᐊᖓᔪᓕᒐᓂᖏᓐᓂᑦ 2-ᖏᑦ ᐱᓕᕆᓂᖅᖃᐅᑎᓂᐊᕐᓗᓂ 4-8 ᐱᓇᓯᐊᑭᓯᓄᑦ ᐅᑭᐅᖓᔪᒪᓕᒍ 2026 ᐊᑐᑭᓯᓄᖅᑎᑕᐅᔪᓕᒐᓕᐊᑎᓕᒍᑦ ᐊᒃᑕᑯᐃᑦ ᐊᓚᓗ ᐅᐃᔪᕐᐅᓂᖅᖃᓂᖅᓗᓂ ᐊᐅᒃᖏᖓᓄᑦ 2026-ᒥ ᑭᖓᓕᓕᒥᒃ ᖃᐅᔨᓴᐅᒃᖏᖅᑐᓂᕐᓯᒪᓗᓂ ᐊᓚᓗ ᐋᓴᖅᑕᐅᓯᒪᓕᕐᓗᑎᒃ ᑕᐃᒪᐅᔨᑦ: ᐃᖅᑲᓇᐃᖅᑎᑦ ᐊᓚᓗ ᐱᓕᕆᔨᐅᔨᓕᑦ ᐃᒡᓗᖃᖅᑐᑦ ᐃᒪᓐᓇᐅᑉ 2025 ᐱᓕᕆᖏᐅᔾᔨ ᐊᑕᐃᓐᓇᖅᑐᑦᑐᒥᒃ ᓄᓇᓕᕋᓱᖃᖅᖏᑦ ᐊᓚᓗ ᐃᒥᖃᖅᑎᑕᐅᓗᑎᒃ, ᐃᓚᓐᓴᕐᓴᖃᓕᓂᐅᔨᓂ ᐊᓚᓗ ᐊᒃᑕᑯᓂᒃ ᐊᐅᓚᓂᕐᓂᐊᕐᓂᖅᓯᒪᑕ ᑕᐃᓚᐅᔨᕐᓇᐊᖃᖅᑐᓂᖅᓴᖅᑎᑦᓂᖅᓯᒪᓕᑕ 12-ᓂᑦ 15-ᓄᑦ ᓄᓇᒥ ᐱᓕᕐᓴᖃᑕᐅᓂᓕᕆᓂᖅᓯᒪᓕᑕ ᓴᓗᓴᒪᖃᖅᓴᐃᓂᖅᒥ ᐱᓕᕆᓂᕐᓂᐊᕐᓂᖅᓄᑦ. ᐅᒪᔨᓂᒃ ᓇᐅᑦᓯᖃᖅᑐᐃᓐᓇᑦ, ᓴᓇᖅᑭᑎᓂᒃ ᐊᑐᖅᓯᑎᒃ ᐱᓕᕆᓂᐅᓐᓂᑦ ᐊᓚᓗ ᓴᓇᔨᐅᔨᑦ ᐱᓕᕐᓴᐅᑎᓂᐊᕐᓂᖅᓴᖅᑐᑦ ᓄᓇᓕᕆᔨᐅᔨᓂᓄᑦ ᐊᔨᖅᓴᖅᑐᑦ. ᐊᒃᑕᑯᓂᐅᔨᓂᖅᓯᒪᓕᑕ ᐃᓕᓴᖅᑐᑎᑦᓂᖅᓯᒪᓕᑕ ᐊᒃᑐᖅᑕᐅᓯᒪᓕᕐ

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Pelly Lake Site	Site Cleanup/Remediation	Crown	The Pelly Lake Site (the Site) is a former airstrip and fuel cache site. It was reportedly used as a base and airstrip from 1954 to 1956 by Spartan Air Services, who was contracted by the Federal Government to take aerial photographs of the region.	No archaeological features were identified during the archaeological investigation; however, details of a suspected burial site have been provided to the Proponent. The location of the suspected burial is sensitive and cannot be shared in a public document but will be provided to the Contractor.	250 km from Baker Lake, no protected area around
Drinking Water Lake	Site Cleanup/Remediation	Crown	The Pelly Lake Site (the Site) is a former airstrip and fuel cache site. It was reportedly used as a base and airstrip from 1954 to 1956 by Spartan Air Services, who was contracted by the Federal Government to take aerial photographs of the region.	No archaeological features were identified during the archaeological investigation; however, details of a suspected burial site have been provided to the Proponent. The location of the suspected burial is sensitive and cannot be shared in a public document but will be provided to the Contractor.	250 km from Baker Lake, no protected area around
Pelly Lake Site	Airstrip use or construction	Crown	Former Landstrip	No archaeological features were identified during the archaeological investigation; however, details of a suspected burial site have been provided to the Proponent. The location of the suspected burial is sensitive and cannot be shared in a public	250 km from Baker Lake, no protected area around

