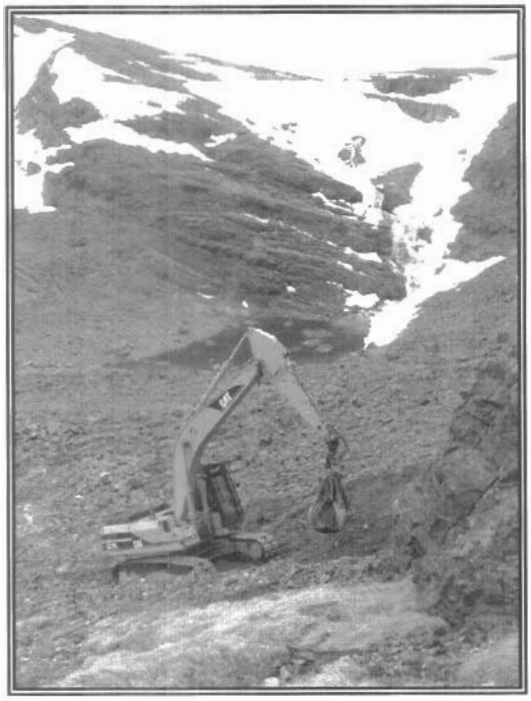
INDIAN AND NORTHERN AFFAIRS CANADA
NUNAVUT REGIONAL OFFICE

SUMMARY OF TECHNICAL ACTIVITIES - 2004

RESOLUTION ISLAND PROJECT

BAF-5: ABANDONED POLE VAULT MILITARY RADAR STATION



Prepared by:

Sinanni inc.

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QIKIQTAALUK CORPORATION

January 2005

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RESOLUTION ISLAND PROJECT

presented to:

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January 2005

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ᓇᐃᓇᕐᓯᒪᓪᓗᑎᒃ ᓇᓗᓇᐃᕐᓯᒋᐊᕐᓯᒪᔪᑦ

ᖁᔭᓇᕐᑕᐅᓯᒪᔪᑦ ᐅᐊᑦᑎᕙᐅᖅᑕᕐᑐᒥᓂᖅ ᐅᕙᓃᓪᑐᖅ ᑐᔫᓂ ᓂᒋᖕᒐᓂ ᑲᓇᓐᓇᕐᐸᓯᖕᒐᓂ ᕿᑭᕐᑖᓗᑉ ᕿᒪᑦᑕᐅᓚᐅᕐᒪᓐ ᐊᕙᑎᖕᒐ ᐱᐅᖏᑐᒻᒪᕆᐅᑎᓪᓗᒍ. ᖃᐅᔨᓴᕐᓂᐅᖅᑕᕐᓯᒪᔪᑦ ᐅᕙᓂ ᐊᒥᐊᓪᓚᒃᑲᑦ ᐅᓇᑦᑎᖕᒋᑕ ᖃᐅᔨᓴᕐᕕᒥᖕᒐᓂ ᖃᐅᔨᔭᐅᓚᐅᕐᖁᖅ ᐊᓱᒪᓂᒃ ᐊᕙᑎᖕᒐᓂᒃ ᐊᑲᐅᖕᒍᓐᓃᑎᑦᑎᓯᒪᓪᓗᑎᒃ ᐃᓄᖅᖃᑕᓚᐅᕐᑎᓪᓗᒍᓂᓐ. ᑐᔫᑦ ᐱᓕᕆᐊᕆᔭᐅᓂᖕᒐ ᐱᑕᖅᑯᖅ ᐱᔭᕐᑕᐅᓂᖏᓐᓂᒃ ᐊᒻᒪ ᐊᑦᑕᑯᕐᑕᐅᖅᑕᕐᓂᖏᓐᓂᒃ ᓱᕈᕐᓇᕐᑐᓖᑦ ᐃᔦᐃᑦ (ᐲᓯᐲ), ᐊᒻᒪᓗᓱᓕ ᐊᐅᓚᑕᐅᓪᓗᓂ ᐊᓯᖏᑎᒍᑦ ᑎᒥᒃᑯᑦ ᖃᓄᐃᖏᑎᐊᖃᕐᓂᕐᒥᒃ ᐊᒻᒪᓗ ᐊᕙᑎᒧᓐ ᑲᑉᐱᐊᓇᕈᑎᕆᔭᓐᓇᕐᑐᓂᒃ ᐃᒪᐃᑦᑐᓂ ᑲᑎᓐᓂᑯᓂᒃ ᓱᕈᕐᓇᕐᑐᓕᓐᓂᒃ ᐊᒻᒪᓗ ᓴᕕᕋᔭᐃᑦ ᓱᕈᕐᓴᕐᑐᓖᑦ ᐃᔦᒦᑦᑐᑦ, ᐃᑭᐊᕐᑎᓴᑦ ᐊᓂᕐᓂᒧᓐ ᐱᐅᖏᑦᑐᑦ, ᐊᒻᒪ ᐊᑦᑕᑯᕐᕕᐅᕙᑦᑐᒥᓃᓐ ᖃᑦᑕᐅᔭᑦ. ᐃᓕᓐᓂᐊᕐᓂᖅ ᐱᒻᒪᕆᐅᖅ ᑕᒪᑐᒧᖓ ᐱᓕᕆᐊᖑᔪᒧᖓ. ᑖᓇ ᐊᐅᓚᑦᑎᓚᓇᓐᓂᐊᕐᑐᓂᒃ ᓄᓇᒥᔭᐅᔪᖅ ᐃᓄᖃᕈᓐᓇᖁᖅ ᐃᒪᓐᓇᐸᓗᓐᓂᒃ 70ᓂᒃ.

ᑐᔫᒧᓐ ᐱᓕᕆᐊᖑᔪᖅ ᐱᒋᐊᓚᐅᖁᖅ 1998ᒥ ᐊᕐᑯᓪᓴᑲᓪᓚᒻᒪᕆᓐᓄᓐ ᖃᐅᔨᓴᕐᑕᐅᒪᐅᕐᑎᓪᓗᒍ. ᐃᖃᓇᐃᔮᕆᔭᐅᔭᕆᐊᖃᕐᑐᑦ ᑲᒪᒋᔭᐅᕙᑦᑐᓂᒃ ᕿᑭᕐᑖᓗᑉ ᑯᐊᑉᐳᕆᓴᖕᒐᓂᒃ ᓇᐃᓴᕐᑐᑎᓪᓗ ᐃᒪᐃᑦᑑᓗᑎᒃ:

1997: ᑭᓯᓕᕆᕙᑕᐅᓚᔭᕐᑐᑦ ᓱᓇᑯᑖᑦ ᓅᑕᐅᓪᓗᑎᒃ ᐃᖃᓗᓐᓂᓐ ᑐᔫᓄᓐ. ᕿᑭᕐᑖᓗᑉ ᑯᐊᑉᐳᕆᓴᖕᒐ ᐊᐅᓚᑎᑦᑎᓪᓗᓂ 20ᓂᒃ ᐃᓄᓐᓂᒃ ᑐᔫᓄᓐ ᐅᒥᐊᕐᔭᐊᓕᕆᓂᐊᕐᑐᓂᒃ ᐊᒻᒪ ᓄᓇᒥᔭᐅᑲᐃᓇᓂᐊᕐᑐᒥᒃ ᓴᓇᒥᐊᕆᐊᕐᑐᕐᑎᒃ. ᕿᑭᕐᑖᓗᑉ ᑯᐊᑉᐳᕆᓴᖕᒐ ᐃᑲᔪᓚᐅᕆᓪᓗᓂ ᑯᐃᓐᔅ ᐃᓕᓐᓂᐊᕕᔪᐊᖕᒐᓂᒃ ASU ᐊᒻᒪ LDS (ᒫᓇ ᓯᓈᓂᐅᓕᕐᑐᖅ) ᐱᓕᕆᐊᕆᔭᕆᐊᖃᕐᑕᖏᓐᓄᓐ.

