

# **ABANDONMENT AND RESTORATION PLAN**

**FOR THE ASTON BAY PROPERTY  
(ALSO KNOWN AS THE STORM PROPERTY)  
NUNAVUT, CANADA**

Prepared For:



Prepared By:



**Effective June 2020**

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## 1. Introduction

This Abandonment and Restoration Plan (“ARP”) applies to mineral exploration activities conducted by Aston Bay Holdings Ltd. (“Aston Bay”) at the Aston Bay Property (the “Property” or the “Project,” also known as the “Storm Property” or “Storm Project”), Somerset Island, Nunavut. This ARP will come into effect June 2020, pending approval. Copies and updates to this plan may be obtained by contacting Aston Bay Holdings Ltd.

### 1.1 Contact Details

**Aston Bay Holdings Ltd.**

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Tel: (416) 456-3516

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

### 1.2 Purpose and Scope

The purpose of the Aston Bay Property ARP is to provide guidelines to follow during seasonal shutdown and final abandonment of the Property, in order to return exploration sites to as near as possible to natural conditions. The ARP will be replaced, upon approval, if any there are significant changes to the activities outlined in the existing permits which warrant changes to the ARP. Minor changes will be submitted as an addendum to the ARP and submitted to the distribution list as required.

### 1.3 Other Plans

The ARP should be considered as a part of the property wide management system. Other management plans in place at the Aston Bay Property include:

- Emergency Response Plan (“ERP”)
- Environmental Management Plan (“EMP”)
- Fuel Management Plan (“FMP”)
- Spill Prevention and Response Plan (“SPRP”)
- Waste Management Plan (“WMP”)

### 1.4 Project Description

Aston Bay Property is located on northern Somerset Island, in the Qikiqtani Region of Nunavut (Appendix A, Figure 1) within the 1:50,000 scale National Topographic System (“NTS”) map sheets

058B14 and 15, 058C02, 03, 06, 07, 10, 11, 13 and 14 and 058F02, 03 and 04. The nearest community to the Property is Resolute Bay, located 112 km to the north, across Parry Sound on the southern edge of Cornwallis Island. The Property includes the Seal Zinc prospect and multiple copper-silver showings, collectively known as the Storm Copper prospect.

Aston Bay Property comprises one hundred eighteen contiguous mineral claims and twelve prospecting permits. The Property covers a combined area of approximately 391, 483 ha and is bound by latitudes 72°45' N and 73°56' N, and longitudes 93°20' W and 95°20' W (Appendix A, Figure 2 and Figure 3).

From 1964 until 2001, Cominco Ltd. was actively conducting exploration within the Property area. Commander Resources Ltd. ("Commander") explored on the Property from 2008 to 2011. In November 2011, Aston Bay entered into an option agreement with Commander and by February 2016, acquired 100% of Commander's interest in the Property. From 2012 to 2015, Aston Bay completed small exploration programs, but no drilling was undertaken. The 10-20 person Aston Camp was established in 2014 located at approximately 73°42' N latitude and 94°43' W longitude. In 2016, the Aston Camp was removed, with the exception of one 14'x16' wooden shack containing survival equipment, and the 40-person Storm Camp and airstrip was established along the Aston River at approximately 73°39'23" N latitude and 94°27'07" W longitude (Appendix A, Figure 4 and Figure 5). Between 2016 and 2018, Aston Bay completed surface sampling, an airborne geophysical survey, and diamond drilling. In 2019, no exploration work was completed.

Aston Bay's annual exploration program may include 5,000 to 10,000 m of diamond drilling, soil and rock geochemical sampling, geological mapping and ground geophysical surveys. Similar programs are anticipated for 3 to 4 subsequent years. All exploration activities will be helicopter supported and based out of Storm Camp.

A fuel cache of approximately 80,000 L (400 drums) will be established at the current fuel cache, adjacent to camp. The cache will be primarily diesel and jet fuel, with small quantities of gasoline and propane. All fuel and any other hazardous materials will be stored within secondary containment. Off-season fuel storage may include up to 60 drums of jet fuel and diesel, and up to 20 cylinders of propane. Small, temporary fuel caches of less than 4,000L may also be required to support the drilling and exploration programs. Within 30 days of establishing any temporary fuel cache, Crown-Indigenous Relations and Northern Affairs Canada ("CIRNAC") will be notified of the details of the cache including: location, fuel type, container sizes, method of storage and date of removal.

