APPENDIX 2:

PIN-D ROSS POINT INTERMEDIATE
DISTANT EARLY WARNING (DEW)
LINE SITE REMEDIATION PROJECT

NUNAVUT IMPACT REVIEW BOARD PART 2 FORM – PROJECT SPECIFIC INFORMATION REQUIREMENTS

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 or web sites 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 shapefiles, be legible, and should include grids, be of appropriate scale, indicate the scale, include latitude and longitude references, NTS Maps numbers, title, legend and a north arrow. To the extent possible, avoid hand-drawn demarcations and faxed maps; 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:

   - Area/sites of investigation;
   - Boundaries of the foreseen land use permit/right-of-way area(s) to be applied for;
   - Location of any proposed infrastructure or activity(s); and,
   - Boundaries of the mineral claim block(s) where proposed activities will be undertaken.

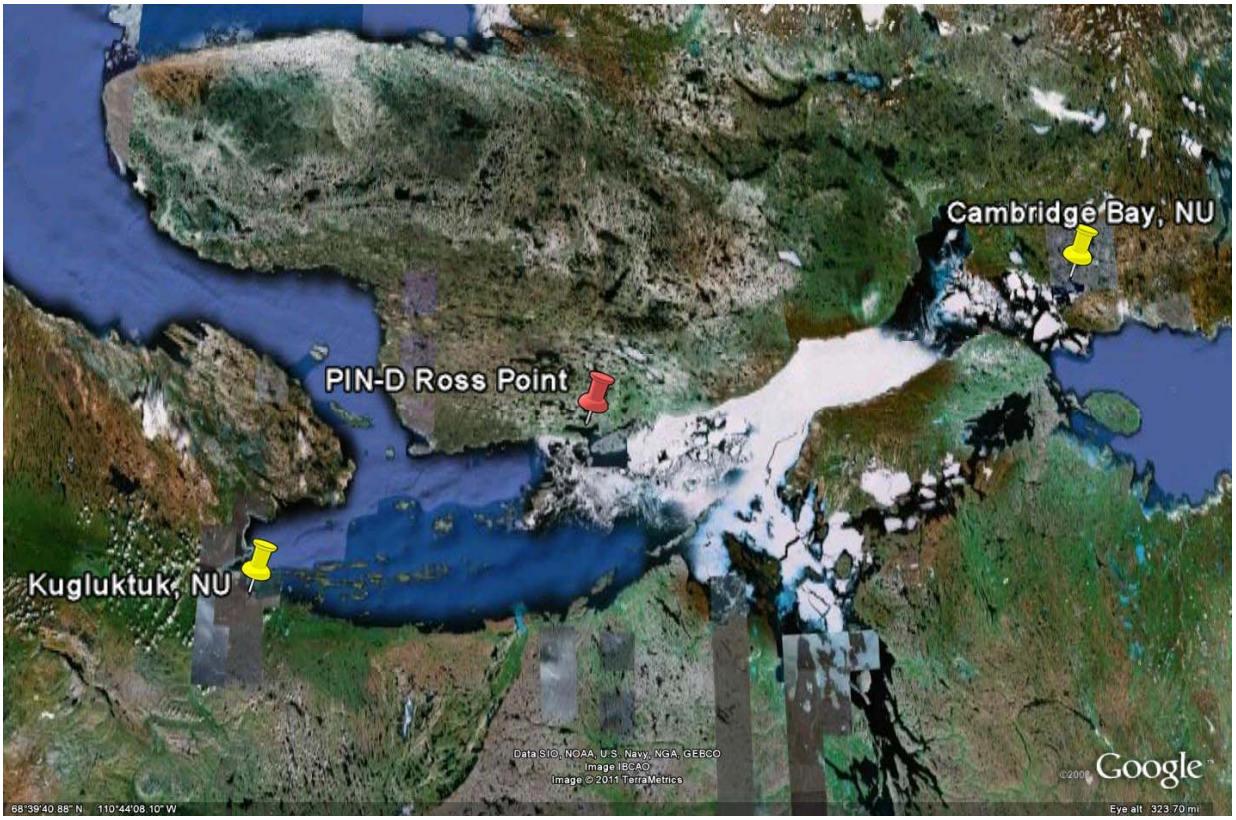
   PIN-D Ross Point is located on the south coast of Victoria Island, Nunavut, on the north shore of Johansen Bay, approximately 500 metres from the coast. The nearest community is Kugluktuk, located approximately 185 kilometres to the southwest. The proposed site activities will take place within the boundaries detailed below:

   NW: Latitude: (68°36'45" N) Longitude: (111°09'45" W)
   NE: Latitude: (68°36'45" N) Longitude: (111°05'34" W)
   SE: Latitude: (68°35'19" N) Longitude: (111°05'34" W)
   SW: Latitude: (68°35'33" N) Longitude: (111°13'35" W)

   Additional Site Maps and Drawings are provided in Appendix 5. Further details on site activities are available in the Remedial Action Plan (RAP) which can be found in Appendix 4.

2. Map of the project site within a regional context indicating the distance to the closest communities.

   The closest community to PIN-D Ross Point is Kugluktuk, approximately 185 kilometres to the southwest. Cambridge Bay is the next closest community, it is located approximately 250 kilometres to the east. See map below.



3. Map of any camp site including locations of camp facilities.

   The proposed location of the camp facilities is on a pull-out section of the road (GPS Coordinates 68°35'49.00" N, 111°06'50.00" W). The approximate location is indicated in the figure below (see Appendix 5 for additional Site Maps and Drawings). The exact location of the camp may change once a contractor is selected.

4. Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat.

   Detailed maps of the project site are provided in Appendix 5 and in the Remedial Action Plan (Appendix 4).

