

environmental effects monitoring programs, operational features of the mine and to identify valued environmental and socioeconomic components.

4.3 Heritage / Archaeology Studies

The prospect of underground exploration and related surface disturbance at the Meliadine Gold Project required that a survey of heritage sites in the area at risk be undertaken. Elisa Hart, a professional archaeologist, undertook this examination assisted by a local Inuit field assistant. This study was conducted with the assistance of both an elders' committee and by Moses Aliyak, a noted elder recognized for his intimate knowledge of local heritage resources. Numerous sites were found in the area of the prospective mine portal that could be affected.

On examination and review of the sites by the elders' committee, it was determined that these sites represented recent land use and were not significant. The elders' committee advised KIA, the landlord, of their assessment. In addition, other sites closer to Meliadine Lake and well beyond the area at risk of alteration by proposed mine development, were also examined. These sites were found to be of considerable age and determined to be "off limits" by the elders' committee. A summary report of findings in Inuktitut was prepared for review by the elders' committee.

The search for local heritage sites was enlarged in 2008 to include all prospective mine land use areas not previously studied including the tailings impoundment areas under consideration, the Discovery deposit, as well as the proposed road alignment to Rankin Inlet. This work was completed and reported by Golder Associates Ltd. in early 2009. Figure 4-2 provides a general overview of where heritage surveys were carried out and generally where archaeological sites were found.

4.4 Regional Conservation Land Use

Current and future land use and related issues were reviewed by the Nunavut Planning Commission in the preparation of the Keewatin Regional Land Use Plan in 2000. The conservation interests of federal and territorial agencies were reviewed and are described below.

4.4.1 Parks Canada

The Keewatin Regional Land Use Plan did not indicate any Parks Canada interests or intentions in the area of the Meliadine Gold Project.

4.4.2 Territorial Parks

The Iqalugaarjuup Nunanga Territorial Park was in the planning stage since 1990 and was formally introduced as a Territorial Park in 1998. The geographic extent of this park lies entirely within the Municipality of Rankin Inlet. The proposed all-season road to the proposed mine would not enter the Park at any point and would cross the Meliadine River downstream of the Park.

4.4.3 Canadian Wildlife Service (CWS)

The current site-specific conservation initiatives by CWS concentrate on migratory bird habitat and do not include any lands in the general vicinity of Rankin Inlet or Meliadine Lake.

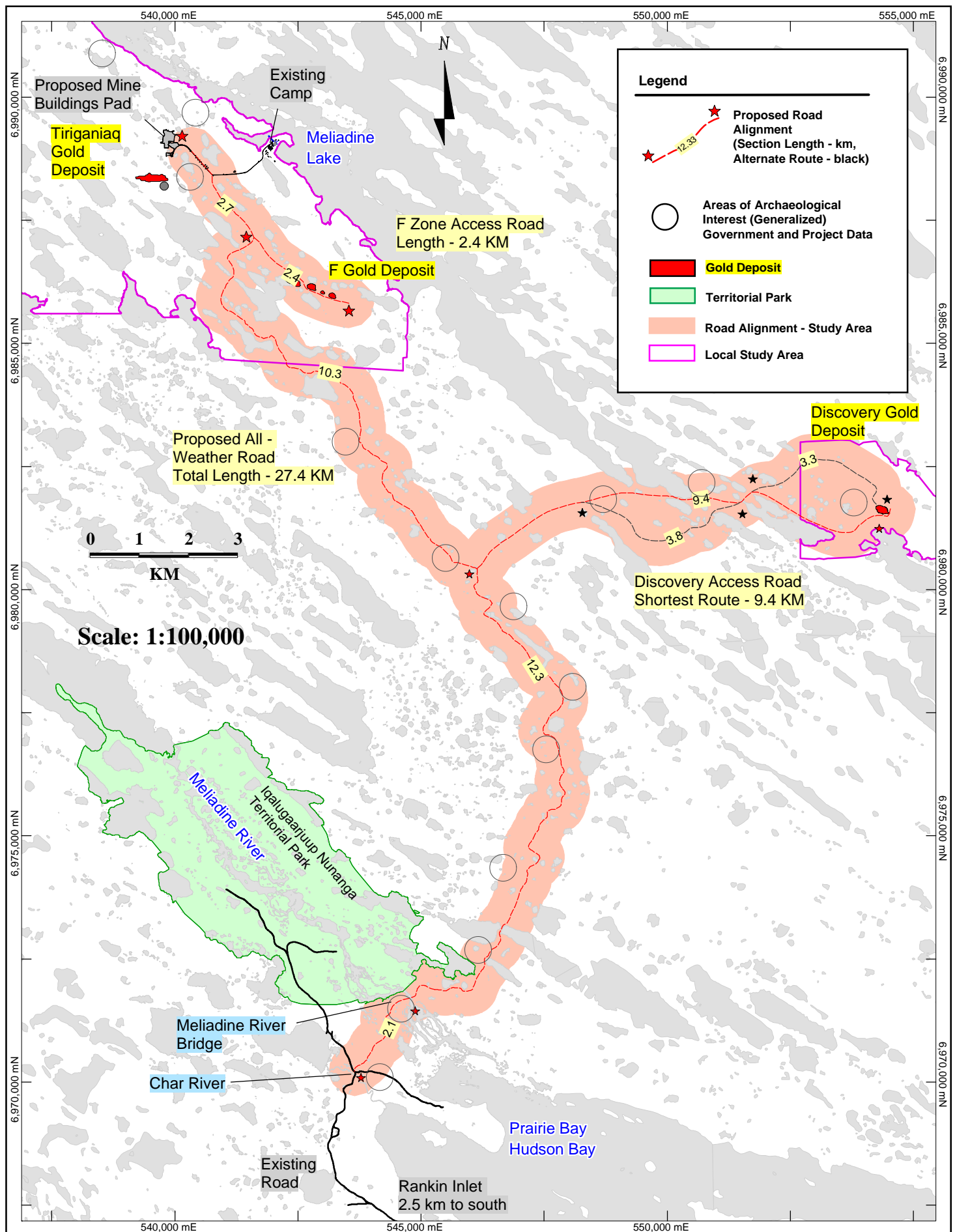


Figure 4-2: Heritage / Archaeological Surveys

4.4.4 Department of Fisheries and Oceans (DFO)

The Meliadine River and the bay at its mouth has been the site of subsistence fishing activity by Rankin Inlet residents for many years. These are not designated as priority habitat by DFO in the Keewatin Regional Plan (NPC 1991, revised in 1997 and approved in 2000).

4.4.5 Department of Sustainable Development, Government of Nunavut

Birds of prey are not included in the Migratory Bird Convention Act and so their protection and management along with terrestrial mammals comes under the Nunavut Wildlife Act. No conservation designation for lands associated with the Project has been proposed for any species under the Nunavut Wildlife Act.

5.1 Schedule of Public Consultation and Participation

Comaplex has actively engaged and consulted all interested parties on a yearly basis since acquiring the WMC interest in the Meliadine Gold Project in late 2004. Prior to that, WMC initiated a series of meetings with the local people of Rankin Inlet, beginning in 1995. In addition to town-hall style meetings, Comaplex has kept the Kivalliq Inuit Association (KIA) abreast of all substantial developments with the Project. Comaplex has a history of open and honest communication and has always tried to resolve issues quickly and effectively.

A Mineral Development Advisory Group meeting was held in Rankin Inlet in May 2009. This meeting was extremely useful to Comaplex, both for the comments provided by the various regulators and for the opportunity to meet face-to-face.

Visits to the site by various groups, including elders, youth and council members, is ongoing and provides Comaplex feedback on how the Project should be developed as it moves towards feasibility and production.

See Appendix B for a complete listing of community, regulatory, and elder consultations and meetings from 1995 to 2009.

5.2 General Responses to the Proposed Meliadine Gold Project

Comaplex recognizes and appreciates the impact that a gold mining operation of the scale proposed for the Meliadine Gold Project will have on several of the local communities, predominantly on Rankin Inlet and secondarily on Chesterfield Inlet and Whale Cove. The three communities are seen as the Local Study Area while the Kivalliq Region is seen as the Regional Study Area. A detailed evaluation of Rankin Inlet's and other affected communities response to the Project will be included in the draft Environmental Impact Statement. However, based on Comaplex's discussions and interactions with local community members to date, there is strong support for the Project.

Meetings with the elders, especially those familiar with mining or who are ex-miners, have been overwhelmingly supportive of the Project. The primary concern from the elders is to find employment for "the young people." This sentiment is also consistently expressed in the town hall meetings. People in the affected communities want to be meaningfully employed in the operation.

Interest in the meetings is also directed towards the construction of the access road from Rankin Inlet to the Project site. Members of the Hunters and Trappers Association (HTA) and the local public wishing to get 'out on the land,' have expressed a strong desire to see the road built out to the northwest of town. Comaplex is aware that many locals have cottages in the general vicinity of the proposed mine site. Letters of support for the road have been received from both the KIA Board of Directors and the HTA over the last few years.

5.3 Future Consultation

Meaningful public participation is necessary for successful consultation. Public participation has been a common feature of all consultation that the Meliadine Gold Project has carried out over the last 12 years and is expected to continue throughout the environmental assessment process and onwards. It has been a two-way exchange of ideas with the company responding to the ideas raised by the public and *vice versa*.

To have effective public participation, the public needs to be informed of upcoming consultation events. Care will be taken to not schedule these when the public are likely to be on the land, during times of celebration or sorrow in the community, or when the consultation meeting conflicts with another important meeting in the community. Broad advertising in the local papers, local radio, posters and by invitation precedes any consultation meeting and Comaplex will continue to do so.

The Meliadine Gold Project has carried out consultation in the Kivalliq region and throughout Nunavut since 1997. Consultation over the years is outlined in Appendix B. It has informed the public, community organizations, CLARCs, government, local businesses, traditional land users and Hunters and Trappers Organizations of what activities were being carried out at the exploration site. In return the company was made aware of the social and environmental concerns regarding ongoing exploration and the possibility of a mine in the future. The meetings have been a learning experience for both sides and a free exchange of ideas. Meetings with the communities, its civic leaders, and administrators will continue as the Project moves towards production.

The Project is entering a new phase with this Project Description, advancing beyond exploration towards the development of a mine. This Preliminary Project Description outlines the future development of the mine and is being presented to the locally affected public, community organizations, community leaders and government. With the environmental assessment process getting underway, pre-Project consultation will be broader in scope and have a further reach than previously. It will focus on providing timely and useful information to locally affected public and community organizations so that they can have meaningful input into the environmental assessment process. The company will find out what social and environmental concerns the public have in regard to the mine development, and will endeavour to put measures in place to address these concerns. The forthcoming consultations will draw on the NIRB consultation guidelines in order to meet the requirements of the environmental assessment process.

Consultation will not end with the completion of the environmental assessment process. The Meliadine Gold Project sees consultation as an integral and ongoing part of running the mine. Public meetings in Rankin Inlet and any other affected communities will allow the mine officials to explain what they are doing with the Project, to address social and environmental concerns, to listen to what is being said by the public, and to learn and work through issues collaboratively.

Rankin Inlet will be the primary area of positive impact should the Project proceed. The Rankin Inlet area presently offers limited, commonly seasonal employment opportunities. The proposed mine has the potential to offer year-round employment to interested Nunavummiut. At this level of study, it is estimated that more than 6000 person years of employment would be established over the life of the mine. Substantial spin-off employment from the provision of local goods and services could also be realized. Business and economic development opportunities in the Kivalliq region would be enhanced because of the mine. Current financial analysis suggests that over the currently foreseen life of the mine, the Project could pay, within an order-of-magnitude, \$160 million in direct taxes to local, territorial and federal governments, and an additional \$200 million in personal income and sales taxes from direct employment alone.

Foregoing the development of the mine would forego this revenue stream.

6.1 Local Opportunities

The Meliadine Gold Project has undergone active exploration north of Rankin Inlet for almost 20 years. Over that time, a large number of Nunavut-based workers have been employed at the Project. These workers were drawn mainly from Rankin Inlet, but also from the Nunavut communities of Chesterfield Inlet, Whale Cove and Arviat. Equally vital to the exploration process was the use of local contractors, businesses and Inuit partnerships that have contributed to the development of the Project by supplying goods and services.

Development of the Meliadine Gold Property would greatly benefit the hamlet of Rankin Inlet and the nearby communities by providing employment, training opportunities, and developing businesses supplying goods or services. Indirect spin-offs like hotel, restaurants, hardware stores and cultural businesses would also see a positive impact. Many currently active industries, such as tourism, mineral exploration and expediting, are seasonal, resulting in a winter slack period with limited employment opportunities. The proposed mine would provide continuous employment and impact year-round.

Table 6-1 below illustrates how exploration alone on the Meliadine West property has contributed over \$23 million to the Kivalliq region to October 2009. Local hires have been a mainstay of the Project since inception. It is fully expected that with training of the local workers, in combination with a willingness to work and learn, there would be substantial long term employment opportunities for Inuit and other Northerners.

Discussions with Arctic College and other northern educators regarding training initiatives have been initiated to prepare students and prospective workers for employment in the mining industry.

Table 6-1: Cumulative Project Expenditures and Local Employment (Meliadine West 1995-2009)

Activity	2009*	2008	2007	2006	2005	2004	2003	1995-2002 (WMC)
locals employed	13	18	16	9	11	11	14	
wages	\$245,479	\$421,011	\$292,784	\$108,360	\$122,980	\$181,263	\$130,615	\$1,526,171
freight/expediting	\$589,714	\$1,815,173	\$472,979	\$232,323	\$130,065	\$164,815	\$150,088	\$1,752,880
fuel	\$272,351	\$731,472	\$1,240,057	\$343,930	\$235,760	\$253,000	\$62,643	\$1,180,519
equipment/supplies	\$47,131	\$89,574	\$86,109	\$23,700	\$12,831	\$11,000	\$1,203	\$326,314
food / lodging	\$168,078	\$467,913	\$337,815	\$142,000	\$119,500	\$23,312	\$18,781	\$1,005,488
construction	\$250,677	\$2,271,372	\$1,055,853	\$141,900	\$22,410	\$8,503	\$57,494	\$274,952
drilling	\$50,000	\$0	\$79,634	\$1,500	\$51,129	\$74,182	\$45,589	\$415,205
community/gov	\$19,447	\$19,664	\$30,623	\$93,298	\$97,226	\$63,680	\$97,719	\$1,024,361
environment	\$32,834	\$83,904	\$0	\$8,800	\$0	\$8,500	\$2,150	\$33,456
other (air, etc)	\$155,020	\$262,061	\$391,084	\$47,945	\$95,315	\$24,400	\$10,116	\$91,109
Total (Kivalliq)	\$1,830,729	\$6,162,145	\$3,986,938	\$1,143,756	\$887,216	\$812,655	\$576,398	\$7,630,455
% local of total	19%	20%	22%	17%	17%	25%	18%	13%
Total (Project)	\$9,826,850	\$30,090,272	\$18,218,864	\$6,739,004	\$5,167,550	\$3,300,027	\$3,150,493	\$58,403,666
Cumulative (Kivalliq)	\$23,030,293	\$21,199,564	\$15,037,418	\$11,050,480	\$9,906,724	\$9,019,508	\$8,206,853	\$7,630,455
Cumulative (Project)	\$134,896,726	\$125,069,876	\$94,979,604	\$76,760,740	\$70,021,736	\$64,854,186	\$61,554,159	\$58,403,666

* - Expenditures to end of September 2009

6.2 Workforce Requirements

Workforce requirements have been estimated in the Preliminary Assessment for both the construction and operation phases of the Project. These estimates will change as additional planning and engineering is completed, but the numbers below are presented to provide a general guide to the scale of the operation expected and the number of people that would be needed.

Total payroll is estimated in the order of 430 people, with a total workforce on-site at any time of 230 to 240 people. These people would be employed from local Inuit communities to the extent possible with regard to available skills and experience, with the balance recruited on a fly-in-fly-out rotation from other parts of Canada. Recruitment would maximize employment opportunities for inhabitants of Rankin Inlet and other Kivalliq communities.

Employment opportunities will comprise:

- (a) Entry-level positions requiring no previous skills;
- (b) A wide range of craftsman-level positions, including miners, mill operators, equipment operators, welders, fabricators, electricians, mechanics, carpenters, pipe fitters, cooks and many others requiring previous experience and certification; and
- (c) Managerial, supervisory and technical positions, requiring advanced education, certification and previous experience.

The Meliadine Gold Project is likely to operate for a sufficient time that motivated Nunavut based employees can advance through these categories and gain skills usable elsewhere. The Project has worked, and will continue to work, with the Rankin Inlet trade school in identifying training opportunities.

Details on specific jobs will emanate from future studies, but general labor requirements for each major component of the Project are outlined in Table 6-2. This will be presented in greater detail in the draft Environmental Impact Statement.

Table 6-2: Mine Work Force per Rotation

	Open Pits & Underground Mining	Process Plant	Site Operations & Maintenance
Supervisory & Technical	12	12	2
Open Pits crew	30		
Underground crew	58		
Mine Services	15		
General Process plant crew		28	
Site Maintenance crew			20
Site Operations crew			12
Administration, Catering, Janitorial			45
Total Labour Force per Rotation	116	40	79

Note: Because of the fly-in fly-out work rotation, the total number of positions is approximately double that shown above.

6.3 Education Requirements and Training

The primary source of people to operate the mine will be Canada, where people have the requisite technical skills and are also accustomed to working at remote sites. Training programs for locals to upgrade to the skill levels required for work on the Project will be instituted prior to commencement of production and are expected to be part of the Inuit Impact Benefits Agreement negotiations. Early discussions with the Northern trade school to coordinate graduation with Project employment timelines would be beneficial for all involved.

Considerations would include:

- Meaningful long-term employment opportunities for a local workforce,
- Appropriate and comprehensive training programs for the local workforce for all positions,
- Provision of local economic development opportunities, and
- Need to ensure the protection of Inuit culture and traditional resources.

6.4 Rotational Shift Work and Proximity to Rankin Inlet

The proposed mine will be active 24 hours per day, 365 days a year. The production schedule is based on 328 days a year (90% efficiency), which makes allowance for interruptions due to bad weather, mechanical breakdowns, and planned maintenance shut-downs.

The Project will run on two shifts, day and night, which is typical for remote, northern operations. In order to maintain this schedule, employees will work every day for a period on site, followed by a period of rest at home. This is commonly known as a “fly-in-fly-out” rotation. Shifts of 28 days on and 14 days off, are a common and preferred rotation for similar northern sites. Feasibility work and the results of public consultation will determine the optimal work rotation for each component of the Project.

With a fly-in, fly-out rotation, manual and supervisory positions can be rotated in and out as complete crews. Managerial and technical positions need to overlap the ends of their rotations, to provide adequate transfer of information.

The proposed Meliadine Gold Project differs from other northern projects in that workers from a nearby town (Rankin Inlet) may potentially be able to commute to and from the site every day. This situation is unique and will require study to determine its practicality. Impacts on health and safety would be of paramount concern. Also, the availability of housing in Rankin Inlet will have a bearing on this option.

The proximity of Rankin Inlet to the Meliadine Gold Project site is advantageous in that neither an airport nor a port need be built for the mine. This proximity allows for collaboration on services, products and facilities with groups such as the Hamlet of Rankin Inlet, the Kivalliq Inuit Association, local entrepreneurs, crown corporations and the Government of Nunavut. The Meliadine Gold Project will explore all potential avenues for contracting out services and provision of products that could reasonably be provided locally in a cost-competitive, qualified, consistent, and competent manner.

6.5 Social and Economic Effects on Rankin Inlet and the Kivalliq Region

The Project is situated entirely on lands owned by the Kivalliq Inuit Association and so the KIA will derive an income stream for land leases and other provisions that may flow from rights established in the Nunavut Land Claim Agreement.

The Project workforce will be variable with up to 500 workers on site during the construction period. During operations, this will decrease to approximately 230 to 240 on site at any one time for mining, processing and related activities. Depending on work rotations, the total number of people on payroll will be approximately 430, approximately double the number on site at any one time.

The Project's exploration programs over the years have benefited from a reliable and capable labor force from Rankin Inlet. Project management wishes to hire as many Inuit as are suitably qualified for the construction, operations and reclamation phases. It is possible that a substantial portion of the ongoing Project payroll can remain in the Kivalliq Region.

