Appendix A

Tank Hydrostatic Testing Procedure English

Chesterfield Inlet Fuel Storage Facility Upgrade and Expansion

Tank Hydrostatic Testing Procedure

1- Site of local area identifying areas of impact.

The area of impact is the Chesterfield Inlet Fuel Storage Facility and the sea hose connection pipeline, see attached appendix A.

2- Location of water source

Salt water from Chesterfield Inlet Beach located close to the sea hose connection

3-Total quantity of water to be withdrawn from source.

2000 cubic meters.

4-Method to minimize volumes of water sources.

The same water will be pumped from tank to tank.

5-Method of monitoring volumes of fresh water sources.

Saltwater from the Hudson Bay will be pumped into known tank volumes.

6-Amount, method of disposal and location of waste and sludge to be disposed of.

Prior to start filling, the tanks will be completely drained, cleaned using a pressure washer, and the dirty water used during the pressure washing will be stored in drums and considered as sludge. If hydrophobic pads or floor dry are used, they will be stored in drums. The drums will be shipped out by sealift to Montreal for proper disposal. We expect to have approximately 10 drums of waste.

Prior to discharge the water, samples will be taken from the tank drain valves and sent to a laboratory for testing to ensure the water is not contaminated. Upon approval of the test result, the water will be directed through a solid particle collector as shown on Appendix C, and then discharged into the Hudson Bay.

7- Provide a spill contingency action plan.

All the tanks are located in a containment dyke with an HDPE liner that can contain move volume then the biggest tank. In the event of a spill, the water will be immediately pumped back in the tank.

8-Details of work to be completed and restoration work required.

Upgrades and expansion to the existing Fuel Storage Facility including cleaning and relocation of one 1379 cum LSDL vertical tank, construction of one new 1933 cum LSDL vertical tank, construction of one new 582 cum Gasoline vertical tank, cleaning and relocation of two existing horizontal tanks. Those two tanks will be converted to slop tanks. Include all appurtenances; piping connections; new operator's shelter; LSDL, fuel oil and gasoline dispenser building; electrical services including new tank and area lighting; fencing; sumps; stiles; site preparation for construction including dikes, tank pads impermeable liner and placement of geotextile fabric.

9-Waste disposal alternatives for contaminated liquid waste. Cleaning materials, absorbent material and sludge.

All will be packed in drums and sent by sealift to Montreal for proper disposal.

10- Location of sumps or holding cells in relation to existing water bodies.

Sumps and holding cell are located in the tank farm dyke.

11-Will these undertakings interfere with existing water users or waste depositors?

No.

12-Water discharge parameters:

Water used during the hydrostatic testing and cleaning of the tanks will be analyzed for total petroleum hydrocarbons. Samples of the effluent will be taken twice per tanks. Once at the beginning and at 75% complete discharge. Also samples at the ditch prior to, mid way and following completion of annual discharge activities. The following are sample testing parameters:

Parameter	Maximum Concentration of Any Grab Sample
Benzene (µg/L)	370
Toluene (µg/L)	2
Ethylbenzene (µg/L)	90
Lead (dissolved) (µg/L)	1
Oil and Grease (mg/L)	15 and no visible sheen
Total Suspended Solids (mg/L)	15
pH	6.0 – 10.5

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Appendix B

Tank Hydrostatic Testing Procedure Inuktitut

ᐃᒃᓗᓕᒑᕐᔪᒃᒥ ᐅᕐᓱᖃᐅᑎᒃᑯᕕᐊ ᓄᑕᖑᕆᐊᕐᑕᐅᓂᖓ ᐊᖏᓕᒋᐊᕐᑕᐅᓂᖓᓗ

ᐅᕐᓱᖃᐅᑎᑦ ᐃᒪᖃᕐᓂᖏᑕ ᖃᐅᔨᓴᕐᑕᐅᓂᖏᑦ ᐊᑐᕐᑕᐅᓂᐊᕐᑐᑦ

1- ᐃᓂᒋᔭᖓ ᓄᓇᓕᖓᓂ ᓇᒥᒻᒪᖓᑕ ᐃᒃᐱᒃᓇᐅᑎᓂᐊᕐᑐᖅ.

ᐃᒃᐱᒃᓇᐅᑎᓂᐊᕐᑐᖅ ᐃᒃᓗᓕᒑᕐᔪᒃᒥ ᐅᕐᓱᐊᖃᐅᑎᖃᕐᕕᒃᒥ ᐊᒻᒪᓗ ᐃᒻᒥᕐᓱᐃᕕᖓᓂ ᓱᓪᓗᓕᒃᑯᑦ, ᑕᑯᓗᒍ ᑎᑎᕋᕐᓯᒪᔪᖅ A.