Project General Information

5. Discuss the need and purpose of the proposed project.

   The purpose of the PIN-D Ross Point Remediation Project is to eliminate/reduce the hazards (human health and environmental) associated with the former Intermediate Distant Early Warning (DEW) Line site. The hazards at the site include PCBs, heavy metals, asbestos, petroleum hydrocarbons, and physical hazards associated with the site infrastructure and debris.

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

   Alternative methods for carrying out the project are discussed in the PIN-D Remedial Action Plan (Appendix 4). The Remedial Action Plan also provides justification for the methods chosen based on eliminating/reducing the hazard and the associated costs.

7. Provide a schedule for all project activities.

   A project schedule is provided in Appendix 7. The current plan is to mobilize to the site in the summer of 2011 and start remedial works. Remedial activities will be completed during the summer of 2012 and the equipment and materials will be demobilized from the site.

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

   The project is being undertaken in accordance with the following federal and departmental regulations and policies:
   - **Nunavut Land Claim Agreement (Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada, 1993)**
   - **Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (CCME, 1999)**
   - **Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME, 1999)**
   - **Canadian Environmental Protection Act (EC, 1999)**
   - **Nunavut Waters and Surface Rights Tribunal Act (2002)**
   - **Nunavut Environmental Guideline for Waste Asbestos (2002)**
   - **Contaminated Sites Management Policy (INAC, 2002)**
   - **Northern Affairs Contaminated Sites Management Policy (INAC, 2002)**
   - **A Federal Approach to Contaminated Sites (CSMWG, 2002)**
   - **Risk Management Guidance Document (INAC, 2006)**
   - **Contaminated Sites Cost Estimating Guide (INAC, 2006)**
   - **Treasury Board Policy on Management of Real Property (TB, 2006)**
   - **Risk Management Tool & Reporting Tool User Guide (INAC, 2007)**
   - **Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil (CCME, 2008)**
   - **Environment, Health & Safety Management System Manual (INAC, 2008)**
   - **Environment, Health & Safety Standard Operating Procedures Manual (INAC, 2008)**
   - **Environment, Health & Safety Control Framework, Northern Contaminated Sites Program (INAC, 2008)**
   - **Environment, Health & Safety Audit Program Guide (INAC, 2008)**
   - **Construction Project Safety Management Guide, 5th Edition (PWGSC, 2008)**
   - **PCB Regulations (EC, 2008)**
   - **Abandoned Military Site Remediation Protocol (INAC, 2009)**

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

   The approvals, permits and licenses required include:
   - **Water Licence (Nunavut Water Board)**

- **Crown Land Use Permit (Indian and Northern Affairs Canada)**
- **Crown Land Quarry Permits (Indian and Northern Affairs Canada)**
- **Inuit Owned Land Access Permit (Kitikmeot Inuit Association)**

DFO Operational Statement (OS) Conformity

10. Indicate whether any of the following Department of Fisheries and Oceans (DFO) Operational Statement (OS) activities apply to the project proposal:
    - Bridge Maintenance
      - Not Applicable
    - Clear Span Bridge
      - Not Applicable
    - Culvert Maintenance
      - Yes
    - Ice Bridge
      - Not Applicable
    - Routine Maintenance Dredging
      - Not Applicable
    - Installation of Moorings
      - Not Applicable

    Please see DFO's OS for specific definitions of these activities available from DFO's web-site at http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/index-eng.htm

11. 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.

    Indian and Northern Affairs Canada agrees to meet the conditions and incorporate the measures to protect fish and fish habitat as outlined in the applicable Operational Statements.

Natalie Plato — April 7, 2011

Natalie Plato
Director – Contaminated Sites

Date

Transportation

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

    Equipment and materials will be mobilized to the site via sealift/barge. The sealift/barge will land at the beach area located on the west end of the

site. Perishables and other material will be brought to the site on charter aircraft.

13. 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 (if applicable) and provide a map showing location of airstrip.

    An abandoned airstrip exists at the site. This airstrip will be used throughout the remediation activities. Minor repairs to the airstrip will be completed on an as-needed basis. The airstrip is approximately 500 metres long and is oriented in a east-west direction. Maps showing the airstrip can be found in Appendix 5.

14. If an airstrip is being constructed, provide the following information:
    a. Discuss design considerations for permafrost
       - Not Applicable

    b. Discuss construction techniques
       - Not Applicable

    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).
       - Not Applicable

    d. Describe dust management procedures.
       - Not Applicable

    e. Provide a map showing location of proposed airstrip.
       - Not Applicable

15. Describe expected flight altitudes, frequency of flights and anticipated flight routes.

    Flights will fly at a minimum altitude of 1,100 metres and maintain a minimum horizontal distance of 1,500 metres from concentrations of birds. Flights to and from the site will occur one to two times per week. The flight route will be from Cambridge Bay to PIN-D (return) with stops in Kugluktuk and at PIN-E.

Camp Site

16. Describe all existing and proposed camp structures and infrastructure

    Existing infrastructure at the site includes:
    - **Module Train Building**
    - **Garage**
    - **Inuit Hut Buildings**
    - **Downed antenna**

- **Fuel line**

All existing structures will be demolished as part of the remedial activities

Proposed infrastructure (to support remedial activities) includes:

- **Temporary camp (including a sewage lagoon and incinerator for waste treatment and disposal)**
- **Temporary garage**

17. Describe the type of camp:
    a. Mobile
       - Yes, camp will consist of mobile camp units transported to site
    b. Temporary
       - Yes, camp facility will be removed upon project completion
    c. Seasonal
       - Yes, camp will operate seasonally between July and September for parts of two summers (2011 & 2012)
    d. Permanent
       - No
    e. Other
       - Not applicable

18. Describe the maximum number of personnel expected on site, including the timing for those personnel involved with the project.