Much of the construction work and some of the on-going mining and site services at the Project may be contracted. An inventory of businesses in the region will be developed and used to assess the regional capacity for supplying goods and services to the Project. Contract bids will be configured in ways that encourage businesses in the region to participate and openly compete in the bidding process.

All participants in the Project, both workers and businesses, will be required to provide safe, competitive, reliable, and cost-effective goods and services. Participation in the Project by people and businesses from the Kivalliq Region is very important to Project management. Project management will expect the same standards of effort, conduct and commitment from all of its employees and contractors, regardless of where they may be based.

Meadowbank has had a substantial positive socio-economic effect on Baker Lake. It therefore seems unlikely that substantial numbers of people will travel from Baker Lake to work at the Meliadine Project. The Meliadine Project will add to the work load, employment and revenues of existing businesses in Rankin Inlet, both absolutely and by providing year round employment possibilities.

7.1 Project Effects and Mitigation Measures

The Project as described in this Preliminary Project Description will operate for a period of approximately 16 years. This consists of approximately 3 years in development, 10 years in operations, plus 3 years for closure and reclamation.

The Project as proposed will have environmental and social effects, which are tabulated and described along with their appropriate mitigation measures in Appendices C4 and C5.

7.2 Residual and Cumulative Effects

Cumulative effects are changes to the biophysical and socio economic environments that are caused by one development in combination with other past, present and future developments. The nearest planned or actual industrial operation to the Meliadine Gold Project is the Meadowbank Gold Mine, some 285 km to the northwest. The two mines are not located in the same drainage basins, do not use the same road, and do not share a common nearest community and are, therefore, unlikely to bring about cumulative effects.

Exploration for diamonds by Shear Minerals abuts the east end of the Meliadine properties, but results to date do not suggest that a mine will be established there. The Meliadine Gold Project does not, therefore, add to the environmental effects of any other industrial operations in the area; conversely, there is nothing to suggest that other industrial operations will become established in the vicinity of the Project, either independently or as a result of its existence.

One common concern relates to cumulative effects on the migration of Qaminirjuaq or other caribou herds passing through both the Meadowbank and Meliadine development areas. The Meliadine Gold Project will have a no hunting policy. Employees at the mine will not be able to hunt while working at the mine. Also, caribou will have the right of way on any mine roads thereby not interfering with their movement. The combination of these two policies will significantly reduce any impacts on caribou caused by the development. The Meadowbank Gold Mine already has similar policies in place.

The Meliadine Gold Project will have positive effects on employment, incomes and business opportunities; in effect, changing the broad regional socio-economic environment in the immediate area. These changes will, however, not be without some negatives effects as outlined in Appendices C4 and C5. It is expected these negative effects will be addressed by government and other agencies with participation from the Meliadine Gold Project.

The draft Environmental Impact Statement will provide greater details on the residual and cumulative effects of the Meliadine Gold Project.

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Appendix A

Synopsis of Exploration History

1987 - 2009

Year	Exploration Activity
1987	Asamera Minerals Inc. investigates the gold occurrence at Tonic Lake reported by the Rankin Nickel Syndicate in 1972 and obtains a sample of quartz vein carrying arsenopyrite that yields 5.0 g/t Au. First claims in the Project were staked.
1989	Asamera and Comaplex follow-up the 5.0 g/t Au sample collected in 1987 by prospecting along the strike of the iron formation and finding the Discovery deposit with chip samples of up to 4.4 g/t Au over 4.0 m.
	Asamera and Comaplex acquire 1.0 million acres in claims and permits under a 50-50 joint venture.
1990	Asamera and Comaplex complete 14 drillholes (1,115 m) to evaluate the gold potential in the Discovery deposit area. Airborne geophysical surveys are flown over the entire eastern portion of the property (Meliadine East).
1991	Rio Algom Inc. signs a joint venture agreement to earn 60% of western portion of the property (Meliadine West).
	Rio Algom Inc. drills six drillholes totalling 728 m on Meliadine West.
	Detailed airborne survey over the present Meliadine West property and extensive boulder sampling is carried out. The Wesmeg boulder field is discovered. 710 boulders are sampled of which 75 have assays greater than 34 g/t Au.
	Asamera and Comaplex conduct regional and detailed mapping, trenching, airborne and ground geophysics and 4,957 m of diamond core drilling on the Meliadine East property. Snow Goose showing is discovered.
1992	Asamera and Comaplex complete 5,148 m of diamond core drilling on the Meliadine East Joint Venture.
	Rio Algom Inc. relinquishes option on Meliadine West, which reverts back to 50 - 50 joint venture between Comaplex and Asamera.
1993/1994	Comaplex drills 85 short drillholes (6,869 m) on Meliadine West. DDH 93-38 drilled on the as yet undiscovered Tiriganiaq deposit intersects 17.2 g/t Au over 1.1 m in mineralized Upper Oxide Iron Formation. F and Pump deposits are discovered
	Asamera sells its interest in the Meliadine property to Cumberland Resources Ltd. All of Meliadine property converts to a 50 - 50 joint venture between Comaplex and Cumberland.
1995	WMC options the Meliadine West property and drills 7,171 m in 33 drillholes including the Tiriganiaq gold deposit.
	Comaplex and Cumberland conduct prospecting and sampling on the Meliadine East claims NAT 51, NAT 53-56. A total of 44 samples are collected with eight samples having values greater than 0.5 g/t Au with a high of 29.0 g/t Au.
1996	WMC drills 18,196 m in 77 holes on the Meliadine West property.
	WMC performs geochemical and geophysical exploration on the NAT 16-19 and NAT 40 claims.
1997	WMC conducts mapping geochemical exploration and geophysical exploration over the entire Meliadine West property.
	WMC drills 33,000 m in 123 drillholes.
	A Bombardier mounted ground magnetic survey and an IP survey is performed over claims NAT 9, 10, 11, 12, 32, 33 and 34 in Meliadine West.

Year	Exploration Activity
1998	WMC drills 36,268 m in 147 drillholes.
	A Bombardier-mounted ground magnetic survey is completed over NAT 8, 13, 14, 15, 31, 34, 35 and 41.
	WMC drills 4,417 m in 20 drillholes in the Peter Lake to Meliadine Lake portion of the Meliadine West property.
1999	WMC drills 21,000 m in 128 drillholes at Tiriganiaq deposit (123) and at F deposit (5).
2000	WMC drills a total of 10,753 m in 49 drillholes with 6,360 m in 31 drillholes completed on the Tiriganiaq deposit and 4,393 m in 18 widely spaced drillholes on exploration targets.
2001	WMC completes an aeromagnetic survey over concessions held on Inuit Owned and Federal lands in both the Meliadine West and East properties. The survey identifies several prospective gold areas and identifies a number of small magnetic anomalies thought to be potential kimberlites.
2002	Additional electro-magnetic airborne geophysical surveys are completed to help define possible gold and base metal bearing targets.
2003	Comaplex and WMC complete a program of diamond drilling of 17 drillholes for 4,650 m on the Tiriganiaq deposit. In a deal finalized in October of 2003, Comaplex agrees to buy the WMC 56% interest in the Meliadine West property.
2004	Comaplex completes 21 drillholes totalling 9,297 m in Meliadine West. Results as high as 166 g/t Au over 16.1 m are reported from the western parts of the Tiriganiaq gold deposit. Regional assessment work is completed on outlying concessions.
2005	Comaplex completes 48 drillholes totalling 15,851 m on the property. Surface assessment work on the outlying claims/concessions returns high grade gold values (>30 g/t Au) in the east half of the CWM claims.
2006	Comaplex completes 75 drillholes totalling 18,043 m on the property. Of this amount, 16,124 m in 62 drillholes were completed on the Tiriganiaq deposit, with the remaining drillholes completed on the reconnaissance Aklak and Aqpik targets on the CWM claim block. A total of 249 till samples and tightly spaced magnetic geophysical surveys for diamond exploration were taken on the eastern end of the CWM claims.
2007	Comaplex completes 85 drillholes totalling 21,528 m on the property into the Tiriganiaq deposit. Limited surface prospecting for gold and diamonds was also completed. In August, 2007, Comaplex obtained final approvals for an underground exploration and bulk sampling program on the Tiriganiaq deposit. As of the end of 2007, the decline had advanced approximately 130 m into the hanging wall sediments.
2008	Comaplex completes 79 drillholes totalling 23,537 m on the Meliadine West property, of which 90% was completed into the Tiriganiaq zone, 8.5% completed in the F Zone, 1.5% on recon targets. The underground exploration and bulk sampling program was completed at the end of August, 2008 with a total of 1,044 m of ramp development, 404 m of drifting on the 1000 and 1100 lodes, 97 m of cross-cuts, and 80 m of raises.
2009	Comaplex completes 106 drillholes totalling 23,600 m on the Meliadine West property, of which 71% was completed into the Tiriganiaq zone, 11% completed in the F zone, 13% on reconnaissance targets and 5% on geotechnical drilling. Golder completes geotechnical studies of the proposed open pit deposits. In February 2009, Comaplex engages Micon to prepare a Preliminary Economic Assessment, which recommended that the Project be advanced to the stage of a Prefeasibility or Feasibility level study.

Appendix B

Community, Regulatory and Elder Consultations and Meetings

(1995 to 2009)

DATE	PLACE	PARTIES PRESENT AND SUBJECTS OF MEETING
1995		
1 May	Rankin Inlet	KIA, WMC, Cumberland, Comaplex; history of exploration and prospect of WMC entering the Project on western lands.
1996		
10 January	Rankin Inlet	KIA, WMC, Cumberland, Comaplex; Project status report and notice of manpower needs.
29-31 Mar.	Rankin Inlet	Nunavut Mining Forum; Project status report; Project booth at trade fair.
1 April	Chesterfield Inlet	Public, KIA, Hamlet, HTO, CLARC; Project status report and notice of manpower needs.
2 April	Rankin Inlet	Public, KIA, CLARC, HTO's, Fed. & Ter. govt, WMC; day long review of environmental studies.
2 December	Chesterfield Inlet	Public, KIA, CLARC, Hamlet, HTO; Project status report and notice of manpower needs.
3 December	Rankin Inlet	Public, KIA, CLARC, HTO; Project status report and notice of manpower needs.
1997		
21-23 Mar.	Rankin Inlet	Kivalliq Mining Round Table; Project status and emphasis on mine readiness training.
25 March	Rankin Inlet	Public, CLARC, KIA Board.
19-20 April	Iqaluit	Nunavut Mining Conference; Project status report
13 May	Rankin Inlet	Public, KIA, CLARC, HTO; current year exploration program and manpower needs.
14 May	Chesterfield Inlet	Public, KIA, Hamlet, HTO, CLARC; current year exploration program and manpower needs.
11 June	Coral Harbour	Briefing KIA Board of Directors on regional demography research and how it relates to mine work force needs.
28 June	Rankin Inlet	Public reception for Sir Arvi Parbo, Chair to WMC Limited Board.
28 August	Rankin Inlet	Public reception with WMC senior management visiting from Australia.
23 October	Rankin Inlet	Inaugural dinner meeting with Elders' Steering Committee for Traditional Knowledge.
6 November	Rankin Inlet	Project briefing to Keewatin Wildlife Fed. executive committee.
9 December	Rankin Inlet	Meeting #2 of the Elders' Steering Committee for Traditional Knowledge.

DATE	PLACE	PARTIES PRESENT AND SUBJECTS OF MEETING
1998		
7 January	Rankin Inlet	Public, Hamlet, KIA, HTO, CLARC; Project status report.
8 January	Chesterfield Inlet	Public, KIA, Hamlet, CLARC; Project status report.
28 March	Cambridge Bay	Nunavut Mining Symposium; Project status report.
2 April	Rankin Inlet	HTO's for Rankin and Chesterfield, KIA, CLARC, DFO, DRWED; review environmental baseline studies.
23 June	Rankin Inlet	Joint meeting of the Rankin Inlet and Chesterfield Inlet CLARCs to review underground exploration application (since withdrawn); public meeting in afternoon and evening to brief Rankin Inlet businesses and residents on underground exploration application.
25 June	Chesterfield Inlet	Project briefing to Chesterfield Inlet Hamlet Council; evening meeting to brief Chesterfield residents on underground exploration application (since withdrawn).
6 July	Rankin Inlet	Brief Rankin Inlet Hamlet Council on underground exploration program and need to store fuel in barge overwintering in Melvin Bay (plans since cancelled).
8 July	Meliadine Camp	Overall Project briefing to DIAND Minister, the Hon. Stewart and Nunavut leadership- Josie Karetak-Lindell MP for Nunavut; NWT Finance Minister and MLA for Rankin Inlet, the Hon. John Todd.
5 August	Rankin Inlet	Dinner meeting #3 of the Elders' Steering Committee for Traditional Knowledge; review Project and proposed archaeological survey of proposed test pit area.
2 October	Rankin Inlet	Dinner meeting #4 of the Elders' Steering Committee for Traditional Knowledge; review Project and results of archaeological survey of proposed test pit area.
21 October	Rankin Inlet	Meeting with Hamlet Coordinating Committee (reps. of all the service agencies in Rankin Inlet) to review Project and its current effects on the social fabric of the community.

DATE	PLACE	PARTIES PRESENT AND SUBJECTS OF MEETING
1999		
13 January	Rankin Inlet	KIA, CLARC, public; review Project results for 1998 and plans for 1999.
14 January	Chesterfield Inlet	KIA, CLARC, public; review Project results for 1998 and plans for 1999.
14 April	Rankin Inlet	Workshop with stakeholders from Rankin Inlet, Chesterfield 1997. Inlet and Kivalliq region plus relevant government agencies to review environmental study results of 1998 studies and plans for 1999.
11 April	Arviat	Review regional gold exploration program for 1999 with Hamlet Council and HTO.
14 Sept.	Rankin Inlet	Meeting #5 of the Elders' Steering Committee for Traditional Knowledge; review Project and receive final report on completed Traditional Knowledge Study of Project area.
2000		
7 January	Rankin Inlet	KIA, CLARC, public; review Project results for 1999 and plans for 2000.
22 May	Arviat	Review regional gold exploration program for 1999 with Hamlet Council and HTO.
23 May	Rankin Inlet	Workshop with stakeholders from Rankin Inlet, Chesterfield Inlet and Kivalliq region plus relevant government agencies to review environmental study results of 1998 studies and plans for 1999.
23 May	Chesterfield Inlet	KIA, CLARC, public; review Project results for 1999 and plans for 2000.
13 November	Rankin Inlet	Nunavut Mining Symposium public talk on the need for mine related training; Project update to symposium delegates.
2001		
10 April	Rankin Inlet	Workshop with stakeholders from Rankin Inlet, Chesterfield Inlet and Kivalliq region plus relevant government agencies to review environmental study results of 2000 studies and plans for 2001; public meeting to review Project results for 2000 and plans for 2001.

DATE	PLACE	PARTIES PRESENT AND SUBJECTS OF MEETING
2002		
7 January	Rankin Inlet	KIA, CLARC, public meeting to review 2001 work and Project status.
8 January	Chesterfield Inlet	KIA, CLARC, public meeting to review 2001 work and Project status.
27 June	Rankin Inlet	KIA commercial lease signing.
26 Nov.	Chesterfield Inlet	KIA, CLARC, public meeting to review 2002 work and Project status.
28 Nov.	Rankin Inlet	KIA, CLARC, public meeting to review 2001 work and Project status including camp closure.
2003		
12 May	Rankin Inlet	KIA, CLARC, public meeting to review Project status focusing on impending sale of Project.
13 May	Chesterfield Inlet	KIA, CLARC, public meeting to review Project status focusing on impending sale of Project.
16 July	Rankin Inlet	Teleconference from KIA between Rankin Inlet, Chesterfield Inlet, Denver (WMC), and Calgary (Comaplex) to announce and discuss Comaplex/WMC agreement on sale of WMC Canadian interests to Comaplex.
3 Nov.	Rankin Inlet	KIA, CLARC, public review of new directions of Project under Comaplex control.
2004		
27 July	Rankin Inlet	Brief KIA on status of the Project.
21 October	Rankin Inlet	Presentation on Project status to KIA Board of Directors with a request for a proposal of motion to support a future road from Rankin to the Tiriganiaq deposit site.
21 October	Rankin Inlet	Town hall public meeting presenting the results of the 2004 exploration program and the proposed plans for 2005.
2005		
3 June	Rankin Inlet	Presenting the plans for the 2005 exploration program.
29 July	Rankin Inlet	Present Project update to the KIA.
2006		
30 July	Rankin Inlet	Project presentation to the Rankin Inlet Hamlet Council
27 March	Rankin Inlet	Town hall public meeting on the Project plans for the 2006 exploration program.

DATE	PLACE	PARTIES PRESENT AND SUBJECTS OF MEETING
2007		
26 March	Chesterfield Inlet	Presentation to the KIA Board of Directors on the proposed underground program and 2007 Meliadine West exploration plans. Verbal Motion of Support from the Board.
27 March	Rankin Inlet	Presentation of the proposed 2007 Meliadine West exploration program to the Rankin Inlet CLARC.
28 March	Rankin Inlet	Presentation of the proposed 2007 Meliadine West exploration program to the Kivalliq Chamber of Commerce.
28 March	Rankin Inlet	Town hall meeting - presentation of the proposed 2007 Meliadine West exploration program.
4 July	Rankin Inlet	Luncheon with elders including a presentation on status of Project.
4 July	Rankin Inlet	Briefing on Project Status to Hamlet Council with specific discussions on road alignment and overwinter fuel storage in barge.
26 July	Rankin Inlet	Town hall type meeting with NTCL to discuss winter fuel storage in barge.
23 August	Rankin Inlet	Town hall type meeting with NTCL to discuss winter fuel storage in barge (cancelled due to weather).
27 Sept.	Rankin Inlet	Town hall type meeting with NTCL to discuss winter fuel storage in barge.
28 Sept.	Rankin Inlet	KIA meeting with J. Lindell. Update on the meetings of the last few days.
24 Oct.	Rankin Inlet	KIA meeting with L. Manzo, J. Lindell, update on the Project and discussion of ongoing issues with various groups.
25 Oct.	Rankin Inlet	KIA Board of Directors – update on the Project with projections of possible future plans.

DATE	PLACE	PARTIES PRESENT AND SUBJECTS OF MEETING
2008		
26 March	Rankin Inlet	Presentation to the Kivalliq Inuit Association personnel and the Rankin Inlet CLARC on progress at Meliadine West.
27 March 27	Rankin Inlet	presentation of the Meliadine West Project progress to the Kivalliq Chamber of Commerce at their AGM.
8 April	Iqaluit	Nunavut Mining Symposium; presentation to industry and all regulatory boards with Project update.
10 April	Camp	Kivalliq Outreach Program (Kevin Sanguine); 8 young people, 3 elders into camp by snowmobile for visit, including underground.
8 July	Rankin Inlet	Presentation to the Kivalliq Inuit Association on the Project and discussion on the environmental and regulatory issues.
16 July	Camp	Elders' tour to the Meliadine West Project site. People who attended were Moses Aliyak, Robert Tatty, Remi Nakokti, Paul Kanuyak, John Hickey. All were taken underground for a full tour.
25 August	Rankin	Meet Kivalliq Inuit Association with KIA.
26 August	Camp	Underground tour for Kivalliq Inuit Association. Manzo Kivalliq Inuit Association Director, L. Kusugak (Rankin Inlet mayor), T. Manernaluk (elder) and H. Tatty (elder).
28 August	Rankin Inlet	Town hall update meeting on status of Project.
11 Sept.	Rankin Inlet	meet with the KIA.

DATE	PLACE	PARTIES PRESENT AND SUBJECTS OF MEETING
2009		
Mar 31	Iqaluit	Nunavut Mining Symposium; presentation to industry and all regulatory boards with Project update.
May 6-8	Rankin Inlet	MDAG: all regulatory groups in attendance. Present Project and meet regulators.
May 21	Rankin Inlet	Town hall update meeting. 13 people.
June 17	Rankin Inlet	Presentation to the CLARC on the Project. Attendees: Hamish Tatti, Celestino Mukpah, Jack Karitok, Jerome Tattuinee, Paul Kanayok.
June 17	Rankin Inlet	Meeting with Manager CED (Robert Connelly) and Nunavut Transport (Alan Johnson) regarding proposal to access federal infrastructure money for the Meliadine River bridge and Comaplex fund the road. Visit to the bridge site.
June 18	Rankin Inlet	Discussion with Rankin mayor John Hicks, the SAO, and several council member. Project update and proposed application for road and bridge funding.
July 30	Rankin Inlet	Meeting with Paul Waye, Senior Administrative Office for Rankin Inlet to discuss locations for mine infrastructure and a quarry within the municipality. Tour of the town with M&T Enterprises to look at locations for possible mine infrastructure and to see existing quarries.
September 1	Camp site	Meeting with DFO to discuss fisheries habitat and compensation issues relating to the development of the Meliadine Gold Project.
September 4	Rankin Inlet	Tour of industrial areas of the municipality with John Hicks to look at possible location of the tank farm.
Oct 3	Rankin Inlet	Presentation of the current Meliadine Gold Project to the Social Economic Monitoring Committee (chaired by Nunavut Economic Development and Transportation).

