



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.

- A map is enclosed showing the location of the boundaries. Exact UTM coordinates of the area of investigation/ claim blocks where proposed activities will be undertaken are included on the map.
 - A camp will be established in 2010. Suitable sites will be selected during the 2009 field program with input from the communities.
2. Map of the project site within a regional context indicating the distance to the closest communities.
 3. Map of any camp site including locations of camp facilities.
 4. Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat.
 - Maps are enclosed of the project area and areas of potential exploration interest.

Project General Information

5. Discuss the need and purpose of the proposed project.
 - The need and purpose of the project is to discover and advance the mineral potential for coal.
6. Discuss alternatives to the project and alternatives to project components, including the no-go alternative. Provide justification for the chosen option(s).
 - There are no alternatives to the proposed project activities that have been described. The exploration program is a low-impact program involving prospecting, mapping, geophysics and exploration drilling. Every effort will be made to minimize any impacts to the environment. Activities will be conducted in such a manner to avoid disturbance to wildlife. Any archaeological sites that are discovered will be left undisturbed; their location will be recorded and submitted to the GN and the QIA.
7. Provide a schedule for all project activities.
 - The camp will be constructed in 2010. Mapping, prospecting and geophysics will be conducted starting in July of 2009. Drilling will begin shortly thereafter.
8. List the acts, regulations and guidelines that apply to project activities.
 - Article 13 - Nunavut Land Claims Agreement
 - NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
 - NWTWB - Guidelines for Contingency Planning
 - DFO - Freshwater Intake End of Pipe Fish Screen Guideline
 - Fisheries Act - s.35
 - GN - Environment Protection- Spill Contingency Regulations
 - Canadian Drinking Water Quality Guidelines
 - Public Health Act Camp Sanitation Regulations
 - Public Health Act Water Supply Regulations
 - Nunavut Waters and Nunavut Surface Rights Tribunal Act
 - Territorial Land Use Act and Regulations
9. List the approvals, permits and licenses required to conduct the project.
 - INAC Land Use Permit
 - Nunavut Water Board Water Licence
 - Qikiqtani Inuit Association Land Use Licence
 - NPC Conformity Screening
 - NIRB Screening Decision

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
- Clear Span Bridge
- Culvert Maintenance
- Ice Bridge
- Routine Maintenance Dredging
- Installation of Moorings
- [These are not applicable for this project](#)

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

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.

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).
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 and provide a map showing location of airstrip.
14. If an airstrip is being constructed, provide the following information:
- 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.
15. Describe expected flight altitudes, frequency of flights and anticipated flight routes.

Camp Site

16. Describe all existing and proposed camp structures and infrastructure
[The camp, to be constructed in 2010, will consist of canvas tents with wooden frames and weatherhavens.](#)
17. Describe the type of camp:
- a. Mobile
 - b. Temporary
[The camp will be a temporary camp that is operational seasonally. The program will begin each year in the spring and will shut down for the season each fall.](#)
 - c. Seasonal
 - d. Permanent
 - e. Other
18. Describe the maximum number of personnel expected on site, including the timing for those personnel.
[The maximum number of personnel expected on site is 15. Camp population will fluctuate from 10-20 people depending on the activities being performed.](#)

Equipment

19. Provide a list of equipment required for the project and discuss the uses for the equipment.
A drill will be brought to site in 2009 for the drill program. It has not yet been decided what type of drill will be used. A pump will be used to pump water for drilling. Generators will be required at the camp and at the drill.
20. If possible, provide digital photos of equipment.
Photos of the equipment will be provided in the annual report.