    The maximum number of personnel expected to be on site is 50. Site activities will take place from July to September each year. The number of Personnel on site will be lower at the beginning and end of each season as the camp is set-up/decommissioned/winterized.

Equipment

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

    The equipment required to complete the project includes:

    - **2 x Loaders**
    - **2 x Bulldozers**
    - **2 x Excavators**
    - **1 x Grader**
    - **1 x Compactor**
    - **2 x Rock Trucks**
    - **2 x Tandem Dump Trucks**
    - **4 x Crew-Cab Pick-Up Trucks**
    - **4 x ATVs**
    - **1 x Incinerator**

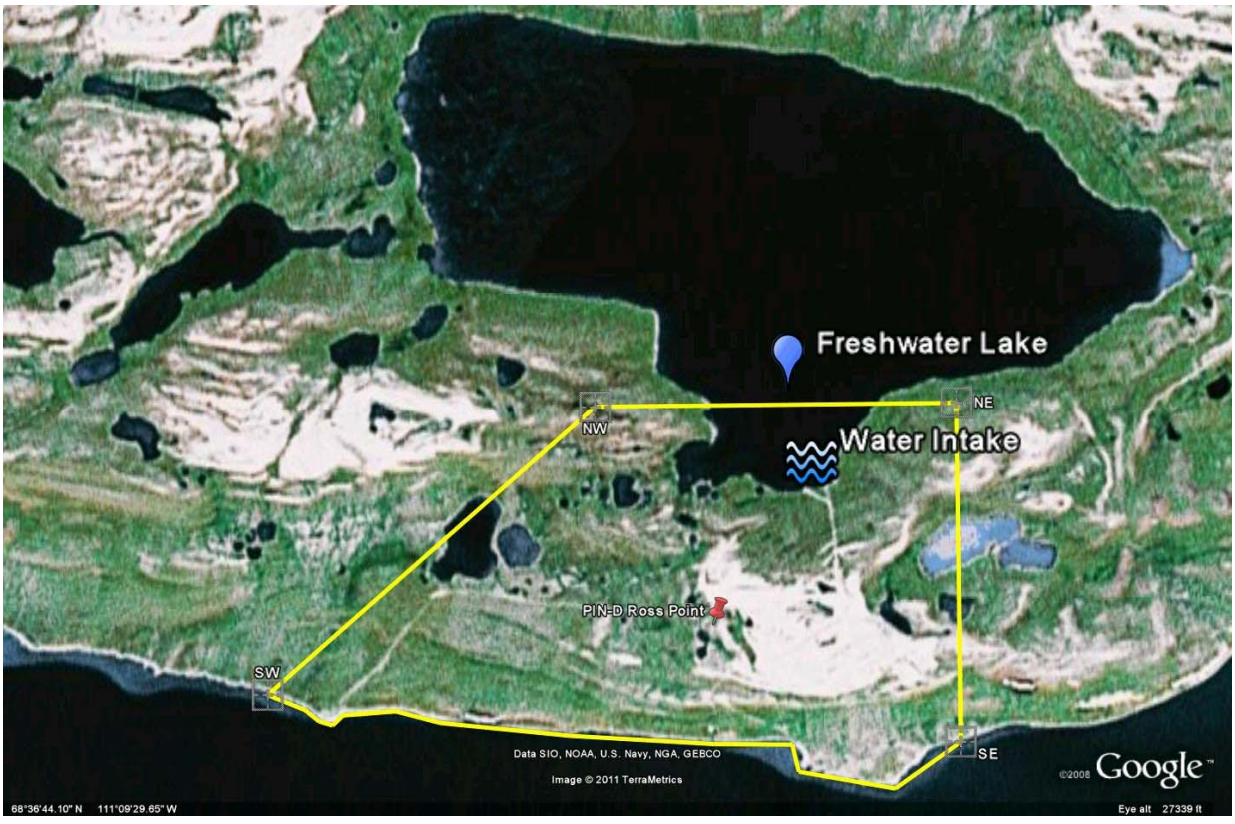
20. If possible, provide digital photos of equipment.

Not available

Water

21. 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.

Water will be sourced from the Freshwater Lake located to the north of the site (GPS Coordinates 68°36'48.87"N, 111°07'31.06"W). Water will be pumped from the lake into a tank on either a truck or trailer. It will then be transported to the camp and pumped into the camp tank. The water intake hose (GPS Coordinates 68°36'23.70"N, 111°07'15.35"W) will be covered with a screen (maximum screen size of 2.54 millimetres and maximum screen approach velocity of 0.038 metres/second) to ensure that no fish become trapped. The figure below shows the Freshwater Lake and the water intake location. Additional figures are provided in Appendix 5.



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

Total water consumption is estimated to be 7.0 cubic metres per day:

- **115 litres/day x 50 people (max) = 5,750 litres/day**

- **1,250 litres/day for miscellaneous activities (i.e. equipment and barrel washing)**

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

Both black and grey water will be directed into a sewage lagoon system. This system will consist of two independently operated temporary lagoons. Each lagoon will have an individual capacity for 45 days of wastewater storage or one half of the duration of the construction season, whichever is more. Maximum fluid depth will not exceed one metre. The location of the lagoons will be a minimum of 100 metres from the construction camp or other temporary facilities and drainage paths, and downwind of the construction camp (based on the prevailing wind direction). Discharge criteria will be as follows:

- **Biological Oxygen Demand (BOD) – 80 mg/kg**
- **Total Suspended Solids (TSS) – 100mg/kg**
- **Fecal Coliforms – 1 x 104 CFU/100 mL**
- **pH – 6.0 to 9.0**
- **Oil and Grease – no visible sheen**

See Appendix 5 for additional details on the sewage lagoons.