				document but will be provided to the Contractor.	
Pelly Lake Site	Quarry/Borrow pit	Crown	The Pelly Lake Site (the Site) is a former airstrip and fuel cache site. It was reportedly used as a base and airstrip from 1954 to 1956 by Spartan Air Services, who was contracted by the Federal Government to take aerial photographs of the region.	No archaeological features were identified during the archaeological investigation; however, details of a suspected burial site have been provided to the Proponent. The location of the suspected burial is sensitive and cannot be shared in a public document but will be provided to the Contractor.	250 km from Baker Lake, no protected area around
Pelly Lake Site	Camp	Crown	The Pelly Lake Site (the Site) is a former airstrip and fuel cache site. It was reportedly used as a base and airstrip from 1954 to 1956 by Spartan Air Services, who was contracted by the Federal Government to take aerial photographs of the region.	o archaeological features were identified during the archaeological investigation; however, details of a suspected burial site have been provided to the Proponent. The location of the suspected burial is sensitive and cannot be shared in a public document but will be provided to the Contractor.	250 km from Baker Lake, no protected area around
Pelly Lake Site	Access Road	Crown	The Pelly Lake Site (the Site) is a former airstrip and fuel cache site. It was reportedly used as a base and airstrip from 1954 to 1956 by Spartan Air Services, who was contracted by the Federal Government to take aerial photographs of the region.	No archaeological features were identified during the archaeological investigation; however, details of a suspected burial site have been provided to the Proponent. The location of the suspected burial is sensitive and cannot be shared in a public document but will be provided to the Contractor.	250 km from Baker Lake, no protected area around

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Baker Lake	27 members of the community during a public community meeting to discuss the site assessment results and the options for remediation plan	Hamlet of Baker Lake	2023-05-18

Authorizations

Indicate the areas in which the project is located:

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Aboriginal Affairs and Northern Development Canada	Land Use permit and Quarry permit	Not Yet Applied		
Government of Nunavut, Department of Culture, Language, Elders, and Youth	Arcaheological permit (2022-26A) to allow archaeological research at KW018 – Pelly Lake	Active		2023-03-31
Nunavut Water Board	Water Licence	Not Yet Applied		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Air	Between site and Baker Lake	
Water	Sealift to bring equipment to Baker Lake	
Land	Limited within the boundaries of the site to access waste area	

Project accomodation types

Temporary Camp

Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
ATV & trailer	3	Honda	Summer transportation of personnel and waste
Snowmobile & sleds	3	Honda	Winter transportation of personnel and waste
Barrel crusher	1	DC500	Remediation and management of waste drums
Tank cleaning equipment	1	N/a	Remediation and management of waste drums/tanks
Acetylene Torch	3	n/a	Remediation of waste drums/tanks
Metal saws	3	Stihl TS700	Demoliton and management of waste
Diesel Generator	2	80kw	Camp power/ electrical heating
Barrel pumps	2	n/a	fuel transfer
Water pump	1	2 Hoda	Non-potable water supply
Incinerator	1	Cyclonator	Solid waste disposal
Forlklift/pump cart	1	n/a	Loading aircraft

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Diesel	fuel	40	250	10000	Liters	Generator fuel for camp operations
Gasoline	fuel	10	250	2500	Liters	Vehicles
Other	fuel	1	50	50	Liters	Hydraulic and Motor Oil - Equipment and vehicle maintenance
Propane	fuel	1	45	45	Kg	Camp heating and cooking
Other	fuel	1	800	800	Cubic ft	Acetylene - Cutting metal debris
Other	fuel	1	1600	1600	Cubic ft	Oxygen - Cutting metal debris
Aviation fuel	fuel	495	250	123750	Liters	Aircraft use for moving personnel and waste

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
50	pump with mesh screen	Drinking Water Lake

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Site Cleanup/Remediation	Combustible wastes	45.6 m3	Incinerated on prepared burn pad	Ashes will be collected, packaged, and removed off-site for disposal in southern facility with the rest of Remediation waste
Camp	Combustible wastes	1,088 kg	Burned in dedicated incinerator	Ashes will be collected, packaged, and removed off-site for disposal in southern facility with the rest of the Remediation waste
Site Cleanup/Remediation	Hazardous waste	7.05 m3	Collected, packaged and removed off-site for disposal in southern facility with the rest of Remediation waste	Shipped to southern facility via sealift
Site Cleanup/Remediation	Non-Combustible wastes	85.9 m3	Collected, packaged and removed off-site for disposal in southern facility with the rest of Remediation waste	Shipped to southern facility via sealift
Site Cleanup/Remediation	Non-Combustible wastes	1,890 kg	Collected, packaged and removed off-site for disposal in southern facility with the rest of Remediation waste	Shipped to southern facility via sealift

Environmental Impacts:

In the short term, species and their habitats are expected to be impacted. The majority of this impact will be in the form of disturbance from the presence of humans and machinery and the accompanying noise, dust and activity. There is the possibility of more serious impacts from spills, fires, erosion and sedimentation and encounters with wildlife, however, these will be mitigated by the development of a comprehensive set of management plans developed, reviewed, and approved prior to commencing work. Ultimately, any short term negative impacts are anticipated to be offset by an overall improved environment and habitat to support species in their medium and long-term future. See details in Environmental Impact Assessment Report