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.
A mesh screen will be placed over the end of the water intake line to prevent fish entrapment. At this time a drill program has not been identified. Drill targets will be finalised once some initial groundwork has been conducted. Once the drill targets have been identified water sources can also be identified. However, streams will not be used due to concerns regarding spawning potential and seasonal fluctuation in water levels.
22. Describe the estimated rate of water consumption (m³/day).
The estimated water use for domestic purposes is approximately 8 cubic metres/day and for drilling approximately 50 cubic metres/day.
23. Describe how waste water will be managed. If relevant, provide detail regarding location of sumps, including capacity of sumps and monitoring.
Greywater will be sent to a sump that will be located at least 31 metres from the normal high water mark of any water body. A screen will be placed on the drains to prevent wastes, especially food, from entering the greywater sump. Drill sumps will also be located a minimum of 31 metres from the normal high water mark of any water body, such that the quality, flow and shorelines are not altered or impacted. Monitoring of the sumps during drilling will be undertaken to ensure that there is no leaching or run-off. Whenever possible natural depressions will be used for sumps.
24. If applicable, discuss how surface water and underground water will be managed and monitored.

Waste Water (Grey water, Sewage, Other)

25. Describe the quantities, treatment, storage, transportation, and disposal methods for the following (where relevant):
 - Sewage – 0.02 cubic metres/day, latrine sumps
 - Camp grey water – 3 cubic metres/day – grey water sump
 - Combustible solid waste – incinerated on site in the incinerator
 - Non-combustible solid waste – stored on site and then shipped off site at the end of the season for disposal
 - Bulky items/scrap metal – minimal amount anticipated, recycled for other uses at camp as much as possible. At the end of the season removed from site for disposal
 - Waste oil/hazardous waste – minimal amount anticipated but will be removed from site in clearly marked containers for disposal at an approved facility. A waste manifest will accompany all shipments of hazardous waste.
 - Contaminated soils/snow – minimal amount anticipated. Contaminated snow will be collected in empty drums and allowed to melt. Absorbent matting will be used to absorb any hydrocarbon and the water will evaporate over the course of the summer.

Contaminated soil will be collected in empty drums and will either be shipped from site or placed in a lined container to allow for landfarming (if required, approval will be sought).

- Empty barrels/ fuel drums – empty drums will be removed from site on a regular basis.
- Any other waste produced

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.

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.

Fuel	Number of Containers and Capacity of Containers	Total Amount of Fuel (in Litres)	Proposed Storage Methods
Diesel	100 drum (205L)	14,350	Fuel drum cache (camp); used in generator and drill rig
Gasoline	5 drum (205L)	1,025	Fuel drum cache (camp); used in water pump
Aviation fuel – Jet A1	100 drum (205L)	20,500	Fuel drum cache (in camp and on crown land); used in helicopter
Propane	10 (100 lb bottle)		Cached in camp; used for cooking and heating water
Other			
Hazardous Materials and Chemicals		Total Amount of Hazardous Materials and Chemicals (in Litres)	
none			

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.

There has been a lot of discussion surrounding the use of secondary containment. INAC has issued Best Practices for Fuel Handling and Storage. The use of secondary containment is strongly recommended. In 2010, when a camp is established for this exploration program, Weststar will purchase some form of secondary containment to house the fuel cache. Once a suitable site has been selected for the camp, the type of secondary containment best suited for the location will be chosen. The 2009 program will be based out of Eureka.

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

Fuel will be transferred to site in sealed drums. A hand operated pump will be used for refuelling. All refuelling stations will have spill kits.

Chemicals and Hazardous Materials*

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

30. 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.
 - 5/10W30 motor oil; quantity approximately 60 litres; contained in sealed bottles until needed; used in generator in camp; used oil is burned in incinerator using an apparatus designed for burning oil.
 - Batteries (AAA, AA, C, D size); stored in camp; dead batteries removed for proper disposal.
 - Household cleaners for kitchen and bathrooms in camp; cleaners stored in camp; combustible empty containers incinerated, non-combustible containers removed for proper disposal.
31. Describe any secondary containment measures to be employed, including the type of material or system used.
Not selected at this time.
32. Describe the method of chemical transfer.
Not applicable at this time.

Workforce and Human Resources/Socio-Economic Impacts

33. Discuss opportunities for training and employment of local Inuit beneficiaries.
34. Discuss workforce mobilization and schedule, including the duration of work and rotation length, and the transportation of workers to site.
35. Discuss, where relevant, any specific hiring policies for Inuit beneficiaries.
 - At this time the project is in the very early stages of exploration where most of the people involved in the project are highly skilled and technical, for example, geologists, geophysicists, geochemists. Weststar will hire locally whenever possible. Supplies will be purchased locally. APEX Geoscience have been contracted to operate the exploration program on Weststar's behalf. APEX has extensive experience working in Nunavut and has a policy of employing locally.

