



# ***SPILL CONTINGENCY PLAN***

## **Nagvaak Project NUNAVUT**

**StrategX Elements Corp.**  
# 514 – 55 Water Street  
Vancouver, B.C., V6B 1A1

[www.strategxcorp.com](http://www.strategxcorp.com)

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## **1. INTRODUCTION**

This Spill Contingency Plan has been prepared specifically for the Nagvaak) Project operated by StrategX Elements Corp. (StrategX or the Company). The plan demonstrates that StrategX will have appropriate response capabilities and measures in place to effectively address potential spills at its Project site. This plan shall be posted at operational sites and drill shacks.

StrategX endeavors to take every responsible precaution toward ensuring the protection and conservation of the natural environment and safety and health of all employees and contractors from any potential harmful effects of stored materials and operations.

### **1.1 Corporate Details**

Attention: Adam Vary, Project Manager

**StrategX Elements Corp.**  
# 514 – 55 Water Street  
Vancouver, B.C., V6B 1A1

### **1.2 Term of Spill Contingency Plan**

This Spill Contingency Plan shall be in effect from date of issue of applicable land use permits and water licence. Any future changes and/or amendments will be submitted to the Nunavut Water Board (NWB), Crown Indigenous Relations and Northern Affairs Canada (CIRNAC) and the Kivalliq Inuit Association (KIA).

### **1.3 Purpose and Scope**

The purpose of this Spill Contingency Plan is to provide a plan of action for all spills of hazardous materials that may occur on the Nagvaak Project, NU. This plan identifies key response personnel and their roles and responsibilities in the event of a spill, as well as the equipment and other resources available to respond to a spill. It details spill response procedures that will minimize potential health and safety hazards, environmental damage, and clean-up efforts. The plan has been prepared to ensure quick access to all information required in responding to a spill.

### **1.4 StrategX Elements Corporation Environmental Policy**

It is the policy of Strategx Elements Corporation to comply with all existing laws and regulations to help ensure the protection of the environment. StrategX cooperates with other groups committed to protecting the environment and ensures that employees, contractors, government, and the public is informed on the procedures followed to help protect the environment.

The plan is presented to all staff and contractors during their on-site orientation sessions. All employees and contractors are aware of the locations of the plan on site at the Project and in the StrategX Elements Corporation office.

During the orientation meeting, training sessions are scheduled to ensure employees and contractors understand the steps to be undertaken in the event of a spill. All employees and contractors are shown where spill kits are stored, are aware of their contents and are trained in using spill equipment and responding to spills. The company is committed to keeping personnel up to date on the latest technologies and spill response methods.

## 2. PROJECT AND SITE DESCRIPTION

### 2.1 Project Description

The Nagvaak Project (RE-27) is in the Kivalliq Region of Nunavut, approximately 170 km NE from Naujaat and consists of both Inuit-Owned Lands (surface rights), and Inuit-Owned Lands (sub-surface)

Year-round access to the property is via helicopter. The property is bounded in a general sense by the following minimum and maximum latitudes/longitudes:

Min (degree/minute)	Lat 67.480 N	Min (degree/minute)	Long 83.025 W
Max (degree/minute)	Lat 67.506 N	Max (degree/minute)	Long 83.240 W

All exploration activities are based out of North Arrow's fully permitted Mel camp on Crown Land camp under an agreement between the companies. The Mel camp is located at 67 32' 11" North Latitude 82 32' 19" West Longitude.

In 2021, exploration included helicopter supported sampling and mapping. A local wildlife monitor was hired from Naujaat to provide direction to the company on wildlife movements and mitigation measures. If wildlife were in the area, the monitor instructed the company to either wait until the wildlife moved a safe distance away or explore in another area.

In 2022, StrategX plans drilling of proposed targets by one drill for a 5-6-week period beginning in early September.

This Plan shall be in effect from date of issue of applicable land use permits and a water licence. Any future changes and/or amendments will be submitted to the Nunavut Water Board (NWB) and the Kivalliq Inuit Association (KIA).

Maps illustrating the regional context of the property and the project area are located in Appendix 2.

### 2.2 Current Permits/Licences

Permit/License No.	Regulatory Body	Type	Expiry
	Nunavut Water Board	Water License Type B	Applied for
KVL121B01	Kivalliq Inuit Association	Land Use Permit	Applied for
149774	NPC	Conformity analysis	

### 2.3 List of Hazardous Materials On-site

Fuel storage areas at the Project will include the main storage site adjacent to the Mel camp helicopter landing pad; in addition, small fuel caches will be located adjacent to active drill sites when drilling is underway. All containers of hazardous materials will be marked with StrategX's name.