2- ᓴᒥᒻᒪᖓᑦ ᐃᒥᕐᑕᕐᕕᐅᔪᖅ

ᑕᕆᐅᕐᒥᑦ ᐃᒃᓗᓕᒑᕐᔪᑦ ᓯᒃᔭᖓᓂ ᖃᓂᒋᔭᓂ ᓱᓪᓗᓕᒃᑯᑦ ᐃᒻᒥᕐᓱᐃᕕᖓᓂ

3- ᑲᑎᖅᓱᒋᑦ ᐃᒪᖅᑯᕐᑐᓂᖓ ᐃᒥᖅ ᐱᔭᐅᒐᔭᕐᑐᖅ ᐃᒥᕐᑕᕐᕕᐅᔪᒥᑦ.

2000 ᑭᑉᐸᓇᒃᓯᓗᒍ ᐅᒃᑐᑎ ᒥᑕ.

4-ᖃᓄᐃᓕᐅᕈᐅᓂᐊᕐᑐᑦ ᐃᒥᕐᒥᒃ ᐊᑐᓗᐊᖏᓐᓂᕐᓴᐅᓇᓯᒃᓗᑎᒃ.

ᑖᓐᓇᑦᑕᐃᓐᓇᖅ ᐃᒥᖅ ᐊᑐᕐᑕᐅᔪᖅ ᖃᑦᑕᕐᒧᑦ ᒥᓪᓗᐊᕐᑕᐅᕙᒃᓗᓂ ᐊᓯᐊᓄᑦ ᖃᑦᑕᕐᒧᑦ ᐊᑐᕐᑕᐅᒃᑲᓐᓂᕐᐸᒃᓗᓂ.

5-ᖃᓄᐃᓕᐅᕈᑕᐅᓂᐊᕐᑐᑦ ᖃᐅᔨᓴᕐᑕᐅᓂᖓ ᐃᒥᑐᐃᓐᓇᖅ

ᑕᕆᐅᕐᒥᒃ ᐃᒪᖃᖃᑦᑕᕐᓂᐊᕐᑐᖅ Hᐊᑦᓴᓐ ᐸᐃ ᐃᒪᖓᓂᑦ ᖃᑦᑕᕐᒧᑦ.

6-ᐊᖏᓂᖓ, ᖃᓄᕐᓗ ᑯᕕᔭᐅᓂᐊᕐᒪᖓᑦ ᐊᒻᒪᓗ ᐊᑐᓇᕐᑕᐅᔪᑦ ᐊᒥᐊᒃᑯᕐᓗᑯᐃᑦ ᖃᓄᐃᑕᐅᓂᐊᕐᒪᖓᑕ.

ᐃᒻᒥᕐᓱᐃᓚᐅᖏᓐᓂᕐᒥᓂ ᖃᑦᑕᕐᓂᖅ ᐃᒪᐃᔭᕐᑕᐅᑦᑎᐊᕐᓂᐊᕐᑐᖅ, ᐊᒻᒪᓗ ᐃᒪᑦᑎᐊᕙᐅᖏᑦᑐᖅ ᓴᓗᒻᒪᕐᓴᐅᑕᐅᔪᕕᓂᖅ ᖃᑦᑕᐅᔭᓄᐊᕐᑲᕐᑕᐅᓗᓂ ᐊᒻᒪᓗ ᐃᒥᕐᓗᒃᑯᕕᐅᓗᓂ. ᐅᕐᓱᐊᓗᒃᓄᑦ ᓴᓗᒻᒪᕐᓴᐅᑎᑦ ᐊᑐᕐᑕᐅᒍᑎᒃ ᖃᑦᑕᐅᔭᒧᐊᖅᑲᕐᑕᐅᒐᔭᕐᑐᑦ. ᖃᑦᑕᐅᔭᐃᑦ ᐃᒥᕐᓗᒃᑯᕕᒋᔭᐅᔪᑦ ᐅᒥᐊᕐᔪᐊᒃᑯᑦ ᐊᐅᓪᓚᕐᑎᑕᐅᒐᔭᕐᑐᑦ ᒪᓐᑐᓇᐊᒧᑦ ᐃᒋᑕᐅᓂᐊᕐᒪᑕ. ᐃᓱᒪᒋᔭᐅᔪᖅ ᖁᓕᓂᒃ (10) ᖃᑦᑕᐅᔭᓂᒃ. ᐱᒥᕐᒥᒃ ᑯᕕᑎᕐᑎᓚᐅᖏᓐᓂᕐᒥᒃ ᑕᒪᐅᖓᑐᐃᓐᓇᖅ ᖃᐅᔨᓴᕐᑕᐅᒐᔭᕐᑐᖅ ᓱᕈᕐᓇᕐᑐᖃᖏᒃᑲᓗᐊᕐᒪᖓᑦ. ᓱᕈᕐᓇᕐᑐᖃᖏᓐᓂᕋᕐᑕᐅᒃᐸᑦ, ᐃᒪᖅ ᑯᕕᑎᑕᐅᒐᔭᕐᑐᖅ ᖃᑦᑕᕐᒧᑦ ᑎᑎᕋᐅᔭᕐᓯᒪᔪᖅ C, ᑯᕕᑎᑕᐅᓕᕐᓗᓂᓗ ᑕᕆᐅᕐᒧᑦ.

