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NIRB BOARD
UNAVUT IMPACT REVIEW BOARD
NUNAVUMI AVATILIKIYIN KATIMAYIN

NIRB Application for Screening #125090

Bathurst/High Arctic Remediation and Risk Management Project

Application Type:	New
Project Type:	Remediation
Application Date:	3/13/2017 8:50:09 AM
Period of Operation:	From 2017-07-15 to 2017-09-30
Proposed Authorization:	From 2017-07-15 to 2017-09-30
Project proponent:	Michael Westlake INAC 10th floor, 25 Eddy Street Gatineau QC K1A 0H4 Canada Tel: 819-639-7344, fax:

DETAILS

Non-technical project proposal description

English:	see attached
French:	not required for thsi region
Inuktitut:	see attached

Personnel

Personnel on site: 20
Days on site: 75
Total Person days: 1500
Period of operation: from 2017-07-15 to 2017-09-30
Proposed term of operation: from 2017-07-15 to 2017-09-30

ACTIVITIES

Project Activities

Location	Activity Type	Land Status	Site History	Site Archaeological or Palentological Value	Proximity to the nearest communities and any protected areas
Bathurst Island	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Bent Horn	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Dale Payne NB045	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Drake Point	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Humphries Hill	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Ile Vanier	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Lougheed Island (L1) NB047	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Rea Point	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Romulus	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Stokes Range	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any

					protected area.
Thor Island	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Young Inlet	Site Cleanup/Remediation	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Camp	Camp	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.
Airstrip	Airstrip use or construction	Crown	oil and gas exploration	see attached	All sites in the Bathurst/High Arctic project are approximately 350-400km away from the nearest community of Resolute Bay, Nunavut and over 100km from any protected area.

Community Involvement and Regional Benefits

Community	Name	Organization	Date Contacted
Resolute Bay	Bathurst Remediation Risk Management Plan presentation	community	2015-03-18
Resolute Bay	High Arctic Remediation and Risk Management Plan community presentation	community	2016-05-17

AUTHORIZATIONS

Project Locations

North Baffin

Project Authorization

Authorizing Agency	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Aboriginal Affairs and Northern Development Canada	Crown Land-Use Permit	Applied, Decision Pending		
Nunavut Water Board	Type B Water Licence	Applied, Decision Pending		

MATERIAL USE

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
small excavator	1	n/a	remediation activities
barrel or wobble pump	2	n/a	fuel transfer
propane cook stove and oven	1	n/a	camp operations
diesel tent heaters	6	n/a	camp
atv with trailers	4	n/a	remediation

Detail Fuel and Hazardous Material Use

Fuel / Material	Type	Number of Containers	Container Capacity	Total Amount	Units	Proposed Use
Diesel	fuel	26	205	5330	Liters	remediation
Gasoline	fuel	26	205	5330	Liters	remediation
Aviation fuel	fuel	115	205	23575	Liters	remediation
Propane	fuel	23	45	1035	Lbs	camp

Project Water Consumption

Daily Amount (m3)	Proposed Water Retrieval Methods	Proposed Water Retrieval Location
4	Water will be extracted using an intake hose with as screen to ensure that no fish become trapped. Water will be pumped into a holding tank to be used for camp operations.	seasonal water body

WASTE

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional Treatment Procedures
Site Cleanup/Remediation	Combustible wastes	1m3/day	incineration	none
Camp	Greywater	1600L/day	pit backfilled with lime added at end of camp operation.	none
Site Cleanup/Remediation	Hazardous waste	70m2 asbestos, 30 fluorescent light tubes, one f	Double bagged in yellow bags, placed in a shipping container, shipped south to an accredited disposal facility	none
Site Cleanup/Remediation	Other, organic liquids	5m3 of organic liquids	incineration that meets all applicable air quality regulations	none
Site Cleanup/Remediation	Overburden (organic soil, waste material, tailings)	33m3 of PCB soils, 2m3 of metals and PHC	Excavated, containerized, and labelled in accordance with the Transportation of Dangerous Goods Act.	none
Site Cleanup/Remediation	Overburden (organic soil, waste material, tailings)	100m3	consolidation and installation of an engineered cap isolating the soils from the environment	long term monitoring
Site Cleanup/Remediation	Sewage (human waste)	n/a	pacto toilet	none

Environmental Impacts

See attached Environmental Screening Reports for both Bathurst and High Arctic. The Bathurst ESR is contained within the Bathurst Remedial Risk Management Plan.