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

2.1 SUMMARY OF ITEMS REQUIRING REMEDIAL ACTIONBased on the findings of the Phase III ESA and the HHERA and feedback during the communityengagement session, the areas requiring remedial action are categorized into Impacted Sediment(Table 4), Hazardous Waste (Table 5) and Non-Hazardous Waste (Table 6). The volumes of wasteare outlined below, details are available in Appendix A and their locations are documented inFigures 3 and 4a-e.Table 4: Impacted SedimentImpacted Sediment Estimate Volume of SedimentTotal Estimated Volume of Contaminated Sediment 6.1 m3Table 5: Hazardous WasteType of Waste Estimate Volume of WasteTotal Debris 0.10 m3Total Paint 0.52 m3Total Liquid and Drum/Tank Residues 6.64 m3Note: Includes the full barrel of liquid at Site#2 Fuel CacheTable 6: Non-Hazardous WasteType of Waste Estimate Volume of WasteWood Debris 45.9 m3Metal Debris 70.8 m3Construction Debris 15.3 m3Household Debris 0.3 m3Tanks 27.5 m3Barrels 13.2 m3Total Liquid 0.35 m2.3 REMEDIATION STRATEGYThe remediation strategy was informed by previous studies including the Phase III ESA (BLM2023a), the HHERA (BLM 2023b), the ROA (BluMetric 2023c) and the community engagement(BluMetric 2023d) and was documented in the Remedial Action Plan (RAP) (BluMetric 2023e).The proposed work is anticipated to be completed in two stages encompassing two summers andone winter. Phase 1 will occur over 8-12 weeks in Summer 2025 with the mobilization of theproject team and equipment, execution of the remedial works and demobilization of equipment.Phase 2 will occur over 4-8 weeks in Winter 2026 with the demobilization of waste materials and extend into Summer 2026 with a final inspection and removal of any remaining items. Details areprovided below, and proposed work areas are shown on Figure 5.Personnel and staff will be housed during Summer 2025/Winter 2026 on Site in a temporary campand water, wastewater and waste management will be required. It is anticipated that the sitecleanup will require approximately 12 to 15 workers to be on Site completing the cleanup activities.Workdays are expected to be 10 hours on site with 2 hours of additional time for travel andsafety/administrative meetings that may occur on site or in the community. Wildlife monitors,equipment operators and labourers will be sourced from local communities where possible.Due to challenging access to the Site, equipment requirements will be kept to a minimum and areassumed to include: a drum crusher, drum and tank cleaning equipment, ATVs, trailers, and handtools.Stage 1 (Summer 2025):• Maintenance of the airstrip and on site trails;• Mobilization of personnel, equipment, materials and support facilities, including fuel byfixed wing aircraft;• Construction of a temporary construction camp including camp, fuel storage area, stagingareas and establishment of water intake;• Excavation of impacted sediment;• Inspection of large debris/equipment to be left on site and removal of all hazardousmaterials (e.g. paint, oils, fuel);• Collection, cleaning and crushing of barrels/dismantling of tanks;• Collection and sorting of debris;• Burning of unpainted/untreated wood debris;• Excavation of borrow material (aggregate) and regrading as required;• Segregation, consolidation, packaging and containerization of all impacted sediment, debris(hazardous and non-hazardous) and equipment for shipment;• Deconstruction of the temporary camp and packaging for removal. The temporary campwill be re-established for the winter demobilization program.Weekly or biweekly shipments are expected throughout the duration of Summer 1. Demobilizationby air of hazardous wastes and other items equipment may occur in Stage 1 depending on the sizeand type of aircraft available and ability to land on site.Stage 2 (Winter /Summer 2026):• Construction of a temporary construction camp including camp, fuel storage area, stagingareas and establishment of water intake;• Construction of a winter access trail and ice strip;• Demobilization (winter) by fixed wing aircraft of all consolidated materials on siteincluding, but not limited to, fuel, equipment, materials, hazardous waste, non-hazardouswaste, and contaminated sediment;• Deconstruction of the temporary camp (including all waste and fuel) and packaging forremoval.• Final inspection and collection of any remaining small debris will occur following springthaw.A Site-Specific Environmental Health and Safety Plan and Management Plans will be developed forthe project that will include (but are not limited to):• On-site Contingency and Emergency Response Plan;• Spill Contingency Plan;• Fire Safety Plan;• Wildlife Encounter and Management Plan;• Fuel Management Plan;• Historical, Archaeological and Cultural Resources Plan;• Wildlife Protection Plan;• Erosion Sediment and Drainage Control Plan;• In Stream or Near Water Works Work Methodology Plan;• Mobilization and Demobilization Plan; and• Airstrip and Site Access Road Upgrading and Maintenance Plan.2.3.1 Impacted SedimentThe impacted sediment will be removed and disposed of off site. This was the preferred outcomein the ROA and the community engagement session. Due to the relatively small volume ofimpacted sediment (6.1 m3), impacted material will be removed by hand and packaged in suitablecontainers or drums for shipment off site. If possible, the impacted sediment will be removed atthe end of Phase 1. Alternatively, it will be shipped off site with the other materials in Phase 2(winter).2.3.2 Hazardous MaterialsThe hazardous materials requiring removal include:• Hazardous Debris – 0.10 m3;• Total Lead Paint – 0.52 m3;• Liquid (Fuel, Fuel Residues and Vehicle Fluids) – 6.63 m3.The hazardous liquid waste to be removed from site is assumed to one drum of known PHCs, theestimated volume of fluids that remain in the machinery and vehicles on site and the sludgeresulting from the cleaning of the fuel drums and tanks.The hazardous materials will be collected