Petroleum products and hazardous materials that will be considered in this Spill Contingency Plan include:

- Diesel fuel
- Hydraulic oil
- Lubricating oil
- Gasoline
- Jet A fuel
- Antifreeze
- Propane

The drilling company will employ various drilling muds and grease during the drilling operations. This information is included in Appendix 3 (MSDS Sheets).

**Table 1: List of hazardous materials stored on-site, type of storage container, the storage quantities, and storage locations where known**

Fuel/Lubricant	Purpose	Size	Quantity	Total
Jet A	Helicopter	205 litre drums	1025 L	5 drums
P-50 diesel	Drill	205 litre drums	1025 L	5 drums
Gasoline	Generator/pumps	205 litre drums	205 L	1 drums
Motor Oil (10W40)	generator, pumps	1 litre containers	1 cases x 12 L	12 Litres
Motor Oil (15W40)	Lubricant	1 litre pails	1 pail	1 litre
Linseed Oil	Drill			
Pre-mixed Engine Coolant	Engine Coolant	2 ltr containers	10 containers	20 litres
911		1 litre containers	1 case x 12 litres	12 litres
Hydraulic Fluid	Drill			
Drilling Mud	Drill			
CaCl <sub>2</sub>	Drilling Salt			bags

### 2.4 Petroleum and Chemical Product Storage and Transport

All fuel will be stored no closer than the regulated distance from the normal high-water mark of any water body (>100 metres).

Other petroleum-based materials found on-site in very small quantities will be in the drill shack. These include lubricants/oil/grease for the maintenance of the drilling equipment. The drill shack will be located over 30 metres from the normal high-water mark of any water

body. All fuel, oil and any chemicals are transported to site by helicopter and to any drill sites by helicopter.

## **2.5 Petroleum Product Transfer**

Manual and automatic pumps (and aviation fuel filters for jet fuel) are used for the transfer of all petroleum products. Smoking, sparks, or open flames are **prohibited** in fuel storage and always fuelling areas. Portable drip trays and appropriately sized fuel transfer hoses with pumps are used when refuelling aircraft or other equipment, to avoid any leaks/drips onto the land.

## **2.6 Camp/Exploration Equipment Maintenance**

All maintenance work required for camp or exploration equipment will utilize special procedures including the use of portable drip pans to manage motor fluids and other waste to contain potential spills. Preventative maintenance will be performed regularly to help eliminate the potential for leaks.

## **2.7 Spill Containment Equipment**

Equipment available on site to assist in responding to a hazardous materials spill includes various handheld tools including shovels. In addition to these, one large spill kit will be situated at the drill site and on the helicopter.

Spill kits are located wherever fuel is stored or used. The typical spill kit has a sorbent capacity of 240 litres and the contents include:

- 1 – 360 litre/79 gallon polyethylene over pack drum
- 4 – oil sorbent booms (5" X 10')
- 100 – oil sorbent sheets (16.5" X 20" X 3/8")
- 1 – drain cover (36" X 36" X 1/16")
- 1 – *Caution* tape (3" X 500')
- 1 – 1 lb plugging compound
- 2 – pair Nitrile gloves
- 2 – pair Safety goggles
- 2 – pair Tyvel coveralls
- 1 – instruction booklet
- 10 – printed disposable bags (24" X 48")
- 1 – empty fuel drum

## **2.8 Existing Preventative Measures**

Planning for an emergency is imperative, due to the nature of the materials stored on site as well as the remoteness of the site. Along with the preventative measures outlined below, adequate training of staff and contractors is paramount.

All hazardous materials arrive by air as needed throughout periods of active exploration. They are unloaded by airplane and helicopter pilots and StrategX's staff and contractors and carefully placed in the fuel storage and hazardous materials storage areas.

The Project Manager conducts daily visual inspections to check for leaks or damage to the fuel storage containers, as well as for stained or discoloured soils/snow around the fuel

storage areas and adjacent equipment. For example, lids/caps are checked for tight seals. A checklist is used to ensure no areas are missed.

## **2.9 Copies of Spill Contingency Plan**

Several copies of the plan are always kept on-site at the Project camp, the camp fuel cache and at any drill shacks during active drilling periods. As well a copy will also be located at StrategX's corporate office.

## **3.0 Spill Response Team**

The Project Manager will be the On-Scene Coordinator for the Project and will appoint and train appropriate personnel to make up the Project Spill Response Team. The key personnel that make up the Project Spill Response Team are as follows:

On-Scene Coordinator: Adam Vary

Project Manager Adam Vary

In addition to the On-Scene Coordinator/Project Manager, approximately 6 personnel are available on site to assist in spill response and cleanup activities.