Aston Bay is currently applying for a Nunavut Water Board (“NWB”) Type B Water Licence Renewal and Amendment as the current water licence 2BE-STO1520 will expire on June 1, 2020. Additionally, as the CIRNAC Land Use Permit (“LUP”) N2015C0014 will expire April 21, 2021, Aston Bay is also applying for a new Class A LUP. The NWB amendment is requesting an increase in the water allowance, from 82 m<sup>3</sup>/day (2 m<sup>3</sup>/day for camp and 80 m<sup>3</sup>/day for drilling) to 299 m<sup>3</sup>/day (10 m<sup>3</sup>/day for camp and 289 m<sup>3</sup>/day for drilling). In addition, Aston Bay is applying to increase the drilling area to include the entire currently permitted Project Extent, but will ensure that all ground disturbance activities, water use and waste disposal will only occur over lands that have an active mineral tenure held by Aston Bay. No exploration activities, drilling, water use, or waste disposal will be undertaken on Inuit Owned Lands (“IOL”), without a licence granted by the Qikiqtani Inuit Association (“QIA”).

## **2. Schedule**

Exploration work at the Aston Bay Property is seasonal, commencing as early as June and continuing through to as late as September. Exploration work annually includes a diamond drilling program of 5,000 to 10,000 metres, soil and rock geochemical sampling, geological mapping and geophysical surveys.

Camp opening typically commences in early to mid-June. Exploration activities generally start 1-2 weeks later. Certain activities, such as emplacement of fuel caches may be completed earlier between March and May, depending on snow and ice conditions. The timing of seasonal shutdown is highly dependent on weather and budget and may commence in mid to late August or as late as September.

Final abandonment and restoration will commence as soon as possible after it has been determined that the project does not warrant further exploration or following commercial production. The duration of the final abandonment and restoration is dependent on the scale of infrastructure on site and on environmental parameters (physical, biological, and socio economic). All abandonment and restoration work will be completed prior to the date of expiry of any existing or future applicable land use permits and water licenses.

## **3. Detailed Infrastructure and Inventory**

No work was completed during the 2019 season; therefore, no water was used, nor waste created. The camp stands as it was left at the end of the 2018 season, including structures, a small cache of fuel, and drilling equipment.

### 3.1 Aston Camp Inventory (August 2018)

As of August 25, 2018, all that remains at Aston Camp is the historical drill core, a small amount of lumber and one 14'x16' wooden storage shack. The lumber is stacked neatly against the side of the shack. Aston Bay elected to keep the shack on site to store survival equipment and to serve as a shelter for personnel working on the historical core in future years.

### 3.2 Storm Camp Inventory (August 2018)

Camp equipment was mobilized from Yellowknife to Resolute Bay ahead of the program by chartered aircraft and was shuttled to site by Twin Otter at the start of the program. Eighteen structures were constructed during 2018, in addition to the four existing plywood structures already on site (Pacto toilet shack, storage shack, water tank shack, generator shack). With the exception of the kitchen and core cutting shack, the new structures were all insulated Weatherport tents, built upon existing wooden floors. The kitchen was constructed using dimensional lumber and plywood, upon an existing wooden floor.

Upon completion of the program, all tents and plywood buildings were left in place for future use. Electronics and communications gear were removed from site. Most other camp equipment was stored on site inside of the tents or plywood buildings. All remaining lumber was stacked at the east end of camp for future use. Tables 1 to 4 list the structures, major equipment, vehicles and fuel left on site at the close of the season on August 25, 2018.

**Table 1 Storm Camp remaining structures August 25, 2018.**

Quantity	Item
1	16'x32' plywood kitchen building.
1	14'x32' plywood floor for core shack.
1	12'x20' plywood latrine shack. Includes 5 Pacto toilets.
1	10'x16' plywood storage shack.
1	10'x12' plywood generator shack. Includes exhaust piping, etc.
1	12'x12' plywood core cutting shack.
11	14'x16' insulated Weatherport tents on plywood floor to serve as sleeper tents. Includes plywood beds, tables, chairs etc.
3	14'x16' insulated Weatherport tents on plywood floors to serve as dries. Includes shower stalls, sink, plumbing, etc.
2	14'x16' insulated Weatherport tents on plywood floors to serve as office and first aid tent. Includes tables, chairs, etc.