and placed into suitable containers or drums for shipmentoff site. If possible, the hazardous materials will be removed at the end of Phase 1. Alternatively,it will be shipped off site with the other materials in Phase 2 (winter). A summary of hazardousdebris to be removed is found in Table 8.On-site treatment and discharge of water produced during tank and drum cleaning was assumedand would need to be permitted through a water license.Table 8: Summary of hazardous debris to be removed from Site.Item# Area Description APEC IDHazardous DebrisBatteries(m3)VehicleFluids(m3)LeadPaint(m3)Liquid andDrum/TankResidues(m3)TotalVolume(m3)1 Campsite Food Cache 1 - - - 0.3 0.32 Immediately West of the FoodCache 1 - - - - 03 Northwest of Food Cache 1 0.1 - - - 0.14 West of Food Cache 1 - 0.01 0.25 - 0.315 North of Food Cache – 1 1 - - - - 06 North of Food Cache – 2 1 - - - - 07 Southeast of Food Cache 1 - 0.01 - - 0.018 Site #1 Fuel Cache (South Pile) 2 - - - - 09 Site #1 Fuel Cache (Middle Pile) 2 - - - 0.7 0.710 Site #1 Fuel Cache (North Pile) 2 - - - 1.2 1.211 North of Site #1 Fuel Cache 2 - - - - 012 West of Site #1 Fuel Cache 2 - 0.01 0.15 - 0.2113 Site #1 Drum Pile (S) 2 - - - - 014 Site #2 Fuel Cache 3 - - - 2.8 2.815 East of Site #2 Fuel Cache 3 - - - - 016 Southwest of Site #2 FuelCache 3 - - 0.12 - 0.117 Drinking Water Lake 4 - - - - 018 Landing Lakes 5 - - - 0.1 0.119 Empty Fuel Drums Throughoutthe Site n/a - - - 1.3 1.3Total Debris 0.10 0.03 0.52 6.40 7.05Note: Totals may not add up due to rounding.2.3.3 Non-Hazardous DebrisA significant volume of non-hazardous debris is present on site. Details are provided in Table 9.Clean wood debris (unpainted and/or untreated) will be burned on-site. Following incineration,ashes will be collected and placed into suitable containers or drums for shipment off site. If possible,the ash will be removed at the end of Phase 1. Alternatively, it will be shipped off site with theother materials in Phase 2 (winter).Large non-hazardous debris that will remain on-site includes the old D4 bulldozer, and a large steelcart with an old turbine aircraft engine on. These items will be inspected for any remainingfuels/liquids within the equipment and the paint will be tested for lead and PCBs. If there are anyliquids within the large equipment, they will be drained, placed into suitable containers or drumsfor shipment off site. If the paint contains lead or PCBs, it will be scraped off and placed intosuitable containers or drums for shipment off site. If possible, any hazardous materials will beremoved at the end of Phase 1. Alternatively, it will be shipped with the other materials in Phase2 (winter).All remaining non-hazardous debris on site will be packaged and consolidated for removal.Removal of non-hazardous materials is planned Phase 2 (Winter). During the staging period alldebris will be packed in mega bags, on skids, or equivalent for removal by aircraft.Table 9: Summary of Non-hazardous Debris Quantities Grouped by Management StrategyItem # Area Description APEC IDNon-HazardousTotal Debris forRemovalTotal DebrisManaged on SiteMetal(m3)Other1(m3)WaterTank(m3)BurnableWood(m3)ItemsStayingOnsite(m3)1 Campsite Food Cache 1 3.4 1.3 - 4 -2 Immediately West of the Food Cache 1 0.5 0.25 - 13 -3 Northwest of Food Cache 1 4.1 - - 9.9 -4 West of Food Cache 1 0.6 - - - 16.75 North of Food Cache – 1 1 0.2 1 - 4 -6 North of Food Cache – 2 1 6.6 - - 10 -7 Southeast of Food Cache 1 2.6 0.66 - - -8 Site #1 Fuel Cache (South Pile) 2 3.2 - - - -9 Site #1 Fuel Cache (Middle Pile) 2 3.2 - - - -10 Site #1 Fuel Cache (North Pile) 2 5.5 - - - -11 North of Site #1 Fuel Cache 2 2 7 - 2.7 -12 West of Site #1 Fuel Cache 2 - - - - 2513 Site #1 Drum Pile (S) 2 0.1 - - - -14 Site #2 Fuel Cache 3 20.4 - 0.3 - -15 East of Site #2 Fuel Cache 3 2.7 7 - 2 -16 Southwest of Site #2 Fuel Cache 3 12 - - - -17 Drinking Water Lake 4 0.2 - - - -18 Landing Lakes 5 0.9 - - - -Total Debris by Material 68.3 17.2 0.3 45.6 41.7Total Debris for Removal and/or On-Site Management 85.9 m3 87.3 m3Notes: Non-Hazardous Waste = tar paper, household items, glass, tires, and tubing; Totals may not add up due torounding.

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Description of Existing Environment: Physical Environment

