Bonjour Mme Dea,

Après avoir consulté mes collègues, une présentation de l'étude et des résultats est prévue à Chisasibi probablement en autil 2016, puisqu'il est question de La Pointe Louis XIV en territoire Cri. Lorsque la date de la présentation sera déterminée, nous vous invitons à communiquer directement avec M. Cameron McLean du GNC afin d'y participer.

Par ailleurs, n'ayant pas de caractérisation récente pour un projet (Mid-Canada) au Nord du 55<sup>e</sup>, le ministère n'a pas d'informations spécifiques à transmettre pour le territoire du Nunavik. Par contre, une rencontre téléphonique pourrait être prévue si vous souhaitez en discuter.

Pour la lettre au fédéral, nous sommes en attente d'informations. Je vous tiens informé

Cordialement

#### Michel Larose

Pôle d'expertise nordique et minier

Coordonnateur nordique et relations avec les communautés autochtones et locales

Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques

180, boul. Rideau

Rouyn-Noranda (Québec) J9X 1N9

Tel: 819 763-3333, poste 297

Télec: 819 763-3202

De: Nancy Dea [mailto:nancyldea@gmail.com]

Envoyé: 25 janvier 2016 09:33

A: Larose, Michel < Michel, Larose@mddelcc.gouv.gc.ca>

Cc: Claveau, Cynthia < Cynthia. Claveau@mddelcc.gouv.qc.ca>; Richer, Daniel

<Daniel.Richer@mddelcc.gouv.qc.ca>; Gendron, Daniel <Daniel.Gendron@mddelcc.gouv.qc.ca>;

Benjamin Patenaude <BPatenaude@krg.ca>

[Quoted text hidden]

[Quoted text hidden]

Nancy Dea <nancyldea@gmail.com>

Thu, Jan 28, 2016 at 8:58 AM

https://mail.google.com/mail/u/0/?ui=2&ik=946943d55c&view=pt&c...I=1527933e83a5c854&simI=1527f6900586db04&simI=15288877dc95567a

Page 5 of 6

Hello Michel and Cynthia.

[Quoted text hidden]

Thank you.

Merci!

[Quoted text hidden]



Mon, Nov 30, 2015 at 1:55 PM

Nancy Dea <nancyldea@gmail.com>

To: Michel.Larose@mddelcc.gouv.gc.ca

Cc: Cynthia.Claveau@mddelcc.gouv.qc.ca, "<Daniel.Richer@mddelcc.gouv.qc.ca>"

<Daniel.Richer@mddelcc.gouv.qc.ca>, Daniel.Gendron@mddelcc.gouv.qc.ca

Thank you very much for the update.

[Quoted text hidden]

Nancy Dea <nancyldea@gmail.com>

To: Benjamin Patenaude <BPatenaude@krg.ca>

Wed, Dec 9, 2015 at 2:02 PM

Other email I promised to send: update from regional office about characterization of Point Louis XIV [Quoted text hidden]

Nancy Dea <nancyldea@gmail.com>

Mon, Jan 25, 2016 at 9:33 AM

To: Michel.Larose@mddelcc.gouv.qc.ca

Cc: Cynthia.Claveau@mddelcc.gouv.gc.ca, "<Daniel.Richer@mddelcc.gouv.gc.ca>"

<Daniel.Richer@mddelcc.gouv.qc.ca>, Daniel.Gendron@mddelcc.gouv.qc.ca, Benjamin Patenaude

<BPatenaude@krg.ca>

Hello Michel.

Le CCEK tiendront leur prochaine réunion Mars 9-11 Kuujjuag.

Est-ce que votre bureau seront disponibles pour présenter les activités relatives à la caractérisation de Point Louise XIV (en personne ou par téléphone / vidéo)?

Dans votre dernier e-mail, vous avez mentionné une présentation possiblement à Chisasibi. Est-ce toujours prévu et pour quand? Est-ce que le CCEK pouvoir assister?