1998: ᕿᑭᕐᑖᓗᒃ ᑯᐊᑉᐳᕆᓴ ᐊᐅᓚᑎᑦᑎᓪᓗᓂ 40ᓂᒃ ᐃᖃᓇᐃᔮᕐᓂᐊᕐᑐᓂᒃ ᑐᔫᓄᓐ ᐱᔭᕆᕆᐊᕐᑐᑦᑐᓂ ᓄᓇᒥᔭᐅᓂᐊᕐᑐᒥᒃ ᓴᓇᒥᐊᕐᓯᓂᕐᒥᒃ, ᑲᒪᓪᓗᑎᒃ ᑭᓱᓴᒐᓚᓐᓂᒃ ᐊᒻᒪ ᓱᓇᑯᑖᓂᒃ ᐊᐅᓚᕐᑎᑕᐅᔭᓂᒃ ᒪᑦᑐᕆᐊᒥᓐ, ᐱᔭᕐᑐᒍ 290,000 ᓖᑕᒥᒃ ᐃᒪᖃᕈᓐᓇᕐᑐᒥᒃ ᐅᕐᓱᐊᓗᖃᐅᑎᒥᓂᕐᒥᒃ, ᐱᔭᕐᑕᐅᓪᓗᑎᒃ ᐃᑭᐊᕐᑎᓴᑦ ᐊᓂᕐᒧᓐ ᐱᐅᖏᑦᑐᑦ ᕿᒪᑦᑕᐅᓯᒪᔪᓂᓐ ᐃᒡᓗᓂᓐ, ᐊᕐᑯᑎᓂᒃ ᓴᓇᒥᐊᕐᓯᓪᓗᑎᒃ, ᐊᒻᒪᓗ ᐃᓕᓐᓂᐊᑎᑦᑎᓪᓗᑎᒃ ᐃᓄᓐᓂᒃ ᓴᓇᓂᕐᒧᓐ ᑐᕐᖓᓪᓚᕆᑦᑐᓂᒃ ᐃᖃᓇᐃᔮᕆᔭᐅᔭᕆᐊᖃᕐᓂᐊᕐᑐᓄᓐ.

1999: ᕿᑭᕐᑖᓗᒃ ᑯᐊᑉᐳᕆᓴ ᐊᐅᓚᑎᑦᑎᓪᓗᓂ 50ᓂᒃ ᐃᖃᓴᐃᔭᕐᓂᐊᕐᑐᓂᒃ ᑐᔫᓄᓐ ᔫᓚ 15ᒥᓐ ᓰᑎᐱᕆ 15ᒧᓐ. ᐱᓕᕆᐊᕆᔭᐅᔪᑦ ᐃᓚᖏᓐ ᐃᒪᐃᑦᑑᓗᑎᒃ ᐃᒪᐅᑉ ᓯᓈᓂ ᓴᕕᕋᔭᓐᓄᓐ ᐊᑦᑕᕐᕕᐅᓂᐊᕐᑐᒧᓐ ᐸᑲᑦᑐᒍ ᐊᒻᒪ ᐊᑦᑕᑯᕐᕕᐅᓂᐊᕐᑐᒧᓐ, ᐱᔭᕐᑕᐅᓪᓗᓂ ᐊᒻᒪ ᐳᖅᑕᐅᓪᓗᓂ ᓴᕕᕋᔭᓴᒥᒃ ᓱᕈᕐᓇᕐᑐᓖᑦ ᐃᔦᑦ; ᑕᕙᖕᒐᓐ ᐊᐅᓚᑎᑦᑎᔭᖅᑐᓂ ᓱᕈᕐᓇᕐᑐᓂᒃ (ᐲᓯᐲ) ᐊᒻᒪᓗ ᐊᓯᖏᓐᓂᒃ ᑲᑉᐱᐊᓴᕐᑐᓂᒃ ᐊᑦᑕᑯᓇᐊᓕᓐᓂᒃ, ᓱᓚᓐᓄᓐ ᐃᓗᓯᐅᑎᓄᓐ ᐊᑦᑕᑯᕐᕕᐅᓂᐊᕐᑐᒥᒃ ᐸᑲᑦᑐᖅᑐᕐᑐᓂ, ᐃᓪᓗᐃᑦ ᓱᕋᐃᔭᕐᑕᐅᓪᓗᑎᒃ, ᓴᓇᔭᐅᓪᓗᓂ/ᐊᐅᓚᓂᖃᑦᓕᕐᑐᓂ ᓇ) ᐊᑦᑕᑯᕕᒃ ᓴᐅᔭᐅᓪᓗᓂ, ᓯᕐᑯᓪᓗᑕᐅᓪᓗᑎᒃ ᐊᒻᒪ ᐊᑦᑕᑯᕐᑕᐅᓪᓗᑎᒃ ᐃᒪᖃᕐᑐᑦ ᖃᑦᑕᐅᔭᑦ, ᐃᑭᑕᐅᓪᓗᑎᒃ ᑕᒪᑯᐊ ᐅᕐᓱᐊᓗᕈᔭᐃᑦ, ᓴᓇᔭᐅᓪᓗᓂ ᓴᐅᓂᖕᒐ ᓴᕕᕋᔭᒃ ᑲᑎᑕᐅᓪᓗᑎᒃ ᒪᕈᒃ ᐃᒡᓘᒃ ᓴᓇᕕᐅᓂᐊᕐᑐᒃ ᐊᒻᒪᓗ ᓴᕕᕋᔭᕐᓄᓐ ᐅᕐᕿᑦᑐᐊᔭᓐᓄᓐ ᐱᓕᕆᕕᐅᖅᑕᕐᓂᐊᕐᑐᒧᓐ.