Issues raised in the Course of Public Consultation.

The public meetings hosted by the Project have focused on the exploration program and a hypothetical mine that may be developed in due course. The issues below are a capsule of those that emerged in discussions during the community consultations regarding the overall Meliadine West Gold Project.

HELICOPTER OVER-FLIGHTS

The effects of over flights on both people and wildlife were raised at the first meeting. Project managers responded with an operating guideline to be followed (weather conditions permitting) that advises pilots to avoid passing over cabins and tents and also to maintain specified altitude over areas occupied by wildlife. This has not been a perfect solution and ongoing reminders to pilots have been necessary. The subject continues to be raised informally, indicating it to be an issue of ongoing public concern.

WATER QUALITY

The peculiar drainage configuration for Meliadine Lake was reviewed with the HTO and Elders' Committee who recognised that both major drainages in the Rankin area could be at risk of contamination in the event of disaster or bad practice. The Project's environmental studies established a baseline for a comprehensive water quality monitoring program.

Standard industry diamond-drilling practice has been modified to remove all solids from drilling fluids before discharging these when drilling from lake ice platforms. In summer, sumps are developed to prevent drill cuttings from entering water bodies or water courses. These practices are a standard routine as prescribed in the Project Environmental Management System filed with KIA.

BUSINESS AND EMPLOYMENT OPPORTUNITIES

A recurring theme in discussion with leaders and elders was the need for employment for "our young people". The Project has hired all unskilled help from the region and has provided on-the-job training as required. Long-term labour force development will require a major upgrading and training effort in partnership with government.

FUEL SPILLS

Fuel management and threat of contamination to the environment is an ongoing public concern. The Project EMS implements a rigorous inspection routine of all fuel storage vessels including ULC approved double-walled fuel vaults for bulk diesel fuel and jet A storage.

UNDERGROUND BLASTING EFFECTS ON LAKES AND FISH

This issue was raised in Chesterfield Inlet as a concern if mining were to go ahead. The physical effects of blasting on the surrounding rock and water at surface is controlled by the placement, sequence, and volume of explosive. This is planned to ensure that the maximum energy from the blast is released into the immediate area of the explosive and not into non-target areas as provided in usage guidelines for explosives. The effects of underground blasting on water bodies has not been a problem reported in the area of other operating mines; e.g. Giant and Con at Yellowknife and Lupin near Contwoyto Lake.

Experience elsewhere has shown that the particular area of sensitivity is fish eggs, which are sensitive to blasting vibrations in excess of 12 mm/s Peak Particle Velocity. The actual blasting of rock in or close to a river or lake bed can produce these vibration levels in immediately adjacent waters. It is, however, highly unlikely for blasting in the contemplated mine to produce these vibration levels in nearby fish-bearing waters. Guidelines for blasting in the vicinity of, and adjacent to, fish habitat have been established and will be followed.

ARE THERE OPPORTUNITIES FOR WOMEN?

Both communities have a tremendous interest in the opportunities for employment in all aspects of Project work. The Project is an equal opportunity employer.

IS THERE EXPLORATION IN THE AREA OF PEOPLES' CAMPS?

To date there has been very little drilling in the immediate vicinity of existing cabins or camps. Efforts are made to review the work with the persons at the campsite to learn if the exploration schedule can be adjusted so that disturbance and inconvenience can be avoided.

WORK ROTATION

Time spent away from families is a concern for persons living at the camp for extended periods. While no rigid work rotation has been in place to date, rotations for local workers are flexible to meet both the work load and the individual needs of the employee. The preferred rotation for local employees for exploration work is 20 days in and 10 days out. The hours accumulated in the 20 days includes considerable overtime and so provides more income than regular hours per month in many seasonal community based jobs in the region. The work rotation proposed by Comaplex may typically be 28 days "on" and 14 days "off", or 21 days on, 21 days off for employees recruited from southern Canada.

EFFECTS ON CARIBOU

Public concerns for wildlife are focused on caribou. Caribou are not regularly abundant in the area of the exploration program in any season. The Project initiated a program of satellite telemetry in which five collars were put on female caribou to learn the calving ground affinity of the caribou in the area during winter. Are they of the Qamanirjuaq herd or a herd north of Chesterfield Inlet? Telemetry data showed that the caribou overwintering in the area of the exploration program in 1997 / 98 were from at least two different calving areas - the Qamanirjuaq Lake calving ground to the southwest of Meliadine Lake, and a calving area north of Chesterfield Inlet. In 2008, Comaplex continued caribou surveys in the Project area.

TEMPORARY FUEL STORAGE

Safety concerns in storing fuel in an NTCL barge overwinter (2007-08) was the subject of meetings with Rankin Inlet Hamlet Council and the public. This procedure was conducted for two winters without incident.

In general, the Project has received support and encouragement for its work at Meliadine West from both Rankin Inlet and Chesterfield Inlet and has enjoyed a cooperative working relationship with the landlord, KIA.

In addition to the consultation meetings, presentations and annual Project Status Reports (in Inuktitut and English) have been prepared and provided at public meetings. Elders, students and community leaders have toured the property since 2006 to the present. This included touring the underground exploration workings while they were active and open.

Appendix C

- C1 – Nunavut Impact Review Board Screening Part 1 Form (English)**
- C2 – Nunavut Impact Review Board Screening Part 1 Form (Inuktitut)**
- C3 – Nunavut Impact Review Board Screening Part 2 Form**
- C4 – NIRB Table 1 - Identification of Environmental Impacts**
- C5 – Environmental Impact and Mitigation Matrix**

PART 1 FORM

PROJECT PROPOSAL INFORMATION REQUIREMENTS

For more information about the Nunavut Impact Review Board (NIRB) please visit our web site <http://nirb.nunavut.ca/> or to access NIRB documents, project screenings, and project reviews please visit the Nunavut Impact Review Board ftp site <http://ftp.nunavut.ca/nirb>.

IMPORTANT!

Please be advised that your application will not be processed until the Sections 1 - 9 are completed in their entirety, in both English and Inuktitut (+ Inuinnaqtun, if in the Kitikmeot).

SECTION 1: APPLICANT INFORMATION

1. Project Name	Meliadine Gold Project: Gold Mine Construction and Operation		
2. Applicant's full name and mailing address:	Comaplex Minerals Corporation	Phone:	403 265 2846
	901, 1015 – 4 th Street SW	Fax:	403 232 1421
	Calgary, AB T2R 1J4	Email:	
3. Primary contact's full name and mailing address:	Mr. Mark Balog, Chief Operating Officer	Phone:	403 265 2846
	901, 1015 – 4 th Street SW	Fax:	403 232 1421
	Calgary, AB T2R 1J4	Email:	mbalog@comaplex.com

SECTION 2: AUTHORIZATION NEEDED

1. Indicate all authorizations associated with the project proposal:

<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30px; text-align: center;"><input checked="" type="checkbox"/></td><td>Regional Inuit Association (RIA)</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Nunavut Water Board (NWB)</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Nunavut Planning Commission (NPC)</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Indian and Northern Affairs Canada (INAC)</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Department of Fisheries and Oceans (DFO)</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Community Government & Services (CG&S)</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Nunavut Research Institute (NRI)</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Department of Culture, Language, Elders, and Youth (CLEY)</td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td></td></tr> </table>	<input checked="" type="checkbox"/>	Regional Inuit Association (RIA)	<input checked="" type="checkbox"/>	Nunavut Water Board (NWB)	<input checked="" type="checkbox"/>	Nunavut Planning Commission (NPC)	<input checked="" type="checkbox"/>	Indian and Northern Affairs Canada (INAC)	<input checked="" type="checkbox"/>	Department of Fisheries and Oceans (DFO)	<input checked="" type="checkbox"/>	Community Government & Services (CG&S)	<input checked="" type="checkbox"/>	Nunavut Research Institute (NRI)	<input checked="" type="checkbox"/>	Department of Culture, Language, Elders, and Youth (CLEY)	<input type="checkbox"/>		<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30px; text-align: center;"><input type="checkbox"/></td><td>Canadian Launch Safety (CLS)</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Environment Canada (EC)</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Government of Nunavut (GN)</td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td>Department of National Defense (DND)</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Hamlet</td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td>Parks Canada (PC)</td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td>Canadian Wildlife Service (CWS)</td></tr> <tr><td style="text-align: center;"><input type="checkbox"/></td><td>Other (please specify):</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>Navigable Waters – river crossing, jetty</td></tr> <tr><td style="text-align: center;"><input checked="" type="checkbox"/></td><td>NRCan Canada – use of explosives</td></tr> </table>	<input type="checkbox"/>	Canadian Launch Safety (CLS)	<input checked="" type="checkbox"/>	Environment Canada (EC)	<input checked="" type="checkbox"/>	Government of Nunavut (GN)	<input type="checkbox"/>	Department of National Defense (DND)	<input checked="" type="checkbox"/>	Hamlet	<input type="checkbox"/>	Parks Canada (PC)	<input type="checkbox"/>	Canadian Wildlife Service (CWS)	<input type="checkbox"/>	Other (please specify):	<input checked="" type="checkbox"/>	Navigable Waters – river crossing, jetty	<input checked="" type="checkbox"/>	NRCan Canada – use of explosives
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2. List the active permits, licenses, or other authorizations related to the project proposal, and their expiry date(s):

Refer to Section 1.7, Table 1.3 in the Preliminary Project Description.

3. List the pending permits, licenses, or other authorizations related to the project proposal:

Refer to Section 1.8, Table 1.4 in the Preliminary Project Description.

4. Has this project or any components of this project been previously screened or reviewed by NIRB?
X YES ☐ NO

If YES, indicate the previous project name and NIRB File No.

**Meliadine West Gold Project: Application to Conduct Underground Mineral
Exploration and Assemble a Bulk Sample, NIRB File No. 07EN044**

SECTION 3: PROJECT PROPOSAL DESCRIPTION

1. Indicate the type of project proposal (check all that apply)^(1,2):
(See Appendix A for Project Type Definitions)

1	All-Weather Road/Access Trail	X	9	Site Cleanup/Remediation	X
2	Winter Road/ Winter Trail	<input type="checkbox"/>	10	Oil and Natural Gas Exploration/Activities	<input type="checkbox"/>
3	Mineral Exploration	X	11	Marine Based Activities	<input type="checkbox"/>
4	Advanced Mineral Exploration	X	12	Scientific/International Polar Year Research*	<input type="checkbox"/>
5	Mine Development /Bulk Sampling	X	13	Harvesting Activities*	<input type="checkbox"/>
6	Pits and quarries	X	14	Tourism Activities*	<input type="checkbox"/>
7	Offshore Infrastructure (port, break water, dock)	<input type="checkbox"/>	15	Other ⁽²⁾ :	<input type="checkbox"/>
8	Seismic Survey	<input type="checkbox"/>			

Please note:

- All project types listed above, except those marked with an asterisk (*), will also require the Proponent to submit a **Part 2 Project Specific Information Requirement (PSIR) Form**. The NIRB application process will not be considered complete without the Part 2 PSIR Form.
- Please be advised that in order to complete the NIRB process, the NIRB may request additional information at any time during the process.
- If "Other" is selected, contact NIRB for direction on whether a Part 2 PSIR Form is required.

2. If Project Type 3, 4 or 5 was selected above, please indicate the mineral of interest that is being extracted. Include a brief description.

X	Base Metals (zinc, copper, gold, silver, etc) Gold
<input type="checkbox"/>	Diamonds
<input type="checkbox"/>	Uranium
<input type="checkbox"/>	Other: _____

Refer to Section 1.4 in the Preliminary Project Description.

- 3a. If Project Type 13, 14 or 15 was selected above, complete the table and questions below.

Transportation Type	Quantity	Proposed Use	Length of Use
<i>E.g. Helicopter</i>	<i>1</i>	<i>Site to site pick ups and drop offs</i>	<i>6 days</i>

- 3b. Describe any docks, piers, air strips or related structures that are to be used in conjunction with the proposed project activities. **Please note:** the building of new structures may require a Part 2 Form.

Refer to Section 2.2.1 of the Preliminary Project Description.

- 3c. If a temporary camp site is to be established, describe the proposed structures in detail and indicate the type and source of power for the camp site if applicable.

Refer to Section 2.2.3 in the Preliminary Project Description.

4. Personnel

Refer to Section 6 of the Preliminary Project Description.

5. Timing

Period of Construction:	from	<u>2011</u>	To	<u>2014</u>
Period of operation:	from	<u>2014</u>	To	<u>2024</u>
Proposed term of authorization:	from	<u>2010</u>	To	<u>2026</u>

6a. Region (check all that apply):

<input type="checkbox"/> North Baffin	<input checked="" type="checkbox"/> Kivalliq	<input type="checkbox"/> Kitikmeot	<input type="checkbox"/> Transboundary: _____
<input type="checkbox"/> South Baffin	<input type="checkbox"/> National Park		

6b. Describe the location of the proposed project activities in a regional context, noting the proximity to the nearest communities and any protected areas.

Refer to Sections 1.1, 4.3 and 4.4 of the Preliminary Project Description.

6c. Discuss the history of the site if it has been used for any project activities in the past.

Refer to Section 1.3 and Appendix A of the Preliminary Project Description.

6d. Indicate if there are any known archaeological/paleontological historical sites in the area.

Refer to Section 4.3 of the Preliminary Project Description.

7. Land Status (check all that applies):

<input type="checkbox"/> Crown	<input type="checkbox"/> Commissioners'	<input checked="" type="checkbox"/> Municipal
<input checked="" type="checkbox"/> Inuit Owned Surface Lands	<input checked="" type="checkbox"/> Inuit Owned Sub-Surface Lands	

8a. Co-ordinates:

The Project is centered on the mine portal coordinates at

Min Lat (degree/minute)	<u>63° 01' 30" N</u>	Min Long (degree/minute)	<u>92° 10' 20" W</u>
Max Lat (degree/minute)	_____	Max Long (degree/minute)	_____

NTS Map Sheet No: 55 N/1 – Refer to Figures 1 and 3 in the Preliminary Project Description.

(Please ensure that maps of the project are attached (1:50,000 if **available**, 1:250, 000 **Mandatory**) available from Natural Resources Canada)

8b. If the project proposal includes a **camp**, please provide the coordinates of the camp location

The camp serving the Project will be located immediately adjacent to the mine complex.
Refer to Section 2.2.3, Figure 2-4 in the Preliminary Project Description.

Min Lat (degree/minute)	<u>63° 01' 30" N</u>	Min Long (degree/minute)	<u>92° 10' 20" W</u>
Max Lat (degree/minute)	<u> </u>	Max Long (degree/minute)	<u> </u>

If different from above for the camp:

NTS Map Sheet No: The Natural Resources Canada map is 55 N/1

Please ensure that maps of the project are attached (1:50,000 if available, 1:250,000 **Mandatory**) available from Natural Resources Canada

Please note that additional location information may be required in a subsequent Project Specific Information Requirement (PSIR) submission. This may take the form of a digital Geographic Information Systems (GIS) file.

SECTION 4: NON-TECHNICAL PROJECT PROPOSAL DESCRIPTION

Please include a non-technical description of the project proposal, no more than 500 words, in English and Inuktitut (+Inuinnaqtun, if in the Kitikmeot). The project description should outline the following:

- The project activities, their necessity and duration;

The proposed Meliadine gold mine is located approximately 30 km northwest of Rankin Inlet. It will be mainly an underground mine with some open pit mining. A mill and camp will be built near the largest gold deposit. The mill will extract the gold from the rock and then collect it to be shipped out as gold bars from site. The present exploration camp, plus an additional temporary camp will be used to house up to 500 workers during a 2-3 year construction period. A new camp will be built next to the mill and the other two temporary camps will then be closed and taken down.

Once the mine is up and running, it will require about 230 workers at the mine site at any one time. With workers on a regular rotation of (typically) 21-28 days work on the site and 14-21 days rest off the site, a total of up to 430 workers will be on the payroll of the mine. Mining will last a minimum of 10 years based on current estimates, but will continue for additional years if more gold is found. The mine will operate 24 hours per day (2 shifts), 7 days a week, 52 weeks per year. Once mining is completed, the buildings and equipment will be removed and there will be a 2-3 year period of reclamation at the mine site.

- Method of transportation;

An all-season road will be built from Rankin Inlet to the mine site with shorter spur roads to each of the smaller two deposits. Construction and materials re-supply for the mine will be brought in by barge or open marine vessels. The materials will either be moved directly from the barge/ship to the site or stored temporarily near Itivia in a lay-down area. It is expected that there will be a relatively minor increase in ocean vessel traffic during the construction period, with only a marginal increase in barge traffic during the years the mine is in operation. The existing dock and barge ramp at Itivia will be sufficient for the Project.

A new 20 to 25 million liter tank farm will be built on the outskirts of Rankin Inlet for fuel storage. It is expected that 1 to 2 ships per year will be required to fill the tanks during the summer season. Fuel and supplies will be trucked from Rankin Inlet to the mine site on the all-season road on a regular basis throughout the year.

Workers from outside Rankin Inlet will be flown to/from the Rankin Inlet airport and transported to the mine site by bus. Rankin Inlet based workers may be bused to site on a daily basis.

- Any structures that will be erected (permanent/ temporary);

A group of buildings will be built at the mine site. A tank farm, laydown area, and possibly a storage area outside of town, for temporary storage of explosives, will be built in or near Rankin Inlet. All mine buildings at site will be dismantled on closure of the mine. The access road would remain after closure of the mine. The Rankin Inlet tank farm would likely be sold or leased back to the town or government.

Alternatives considered; and

There are very limited to no alternative locations for where the actual mine can be located. Several alternatives are, however, being studied for the location of the tailings impoundment area (tailings are the ground up rock that remains after the gold has been extracted from it). Alternatives are also being studied for the road route, mining methods, and milling processes. Details will be provided in the draft Environmental Impact Statement.

- Long-term developments, the projected outcome of the development for the area and its timeline. There is good potential for the discovery of additional gold bearing rock and an extension of the mine life over 10 years. This is very common with mines of this type. The long term effects of the Project would include altering tundra and wetland/pond habitats in the immediate area of the three gold deposits, the mine site and the all-season road. It is estimated 410 hectares of land will be disturbed by the mine.

The main elements in the Project time line, based on technical considerations only and dependent on receipt of permits, are:

2010 - 2011 – project review, feasibility, permitting and design

2011 - 2014 – construction

2012 - 2024 – pit and underground mining

2014 - 2024 – ore processing

2010 - 2025 – mineral exploration on site and adjacent lands

2023 - 2025 – closure and monitoring (if exploration is not successful)

IMPORTANT: IF THE PROPOSED ACTIVITIES REQUIRE SUBMISSION OF A NIRB PART 2 PSIR FORM, PLEASE COMPLETE SECTION 8 ONLY, OTHERWISE CONTINUE ON WITH SECTION 5.

SECTION 5: MATERIAL USE

1. List equipment to be used (including drills, pumps, aircraft, vehicles, etc.):

2a. Detail fuel and hazardous material use:

2b. Describe the proposed Spill Prevention Plan.

3a. Detail the anticipated daily water consumption rates

3b. Have you applied for a Water License with the Nunavut Water Board?

- ☐ YES
☐ ...NO

If yes, what class of licence?

SECTION 6: WASTE DISPOSAL AND TREATMENT METHODS

1. List the types of waste associated with the proposed project activities:
2. Describe the proposed Waste Management Plan.