DETAILS PART 2

Project General Information

1) The project is for the remediation/risk management of past oil and gas exploration sites in the high Arctic. It's needed to prevent future environmental degradation and reduce risks. 2) The alternative no-go solution would see the site left in its current state and the probable environmental migration of contaminants. 3) July: Mobilization of camp and equipment August - September: remediation/risk management September: Demobilization 4) • Canada Labour Code (R.S. 1985, c.L.-2) • Canada Occupational Health and Safety Regulations (SOR/86-304) • Environmental Protection Act (Nunavut) (R.S.N.W.T. 1988, c.E-7) • Transportation of Dangerous Goods Act (S.C. 1992, c. 34) a 1999, c. 31 • Nunavut Land Claim Agreement (Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada, 1993) • Spill Contingency Planning and Reporting Regulations (N.W.T. Reg. 068-93) • Migratory Birds Convention Act (1994, c. 22) • National Fire Code of Canada (1995) a. 2002 • Ozone Depleting Substances Regulations (SOR/99-7) • Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (CCME, 1999) • Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME, 1999) • CCME - Canadian Sediment Quality Guidelines for the Protection of Aquatic Life (2002). • Canadian Environmental Protection Act (1999, c. 33) • Controlled Products Regulations (SOR/88-66) a.SOR/2001-254 • Transportation of Dangerous Goods Regulations (SOR/2001-286) a. SOR/2003-400 • Intra-provincial Movement of Hazardous Waste Regulations (SOR/2002-301) • Nunavut Waters and Surface Rights Tribunal Act (2002, c. 10) • Nunavut Environmental Guideline for Waste Asbestos (GN, 2002) • Contaminated Sites Management Policy (INAC, 2002) • Northern Affairs Contaminated Sites Management Policy (INAC, 2002) • A Federal Approach to Contaminated Sites (CSMWG, 2002) • Used Oil and Waste Fuel Management Regulations (N.W.T. Reg. 064-2003) • INAC NCSP Project Level Risk Management Guidance Document (AANDC, 2008); • Contaminated Sites Cost Estimating Guide (AANDC, 2012) • Treasury Board Policy on Management of Real Property (TB, 2006) • Risk Management Tool & Reporting Tool User Guide (INAC, 2007) • Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil (CCME, 2008) • Environment, Health & Safety Management System Manual (AANDC, 2012) • Environment, Health & Safety Standard Operating Procedures Manual (INAC, 2008) • Environment, Health & Safety Control Framework, Northern Contaminated Sites Program (INAC, 2008) • Environment, Health & Safety Audit Program Guide (INAC, 2008) • Construction Project Safety Management Guide, 5th Edition (PWGSC, 2008) • Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (SOR/2008-197) 5) detailed in authorizations section

DFO Operational Statement of Conformity

1) N/A 2) Aboriginal and Northern Development Canada agrees to meet the conditions and incorporate the measures to protect fish and fish habitat as outlined in the applicable Operational Statements.

Transportation

1) Mobilization will occur using heavy lift aircraft out of Resolute Bay, Nunavut. A seasonal camp will be set-up at Ile Vanier which will serve as the base for remediation/risk management operations. Bi-Weekly supply flights will take place from Resolute Bay, Nunavut. 2) The main airstrip at Ile Vanier will be used as the base for operations. Additionally some of the sites have also have airstrips that were built during past oil and gas exploration activities. All of these airstrips are all-weather and will require some minor maintenance to get them up to usable shape again. Due to the remote nature of these it's impossible to provide further details at this time. 3) N/A 4) It is anticipated that crews will be shifted in and out every two weeks via aircraft. Flight altitudes to and from Ile Vanier will be heavily dependent on weather and the ceiling available to the pilots for flying.