5.1 SITE LOCATIONThe Site is situated on a flat area approximately 200 metres above sea level (masl), falling to anelevation of approximately 180 masl within 1 km to the southwest of the Site and within 2 km tothe northeast of the Site. A small unnamed lake is present on the downslope southern portion ofthe Site and several unnamed lakes are present to the east of the Site. The Site is uninhabited andis located on Crown land.5.2 CLIMATENo weather station is present near the Pelly Lake Site, and the closest weather station is theEnvironment Canada Station at Robertson Lake, Nunavut, approximately 125 km southwest ofSite. The daily average temperatures varied between -31.9˚C in February 2021 and 9.2˚C in August2021 (data corresponding to the period from January to December 2021 (Government of Canada2022). The average yearly precipitation has not been recorded. The total amount of precipitationreceived in 2021 was 207.7 millimetres (mm). Daily average temperatures were above 0˚C duringfour months of the year in 2021 (June - September). Precipitation in the form of snow can occurat any time throughout the year, although it is less likely in July and August.5.3 GEOLOGYThe Site is located on a glacial outwash plain (Canadian Geoscience Map 274, 2015). West of thecamp area, this consists of ice-contact sediments, which are described as mainly sand with gravel,moderately to well sorted, massive to stratified, 2 to 15 m thick. East of the camp area are outwashsediments, described as sand with gravel, moderately to well sorted and stratified, and greater than2 m thick. The primary surficial geology observed during the Phase III ESA was sand, with graveland cobbles observed in areas to the east of the eastern airstrip.The previous Phase II ESA for the Site (WESA, 2006) describes the bedrock beneath the Siteconsisting of archeaen gneiss granite, as indicated on the map titled "Geology – NortheasternDistrict of Mackenzie, NWT" (GSC, 1963). Additionally, the Geological Survey of Canada alsoconfirmed the bedrock beneath the Site consists of Archean gneiss rock, describing it as Archeanundivided gneiss (de Kemp, et al. 2006). The area of the Site is generally flat and plateaus abovethe surrounding area of hummocky terrain and rolling hills. The Site is located within a zone ofcontinuous permafrost (90% - 100% of this zone is underlain by permafrost) (Heginbottom, J.A.,1995).Soil and geological conditions were confirmed during the 2022 site visit. Field staff recordedground conditions as predominantly sand with gravel with cobbles. Trace organic material wasalso noted in the top 0-15 centimetres (cm) of several locations at APEC 1, 2 and 3. No permafrostwas encountered during the environmental test pitting, completed to a maximum of 1 meter belowground surface (mbgs). The geotechnical test pitting reported permafrost between 0.9 and 1.2 mbgsbut was not present at all test pit locations. Locations where permafrost was indicated were to thesoutheast, west and northwest of APEC 2 (Site #1), outside of the main runway area but on thesandy plateau.5.4 HYDROGEOLOGYGroundwater was not observed in any of the test pits excavated during the BluMetric fieldinvestigation but was present in the two piezometers installed at APEC 3 (Site #2). Regionalgroundwater flow is expected to be influenced by permafrost which generally follows regionaltopography. Regional groundwater is inferred to flow generally northward, with localgroundwater flow direction influenced by local topography, as many hills, valleys and lakes arepresent in the area.Permafrost in the area is classified as continuous with low (<10%) ground ice content in the upper10-20 m of the ground (Geological Survey of Canada (GSC), 1995). Neither permafrost nor bedrockwas encountered in any of the environmental test pits dug at the Site, however permafrost wasencountered at approximately 0.9 to 1.2 m depth in several of the geotechnical test pits.The permeability of the sandy soils present at the Site is expected to be relatively high. Evidence ofa confining layer above the permafrost was not observed, therefore surface water is anticipated toinfiltrate through the upper layers to reach the permafrost that defines the active layer (the layerthat thaws in warmer months and freezes in colder months). Infiltrated surface water andgroundwater is expected to readily flow through the active layer of these soils.5.5 SURFACE WATERPelly Lake is a large lake that is located approximately 6 km southwest of the Site. There are alsomany lakes located in the area, some of which are interconnected. The Campsite Area is locatedapproximately 10 m from an inland pond (Campsite Area Pond) that drains northward to thesmaller of the lakes in the Landing Lakes Area approximately 570 m to the north of the Site. Runofffrom the Campsite Area is anticipated to flow into the pond, as indicated by drainage channelsobserved on the eastern slope of the pond.Drinking Water Lake is located approximately 650 m west of the Campsite Area Pond. An inletstream flows into the lake from the north end and an outlet stream flows southeastward from thesoutheast end of the lake. The area identified as Site #2 (APEC 3) is located approximately 450 mto the northwest of Drinking Water Lake. Runoff from Site #2 is anticipated to flow into DrinkingWater Lake, as indicated by drainage channels observed in the area.

Description of Existing Environment: Biological Environment

5.6 VEGETATIONThe Pelly Lake Site is within the Southern Arctic Ecozone and the Garry Lake Lowland Ecoregion,which can be characterized as a gently sloping plain with a low Arctic ecoclimate and shrub tundravegetation. The Project Site and surrounding area are characterized as a mosaic of sand and gravelglacial deposits with thinly dispersed vegetation that is primarily composed of sedges, dwarf shrubs,herbaceous plant species, lichens, and mosses (inferred from Site photographs and drone