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

- Not applicable

Waste Water (Grey water, Sewage, Other)

25. Describe the quantities, treatment, storage, transportation, and disposal methods for the following (where relevant):
    - Sewage

The quantity of sewage (black water) that will be generated is estimated to be 1.5 cubic metres per day:

- **30 litres/day x 50 people (max) = 1,500 litres/day**

The sewage will be directed into a sewage lagoon system (as described in #23 above).

- Camp grey water

The quantity of camp grey water that will be generated is estimated to be 4.0 cubic metres per day:

- **80 litres/day x 50 people (max) = 4,000 litres/day**

The camp grey water will be directed into a sewage lagoon system (as described in #23 above).

- Combustible solid waste

Combustible solid waste generated from camp operations will be incinerated in an on site incinerator.

- Non-combustible solid waste, including bulky items/scrap metal

Non-combustible solid waste collected around the site and generated during site operations will be disposed of in the on-site Non-Hazardous Waste Landfill (NHWL) that will be constructed.

- Hazardous waste or oil

All hazardous wastes and oil will be packaged as per Transportation of Dangerous Goods (TDG) requirements and shipped south to a facility licenced to dispose of the hazardous materials.

- Contaminated soils/snow

Contaminated soils will be handled as described in the Remedial Action Plan (Appendix 4). To summarize:

- **Tier I soil (204 cubic metres) – to be disposed of in the NHWL that will be constructed.**
- **Tier II soil (244 cubic metres) – packaged and transported south to a licenced disposal facility.**
- **Type B (hydrocarbons) soil (622 cubic metres) – to be treated in an on site landfarm.**

- Empty barrels/ fuel drums

Empty barrels/fuel drums will be handled as per the Barrel Protocol described in the Abandoned Military Site Remediation Protocol (INAC 2009) which can be found in appendix D of the Remedial Action Plan (Appendix 4).

- **Barrels will be inspected, sampled, tested, have any contents removed and treated, cleaned, crushed, and disposed of in the NWHL that will be constructed.**
- **510 barrels have been identified at PIN-D**
- **Additional barrels resulting from remedial activities will be handled in the same manner.**

- Any other waste produced

- None identified at this time.

26. 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 Landfill will be located in the area identified as Landfill 1 in the Remedial Action Plan (Appendix 4). It is located immediately east of the main station area (GPS Coordinates 68°35'44.52"N, 111°06'34.78"W) and is indicated on the figure below. Additional maps showing the landfill can be found in Appendix 5.

The Landfarm will be located in the area identified as Landfarm C in the Remedial Action Plan (Appendix 4). It is located along the access road to the West Beach Area, approximately 1.2 kilometres from the main station area (GPS Coordinates 68°35'54.78"N, 111°08'50.73"W) and is indicated in the figure below. Additional maps showing the Landfarm can be found in Appendix 5.

A Summary of the Landfill construction and operation details are provided below:

- **The Landfill will be constructed to the specifications detailed on Figures C07, C10, C11 and C12 in Appendix 5.**
- **Monitoring wells will be installed prior to placing any material in the Landfill**

- **Lay out work in detail from survey control points. Verify the original ground topography by survey. If survey verification is not completed, original ground is to be as shown on the Drawings**
- **Construct perimeter berms of granular fill to the dimensions as indicated.**
- **Landfilling Non-Hazardous Wastes**
    - **Place Non-Hazardous Wastes in the designated area(s) in uniform, horizontal lifts between and against the berm as shown on the Drawings. The thickness of each waste lift is to be such that all voids within the waste can be filled with intermediate cover. The maximum thickness of each waste lift is to not exceed 0.5 metres.**
    - **Compact waste during placement with a double steel drum compactor or approved alternative during placing and spreading of the waste material. The equipment must be capable of crushing demolition debris.**
    - **For placement in landfills, cut all demolition material and debris as required:**
        - **to minimize displacement and lifting of landfilled materials resulting from landfill compaction operations;**
        - **so that the maximum depth of any one material component within the landfill does not exceed 0.5 metre; and to satisfy the overall landfill dimension requirements as indicated on the Drawings.**
        - **large equipment/vehicles shall be cut to length and reduced in volume at the recommendation and discretion of the on-site Departmental Representative.**
- **Cut structural steel materials into separate members prior to placement in landfills. Place large materials including structural steel members, timbers, communication dishes, etc. on the base of the landfill or on the base of an intermediate cover layer so that the materials lay on a compacted, flat surface. Cut hollow components or objects, such as tanks, as required, to allow for nesting of materials. As a minimum, hollow components are to be cut in half parallel to the lengthwise axis. Within the landfill, support the underside of nested materials with intermediate cover or other debris material to minimize displacement and lifting of materials.**
- **Segregate all metal demolition material and debris from other material when placed in the landfill. The proposed location of the metal waste area within the landfill shall be reviewed by the Departmental Representative.**
- **Segregate all asbestos material from other material, and consolidate in one single location within the landfill. The proposed location of the asbestos waste within the landfill is to be reviewed**

by Departmental Representative. Record the specific location and depth of this material on the Project Record Drawings.