Et enfin, est-il une mise à jour concernant la lettre au gouvernement fédéral?

Merci.

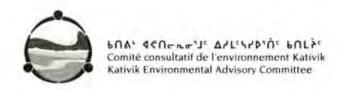
[Quoted text hidden]

Michel.Larose@mddelcc.gouv.qc.ca <Michel.Larose@mddelcc.gouv.qc.ca>

Tue, Jan 26, 2016 at 2:28 PM

To: nancyldea@gmail.com

Cc: Cynthia.Claveau@mddelcc.gouv.qc.ca, Daniel.Richer@mddelcc.gouv.qc.ca, Daniel.Gendron@mddelcc.gouv.qc.ca, BPatenaude@krg.ca



Kuujjuaq, le 11 février 2016

Monsieur John Turner Sous-ministre délégué Ministère de la Défense nationale Édifice Major-Général George R. Pearkes 101, promenade du Colonel By Ottawa ON K1A 0K2

OBJET : Restauration des stations radars abandonnées de la ligne Mid-Canada au Nunavik

Monsieur le Sous-Ministre délégué,

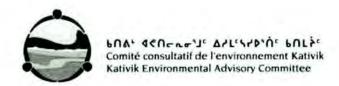
Créé en vertu du chapitre 23 de la Convention de la Baie-James et du Nord québécois (CBJNQ), le Comité consultatif de l'environnement Kativik (CCEK) est un organisme consultatif en matière de protection de l'environnement et du milieu social au Nunavik auprès des gouvernements responsables. Il est donc l'intermédiaire privilégié et officiel des gouvernements du Canada et du Québec, ainsi que de l'Administration régionale Kativik (ARK) et des villages nordiques.

En mai 2012, le CCEK a transmis aux administrateurs fédéral et provincial de la CBJNQ un document intitulé Travaux nécessaires à l'achèvement du projet de nettoyage de la ligne Mid-Canada qui retraçait l'histoire des sites de la ligne Mid-Canada, décrivait les activités de nettoyage réalisées et formulait des recommandations sur les travaux à faire pour améliorer la sécurité publique et mieux protéger l'environnement des 35 sites situés au Nunavik. Veuillez trouver ci-joint une copie de ce document.

Les sites de la ligne Mid-Canada continuent d'être une source d'inquiétudes pour les communautés cries, inuites et naskapies qui utilisent ces territoires pour pratiquer leurs activités traditionnelles. Bien que des travaux de nettoyage aient été effectués dans le passé, ces communautés tiennent fermement à ce que ces sites soient complètement restaurés.

Bien que le CCEK ait reçu une réponse de l'administrateur provincial de même que plusieurs lettres de suivi depuis 2012, nous croyons qu'il est important de maintenir les communications entre toutes les parties concernées. En avril 2015, à la suite d'une demande de l'administrateur fédéral de la CBJNQ, le CCEK a

Secrétariat du CCEK
C. P. 930
Kuujjuaq QC J0M 1C0
Tél.: 819-964-2961, poste 2287
Fax: 819-964-0694
Courriel: bpatenaude@krg.ca



Although the KEAC received an official response from the Provincial Administrator, including several followup correspondences since 2012, we feel it is important to maintain communication between all parties involved. In April 2015, upon the request of the Federal Administrator, the KEAC contacted Mr. Jamie Pittfield, who at that time was the Assistant Deputy Minister of the Department of National Defence, regarding this file. We continue to await a response and are again requesting an update from your office concerning this issue.

Respectfully yours,

Michael Barrett Chairperson

cc. Jennifer Munick, Chairperson, KRG

To: nancyldea@gmail.com, Cynthia.Claveau@mddelcc.gouv.qc.ca Cc: Daniel.Richer@mddelcc.gouv.qc.ca, Daniel.Gendron@mddelcc.gouv.qc.ca

Bonjour Mme Dea,

Voici les informations à jour.