Public Involvement/ Traditional Knowledge

36. Indicate which communities, groups, or organizations would be affected by this project proposal.
37. Describe any consultation with interested Parties which has occurred regarding the development of the project proposal.
38. Provide a summary of public involvement measures, a summary of concerns expressed, and strategies employed to address any concerns.
39. Describe how traditional knowledge was obtained, and how it has been integrated into the project.
40. Discuss future consultation plans.
 - Weststar plans to conduct extensive community consultation in 2009 in Resolute Bay and Grise Fiord. During these meetings, the potential camp site locations will be reviewed with the communities.

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

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)
2. Provide a conceptual plan of the road, including example road cross-sections and water crossings.
3. Discuss the type and volume of traffic using the road/trail (i.e. type of vehicles and cargo and number of trips annually).
4. Discuss public access to the road.
5. Describe maintenance procedures.

A-2 All-Weather Road/Access Trail

6. Discuss road design considerations for permafrost.
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.
8. Discuss construction techniques, including timing for construction activities.
9. Indicate on a map the locations of designated refuelling areas, water crossings, culverts, and quarries/borrow sources.
10. Identify the proposed traffic speed and measures employed to ensure public safety.
11. Describe dust management procedures.

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.
13. Describe the operating time period.
14. Identify the proposed traffic speed and measures employed to ensure public safety.
15. Discuss whether the selected route traverses any fish-bearing water bodies.

SECTION B: Mineral Exploration /Advanced Exploration /Development

B-1 Project Information

1. Describe the type of mineral resource under exploration.
 - [to evaluate the mineral potential for coal on the claim area.](#)

B-2 Exploration Activity

2. Indicate the type of exploration activity:
 - Bulk Sampling (underground or other)
 - Stripping (mining shallow bedded mineral deposits in which the overlying material is stripped off, the mineral removed and the overburden replaced)
 - Trenching
 - Pitting
 - Delineation drilling
 - Preliminary Delineation drilling
 - Exploration drilling – [Exploration drilling will begin in 2009](#)
 - Geophysical work (indicate ground and/or air) – [both ground and airborne geophysical work will be conducted](#)
 - Other
3. Describe the exploration activities associated with this project:
 - Satellite remote sensing
 - Aircraft remote sensing
 - Soil sampling
 - Sediment sampling
 - On land drilling (indicate drill type) - [2009](#)
 - On ice drilling (indicate drill type) - [2009](#)
 - Water based drilling (indicate drill type)
 - Overburden removal
 - Explosives transportation and storage
 - Work within navigable waters
 - On site sample processing
 - Off site sample processing
 - Waste rock storage
 - Ore storage
 - Tailings disposal
 - Portal and underground ramp construction
 - Landfilling
 - Landfarming
 - Other

B-3 Geosciences

4. Indicate the geophysical operation type:
 - a. Seismic (please complete Section E)
 - b. Magnetic
 - c. Gravimetric
 - d. Electromagnetic
 - e. Other (specify)
5. Indicate the geological operation type:
 - a. Geological Mapping
 - b. Aerial Photography
 - c. Geotechnical Survey
 - d. Ground Penetrating Survey
 - e. Other (specify)
6. Indicate on a map the boundary subject to air and/or ground geophysical work.
7. Provide flight altitudes and locations where flight altitudes will be below 610m.
 Standard flight altitude during airborne geophysical surveys is approximately 60-100 metres above ground. These surveys will not be conducted if there are any wildlife present in the area. A reconnaissance flight to determine the presence of wildlife will be flown prior to any airborne geophysical surveys.