7- ᑐᓂᓯᓗᑎᒃ ᑯᕕᔪᖃᕐᑐᕕᓂᐅᒃᐸᑦ ᐸᕐᓇᐅᑎᖓᓂᒃ.

ᑕᒪᕐᒥᒃ ᐅᕐᓱᖃᐅᑎᐅᔪᑦ ᐃᓗᐊᓂᒻᒪᑕ ᐊᕙᓗᓯᒪᔪᑦ ᖃᑎᒃᓯᓕᕐᓯᒪᔪᑦ ᐃᓗᐸᕈᑕᖃᕐᓗᓂᓗ ᐃᕐᓴᔭᖏᑦᑐᒥᒃ ᐊᖏᓂᕐᓴᐅᓪᓗᓂᓗ ᐃᒥᖓᑕ ᑯᕕᓚᓗᐊᕐᓂᕈᓂ ᐃᓗᐊᓄᑦ. ᑯᕕᔪᖃᕐᓂᕐᐸᑦ ᓯᓚᑕᓄᑦ ᒥᓪᓗᐊᕐᑕᐅᓗᓂ ᐅᕐᓱᖃᐅᑎᒃᒧᐊᕐᑕᐅᑲᐅᑎᒋᓚᔭᕐᑐᖅ.

8-ᐱᓕᕆᐊᖑᓂᐊᕐᑐᑦ ᖃᓄᐃᓕᐅᕐᓂᐊᕐᒪᖓᑕᓗ ᓴᓇᔭᐅᓂᐊᕐᑐᑦ.

ᓄᑕᖑᕐᑎᑕᐅᓪᓗᑎᒃ ᐊᒻᒪᓗ ᐊᖏᓕᒋᐊᕐᑕᐅᓗᑎᒃ ᐅᕐᓱᖃᐅᑎᐅᔪᑦ ᓴᓗᒻᒪᓴᕐᑕᐅᓗᑎᒃᓗ ᐊᓯᐊᓄᐊᕐᑕᐅᓗᓂᓗ ᐊᑕᐅᓯᖅ 1379 cum LSDL, ᓴᓇᓗᑎᒃᓗ ᓄᑕᒥᒃ ᐅᕐᓱᖃᐅᑎᒥᒃ ᐊᖏᓂᖃᕐᑐᒥᒃ 1933 cum LSDL, ᓴᓇᔭᐅᓗᓂᓗ ᓄᑕᖅ ᐊᑕᐅᓯᖅ ᐊᖏᓂᖃᕐᑐᖅ 582 cum ᒐᓯᒃᑯᕕᐅᓂᐊᕐᑐᖅ, ᓴᓗᒻᒪᓴᕐᑕᐅᓪᓗᑎᒃ ᐊᒻᒪᓗ ᐊᓯᐊᓄᐊᕐᑕᐅᓗᑎᒃ ᒪᕈᒃ ᓇᓪᓚᖓᔪᒃ ᐅᕐᓱᖃᐅᑎᒃᑯᕕᒃ. ᑖᒃᑯᐊ ᒪᕈᒃ ᐅᕐᓱᖃᐅᑎᒃᑯᕕᒃ ᐊᓯᓪᓕᕐᑕᐅᓂᐊᕐᑐᒃ ᓴᓇᔭᐅᓗᑎᒃ. ᐊᕿᒃᓱᐃᒐᔭᕐᒥᔪᑦ ᓱᓪᓗᓕᖏᓐᓂᒃ, ᒪᑐᑦᑕᐅᑎᖏᓐᓂᒃ, ᓇᔪᕐᑕᐅᕕᒃᓴᒥᒃ ᐃᖃᓇᐃᔭᕐᑎᒧᑦ ᐃᒃᓗᐊᕐᔪᒃᒥᒃ, ᑯᕕᓯᕕᒃᒥᒃ, ᐅᐊᔭᖏᓐᓂᒃᓗ, ᐊᕙᓗᖓᓗ ᓴᕕᕐᔭᒃᒥᒃ ᐊᕙᓗᔭᐅᓗᓂ, ᖃᑎᒃᓯᓕᕐᑕᐅᓗᓂᓗ ᐅᕐᓱᖃᐅᑎᑦ ᐊᕙᓗᐊ ᒪᓂᕐᖓᓗ ᑐᖓᔭᖓ ᐃᓗᕿᑎᓕᕐᑕᐅᓗᓂ ᐊᕙᓗᔭᐅᖏᓐᓂᖓᓂ ᑐᐊᐸᒃᒥᒃ ᖃᑎᒃᓯᓕᕐᓯᒪᔪᒥᒃ.