Seld to Benjann

Les travaux de caractérisation de La Pointe Louis XIV ont été complétés, et un rapport nous est parvenu il y a environ une semaine. L'analyste au dossier en fera un examen, puis des questions pourraient être adressées au maître d'œuvre, le cas échéant. Le MDDELCC pourra présenter les résultats de cette activité aux différentes parties en 2016, possiblement en mars lors d'une rencontre à Chisasibi.

De plus, un projet de lettre adressée au fédéral est en cours entre nos directions (Expertise et analyse régionale et Relations Intergouv. MDDELCC). En raison des récentes élections fédérales, cette correspondance devrait être transmise à la fin de l'année 2015 ou au début 2016.

Avec plus de détails et de précisions, je pourrai communiquer avec vous prochainement.

N'hésitez pas à m'interpeller pour toute question.

Cordialement

#### Michel Larose

Pôle d'expertise nordique et minier

Coordonnateur nordique et relations avec les communautés autochtones et locales

Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques

180, boul. Rideau

Rouyn-Noranda (Québec) J9X 1N9

Tél: 819 763-3333, poste 297

Télec: 819 763-3202





Nancy Dea <nancyldea@gmail.com>

# Mid-Canada Line update

1 message

Nancy Dea <nancyldea@gmail.com> To: Michael Barrett <mbarrett@krg.ca> Cc: Benjamin Patenaude <BPatenaude@krg.ca> Tue, Jun 23, 2015 at 10:51 AM

Hi Michael.

I spoke to someone at the MDDELCC regional office (Daniel Gendron) regarding the Mid-Canad Line file. He mentioned that that their letter to DND is finalized and should be sent very shortly. It was signed by the Deputy Minister and both the KEAC and the KRG are in cc.

With regards to the site Louis XIV, a call for tender is in the process of being finalized and should go out soon as they hope to have the site characterization completed this year. Once that document is available, they will decide on the best case scenario for rehabilitation.

He also mentioned that they were working on an agreement with the Cree to undertake an archeological survey at the site.

Seems things are moving forward, slowly but surely...

Nancy Dea **Environmental Specialist** 819-350-0735 nancyldea@gmail.com

Characterization of Louis Mx
WORK done week of Sept. 14
Cree pept on frelat a Consultanti
Garcheological sites

Sept. 2/15

Bonjour Mme Brunelle,

Suite à votre message et à l'invitation de la personne qui a pris mon retour d'appel à vos bureaux de Montréal, je prends l'initiative de vous communiquer par courriel un bref suivi sur le dossier de la Pointe Louis XIV.

Tel que discuté plus tôt cet été, l'appel d'offre a été complété et une firme a été retenue pour aller procéder à une caractérisation de phase I étendue où des relevés et des échantillonnages seront effectués. Les travaux sont prévus être effectués dans la semaine du 14 septembre prochain.

Une ressource en archéologie du Gouvernement de la Nation Crie accompagnera l'équipe terrain et les assistera dans les sondages en vue de déterminer si des artéfacts ou d'autres indices archéologiques sont présents sur le site. Cette information nous sera d'une grande utilité pour les travaux qui suivront.

Le rapport de caractérisation comprendra aussi un volet sur des propositions d'intervention pour la restauration du site, ce rapport sera aussi présenté aux responsables de la communauté Crie.

Enfin je vous informe que pour les travaux de septembre trois personnes de la communauté crie assistera l'équipe de professionnel terrain soit pour la surveillance de la faune (ours) ainsi que pour les déplacements terrains en VTT. Un gérant de campement est aussi prévu avec un assistant.