B-4 Drilling

8. Provide the number of drill holes and depths (provide estimates and maximums where possible). The maximum number of drill holes to be drilled is not known at this time however the holes will be drilled from 20 m to a maximum depth of 120 m.
9. Discuss any drill additives to be used. Not known at this time.
10. Describe method for dealing with drill cuttings. All land based drill cuttings will be pumped to a sump that will be located a minimum of 31 metres from the normal high water mark of any water body.
11. Describe method for dealing with drill water. All land-based drilling fluids will be treated in sumps to collect cuttings.
12. Describe how drill equipment will be mobilized. The drill will be heliportable. Drill crews will be flown to the drill each shift via helicopter.
13. Describe how drill holes will be abandoned. All drill equipment, rods, hoses, fuel drums, timbers, etc. removed from drill site; casing may or may not be left in the ground temporarily for the purpose of re-entry into the borehole at a later date; collar hole may be covered with a small rock cairn and/or marked with a short 2"x2" square stake for identification purposes
14. 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

15. Discuss methods employed. (i.e. mechanical, manual, hydraulic, blasting, other)
16. Describe expected dimensions of excavation(s) including depth(s).
17. Indicate the locations on a map.
18. Discuss the expected volume material to be removed.
19. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

B-6 Underground Activities

20. Describe underground access.
21. Describe underground workings and provide a conceptual plan.
22. Show location of underground workings on a map.
23. Describe ventilation system.
24. Describe the method for dealing with ground ice, groundwater and mine water when encountered.
25. Provide a Mine Rescue Plan.

B-7 Waste Rock Storage and Tailings Disposal

26. Indicate on a map the location and conceptual design of waste rock storage piles and tailings disposal facility.
27. Discuss the anticipated volumes of waste rock and tailings.
28. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

B-8 Stockpiles

29. Indicate on a map the location and conceptual design of all stockpiles.
30. Describe the types of material to be stockpiled. (i.e. ore, overburden)
31. Describe the anticipated volumes of each type of material to be stockpiled.
32. Describe any containment measures for stockpiled materials as well as treatment measures for runoff from the stockpile.
33. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

B-9 Mine Development Activities

34. Indicate the type(s) of mine development activity(s):
 - Underground
 - Open Pit
 - Strip Mining
 - Other
35. Describe mine activities.
 - Mining development plan and methods
 - Site access
 - Site infrastructure (e.g. airstrip, accommodations, offshore infrastructures, mill facilities, fuel storage facilities, site service roads)
 - Milling process
 - Water source(s) for domestic and industrial uses, required volumes, distribution and management.
 - Solid waste, wastewater and sewage management
 - Water treatment systems
 - Hazardous waste management
 - Ore stockpile management
 - Tailings containment and management
 - Waste rock management
 - Site surface water management
 - Mine water management
 - Pitting and quarrying activities (please complete Section C)
 - Explosive use, supply and storage (including on site manufacturing if required)
 - Power generation, fuel requirements and storage

- Continuing exploration
 - Other
36. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), and method of storage.

B-10 Geology and Mineralogy

37. Describe the physical nature of the ore body, including known dimensions and approximate shape.
38. Describe the geology/ mineralogy of the ore deposit
39. Describe the host rock in the general vicinity of the ore body.
40. Discuss the predicted rate of production.
41. 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.
- [More information will be available following the 2009 exploration program.](#)

B-11 Mine

42. Discuss the expected life of the mine.
43. Describe mine equipment to be used.
44. 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.
45. Discuss the possibility of operational changes occurring during the mine life with consideration for timing. (e.g. open pit to underground)
46. 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*.

B-12 Mill

47. 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.
48. Describe the proposed capacity of the mill.
49. Describe the physical and chemical characteristics of mill waste as best as possible.
50. Will or does the mill handle custom lots of ore from other properties or mine sites?

SECTION C: Pits and Quarries

1. Describe all activities included in this project.
- Pitting
 - Quarrying
 - Overburden removal
 - Road use and/or construction (please complete Section A)
 - Explosives transportation and storage
 - Work within navigable waters
 - Blasting
 - Stockpiling
 - Crushing
 - Washing
 - Other
2. Describe any field investigations and the results of field investigations used in determining new extraction sites.