- Hand place double bagged asbestos in the landfill. Provide daily intermediate cover of minimum 150 mm Type 6 fill on asbestos waste. Do not operate equipment directly on asbestos waste containers. Replace ripped or torn asbestos waste bags. Location and quantity of asbestos shall be surveyed and recorded on the final landfill as-built drawings.
- Crush, cut or shred barrels to be landfilled on site to reduce the total original barrel volume by a minimum of 75%.
- Place Tier I Contaminated Soils as intermediate cover to a maximum loose thickness of 150 mm over each layer of non-hazardous material or as required to infill voids within the waste layer, and compact with the random action of tracked equipment. Make sufficient passes with the tracked equipment to subject every point on the surface to a minimum of three separate passes
- The number of layers of 150 mm deep intermediate cover to be placed within the landfill is dependent on the total depth of waste material to be placed as follows:

TOTAL WASTE MATERIAL DEPTH	# OF INTERMEDIATE COVER LAYERS
< 0.5	1
>= 0.5 metre, <1.0 metre	2
>= 1.0 metre, <1.5 metre	3
>= 1.5 metre, <2.0 metre	4
>= 2.0 metre, <2.5 metre	5
>= 2.5 metre, <3.0 metre	6

- Place additional Intermediate Fill material on the final lift of debris to a level that all debris is covered prior to placement of Type 2 cover.
- Stockpile Intermediate Fill adjacent to landfilling operations. Ensure that a stockpile is continuously maintained.
- Place and compact to a minimum of 95% of Maximum Dry Density, additional intermediate cover material, as required, to completely infill voids within the waste layer prior to proceeding with the placement of the next overlying waste layer and prior to placement of final cover.
- Take special care to place and compact intermediate cover material against exposed rock faces and areas inaccessible to tracked compaction equipment to specified requirements.
- Dewater the landfill, as required, to maintain the facility free of standing water during landfilling activities. Comply with the requirements of the Wastewater Discharge Criteria. Provide

temporary storage and/or necessary treatment for all Wastewater to be able to meet the Wastewater Discharge Criteria and allow for discharge.

- **In the event that the landfill is not constructed, filled, and capped in one construction season, winterize the landfill by placing and compacting a temporary 0.5 metre cap of clean material over extents of placed waste. The temporary cap will be removed at the beginning of the following construction season prior to placing additional waste.**
- **Do not place final cover (Type 2 Granular Fill) until Departmental Representative has determined that there is sufficient Type 6 intermediate cover.**
- **Construct final cover over landfill to the specified thicknesses and grades as indicated.**

A summery of the Landfarm construction and operation details are provided below:

- **The Landfarm will be constructed to the specifications detailed on Figures C04, C09 and C12 in Appendix 5.**
- **Monitoring wells will be installed prior to placing any material in the Landfarm**
- **Material will be placed in the Landfarm to a maximum loose thickness of 400 mm**
- **Nutrients will be added to the Landfarm as required**
- **The moisture content of the Landfarm will be maintained at approximately 5%**
- **Tilling will be completed once every 10 days. During extended warm, dry periods the frequency will be increased to once every 5 days**
- **Tilling and irrigation will be suspended if the average daily temperature is below 0°C for a over 5 days**
- **The perimeter water collection system will be inspected weekly and after any precipitation event to ensure it does not overflow**
- **Contact water collected will be tested, treated as required, and discharged once Water Licence discharge criteria are met**
- **When operations are complete the Landfarm will be closed by taking confirmatory samples, removing the perimeter berms, regrading the area to fill in ditches and prevent ponding, and decommissioning of the monitoring wells.**

Fuel

27. 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.

The table below provides a summary of the fuel types, quantities, container types and storage methods that we anticipate using:

FUEL TYPE*	QUANTITY (Estimated)*	CONTAINER (Type / # / Capacity)*	METHOD OF STORAGE*
Diesel	205,000 litres	Tanks / TBD / TBD	Tanks registered with Environment Canada Federal Registry for Storage Tank Systems
Gasoline	10,250 litres	Drums / 50 / 205 litres	On pallets, 4 drums each, strapped
Aviation Fuel	5,125 litres	Drums / 25 / 205 litres	On pallets, 4 drums each, strapped
Propane	500 pounds	Cylinders / 5 / 100 pounds	Cylinders will be transported/stored in a cage where they are strapped to prevent movement

*** Subject to change by the contractor**

The fuel will be stored near the camp but at least 100 metres from the camp facilities. See the camp location indicated in the map provided for question 3.

28. 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.

All fuel tanks and drums will be stored together. The storage area will be inspected daily. Drums that are in use will be stored in insta-berms (or similar) to contain any spills. Spill kits and empty drums or tanks will be kept in near the storage area so that any spills can be contained and cleaned up.

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

An electric pump will be used to transfer fuel from the drums into the equipment or tank. All fuel transfers will be supervised and spill kits will be readily available to address any spills. Further information is provided in Appendix F of the Site Specific Health & Safety Plan (Appendix 11).

30. Describe spill control measures in place.

    All fuel transfers will be supervised and spill kits will be readily available to address any spills. The exact location and contents of the spill kits will be determined by the contractor. Further information is provided in Appendix F of the Site Specific Health & Safety Plan (Appendix 11).

Please refer to Environment Canada's fuel storage tank system regulations (*Storage Tank System for Petroleum and Allied Petroleum Products*) website at http://www.ec.gc.ca/st-rs/ for details on fuel storage requirements.

Chemicals and Hazardous Materials*

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

31. 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.

    A small amount of oil and grease will be brought to site to complete the maintenance requirements for the equipment on site. These will be transported as per the requirements of the Transportation of Dangerous Goods (TDG) Act & Regulations. The oil and grease will be stored in the fuel storage area until used. Used oil and grease will be collected and shipped off site for disposal at a licenced disposal facility. The exact quantities of these will be determined once a contractor is hired.

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

    The secondary containment that will be employed are insta-berms (or similar) for the products that are in use.