2000: ᕿᑭᕐᑖᓗᒃ ᑯᐊᑉᐳᕆᓴ ᐊᐅᓚᑎᑦᑎᓪᓗᓂ 50ᓂᒃ ᐃᖅᑲᓇᐃᔭᕐᓂᐊᕐᑐᓂᒃ ᑐᔫᓄᓐ ᔪᓚᐃ 5ᒥᓐ ᓰᑎᕕᕆ 15ᒧᓐ. ᐱᓕᕆᐊᕆᔭᐅᓗᐊᓚᐅᕐᑐᑦ ᐃᓚᖏᓐ ᐃᒪᐃᑦᑑᕗᑦ: ᐸᒃᑕᐅᓪᓗᓂ ᐃᓗᓯᐅᑎᕈᓘᔭᕐᓄᓐ ᐊᑦᑕᕐᕕᐅᓚᔪᕐᑐᖅ, ᓱᕐᐃᔭᕐᑕᐅᓪᓗᓂ ᓱᕈᓇᕐᑐᖃᕐᕖᑦ (ᐲᓯᐲ) ᐃᒡᓗᑦ ᐊᒻᒪᓗ ᐳᖃᑕᐅᓗᓂ CEPA ᓱᓇᑯᑖᒐᓚᑦ, ᐱᔭᖃᑦᑕᐅᓪᓗᓂ CEPA ᓄᓇᖓ ᐅᕙᖓᓐ S1/S4 ᐃᓪᓗᖃᕐᕕᖏᓐᓂᓐ, ᐊᕿᓯᓪᓗᓂ ᐊᒻᒪ ᐊᐅᓚᑦᑎᓪᓗᓂ ᖃᑕᐅᔭᓕᕆᔪᒻᒥᒃ, ᐃᓛᑯᓕᕐᑎᑦᑐᒥᑦ, ᐅᐊᓴᕐᕕᐅᓂᐊᕐᑐᖅ, ᐊᐅᓚᑕᐅᓪᓗᓂᓗ ᐃᓛᑯᓕᕐᑎᕆᔪᑦ ᐅᕐᓱᐊᓗᓐᓄᓐ, ᐃᒥᕐᒧᓐ ᑲᒪᔪᑕᐅᕙᑦᑐᖅ, ᐊᑐᕐᓂᐊᕈᓐᓂᕐᑐᑦ ᐅᕐᓱᐊᓗᑦ ᐃᑭᑕᐅᓪᓗᑎᒃ, ᐊᑐᕆᐊᓕᐅᕐᑐᖅᕐᑐᓂ ᐊᑎᓂᕐᓴᒧᓐ ᐃᓯᕐᓴᒧᓐ, ᐊᓯᐊᓄᕐᑕᐅᓪᓗᓂ ᐅᐊᑦᑕᑯᓄᓐ ᐊᖁᑎᐅᕙᑦᑐᖅ ᐊᒻᒪ ᐅᐊᑦᑕᑯᒃᑯᕕᒃ.

2001: ᕿᑭᕐᑖᓗᒃ ᑯᐊᑉᐳᕆᓴ ᐊᐅᓚᑎᑦᑎᓪᓗᓂ 50ᓂᒃ ᐃᖅᑲᓇᐃᔭᕐᓂᐊᕐᑐᓂᒃ ᑐᔫᓄᓐ ᔪᓚᐃ 4ᒥᓐ ᓰᑎᕕᕆ 3ᒧᓐ. ᖃᓄᐃᓕᐅᕐᑕᐅᔪᑦ ᐃᓚᖏᓐ: ᐸᑕᐅᓪᓗᓂ CEPA ᐲᓯᐲ ᓄᓇᖓ ᐅᕙᖓᓐ S1/S4 ᐃᓪᓗᒥᓐ ᐊᒻᒪ ᑯᕕᕕᕆᕙᑦᑕᖓᑕ ᖃᓂᕆᔫᓂᓐ, ᐸᑕᐅᓪᓗᓂ ᐊᑦᑕᑯᐃᑦ ᐃᒪᐅᑉ ᓯᓈᓂᑦ ᐊᑦᑕᕐᕕᐅᕙᑦᑐᒥᓐ, ᑯᕕᕕᕆᕙᑦᑕᖓ ᐊᒻᒪᓗ ᐱᐅᓯᑎᑦᑎᕆᐊᕈᑕᐅᕙᑦᑐᖅ ᓱᕈᓐᓇᕐᑐᓕᓐᓄᓐ ᐃᒥᕐᓄᓐ ᐅᕙᖓᓐ ᐃᒪᐃᑉ ᓯᓈᓂᓐ ᐅᕐᓱᐊᓗᖃᐅᑎᓂᓐ, ᐱᕈᓇᕐᓴᕐᑐᒍ ᕘᑕᑏᓄᓐ ᐊᑦᑕᕐᕕᒥᓂᖅ, ᐊᕿᑕᐅᓪᓗᓂ ᐱᓱᕕᐅᑉ ᐊᕙᓗᖓ ᑕᒫᓂᑐᒃ ᑯᕋᓂᖓᓂ ᐃᓪᓗᓯᐅᑎᓄᓐ ᐊᑦᑕᕐᕕᐅᓚᐅᕐᑐᒐᓗᐊᒥᓐ, ᑯᕋᓂᖓ ᐅᕐᓱᐊᓗᒪᒧᓐ ᐅᕙᖓᓐ ᐃᒪᐅᑉ ᓯᓈᓂᓐ ᐅᕐᓱᐊᓗᖃᐅᑎᓂᓐ, ᐊᐅᓚᑕᐅᓪᓗᓂ ᐊᒻᒪ ᐃᑭᑕᐅᓪᓗᓂ ᐊᑐᕐᓂᐊᕈᓐᓂᕐᑐᑦ ᐅᕐᓱᐊᓗᕈᔪᑦ, ᓴᓇᔭᐅᓪᓗᓂ ᖃᖅᑲᐅᑉ ᖃᖕᒐᓄᓐ ᓇᓚᐅᑎᖃᕐᕕᒥᓂᕐᒧᓐ ᐊᑐᕆᐊᖅ, ᐊᐅᓚᑕᐅᓪᓗᓂ ᓄᑖᖅ ᐃᓯᕐᓴᓕᐊᕆᓯᒪᔪᖅ ᓇᓚᐅᑎᖃᕐᕕᐅᑉ ᑐᓄᐊᓂ.

2002: ᕿᑭᕐᑖᓗᒃ ᑯᐊᑉᐳᕆᓴ ᐊᐅᓚᑎᑦᑎᓪᓗᓂ 50ᓂᒃ ᐃᖅᑲᓇᐃᔭᕐᓂᐊᕐᑐᓂᒃ ᑐᔫᓄᓐ ᔪᓚᐃ 12ᒥᓐ ᐋᒋᓯ 28ᒧᓐ. ᖃᓄᐃᓕᐅᕐᑕᐅᔪᑦ ᐃᓚᖏᓐ: ᐸᑕᐅᓪᓗᓂ CEPA ᐲᓯᐲ ᓄᓇᖓ ᐅᕙᖓᓐ ᖁᓛᓂᓐ S1/S4 ᓇᕐᓴᖏᓐᓂᓐ ᐊᒻᒪᓗ PCL ᐊᑦᑕᕐᕕᖏᓐᓂᓐ; ᓴᓇᕆᐊᕐᑐᒍ ᐱᑐᖃᐅᔪᖅ 3.1 ᒦᑐᕐ ᐱᖕᒐᓱᐊᕐᑎᕐᓯᒪᔪᑦ ᓴᕕᕐᔭᑦ ᐱᒐᓚᑯᐋᑦ ᐅᕗᖓ ᑐᔫᑦ ᐊᕙᑎᖕᒐᑕ ᐊᑦᑐᕐᑕᐅᓂᖕᒐᓐᓂ ᓇᓗᓇᐃᔭᕐᓯᒪᔪᓐᓂ ᖃᓄᐃᓕᖕᒐᓂᖏᓐᓂ, ᐳᖃᑕᐅᓪᓗᑎᒃ ᐲᓯᐲ CEPA ᓄᓇᖓ ᐅᕙᖓᓐ ᐲᓯᐲᒧᓐ ᑐᕐᑯᕐᕕᐅᓗᐊᕐᐸᑦᑐᒥᓐ ᐃᓪᓗᒥᓐ; ᐲᔭᕐᑕᐅᓪᓗᑎᒃ ᐊᑦᑕᑯᑦ ᐊᑐᕐᓂᐊᕈᓐᓂᕐᑐᑦ ᐃᒪᐅᑉ ᓯᓈᓂᓐ ᐊᑦᑕᑯᒃᑯᕕᒻᒥᓐ, ᐱᔭᕐᑕᐅᓪᓗᑎᒃ ᐊᒻᒪ ᐊᐅᓚᑕᐅᓪᓗᑎᒃ ᐅᕐᓱᐊᓗᖃᐅᑎᒥᓃᓐ ᖃᑦᑕᐅᔭᑦ ᓇᑭᑐᐃᓐᓇᖅ, ᐃᑭᑕᐅᓪᓗᑎᒃ ᐸᑕᐅᔭᑦ ᐊᒻᒪᓗ ᐊᑐᕐᓂᐊᕈᓐᓂᕐᑐᑦ ᐅᕐᓱᕐᑎᕈᑎᕈᔪᐃᑦ.