Voilà, si vous désirez de plus amples renseignements, n'hésitez pas à me recontacter,

Je vous remercie,

Daniel Gendron, ing.
Direction Régionale Analyse & Expertise
Abitibi-Témiscamingue / Nord-du-Québec
180, Boul. Rideau, 1er étage
Rouyn-Noranda, Québec, J9X 1N9

Tél.: 819-763-3333 poste 318

courriel: daniel.gendron@mddelcc.gouv.qc.ca



# FW: Restoration of Mid-Canada Line Sites in Nunavik/Restauration des sites de la ligne Mid-Canada au Nunavik

5 messages

Benjamin Patenaude <BPatenaude@krg.ca>

To: "Nancy Dea (nancyldea@gmail.com)" <nancyldea@gmail.com>

Mon, Apr 27, 2015 at 11:25 AM

For your files.

Benjamin Patenaude

**Executive Secretary** 

Kativik Environmental Advisory Committee (KEAC-CCEK)

P.O. Box 930

Kuujjuaq Q.C.

JOM 1CO

Tel:

(819) 964-2961 ext. 2287

1-877-964-2961 ext 2287

Fax: (819) 964-0694

Email: bpatenaude@krg.ca

From: Michael Barrett
Sent: April-27-15 11:19 AM
To: jaime.pittfield@forces.gc.ca
Cc: Benjamin Patenaude

Subject: Restoration of Mid-Canada Line Sites in Nunavik/Restauration des sites de la ligne Mid-Canada au

Nunavik

Dear Mr. Pittfield,

It is our understanding that, in your capacity as Assistant Deputy Minister of the Department of National Defence(DND), you received a copy of a letter dated February 16, 2015, from the Kativik Environmental Advisory Committee (KEAC) to the Federal Administrator of the *James Bay and Northern Québec Agreement* regarding the third phase of the Mid-Canada Line clean-up project in Nunavik.

The KEAC recommends the abandoned sites to be completely restored and believes it is important that provincial, federal and regional parties be kept informed of the progress of related actions. To this end, the KEAC or the Kativik Regional Government should be involved in discussions between the provincial and federal governments.

Attached to this message are the above-referenced letters (KEAC letter and the response) as well as the 2012 KEAC brief entitled *Work Necessary to Complete the Mid-Canada Line Cleanup Project*. We would like to request that the DND provide the KEAC with an update on this topic.

Sincerely,

Michael Barrett

Chairperson

Kativik Environmental Advisory Committee

P.O. Box 930,

Kuujjuaq QC

**JOM 1CO** 

Tel: 819-964-2961 ext. 2271

Fax: 819-964-0694

E-mail: mbarrett@krg.ca

KEAC Secretariat: keac-ccek@krg.ca

#### Monsieur Pittfield,

Nous comprenons que, à titre de sous-ministre adjoint du ministère de la Défense nationale, vous avez reçu une copie d'une lettre du Comité consultatif de l'environnement Kativik (CCEK), en date du 16 février 2015, adressée à l'administrateur fédéral de la Convention de la Baie-James et du Nord québécois, au sujet de la troisième phase de restauration des sitesabandonnés Mid-Canada au Nunavik.

Le CCEK souhaite la restauration complète de ces sites abandonnés et estime qu'il est important que les représentants provincial, fédéral et régional demeurent informés de l'évolution des démarches pour réaliser ces travaux de restauration. Par conséquent, nous considérons primordial que le CCEK ou l'Administration régionale Kativik (ARK) participe aux discussions entre les gouvernements fédéral et provincial à ce sujet.

Vous trouverez d'ailleurs ci-joints les lettres mentionnées (lettre du CCEK et réponse) et notre mémoire de 2012 intitulé *Les travaux nécessaires pour terminer le projet de nettoyage de ligne Mid-Canada.* Enfin, le CCEK sollicite le ministère de la Défense nationale pour une mise à jour sur ce sujet.