33. Describe the method of chemical transfer.

    Not applicable

34. Describe spill control measures in place.

    Spill kits will be readily available on all equipment and in areas that the oil and grease are being used. Further information is provided in Appendix F of the Site Specific Health & Safety Plan (Appendix 11).

Workforce and Human Resources/Socio-Economic Impacts

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

    The contract for remedial activities contains an Aboriginal Opportunities Considerations (AOC) clause that requires the contractor to maintain a target level of Inuit employment on the project (and applies a penalty if the contractor fails to meet the target level). The AOC for PIN-D guarentees an Inuit employment level of 75%. The AOC also guarentees a minimum of 80% Inuit subcontracting.

    The contract also contains a training fund that will allow the contractor access to up to 2% of the contract value, to a maximum of $200,000, to provide training programs to local Inuit beneficiaries.

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

    The workforce will be mobilized to site from Kugluktuk and Cambridge Bay via charter aircraft. Work will take place during August to October in the first year and then between June and September of the second year. The exact schedule will depend on the contractor hired and the sealift/barge schedules. Workers will work on a rotational schedule to be determined by the contractor.

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

    Not applicable

Public Involvement/ Traditional Knowledge

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

    This project is closest to Kugluktuk. Residents of Kugluktuk will be positively affected by this project and the employment/training opportunities it provides. The project will also remove hazardous materials from the environment; this will benefit human and environmental health in the area.

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

    A community consultation was held in Kugluktuk in January 2010 to discuss the draft Remedial Action Plan (RAP) prior to it being finalized. A meeting was also held with the Kitikmeot Inuit Association in Kugluktuk to inform them of the project plan.

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

    No concerns were raised during the community meeting in Kugluktuk.

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

    During the Phase III Environmental Site Assessment a meeting was held with 4 elders from Cambridge Bay to gather knowledge about the site. During this meeting the elders told us the area is sometimes used for polar bear hunting. The elders also expressed that they were happy with the efforts being made to clean up the site.

42. Discuss future consultation plans.

    Additional community meetings will be held in Kugluktuk. The first will be in June/July 2011 to tell people about the plan for this summer and potential employment/training and sub-contracting opportunities. There will also be a meeting held prior to the 2012 works (May/June 2012) and one at the conclusion of the work in either late 2012 or early 2013. The purpose of the final meeting will be to let the community know the results of the work.

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.

Table 1: Project Type and Information Required

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

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)

   Not applicable. Only pre-existing roads/trails on site will be used.

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

   Not applicable. Only pre-existing roads/trails on site will be used. See Appendix 5 Site Maps and Drawings for additional details.

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 pre-existing roads/trails on site will be used during the field season (July-October).

4. Discuss public access to the road.

   Public access will not be permitted.

5. Describe maintenance procedures.

   Maintenance will be performed as required and include the addition of material, compaction, and culvert installation and replacement.

A-2. All-Weather Road/Access Trail

6. Discuss road design considerations for permafrost.

   Not applicable. Only pre-existing roads/trails on site will be used.

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

   Not applicable. Only pre-existing roads/trails on site will be used.

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

   Not applicable. Only pre-existing roads/trails on site will be used.

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

   See Appendix 5 - Site Maps and Drawings.

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

    Speed limit will be 30 kilometres per hour. No public access permitted.

11. Describe dust management procedures.

    None planned. If necessary, dust will be suppressed by adding water to the roads.

A-3. Winter Road/Trail

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. No winter road planned.

13. Describe the operating time period.

    Not applicable. No winter road planned.

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

    Not applicable. No winter road planned.

15. Discuss whether the selected route traverses any fish-bearing water bodies.

    Not applicable. No winter road planned.

SECTION B: Mineral Exploration /Advanced Exploration /Development

B-5 Stripping/ Trenching/ Pit Excavation

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

   Mechanical, excavations will be completed with an excavator.

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

   The dimensions of the borrow areas that will be developed are indicated on the Site Maps & Drawings in Appendix 5. Further information on the borrow areas is provided in the table below:

Borrow Area	Material Type	Estimated Volume (m^3)	Comments
1A	Type 1	5,000	Disturbed area with coarse material. Identified in Site Investigation plan as potential source of Type 2 granular fill.
1B	Type 2	25,000	Disturbed Area. Identified in Site Investigation planning as potential source of Type 2 granular fill.
2	Type 2A	20,000	Disturbed area east of station. Identified in Site Investigation plan as potential source of Type 2 granular fill. May have been former borrow but most material appears to remain.
3	Type 4	12,000	Undisturbed area at edge of cliff. Identified in Site Investigation plan as potential source of Type 4 granular fill. Material would require blending to produce Type 4 granular fill.
4	Type 1/2A	1,000	Potential source of Type 1 or 2A but area has been scraped close to bedrock. Limited volumes available.
5	Type 2/5/6	100,000	Area to south is disturbed (former borrow) with one stockpile of Type 2 material in old borrow pit. Area to north also disturbed (former borrow). Type 5 requires screening.
6	Type 4	20,000	Undisturbed area with silt mounds. Material would require blending to produce Type 4 granular fill.
7	Type 2	20,000	Disturbed area E of primary airstrip (former borrow). Some portions scraped to bedrock.
8	Type 2/6	25,000	Would need to leave 1 side for road access.
9	Type 2/5	25,000	Disturbed area (former borrow)

3. Indicate the locations on a map.

   See Appendix 5 - Site Maps and Drawings.

4. Discuss the expected volume material to be removed.

   The expected volume of material required for the project is summarized below:
   - **Type 2 Granular Fill = 10,000 cubic metres**
   - **Type 3 Granular Fill = 1,500 cubic metres**
   - **Type 6 Granular Fill = 1,170 cubic metres**

   Further details on the material requirements can be found in the Remedial Action Plan (RAP) in Appendix 4.