3. Identify any carving stone deposits.
4. Provide a conceptual design including footprint.
5. Describe the type and volume of material to be extracted.
6. Describe the depth of overburden.
7. Describe any existing and potential for thermokarst development and any thermokarst prevention measures.
8. Describe any existing or potential for flooding and any flood control measures.
9. Describe any existing or potential for erosion and any erosion control measures.
10. Describe any existing or potential for sedimentation and any sedimentation control measures.
11. Describe any existing or potential for slumping and any slump control measures.
12. Describe the moisture content of the ground.
13. Describe any evidence of ice lenses.
14. If blasting, describe methods employed.
15. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), and method of storage.
16. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.
17. Discuss safety measures for the workforce and the public.

SECTION D: Offshore Infrastructure

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)
2. Provide a conceptual plan, profile description and drawing(s) indicating shoreline, facility footprint, tidal variations, required vessel draft, keel offset, deck height freeboard
3. Discuss how anticipated loads on the seabed foundation and on the offloading platform will be incorporated into the design.
4. Describe how vessels will manoeuvre around the facility. (e.g. pull alongside or in front)
5. Discuss the anticipated life of the facility.

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.
7. Describe dredging activities.
8. Indicate source of granular or rock material used in construction.
9. List quantities of the various types of material used in construction.
10. Describe construction method(s).
11. Indicate whether a site engineer will be on-site to inspect construction.
12. If proposed construction method involves dumping of fill into water, discuss measures for mitigating the release of suspended solids.

D-3 Facility Operation

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

14. Discuss whether the public will have access to the facility(s) and describe public safety measures.
15. Describe cargo and container handling, transfer and storage facilities.
16. Indicate whether fuel will be transferred from barges at this site and describe the method of that fuel transfer.
17. Discuss frequency of use.

D-4 Vessel Use in Offshore Infrastructure

18. Please complete Section H

SECTION E: Seismic Survey

E-1 Offshore Seismic Survey

1. Indicate whether the survey is 2D or 3D at each site
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
3. On a map, indicate the grid, number of lines and total distance covered at each site.
4. Indicate the discharge volume of the airguns, the depth of airgun discharge, and the frequency and duration of airgun operation at each site.
5. Discuss the potential for dielectric oil to be released from the streamer array, and describe proposed mitigation measures.
6. Indicate whether additional seismic operations are required for start-up of operations, equipment testing, repeat coverage of areas.
7. Indicate whether air gun procedures will include a “ramping up” period and, if so, the proposed rate of ramping up.
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.

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
10. Describe how nearshore and onshore areas will be accessed.
11. Describe the survey methods to be used (e.g. explosive charge, vibration, air or water gun, other)
12. Describe equipment to be used
13. If applicable, indicate number, depth and spacing of shot holes
14. Describe explosive wastes including characteristics, quantities, treatment, storage, handling, transportation and disposal methods.

E-3 Vessel Use in Seismic Survey

15. Please complete Section H

SECTION F: Site Cleanup/Remediation

1. Describe the location, content, and condition of any existing landfills and dumps (indicate locations on a map).
2. Identify salvageable equipment, infrastructure and/or supplies.
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.
4. Describe the degree of pollution/contamination, and list the contaminants and toxicity.
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.
6. Identify and describe all materials to be disposed of off site, including the proposed off site facilities, method of transport and containment measures.
7. Discuss the viability of landfarming, given site specific climate and geographic conditions.
8. Describe the explosive types, hazard classes, volumes, uses, location of storage (indicate on a map), and method of storage (if applicable).
9. If blasting, describe the methods employed.
10. Describe all methods of erosion control, dust suppression, and contouring and re-vegetation of lands.
11. Describe **all** activities included in this project.
 - Excavation (please complete Section B-5)
 - Road use and/or construction (please complete Section A)
 - Airstrip use and/or construction
 - Camp use and/or construction
 - Stockpiling of contaminated material
 - Pit and/or quarry (please complete Section C)
 - Work within navigable waters (please complete Section H)
 - Barrel crushing
 - Building Demolition
 - Other

SECTION G: Oil and Natural Gas Exploration/Activities

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

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
- 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
- 6. If utilizing *fresh water*, estimate maximum drawdown and recharge capability of the river or lake from which water will be drawn.
- 7. Indicate if permafrost is expected to be encountered under:
 - a. Camp Facilities
 - b. Well Site
 - c. Access Routes
 - d. Sumps
 - e. Other: _____

8. Indicate any potential for encountering artesian aquifers or lost circulation within the surface hole (to casing depth).
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.
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)
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
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.
13. Attach an outline of planned abandonment and restoration procedures.