Canadian Environmental Assessment Agency

Agence canadienne d'évaluation environnementale

President

Président

160 Elgin St., 22<sup>nd</sup> floor Ottawa ON K1A 0H3 160, rue Elgin, 22e étage Ottawa ON K1A 0H3

# MAR 2 3 2015

Monsieur Claude Abel Président, Comité consultatif de l'environnement Kativik C.P. 930 Kuujjuaq, Québec J0M 1C0

Monsieur,

Je vous remercie de votre lettre du 16 février 2015 dans laquelle le Comité consultatif de l'environnement Kativik me fait part des préoccupations des Cris, Inuit et Naskapis concernant les 35 sites de la ligne Mid-Canada au Nunavik qui sont des lieux de pratique de leurs activités traditionnelles.

En tant qu'Administrateur fédéral de la Convention de la Baie James et du Nord québécois, bien que je n'ai pas un rôle spécifique dans ces projets, je reconnais l'importance d'établir une communication entre les différents organismes impliqués en vue de discuter de la poursuite des travaux de restauration de ces sites. Le ministère de la Défense nationale est responsable d'administrer le programme de restauration de ces sites. Je vous invite donc à communiquer directement avec Monsieur Jaime Pittfield, sous-ministre adjoint au Ministère de la Défense nationale, qui sera en mesure de vous faire une mise à jour dans ce dossier. Ainsi, je me suis permis de transmettre une copie de votre lettre à mon collègue, Monsieur Jaime Pittfield, pour information et considération.

Veuillez agréer, Monsieur, mes salutations les meilleures.

Ron Hallman

Administrateur fédéral

Convention de la Baie-James

et du Nord québécois

c. c. : Monsieur Jaime Pittfield, sous-ministre adjoint au Ministère de la Défense nationale







# **RE: Mid Canada Line**

1 message

Benjamin Patenaude <BPatenaude@krg.ca>

Tue, Mar 10, 2015 at 11:03 AM

To: "Abel, Claude [Quebec]" < Claude. Abel@ec.gc.ca>

Cc: "Nancy Dea (nancyldea@gmail.com)" <nancyldea@gmail.com>

Hi Claude.

Here are the coordinates of 2 representatives from the DND and 1 from the MDDELCC whom I have been in correspondence with regarding the Mid-Canada Line clean-up project.

From the DND:

Maryse Sohier, ing. M.Sc.

Officier d'environnement Sites contaminés / Contaminated sites Environmental Officer

Service de la Conservation des Ressources / Resources Conservation Branch

Groupe de soutien de la 2e Division du Canada/2nd Canadian Division Support Group

Défense nationale / National Defence

Local 262, Bâtiment 200 / Room 262, Building 200

C.P. 1000, Succ. Forces / PO Box 1000, Station Forces

Courcelette, Qc

**G0A 4Z0** 

maryse.sohier@forces.gc.ca

Tél.: 418-844-5000 # 7495

Fax.: 418-844-6416

Mr Marc Desjardins

Director Real Property Management

National Defence Headquarters

101 Colonel By Drive Ottawa, ON K1A 0K2 Email: Marc. Desjardins2@forces.gc.ca From the MDDELCC: Ms. Anick Lavoie Regional director 180, boul. Rideau, local 1.04 Rouyn-Noranda (Québec) i9X 1N9 Téléphone 819 763-3333, poste 222 Télicopieur: 819 763-3202 Courriel: anick.lavoie@mddelcc.gouv.qc.ca Internet htt://www.mddelcc.gouv.gc.ca Hope this helps. Benjamin Patenaude **Executive Secretary** Kativik Environmental Advisory Committee (KEAC-CCEK) P.O. Box 930 Kuujjuaq Q.C. **JOM 1C0** Tel: (819) 964-2961 ext. 2287

1-877-964-2961 ext 2287 Fax: (819) 964-0694

Email: bpatenaude@krg.ca

Update: Mid-Canada Line, Phase III cleanup

**KEAC** meeting: March 2015

# **KEAC Correspondence**

-May 2012: KEAC sent a letter and brief to both JBNQA administrators (MDDELCC Deputy Minister and CEAA President) with recommendations

