



Project Title: Fuel Caching at Tanquary Fiord, Quttinirpaaq National Park

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Involved parties: Parks Canada Agency (PC), Polar Continental Shelf Program (PCSP) and Department of National Defence (DND).

Project Objectives: To confirm the base camp at Tanquary Fiord, Quttinirpaaq National Park, as a location for the storage of large fuel caches to support park operations, research and Department of National Defence operations in the northern Ellesmere region and to promote the responsible caching of fuel as a risk management approach. It is not anticipated that every year will involve unusually large fuel caches, but Parks Canada is preparing for the years that this does happen.

Project Timing: Ongoing. Implementation to meet standards will take 3 years.

Location: Tanquary Fiord, Quttinirpaaq National Park (81°24.2N, 76°52.9W) (see attached map and figure).

Project Description:

Outside of Eureka and Alert, the Tanquary Fiord base camp in Quttinirpaaq National Park is one of the few areas on northern Ellesmere Island with an established operational base during the summer. It has become an important site for caching fuel to support activities beyond normal park operations such as DND activities and Polar Continental Shelf Program (PCSP) operations, both inside and outside the park. The site has been a base for DND and research activities since 1963.

In 2016, Parks Canada received a request to allow the caching of 650 drums of aviation fuel to support two large scale research projects planned for 2017. The fuel would be brought in by ship in August/September 2016. Looked at individually, each project would have a fuel cache consistent with a Class B Territorial Land Use Permit. When added together along with the DND and Parks Canada fuel caches, it becomes a large fuel cache.

Parks Canada has considered its responsibility as a land manager and is proposing to allow a large cache of aviation fuel at Tanquary Fiord. The extreme remoteness of the park and the park's annual presence due to seasonal operation of the site puts Parks Canada in a position of being able to require more responsible caching of fuel in the region.

Parks Canada is developing a new fuel cache protocol and spill response plan. Agencies caching fuel on the site would need to comply with the protocol.

Key methods for managing the fuel caches:

- Secondary containment of all fuel drums stored at Tanquary Fiord will be required (i.e. drums need to be stored off the ground and in a way that would prevent spills from seeping into the environment). Drums being stored when the

camp is closed will need to be covered to prevent water, snow and ice from filling up the containment area.

- Stockpiling of fuel will not be permitted. Aviation fuel that has not been used within 3 years will be removed from the site.
- The number of barrels of aviation fuel cached will consider what is needed for the following year's work. This means large amounts of fuel caching will not be needed every year.
- All organizations caching fuel will provide a spill kit on site.
- Caches will be positioned on a gravel substrate and located at least 100 m from the high water of nearest water source.
- Annual end of season inspection reports of caches will be submitted to Parks Canada, confirming barrel numbers, correct positioning, and the physical condition of barrels.
- Empty barrels and barrels in poor condition will be removed from the park.
- Fuelling activities will take place at least 100m from high water of the nearest water source and will protect the ground from spills (e.g. a liner, drip pan, absorbent materials).
- There will be a window of 3-4 years allowed for barrels already on site to be used up or placed in secondary containment.
- Reporting of spills will comply with the *Spill Contingency Planning And Reporting Regulations*.
- Projects associated with the fuel caches will continue to be reviewed individually.

Access: Normal access to Tanquary Fiord requires air support. Ship access requires an icebreaker and, when possible, usually takes place at the end of the operational season. Caching using a ship will be encouraged for years when large fuel caches are requested to reduce the amount of aircraft use required. Helicopter support may be required to move barrels from the ship to the cache area.

Alternatives considered: Parks Canada could refuse permission for larger caches at Tanquary Fiord. Normally the size of fuel caches is kept to a minimum in a national park. However, this could result in caches being set up outside the park in areas where the land manager does not have an operational base and is not present to monitor the caches and its ability to respond to issues is limited. Caching of the fuel at Eureka is an option, but would involve many more hours of aircraft time to deploy the caches in the field the following year.