The responsibilities of the On-Scene Coordinator/Project Manager are as follows:

1. Assume complete authority over the spill scene and coordinate all personnel involved.
2. Evaluate spill situation and develop overall plan of action.
3. Activate the spill contingency plan
4. Immediately report the spill to:  
NT-NU 24-Hour Spill Report Line (867) 920-8130  
KIA Land Use Inspector: (867) 645-5735  
Other regulatory agencies and StrategX Elements Corp. management (see *Table 2 – Emergency Contacts*).
5. Obtain additional manpower, equipment, and material if not available on site for spill response.

The responsibilities of the Project Manager are as follows:

1. Provide regulatory agencies and Company management with information regarding the status of the cleanup activities.
2. Act as a spokesperson on behalf of StrategX with regulatory agencies as well as the public and media.
3. Prepare and submit a report on the spill incident to regulatory agencies (including the KIA Inspector) within 30 days of the event.

## **4. REPORTING PROCEDURE**

The On-Scene Coordinator must be notified immediately of any spill either by phone, radio, or in person.

The following is the spill reporting procedure:

1. Report immediately to the NT-NU 24-Hour Spill Report Line  
(867) 920-8130  
KIA Inspector (867) 645-5725

- And other regulatory agencies, and Forum management  
(see *Table 2 – Emergency Contacts*)
2. Complete the NT-NU Spill Report Form and fax the report to the NT-NU 24-Hour Spill Report Line fax (867) 873-6924.

**Table 2 – Emergency Contacts**

<b>CONTACT</b>	<b>TELEPHONE NUMBER</b>
KIA - Land Use Inspector	(867) 645-5725
StrategX Elements Corp.	604-379-5515
Environment Canada 24-hour Duty Officer	(867) 766-3737, (867) 873-8185 (Fax)
CIRNAC– Water Resource Officers, Rankin Inlet and Iqaluit, NU	Rankin Inlet (867) 645-2831 Iqaluit (867) 975-4298
Nunavut Tunngavik Inc., Cambridge Bay	(867) 983-2517
Naujaat Fire Department	(867) 462-4422
RCMP, Naujaat	<a href="tel:8674620123">(867) 462-0123</a>
Health Centre – Naujaat	<a href="tel:8674629916">(867) 462-9916</a>
On-Site Project Geologist	<i>Information to be supplied once phone system is established on the property</i>
Fisheries and Oceans	(867) 979-8007
Nunavut Department of Environment	(867) 975-7700
Nunavut Department of Environment, Waste Manifests	(867) 975-7748
Manager, Pollution Control and Air Quality, Environmental Protection, Govt of Nunavut	(867) 975-7748; (867) 975-7739 (Fax)

## **5.0 ACTION PLANS**

The following responses are recommended for fuel spills in differing environments. Depending on the location and size of the exploration program some of the equipment mentioned in the responses listed below will obviously not be located on site but could be transported to the spill if deemed necessary. The most likely scenario for fuel spills in this type of exploration program would include leaking drums, hydraulic line malfunction and re-fueling operations. It is not anticipated that a spill of more than 45 gallons will occur as no fuel container on-site will exceed this capacity.

### **5.1 Spills on Land (gravel, rock, soil and vegetation)**

Trench or ditch to intercept or contain flow of fuel or petroleum products on land where feasible (loose sand, gravel and surface layers or organic materials are amenable to trenching/ditching. Trenching in rocky substrates is typically impractical and impossible.

Construct a soil berm downslope of the spill. Use of synthetic, impervious sheeting can also be used to act as a barrier. Where available, recover spills through manual or mechanical means including shovels, and pumps. Absorb petroleum residue with synthetic sorbent pad materials. Recover spilled and contaminated material, including soil and vegetation. Transport contaminated material to approved disposal or recover site. Equipment used will depend on the magnitude and



location of the spill. Land based disposal is only authorized with the approval of government authorities.

## **5.2 Spills on Snow**

Trench or ditch to intercept or contain flow of fuel or petroleum products on snow where feasible (ice, snow, loose sand gravel and surface layers of organic materials as amenable to trench/ditching; trenching in solid, frozen ground or rocky substrates is typically impractical and impossible.