imagery).There are multiple lakes and ponds present at the Site and surrounding area that are bordered bysedges and dwarf shrubs but do not appear to support aquatic or emergent vegetation (inferredfrom Site photographs and drone imagery). There are no vascular plant or moss SAR expected tooccur within the Pelly Lake area (Appendix B). Rare plants have not been recorded in the region;however, detailed inventories have not been conducted.A Site visit and environmental investigation was conducted during August 2022, where vegetationwas sampled to determine the uptake of contaminants of concern to inform future risk assessmentwork. A partial list of vegetation present at the Site (based on identifications from Sitephotographs), is provided below:• Black Crowberry (Empetrum nigrum);• Dwarf Birch (Betula pumila glandulifera);• Labrador Tea (Rhododendron (Ledum) palustre);• Cloudberry (Rubus chamaemorus);• Arctic Cranberry (Vaccinium vitis-idaea);• Willows (Salix species);• Sedges (Carex species);• Lichens;• Mosses.5.7 MAMMAL, AVIAN, AND FISH SPECIESMany characteristic Arctic tundra mammal and bird species including barren-ground caribou(Rangifer tarandus groenlandicus), muskox (Ovibos moschatus), grizzly bear (Ursus arctoshorribilis), Arctic fox (Vulpes lagopus), Arctic wolf (Canis lupus arctos), wolverine (Gulo gulo),ermine (Mustela erminea), Arctic hare (Lepus arcticus), Arctic ground squirrel (Spermophilusparryii), brown lemming (Lemmus sibiricus), gyrfalcon (Falco rusticolus), snow geese (Chencaerulescens), Canada goose (Branta canadensis), willow ptarmigan (Lagopus lagopus) and rockptarmigan (Lagopus mutus), are likely to inhabit the Site and surrounding area. Wildlife speciesobserved during the August 2022 Site visit included barren-ground caribou, Arctic hare, Arcticground squirrel, brown lemming, Canada goose (Branta canadensis), and ptarmigan species. Otherevidence of wildlife (bones or tracks) observed during the August 2022 Site visit included Arcticwolf, barren-ground caribou muskox and a bear species (most likely grizzly bear).Given the size of the Project Site and the existing habitat conditions available, larger mammalsincluding barren ground caribou, muskox, and grizzly bear likely only occupy the area seasonallyin search of forage (e.g., lichen, sedges, herbaceous plants, berries), and/or small mammal prey(e.g., Arctic hare, brown lemming), water or resting places. Similarly, wolverines are a wideroaming species and likely only occasionally occupy the site in search of prey or carrion, however,the substrates and habitat characteristics present at the site and surrounding area (e.g., eskers, sandand gravel banks and debris) may provide suitable winter denning habitat. Polar bears (Ursusmaritimus) may very rarely pass through the Site if animals are forced inland due to loss of sea iceduring summer. The Project area is located at the southern border of the species' range, andtherefore the occurrence of polar bears is expected to be very low. Smaller mammals includingArctic hare, Arctic ground squirrel and brown lemmings can be expected to inhabit the Project Siteand surrounding area during all seasons. Arctic ground squirrels may burrow within the eskers,gravel or sandy banks and lakeshores present at the site and surrounding area.A diversity of migratory bird species can be expected to utilize habitats within the Project Site andsurrounding area for breeding and/or staging during spring to fall. The Pelly Lake area is known tosupport large flocks of moulting Canada geese (Branta canadensis) and snow geese (Latour et al.,2008). Pre-moulting flocks can be expected to arrive around mid-June and to begin to depart inmid-August when animals have regained their ability to fly (Latour et al., 2008). Geese feed onsedge meadows and use water to avoid predation. Moulting geese are sensitive to disturbance.The study area is in migratory birds Zone N9, which has a nesting period of May 15 to August 17(ECCC, 2018).Numerous fish species including burbot (Lota lota), northern pike (Escox lucius), slimy sculpin(Cottus cognatus), longnose sucker (Catostomus catostomus), Arctic char (Salvvelinus alpinus),Arctic grayling (Thymallus arcticus), lake cisco (Coregonus artedi) and lake whitefish (Coregonusclupeaformis) are likely present in ponds and lakes within the Project Site and surrounding area.All wildlife in Nunavut and their habitat are protected from direct harm and/or harassment unlessfor regulated or traditional harvest and/or protection of life and property under the NunavutWildlife Act(2003). Migratory birds are protected under the Migratory Birds Convention Act(1994). Fish and fish habitat are protected under the federal Fisheries Act. SAR and their habitat areprotected under the federal Species at Risk Act (2002). Mammal and bird SAR with potential toutilize the Project Site and surrounding area are discussed in Section 5.9 and outlined inAppendix 1 (Government of Canada, 2023a). There are no fish SAR expected to occur within thePelly Lake area (Government of Canada, 2023b).5.8 SOIL AND AQUATIC INVERTEBRATESThe Project Site provides minimal habitat for soil invertebrate communities, due to the presence ofpermafrost that limits soil structure and depth. Soil invertebrates include organisms such as worms,springtails, spiders, and insects. As a result, soil invertebrates are uncommon in terrestrial Arcticecosystems (Danks et al., 1997).Aquatic invertebrates in northern areas include a wide range of species, primarily larvae of insectspecies such as Dragonflies/Damselflies (Order Odonata), Mayflies (Order Ephemeroptera),Stoneflies (Order Plecoptera), and Midges (Order Diptera). There is no information available tobase estimates of their abundance or species diversity. Aquatic invertebrates in northern areasgenerally prefer warm, shallow water habitats. Flying adults lay eggs in water, at various timesduring the summer (depending on the species). The eggs hatch into larvae that may spend multipleyears maturing into adults that emerge from the water at various times during the summer.It can be expected that species of aquatic invertebrates are present in the waterbodies present atthe Project Site. There are no soil or aquatic invertebrate SAR expected within the Pelly Lake area(Government of Canada, 2023a).5.9 SPECIES AT RISKSpecies at Risk (SAR) are identified by both the federal government and the Nunavut government.The Committee on the Status of Endangered