**Table 2 Storm Camp remaining equipment August 25, 2018.**

Quantity	Item
2	Water tanks (350 gal & 250 gal)
2	Hot water tanks
2	Water supply pumps with fish screen and hose line
2	Water pressure pumps
1	14 kVA diesel generator
2	5 kW gas generators
1	Electrified bear fence (taken down at end of season)
1	Dual chamber controlled air incinerator
4	Refrigerators
3	Chest freezers
2	Cooking stoves
1	Dishwasher
3	Washing machines
3	Dryers
17	Toyotomi heating stoves
4	Oil drip stoves
5	Pacto toilets
3	Containment berms for fuel cache & drill equipment
20	Mini berms for tent drums and fuel transfer
	Heavy electrical cables and panel boxes
	Various lumber (stacked by generator shack)
	Various office, camp and medical supplies

**Table 3 Storm Camp remaining fuel August 25, 2018.**

Quantity	Item
17	Diesel (205 L drum)
26	Jet Fuel (205 L drum)
2	Gasoline (205 L drum)
7	Propane (100 lb cylinder)

**Table 4 Storm Camp remaining vehicles August 25, 2018.**

Quantity	Item
2	All-terrain vehicles with trailers

### 3.3 Drill Equipment Inventory

Two diamond drills were mobilized to the Property for the 2018 season. The drills, including most of the ancillary equipment and consumables, were left on site for subsequent drill

programs. All equipment was drained of fuel and oil for off-season storage. Tables 5 and 6 list the drilling equipment and consumables left on site at the close of the season on August 25, 2018.

**Table 5 Remaining Drill Equipment August 25, 2018**

Quantity	Item
1	Zinex A-5 diamond drill with engine, feed frame, control panel, drill head, foot clamp, wireline and drill shack
1	MPP Discovery II diamond drill with engine, feed frame, control panel, drill head, foot clamp, wireline and drill shack
1	Spare engine
1	Spare rotation motor
1	Spare drill head
2	Spare feed cylinders
2	Spare foot clamps
2	Spare winch and pump drive motors
1	Spare main hydraulic pump
1	Spare wireline winch (2 spare rolls of wireline)
6	5 kW gas generators
2	Welders
5	Supply pumps (1 spare transmission)
4	Trash pumps
3	Spare down hole pumps
2	Mud separators
6	Mud tanks
8	Coil stoves
3	Diesel heaters
6	Fuel tanks
2	Fly baskets
266	3 m NQ drill rods
90	1.5 m casing
16	Outer tubes
18	Inner tubes
75	200 psi water line
75	400 psi water line
4	Spill kits
2	Survival shacks
	Various fittings & tooling



**Table 6 Remaining Drill Consumables August 25, 2018**

Quantity	Item
112	Various drill muds (5 gal pails)
23	Motor oil (5 gal pails)
30	Hydraulic oil (5 gal pails)
36	Antifreeze
140	Calcium Chloride (50 lb bags)

#### **4. Progressive Reclamation**

Aston Bay will carry out progressive reclamation of all exploration and drill sites. The processive reclamation activities will include, but are not limited to:

- Photos will be taken at each drill site before and after drilling operations.
- Drill equipment, fuel and any other hazardous materials will be moved to the next drill site immediately.
- All garbage, debris and empty drums will be backhauled to camp.
- Completed drillholes will be plugged and cemented in bedrock and drill casing will be either removed or if removal is not possible, cut off below ground level and capped.
- Any spills will be treated as per the Aston Bay Property “Spill Prevention and Response Plan.”
- No material or residue will be allowed to accumulate on any lake ice surface. Any material that may become frozen to the ice during the drill operations will be chipped out and removed for proper disposal.

#### **5. Seasonal Shutdowns**

##### **5.1 Inspection and Documentation**

Prior to seasonal shutdown, a complete inspection of all areas will be conducted. Photographs at all sites (camp, fuel cache, drilling, etc.) will be taken to document the conditions prior to leaving the site for winter and will be archived along with photos taken at the beginning of each season. Copies of these photos will be included as part of the Aston Bay Property Annual Report.

##### **5.2 Buildings, Contents and Fuel**

A full inventory of all structures, equipment, fuel, and other supplies will be taken at the beginning and end of each exploration season.