2003: ᕿᑭᕐᑖᓗᒃ ᑯᐊᑉᐳᕆᓴ ᐊᐅᓚᑎᑦᑎᓪᓗᓂ 50ᓂᒃ ᐃᖅᑲᓇᐃᔭᕐᓂᐊᕐᑐᓂᒃ ᑐᔫᓄᓐ ᔫᓂ 18ᒥᓐ ᓰᑎᕕᕆ 14ᒧᓐ. ᖃᓄᐃᓕᐅᕐᑕᐅᔪᑦ ᐃᓚᖏᓐ: ᐱᔭᑲᓂᕐᑐᕆᑦ ᐊᒥᐊᑯᒥᓂᖏᓐ ᐅᕙᖓᓐ CEPA ᐲᓯᐲ ᓄᓇᖓ ᐅᕙᖓᓐ ᖁᓛᓂᓐ S1/S4 ᓇᕐᓴᖏᓐᓂᓐ ᐊᒻᒪᓗ PCL ᐊᑦᑕᕐᕕᖏᓐᓂᓐ; ᐳᖃᑕᐅᓪᓗᑎᒃ ᐲᓯᐲ CEPA ᓄᓇᖓ ᐅᕙᖓᓐ ᐲᓯᐲᒧᓐ ᑐᕐᑯᕐᕕᐅᓗᐊᕐᐸᑦᑐᒥᓐ ᐊᒻᒪᓗ B2 ᐲᓯᐲ ᑐᕐᑯᕐᕕᖏᓐᓂᓐ ᐃᓪᓗᒥᓐ, ᐱᕈᓇᕐᓴᑕᐅᓪᓗᓂ ᐊᒻᒪᓗ ᓯᐅᔭᕋᑦᑕᑕᐅᓪᓗᓂ ᒥᕕᐅᑉ ᐊᑦᑕᕐᕕᖓ, ᐱᕈᓇᕐᓴᕐᑐᒍ ᐊᑐᕐᓂᐊᖏᑦᑐᑦ ᓴᓇᕕᐅᕙᑦᑑᑉ ᐊᑦᑕᕐᕕᖏᓐᓂᓐ, ᐃᑭᑕᐅᓪᓗᑎᒃ ᐸᑕᐅᔭᑦ ᐊᒻᒪᓗ ᐊᑐᕐᓂᐊᕈᓐᓂᕐᑐᑦ ᐅᕐᓱᕐᑎᕈᑎᕈᔪᐃᑦ; ᖃᑦᑕᐅᔭᑦ ᑲᑉᐱᐊᓇᕈᔪᑦᑐᑦ ᐊᑐᕐᓂᐊᕈᓐᓂᕐᑐᑦ ᐊᐅᓚᕐᑎᑕᐅᓪᓗᑎᒃ ᖃᓪᓗᓈᑦ ᓄᓇᖓᓐᓄᓐ ᐊᑦᑕᕐᑕᐅᓂᐊᕐᓂᖏᓐᓄᓐ, ᒪᓯᔭᕐᑐᖅᑐᓂ ᐊᒻᒪᓗ ᐃᓚᖕᒐᓂᒃ ᓴᓇᔪᖅᑐᓂ ᑐᑭᓕᕆᑐᒥ II ᓄᓇᒥᒃ ᐳᖃᐃᕕᐅᓂᐊᕐᑐᒥᒃ.

2004: ᕿᑭᕐᑖᓗᒃ ᑯᐊᑉᐳᓇᔅ ᐊᐅᓚᑎᑦᑎᓪᓗᓂ 60ᓂᒃ ᐃᖃᓇᐃᔭᕐᓂᐊᕐᑐᓂᒃ ᑐᔫᓄᓐ ᔫᓂ 14ᒥᓐ ᔩᑎᕕᓇ 17ᒧᓐ. ᐱᓕᕆᐊᕆᔭᐅᓪᓗᐊᑕᕐᓯᒪᔪᑦ ᐱᔭᕆᕐᑕᐅᓯᒪᔪᑦ ᐃᓚᖏᓐ ᐃᒪᐃᑦᑑᑦ:

- <u>ᐃᖏᕐᕋᔪᓕᕆᓂᕐᒧᓐ ᐱᕋᓯᕈᑏᑦ:</u> ᑲᒪᒋᔭᐅᓪᓗᓂ ᐃᒫᒍᑦ ᐊᒻᒪᓗ ᖃᖓᑕᔫᑯᑦ ᐃᖏᕐᕋᓂᐅᕙᑦᑐᖅ ᓱᓇᑰᓄᓐ ᐊᒻᒪ ᑭᓱᓕᓐᓄᓐ ᑕᕗᖓ ᐊᒻᒪᓗ ᑕᕙᖓᓐ ᑐᔫᓂ. (ᐃᓚᖓᓃᑦᑐᖅ 2)

- <u>ᐲᓯᐲᒥᒃ ᐱᕈᓴᖕᓴᐃᓂᖅ:</u> ᐸᑲᑦᑐᖃᕐᑐᓂ ᐊᒻᒪᓗ ᐱᔭᕐᑕᐅᓪᓗᑎᒃ ᐊᒥᓲᓂᖕᓴᑦ CEPA ᐲᓯᐲ ᓄᓇᖓ ᐅᕗᖓᓐ S1/S4 ᐸᑲᑦᑐᖃᕐᑐᓂ ᐊᒻᒪ ᖃᓕᓇᓕᕐᑎᕐᑎᑲᐃᓐᓇᕐᑐᓂ ᐲᓯᐲᒥᒃ ᑐᑭᓕᓇᑦᑐᒥ II ᑕᕙᖓᑦ S1/S4 ᓇᖕᓴᖓᓂᓐ. (ᐃᓚᖓᓃᑦᑐᖅ 3)