Wildlife in Canada (COSEWIC) is an independentbody of experts that uses criteria to critically evaluate and recommend status rank for each speciesin Canada. Following this, a federal government Minister then decides whether to place the specieson Schedule 1 of the Species at Risk Act (SARA) after a consultation process. Once a species has been placed on Schedule 1 of SARA, it is legally a SAR. A species can be at risk within Nunavut,while not being at risk within Canada as a whole; however, no such species have been identifiedby the Government of Nunavut.There are 28 non-marine animal and plant SAR known to occur in Nunavut, which are providedin Appendix B (Government of Canada, 2023b). Marine species were omitted from this assessmentbecause marine habitats do not occur within the Project Site or surrounding area. First, each specieswas evaluated to determine whether it may be present in the vicinity of the Pelly Lake area.Following this, it was determined whether a species may occur at the site or surrounding area,based on existing habitat conditions. Some SAR species are unlikely to occur in the vicinity of theSite and are noted as "nil" occurrence in Appendix 1. There are nine SAR potentially present at theSite, including one insect species, four bird species, and four mammal species (Table 15).Table 15: Species at Risk Potentially Present at the Project SiteSpeciesCommonNameCOSEWICStatusSARAStatusSARASchedule 1 Species Habitat DescriptionTransverseLady BeetleSpecialConcernSpecialConcern Schedule 1Within species range but has not been documented in the Pelly Lake region.Species live on the foliage of herbs that are infested with aphids, which may bepresent at the site.Harris'sSparrowSpecialConcern No Status schedule No Within species breeding range. insects and nests in small, isolated wooded areas with trees or tall shrubs that Harris's sparrows feed on seeds, berries, andmay be present in the surrounding area.LesserYellowlegs Threatened No Status Schedule No Within species breeding range. The provide suitable breeding and foraging habitat. waterbodies present in the Project area mayRed-neckedPhalaropeSpecialConcernSpecialConcern Schedule 1Within species breeding range. Quality habitats are ponded areas dominated bygrasses and sedges, emergent aquatic vegetation, and open freshwater. Thewater bodies present in the Project area may provide suitable breeding andforaging habitat.Short-earedOwl Threatened Concern Special Schedule 1 Within species breeding range. birds, nest in dense vegetation on Short the-eared owls predate on small rodents and ground and may utilize human disturbedsites. The Project area may provide suitable hunting and breeding habitat.BarrengroundCaribouThreatened No status NoScheduleWithin species range. Vegetation within the Project area may provide suitableforage during summer and fall seasons.Grizzly Bear SpecialConcernSpecialConcern Schedule 1Within species range. Grizzly bears forage on berries, herbaceous plants,mammals, waterfowl, and eggs that may be present in the Project area duringspring, summer, and fall.Polar Bear SpecialConcernSpecialConcern Schedule 1Within species range. Polar bears may be forced inland during summer due toloss of sea ice. During summer, polar bears consume berries, caribou, waterfowl,and eggs that may be present in the Project area.Wolverine SpecialConcernSpecialConcern Schedule 1Within species range. Wolverine prey on mammals that may be present at thesite during all seasons. The eskers, sand and gravel banks and debris present inthe Project area may provide suitable denning habitat.

Description of Existing Environment: Socio-economic Environment

5.10 SITE SPECIFIC LAND USE5.10.1 PastThe Site had never been visited by archaeologists prior to 2022, but surveys conducted in theregion in the 1970s confirm Early Pre-Inuit and fur trade era Inuit occupation with traces of typicalinland caribou hunting activities. The main group living here were Hanningayurmiut, withHanningayuq being the name for the Pelly and Garry lakes area. Three other Inuit groups areknown to have historically used the area for fishing and caribou hunting: Kivallirmiut, Innuinaitand Netsinglingmiut. With the onset of the commercial fur trade, the area became used for notonly traditional subsistence but also commercial trapping for fur bearing animals. In 1949, aCatholic mission was set up on an island in Garry Lake, not far from the Site.The Site itself is a former airstrip and fuel cache site. It was reportedly used as a base and airstripfrom 1954 to 1956 by Spartan Air Services, who was contracted by the Federal Government totake aerial photographs of the region. A few Hanningayurmiut families living at the airstrip locationand near the mission were relocated to Baker Lake, Whale Cover, Rankin Inlet, Gjoa Haven andCambridge Bay following a starvation event in 1958. Later, a land use permit was granted toBathurst Inlet Developments Ltd. In 1993 (unknown end date) to rehabilitate the two airstrips atthe Site and operate a fuel cache.Throughout the years, various materials and structures were left at the Site. Three small lakes arepresent at the Site and several debris areas are located around these lakes. A limited cleanup wasreportedly conducted in 1996 but was focused upon the Mosquito airplane crash site.5.10.2 PresentThe Site is currently abandoned but it is still visited occasionally in winter by people from BakerLake and Gjoa Haven for hunting and trapping.5.11 CULTURAL FEATURES AND SPECIAL PLACESNo ecological features were identified at the Site. No archaeological features were identified duringthe archaeological investigation; however, details of a suspected burial site have been provided tothe Proponent. The location of the suspected burial is sensitive and cannot be shared in a publicdocument but will be provided to the

Contractor.

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

See Environmental Impact Assessment report for details

Cumulative Effects

11 CUMULATIVE ENVIRONMENTAL EFFECTS11.1 PAST AND EXISTING STRESSORSSince the 1950s when the Site was abandoned, its use has been relatively limited. A land use permitwas granted to Bathurst Inlet Developments Ltd. in 1993 (unknown end date) to rehabilitate thetwo airstrips at the Site and operate a fuel cache. The site may be used occasionally as a campsiteduring hunting and trapping visits from Baker Lake or Gjoa Haven.11.2 RESULTING CONTRIBUTIONThis project involves the removal of all impacted sediment and the majority of debris on Site. Clean(unpainted and untreated) wood waste will be burned, and the ash removed. Any large equipmentthat cannot be removed from Site will be cleaned and consolidated into a single location if possible.The overall goal is to enhance the quality of habitats and wildlife and to remove human healthand ecological health risks at the Site.11.3 EFFECTS ON RENEWABLE RESOURCESWhile natural resources will be used (e.g., borrow, water) and impacted (e.g., borrow sources,wildlife, vegetation) during the course of work, the impacts will be limited to the 10-16 weeks over1.5 years. Further, the intent of the project is to improve the natural environment and thus isanticipated to have a positive long-term effect on fish and wildlife species and their habitat.With proper mitigation measures in place, no negative cumulative impacts are anticipated tonatural resources.11.4 EFFECTS ON HERITAGE VALUESNo archaeological sites requiring protection have been identified on Site, however, a suspectedburial site has been identified. With the implementation of a buffer and “no go zone”, no negativeimpacts are expected.11.5 MITIGATION MEASURESNo negative cumulative impacts have been identified and no unique mitigation measures havebeen developed to address cumulative impacts.