SECTION 7: COMMUNITY INVOLVEMENT & REGIONAL BENEFITS

1. List the community representatives that have been contacted and provide the minutes of the meetings if available:

SECTION 8: GENERAL QUESTIONS

1. Will you be disturbing any known archaeological sites?

☐ NO

☒ YES

Please sign and date your application:

_____ Signature	Chief Operating Officer _____ Title	24 February 2010 _____ Date
_____	_____	_____

Appendix C2
Form 1 Inuktitut

Δεῦτε: Ρητάδεῖς Ἀναδόν

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Appendix C3
Nunavut Impact Review Board Screening Part 2 Form

**SCREENING PART 2 FORM
PROJECT SPECIFIC INFORMATION REQUIREMENTS (PSIR)**

1. SUBMISSIONS

The Proponent must submit all information pertaining to the Project as a whole. The information requirements below are designed for the purpose of environmental assessment and are not limited to the scope of a single permit or license application.

IMPORTANT: Please be advised of the following:

1. NIRB does not accept references to an ftp site as a submission.
2. The Proponent must provide NIRB with 1 (one) electronic copy and 1 (one) hardcopy of the required information in English.
3. All maps should be legible, and should include grids, be of appropriate scale, indicate the scale, include latitude and longitude references, title, legend and a north arrow. To the extent possible, avoid hand-drawn demarcations; and,
4. Please complete all required information in each section below. If the required information is not applicable to the project proposal, please indicate this in the response with "n/a". If the request has been provided in a different section or report, please note the section or report where the response can be found.

2. GENERAL PROJECT INFORMATION REQUIREMENTS

Project Coordinates and Maps

1. The preferred method for submitting project coordinates information is through the use of a Geographic Information System (GIS) compatible digital file. Although an ESRI ArcView 3.x shape file (in decimal degrees) is the preferred interchange format, the NIRB has the capacity to receive over 100 GIS and CAD related formats, including MapInfo and AutoCAD, provided proper format and projection metadata is also submitted. The NIRB requires coordinates for the project proposal which reflect the entire project area as defined by:
 - the area/sites of investigation;
 - the boundaries of the foreseen land use permit/right-of-way area(s) to be applied for;
 - the location of any proposed infrastructure or activity(s); and,
 - the boundaries of the mineral claim block(s) where proposed activities will be undertaken.
2. Map of the project site within a regional context indicating the distance to the closest communities. **Refer to Section 1.1, Figure 1-1 in the Preliminary Project Description.**
3. Map of any camp site including locations of camp facilities. **Refer to Section 2.2.3, Figure 2-5 in the Preliminary Project Description.**

4. Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat. **Refer to Section 1.1, Figure 1-1 in the Preliminary Project Description.**

Project General Information

5. Discuss the need and purpose of the proposed project.
The purpose of the Project is to build, operate and reclaim a gold mine.

The mine will create employment and business opportunities in the Kivalliq Region of Nunavut. Sustained benefits will flow for the life of the mine to the owners of the company, employees, the Inuit, and the federal and Nunavut governments.

6. Discuss alternatives to the project and alternatives to project components, including the no-go alternative. Provide justification for the chosen option(s).

Refer to Section 2.3 of the Preliminary Project Description.

7. Provide a schedule for all project activities.

Refer to Section 1.4.1, Table 1-1 of the Preliminary Project Description.

8. List the acts, regulations and guidelines that apply to project activities.

Refer to Section 1.7, Table 1-3 of the Preliminary Project Description.

List the approvals, permits and licenses required to conduct the project.

Refer to Section 1.8, Table 1-4 of the Preliminary Project Description.

9. **DFO Operational Statement (OS) Conformity**

Indicate whether any of the following Department of Fisheries and Oceans (DFO) Operational Statement (OS) activities apply to the project proposal:

- Bridge Maintenance – **it is the Project's intent to undertake all bridge maintenance in compliance with DFO-OS.**
- Clear Span Bridge - **it is the Project's intent to undertake all bridge design and construction in compliance with DFO-OS.**
- Culvert Maintenance - **it is the Project's intent to undertake all culvert installation and maintenance in compliance with DFO-OS.**
- Ice Bridge – **it is the Project's intent to undertake all ice bridge construction and reclamation in compliance with DFO-OS**
- Routine Maintenance Dredging – **it is the Project's intent that no routine dredging will be required for any aspect of the Project's construction or ongoing operations.**
- Installation of Moorings – **it is the Project's intent that no moorings will be required for any aspect of the Project's construction or ongoing operations.**

Please see DFO's OS for specific definitions of these activities available from either NIRB's ftp site at http://ftp.nunavut.ca/nirb/NIRB_ADMINISTRATION/ or DFO's web-site at http://www.dfo-mpo.gc.ca/canwaters-eauxcan/index_e.asp

10. If any of the DFO's OS apply to the project proposal, does the Proponent agree to meet the conditions and incorporate the measures to protect fish and fish habitat as outlined in the applicable OS? If yes, provide a signed statement of confirmation.

It is the Project's intent to construct and operate all facilities in compliance with relevant DFO-OS. Refer to the Preliminary Project Description, Appendix D for the signed letter of confirmation sent to the Department of Fisheries and Oceans.

Transportation

11. Describe how the project site will be accessed and how supplies will be brought to site. Provide a map showing access route(s).

Refer to Section 2.2.2 and Figure 2-1 of the Preliminary Project Description.

12. If a previous airstrip is being used, provide a description of the type of airstrip (ice-strip/all-weather), including its location. Describe dust management procedures and provide a map showing location of airstrip.

Not applicable

13. If an airstrip is being constructed, provide the following information: **Not applicable**
- a. Discuss design considerations for permafrost
 - b. Discuss construction techniques
 - c. Describe the construction materials, type and sources, and the acid rock drainage (ARD) and metal leaching (ML) characteristics (if rock material is required for airstrip bed).
 - d. Describe dust management procedures.
 - e. Provide a map showing location of proposed airstrip.
14. Describe expected flight altitudes, frequency of flights and anticipated flight routes. **Not applicable.**

Camp Site

15. Describe all existing and proposed camp structures and infrastructure.
- The existing exploration camp is a Weatherhaven design with capacity for 60 persons. It was established in 1997 and has operated continuously since with brief periods of winter shut down.**
16. Describe the type of camp:
- a. Mobile **Not applicable.**
 - b. Temporary

The Project construction phase will employ a peak workforce of approximately 500, which will require an additional temporary camp that will operate for up to 36 months. The existing 60 person exploration camp will be used to house construction workers. An additional 80-person Weatherhaven camp will be established for the same purpose. These workers will build the permanent camp. All available camp

space will be used to house construction workers. When construction is complete, both Weatherhaven camps will be decommissioned and the area reclaimed.

- c. Seasonal **Not applicable.**
- d. Permanent

Refer to Section 2.2.3 of the Preliminary Project Description.

- e. Other

Some hotel accommodation in Rankin Inlet may be block-booked during construction.

17. Describe the maximum number of personnel expected on site, including the timing for those personnel.

Preliminary estimates of personnel on site will range up to 500 in the following schedule:

Construction phase –2012 to 2015: up to 500 workers; on average 380 on site

Operations – 2011 to 2025: 115 workers on site

Processing ore – 2014 to 2024: 115 workers on site

Reclamation and closure – 2023 to 2025: 100 workers on site.

Equipment

18. Provide a list of equipment required for the project and discuss the uses for the equipment.

Refer to Section 2.2.3, Section 2.2.4, Table 2-3, and Section 2.2.5, Table 2-4 in the Preliminary Project Description.

19. If possible, provide digital photos of equipment.



6-yd Scooptram (typical)



Quarry-type excavating equipment (typical)



Drill jumbo (typical)



Scissor-lift in use (typical)



**Underground mining equipment (typical)
Includes 16-t truck, 2 scooptrams, scissor-lift.**

Water

20. Describe the location of water source(s), the water intake methods, and all methods employed to prevent fish entrapment. Provide a map showing the water intake locations.

Refer to Section 2.2.3 and Figure 2-5 of the Preliminary Project Description.

21. Describe the estimated rate of water consumption (m^3/day).

Refer to Section 2.4.6.1 of the Preliminary Project Description.

22. Describe how waste water will be managed. If relevant, provide detail regarding location of sumps, including capacity of sumps and monitoring.

Refer to Section 2.4.6.2 of the Preliminary Project Description.

23. If applicable, discuss how surface water and underground water will be managed and monitored.

Refer to Section 2.4.6.2 of the Preliminary Project Description.

Waste Water (Grey water, Sewage, Other)

24. Describe the quantities, treatment, storage, transportation, and disposal methods for the following (where relevant):
- Sewage – **Refer to Section 2.4.6.2 of the Preliminary Project Description. The existing exploration camp, with a modular sewage treatment plant will continue to**

be used to house construction staff. The 80-person temporary construction camp will also use a modular sewage treatment unit.

- Camp grey water – Refer to Section 2.4.6.2 of the Preliminary Project Description. The existing exploration camp, with a modular sewage treatment plant will continue to be used to house construction staff. The 80-person temporary construction camp will also use a modular sewage treatment unit.

- Combustible solid waste – Refer to Section 2.4.7 of the Preliminary Project Description.

- Non-combustible solid waste – Refer to 2.4.7 of the Preliminary Project Description.

- Bulky items/scrap metal – Refer to 2.4.7 of the Preliminary Project Description.

- Waste oil/hazardous waste – Refer to Section 2.4.7 of the Preliminary Project Description.

- Contaminated soils/snow – Refer to Section 2.4.7 of the Preliminary Project Description.

- Empty barrels/ fuel drums – Refer to Section 2.4.7 of the Preliminary Project Description.

- Any other waste produced – A comprehensive waste management plan will be included in the draft Environmental Impact Statement.

25. If the project proposal includes a landfill or landfarm, indicate the locations on a map, provide the conceptual design parameters, and discuss waste management and contact-water management procedures.

The proposed land farm will be located within the tailings management area to provide secondary containment in the event of an uncontrolled release of untreated water. It will be designed and operated to receive and treat hydrocarbon contaminated soils/snow. Natural conditions and active management will reduce the hazardous properties of the material in the landfarm.

A comprehensive Spill Response Plan and Waste Management Plan will be included with the draft Environmental Impact Statement.

Fuel

26. Describe the types of fuel, quantities (number of containers, type of containers and capacity of containers), method of storage and containment. Indicate the location on a map where fuel is to be stored, and method of transportation of fuel to project site.

Refer to Section 2.2.1, Section 2.2.3, Figure2-5 and Section 2.4.8.2 of the Preliminary Project Description.

Propane may be used for camp cooking and, if used, will be stored in a bulk tank.

27. Describe any secondary containment measures to be employed, including the type of material or system used. If no secondary containment is to be employed, please provide justification.

Fuel storage tanks will be within engineered berms and will have an impermeable liner providing a minimum secondary containment of 110% of tank capacity.

28. Describe the method of fuel transfer and the method of refuelling.

Refer to Sections 2.2.1, 2.2.3 and 2.4.8.2 of the Preliminary Project Description.

Chemicals and Hazardous Materials*

**included but not limited to oils, greases, drill mud, antifreeze, calcium or sodium chloride salt, lead acid batteries and cleaners*

All reagents and materials used on site will be stored and handled in compliance with manufacturers' and WHMIS specifications. Further details will be provided with the draft Environmental Impact Statement.

29. Describe the types, quantities (number of containers, the type of container and capacity of containers), method of storage and containment. Indicate the location on a map where material is to be stored, and method of transportation of materials to project site.

The following is an example of reagents required for ore processing.

Substance	Quantity (tonnes/yr.)	Form
Sodium cyanide (NaCN)	150	Flakes in bags in boxes
Copper sulphate (CuSO₄)	50	Crystals in bulk bags
Hydrochloric acid (HCl)	47	Liquid in cube-tainers
Caustic soda (NaOH)	94	Flakes in bulk bags
PAX	30	Liquid in drums
3894	30	Liquid in drums
MIBC	20	Liquid in drums
Pre-leach thickener flocculant	10	Powder in bags
Calcium hydroxide (Ca(OH)₂)	793	Powder in bulk bags
Carbon	9	Granules in bulk bags
Post-leach thickener flocculant	10	Powder in bags
Flotation tails thickener flocculant	20	Powder in bags
Sodium metabisulphite (Na₂S₂O₅)	445	Powder in bulk bags
Flux	10	Powder in bags

The above materials will be transported to the site by surface means in accordance with the applicable Transport Canada regulations. A staging point will be maintained at Rankin Inlet in the form of a fenced, locked compound. Materials will be unloaded, moved and loaded by forklift. Employees engaged in handling these materials will be fully instructed in WHMIS and safe handling procedures. At the mine site, these materials will be stored in a similar fenced, locked compound within the mill complex

and/or in the mill warehouse. These materials will be kept in their original containers until actual use.

Complete details for chemicals to be used on site will follow in the draft Environmental Impact Statement.

See also Section 5 of this template, Question 2a.

29. Describe any secondary containment measures to be employed, including the type of material or system used.

All mill reagents will be stored in secure facilities that provide the secondary containment of a concrete floor surrounded by a cast-in-place stub wall in the case of sheltered storage or in an outdoor bermed facility with an impermeable liner throughout.

30. Describe the method of chemical transfer.

All reagents and materials used on site will be stored and handled in compliance with manufacturers' and WHMIS specifications. Transfers will take place from suppliers' containers as close to the end-use point as possible (in a secondary containment environment if appropriate).

The Feasibility Study will provide further details, which will be included in the draft Environmental Impact Statement.

Workforce and Human Resources/Socio-Economic Impacts

Potential Social and Economic Effects in the Kivalliq Region

Refer to Sections 4 to 6 of the Preliminary Project Description.

31. Discuss opportunities for training and employment of local Inuit beneficiaries.

Refer to Sections 4 to 6 of the Preliminary Project Description.

32. Discuss workforce mobilization and schedule, including the duration of work and rotation length, and the transportation of workers to site.

Refer to Sections 4 to 6 of the Preliminary Project Description.

33. Discuss, where relevant, any specific hiring policies for Inuit beneficiaries.

Refer to Sections 4 to 6 of the Preliminary Project Description.

Public Involvement/ Traditional Knowledge

34. Indicate which communities, groups, or organizations would be affected by this project proposal.

Refer to Section 5 and Appendix B of the Preliminary Project Description.

35. Describe any consultation with interested Parties which has occurred regarding the development of the project proposal.

Refer to Appendix B in the Preliminary Project Description.

36. Provide a summary of public involvement measures, a summary of concerns expressed, and strategies employed to address any concerns.

Refer to Appendix B of the Preliminary Project Description.

37. Describe how traditional knowledge was obtained, and how it has been integrated into the project.

Refer to Section 4.2 of the Preliminary Project Description.

38. Discuss future consultation plans.

Refer to Section 5.4 of the Preliminary Project Description.

3. PROJECT SPECIFIC INFORMATION

The following table identifies the project types identified in Section 3 of the NIRB, Part 1 Form. Please complete all relevant sections.

It is the proponent's responsibility to review all sections in addition to the required sections to ensure a complete application form.

Project Type	Type of Project Proposal	Information Request
1	All-Weather Road/Access Trail	Section A-1 and Section A-2
2	Winter Road/Winter Trail	Section A-1 and Section A-3
3	Mineral Exploration	Section B-1 through Section B-4
4	Advanced Mineral Exploration	Section B-1 through Section B-8
5	Mine Development/Bulk Sampling	Section B-1 through Section B-12
6	Pits and Quarries	Section C
7	Offshore Infrastructure(port, break water, dock)	Section D
8	Seismic Survey	Section E
9	Site Cleanup/Remediation	Section F
10	Oil and Natural Gas Exploration/Activities	Section B-3 and Section G
11	Marine Based Activities	Section H
12	Municipal and Industrial Development	Section I

SECTION A: Roads/Trails

Refer to Section 2.2.2, Figure 2-1 of the Preliminary Project Description for map of the proposed all-season road route. Figure 2-2 provides an outline of the bridge design while Figure 2-3 provides typical cross sections of the road.

A-1 Project Information

1. Describe any field investigations and the results of field investigations used in selecting the proposed route (e.g. geotechnical, snow pack)

Refer to Sections 2.2.2 and 2.3.4 of the Preliminary Project Description.

2. Provide a conceptual plan of the road, including example road cross-sections and water crossings.

Refer to Section 2.2.2, Figures 2-2 and 2-3 of the Preliminary Project Description.

3. Discuss the type and volume of traffic using the road/trail (i.e. type of vehicles and cargo and number of trips annually).

The construction phase will entail the movement of an estimated 50,000 tonnes of equipment and materials to the site over a 3-year period.

Traffic volume on the road during mine operations will depend on the size of vehicles used to provide the services required; in particular, the size of the passenger bus used to ferry workers between the site and the airport/Rankin Inlet, and the size of trucks used to haul bulk fuel and supplies to the mine site. Annual operating requirements for the Project that will be carried over the road include approximately:

- 4,000 - 5,000 worker transfers in each direction, depending on rotation.
- 25 million litres of fuel.
- 7,000 tonnes of other material and supplies.

More detail will become available from the project feasibility study, the results of which will be included in the draft Environmental Impact Statement.

4. Discuss public access to the road.

The road alignment crosses municipal and Inuit-Owned Lands and is expected to cover an existing ATV trail to Meliadine Lake. The public is expected to have access to the road for personal use along most of its distance. For reasons of security and safety, public use of that portion of the road that provides immediate access to mine site operations will be restricted to mine personnel.

5. Describe maintenance procedures.

Road maintenance will include standard snow removal in winter and grading in summer. Road upgrading will require adding crushed rock from time to time. This will be produced and stockpiled at quarries along the road route. Dust suppression in summer will include limiting the speed of vehicles, the application of water and may include additives like calcium chloride (salt). Calcium chloride is used by municipalities in Nunavut and southern Canada.

Further details will be provided in the draft Environmental Impact Statement.

A-2 All-Weather Road/Access Trail

6. Discuss road design considerations for permafrost.

The alignment of the proposed road along the crest of eskers and rock outcrops should reduce the prevalence of ground ice in the upper permafrost horizon of the road base. Also, the placement of dry rock and granular material to 1.5+ m depth will bring the zone of permanently frozen ground nearer to the surface and serve to stabilize the base of the road and road bed. A crown in the road surface will shed water to the sides of the road and reduce the amount of natural precipitation entering the roadbed. This will reduce the effects of moisture-related road bed heaving.

7. Describe the construction materials (type and sources for materials), and the acid rock drainage (ARD) and metal leaching (ML) characteristics of the construction materials.

All construction material for the road building will be taken from quarries near or adjacent to the road alignment as shown in Figure 2-1 of the Preliminary Project Description. Rock and till samples from all potential quarry and borrow sites have been assayed and analysed for ARD and metal leaching. Initial test results from these samples are chemically inert but additional studies are continuing. The results will be described in the draft Environmental Impact Statement.

8. Discuss construction techniques, including timing for construction activities.

The road will be constructed to conventional Arctic standards using accepted practices. Road construction will precede construction at the mine site. Road

building materials will be extracted from quarries by blasting in the case of rock, or loaded from a pit in the case of sand and gravel. The base course of rock may be crushed to avoid large boulders in the road bed. Materials will be loaded into trucks at the quarry and hauled to the “end” of the road where it will be dumped and pushed into place by a dozer. Crushed rock will be used to “dress” the road surface. Stockpiles of crushed rock will be prepared at selected quarries for future road maintenance needs.

9. Indicate on a map the locations of designated refuelling areas, water crossings, culverts, and quarries/borrow sources.

Refer to Section 2.2.2, Figure 2-1 of the Preliminary Project Description.

Refuelling will be done by a fuel/services truck.

10. Identify the proposed traffic speed and measures employed to ensure public safety. **Company vehicles will be expected to keep to a speed limit that may be vehicle-specific. Thus, a services truck may have a lower speed limit than a pick-up. Typical speed limits at other mine sites are in the range of 10 - 30 km/h on site service roads and higher on access roads. Road safety and speed limits will be reviewed with the community.**

11. Describe dust management procedures. **Spring and summer will likely require road dust suppression. The application of water is an effective, but short-term solution. In early spring water cannot be applied due to freezing and resulting safety concerns. Additives can extend the effective period for water-based dust suppression procedures but may attract wildlife to the road. Additives to water approved for road dust suppression in Nunavut include calcium chloride (salt). Regular road maintenance and observing the posted speed limits will also reduce dust.**

A-3 Winter Road/Trail

The all-season road described above will be the first major element of the Project to be completed and as a result winter haul routes used in the past will not be required. Should a winter road be required it would use the same routes and the same equipment as has been approved for use during the exploration phase of the Project.