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.
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.
16. Attach an outline of planned abandonment and restoration procedures.
17. Please complete Section H

G-4 Rig

18. Type of Rig. Draw works, make and model
19. Derrick/Mast make and model
20. H.P. available to draw-works

SECTION H: Marine Based Activities

H-1 Vessel Use

1. Describe the purpose of vessel operations.
2. List classes and sizes of vessels to be used.
3. Indicate crew size.
4. Indicate operating schedule.
5. Provide a description of route to be traveled (include map).
6. Indicate whether the vessel will call at any ports. If so, where and why?
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
8. List all applicable regulations concerning management of wastes and discharges of materials into the marine environment
9. Provide detailed Waste Management, Emergency Response and Spill Contingency Plans
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.
11. Describe the source of fresh water and potable water
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.
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.
14. Indicate whether Fisheries or Environmental Observers will be onboard during the proposed project activities. If yes, describe their function and responsibilities.
15. Describe all proposed measures for reducing impacts to marine habitat and marine wildlife (including mammals, birds, reptiles, fish, and invertebrates).

H-2 Disposal at Sea

1. Provide confirmation you have applied for a *Disposal at Sea* permit with Environment Canada
2. Provide a justification for the disposal at sea
3. Describe the substance to be disposed of, including chemical and physical properties
4. Indicate the location where the disposal is to take place
5. Describe the frequency of disposals (disposals per day/week or month)
6. Describe the route to be followed during disposal and indicate on a map.
7. Indicate any previous disposal methods and locations
8. Provide an assessment of the potential effects of the disposal substance on living marine resources
9. Provide an assessment of the potential of the disposal substance, once disposed of at sea, to cause long-term physical effects.
10. Describe all mitigation measures to be employed to minimize the environmental, health, navigational and aesthetic impacts during loading, transport and disposal.

SECTION I: Municipal and Industrial Development

1. Describe the business type, including public, private, limited, unlimited or other.
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.).
3. Describe the production process or service provision procedures.

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.
5. Provide detailed information about the structure and/or building in which the activity will be conducted.
6. List the PPE (personal protective equipment) and tools to be used to protect personal health and safety.
7. Describe the firefighting equipment that are or will be installed.
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.
9. Describe the type of gaseous emission that will be produced during this activity. Include the allowable thresholds and mitigation measures.
10. Describe odours that the activity might release and include corresponding allowable threshold. Describe mitigation measures if thresholds are exceeded.
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).
12. Discuss the employee safety and environment protection training program.
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.
14. If the activity involves the development of a new quarry or expansion of an existing quarry, complete 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.

The region consists of islands, ice and water. The landmasses host a variety of land formations, from flat Arctic lowlands to mountainous areas on the eastern coastlines. The Arctic Cordillera mountain system covers much of Ellesmere Island making it the most mountainous in the Canadian Arctic Archipelago.

At this point, there is no evidence of ground, slope, or rock instability, or seismicity in the field area. Likewise, there is no evidence at this time of thermokarsts or ice lenses. However, more information will be known following the 2009 field season.

Water quality in the area is pristine. Climate conditions in this area can be summarized as cold winters and cool summers. However, in recent years there has been a warming trend with less snow in the winters. Noise levels in the arctic are very low. Weststar does not anticipate any impacts to the water quality or climate from this program. Noise levels will increase due to the helicopter and the drill in future years.

Biological Environment

- Vegetation.
- 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.

Small herd of Muskoxen are dispersed across Hazen Plateau, along with a low number of caribou. There are numerous species of birds, including many seabirds, and several other land mammals, including polar bears. Many of the species are closely monitored by the Canadian Wildlife Service.