All food, wastes, empty fuel drums, and valuable or sensitive equipment will be removed from site. All structures to be left on site will be winterized, closed off, and secured. One or more tent(s) or plywood building(s) will be designated to house any chemicals or other hazardous materials that are not suited to outdoor storage. All water tanks and pipes will be drained at the end of each season. Pumps and hoses will be drained and stored inside a tent. All mechanical equipment, including vehicles, drill equipment, and generators will be winterized, be drained of fuel and, where necessary, stored in berms for secondary containment.

The remaining fuel cache will be winterized. It will be secured and covered to mitigate the influx of snow and water. Fuel drums will be stored on their sides in organized rows with the bungs in the three o'clock and nine o'clock positions. All fuels and other hazardous materials will be stored within "Arctic Insta-Berms", or similar products, for secondary containment. "RainDrain" or similar hydrocarbon filtration systems will be used to safely remove any water collected inside the berms, and as a safeguard against any potential overflows of contaminated water. Should any temporary fuel caches be established during the program to support drilling and exploration activities, upon shutdown will be removed or properly winterized using the aforementioned procedure.

### **5.3 Waste**

All wastes will be separated into combustible, non-combustible, recyclable or hazardous at the source. Refer to Aston Bay Property "Waste Management Plan" for detailed waste management practices during program operations. Any contamination will be treated as per the "Spill Prevention and Response Plan."

### **5.4 Seasonal Restoration**

Any contaminated areas around the camp or drill sites will be treated in accordance with the Aston Bay Property "Spill Prevention and Response Plan." Any washed-out areas will be filled and re-contoured to natural levels. Any areas of disturbed vegetation, including camp, fuel caches or drill sites will be photographed and managed as per recommendation of the CIRNAC inspector. Remediation procedures might include fertilization to encourage re-growth.

## **6. Final Abandonment and Restoration**

### **6.1 Inspection and Documentation**

Prior to final abandonment, a thorough inspection of all areas will be conducted. Any contaminated areas around the camp or drill sites that have gone unnoticed will be treated as per the "Spill Prevention and Response Plan." Photographs will be taken to include in the final

reports submitted to the CIRNAC Inspector and as part of the Annual Report submitted to the CIRNAC, NWB and NIRB. All relevant regulatory agencies will be notified upon final abandonment of the Property.

## **6.2 Buildings, Content, and Fuel**

Prior to land use permit, claim or lease termination, all structures, equipment, supplies, and fuel will be removed from the Property with the exception of the drill core stacks, which will be permanently secured on site. Tent floors will be burned in accordance with the *Nunavut Environmental Guideline for the Burning and Incineration of Solid Waste*. Materials of value will be salvaged. Local businesses and residents will have the opportunity to salvage any remaining materials that will otherwise be disposed of.

Drills and drilling equipment will be dismantled, packaged, secured, and shipped as per the drill contract. Any drill casing that could not be removed will be cut off below ground level and capped.

All remaining fuel and empty drums will be removed from site. The soil under and surrounding any area where fuel was stored will be thoroughly inspected for any contamination and photographs will be taken.

## **6.3 Waste**

All wastes will be disposed of in accordance with the Aston Bay Property “Waste Management Plan” and any contamination will be treated as per the “Spill Prevention and Response Plan.” Sumps will be inspected to ensure there is no leaching or run-off. Back filling and leveling will be employed as necessary.

## **6.4 Restoration**

Tent sites, drill sites, and any other areas disturbed by activities related to exploration at the Aston Bay Project may be fertilized as recommended by the CIRNAC Inspector to encourage re-vegetation. Eroded or washed out areas related to exploration activities will be filled and re-contoured to natural levels. Any contaminated areas around the camp or drill sites that have gone unnoticed will be treated as per the “Spill Prevention and Response Plan.”

## **7. Post Closure Site Monitoring**

After reclamation is complete, if annual monitoring is required by an inspector, it may consist of soil and water testing, measuring and documenting plan re-growth, examining potential run-

off and erosion problems, and checking the stability and condition of the core boxes. Reports, including photographs, will be submitted to the appropriate regulatory bodies.