-July 2012: KRG sent a letter to MDDELCC Deputy Minister asking to open discussion with DND & KRG

-August 2012: MDDELCC response to KRG AND KEAC letter to say the matter was being reviewed by their legal department to determine provincial/federal responsibilities

-February 2014: KEAC letter to MDDELCC Deputy Minister encouraging discussion between parties

-July 2014: MDDELCC response to KEAC letter explaining they are taking measure to characterize the Cape Jones site and that a letter will be sent to the DND to discuss their participation in Phase III on all sites

-January 2015: Discussion with regional office of MDDELCC stated that a characterization will be done Cape Jones site in Spring/Summer 2015-call for tenders. Letter to DND is ready but has not been sent, awaiting final review from inter-governmental department. KRG will be involved in talks with DND.

- Feb Dus - letter to Frod. Admin

# **IBACE Correspondence**

March 2010: Sent letter to DND expressing concern with Cape Jones site and asking for characterization

April 2010: Response from DND saying that Québec would need to send project description regarding cleanup of Cape Jones site to be eligible for funding

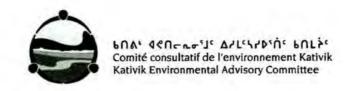
April 2010: JBACE follow-up letter with photographs

*June 2010:* Response from DND saying questions concerning this issue need to be addressed to the MDDELCC

January 2011: Environment Canada response to letter saying inspection was undertaken on Cape Jones site in August 2010. Because neither law in question (Canadian Environmental Protection Act or Fisheries Act) was applicable they could not intervene.

February 2014: Asked MDDELCC for funding for characterization of Cape Jones site.

*July 2014:* Response from MDDELCC saying they are taking steps to begin the characterization of Cape Jones.



February 16, 2015

Mr. Ron Hallman Federal Administrator, JBNQA Canadian Environmental Assessment Agency 22nd Floor, Place Bell 160 Elgin Street Ottawa ON K1A 0H3

SUBJECT: Restoration of Mid-Canada Line sites in Nunavik

Mr. Hallman,

Established under Chapter 23 of the James Bay and Northern Québec Agreement (JBNQA), the Kativik Environmental Advisory Committee (KEAC) is a consultative body to responsible government, regional and local authorities in matters relating to environmental and social protection in Nunavik. In this regard, it is the preferential and official forum for the governments of Canada and Quebec as well as the Kativik Regional Government (KRG) and Northern Villages.

In May 2012, the KEAC sent both the Federal and Provincial Administrators of the JBNQA a document that outlined the history of the Mid-Canada Line sites, past cleanup efforts and recommendations for further remediation work necessary to improve public safety and to better protect the environment on the 35 sites located in Nunavik.

The Mid-Canada Line sites remain of particular concern to Cree, Inuit and Naskapi communities who use these areas for traditional activities. Although some restoration has been made in the past, these communities remain firmly committed to the complete rehabilitation of the sites.

Although the KEAC received a response from the Provincial Administrator, including several followup correspondences since 2012, we feel it is important to maintain communication between all parties involved and are requesting an update from your office concerning this issue.

Respectfully yours,

Claude Abel Chairperson

cc. Maggie Emudluk, Chairperson, KRG



Direction régionale de l'analyse et de l'expertise de l'Abitibi-Témiscamingue et du Nord-du-Québec

Rouyn-Noranda, le 23 juillet 2014

Monsieur Claude Abel Président Comité consultatif de l'environnement Kativik C.P. 930 Kuujjuaq (Québec) J0M 1C0 Comité consultatif de l'environnement K k reçu le

Objet : État actuel des stations radars abandonnées de la ligne Mid-Canada

Monsieur le Président,

Nous avons pris connaissance de votre correspondance du 18 février 2014 concernant l'objet mentionné ci-dessus. Nous vous informons par la présente que le Ministère entamera les démarches nécessaires à la caractérisation du site de la Pointe Louis-XIV (Cape Jones) dans les prochaines semaines. Cette caractérisation permettra de bien définir l'ampleur des travaux de réhabilitation, ainsi que leur coût de réalisation.