9-ᐃᒋᑕᐅᔪᑦ ᓴᓗᒻᒪᓴᐅᑎᕕᓂᓪᓗ ᐃᒥᕐᓗᑯᐃᑦ ᐅᕐᓱᐊᓗᕈᔪᐃᓪᓗ. ᓴᓗᒻᒪᓴᐅᑕᐅᔪᕕᓂᓪᓗ ᑕᒪᕐᒥᒃ

ᓴᓗᒻᒪᓴᐃᔪᑕᐅᔪᕕᓂᑦ ᖃᑦᑕᐅᔭᒥᓪᓗᑎᒃᓗ ᐊᐅᓪᓚᕐᑎᑕᐅᓂᐊᕐᑐᑦ ᒪᓐᑐᓇᐊᒧᑦ.

10- ᐃᒪᖃᕐᕕᐅᓂᐊᕐᑐᖅ ᓇᒥᒻᒪᖓᑦ ᐃᒥᐅᔪᒧᑦ.

ᐃᒪᖃᕐᕕᐅᓂᐊᕐᑐᖅ ᐃᓗᐊᓂᓐᓂᐊᕐᑐᖅ ᐊᕙᓗᓯᒪᔪᒥ ᐅᕐᓱᖃᐅᑎᒃᑯᕕᒃᒥ.

11-ᓴᓇᔭᐅᔪᑦ ᐃᒥᐅᑦ ᐊᑐᕐᑕᐅᓂᖓᓄᑦ ᐅᕙᓗᓐᓂᑦ ᐃᒋᑦᑎᖃᑦᑕᕐᓂᖏᓐᓄᑦ ᐊᒃᑐᐊᓂᖃᕐᓂᐊᕐᐸ?
ᐊᒃᑲ

12-ᐃᒥᕐᓗᒃ ᑯᕕᔭᐅᓂᖓ ᖃᓄᐃᑐᓂᖓ:
ᐃᒥᕐ ᓴᓗᒻᒪᕐᓴᐃᔪᑕᐅᔪᖅ ᖃᐅᔨᓴᕐᑎᓪᓗᒋᓪᓗ ᖃᐅᔨᔭᐅᒋᐊᕐᓂᐊᕐᑐᖅ ᖃᓄᑎᒋ ᐅᕐᓱᐊᓗᒃᓴᖃᕐᑎᒋᒃᒪᖔᑦ. ᖃᐅᔨᓴᕐᑕᐅᔪᓪᓗ ᒪᕈᐃᕐᓱᕐᓗᑎᒃ ᐱᖃᑦᑕᕐᓗᑎᒃ ᐊᑐᓂ ᐅᕐᓱᖃᐅᑎᒃᑯᕕᒃᑦ. ᐱᒋᐊᕐᓂᖓᓂ ᐊᒻᒪᓗ ᐱᔭᕆᓕᕐᑎᓪᓗᒋᑦ. ᐱᓗᑦᑐᕐᓯᒪᔪᒥᓗ ᖃᐅᔨᓴᕐᑕᐅᓗᑎᒃ ᐅᑯᐊ ᑕᕙ ᖃᐅᔨᓴᕐᑎᓪᓗᒋᑦ ᖃᓄᑎᒋᕐᒪᖔᑕ ᐃᓚᒃᓴᐅᔪᑦ ᓱᕈᕐᓇᕐᑐᔪᓪᓗ:

ᑭᖑᓂᖓ	ᐅᖓᑕᓄᐊᖏᓪᓗᓂ ᖃᓄᑎᒋᕐᓂᖓᑕ ᖃᐅᔨᓴᕐᑕᐅᔪᑦ ᐊᑐᓂ
Benzene (µg/L)	370
Toluene (µg/L)	2
Ethylbenzene (µg/L)	90
Lead (dissolved) (µg/L)	1
Oil and Grease (mg/L)	15 and no visible sheen
Total Suspended Solids (mg/L)	15
pH	6.0 – 10.5

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