- <u>ᐲᓯᐲ ᐳᖃᑕᐅᓪᓗᓂ ᐊᒻᒪ ᑐᕐᑯᑕᐅᓪᓗᓂ:</u> ᐊᐅᑎᑕᐅᓪᓗᓂ CEPA ᓄᓇᖓ ᖃᓕᓇᓕᕐᑎᑕᐅᓯᒪᔪᒥᓐ ᐃᓗᐊᓂᓐ B2 ᐱᒐᓚᑯᕕᒻᒥᓐ ᐃᓪᓗᒥᓐ; ᖃᐅᔨᓴᕐᑕᐅᓪᓗᓂ CEPA ᓄᓇᖓ ᐅᕙᖓᓐ S1/S4 ᐃᒪᐅᑉ ᓯᓈᓂᓐ ᑐᓄᐊᓂᓐ B2 ᐃᓪᓘᑉ; ᐳᖃᑕᐅᓪᓗᓂ ᐲᓯᐲ CEPA ᓄᓇᖓ ᐅᕙᖓᓐ B2 ᐱᒐᓚᑯᕕᒻᒥᓐ ᐃᓪᓗᒥᓐ ᐊᒻᒪᓗ ᖃᐅᔨᓴᕐᕕᐅᒧᒥᓐ ᑐᓄᐊᓂᓐ B2, ᐳᖃᑕᐅᑲᓂᕐᑐᑎᒃ ᐊᒻᒪ ᐱᒐᓚᑯᕕᓪᒧᑕᐅᓪᓗᑎᒃ ᐊᔨᒌᖕᖏᑦᑐᑦ CEPA ᐊᐅᕐᓂᐊᕈᓐᓂᕐᑐᓂᒃ ᐊᑦᑕᑯᓂᒃ ᒪᓕᑦᑐᒍ TDG ᒪᓕᒐᖏᓐ. (ᐃᓚᖓᓃᑦᑐᖅ 4)

- <u>ᑐᑭᓕᓇᑦᑐᒥ II ᓄᓇᓕᕐᓱᑕᐅᓪᓗᓂ:</u> ᓯᐅᕐᔭᓕᕐᑕᐅᓪᓗᓂ ᓇᓚᐅᑎᖃᕐᕕᒥᓂᖅ ᖃᖃᒦᑐᖅ ᐊᒻᒪᓗ ᒥᑦᑕᕕᒻᒥᑦ; ᐱᔭᓇᕐᑐᒍ ᓴᓇᔭᐅᓂᖓ ᓄᓇᓕᕐᓱᕐᑕᐅᓂᖓ (ᐃᒪᐃᑦᑑᓂᖓ 3), ᖃᓄᐃᑦᑑᓂᖓ ᓯᓚᑖᓂ (ᖃᓄᐃᑦᑑᓂᖓ 2), ᐊᒻᒪᓗ ᐱᔭᐃᑯᓯᕐᑐᒍ ᓯᐅᕐᔫᓂᒃ ᐊᑖᒍᑦ (ᖃᓄᐃᑦᑑᓂᖓ 4); ᐊᕿᑕᐅᓪᓗᓂ ᐊᑖᒍᑦ ᐊᒻᒪ ᐃᑭᐊᕐᑎᕐᑐᒍ; ᐅᔭᕋᓚᓕᕐᓱᕐᑐᒍ ᐊᒻᒪ ᓯᕕᖕᒐᔭᓕᕐᑐᒍ ᓯᓚᑖᒍᑦ ᑲᓐᓇᕐᐸᓯᖕᒐᒍᑦ; ᐊᕿᓱᕐᑐᒍ ᖃᐅᔨᓴᕈᑕᐅᒐᔭᕐᑐᖅ. (ᐃᓚᖓᓃᑦᑐᖅ 5)

- <u>ᐊᓯᖏᓐ ᖃᓄᐃᓕᐅᕐᑕᐅᔪᑦ:</u> ᖃᖓᒍᑲᓐᓂᖅ ᐃᓚᔭᐅᑲᓂᕐᑐᓂ ᒥᑦᑕᕐᕕᐅᑉ ᐊᑦᑕᕐᕕᖓ; ᐸᑲᑕᐅᓪᓗᓂ ᓱᕈᕐᓇᕐᑐᖃᕐᑐᖅ ᓄᓇ ᐅᕙᖓᓐ ᑐᑭᓕᓇᑦᑐᒥ II ᓄᓇᓕᕐᑐᕐᑕᐅᓯᒪᔪᒥᓐ ᐊᒻᒪᓗ ᑲᑎᑕᐅᓪᓗᑎᒃ ᐅᕐᓱᐊᓗᖃᐅᑏᑦ; ᓄᓇᖃᕐᕕᖓ ᐊᕿᑕᐅᓪᓗᓂ; ᓱᕐᕿᐃᔭᕐᑕᐅᓪᓗᓂ S4 ᐃᓪᓗᒥᓐ ᐊᒻᒪᓗ ᓄᓇᓕᕐᓱᕐᑕᐅᓪᓗᓂ ᐊᐅᕐᓂᐊᕈᓐᓂᕐᑐᑦ; ᐃᑭᑕᐅᓪᓗᑎᒃ ᐊᐅᕐᓂᐊᕈᓐᓂᕐᑐᑦ ᐅᕐᓱᐊᓗᕈᔦᐃᕐ; ᓯᖃᓕᔭᐅᓪᓗᑎᒃ ᖃᑦᑕᐅᔪᑦ ᐊᒻᒪ ᐊᐅᕐᓂᐊᕈᓐᓂᕐᑐᑦ ᐃᒪᐅᑉ ᓯᓈᓂ ᑲᕐᐱᐊᓇᕈᑎᖏᖕᒍᓄᓐ ᓄᓇᓕᕐᑕᐅᔭᕆᐊᓖᓐᓄᓐ (ᐃᓚᖓᓃᑦᑐᖅ 6)

ᐃᓚᖓᓃᑦᑐᖅ 7 ᓴᖀᕗᖅ ᖃᐅᔨᔭᑎᐅᔭᓂᒃ ᐊᒻᒪ ᐱᑕᖃᕐᑎᑎᓪᓗᓂ ᑎᑎᕋᕐᓯᒪᔭᓂᒃ ᐊᐅᕐᑕᓕᕐᑯᔨᔭᑎᐅᔭᓂᒃ 2005ᒧᓐ ᐊᒻᒪ ᐊᕋᒍᖃᑦᑕᓂᐊᕐᑐᓄᓐ.

ᐅᓇ ᐱᓕᕆᐊᖑᔪᖅ ᑮᓇᐅᔭᖃᕐᑎᑕᐅᓯᒪᔪᖅ ᐊᕙᑎᓕᕆᔩᓂᓐ ᐊᒻᒪ ᓱᕈᕐᓇᕐᑐᓄᓐ ᐊᓪᓚᕕᖓᓂᓐ, ᐃᓄᓕᕆᔩᑐᖃᕐᓂᓐ ᑲᓇᑕᒥ. ᐊᕋᒍᑕᒫᖅ ᐃᓄᓕᕆᔩᑐᖃᑦ ᐃᒪᐃᒋᐊᖃᖃᑦᑕᕐᑯᑦ ᕿᑭᕐᑖᓗᑉ ᑯᐊᑉᐳᓇᔅᖓᓂ ᐊᕐᑯᑎᖃᕐᑐᓂᒃ ᑐᓂᕈᓯᕐᓂᒃᑯᑦ ᐊᖏᕈᒥᒃ.

