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 ᖃᓂ/aò 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.

The ñGrailò property boundaries are approximately **70°00' N - 70°17'18" N / 94°38'30" W - 95°30' W** ï 1:50,000 NTS Map Sheet nos. 057F/03, 057F/04. A map is enclosed showing the location of the boundaries. The property lies approximately 80 kilometres north-northwest of the community of Taloyoak, NU on the Boothia Peninsula.

The proposed camp location is on the eastern shore of Chantrey Lake, at UTM Nad 83 Zone 15W 450606E/7771970N.

2. Map of the project site within a regional context indicating the distance to the closest communities. Enclosed
3. Map of any camp site including locations of camp facilities. Enclosed
4. Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat. A proposed camp layout is included in Appendix I of the Abandonment and Restoration Plan. At this time, no specific wildlife habitats are known to exist within the Grail Project area.

Project General Information

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

The need and purpose of the project is to evaluate the diamond potential on the claim area. In 2010, the exploration work will include prospecting, mapping, geophysics (ground), and drilling (reverse circulation or diamond drilling).

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 2010 exploration program is a low-impact program involving prospecting, mapping, ground geophysics and delineation 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 KIA (Kitikmeot Inuit Association).

7. Provide a schedule for all project activities.

All project activities (mapping, prospecting, ground geophysics and exploration drilling) are all proposed to commence the spring of 2010.

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
   - Environment Canada ï Technical Document for Batch Waste Incinerators
9. List the approvals, permits and licenses required to conduct the project.
   - INAC Land Use Permit
   - Nunavut Water Board Water Licence
   - 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

None of the above are applicable for this project.

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

11. If any of the DFOs 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).

The exploration/drilling sites are accessible only by helicopter. The proposed camp site should be accessible by fixed wing single or twin-engined aircraft equipped with tundra tires, skis, or floats depending on the season. Routes to and from the area of interest will depend mainly on weather conditions and wildlife restrictions.

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. N/A
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.

The above is not applicable to this project.

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

Flight frequency will be based on weather and demands of the drill (equipment), fuel and food consumption. Flights will be predominantly originating from Taloyoak, NU.

Camp Site

16. Describe all existing and proposed camp structures and infrastructure

The proposed camp will consist of canvas tents with wooden frames.

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 10-15 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 spring 2010 for the proposed drill program. It has not yet been decided what type of drill will be used, although a reverse circulation drill is being most strongly considered at this point. A pump will be used to pump water for domestic use at the proposed camp in 2010 plus a pump will be required to pump water for drilling. A generator will be required at both the drill and at the camp.

20. If possible, provide digital photos of equipment.

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 for domestic purposes will be drawn from Chantrey Lake, shown on the attached map. A mesh screen will be placed over the end of the water intake line to prevent fish entrapment. Proposed drilling in the spring of 2010 is meant to determine whether kimberlite bodies exist on the property, focusing on a number of targets. For this type of exploration drilling via a reverse circulation rig, water is not required, however if a diamond drill is used on the Grail property, water sources will be necessary. In every case such as this, a mesh screen will be placed over the end of the water intake line to prevent fish entrapment. 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 (m^3/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. 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. N/A

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, pacto toilets/bagged waste will be incinerated in the incinerator
- Camp grey water: 3 cubic metres/day ï 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 and taken to Taloyoak for disposal, with community approval.
- Bulky items/scrap metal: minimal amount anticipated, recycled for other uses at camp as much as possible. At the end of the season taken to Taloyoak 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 be shipped from site.
- 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	50 drum (205L)	10,250	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 ï Jet A1	100 drum (205L)	20,500	Fuel drum cache (in camp and on crown land); used in helicopter
Propane	25 (100 lb bottle)		Cached in camp; used for cooking and heating water; used at drill for cooking or for cutting rods if necessary
Other			

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.

Given recent controversy surrounding the issue of secondary containment, Indicator Minerals Inc. plans to conduct more research and advise NIRB as to which selection is made for secondary containment measures. At this time, insta-berms appear to be the best option; caches in the field at the project area will be temporary.

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 applicable 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. Indicator Minerals Inc. will higher locally whenever and wherever possible. Supplies will be purchased locally.

Public Involvement/ Traditional Knowledge

36. Indicate which communities, groups, or organizations would be affected by this project proposal. Taloyoak, NU is the most proximal community to the project area, and would thereby likely be most 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.

Indicator Minerals Inc. has recently completed community consultations (May 2009), covering the communities of Gjoa Haven, Taloyoak, Kugaaruk, Rankin Inlet, Repulse Bay and Chesterfield Inlet. Notes from the consultation meeting at the most applicable community to

the Grail Project, Taloyoak, can be provided upon request. Indicator Minerals has conducted all past exploration on the Grail Project from Taloyoak, and therefore has visibility and has established relationships within the community going back to the summer of 2004.

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 proponentôs 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: <u>Mineral Exploration /Advanced Exploration /Development</u>

B-1 Project Information

1. Describe the type of mineral resource under exploration: Diamonds are under exploration on the Grail Property. Diamonds are hosted by a rock called kimberlite, which is the current exploration target.

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: this type of activity will commence in the spring of 2010, and will hopefully be ongoing within the property.
   - Geophysical work (indicate ground and/or air): ground geophysical work is planned for the spring of 2010.
   - 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): Spring 2010 via a reverse circulation or diamond drill (type of drill is unknown at this time).
   - On ice drilling (indicate drill type)
   - 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.

B-4 Drilling

8. Provide the number of drill holes and depths (provide estimates and maximums where possible).

Given current economic conditions, it is unknown at this time how many drill holes will be made. The plan at present is to drill a number of identified geophysical targets. If an RC (reverse circulation) drill is used, the maximum depth is approximately 90 metres. If a diamond drill is used, maximum hole depth would vary, depending on the rock intercept.