12. Describe the surface preparation, including the use of snow berms or compaction, and any flooding. If flooding is to be used, provide the location of the water source on a map.

Not applicable.

13. Describe the operating time period.

Not applicable.

14. Identify the proposed traffic speed and measures employed to ensure public safety.

Not applicable.

15. Discuss whether the selected route traverses any fish-bearing water bodies.
Not applicable.

SECTION B: Mineral Exploration /Advanced Exploration /Development

B-1 Project Information

1. Describe the type of mineral resource under exploration.

Refer to Sections 2.1 and 3.2.1 of the Preliminary Project Description.

B-2 Exploration Activity

2. Indicate the type of exploration activity:

Exploration by geophysics, geochemistry and diamond drilling has been semi-continuous on the property since the late 1980s and continues seasonally to the present. An exploration decline and drifts were driven underground in 2007 to 2008.

- Bulk Sampling (underground or other)

An underground exploration and bulk sampling program was conducted on the Tiriganiaq gold deposit on the Meliadine West property in 2007 to 2008. Please see NIRB Screening Decision Report File No. 07EN044. The program extracted a bulk sample to evaluate:

- Correlation between bulk grades and diamond drill grades,
- Continuity of mineralized structures between diamond drill holes,
- Geotechnical conditions for mining, and
- Metallurgical properties of the ore.

- Stripping (mining shallow bedded mineral deposits in which the overlying material is stripped off, the mineral removed and the overburden replaced)

Stripping of overburden at Meliadine was confined to the area of the exploration portal and was completed in August of 2007.

- Trenching

Trenching was not used during the exploration phase at Meliadine due to depth of overburden.

- Pitting

Pitting was not used during the exploration phase at Meliadine.

- Delineation drilling

Diamond drilling was used extensively during the exploration phase, see exploration drilling below. Drilling from the surface continued over the summer of 2009 and is expected to continue in future years.

- Preliminary Delineation drilling

Diamond drilling was used extensively during the exploration phase, see exploration drilling below.

- Exploration drilling

Diamond drilling was used extensively during the exploration of the Meliadine property. Prior to, during and after construction of the mine, diamond drilling will continue.

- Geophysical work (indicate ground and/or air)

Both ground-based and airborne geophysical surveys were used extensively during the early phases of the current ongoing exploration program at Meliadine. This method of exploration using mainly magnetic continues to be one of the most effective tools for targeting drill holes in the greater Meliadine exploration area.

- Other

Boulder train mapping and gold grain counts from soil samples were used extensively during the early exploration phases at Meliadine. This form of exploration will continue in the greater Meliadine exploration area.

3. Describe the exploration activities associated with this project:

- Satellite remote sensing

Remote sensing from satellites has not been used to date.

- Aircraft remote sensing

Aircraft have been used for extensive airborne geophysical surveys during the early exploration.

- Soil sampling

Soil sampling has been used extensively in the early stages of exploration and may resume in the greater Meliadine exploration area.

- Sediment sampling

Sediment and stream sampling has been used extensively in the early stages of exploration and may resume in the greater Meliadine exploration area.

- On land drilling (indicate drill type)

Diamond drilling has been used extensively during the exploration of the property and will continue to be a main form of exploration.

- On ice drilling (indicate drill type)

Late winter diamond drilling from ice covered lakes has been used extensively during the exploration and is still required in the greater Meliadine exploration area.

- Water based drilling (indicate drill type)

Water based drilling has not been used during the exploration at Meliadine and is not anticipated.

- Overburden removal

Overburden has not been removed for exploration purposes except for portal development to facilitate conventional underground exploration as examined by NIRB in File No. 07EN044.

- **Explosives transportation and storage**

Explosives have been used only during the underground exploration phase as examined by NIRB in File No. 07EN044.

- **Work within navigable waters**

Exploration activities in waterways have not been undertaken during the exploration phase.

- **On site sample processing**

All core samples from diamond drilling have been logged, split and sampled on site. The samples were submitted for assay in southern assay laboratories. The remaining drill core is stored on site. This will continue.

During the underground exploration phase, the mineralized material was crushed and passed through a sample tower to reduce each bulk samples (e.g. 120 tonnes from a blast) to much smaller representative samples (e.g. a 50-kilogramme pail). These representative samples were sent to laboratories in southern Canada for bulk and metallurgical analysis. A one tonne ‘tote’ bag of crushed material from each individual sample was kept and left at site. All other crushed material not sent for assaying or testing was stockpiled on the site in one of four ore piles segregated by rock type. This ore would be processed in the proposed future mill.

- **Off-site sample processing**

All diamond drill core samples during the exploration phase, as well as bulk sample metallurgical analyses were and continue to be completed in southern laboratories. Extensive geochemical analyses of overburden and host rock were also completed in southern laboratories.

- **Waste rock storage**

Approximately 75,000 tonnes of waste rock mined during the underground exploration phase were used to build pads and roads required during underground exploration. These developments will be used for part of the mine infrastructure should the Meliadine Gold Project proceed to a commercial mine.

- **Ore storage**

Approximately 25,500 tonnes of mineralized material were excavated during the underground exploration program, most of which is in temporary storage on a rock pad near the portal, the balance having been shipped to laboratories in southern Canada. If the mine goes into production, the mineralized material will be milled and the gold extracted. If the project is decommissioned, the mineralized material will be returned underground.

- **Tailings disposal**

No tailings were produced during the underground exploration program.

- Portal and underground ramp construction

Standard underground mining methods were used for portal and ramp development during the underground exploration phase in 2007 to 2008. The portal and ramp were sized and designed so they can be used for ore production should a commercial mine be developed.

- Landfilling

No landfill has been developed at the exploration site. All inert non-combustible waste produced during the exploration phase has been transferred to the Rankin Inlet municipal waste disposal site.

- Landfarming

No land farm was developed at the exploration site. Some diesel contaminated soil was placed on an impermeable liner to allow the hydrocarbons to degrade. Recent tests confirm the material is rehabilitated.

- Other

Not applicable.

B-3 Geosciences

1. Indicate the geophysical operation type:

- a. Seismic (please complete Section E)

No seismic surveys were conducted during the exploration phase.

- b. Magnetic

Extensive geomagnetic geophysical surveys have been completed over most of the Meliadine property. Additional magnetic surveys in the greater Meliadine exploration area are likely.

- c. Gravimetric

Only limited gravimetric geophysical surveys have been conducted in the area.

Electromagnetic

Extensive electromagnetic surveys have been included in geophysical surveys over the exploration area at Meliadine. The electromagnetic surveys conducted to date were done within the bounds of the mineral claim blocks shown in Section 1.2, Figure 1-1 of the Preliminary Project Description. Surveys were both airborne and ground-based.

- d. Other (specify)

None.

2. Indicate the geological operation type:

- a. Geological Mapping

Geological mapping has been completed over much of the claim block and in all areas where geophysical results warranted closer inspection. Most of the property is covered with glacial till that obscures all outcrop. All of the ramps,

drifts, and raises in the underground exploration and bulk sampling program were geologically mapped on a round-by-round basis. Geological mapping on the Meliadine property will continue.

b. Aerial Photography

Aerial photography for the exploration area was flown in 1997 with a detailed digital terrain model and maps were produced for the main Meliadine West exploration areas and the proposed road route.

c. Geotechnical Survey

Geotechnical investigations have been made at prospective development sites with more contemplated as the overall project advances toward a Feasibility Study. In particular, the exploration decline has been mapped for geotechnical characteristics as a means of developing appropriate mining methods. Numerous oriented-core diamond drill holes were drilled from 2007 to 2009 for the purposes of geotechnical analysis. Additional geotechnical drilling may be carried out prior to and as part of the Feasibility Study.

d. Ground Penetrating Survey

A Ground-Penetrating Radar survey was conducted over the prospective portal area in 1998 to assess overburden characteristics.

e. Other (specify)

None.

3. Indicate on a map the boundary subject to air and/or ground geophysical work.
Please see Figure 1 for the area of the mineral claims that host the Meliadine Gold Project. The electromagnetic surveys conducted to date have been completed to cover the potential for gold mineralization within the bounds of these mineral claim blocks.
4. Provide flight altitudes and locations where flight altitudes will be below 610m.
No further low level surveys are planned for the project at this time.

B-4 Drilling

5. Provide the number of drill holes and depths (provide estimates and maximums where possible)
Exploration results to date for this project area are based on 626 diamond drill holes ranging in depth from 53 m to 758 m at the Tiriganiaq deposit from 1991 to the end of 2009. The F Zone has been tested with 160 drill holes ranging in depth from 55.5 m to 401.0 m. The Discovery Zone has 136 drill holes at depths of between 52 m and over 500 m.
6. Discuss any drill additives to be used
CaCl₂ (calcium chloride) is the standard additive for drilling in permafrost ground to lower the freezing point of the water to inhibit the risk of freezing

the drill rods in the hole. The other functions of the water are lubricating the drill bit and to facilitate the movement of drill cuttings to surface.

7. Describe method for dealing with drill cuttings.

Drill cuttings collect in natural sumps in the immediate area of the drill site. Where natural sumps are absent, a temporary sump is created with a temporary containment berm or Aquadam. These are heavy-duty plastic tubes that are filled with water and conform to the hummocky terrain, restricting the movement of the cuttings. In this way, the cuttings are contained without causing the incremental terrain disturbance that would be required by constructing a dirt berm. No cuttings are allowed to enter any body of water. Extensive experience has shown that with the application of fertilizer and peat moss, vegetation starts to grow through the cuttings within a few years and most drill sites older than 7-8 years are almost completely rehabilitated.

8. Describe method for dealing with drill water

Water is collected in sumps where the drill solids settle, with excess water draining through the adjacent tundra.

9. Describe how drill equipment will be mobilized

The necessary diamond drilling equipment has remained on site for many years. This is expected to continue. Exploration drilling from surface in the area of the mine will be much reduced once mining commences as exploration and development drilling of the deposit shifts to underground drill stations. Geotechnical and diamond drilling on pads or laydown areas within the developed area of the mine and plant would involve drill moves by skid mounted drills pulled by a loader or similar tracked vehicle. Exploration drills working in areas of natural tundra outside of the mine and plant areas would be moved by helicopter in the summer and by a tracked vehicle pulling skid-mounted drills in winter.

10. Describe how drill holes will be abandoned –

Drill sites have been abandoned by cutting off any casing at or below ground level. This is followed a treatment with peat and fertilizer in the area of the drill cuttings for enhanced recovery around the diamond drilling site.

11. If project proposal involves uranium exploration drilling, discuss the potential for radiation exposure and radiation protection measures. Please refer to the *Canadian Guidelines for Naturally Occurring Radioactive Materials* for more information.

Not applicable.

B-5 Stripping/ Trenching/ Pit Excavation

12. Discuss methods employed. (i.e. mechanical, manual, hydraulic, blasting, other)

The area of the pit would be stripped of overburden using conventional stripping procedures (drill, blast, muck and haul) followed by standard surface mining procedures to excavate waste rock and ore to the design depth of the pit. The mining

sequence would involve drilling and blasting a predetermined volume of rock which would then be removed by loading and hauling either the ore or waste rock to designated locations. Please see proposed pit overburden and waste rock storage locations on Figures 2-5, 2-6 and 2-7 of the Preliminary Project Description.

13. Describe expected dimensions of excavation(s) including depth(s).

Refer to Figures 2-5, 2-6 and 2-7 of the Preliminary Project Description.

14. Indicate the locations on a map.

Refer to Figures 2-5, 2-6 and 2-7 of the Preliminary Project Description.

15. Discuss the expected volume material to be removed.

Refer to Table 2-5 in the Preliminary Project Description.

All surface mining will occur within the zone of permafrost.

16. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

Refer to Section 3.2.7 of the Preliminary Project Description.

B-6 Underground Activities

17. Describe underground access.

Refer to Section 2.2.4 of the Preliminary Project Description.

18. Describe underground workings and provide a conceptual plan.

Refer to Section 2.2.4 of the Preliminary Project Description.

19. Show location of underground workings on a map.

Refer to Section 2.2.4 of the Preliminary Project Description.

20. Describe ventilation system.

Refer to Section 2.2.4 of the Preliminary Project Description.

21. Describe the method for dealing with ground ice, groundwater and mine water when encountered.

Refer to Section 2.2.4 of the Preliminary Project Description.

22. Provide a Mine Rescue Plan.

Refer to Section 2.4.9 of the Preliminary Project Description.

B-7 Waste Rock Storage and Tailings Disposal

23. Indicate on a map the location and conceptual design of waste rock storage piles and tailings disposal facility.

Refer to Sections 2.2.5.1, 2.2.5.2, 2.2.5.3, Figures 2-5, 2-6 and 2-7 of the Preliminary Project Description. The figures show the proposed locations of the overburden and waste rock management areas, and the tailings impoundment area.

The design of the overburden and waste rock management areas is determined by proximity to the open pits and a safe distance away from water bodies.

A number of options are still being considered but the proposed tailings impoundment area will be located within and will eventually fill the Lake B7 basin. The initial step will be dewatering the lake.

Several saddle dykes will be built to increase the holding capacity of the area. The facility is designed such that the dams and dykes of the structure can be progressively raised, likely once or twice over the mine life. This will accommodate the continued accumulation of tailings over time.

24. Discuss the anticipated volumes of waste rock and tailings.

Refer to Table 2-5 in the Preliminary Project Description.

25. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

Refer to Section 3.2.7 of the Preliminary Project Description.

B-8 Stockpiles

26. Indicate on a map the location and conceptual design of all stockpiles.

Refer to the Preliminary Project Description, Figures 2-5, 2-6 and 2-7 for low-grade ore stockpiles. The conceptual design will limit the land area covered by the low-grade stock piles.

Topsoil excavated during the underground exploration and bulk sampling program of 2007 to 2008 was placed next to the portal entrance.

27. Describe the types of material to be stockpiled. (i.e. ore, overburden)

Run-of-mine ore and low-grade ore will be stock piled. The run-of-mine ore will constantly be replenished as it is fed to the mill. The low-grade stockpiles will likely be processed near the end of mine life.

Topsoil will be stockpiled for later use in reclamation.

Describe the anticipated volumes of each type of material to be stockpiled.

Refer to Table 2-5 in the Preliminary Project Description.

The run-of-mine stockpile will not exceed approximately 25,000 tonnes, this being one week's supply to the mill.

28. Describe any containment measures for stockpiled materials as well as treatment measures for runoff from the stockpile.

All drainage and runoff from stockpiles at Tiriganiaq will be directed to sumps at the toe of each stockpile and pumped to the tailings impoundment area. At the F Zone and Discovery deposits, runoff will also be collected in sumps at the toes. The water will first be tested and, if it meets licence conditions, will be discharged. If not, it will be treated and discharged when licence conditions are met.

Overburden management areas will be contained within rock berms as required.

29. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

Refer to Section 3.2.7 of the Preliminary Project Description.

B-9 Mine Development Activities

30. Indicate the type(s) of mine development activity(s):
- Underground

Refer to Section 2.2.4 of the Preliminary Project Description.

- Open Pit

Refer to Section 2.2.5 of the Preliminary Project Description.

- Strip Mining – **no strip mining is envisaged at the Meliadine Gold Project.**
- Other
No other mining strategies are contemplated.

31. Describe mine activities.

- Mining development plan and methods

Refer to Section 2.2.4 of the Preliminary Project Description.

Site access

Refer to Section 2.2.2, Figure 2-1 of the Preliminary Project Description

Refer to Section 2.2.3, Figure 2-5 of the Preliminary Project Description for all roads at the mine site.

- Site infrastructure (e.g. airstrip, accommodations, offshore infrastructures, mill facilities, fuel storage facilities, site service roads)

Refer to Section 2.2.3 of the Preliminary Project Description for description of site infrastructure. Figure 2-5 gives the layout of site infrastructure.

- Milling process

Refer to Section 2.4.4 of the Preliminary Project Description for a description of the mill process. The gold extraction process is illustrated in Figure 2-8 of the Preliminary Project Description.

- Water source(s) for domestic and industrial uses, required volumes, distribution and management.

Refer to Section 2.4.6 of the Preliminary Project Description for a description of water management.

- Solid waste, wastewater and sewage management

Refer to Section 2.4.7 of the Preliminary Project Description for a description of solid waste management.

Refer to Section 2.2.3 of the Preliminary Project Description for information on sewage treatment.

- Water treatment systems

Refer to Section 2.4.6.1 for information on water treatment systems.

- Hazardous waste management

Refer to Section 2.4.7 of the Preliminary Project Description.

A Hazardous Waste Management Plan will be included with the draft Environmental Impact Statement.

- Ore stockpile management

Broken ore will be received from underground and from pit mining operations by a combination of rubber tired loaders and trucks which will dump the ore on a temporary stockpile, estimated at 25,000 tonnes maximum near the crusher. Ore will be moved from the stockpile to a jaw crusher. The product from the jaw crusher will be transferred to a SAG mill.

Refer to Section 2.4.4 of the Preliminary Project Description.

- Tailings containment and management

Refer to Section 2.2.6 of the Preliminary Project Description.

- Waste rock management

Pit and underground mining development rock in excess of site infrastructure construction and underground backfill needs will be placed in the waste rock management areas as shown by Figures 2-5, 2-6 and 2-7 of the Preliminary Project Description.

Also refer to Section 2.4.5 of the Preliminary Project Description.

Site surface water management

Site development design and engineering will ensure that all runoff from the built-up area of the mill site will be collected , see Figure 2-5 of Preliminary Project Description, and pumped into the tailings stream. The proposed mill and camp site are to be situated in the upper reaches of the drainage basins and as such, are not expected to have surface waters draining into them.

- Mine water management

Initial mining will be carried out in permafrost so no significant mine water volume is expected. Studies are in progress to determine probable quantity and quality of groundwater that may be encountered below the permafrost.

- Pitting and quarrying activities

Refer to Section C Pits and Quarries of this questionnaire and to Section 2.2.5 of the Preliminary Project Description.

- Explosive use, supply and storage (including on site manufacturing if required)
Please refer to Section 2.4.8 of the Preliminary Project Description.

- Power generation, fuel requirements and storage

Electricity will be generated onsite by conventional diesel generators. The scoping study estimated an approximate generating capacity of 14.6 MW requiring 11 million litres of fuel annually. The generating plant will make maximum use of heat recovery technology for heat distribution throughout the site. Approximately 2.2 million litres of fuel will be stored on site in 2 - 1.1 million litre tanks. These tanks will be resupplied from the main fuel storage (20 - 25 million litres) located in Rankin Inlet.

- Continuing exploration

Exploration by Comaplex and others over the past 20 years has identified gold mineralization along the over 80 kilometre long geological trend of the Meliadine

property from Hudson Bay to Peter Lake. Complex exploration lands along this trend are shown on Figure 1. Exploration on these lands will continue.

- Other
None

32. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), and method of storage.

Refer to Section 2.4.8 in the Preliminary Project Description.

B-10 Geology and Mineralogy

33. Describe the physical nature of the ore body, including known dimensions and approximate shape.

Refer to Section 3.2.1 of the Preliminary Project Description.

34. Describe the geology/ mineralogy of the ore deposit

Refer to Sections 2.1 and 3.2.1 of the Preliminary Project Description.

35. Describe the host rock in the general vicinity of the ore body.

Refer to Sections 2.1 and 3.2.1 of the Preliminary Project Description.

36. Discuss the predicted rate of production.

Refer to Section 1.4 and Table 1-2 of the Preliminary Project Description.

37. Describe mine rock geochemical test programs which have been or will be performed on the ore, host rock, waste rock and tailings to determine acid generation and contaminant leaching potential. Outline methods and provide results if possible.

Refer to Section 3.2.7 in the Preliminary Project Description.

B-11 Mine

38. Discuss the expected life of the mine.

Refer to Section 2.4.1 of the Preliminary Project Description.

39. Describe mine equipment to be used.

Surface mobile equipment: Refer to Section 2.2.3 of the Preliminary Project Description.

Underground mobile equipment: Refer to Section 2.2.4, Table 2-3 of the Preliminary Project Description.

Pit mobile equipment: Refer to Section 2.2.5, Table 2-4 of the Preliminary Project Description.

40. Does the project proposal involve lake and/or pit dewatering? If so, describe the activity as well as the construction of water retention facilities if necessary.
Refer to Section 2.2.5.2 of the Preliminary Project Description for a description of dewatering at the F Zone deposit and construction of dykes.