## 8. Emergency Contact Information

**Table 7 Emergency Contact Information**

Contact	Telephone Number
24 Hour Spill Report Line	1-867-920-8130
Thomas Ullrich, Project Supervisor COO & Executive VP (Aston Bay Holdings Ltd.)	1-416-456-3516
Chris Livingstone, Project Supervisor Project Geologist (APEX Geoscience Ltd.)	1-778-847-7450
CIRNAC Land Administration Division	1-867-975-4283
CIRNAC Resource Management Officer (Iqaluit)	1-867-975-4296
CIRNAC Water Resources Officer (Iqaluit)	1-867-975-4296
Government of Nunavut Department of Environment	1-867-975-7700
DFO (Central and Arctic Branch)	1-867-979-8039
Nunavut Water Board	1-867-360-6338
RCMP – Resolute Bay (non-emergency)	1-867-252-0123
Resolute Bay Health Centre	1-867-252-3844
Qikiqtani (Baffin) Regional Hospital	1-867-975-8600
Medevac (Keewatin Air, Qikiqtani Office)	1-867-979-3970
Poison Control	1-800-268-9017
Storm Camp Main Line	TBD*
Storm Camp Satellite Phone	TBD*

\* The Phone numbers for the satellite phone system used in camp change annually.

## Appendix A: Figures

**Figure 1 Aston Bay Property Location**





Figure 2. Aston Bay Project Extent and drilling areas.