9. Discuss any drill additives to be used. Unknown at this time. MSDS sheets are included in the Spill Plan for Indicator Minerals Inc.

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 2ò x 2ò 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.

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.

No ore bodies have been identified to date.

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: <u>Pits and Quarries</u>

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 H_2S concentration in mol/kmol
    Emergency planning zone radius in km
m. Blowout Prevention (Well Class I ï 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: <u>Marine Based Activities</u>

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 has been extensively glaciated, which has resulted in the formation of eskers and other quaternary landforms throughout the project area, which are more common to the southeast of the project area, where it is assumed that ice streams created extensive sand deposits. The majority of the project area is covered by low, gently rolling hills, with several small lakes and abundant event streams shallowly cutting down the sides of the hills. 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. Pingos are marked on the 1:50,000 scale NTS maps. More information will be known following the 2010 field season.

The project area lies within the Boothia Plateau, consisting of Paleozoic carbonate and siliciclastic sediments which overlie folded and faulted Archean gneiss and granite terranes termed the Boothia Horst. Surficial geology reflects the presence of an ice divide over the McClintock Channel, northwest of the project area during the last glacial period. Sediments deposited include seven genetic classifications: rock, till and glaciofluvial, glaciolacustrine, glaciomarine, and fluvial sediments. The land comprises a combination of both till and exposed bedrock (bedrock exposure predominates at erosional settings, i.e. along streams).

Permafrost is stable in the region, with a midsummer depth to the top of permafrost of one to two metres. Permafrost thickness may be up to 200 m thick throughout the area. Soils and sediments comprise a mix of glacial till, younger fluvial deposits, and wind-blown material such as peat and inorganic dust.

Water quality in the area is pristine where lakes are deeper than a few metres. 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. Indicator Minerals Inc. 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.

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.

Vegetation in the project area comprises arctic tundra; plants are generally less than six inches in height, and include grasses, heathers, and arctic wildflowers. There are no trees in the area.

The project area is quite a bit north of the surveyed range of the regionally-extensive Beverly and Qamanirjuaq caribou herds, this is not to say however that caribou are not present in the area. They simply do not exist in any great abundance. Although they haven't been observed by Indicator personnel during the past 5 seasons of exploration, there are assumed to be large predators including wolves and polar bears. A small population of muskoxen may be seen in the project area. Smaller mammals may include foxes, ermines, and ground squirrels (sik siks), as well as mice and voles.

The project area contains a wide diversity of bird species, including songbirds (sparrows, Lapland longspurs, snow buntings), ground-dwelling birds (ptarmigan, grouse), snow geese and raptors (falcons). Though some bird species inhabit the area year-round (e.g. ptarmigan), most birds use the region for nesting or as a stopover on their annual migration route.

Species of Concern in the area, as identified under the Species at Risk Act, include Peregrine Falcons and the Ross's Gull. Peregrines usually nest in cliffs throughout the arctic.

Aquatic species in the project area are all fresh-water organisms. Fish include trout, char, grayling, and whitefish.

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, Indicator Minerals Inc. will provide community consultation notes upon request, specifically those notes from the meeting held in Taloyoak, NU, which is only approximately 85 kilometres south southeast of the centre of the project area.
A number of polygons are marked on 1:50,000 scale NTS map sheet 057F/03, in the very southwest corner, which is overlain by some of the Grail project claims. No exploration activities are currently planned anywhere around these features.

5. IDENTIFICATION OF IMPACTS AND PROPOSED MITIGATION MEASURES

1. Please complete the attached Table 1 ï Identification of Environmental Impacts, taking into consideration the components/activities and project phases 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).
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 majority of work being proposed is not expected to impact the environment in a negative way. In the 2010 field season there will predominantly be ground geophysical surveying, reverse circulation/diamond drilling and prospecting/sampling with possible geological mapping.

Geophysical ground surveys, geological mapping, prospecting, and rock/soil sampling are 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.

Indicator Minerals Inc.ôs presence will positively affect local communities by providing an influx of money to local businesses and services, as well as employment for local personnel.

Indicator Minerals Inc. is aware that there is considerable concern involving the potential for disturbance to caribou herds and their calving grounds by exploration activity. Indicator Minerals Inc. will conduct itself in a manner that minimizes disturbance to caribou. This includes ñno-fly zonesò over migrating herds and areas used by cows for calving. The helicopter used to transport crews into the field from camp will be restricted to an altitude of not less than 300 metres, when not actually taking off and landing. Indicator Minerals Inc. will employ local people as wildlife monitors who will keep records of the location and numbers of caribou, musk ox, bears, and other wildlife. These wildlife monitors will also provide information to the helicopter pilots and field crews when wildlife are approaching the camp or work site. Their information and advice will help to determine times when operations need to be shut down to allow wildlife to move safely through the area with minimal disturbance.

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.

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 (formal permission pending for camp use). 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.

Indicator Minerals Inc. 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.

Indicator Minerals Inc. will conduct itself in a responsible manner both socially and environmentally. Indicator Minerals Inc. will conduct community consultations in 2009 to develop relationships with the affected communities. Moving forward, Indicator Minerals Inc. 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, Indicator Minerals Inc. 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 KIA and INAC.

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.

Indicator Minerals Inc. has submitted an Abandonment and Restoration Plan and a Spill Contingency 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

PROJECT ACTIVITIES	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:	other VEC:	other VEC:	BIOLOGICAL	vegetation	wildlife, including habitat and migration patterns	birds, including habitat and migration patterns	aquatic species, incl. habitat and migration/spawnin	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
CONSTRUCTION																																	
OPERATION																																	
DECOMMISSIONING																																	

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

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