ᕿᑭᖅᑖᓗᒃ ᑯᐊᑉᐳᓇᓴᖕᒐ ᓇᒻᒥᓂᕆᔭᐅᕗᖅ ᕿᑭᖅᑕᓂ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖅᑎᕆᖕᒐᓄᓐ, ᑖᓇᓗ ᐃᓄᓐᓄᓐ ᓇᒻᒥᓂᖅᑯᑎᕆᔭᐅᓪᓗᓂ ᑲᑐᔾᔨᖅᑎᕆᖕᒍᕗᖅ ᑭᒐᑐᖅᑐᓂ ᕿᑭᖅᑖᓗᒻᒥᒃ ᓄᓇᕗᒻᒥ. ᑐᔫᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᖅ ᓴᖀᕙᑉᐳᖅ ᐊᑯᓂᖅᑐᒧᓐ ᑐᕋᖕᒐᔪᒥᒃ ᐃᑲᔫᑎᒋᓂᐊᖅᑐᒥᒃ ᐃᓄᓐᓄᓐ ᓄᓇᕗᑦ ᓄᓇᓕᖕᒋᓐᓂᓐ ᐃᒪᐃᑦᑐᒃᑯᑦ ᐃᖅᑲᓇᐃᔫᖅᑲᖅᓂᒃᑯᑦ ᐊᒻᒪ ᐃᓕᓐᓂᐊᖅᑎᑕᐅᓂᒃᑯᑦ. ᓯᓚ, ᐅᕘᓇ ᐱᔭᖅᑕᐅᖃᑦᑕᖅᓂᖏᑎᒍᑦ ᓱᕈᐃᑦ, ᐱᓕᕆᐊᖑᔪᖅ ᒫᓇᐅᖕᒋᑦᑑᒐᓗᐊᖅ ᓈᒪᓯᑎᑦᑎᓂᐊᖅᑯᖅ ᐊᕙᑎᐅᑉ ᐊᐅᖅᑕᐅᖃᑦᑕᖅᓂᖕᒐᓂᒃ ᑖᑯᓇᓂ ᖃᓂᒋᔭᐅᔪᓂ ᓄᓇᓕᖕᓂ, ᑕᐃᒪᐃᒻᒪᓪᓕ ᐸᕿᔪᑕᐅᓗᓂ ᑎᒥᒃᑯᑦ ᖃᓄᐃᖕᒋᓯᐊᖃᖅᓂᖏᖕᓂᒃ ᐊᒻᒪ ᓯᕗᓂᓴᖏᖕᓄᓐ ᐃᓄᐃᑦ.

EXECUTIVE SUMMARY

An abandoned radar station located on Resolution Island (RI) at the southeastern tip of Baffin Island was left in poor environmental condition. Previous investigations performed at this former USAF station determined the extent of environmental problems from past occupation. The Resolution Island Project consists of the removal and disposal of PCB contaminated soils, as well as the management of other health and environmental risks such as hydrocarbon and metal contaminated soils, asbestos, and waste drums. Training is an important aspect of this project. A fully operational core camp accommodates a working crew of approximately 70 persons.

The Resolution Island Project started in 1998 after several years of investigations. The work accomplished by Qikiqtaaluk Corporation (QC) is summarized as follows:

1997: Initial equipment mobilization from Iqaluit to RI. QC sends a 20 person crew to RI for sea lift operations and basic core camp renovations. QC also provides technical support to Queen's University ASU, and LDS (now Sinanni) for their respective field work.

1998: QC sends a 40 person crew to RI to complete camp renovations, to manage materials and equipment shipped from Montreal, to assemble a 290,000 litre fuel tank farm, to remove asbestos from abandoned buildings, to repair roads, and to provide training to Inuit in trades related to the scope of work.

1999: QC sends a 50 person crew to RI from June 15 to September 15. Activities include beach lead dump excavation and waste sorting, removal and containerization of mercury contaminated soils; off-site shipment of PCBs and other hazardous waste, furniture dump excavation, building demolition, construction/operation of a NH waste landfill, shredding and disposal of empty drums, incineration of POL products, structural steel construction to join the two maintenance buildings, and aluminium recycling.

2000: QC sends a 50 person crew to RI from July 5 to September 15. The main tasks accomplished include: excavation of the Furniture Dump, demolition of PCB contaminated buildings and containerization of CEPA material, removal of CEPA soil from S1/S4 building area, set up and operation of a drum staging/sorting/pumping/washing station, operation of an oil separator / water treatment system, waste oil incineration, construction of a road to Lower Lake borrow pit, relocation of the sewage line and lagoon.

2001: QC sends a 50 person crew to RI from July 4 to September 3. Activities include: excavation of CEPA PCB soil from S1/S4 building and drainage area, excavation of waste from Beach Dumps, drainage and treatment of phenol

contaminated water from beach POL tanks, clean up of Battery Dump, installation of trial silt fence in drainage path of former Furniture Dump, drainage of fuel from beach POL tank, management and incineration of waste POL products, construction of a new road to Radio Hill, operation of a new borrow pit located behind Radio Hill.

2002: QC sends a 50 person crew to RI from July 12 to August 28. Activities include: excavation of CEPA PCB soil from upper S1/S4 valley and PCL dump; repair old 3.1 m^3 steel containers to RI Environmental Impact Statement (EIS) specifications, containerize PCB CEPA soil from the Main PCB storage building; remove waste debris from Beach Dumps, remove and manage POL drums from various areas, incinerate grease and other waste POL products.

2003: QC sends a 60 person crew to RI from June 18 to September 14. Activities include: removal of remaining CEPA PCB soil from the S1/S4 valley; containerization of PCB CEPA soil from the Main and B2 PCB storage buildings, clean up and cover Airstrip dump, clean up debris from Maintenance dump, incinerate grease and other waste POL products; drums of hazardous waste shipped south for disposal, gravel production and partial construction of Tier II landfill berm core.

2004: QC sends over 60 workers to RI from June 14 to September 17. The main tasks accomplished include:

- Transportation Services: Coordinate marine and air transportation of equipment and materials to, and from, Resolution Island. (Section 2)
- PCB Clean Up: Excavation and removal of most of the CEPA PCB soil from the S1/S4 beach; excavation and temporary stockpiling of PCB Tier II soil from the S1/S4 valley. (Section 3)
- PCB Containerization and Storage: Thawing of the CEPA soil stockpile inside the B2 storage building; screening of CEPA soil from the S1/S4 beach behind the B2 building; containerization of PCB CEPA soil from the B2 storage building and from the screening pad behind B2, repackaging and containerization of various CEPA waste materials in compliance with TDG Regulations. (Section 4)
- Tier II Landfill: Gravel production at Radio Hill and Airstrip borrow pits; completed construction of landfill berm core (Type 3), berm core exterior (Type 2), and protective bottom sand layer (Type 4); installation of bottom geotextile and geomembrane liners; backfilling and sloping of depression along exterior east side; installation of monitoring wells. (Section 5)
- Other Activities: Additional cover material added over Airstrip dump; excavation of hydrocarbon contaminated soils from Tier II landfill area and

imploded tank; landfarm platform set up; demolition of S4 building and landfilling of debris; incineration of waste POL products; shred drums and debris at beach non-hazardous landfill. (Section 6)

Section 7 presents conclusions and provides a list of recommendations for the 2005 season and subsequent seasons.