Camp Site

1) A seasonal camp is proposed for Ile Vanier which will be used to support remediation/risk management operations. 2) Seasonal 3) The camp will house a maximum of 20 people for a maximum of 75 days. It's proposed to operation from July 15- September 30th of 2017 at the very latest.

Equipment

Equipment listed in material use section. All equipment will be used for camp or remediation/risk management purposes.

Water

1) Described in "Material Use" section. Water will be sourced from a seasonal water body at the Ile Vanier camp. 2) 4 m³/day 3) Waste water volumes will be very small at approximately 1600L/day. All camp sinks will have grease traps and pit will be backfilled with lime once camp operations have closed. 4) N/A

Waste Water (Grey water, Sewage, Other)

1) Described in "Waste" section. All "new" empty fuel drums generated from project activities will be collected and shipped off-site for proper disposal. 2) N/A

Fuel

Please see "Material Use" section, and Fuel Spill Contingency Plan enclosed in Water Licence Application as well as in "Authorizations" section.

Chemical and Hazardous Material

No chemicals or hazardous materials are being used as part of this project.

Workforce and Human Resources / Socio-Economic Impacts

1) The contract for remedial activities will contain an Inuit Opportunities Considerations (IOC) clause that requires the contractor to maintain a target level of Inuit employment on the project (and applies a penalty if the contractor fails to meet the target level). On past similar projects the Inuit employment level in the IOC has been in the range of 60-70%. The IOC also sets a target level of Inuit subcontracting. Past similar projects have had minimum Inuit subcontracting levels of 60-80%. The contract will also contain a training fund that will allow the contractor access to up to 2% of the contract value. 2) It's assumed that workers will be mobilized to site from Resolute Bay every two weeks. 3) N/A

Public Involvement / Traditional Knowledge

1) Residents and community groups from Resolute Bay would be positively impacted by this project. 2) Please see "Activities" section. 3) Please see "Activities" section. 4) Traditional knowledge was, where available, integrated into the Archaeological assessments done for the Bathurst sites. With this being said, traditional knowledge has not been integrated into the remediation/risk management planning for this project. 5) A project kick-off meeting will be held in Resolute Bay before the project starts, as will a post project completion meeting.

SECTION F: Site Cleanup/Remediation: Project Information

1) No landfills will be accessed as part of this project. 2) There's no salvageable equipment or infrastructure as part of this project. 3) All contaminants are listed in the "Waste" section. 4) The degree of contamination is low to moderate. 5) Only proven technologies and methods will be used. See Remediation/Risk Management Plans for further details. 6) See "Waste" section for disposal and transport methods. 7) N/A 8) None 9) None 10) None required 11) -airstrips will be used to support camp operations as well as remediation/risk management activities -camp will be used to house workers necessary for proposed work -Contaminated materials will be consolidated and packaged for transportation. They will be stored at a staging area until they are loaded onto trucks to be removed from site. Confirmatory samples will be taken from the staging area once the

materials are removed to confirm that the area is not contaminated. - Empty barrels will be handled as per the Barrel Protocol described in the Abandoned Military Site Remediation Protocol (INAC 2009).

Description of Existing Environment: Physical Environment

Please see attached Bathurst and High Arctic Environmental Screening Report

Description of Existing Environment: Biological Environment

Please see attached Bathurst and High Arctic Environmental Screening Report

Description of Existing Environment: Socioeconomic Environment

Please see attached Bathurst and High Arctic Environmental Screening Report

Identification of Impacts and Proposed Mitigation Measures

Please see attached Bathurst and High Arctic Environmental Screening Report

Cumulative Effects

Please see attached Bathurst and High Arctic Environmental Screening Report

IMPACTS

TABLE 1 - IDENTIFICATION OF ENVIRONMENTAL IMPACTS

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

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

Project Map