Refer to Section 2.2.6 of the Preliminary Project Description for a description of dewatering of the tailings impoundment area and dyke construction.

41. Discuss the possibility of operational changes occurring during the mine life with consideration for timing. (e.g. open pit to underground)

Please refer to Table 2-5 of the Preliminary Project Description. The Feasibility Study may suggest changes to this production plan. The final production will be described in the draft Environmental Impact Statement.

42. If project proposal involves uranium mining, consider the potential for radiation exposure and radiation protection measures. Particular attention should be paid to *The Nuclear Safety and Control Act*.

The project does not involve uranium mining. There is no known uranium mineralization in the area.

B-12 Mill

43. If a mill will be operating on the property in conjunction with mining, indicate whether mine-water may be directed to the mill for reuse.

The open pit and underground parts of the mine will be in permafrost; the deeper parts of the underground mine may go below the permafrost. Mine water, if any, will be pumped directly to the tailings impoundment area from where it will be recycled to the mill by way of a water reclaim circuit. Mine water may also be directly pumped to the mill

44. Describe the proposed capacity of the mill.
3,000 tonnes per day.

45. Describe the physical and chemical characteristics of mill waste as best as possible.

Mill tailings will be sand and slime caliber materials with a water content to be determined. The tailings will contain residual metals and mill reagents. Further details will be provided with the draft Environmental Impact Statement.

Refer also to Sections 2.2.6 and 2.4.4 of the Preliminary Project Description.

46. Will or does the mill handle custom lots of ore from other properties or mine sites?

No mill feed from other sources are contemplated in this Project.

SECTION C: Pits and Quarries Describe all activities included in this project.

- Pitting

Aggregate locations have been identified along the all-season road from Rankin Inlet to the mine site. Aggregate will be extracted for road construction.

Refer to Figure 2-1 of the Preliminary Project Description.

- Quarrying

Quarries will be developed for road construction. An estimated total of 300,000 tonnes of granular and aggregate materials will be required to build the all-season road from Rankin Inlet to the mine site.

Refer to Section 2.2.2 and Figure 2-1 of the Preliminary Project Description for routing of roads and anticipated locations of quarries.

- Overburden removal

Refer to Section 2.2.5 and Figures 2-5, 2-6 and 2-7 of the Preliminary Project Description.

- Road use and/or construction (please complete Section A)

See Section A.

- Explosives transportation and storage.

Please refer to Sections 2.2.1 and 2.4.8 of the Preliminary Project Description.

- Work within navigable waters

No work on navigable waters is contemplated except for crossing the Meliadine River and Char Rivers by single span bridges, and installing a pump house on a jetty in Meliadine Lake.

Refer to Figures 2-1 and 2-5 of the Preliminary Project Description for the location of each.

- Blasting

Excavating rock and granular materials from quarries, the pit, and underground in permafrost requires blasting. Preparation for blasting involves drilling blast holes and loading these with explosive. All blasting will be done with materials approved for these purposes and under the supervision of persons trained and certified for the use of explosives. Blasting on surface will be fully guarded in accordance with NWT/NU Mine Safety Regulations to prevent inadvertent access by people from outside. The portal cut was successfully excavated by drilling and blasting in August-September, 2007. These safety procedures were put in place and were effective.

- Stockpiling

Refer to the Preliminary Project Description, Figure 2-5 for run-of-mine ore stockpile and Figures 2-5, 2-6 and 2-7 for low grade ore stockpiles. The conceptual design will limit the land area covered by the low grade stock piles and the side slopes will be the angle of repose upon dumping. The run of mine stockpile next to the crusher is not expected to exceed 25,000 tonnes and will continually be replenished as ore is fed into the crusher.

- Crushing

The construction phase will require crushed rock for site development and road construction. Typically, level pads and road bases will be built with rock passing 150 mm. Finished surfaces of the development site and road will be “dressed” with crushed rock that passes a 25 mm screen.

For crushing of ore, refer to Section 2.4.4 and Figure 2-8 of the Preliminary Project Description.

- Washing

Washing, as applied to coal beneficiation, is not required by any of the processes contemplated in this project.

- Other.

No other rock treatment processes are contemplated for this project.

1. Describe any field investigations and the results of field investigations used in determining new extraction sites.

At this time, no other mining sites are to be developed in the context of this Project. Exploration continues and may lead to further gold resources for future development. These will be described and submitted for screening and review by KIA and NIRB as required by the Nunavut Land Claims Agreement.

2. Identify any carving stone deposits.

No carving stone has been identified during the course of exploration at Meliadine to date.

3. Provide a conceptual design including footprint.

Refer to Figures 2-1 of the Preliminary Project Description for the conceptual design of the road. Figure 2-5 of the Preliminary Project Description shows the conceptual layout of the major mine components. Figures 2-5 to 2-7 of the Preliminary Project Description show the conceptual layout of the open pits and associated components.

Refer to Table 2-2 in the Preliminary Project Description for the foot print of major mine components.

4. Describe the type and volume of material to be extracted.

Materials extracted during the course of mining will include overburden, waste rock and ore. This is outlined in the Table 2-5 of the Preliminary Project Description. Approximately 300,000 tonnes of granular and aggregate material will also be required for constructing the road from Rankin Inlet to the mine site, and 45,000 tonnes for building the mine infrastructure located in Rankin Inlet.

More details will be presented in the draft Environmental Impact Statement.

Describe the depth of overburden.

The overburden on the area of the development site and pits varies in depth from bedrock on surface to 20 m in an area of the proposed pits:

- **Tiriganiaq 4 – 20 metres**
- **F Zone 0 - 8 metres**
- **Discovery 0 - 5 metres**

5. Describe any existing and potential for thermokarst development and any thermokarst prevention measures.

Thermokarst can develop wherever the natural cover of saturated frozen tundra (that is not bedrock) or tundra with massive ice near surface is disturbed and the disturbed area is not re-covered with materials of an equivalent or greater insulative effect.

In exploring and developing the Meliadine Gold Project site, the risk of thermokarst development has been mitigated by avoiding disturbance to the natural tundra unless absolutely necessary. Generally, all working and developed surfaces in the Project area will be covered with approximately 1.5 metres of construction materials (aggregate or crushed rock) to insulate the permafrost in the underlying overburden. This will be supplemented with additional engineered solutions where design specifications call for added thermokarst mitigation measures.

6. Describe any existing or potential for flooding and any flood control measures.

The hydrological basins draining from the project site to Meliadine Lake are small, so natural runoff volumes are relatively low. Also, the Tiriganiaq and Discovery sites are near or at the height of land for their respective basins, further mitigating the risk of large runoff. The pits at F Zone will require an engineered water diversion structure that likely will exist only while mining takes place, after which the pre-existing flow will be re-established.

Local runoff will be managed by grading all developed working surfaces to drain into a sump. Accumulated water from natural precipitation in the various pits will also be pumped to a sump for holding, testing, and appropriate treatment before disposal or transfer to the tailings impoundment area.

Likewise, the road alignment from Rankin Inlet follows the natural height of land for most of its length. Water crossings that are unavoidable will be designed and built to accommodate seasonal high water.

7. Describe any existing or potential for erosion and any erosion control measures. **The natural drainage basins affected by proposed site and pit development are generally low slope basins. The Tiriganiaq pit, mine site and development site are near the natural height of land. The Discovery pit is well situated with respect to drainage issues. All site development features will be designed to mitigate the risk of erosion caused by altered drainage patterns. Pits and quarries developed for road construction will be contoured to reduce the risk of progressive erosion beyond the pit margins and to also prevent ponding within the pit margin. No risk of erosion is envisaged.**

8. Describe any existing or potential for sedimentation and any sedimentation control measures.

Sedimentation is usually associated with water movement over or through disturbed soils, or runoff from spoil piles. All water used in the camp or mill in course of the operations will be directed to the tailings impoundment area. All natural runoff from the development site and the pit, and any mine water from the mine will be collected in sumps and pumped directly to the tailings impoundment area. The tailings impoundment area is located at the natural height of land and will be designed to operate, to the extent possible, as a closed circuit. There will be no risk of site runoff and related sedimentation into the lakes, ponds and natural water courses in the project area.

For the F Zone and Discovery areas, all natural runoff will be directed to the associated sumps, refer to Figures 2-6 and 2-7 in the Preliminary Project Description for their locations. Water will be held in the sumps, tested, treated if necessary and released to the environment upon meeting water licence effluent/MMER limits.

9. Describe any existing or potential for slumping and any slump control measures. **Relief in the Project area is extremely low; there is no natural slumping and mining and construction work on the Project will not cause slumping. When overburden is excavated in the summer, it tends to have a low angle of repose (e.g. 5°). Overburden Management Areas for such material will be bermed at the toe.**

10. Describe the moisture content of the ground. **The overburden is generally saturated and frozen. Thermistors have shown that the active layer may extend to depths of 2.5 metres, but generally is in the range of 1-1.5 meters.**

11. Describe any evidence of ice lenses.

Geotechnical investigations have shown the presence of ice in the overburden, but massive ice (e.g. 1+ metres of clear ice) has not been encountered. No ice lenses have been encountered in bedrock.

12. If blasting, describe methods employed.

Section 2.4.8 of the Preliminary Project Description applies to quarrying and open pit mining.

13. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), and method of storage.

Section 2.4.8 of the Preliminary Project Description applies to quarrying and open pit mining.

14. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

Refer to Section 3.2.7 of the Preliminary Project Description.

15. Discuss safety measures for the workforce and the public.

Refer to Section 2.4.9 of the Preliminary Project Description.

SECTION D: Offshore Infrastructure

No new offshore infrastructure is required for the development and operation of the Meliadine Gold Project. Commercial carriers will deliver materials to the dock and/or barge ramp at Rankin Inlet for offloading, storage and transfer to the mine site. Barges from Churchill and/or Montreal and ocean-going ships presently serving Rankin Inlet will meet project needs.

D-1 Facility

1. Describe any field investigations and the results of field investigations used in selecting the site (i.e. aerial surveys, bathymetric surveys, tidal processes, shoreline erosion processes, geotechnical foundation conditions).

Not applicable.

2. Provide a conceptual plan, profile description and drawing(s) indicating shoreline, facility footprint, tidal variations, required vessel draft, keel offset, deck height freeboard.

Not applicable.

3. Discuss how anticipated loads on the seabed foundation and on the offloading platform will be incorporated into the design.

Not applicable.

4. Describe how vessels will manoeuvre around the facility. (e.g. pull alongside or in front).

Not applicable.

5. Discuss the anticipated life of the facility.

Not applicable.

D-2 Facility Construction

6. Describe the types of material used for construction (i.e. granular or rock, steel piling or sheet piling, concrete). If material is granular, consider acid rock drainage potential, metal leaching potential, percentage of fines, size.

Not applicable.

7. Describe dredging activities.

Not applicable.

8. Indicate source of granular or rock material used in construction.

Not applicable.

9. List quantities of the various types of material used in construction.

Not applicable.

10. Describe construction method(s).

Not applicable.

11. Indicate whether a site engineer will be on-site to inspect construction.

Not applicable.

12. If proposed construction method involves dumping of fill into water, discuss measures for mitigating the release of suspended solids.

Not applicable.

D-3 Facility Operation

13. Describe maintenance activities associated with the facility (e.g. dredging, maintenance to account for potential settlement of facility,)

Not applicable.

14. Discuss whether the public will have access to the facility(s) and describe public safety measures.

Not applicable.

15. Describe cargo and container handling, transfer and storage facilities.

Not applicable.

16. Indicate whether fuel will be transferred from barges at this site and describe the method of that fuel transfer.

Not applicable.

17. Discuss frequency of use.

Not applicable.

D-4 Vessel Use in Offshore Infrastructure

18. Please complete Section H.

Not applicable.

SECTION E: Seismic Survey

No seismic survey is required for the development and operation of the Meliadine Gold Project.

E-1 Offshore Seismic Survey

1. Indicate whether the survey is 2D or 3D at each site.

Not applicable.

2. Describe the type of equipment used, including:

- Type and number of vessels including length, beam, draft, motors, accommodation capacity, operational speeds when towing and when not towing
- Sound source (type and number of airguns)
- Type and number of hydrophones
- Number, length, and spacing of cables/ streamers

Not applicable.

3. On a map, indicate the grid, number of lines and total distance covered at each site.

Not applicable.

4. Indicate the discharge volume of the airguns, the depth of airgun discharge, and the frequency and duration of airgun operation at each site.

Not applicable.

5. Discuss the potential for dielectric oil to be released from the streamer array, and describe proposed mitigation measures.

Not applicable.

6. Indicate whether additional seismic operations are required for start-up of operations, equipment testing, repeat coverage of areas.

Not applicable.

7. Indicate whether air gun procedures will include a “ramping up” period and, if so, the proposed rate of ramping up.

Not applicable.

8. Indicate whether the measures described in the *Statement of Canadian Practice for Mitigation of Noise in the Marine Environment* will be adhered to for this project.

Not applicable.

E-2 Nearshore/ Onshore Seismic Survey

9. For each site, indicate whether nearshore and onshore surveys will be conducted during the ice season or once the ice has melted.

Not applicable.

10. Describe how nearshore and onshore areas will be accessed.

Not applicable.

11. Describe the survey methods to be used (e.g. explosive charge, vibration, air or water gun, other)

Not applicable.

12. Describe equipment to be used

Not applicable.

13. If applicable, indicate number, depth and spacing of shot holes

Not applicable.

14. Describe explosive wastes including characteristics, quantities, treatment, storage, handling, transportation and disposal methods.

Not applicable.

E-3 Vessel Use in Seismic Survey

15. Please complete Section H

Not applicable.

SECTION F: Site Cleanup/Remediation

Refer to Section 2.5 of the Preliminary Project Description for details on reclamation and closure of the mine site.

1. Describe the location, content, and condition of any existing landfills and dumps (indicate locations on a map).

Under an agreement with the town, all inert non-combustible waste generated during the exploration phase has been transferred to the municipal landfill in Rankin Inlet. This arrangement is expected to continue in the operations phase.

2. Identify salvageable equipment, infrastructure and/or supplies.

Refer to Section 2.5.4 of the Preliminary Project Description.

3. Provide a list of all contaminants to be cleaned up, anticipated volumes and a map delineating contaminated areas. This includes buildings, equipment, scrap metal and debris, and barrels as well as soil, water (surface and groundwater) and sediment.

Refer to Section 2.5 of the Preliminary Project Description.

There will be no accumulation of contaminants over the mine life.

More detail will be provided with the draft Environmental Impact Statement.

4. Describe the degree of pollution/contamination, and list the contaminants and toxicity.

Refer to Section 2.5 of the Preliminary Project Description.

There will be no accumulation of contaminants over the mine life.

More detail will be provided with the draft Environmental Impact Statement.

5. Describe technologies used for clean-up and/or disposal of contaminated materials. Include a list of all the physical, chemical and biological cleanup/ remediation methods, operational procedures, and the dosage/frequency of reagents and bacterial medium.

Refer to Section 2.5 of the Preliminary Project Description.

There will be no accumulation of contaminants over the mine life.

More detail will be provided with the draft Environmental Impact Statement.

6. Identify and describe all materials to be disposed of off site, including the proposed off site facilities, method of transport and containment measures.

Refer to Section 2.5 of the Preliminary Project Description.

7. Discuss the viability of landfarming, given site specific climate and geographic conditions.

Please see Figure 2-5 in the Preliminary Project Description for the proposed location of the land farm. It will be designed and operated to receive hydrocarbon contaminated soils and snow for treatment with bioremediation materials that in combination with natural conditions will reduce the hazardous properties of the contaminated soil and rock. On closure, it will be sealed as a continuous element of the tailings cover.

8. Describe the explosive types, hazard classes, volumes, uses, location of storage (indicate on a map), and method of storage (if applicable).

Site cleanup and remediation is not expected to involve blasting. Refer to Section 2.4.8 and Figure 2-5 of the Preliminary Project Description.

9. If blasting, describe the methods employed.

Site cleanup and remediation is not expected to involve blasting.

10. Describe all methods of erosion control, dust suppression, and contouring and revegetation of lands.

The potential for erosion is extremely slight due to (a) low relief, (b) semi-arid climate, and (c) slow movement of surface waters. Slope erosion of reclaimed surfaces will be controlled by coating with stable materials and revegetation.

Refer to question C 7 above.

After closure, the tailings impoundment area will present a large surface area with the potential to become a source of dust. Tailings will be capped with rough, broken rock and overburden. Stockpiled top soil suitable for revegetation will be used on closure to enhance natural revegetation of the site.

11. Describe **all** activities included in this project.

- Excavation (please complete Section B-5)
Refer to Preliminary Project Description and see Section B-5 above.
- Road use and/or construction (please complete Section A)
Refer to Preliminary Project Description, Section 2.2.2 and Section A above.
- Airstrip use and/or construction
Not applicable
- Camp use and/or construction
Refer to Preliminary Project Description, Section 2.2.3 and Section 2 items 16 to 18 above.
- Stockpiling of contaminated material
See Figure 2-5 for the location of the Waste Management Building.

Refer to Sections 2.4.7 and 2.5 of the Preliminary Project Description.

- Pit and/or quarry (please complete Section C)
See Section C above.
- Work within navigable waters (please complete Section H)
See Section H below.
- Barrel crushing

Refer to Section 2.4.7 of the Preliminary Project Description.

- Building Demolition

Refer to Section 2.5.4 of the Preliminary Project Description.

Other

Not applicable.

SECTION G: Oil and Natural Gas Exploration/Activities

The Project does not comprise any oil and natural gas exploration or related activities. There is no known hydrocarbon mineralization in the area.

G-1 Well Authorization

1. Identify the location(s) of the well centre(s) by latitude and longitude. Attach a map drawn to scale showing locations of existing and proposed wells.

Not applicable.

2. Indicate if the site contains any known former well sites.

Not applicable.

3. Include the following information for each well:

- a. Well name
- b. Surface location
- c. Proposed bottomhole location
- d. Ground elevation (in metres)
- e. Spacing area (in units)
- f. Identify the well type:
 - i. Production
 - ii. Injection
 - iii. Disposal
 - iv. Observation
 - v. Storage
 - vi. Experimental
 - vii. Other (specify)
- g. Identify the well classification:
 - i. Exploratory wildcat
 - ii. Exploratory outpost
 - iii. Development
- h. Drilling operation (deviation):
 - i. Vertical
 - ii. Directional
 - iii. Horizontal
 - iv. Slant
- i. Objective Zones (copy chart style below)

Objective Formation	Fluid (oil/gas/water)	Depth (mTVD)	Core (Y/N)

- j. Proposed Total Depth in mTDV and mMD.
- k. Formation of Total Depth
- l. Sour well? (yes or no)
 - i. If Yes: Maximum H₂S concentration in mol/kmol
Emergency planning zone radius in km
- m. Blowout Prevention (Well Class I – VI)
- n. Deviation Surveys
 - i. Will be run at intervals less than 150m? (yes or no)
- o. Wireline logs
 - i. Will run logs in hole for surface casing? (yes or no)
 - ii. Will run a minimum of 2 porosity measuring logs? (yes or no)

Not applicable.

G-2 On-Land Exploration

4. Indicate if the site contains any known:
 - a. Waste Dumps
 - b. Fuel and Chemical Storage Areas
 - c. Sump Areas

- d. Waste Water Discharge Locations

Not applicable.

- 5. Attach maps drawn to scale showing locations of existing and proposed items identified in (2) above, as well as all proposed:
 - a. Sumps
 - b. Water sources
 - c. Fuel and chemical storage facilities
 - d. Drilling mud storage areas
 - e. Transportation routes

Not applicable.

- 6. If utilizing *fresh water*, estimate maximum drawdown and recharge capability of the river or lake from which water will be drawn.

Not applicable.

- 7. Indicate if permafrost is expected to be encountered under:
 - a. Camp Facilities
 - b. Well Site
 - c. Access Routes
 - d. Sumps
 - e. Other: _____

Not applicable.

- 8. Indicate any potential for encountering artesian aquifers or lost circulation within the surface hole (to casing depth).

Not applicable.

- 9. Will drilling wastes contain detrimental substances (including, but not limited to, oil-based or invert mud and high salinity fluids)? If yes, indicate the substances and estimated volumes.

Not applicable.