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

   If the borrow material is suspected of having acid rock drainage and metal leaching potential then it will be sampled. This is unlikely as the material used will be from the surface/near surface and no blasting will occur.

SECTION C: Pits and Quarries

1. Describe all activities included in this project.
   - Pitting

None

- Quarrying

  See Section B-5 above

- Overburden removal

  None

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

  See Section A above

- Explosives transportation and storage

  None

- Work within navigable waters

  None

- Blasting

  None

- Stockpiling

  None

- Crushing

  None

- Washing

  None

- Other

  None

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

   A geotechnical assessment was completed in 2009. The Remedial Action Plan (Appendix 4) summarizes the identified borrow areas.

3. Identify any carving stone deposits.

   None identified

4. Provide a conceptual design including footprint.

   See Appendix 5 - Site Maps and Drawings

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

   See Section B-5 above

6. Describe the depth of overburden.

   None

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

   None

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

   None

9. Describe any existing or potential for erosion and any erosion control measures.

   Borrow areas will be re-graded and sloped to prevent erosion.

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

    None, if any identified then silt fences will be installed as required.

11. Describe any existing or potential for slumping and any slump control measures.

    None

12. Describe the moisture content of the ground.

    Well drained

13. Describe any evidence of ice lenses.

    None

14. If blasting, describe methods employed.

    Not applicable

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

    Not applicable

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

    If the borrow material is suspected of having acid rock drainage and metal leaching potential then it will be sampled. This is unlikely as the material used will be from the surface/near surface and no blasting will occur.

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

    A Site Specific Health and Safety Plan (SSHSP) has been developed it is provided in Appendix 11 of the application. Public access is prohibited.

SECTION F: Site Cleanup/Remediation

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

   There are 4 existing dumps (A, B, C, D) at PIN-D. The contents of the dumps are unknown but past experience on similar sites indicates that they will contain mostly non-hazardous debris, some contaminated soil, and a small amount of hazardous materials. Further information on the dumps can be found in the Remedial Action Plan (RAP) in Appendix 4. The site Maps and Drawings in Appendix 5 show the locations of the dumps.

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

   None

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.

   The contaminants to be cleaned up include:
   - **Hazardous materials (includes PCBs, Heavy Metals, Asbestos, etc.)**
     - **100 cubic metres**
   - **Non-hazardous materials**

    - **800 cubic metres**
- **Contaminated soils**
    - **Tier I**
        - **204 cubic metres**
    - **Tier II**
        - **244 cubic metres**
    - **Type B Hydrocarbons**
        - **455 cubic metres**

Maps delineating the contaminated areas can be found in the Remedial Action Plan (RAP) (Appendix 4) and the Site Maps and Drawings (Appendix 5).

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

   The degree of pollution/contamination is low to moderate.

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.

   Only proven methods/technologies will be used. See the Remedial Action Plan (Appendix 4) for the clean-up plans.

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

   All hazardous materials will be shipped off site to southern licenced disposal facilities (exact facilities to be determined). Non-hazardous material will be disposed of in the non-hazardous waste landfill that will be constructed. See the Remedial Action Plan (Appendix 4) for further details.

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

   Landfarming has proven to be a viable option for the treatment of hydrocarbons (F1-F3) on other Distant Early Warning (DEW) Line sites. This technique is most effective on lighter end hydrocarbons and typically requires a couple of seasons to reduce contaminant levels to below criteria. Building the landfarm and starting treatment on the 455 cubic metres of hydrocarbon contaminated soil will be the first priority for the contractor on this project. Completing this task first will allow for the maximum about of treatment time.

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

   None

9. If blasting, describe the methods employed.

   Not applicable

10. Describe all methods of erosion control, dust suppression, and contouring and re-vegetation of lands.

    None required

11. Describe **all** activities included in this project.
    - Excavation (please complete Section B-5)

      See Section B-5

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

      See Section A

    - Airstrip use and/or construction

      See Part 2 – Transportation Questions 12-15.

    - Camp use and/or construction

      See Part 2 – Camp Site Transportation Questions 16-18.

    - Stockpiling of contaminated material

      Contaminated materials will be consolidated and packaged for transportation. They will be stored at a staging area until they are loaded onto the barge/sealift for removal from site. Confirmatory samples will be taken from the staging area once the materials are removed to confirm that the area is not contaminated.

    - Pit and/or quarry (please complete Section C)

      See Section C

    - Work within navigable waters (please complete Section H)

      Not applicable

    - Barrel crushing

      See Part 2 – Waste Water Questions 25. Empty barrels will be handled as pre the Barrel Protocol described in the Abandoned Military Site Remediation Protocol (INAC 2009) which can be found in appendix D of the Remedial Action Plan (Appendix 4).

- Building Demolition

  Existing infrastructure at the site includes:
  - **Module Train Building**
  - **Garage**
  - **Inuit Hut Buildings**
  - **Downed antenna**
  - **Fuel line**

  All existing structures will be demolished as part of the remedial activities. See Appendix 4 for additional details.

- Other

  None

4. DESCRIPTION OF THE EXISTING ENVIRONMENT

Describe the existing environment, including physical, biological and socioeconomic aspects. Where appropriate, identify local study areas (LSA) and regional study areas (RSA).

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 is intended as a guide only.

The existing environment is described in the "Environmental Assessment Screening Report: PIN-D, Ross Point Intermediate DEW Line Site" (March 2010) prepared by AECOM. This report can be found in Appendix 6.

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. that are in existence at present time.