Compact snow around the outside perimeter of the spill area. Construct a dike or dam out of snow, either manually with shovels or with heavy equipment such as graders or dozers were available. If feasible, use synthetic lines to provide an impervious barrier at the spill site. Locate the low point of the spill area and clear channels in the snow, directed away from waterways, to allow non-absorbed material to flow into the low point. Once collected in the low area, options include shoveling spilled material into containers, Transport contaminated material to approved disposal site. Equipment used will depend on the magnitude and location of the spill.

## **5.3 Spills on Ice**

Contain material spill using methods described above for snow. Prevent fuel/petroleum products from penetrating ice and entering watercourses. Remove contaminated material, including snow/ice as soon as possible. Containment of fuel/petroleum products under ice surface is difficult given the ice thickness and winter conditions. However, if the materials get under ice, determine area where the fuel/petroleum product is located. Drill holes through ice using ice auger to locate fuel/petroleum product. Once detected, cut slits in the ice using chain saws and remove ice blocks. Fuel /petroleum products collected in ice slots or holes can be picked up via suction hoses connected to portable pump. Care should be taken to prevent the end of the suction hose clogging up by snow, ice or debris.

## **5.4 Spills on Water:**

- Contain spills on open water immediately to restrict the size and extent of the spill. Fuel/petroleum products which float on water may be contained using booms, absorbent materials, skimming and the erection of culverts.
- Deploy containment booms to minimize spill area, although effectiveness of booms may be limited by wind, waves, and other factors.
- Use sorbent booms to slowly encircle and absorb spilled material. These absorbent booms are hydrophobic (absorb and repel water). Once booms are secured, use skimmers to draw in hydrocarbons and minimal amounts of water. Skimmed material can be pumped through hoses to empty fuel tanks/drums.
- Culverts permit water flow while capturing and collecting fuel along the surface with absorbent materials.
- Chemical methods including dispersants, emulsion – treating agents and shoreline cleaning will be considered.

## **5.5 Spills Due to Accidental Load Release**

The loss of external loads of fuel, oil or chemicals from the helicopter requires an immediate response.

- Obtain GPS co-ordinates of the location of the spill and contact base camp. Include quantity and type of load loss.
- Base camp will contact the 24-Hour Spill Line and receive instructions on follow up procedures.
- Administer the appropriate procedure for spills on Land, Water, Snow or Ice

**NOTE:**

1. **Material Safety Data Sheets** for all hazardous materials involved in this project are listed in Appendix 3. These MSDS sheets are for all drilling mud, polymers and greases as well as for calcium chloride, diesel, Jet A-1 with AIA, propane and gasoline.
  2. Precautions need to be taken to ensure safety of personnel. Also, spilled product should be confined to control burning. These include areas where the spilled material has pooled naturally or been contained via dikes, trenches, depressions, or ice slots. Prior to any attempts at in-situ burning, consultation with experts and approval by government authorities are required.
  3. Chemical response methods are also available and may include the use of dispersants, emulsions-treating agents, visco-elastic agents, herding agents, solidifiers, and shoreline cleaning agents.
  4. Biological response methods include nutrient enrichment and natural microbe seeding.
  5. Site remediation will be completed as per the advice of government authorities.

## **6.0 RESOURCE INVENTORY**

### **Resources available on site:**

Trenching/digging equipment in the form of picks and shovels.

Pumps

Impervious sheeting (tarps)

Plastic bags, buckets, empty drums for collection of contaminated material.

2 Spill Kits containing:

- 4 – oil sorbent booms (5" x 10')
- 100 – oil sorbent sheets (16.5" x 20" x 3/8")
- 1 – drain cover (36" x 36" x 1/16")
- 1 – 1lb plugging compound
- 2 – pair Nitrile gloves
- 2 – pair Safety goggles

10 – disposable bags



## **7.0 TRAINING/EXERCISE**

StrategX Elements Corp. is aware that without practice no Contingency Plan has value.

At least one practice drill will be held per season to give all employees and contractors a chance to practice emergency response skills. Each practice will be evaluated, and a report prepared with the objective of learning where gaps and deficiencies exist, and in what areas more practice is required. Response criteria, communication and reporting requirements will be discussed to ensure everyone fully understands them.