This project is funded by the Environment and Contaminants Office, Indian and Northern Affairs Canada (INAC). Every year INAC mandates QC through a Contribution Agreement. QC is owned by the Qikiqtani Inuit Association (QIA), the Inuit birthright organization representing the Qikiqtani (Baffin Island) region of Nunavut. The Resolution Island Project provides long-term benefits to Inuit from Nunavut communities through employment and training. Furthermore, by removing the source of pollution, the project will eventually attenuate the environmental impacts on nearby communities, thereby protecting the health and future of the Inuit.

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GLOSSARY

ASU:	Analytical Services Unit (Queen's University)
CEPA:	Canadian Environmental Protection Act (also refers to PCB concentration > 50 mg/kg)
EIS:	Environmental Impact Statement
HC:	Hydrocarbon contaminated (in reference to soils)
HDPE:	High density polyethylene
H&S:	Health and Safety
INAC	Indian and Northern Affairs Canada
NTI:	Nunavut Tunngavik Incorporated
OD:	Outside diameter
O&M:	Operations and Maintenance
NSSI:	Nunavut Sealink and Supply Inc.
PCB:	Polychlorinated Biphenyls
PCL:	PCL construction company
PMT:	Project Management Team
POL:	Petroleum Oil & Lubricants
QIA:	Qikiqtani Inuit Association
QC:	Qikiqtaaluk Corporation
RI:	Resolution Island
RRMC:	Royal Roads Military College
SMT:	Senior Management Team
Tier I:	DEW Line Clean up criteria (*e.g.*, 1 mg/kg $\leq$ PCB concentration < 5 mg/kg)
Tier II:	DEW Line Clean up criteria (*e.g.*, 5 mg/kg $\leq$ PCB concentration < 50 mg/kg)
TPH	Total Petroleum Hydrocarbons
USAF:	United States Air Force
drum:	45 imperial gallon steel cylindrical container

1- INTRODUCTION

The 2004 field season at Resolution Island (RI) started on June 14 with the initial crew mobilisation. Scheduled tasks initiated once the camp was operational. All planned activities were conducted and most were completed by the end of the season. The site was closed on September 17.

Indian and Northern Affairs Canada (INAC), in partnership with Qikiqtaaluk Corporation (QC), initiated this project in 1997 following several environmental investigations conducted by the Department of National Defence (DND), Environment Canada, the Royal Roads Military College (RRMC), and Queen's University Analytical Services Unit (ASU). QC and Sinanni coordinated and conducted previous work focussing on mobilisation, infrastructure, settings, and environmental remediation. In 2004, more than 70 individuals combined their efforts to make this field season a successful one. The following important tasks were completed during the field season:

- Excavation of PCB CEPA soil at the S1/S4 Beach;
- Excavation of PCB Tier II soil in the S1/S4 Valley;
- Thawing of the CEPA soil stockpile inside the B2 PCB storage building;
- Containerization of CEPA soil from the B2 building and S1/S4 Beach;
- Excavation of hydrocarbon contaminated soils from the Tier II landfill and the imploded tank area;
- Demolition of the S4 building;
- Packaging of waste PCB materials in compliance with new TDG Regulations;
- Incineration of waste oil;
- Quarrying and screening of gravel at Radio Hill pit and Airstrip borrow pit;
- Construction of landfill berms, interior surface, and liner installation.

Some other tasks were accomplished during the 2004 season:

- Placement of additional cover material on Airstrip dump;
- Set up of landfarming platform;
- Installation of monitoring wells at Tier II landfill and Airstrip Dump;
- Correction of drainage problem east of Tier II landfill;
- Non-hazardous waste shredding and landfilling;
- Draining of beach pond.

This document summarizes the construction activities carried out on site between June and September 2004. Section 2 of the report describes the activities related to the transportation of equipment and materials. Section 3 presents information on the excavation and/or removal of PCB contaminated soil and debris, while Section 4 describes the PCB CEPA soil and debris containerization and storage activities. Section 5 presents information related to the construction of the Tier II landfill, including gravel production. In Section 6, clean up activities other than those related to PCB soil and debris are presented. Section 7 presents recommendations.

Photographs depicting fieldwork activities are presented throughout this report. The 2004 As-Built Drawings are submitted as a separate document attached to the current report.

2- TRANSPORTATION SERVICES

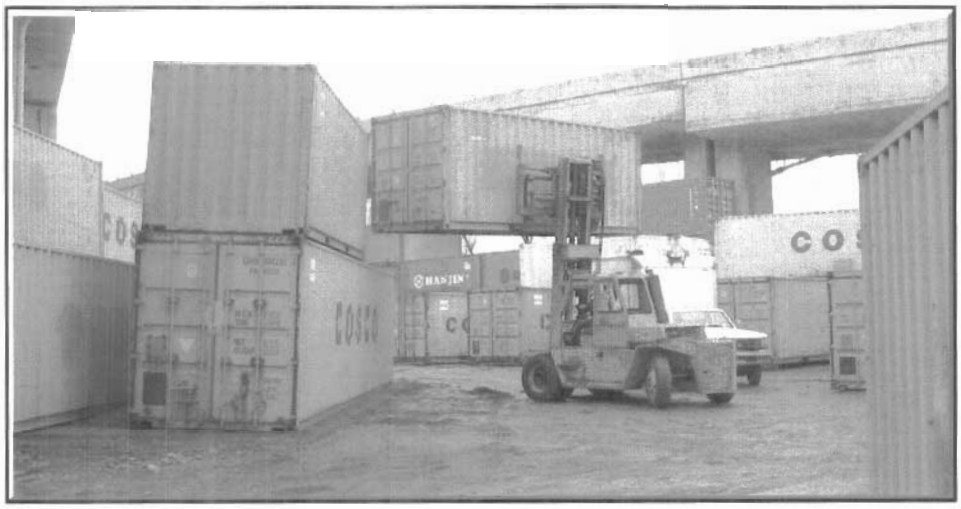
Each year the success of the field season relies upon various transportation services which need to be planned, coordinated, and managed. These include marine and air transport operations.

2.1- Storage and Packing

In spring 2004, remaining funds from the 2003 RI budget were used to purchase equipment and supplies required for the project. Awaiting the start of marine shipping season, the supplies were shipped to the Remorques St-Henri yard in Montréal for temporary storage. Some supplies purchased later as part of the 2004 RI budget were also sent to the St-Henri yard. All cargo was sorted, packed and secured inside six (6) 20-foot marine containers. Equipment and supplies from Queen's ASU were also shipped there. Sinanni managed and supervised these operations.

Because of the early start to the 2004 season, some materials (*e.g.*, well supplies, shower stalls, etc.) were required on site before the sealift could arrive. These materials were eventually shipped to First Air Cargo in Montréal and then sent to Iqaluit by plane.

In June 2004, the six (6) marine containers were transported to the port of Ville Sainte-Catherine in preparation for northbound shipping.



Photograph 2.1: Cargo storage in Montréal

2.2- Sealift Operations

In 2004, Nunavut Sealink and Supply Inc. (NSSI) was awarded the marine shipping contract to transport various equipment and materials required for 2004 and subsequent seasons.