- 10. Indicate methods for disposal of drilling wastes:
 - a. Sump
 - b. Down Hole (requires NEB approval)
 - c. On-Site Treatment (provide plan)
 - d. Off-Site (give location and method of disposal)

Not applicable.

- 11. If a sump is being used, attach the following information:
 - a. scale drawings and design of sumps
 - b. capacity in cubic metres
 - c. berm erosion protection
 - d. soil permeability and type
 - e. recycling/reclaiming waters
 - f. surface drainage controls
 - g. abandonment procedures

Not applicable.

12. Attach the proposed or existing contingency plan which describes the course of action, mitigative measures and equipment available for use in the event of system failures and spills of hazardous materials.

Not applicable.

13. Attach an outline of planned abandonment and restoration procedures.

Not applicable.

G-3 Off-Shore Exploration

14. Will drilling wastes contain detrimental substances (including, but not limited to, oil-based or invert mud and high salinity fluids)? If yes, indicate the substances and estimated volumes.

Not applicable.

15. Attach the proposed or existing contingency plan which describes the course of action, mitigative measures and equipment available for use in the event of system failures and spills of hazardous materials.

Not applicable.

16. Attach an outline of planned abandonment and restoration procedures.

Not applicable.

17. Please complete Section H

Not applicable.

G-4 Rig

18. Type of Rig. Draw works, make and model

Not applicable.

19. Derrick/Mast make and model

Not applicable.

20. H.P. available to draw-works

Not applicable.

SECTION H: Marine-Based Activities

The Project does not require any marine-based activities other than receiving materials and supplies by commercial marine carriers using the dock and barge landing at Rankin Inlet.

H-1 Vessel Use

1. Describe the purpose of vessel operations.

Not applicable.

2. List classes and sizes of vessels to be used.

Not applicable.

3. Indicate crew size.

Not applicable.

4. Indicate operating schedule.

Not applicable.

5. Provide a description of route to be traveled (include map).

Not applicable.

6. Indicate whether the vessel will call at any ports. If so, where and why?

Not applicable.

7. Describe wastes produced or carried onboard including the quantities, storage, treatment, handling and disposal methods for the following:

- a. Ballast water
- b. Bilge water
- c. Deck drainage
- d. Grey and black water
- e. Solid waste
- f. Waste oil
- g. Hazardous or toxic waste

Not applicable.

8. List all applicable regulations concerning management of wastes and discharges of materials into the marine environment

Not applicable.

9. Provide detailed Waste Management, Emergency Response and Spill Contingency Plans

Not applicable.

10. Does the vessel(s) possess an Arctic Pollution Prevention Certificate? If yes, indicate the date of issue and the name of the classification society.

Not applicable.

11. Describe the source of fresh water and potable water

Not applicable.

12. Indicate whether ice-breaking will be required, and if so, approximately where and when? Discuss any possible impacts to caribou migration, Inuit harvesting or travel routes, and outline proposed mitigation measures.

Not applicable.

13. Indicate whether the operation will be conducted within the Outer Land Fast Ice Zone of the East Baffin Coast. For more information on the Outer Land Fast Ice Zone, please see the Nunavut Land Claims Agreement (NLCA), Articles 1 and 16.

Not applicable.

14. Indicate whether Fisheries or Environmental Observers will be onboard during the proposed project activities. If yes, describe their function and responsibilities.

Not applicable.

15. Describe all proposed measures for reducing impacts to marine habitat and marine wildlife (including mammals, birds, reptiles, fish, and invertebrates).

Not applicable.

H-2 Disposal at Sea

1. Provide confirmation you have applied for a *Disposal at Sea* permit with Environment Canada.

Not applicable.

2. Provide a justification for the disposal at sea

Not applicable.

3. Describe the substance to be disposed of, including chemical and physical properties

Not applicable.

4. Indicate the location where the disposal is to take place

Not applicable.

5. Describe the frequency of disposals (disposals per day/week or month)

Not applicable.

6. Describe the route to be followed during disposal and indicate on a map.

Not applicable.

7. Indicate any previous disposal methods and locations

Not applicable.

8. Provide an assessment of the potential effects of the disposal substance on living marine resources

Not applicable.

9. Provide an assessment of the potential of the disposal substance, once disposed of at sea, to cause long-term physical effects.

Not applicable.

10. Describe all mitigation measures to be employed to minimize the environmental, health, navigational and aesthetic impacts during loading, transport and disposal.

Not applicable.

SECTION I: Municipal and Industrial Development

Refer to Preliminary Project Description, Section 2.2.1.

Comaplex has initiated discussion with the Hamlet of Rankin Inlet, Airport Authority and the Government of Nunavut regarding collaboration on the development of these off site facilities for mutual benefit of all parties.

1. Describe the business type, including public, private, limited, unlimited or other.

New business opportunities for local interests will emerge in the local construction, transportation, and supply and service sectors as a result of the Project. Comaplex intends to explore all potential avenues for contracting out possibilities with local interests who can provide competent, competitive, and qualified services or products.

2. Describe the activity (e.g. development of quarry, development of hydroelectric facility, bulk fuel storage, power generation with nuclear fuels or hydro, tannery operations, meat processing and packing, etc.).

Laydown area, construction, operation, maintenance

Expediting services, operation

Trucking, operation

Tank farm, construction, operation, maintenance

Road stone quarries, construction, operation

Road construction, maintenance and snow removal

Catering and housekeeping

3. Describe the production process or service provision procedures.

Siting and construction of the Project's Rankin Inlet infrastructure remains to be discussed with the community and its leadership. The location of the offsite infrastructure will become clearer following discussions with interested parties and upon completion of the Feasibility Study. Comaplex is engaging all interested parties in the general requirements, so longer range planning can take place.

Further details will be provided in the draft Environmental Impact Statement.

4. Describe the raw materials used in this activity, the storage and transportation methods. If hazardous materials are included in raw materials, products or by-products; include safety regulations methodology.

Raw materials will be construction materials, most of which will be supplied from southern Canada.

5. Provide detailed information about the structure and/or building in which the activity will be conducted.

Refer to Sections 2.2.1 and 2.2.3 of the Preliminary Project Description.

6. List the PPE (personal protective equipment) and tools to be used to protect personal health and safety.

Refer to Section 2.4.9 of the Preliminary Project Description.

7. Describe the firefighting equipment that are or will be installed.

Firefighting equipment will be installed at the tank farm and in the modular buildings in compliance with applicable regulations.

8. Describe the noise sources, noise level in work area, technical measurements that will be adopted to abate the noise levels and regulatory requirements for noise abatement and noise levels.

Noise levels associated with receiving the materials from the dock or boats and shipping them to the site on trucks will be similar to those associated with the annual receiving of cargo at Rankin Inlet.

9. Describe the type of gaseous emission that will be produced during this activity. Include the allowable thresholds and mitigation measures.

Gaseous emissions would be exhaust from vehicles used in offloading and moving supplies to storage.

10. Describe odours that the activity might release and include corresponding allowable threshold. Describe mitigation measures if thresholds are exceeded.

Not applicable.

11. Describe radiation sources that might be emitted during the activity. Include type and source and include mitigation measures. Also describe preventative measures for human exposure (i.e. PPE).

Not applicable.

12. Discuss the employee safety and environment protection training program.

Workers in the laydown area and those handling fuel will be trained in rigging, slinging, stevedoring, handling bulk fuel and WHMIS. A spill containment plan will be developed for the fuel storage facility. Spill response equipment and materials will be in place.

Refer also to Section 2.4.9 of the Preliminary Project Description.

13. If the activity involves a bulk fuel storage facility, include drawings showing the bulk fuel storage facility location in proximity to natural water courses, high water marks, etc.

The tank farm site remains subject to approval of the Municipality of Rankin Inlet. The required details will be developed in the Feasibility Study and incorporated in the draft Environmental Impact Statement, subject to confirmation of the site with the Municipality of Rankin Inlet.

14. If the activity involves the development of a new quarry or expansion of an existing quarry, complete Section C.

Please refer to Section C.

4. DESCRIPTION OF THE EXISTING ENVIRONMENT

Describe the existing environment, including physical, biological and socioeconomic aspects. Where it is appropriate, identify local and regional study areas.

Please note that the detail provided in the description of the existing environment should be appropriate for the type of project proposal and its scope.

The following lists are intended as a guide only.

Physical Environment

Please note that a description of the physical environment is intended to cover all components of a project, including roads/trails, marine routes, etc

- Proximity to designated environmental areas, including parks; heritage sites; sensitive areas, including sensitive marine habitat areas (recreational areas; sport and commercial fishing areas; breeding, spawning and nursery areas; known migration routes of living ;marine resources; and areas of natural beauty, cultural or historical history and; other) and protected wildlife areas; and other protected areas.
- Eskers and other unique landscapes (e.g. sand hills, marshes, wetlands, floodplains).
- Evidence of ground, slope or rock instability, seismicity.
- Evidence of thermokarsts
- Evidence of ice lenses
- Surface and bedrock geology.
- Topography.
- Permafrost (e.g. stability, depth, thickness, continuity, taliks).
- Sediment and soil quality.
- Hydrology/ limnology (e.g. watershed boundaries, lakes, streams, sediment geochemistry, surface water flow, groundwater flow, flood zones).
- Tidal processes and bathymetry in the project area.
- Water quality and quantity.
- Air quality.
- Climate conditions and predicted future climate trends.
- Noise levels.
- Other physical Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

PROJECT AREA ENVIRONMENT

Environmental baseline study reports completed and being carried out for the Project area during the period 1997-2009 are summarized in Section 3 of the Preliminary Project Description. The results of all studies will be presented for review by the Nunavut Impact Review Board in the draft Environmental Impact Statement.

5. IDENTIFICATION OF IMPACTS AND PROPOSED MITIGATION MEASURES

1. Please complete the attached Table 1 – Identification of Environmental Impacts, taking into consideration the components in Appendix A. Identify impacts in Table 1 as either positive (P), negative and mitigable (M), negative and non-mitigable (N), or unknown (U).
2. Discuss the impacts identified in the above table.
3. Discuss potential socioeconomic impacts, including human health.
4. Discuss potential for transboundary effects related to the project.
5. Identify any potentially adverse effects of the project proposal on species listed under the *Species at Risk Act (SARA)* and their critical habitats or residences, what measures will be taken to avoid or lessen those effects and how the effects will be monitored.
6. Discuss proposed measures to mitigate all identified negative impacts.

Refer to Sections 3, 4 and Appendices C4 and C5 of the Preliminary Project Description.

7. CUMULATIVE EFFECTS

Discuss how the effects of this project interact with the effects of relevant past, present and reasonably foreseeable projects in a regional context.

Refer to Section 3.7.2 of the Preliminary Project Description.

8. SUPPORTING DOCUMENTS

Where relevant, provide the following supporting documents:

- Abandonment and Decommissioning Plan
- Existing site photos with descriptions
- Emergency Response Plan
- Comprehensive Spill Prevention/Plan (must consider hazardous waste and fuel handling, storage, disposal, spill prevention measures, staff training and emergency contacts)
- Waste Management Plan/Program
- Monitoring and Management Plans (e.g. water quality, air pollution, noise control and wildlife protection etc.)
- If project activities are located within Caribou Protection Areas or Schedule 1 Species at Risk known locations, please provide a Wildlife Mitigation and Monitoring Plan

In addition, for Project Type 9 (Site Cleanup/Remediation), please provide the following additional supporting documents:

- Remediation Plan including cleanup criteria and how the criteria were derived.
- Human Health Risk Assessment of the contaminants at the site.


Refer to references section of the Preliminary Project Description. These documents are currently in effect at the Meliadine Gold Project and will either be updated or replaced in order to meet the standard required for the draft Environmental Impact Statement that will be developed in conformity with the EIS Guidelines expected from the Nunavut Impact Review Board with the filing of this Preliminary Project Description.

Additionally, the following documents can be found in an electronic format in the sleeve at the end of this document.

- (1) Abandonment and Restoration, Meliadine West Gold Project Camp and Underground Exploration Area, September 2009
- (2) Fuel Management And Spill Contingency Plan, Meliadine West Project, revised Sept 2009
- (3) Quality Assurance / Quality Control Plan for the Meliadine Gold Project, October 2009
- (4) Waste Management Plan, Meliadine West Gold Project, Revised September 2009
- (5) Waste Rock and Ore Storage Management Plan For Materials Generated During The Excavation Of The Exploration Decline at the Tiriganiaq Deposit, Meliadine West Project, Addendum 1, April 2009
- (6) Water Management Plan, Meliadine West Gold Project, June 2008

**Appendix C4 –
NIRB Table 1 - Identification of Environmental Impacts**

THE NUNAVUT IMPACT REVIEW BOARD
PROJECT SPECIFIC INFORMATION REQUIREMENT - PART 2 FORM
TABLE 1 - IDENTIFICATION OF ENVIRONMENTAL IMPACTS

		ENVIRONMENTAL COMPONENTS	PHYSICAL	designated environmental areas (i.e. Parks, Wildlife Protected areas)	ground stability	permafrost	hydrology/ limnology	water quality	climate conditions (greenhouse gases)	eskers and other unique or fragile landscapes	surface and bedrock geology	sediment and soil quality	tidal processes and bathymetry	air quality (gaseous emissionS & dust)	noise levels	other VEC:	other VEC:	other VEC:	BIOLOGICAL	vegetation	wildlife, including habitat and migration patterns	birds, including habitat and migration patterns	aquatic species, incl. habitat and migration/spawning	wildlife protected areas	other VEC:	SOCIO-ECONOMIC	archaeological and cultural historic sites	employment	community wellness	community infrastructure	human health (including social health)	traditional land use	
	PROJECT COMPONENTS/ACTIVITIES																																
CONSTRUCTION	Laydown & Storage – Rankin Inlet					M									M					N									P	U	P	M	
	Rankin tank farm					M									M					M									P	U	P	M	
	Road from Rankin Inlet to site					M	M	M	N	M	M	M		M	M					N	M	M	M					P	P	P	M	P	
	Pads					M	M	M	N			M		M	M					N								P				N	
	Mill/camp complex					M		M	N					M	M					N		P						P					
	Underground development				M	N	M	M	N		M				M	M												P			M	N	
	Pit development				M	N	M	M	N	N	N	N		M	M					N	N	N	N				M	P				N	
	Tailings impoundment area				M	M	N	M	N						M	M				N	N	N	N					P				N	
Overburden management				M	M	M	M				M			M	M				N	N	N	N					P					N	
OPERATION	Open pit mining				M	N		M	N		N	M		M	N														P			M	N
	Underground mining				M	N		U	N		N			M															P			M	
	Mill operation							M							N														P			M	
	Ore stockpile management				M	M	M	M	N			M		N						N	M	M	M						P				M
	Waste rock management				M	M	M	M				M		N						N	M	M	M						P				N
	Tailings area management				M		N	M																					P			M	N
	Camp operation							M				M																	P			M	
	Road operation							M	N			M			M	N				M	M	M							P	P		P	P
	Waste incineration								N						M															P			
	Power generation								N						M																		
	Equipment emissions								N						M																U		U
DECOMMISSIONING	Pits closure					P		M				M			N					P	P	P	P						P		N	M	P
	Underground mine closure					P														P	P	P							P		N	M	P
	Mill and plant dismantling													M						P									P			M	
	Stockpile reclamation					P	P					M		M	N					P									P				P
	Tailings impoundment area reclamation					P	P	M				M		M	N					P	M	M	P					P			M	P	
	Waste rock management area reclamation				P	P		P												P	P							P					P
	Overburden management area reclamation				P	P		P						P						P	P							P					P

Notes: Please indicate in the matrix cells whether the interaction causes an impact and whether the impact is:

P - Positive; N - Negative and non-mitigable; M - Negative and mitigable; U - unknown: If no impact is expected then please leave the cell blank

Appendix C5
Environmental Impacts and Mitigation Matrix

MELIADINE GOLD PROJECT
ENVIRONMENTAL IMPACTS & MITIGATIONS MATRIX
Preliminary Project Description.

P Positive effect
N Negative effect: non-mitigable
M Negative effect: mitigable
U Unknown

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
CONSTRUCTION	Laydown & storage -- Rankin Inlet	Disturbance of permafrost.	M	Build pad to bring base of active layer to ground level.	None.
		Construction noise.	M	Temporary. Proper equipment maintenance. Restrict operations to normal working hours.	None.
		Removal of vegetation.	M	Area of sparse or no vegetation to be used for tank farm.	None. Tank farm in municipal industrial area.
		Employment.	P	Preferential hiring, training, apprenticeships,	Skills development.
		Community wellness.	U	Before and after socioeconomic monitoring needs to be undertaken to measure community wellness .	Increased skills base. Long-term effects of life-of-mine tax revenue.
		Community infrastructure.	P		Gain to community infrastructure.
		Human/social health.	M	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.
	Rankin Inlet tank farm	Disturbance of permafrost.	M	Build pad to bring base of active layer to ground level.	None.
		Construction noise.	M	Temporary. Proper equipment maintenance. Restrict operations to normal working hours.	None.
		Removal of vegetation.	N	Area of sparse or no vegetation.	Municipal industrial area.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Community wellness.	U	Before and after socioeconomic monitoring needs to be undertaken to measure community wellness .	Increased skills base. Long-term effects of life-of-mine tax revenue.
		Community infrastructure.	P		Gain to infrastructure.
		Human/social health.	M	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
CONSTRUCTION	Road from Rankin Inlet to site	Disturbance of permafrost.	M	Build road base to bring base of active layer to ground level.	None.
		Disruption of drainage patterns.	M	Drainage patterns retained using with culverts. Maintain culverts.	None.
		Water contamination.	M	Construct road while ground frozen.	None.
		Generation of greenhouse gases.	N	Ensure vehicle engines properly maintained. No idling when not in use.	Adds to Canada's emissions of greenhouse gases.
		Routing along eskers.	M	Follow existing ATV trails.	Road along esker crests.
		Surface and bedrock geology	M	Quarries built at intervals along the route	Positive drainage from quarry & low wall angles
		Disruption of tundra soils.	M	Road edges will revegetate naturally.	Only running surface bare of vegetation.
		Generation of dust	M	Use dust suppressants. Control vehicle speeds.	None.
		Construction noise.	M	Temporary. Remote from community. Maintain equipment properly.	None.
		Burial of vegetation.	N	Follow existing ATV trails, crests of eskers and rock outcrops where vegetation is sparse.	Road edges will revegetate naturally. Only running surface bare of vegetation.
		Intrusion into wildlife habitat.	M	Wildlife to have right-of-way. Control vehicle speeds. No hunting along road corridor.	Long-term effect after mine closure depends on intensity of road use.
		Intrusion into bird habitat.	M	Low vehicle speeds to reduce bird collisions. No hunting along road corridor.	Long-term effect after mine closure depends on intensity of road use.
		Intrusion into fish habitat.	M	Road is routed along high ground. Culverts/bridges to allow continued fish passage.	None.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Community wellness.	P	Ease of access to traditional fishing and hunting areas	Continuation of traditional pursuits
		Community infrastructure.	P		Part of road from Manitoba to Baker Lake.
		Human/social health.	M	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.
		Traditional land use.	P		Improved access to land.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
CONSTRUCTION	Pad construction	Disturbance of permafrost.	M	Build pad to bring base of active layer to ground level.	None.
		Disruption of drainage patterns.	M	Redirect drainage around pads.	None.
		Water contamination.	M	Pads graded to collect runoff in sumps for settling & treatment if necessary.	None.
		Generation of greenhouse gases.	N	Ensure vehicle engines properly maintained. No idling when not in use.	Adds to Canada's emissions of greenhouse gases.
		Disruption of tundra soils.	M	Soils stripped before pad construction and stockpiled for ultimate reclamation.	None.
		Dust generation.	M	Use of dust suppressants.	None.
		Construction noise.	M	Temporary. Remote from community. Equipment properly maintained.	None.
		Removal of vegetation.	N		Pads will revegetate naturally after reclamation.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Traditional land use.	N	Temporary loss of pad area during life of mine.	None following reclamation.
CONSTRUCTION	Mill/camp complex	Disturbance of permafrost.	M	Buildings on bedrock, piles or columns, according to function.	None.
		Water contamination.	M	Control and treat runoff if necessary. Waste water treatment.	None.
		Dust generation.	M	Use dust suppressants. Keep work areas clean.	None.
		Generation of greenhouse gases.	N	Ensure vehicle engines properly maintained. No idling when not in use.	Adds to Canada's emissions of greenhouse gases.
		Construction noise.	N	Temporary. Remote from community. Maintain mufflers properly.	None.
		Bird habitat.	P	Buildings provide sheltered nesting sites.	Additional habitat.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
CONSTRUCTION	Underground development	Destabilization of ground.	M	Effective geotechnical design & sequencing of workings & support systems; backfilling workings after mining.	None.
		Disturbance of permafrost.	N	Only around portal.	None.
		Altered groundwater hydrology.	M	Only if workings penetrate below permafrost.	None.
		Water contamination.	M	Water used for drilling kept underground.	None.
		Generation of greenhouse gases.	N	Ensure vehicle engines properly maintained. No idling when not in use. Proper blast design.	Adds to Canada's emissions of greenhouse gases.
		Removal of rock.	N	Effective geotechnical design of workings & support systems; backfilling workings after mining.	Permanent excavations, mostly backfilled after excavation.
		Air contamination, dust, fumes.	M	Dust suppression. Engines properly maintained, no idling when engines not in use. Proper blast design.	None.
		Equipment & blasting noise.	M	Mostly confined underground. Ventilation fan noise on surface.	None.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Human/social health.	M	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.
		Traditional land use.	N	Temporary loss of mine surface works area during life of mine.	None.
CONSTRUCTION	Pit development	Destabilization of ground.	M	Effective geotechnical design of workings and mining sequencing.	None.
		Disturbance of permafrost.	N	All open pit mining is to occur within permafrost.	None.
		Disruption of drainage patterns.	M	Drainage rerouted around pits.	Permanent alteration of drainage paths.
		Water contamination.	M	Pit drainage collected in sumps and treated if necessary.	None.
		Generation of greenhouse gases.	M	Ensuring vehicle engines properly maintained. No idling when not in use.	Adds to Canada's emissions of greenhouse gases.
		Disruption of eskers.	N	Tiriganiaq pit overlain by esker.	Loss of esker above Tiriganiaq pit.
		Removal of rock.	N		Permanent excavations.
		Sediment & soil quality.	N		Permanent excavations.
		Generation of dust and fumes.	M	Use of dust suppressants. Proper blast design.	None.
		Removal of vegetation.	N		Permanent loss of vegetation.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
CONSTRUCTION	Pit Development	Wildlife habitat.	N		Permanent loss of pit area as terrestrial habitat.
		Bird habitat.	N		Permanent loss of pit area as terrestrial habitat.
		Fish habitat.	N	Habitat compensation for the loss of fish habitat in bay of Lake A8 and small ponds	Temporary loss of small ponds. Gain of pit areas as major habitat following reclamation.
		Archaeological & cultural historic sites	M	Two sites will be remediated before development of Tiriganiaq open pit.	None.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Traditional land use.	N	Temporary loss during life of mine	None.
	Tailings impoundment area	Destabilization of ground.	M	Geotechnical design of construction and operation will ensure ground stability.	None.
		Disturbance of permafrost.	M	Temporary, life of mine.	Removal of the lake and no talik afterwards
		Disruption of drainage patterns.	N	Redirection of drainage.	Permanent alteration of drainage paths.
		Impairment of water quality.	M	Construction and dewatering in winter. No water discharge not meeting MMER/licence limits.	None.
		Generation of greenhouse gases.	N	Ensure vehicle engines properly maintained. No idling when not in use.	Adds to Canada's emissions of greenhouse gases.
		Generation of dust.	M	Use of dust suppressants. Progressive reclamation of cells in area.	None.
		Construction noise.	N	Temporary. Remote from community. Maintain mufflers properly.	None.
		Removal of vegetation.	N	Temporary loss during life of mine.	None.
		Wildlife habitat.	N	Temporary loss during life of mine.	Increase in terrestrial habitat
		Bird habitat.	N	Aquatic habitat replaced by terrestrial habitat	Change only.
		Fish habitat.	N	Permanent loss of lake. Fish habitat compensation plan.	No net loss.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Traditional land use.	N	Loss of traditional aquatic pursuits	Ultimate gain in terrestrial pursuits