- Proximity to protected areas, including:
  i. designated environmental areas, including parks;
  ii. heritage sites;
  iii. sensitive areas, including all sensitive marine habitat areas;
  iv. recreational areas;
  v. sport and commercial fishing areas;
  vi. breeding, spawning and nursery areas;
  vii. known migration routes of terrestrial and marine species;
  viii. marine resources;
  ix. areas of natural beauty, cultural or historical history;
  x. protected wildlife areas; and
  xi. 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 (if applicable).
- 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.

Biological Environment

- Vegetation (terrestrial as well as freshwater and marine where applicable).
- Wildlife, including habitat and migration patterns.
- Birds, including habitat and migration patterns.
- Species of concern as identified by federal or territorial agencies, including any wildlife species listed under the *Species at Risk Act (SARA)*, its critical habitat or the residences of individuals of the species.
- Aquatic (freshwater and marine) species, including habitat and migration/spawning patterns.
- Other biological Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

Socioeconomic Environment

- Proximity to communities.
- Archaeological and culturally significant sites (e.g. pingos, soap stone quarries) in the project (Local Study Area) and adjacent area (Regional Study Area).
- Palaeontological component of surface and bedrock geology.
- Land and resource use in the area, including subsistence harvesting, tourism, trapping and guiding operations.
- Local and regional traffic patterns.
- Human Health, broadly defined as a complete state of wellbeing (including physical, social, psychological, and spiritual aspects).
- Other Valued Socioeconomic Components (VSEC) as determined through community consultation and/or literature review.

5. IDENTIFICATION OF IMPACTS AND PROPOSED MITIGATION MEASURES

The identification of impacts and proposed mitigation measures are described in the "Environmental Assessment Screening Report: PIN-D, Ross Point Intermediate DEW Line Site" (March 2010) prepared by AECOM. This report can be found in Appendix 6 (Table 10 starting on page 35 provides a summary).

1. Please complete the attached Table 1 – Identification of Environmental Impacts, taking into consideration the components/activities and project phase(s) identified in Section 4 of this document. Identify impacts in Table 1 as either positive (P), negative and mitigable (M), negative and non- mitigable (N), or unknown (U).

   See Table 1 below.

2. Discuss the impacts identified in the above table.

   See Table 10 on page 43 of the "Environmental Assessment Screening Report: PIN-D, Ross Point Intermediate DEW Line Site" (March 2010) prepared by AECOM. This report can be found in Appendix 6.

3. Discuss potential socioeconomic impacts, including human health.

   See the "Environmental Assessment Screening Report: PIN-D, Ross Point Intermediate DEW Line Site" (March 2010) prepared by AECOM. This report can be found in Appendix 6.

4. Discuss potential for transboundary effects related to the project.

   None

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.

   See the "Environmental Assessment Screening Report: PIN-D, Ross Point Intermediate DEW Line Site" (March 2010) prepared by AECOM. This report can be found in Appendix 6.

6. Discuss proposed measures to mitigate all identified negative impacts.

   See the "Environmental Assessment Screening Report: PIN-D, Ross Point Intermediate DEW Line Site" (March 2010) prepared by AECOM. This report can be found in Appendix 6.

6. 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.

The cumulative effects of this project are discussed in the "Environmental Assessment Screening Report: PIN-D, Ross Point Intermediate DEW Line Site" (March 2010) prepared by AECOM. This report can be found in Appendix 6.

7. SUPPORTING DOCUMENTS

Where relevant, provide the following supporting documents:

- Abandonment and Decommissioning Plan

See Remedial Action Plan in Appendix 4.

- Existing site photos with descriptions

Not included. Site photos are available in the Phase III Environmental Site Assessment.

- Emergency Response Plan

See Site Specific Health and Safety Plan in Appendix 11.

- Comprehensive Spill Prevention/Plan (must consider hazardous waste and fuel handling, storage, disposal, spill prevention measures, staff training and emergency contacts)

See Appendix F in the Site Specific Health and Safety Plan in Appendix 11.

- Waste Management Plan/Program

Not available, will be completed prior to mobilizing to site.

- Monitoring and Management Plans (e.g. water quality, air pollution, noise control and wildlife protection etc.)

Not available, will be completed prior to mobilizing to site.

- 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

Not applicable

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.

See Remedial Action Plan in Appendix 4.

- Human Health Risk Assessment of the contaminants at the site.

Not available

TABLE 1 - IDENTIFICATION OF ENVIRONMENTAL IMPACTS

		ENVIRONMENTAL COMPONENTS	PHYSICAL	designated environmental areas (ie. Parks, Wildlife Protected areas)	ground stability	permafrost	hydrology/ limnology	water quality	climate conditions	eskers and other unique or fragile landscapes	surface and bedrock geology	sediment and soil quality	tidal processes and bathymetry	air quality	noise levels	other VEC: Archaeological	other VEC: Aesthetics	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:	other VEC:	other VEC:	SOCIO-ECONOMIC	archaeological and cultural historic sites	employment	community wellness	community infrastructure	human health	other VSEC Land Use
PROJECT ACTIVITIES																																	
CONSTRUCTION	Site grading & borrow development				M			M						M							M	M	M										
	Landfill construction & Dump closure							M				M											P										
	Site re-grading				P																												
	Facility demolition																				M	M											
OPERATION	Hydrocarbon contaminated soil removal & landfarming													N																			P	
	Vehicle etc emissions													M																				
	Contaminated soil removal				M			P				P									P	P	P/M									P	
	Transportation of hazardous goods							M				M																					
	Camp operation				M			M				M																					
	General activities															M	P				M	M									P			M
DECOMMISSIONING																																	

Note: Please indicate in the matrix cell whether the interaction causes an impact and whether the impact is

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

If no impact is expected please leave the cell blank