Sinanni coordinated the shipping and receiving of cargo at the port of Ville Sainte-Catherine (south of Montréal) with the various suppliers and the road transport companies. Sinanni also supervized the ship loading operations and verified that all equipment and materials were loaded onto the ship without any damage.

The sealift (*M.V. Mathilda Desgagnés*) left the port on June 24, 2004. Prior to the ship's arrival at RI, the beach barging area was backfilled and graded to provide a smooth working surface. Approximately 115 m^3 of screened sand was used to prepare the barging area.

Because of severe ice conditions around the island, NSSI had to postpone their delivery of supplies to RI on two (2) occasions. NSSI was only successful on their third attempt, however, the *M.V. Mathilda Desgagnés* had to anchor outside Brewer Bay because of the presence of large icebergs in the Bay.

Prior to arriving at RI, the ship stopped over in Iqaluit and picked up supplies left there at the end of the 2003 season, such as rolls of geomembrane liner and flower pot containers (472 units).

The sealift arrived at Resolution Island late in the evening of July 29. Cargo unloading was carried out until 19:30 on July 30. First, barges, loaders, and a tug boat were unloaded from the ship. The cargo was then transferred from the ship to the barges. The tug boat was used to push the loaded barges from the ship to the beaching area and back to the ship. The NSSI loaders unloaded the cargo from the barge to the beach highwater mark. All unloaded cargo was temporarily stored near the beach tank farm. Sinanni and QC representatives monitored all operations, and verified and signed the shipping manifest. The inventory warehouseman added all new items received to the general inventory list.

Approximately 1,330 m^3 (536 metric tonnes) of equipment and materials were shipped to the island, including the following items:

<u>from Montréal</u>

- Mack tandem axle (10-wheel) dump trucks (2 units) - *owned by QC and leased to the project*;
- repaired GMC tandem axle dump truck (1 unit) - *owned by QC and leased to the project*
- Caterpillar backhoe - *owned by QC and leased to the project*;
- 20-foot marine containers (seacans) (6 units);
- CV100 soil screening unit, generator, and screens - *owned by QC and leased to the project*;
- Flower pot containers and lids (366 units);
- Salvage drums (80 units on 27 pallets);
- Drums of gasoline (30 units on 8 pallets);
- Drums of oil and lubricants (31 units on 8 pallets);
- Tank and trailer;
- Vehicle and heavy equipment tires;
- Oil furnace, tank, and piping;
- Construction lumber;
- Polyethylene liner (60 rolls);
- Miscellaneous items (*e.g.,* sorbent booms, power tools, kitchen accessories, etc.).

from Iqaluit

- Rolls of geomembrane and geotextile liner;
- Flower pot containers and lids (472 units).

A copy of the NSSI transport manifest is provided in Appendix 1.

In August, after several days without helicopter cargo supply to RI due to bad weather, NSSI responded to a call for assistance. On August 23, en route from Iqaluit to Pangnirtung, the *M.V. Anna Desgagnés* made a short detour to RI to deliver food, essential supplies, and two (2) crew members needed on-site

2.3- Air Transportation

Air transport services were required for crew mobilization and rotation, as well as for shipment of equipment and supplies to and from the island.

Supplies shipped to Iqaluit from Montréal by First Air were temporarily stored at the airport, before being sent to RI by helicopter and airplane.

After many years of reliable service, Canadian Helicopters Ltd was awarded the contract to provide regular air transportation services using a Bell 212 helicopter. QC managed the contract and coordinated the helicopter flights from RI on a daily basis over the duration of the field season. Flight data, such as departure and arrival times as well as flying time was logged. In 2004, a total of 243.8 hours of flying time were used. A Bell 206 helicopter was also used on two (2) occasions to ship engine parts, one passenger, and small amounts of cargo.

Photograph 2.2: Unloading of cargo from the helicopter

In addition to the helicopter services, chartered Twin Otter flights were used to transport crew and cargo to and from the site. Twin Otter flights were mainly scheduled at the beginning and at the end of the field season to carry bulky materials and supplies as well as larger crews. Twin Otter flights were also used during the season to relieve cargo backlogs whenever the helicopter was down for several days due to bad weather. In 2004, a total of thirteen (13) Twin Otter flights were used. Kenn Borek Air was contracted on an as required basis.

The following equipment and materials were shipped by air:

- Four (4) shower stalls;
- Furnace, tank, and heat exchanger;
- Office supplies (computers, printers, fax machines, cartridges);
- Monitoring well supplies (piping, sand, bentonite, grout, etc.);
- Miscellaneous items (*e.g.,* health and safety supplies, power tools).

3- PCB CLEAN UP

The excavation and removal of PCB CEPA soils (*i.e.*, > 50 ppm PCB) continued during the 2004 season as clean up work was initiated at the S1/S4 beach. New pockets of CEPA soil were also discovered in and removed from the S1/S4 valley. All soils were screened and containerized. Soil containerization and storage are discussed in Section 4 of this report. Containers filled with CEPA soil were shipped south for disposal during the 2004 season. Since these activities are part of a separate contract, they are discussed in a different report [1].

Excavation of PCB Tier II (*i.e.*, PCB levels between 5 and 50 ppm PCB) contaminated soils was also carried out this season. This activity was conducted in the S1/S4 valley.

The following section describes the nature of the PCB clean up activities conducted during the 2004 season.

3.1- S1/S4 Beach

In 2003, construction of the access road base layer leading to the S1/S4 beach had been stopped just past the stream crossing. Before clean up operations could begin, the access road had to be completed. Road construction was carried out from June 26 to July 2. A total of 780 m^3 of pit run from the East Lower Lake borrow pit was used for the road construction. A loop was also built at the end of the road to ease the flow of truck traffic.

Prior to starting soil excavation, large boulders were moved aside from the contaminated areas using the excavator with grapple attachment. These operations were conducted between June 27 and July 3. Excavation of CEPA soil was initiated on July 4, starting at the highest point and then working down. The excavated soil was stockpiled within the CEPA contaminated area for a few days before hauling to the B2 processing area began. Soil excavation and hauling was carried out at a rapid pace. Since soil screening and containerization could not keep up the pace, and because of the late arrival of the empty containers and new screener on site, excavation work was temporarily halted before re-starting again towards the end of August.

As excavation work progressed, the first barrier (*i.e.*, furthest from the ocean) in grid 6D had to be removed. The used barrier materials (*i.e.*, sorbent booms) were containerized in steel flower pot containers prior to sampling and analysis. In order to prevent the transport of fine contaminated soil particles to the ocean during excavation, a silt fence was installed approximately 3 m up gradient from the second barrier (*i.e.*, closest to the ocean).

Over 2,000 m^3 of soil was removed from the S1/S4 beach area and as a result a total of fourteen (14) quadrants were decontaminated. These quadrants, identified on the As-Built Drawings, are: 3B, 3C, 4B, 4C, 4D, 4E, 5B, 5C, 5D, 5E, 6C, 6D, 6E, and 7D. Copies of the signed quadrant log

[1] Resolution Island - Disposal of PCB Contaminated Soil, 2004 - Preliminary Report, PWGSC Contract No. A7157-030001/001/FK, Qikiqtaaluk Corporation, October 2004