# APPENDIX 1

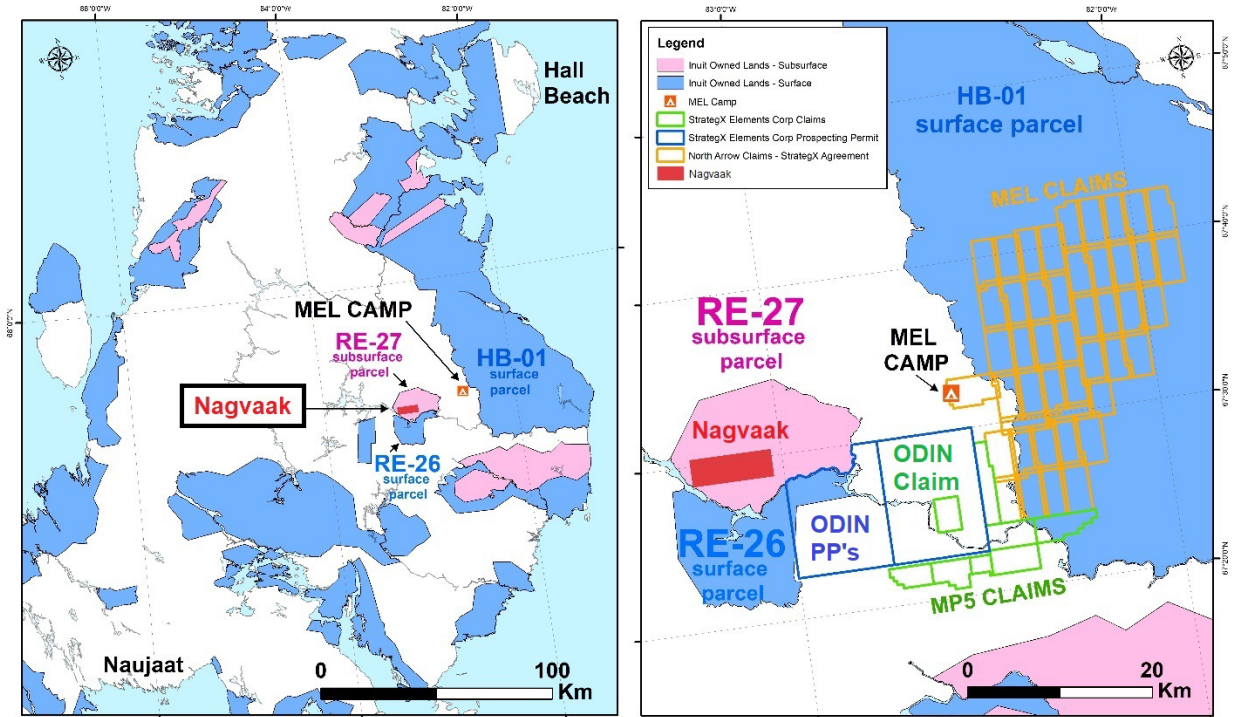
## NT/NU Spill Report Instructions and Form

				<b>NT-NU SPILL REPORT</b>		<b>NT-NU 24-HOUR SPILL REPORT LINE</b>	
				OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS		TEL: (867) 920-8130 FAX: (867) 873-6924 EMAIL: spills@gov.nt.ca	
						<b>REPORT LINE USE ONLY</b>	
<b>A</b>	REPORT DATE: MONTH - DAY - YEAR	REPORT TIME	<input type="checkbox"/> ORIGINAL SPILL REPORT, OR		REPORT NUMBER		
<b>B</b>	OCCURRENCE DATE: MONTH - DAY - YEAR	OCCURRENCE TIME	<input type="checkbox"/> UPDATE # TO THE ORIGINAL SPILL REPORT				
<b>C</b>	LAND USE PERMIT NUMBER (IF APPLICABLE)		WATER LICENCE NUMBER (IF APPLICABLE)				
<b>D</b>	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION		REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT JURISDICTION OR OCEAN				
<b>E</b>	LATITUDE DEGREES      MINUTES      SECONDS		LONGITUDE DEGREES      MINUTES      SECONDS				
<b>F</b>	RESPONSIBLE PARTY OR VESSEL NAME		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION				
<b>G</b>	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION				
<b>H</b>	PRODUCT SPILLED		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER		
<b>I</b>	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER		
<b>J</b>	SPILL SOURCE		SPILL CAUSE		AREA OF CONTAMINATION IN SQUARE METRES		
<b>K</b>	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT		
<b>L</b>	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS						
<b>M</b>	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE		
<b>N</b>	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE		
<b>REPORT LINE USE ONLY</b>							
<b>O</b>	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130		
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC		SIGNIFICANCE <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/> UNKNOWN		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED			
AGENCY	CONTACT NAME		CONTACT TIME	REMARKS			
LEAD AGENCY							
FIRST SUPPORT AGENCY							
SECOND SUPPORT AGENCY							
THIRD SUPPORT AGENCY							



## APPENDIX 2

### Regional and Detailed Property Location Maps



## APPENDIX 3

**MSDS Sheets *attached separately due to size***