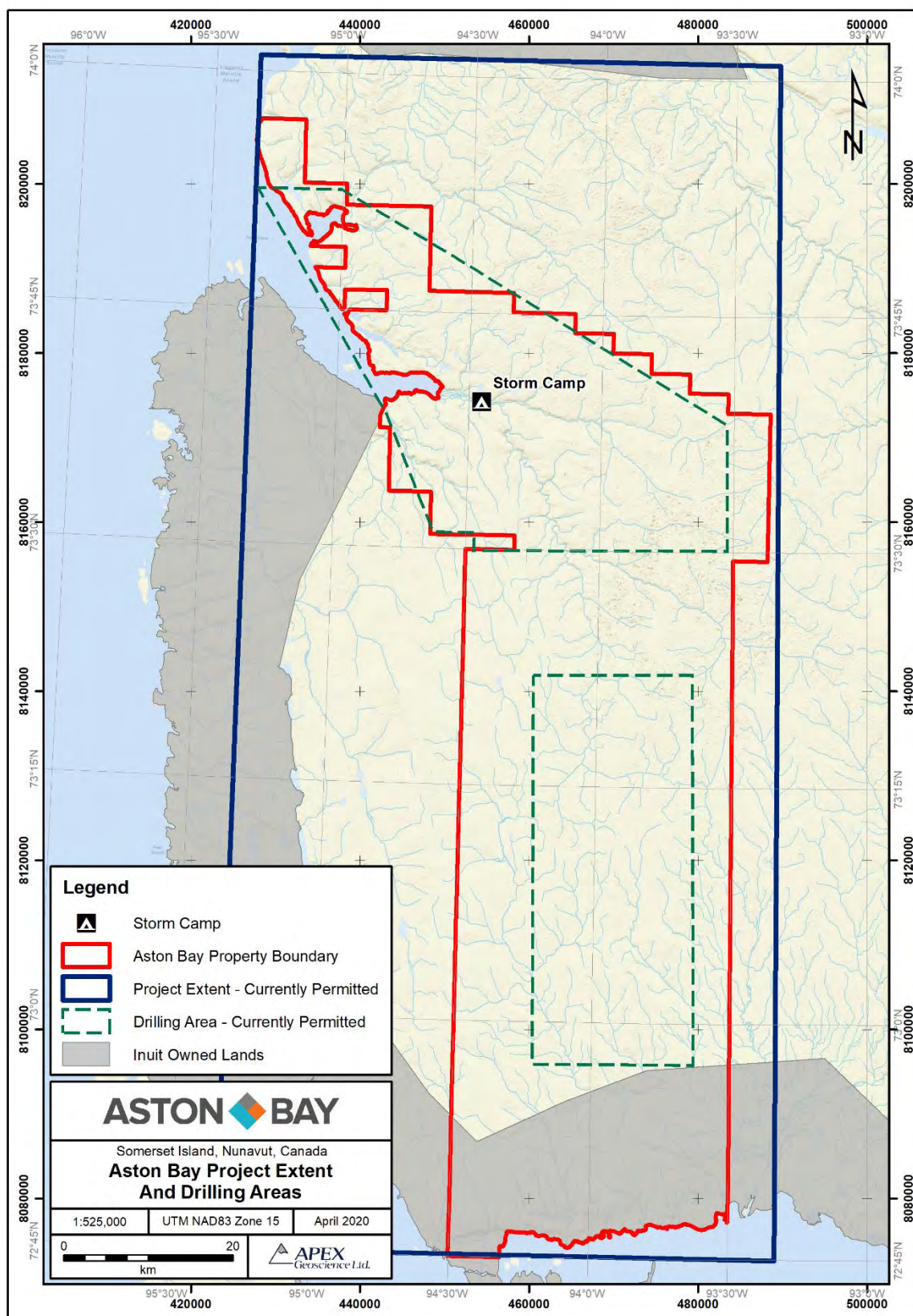




Figure 3. Aston Bay Property mineral tenures.

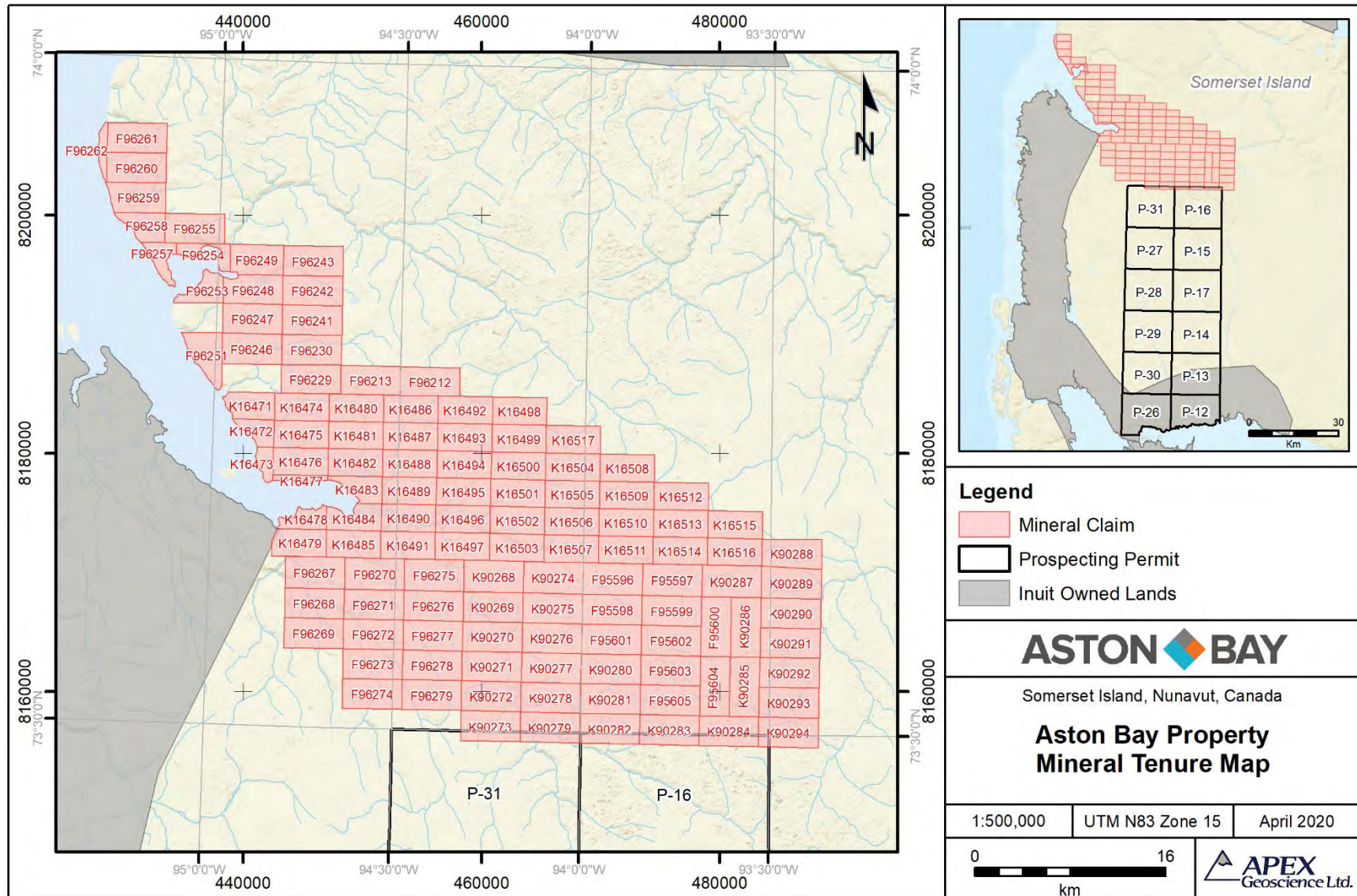




Figure 4. Storm Camp and airstrip locations.