Ellesmere Island is sometimes described as the “Polar wasteland”, with an annual precipitation of only 6 cm (the same range as the Sahara). The Arctic willow is the only woody species to grow on Ellesmere Island. Only the thermal effect of areas such as

Lake Hazen provides an environment that can support sufficient vegetation for the muskoxen, caribou and nesting/migrating birds.

Walrus, beluga, narwhal whales and seals can be spotted off the shorelines.

Socioeconomic Environment

- Proximity to communities.
- Archaeological and culturally significant sites (e.g. pingos, soap stone quarries) in the project and adjacent areas.
- 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.

As stated previously, Weststar will be conducting extensive community consultation this year. More of this information will be available following the community visits.

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.

The work being proposed is not expected to impact the environment in a negative way. Every effort will be made to minimize the footprint and impacts of the exploration program.

Geological mapping, prospecting, rock/soil sampling and drilling is not expected to affect the environment or wildlife population in a negative way. Positive impacts are related to the employment of local people as field assistants, prospectors, camp personnel, and wildlife monitors.

When airborne geophysics is being performed, it will be conducted so as not to disturb the caribou. Airborne geophysical surveys require flight altitudes of less than 100 metres, so areas to be surveyed on a given day will be monitored prior to the survey. This ensures that there is no wildlife present in the survey area.

Waste generated by the camp will be handled in several ways. All combustible waste will be incinerated daily in an incinerator. Non-combustible solid waste and scrap metal will be sent off site for proper disposal. Camp grey water will be collected in sump pits for settling before draining naturally into the surrounding soil. Empty fuel drums will be sent off site on a

regular basis for refilling or proper disposal if warranted. Any other waste generated by the project will be disposed of in an appropriate manner.

All fuel caches will be supplied with a complete spill kit, including highly absorbent pads and one empty drum, for the highly unlikely event of a fuel spill. Each fuel cache will also be equipped with a fire extinguisher. Small fuel caches in the field are placed in shallow natural depressions which are a minimum of 31 metres from the normal high-water mark of nearby bodies of water.

When the project advances to the drill stage in 2009, all wastes produced by drilling will be disposed of properly. Used greases and oil will be either removed from the site for proper disposal or incinerated. All drill water will be treated in sumps to collect cuttings, allowing the water to drain into the surrounding landscape. All sumps will be located a minimum of 31 metres from the normal high-water mark of any water body. All equipment, timbers, hoses, fuel drums, etc. will be removed from the drill site following completion of the borehole. Casing may or may not be left in the borehole temporarily, depending on whether or not the borehole requires re-entry at a later date; the majority of boreholes will have casing removed after completion. Drill collars will be marked for identification purposes.

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.

Weststar is aware that there is significantly more exploration activity today than there was in the past. With increased activity comes the concern of potential cumulative effects.

Weststar will conduct itself in a responsible manner both socially and environmentally. We will conduct community consultations in 2009 to develop relationships with the affected communities. Moving forward we will work closely with the communities to ensure that their concerns are being addressed and that their advice is incorporated in to the operations of the exploration program.

Whenever possible we will hire locally and will provide training opportunities in the areas of prospecting, geophysics and others. Wildlife sightings will be documented and submitted each year in an annual report to NIRB, the QIA, INAC and the GN.

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.

Weststar submitted an Abandonment and Reclamation Plan, a Spill Contingency Plan, a Waste Management Plan, a Fuel Management Plan and a Wildlife Mitigation Plan. Please refer to these plans for more information and details.

**THE NUNAVUT IMPACT REVIEW BOARD
SCREENING PART 2 FORMS**

TABLE 1 - IDENTIFICATION OF ENVIRONMENTAL IMPACTS

		ENVIRONMENTAL COMPONENTS																													
		PHYSICAL												BIOLOGICAL										SOCIO-ECONOMIC							
		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:	other VEC:	other VEC:	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:	archaeological and cultural historic sites	employment	community wellness	community infrastructure	human health	other VSEC	
PROJECT ACTIVITIES																															
CONSTRUCTION																															
OPERATION																															
DECOMMISSIONING																															

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