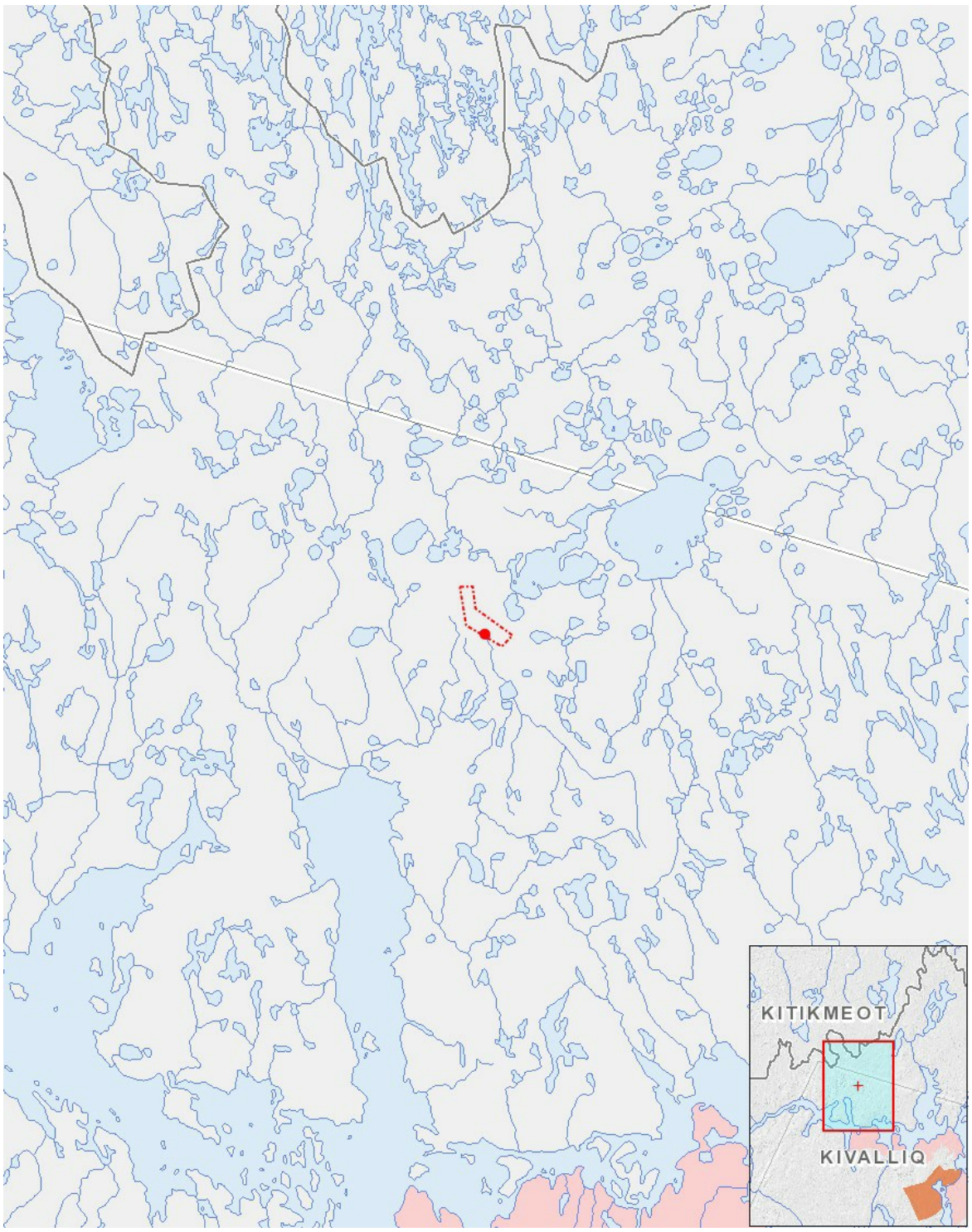
Impacts

Identification of Environmental Impacts

	PHYSICAL	Designated environmental areas	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique or fragile landscapes	Surface and bedrock geology	Sediment and soil quality	Tidal processes and bathymetry	Air quality	Noise levels	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	SOCIO-ECONOMIC	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
Construction																									
-			-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
Operation																									
Airstrip use or construction			-	M	-	-	M	N	-	M	M	-	N	N		N	M	M	-	-		M	-	-	-	-
Camp			-	M	-	-	M	N	-	M	M	-	N	N		M	M	M	M	-		M	-	-	-	-
Quarry/Borrow pit			-	M	M	-	M	N	-	M	M	-	N	N		M	M	M	M	-		M	-	-	-	-
Access Road			-	-	-	-	M	N	-	-	M	-	N	N		M	M	-	M	M		M	-	-	-	-
Site Cleanup/Remediation			-	M	-	-	P	N	-	M	P	-	N	N		M	P	P	P	-		M	P	P	-	P
Decommissioning																									
-			-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

1	polyline	Pelly Lake Site
2	point	Drinking Water Lake