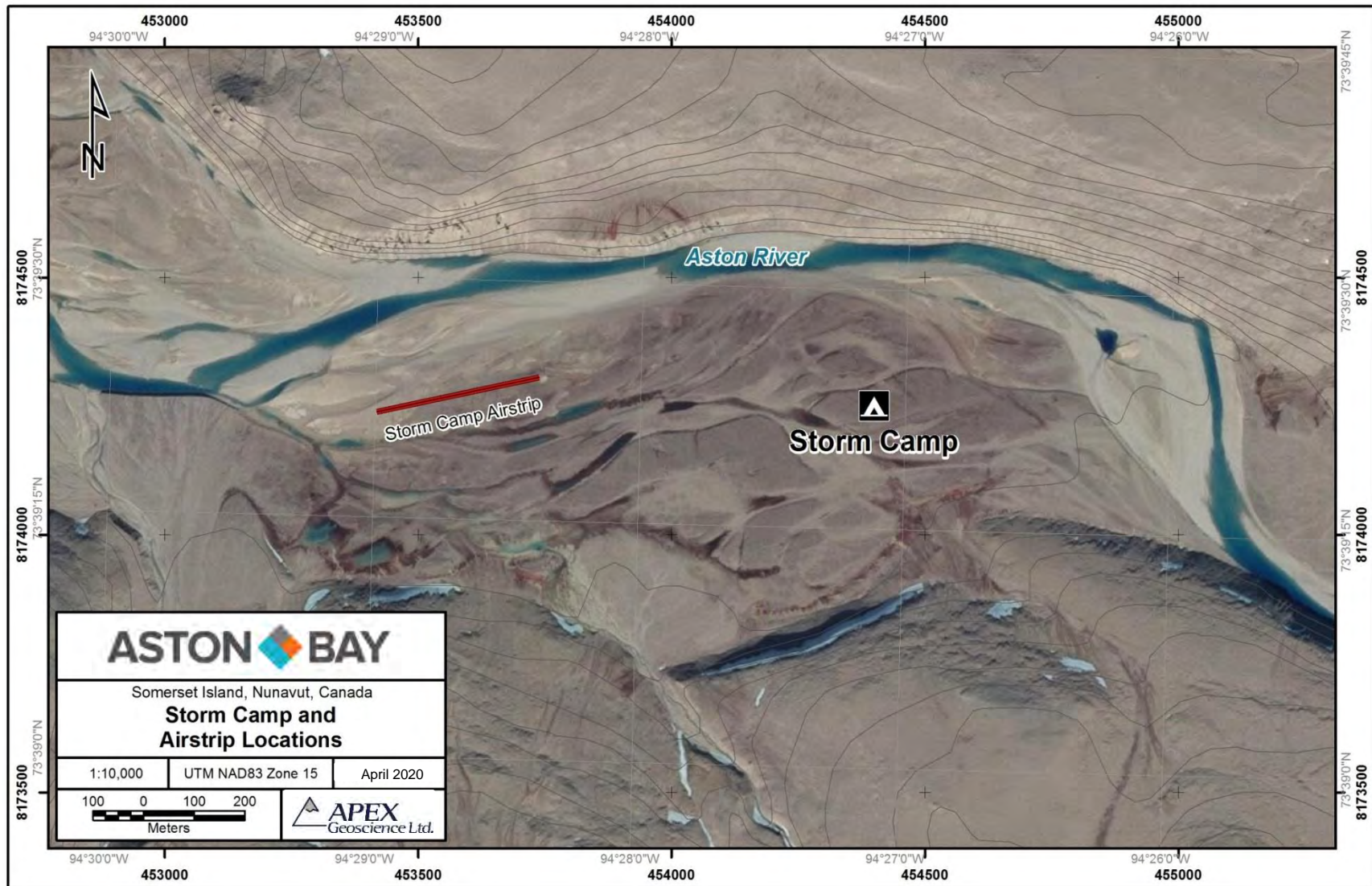


Figure 5. Storm Camp map.