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
CONSTRUCTION	Overburden management	Destabilization of ground.	M	Effective geotechnical design of stockpile base and construction.	None.
		Permafrost disturbance.	M	Permafrost will freeze up into stockpile.	Stockpile remaining after use in reclamation will be reclaimed.
		Disruption of drainage paths & small ponds.	M	Redirection of drainage.	Permanent alteration of drainage paths.
		Impairment of water quality.	M	Runoff water will be collected in sumps and treated to meet MMER guidelines before release to environment. Seasonal only.	None.
		Sedimentation.	M	Runoff water will be collected in settling sumps.	None.
		Dust generation.	N	Temporary, life of mine. Use of dust suppressants impractical.	None.
		Machinery noise.	M	Ensure vehicle engines properly maintained. No idling when not in use.	None.
		Removal of vegetation.	N	Temporary, life of mine.	None.
		Disruption of wildlife habitat.	N	Temporary, life of mine.	None.
		Disruption of bird habitat.	N	Temporary, life of mine.	None.
		Destruction and disruption of fish habitat.	N	Habitat replacement or rehabilitation on mine closure.	No net loss of fish habitat.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Traditional land use.	N	Temporary loss during life of mine.	None.
OPERATIONS (Effects in addition to effects of development.)	Open pit mining	Destabilization of ground.	M	Geotechnical design of construction and operation will ensure ground stability.	None.
		Disruption of permafrost.	N	Temporary, life of mine.	None.
		Impairment of water quality in pits.	M	Water will be collected in sumps and treated to meet MMER/Licence limits before release to environment.	None.
		Generation of greenhouse gases.	M	Ensure vehicle engines properly maintained. No idling when not in use. Proper blast design.	Adds to Canada's emissions of greenhouse gases.
		Removal of rock.	N		Permanent excavations are allowed to fill with water to create aquatic habitat upon closure.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
OPERATIONS	Open Pit Mining	Generation of dust and fumes.	M	Use of dust suppressants. Proper blast design.	None.
		Equipment & blasting noise.	N	Muffling of equipment, avoidance of night time blasting. Proper blast design.	None.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Human/social health.	M	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.
		Traditional land use.	N	Permanent loss of terrestrial habitat , replaced with aquatic habitat.	Traditional use of land changed from terrestrial to aquatic.
OPERATIONS (Effects in addition to effects of development.)	Underground mining	Destabilization of ground.	M	Geotechnical design of construction and operation will ensure ground stability. Backfilling of workings.	None.
		Disturbance of permafrost.	N	Upper surface of permafrost affected only around portal. Deeper workings may pass through lower extent of permafrost.	None.
		Impairment of water quality.	U	Quality unknown, however water will be collected in sumps and treated to meet Licence/MMER guidelines before release to environment.	None.
		Generation of greenhouse gases.	N	Ensure vehicle engines properly maintained. No idling when not in use. Proper blast design.	Adds to Canada's emissions of greenhouse gases.
		Removal of rock.	N		Permanent excavations, mostly backfilled after excavation.
		Generation of dust and fumes.	M	Dust suppression, engines properly maintained, no idling when engines not in use. Proper blast design.	None.
		Equipment & blasting noise.	M	Confined underground. Ventilation fan noise on surface.	None.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Human/social health.	M/P	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.
	Mill operation	Impairment of water quality.	M	Water recycled in mill and/or reclaimed from tailings. Any final effluents treated to meet Licence/MMER guidelines before release to environment.	None.
		Mechanical noise.	N	Confined in mill building.	None.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Human/social health.	M	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
OPERATIONS (Effects in addition to effects of development.)	Ore stockpile management	Destabilization of ground.	M	Effective geotechnical design of stockpile base and construction.	None.
		Disturbance of permafrost.	M	Temporary, life of mine.	None.
		Disruption of drainage paths & small ponds.	M	Redirection of drainage during mine life; restoration on closure.	None.
		Impairment of water quality	M	Runoff water will be collected in sumps and treated to meet MMER/Licence limits before release to environment.	None.
		Soil contamination.	M	On closure, cover stockpile area with inert material. Permafrost will freeze up into capping.	None.
		Generation of greenhouse gases.	N	Ensure vehicle engines properly maintained. No idling when not in use.	Adds to Canada's emissions of greenhouse gases.
		Dust generation.	N	Temporary, life of mine. Use of dust suppressants impractical.	None.
		Machinery noise.	M	Ensure vehicle engines properly maintained. No idling when not in use.	None.
		Burial of vegetation.	N	Temporary, life of mine.	Stockpile area reclaimed after closure.
		Disruption of wildlife habitat.	M	Temporary, life of mine.	None.
		Disruption of bird habitat.	M	Temporary, life of mine.	None.
		Disruption of fish habitat.	M	Habitat replacement or improvement elsewhere	No net loss of habitat.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Traditional land use.	M	Temporary, life of mine.	None.
	Waste rock management	Destabilization of ground.	M	Effective geotechnical design of stockpile base and construction.	None.
		Disruption of permafrost.	M	Permafrost will freeze up into stockpile.	Stockpile becomes part of permafrost.
		Disruption of drainage patterns.	M	Redirection of drainage. Impact on ponds avoided to extent possible.	Permanent alteration of drainage paths.
		Impairment of water quality.	M	Runoff water will be collected in sumps and treated to meet MMER/Licence limits before release to environment.	None.
		Dust generation.	N	Temporary, life of mine. Use of dust suppressants impractical.	None.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
OPERATIONS (Effects in addition to effects of development.)	Waste rock management	Machinery noise	N	Ensure vehicle engines properly maintained. No idling when not in use	None
		Burial of vegetation.	N	Temporary, life of mine.	None.
		Intrusion into wildlife habitat.	M	Temporary, life of mine.	None.
		Intrusion into bird habitat.	M	Temporary, life of mine.	None.
		Loss of fish habitat.	M	Habitat replacement or improvement elsewhere	No net loss of habitat.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Traditional land use.	N	Temporary, life of mine.	None.
OPERATIONS (Effects in addition to effects of development.)	Tailings impoundment area	Destabilization of ground.	M	Effective geotechnical design and operations planning.	None.
		Filling of lake basin B7 with tailings.	N	Permanent loss of lake.	B-7 lake basin filled with tailings.
		Impairment of water quality.	M	Maximum retention of water in mill. Polishing pond before release of water to environment. Seasonal only.	None.
		Dust generation.	M	Progressive reclamation and final capping with inert material.	None.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Human/social health.	M	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.
		Traditional land use.	N	Loss of area to traditional land use during life of mine.	Substitution of terrestrial for aquatic use.
	Camp operation	Impairment of water quality.	M	Sewage treatment.	None.
		Litter, garbage.	M	Control litter by education, proper dispose of garbage.	None.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Human/social health.	M	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.
	Road operation	Dust impinging on water bodies close to the road	M	Dust suppression, road maintenance and controlled road speeds.	Will continue as long as road is used.
	Road Operation	Generation of greenhouse gases.	N	Ensuring vehicle engines properly maintained. No idling when not in use.	Adds to Canada's emissions of greenhouse gases.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
OPERATIONS (Effects in addition to effects of development.)	Road operation	Vehicle noise.	M	Minimize operations at night.	None.
		Wildlife disturbance/mortality.	M	Wildlife to have right of way. Controlled vehicle speeds. Continuous use will discourage denning in road itself. No hunting along road corridor.	None.
		Bird disturbance/mortality.	M	Birds to have right of way. Controlled vehicle speeds. Continuous use will discourage nesting in road itself. No hunting along road corridor.	None.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Community wellness.	P		Increased skills base. Long-term effects of life-of-mine tax revenue.
		Human/social health.	M	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.
		Traditional land use.	P		Improved access to land.
		Vegetation	M	Dust suppression	
		Generation of greenhouse gases.	N	Ensure incinerator properly maintained.	Adds to Canada's emissions of greenhouse gases.
OPERATIONS (Effects in addition to effects of development.)	Waste incineration	Inert waste reduction	P	Less material to go into Rankin Inlet landfill	None.
		Air quality	M	Incinerator will be dual chamber and will be operated according to manufacturer's specifications.	None.
		Community wellness.	P	Demonstrating the means of controlling waste materials.	Increased skills base that is transferable to waste management in communities.
		Generation of greenhouse gases.	N	Ensuring generators properly maintained.	Adds to Canada's emissions of greenhouse gases.
	Power generation	Air quality	M	Diesel generators will be maintained to minimize emissions and work efficiently	None.
		Generation of greenhouse gases.	N	Ensuring vehicle engines properly maintained. No idling when not in use.	Adds to Canada's emissions of greenhouse gases.
	Equipment emissions	Air quality	M	Ensuring vehicle engines properly maintained. No idling when not in use.	None.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
OPERATIONS	Equipment emissions	Disruption of permafrost.	P	Cessation of pit mining will allow re-establishment of permafrost.	Permafrost will advance to pit outline.
DECOMMISSIONING (Effects are of the work itself. Results of the work are residual effects.)	Pits closure	Water quality in pits.	M	Pits will naturally fill with water	None.
		Machinery noise.	N	Temporary.	None.
		Vegetation.	P		Re-establishment of vegetation on pit edges and haul roads.
		Wildlife habitat restored.	P	Continued disturbance during reclamation work. Some pits are to be back filled at F Zone	Re-establishment of habitat when operations cease.
		Bird habitat restored.	P	Continued disturbance during reclamation work.	Re-establishment of habitat when operations cease.
		Fish habitat restored.	P	No disturbance during reclamation work.	Expanded fish habitat as pits naturally fill with water. Possible habitat compensation.
		Employment.	P	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Increase skills base transferable to other mines or other industry.
		Community wellness.	N		Loss of local employment & tax revenues, unless other mines or industries established.
		Human/social health.	M	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Increase skills base transferable to other mines or other industry.
		Traditional land use.	P		Traditional land use restored.
		Disturbance of permafrost.	P	No further excavation or disturbance of permafrost.	Re-establishment of permafrost, closure and reclamation of portal.
DECOMMISSIONING (Effects are of the work itself. Results of the work are residual effects.)	Underground mine closure	Vegetation.	P		Re-establishment of vegetation following reclamation of portal area.
		Wildlife habitat restored.	P		Re-establishment of wildlife habitat over portal area following reclamation
		Bird habitat restored.	P		Re-establishment of bird habitat over portal area following reclamation
		Employment.	P	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Increase skills base transferable to other mines or other industry.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
DECOMMISSIONING (Effects are of the work itself. Results of the work are residual effects.)	Underground mine closure	Community wellness.	N	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Loss of local employment & tax revenues, unless other mines established.
		Human/social health.	M/P	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Loss of local employment, unless other mines established, but enhanced skills base and earning power.
		Traditional land use.	P		Traditional land use fully restored.
		Dust generation.	N	Temporary during reclamation work.	None.
	Mill & plant dismantling	Employment.	P	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Increased skills base, but loss of local employment, unless other mines established.
		Human/social health.	M	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Loss of local employment, unless other mines established, but enhanced skills base and earning power.
		Vegetation	P		Re-establishment of vegetation following reclamation.
		Disruption of permafrost.	P		Permafrost will freeze up into remaining stockpiles.
	Stockpile reclamation	Disruption of drainage patterns.	P		Re-establishment of pre-existing drainage patterns to the extent possible.
		Dust generation.	M	Use of dust suppressants impractical. Temporary during reclamation work.	None.
		Machinery noise.	N	Temporary during reclamation work.	None.
		Vegetation.	P		Re-establishment of vegetation.
		Employment.	P	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Increased skills base transferable to other mines or other occupations.
		Traditional land use.	P		Traditional land use fully restored.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
DECOMMISSIONING (Effects are of the work itself. Results of the work are residual effects.)	Tailings impoundment area reclamation	Permafrost.	P		Permafrost will freeze up into tailings.
		Hydrology/limnology.	P		Re-establishment of natural drainage patterns.
		Impairment of water quality.	M	Temporary during reclamation.	None.
		Dust generation.	M	Temporary during reclamation.	None.
		Machinery noise.	N	Temporary during reclamation.	None.
		Vegetation.	P		Tailings area will revegetate.
		Wildlife habitat restored.	M	Continued disturbance during reclamation work.	Re-establishment of habitat when reclamation complete.
		Bird habitat restored.	M	Continued disturbance during reclamation work.	Re-establishment of habitat when reclamation complete.
		Fish habitat replaced.	P		Re-establishment of aquatic life in natural drainage around tailings management area.
		Employment.	P	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Increased skills base transferable to other mines or other occupations.
		Human/social health.	M	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Increased skills base transferable to other mines or other occupations.
		Traditional land use.	P		Traditional land use restored.
	Waste rock management area reclamation	Stability	P	Contouring the waste rock management area	None.
		Permafrost	P		Permafrost will move in the area
		Water quality	P	Contouring of the area will reduce erosion	None.
		Vegetation	P	Contouring the area will encourage establishment of vegetation	Vegetation will establish over time
		Bird habitat restored	P	Continued disturbance during reclamation work.	Birds will begin to use the area following reclamation.
		Wildlife habitat restored	P	Continued disturbance during reclamation work.	Wildlife will begin to use the area following reclamation.
		Employment	P	Employment during reclamation	Increased skills base transferable to other mines or other occupations.
		Traditional land use	P		Traditional land use restored.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
DECOMMISSIONING (Effects are of the work itself. Results of the work are residual effects.)	Overburden Management area reclamation	Stability	P	Contouring of the overburden management area	None.
		Permafrost	P		Permafrost will move into the area
		Water Quality	P	Contouring of the area will reduce erosion	None.
		Vegetation	p	Contouring the area will encourage establishment of vegetation and improve water quality	Vegetation will be established over time
		Bird habitat restored	P	Continued disturbance during reclamation work.	Birds will begin to use the area following reclamation.
		Wildlife habitat restored	P	Continued disturbance during reclamation work.	Wildlife will begin to use the area following reclamation.
		Employment	P	Employment during reclamation	Increased skills base transferable to other mines or other occupations.
		Traditional land use	P		Traditional land use restored.

Appendix D

Confirmation Letter sent to the Department of Fisheries and Oceans to abide by the Applicable *Operating Statements* and to apply for an *Authorization for Works or Undertaking Affecting Fish Habitat*.

24 February 2010

KIA File Number:

Gary Cooper
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Nicola Johnson
Environmental Assessment Analyst
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RE: Meliadine Gold Project: Fisheries and Oceans: Conformity with DFO - Operational Statements for Nunavut and Application for an Authorization for Works or Undertakings Affecting Fish Habitat: NIRB Part 2 Screening Form, Query 10

Dear Mr. Cooper and Ms. Johnson,

Comaplex Mineral Corp. is proposing to construct and operate a gold mine approximately 25 km north of Rankin Inlet known as the Meliadine Gold Project. Work on the Project will occasionally take place in and around fish habitat, which will cause us to follow the appropriate DFO Operational Statements for Nunavut.

The Operational Statements applicable to the Meliadine Gold Project include:

- Timing Windows,
- Clear Span Bridges,
- Bridge Maintenance,
- Culvert Maintenance,
- Ice Bridges and Snow Fills,
- Mineral Exploration Activities, and
- Temporary Stream Crossing.

Comaplex agrees to meet the conditions and incorporate the appropriate measures to protect fish and fish habitat as outlined in the applicable Operational Statements.

For your information, a narrative of anticipated activities expected in constructing and operating the proposed mine is provided in the attached Preliminary Project Description. These activities will be expanded upon in the draft Environmental Impact Statement.

In outlining the project to DFO in late August – early September 2009, it was agreed that an *Authorization for Works or Undertakings Affecting Fish Habitat* will be required for the Project to remain in compliance with the Fisheries Act. We acknowledge an authorization is only possible following receipt of a Project Certificate from the Nunavut Impact Review Board. Nonetheless, during the interim period and prior to the Project Certificate being issued, we

propose that negotiations take place which would allow all authorizations to be granted shortly following completion of the Environmental Assessment Process.

Comaplex and its consultants continue to develop options for a no-net-loss plan and propose meeting with DFO in early 2010 to present various proposals in how the Project will meet the objectives of the Management of Fish Habitat Policy.

Should you require further information or clarification on this letter or the Preliminary Project Description, please do not hesitate in contacting either myself or John Witteman at 403 750 2570 or JWitteman@Comaplex.com.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Mark Balog', written over a horizontal line.

Mark Balog
Chief Operating Officer

Cc. Nunavut Impact Review Board
Nunavut Planning Commission
John Witteman, Environmental Consultant
Shanon Leggo, Golder Associates