Également, une lettre sera transmise au ministère de la Défense nationale afin de solliciter une rencontre avec eux à l'automne 2014 pour discuter de leur participation financière pour la caractérisation et la réhabilitation de l'ensemble des sites liés à la ligne Mid-Canada.

Soyez assuré que nous vous tiendrons informé des démarches dans ce dossier.

Veuillez agréer, Monsieur le Président, l'expression de mes sentiments les meilleurs.

La directrice régionale,

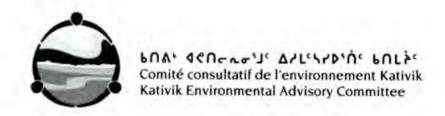
A Same

AL/cm

Anick Lavoie

180, boul. Rideau, local 1.04 Rouyn-Noranda (Québec) J9X 1N9 Téléphone: 819 763-3333, poste 222 Télécopieur: 819 763-3202

Courriel: anick.lavoie@mddelcc.gouv.qc.ca Internet: http://www.mddelcc.gouv.qc.ca



February 18, 2014

Clément D'Astous
Deputy Minister
Ministère du Développement durable,
de l'Environnement, de la Faune et des Parcs
Marie-Guyart Building, 30th Floor
675 René-Lévesque Blvd. East
Quebec City QC
G1R 5V7

SUBJECT: Current status of abandoned Mid-Canada Line radar stations

Dear Sir:

For several years, the Kativik Environmental Advisory Committee (KEAC) has been discussing the problem posed by Mid-Canada Line radar stations located north of the 55th parallel. These stations were constructed in the mid-1950s by the federal government and were operated by the Department of National Defence (DND) until 1965, after which time they were abandoned.

To date, two phases of clean-up have been carried out and funded by the governments of Québec and Canada. On May 3, 2012, the KEAC transmitted to your predecessor a brief regarding the complete restoration of the Mid-Canada Line sites in Nunavík that, in particular, underlined the need to carry out a third clean-up phase.

Since then, the KEAC secretariat has followed up on several occasions with your department's Regional Office of Analysis and Expertise in Abitibi-Témiscamingue and Nord-du-Québec to enquire about the current status of the third phase of the Mid-Canada Line clean-up and restoration project. The secretariat has been informed that the legal department of the Ministère du Développement durable, de

Office of the KEAC Secretariat P.O. Box 930 Kuujjuaq QC J0M 1C0 Tel.: 819-964-2961, ext. 2287 Fax: 819-964-0694 Email: bpatenaude@krg.ca l'Environnement, de la Faune et des Parcs (sustainable development, environment, wildlife and parks, MDDEFP) is studying the matter with the federal government.

The KEAC considers it essential that the clean-up and rehabilitation of Mid-Canada Line radar stations be continued in order to ensure the safety of the territory's users and to limit environmental contamination. In addition, the communities have requested the complete rehabilitation of these sites. Therefore, the KEAC would like to encourage discussions with the Kativik Regional Government, the MDDEFP and the DND with a view to reaching an agreement concerning the complete rehabilitation of these sites.

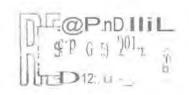
Sincerely,

M, Lau Barrett Michael Barrett Chairperson

Att.

c.c. Mr. Marc Desjardins, Director, Real Property Management, Department of National Defence Mr. Sandy Gordon, Director, Department of Renewable Resources, Environment, Lands and Parks, Kativik Regional Government





Le 28 aout 2012

Madame Isabelle Parizeau Directrice generale Administration regionale Kativik Bolte postale 9 Kuujjuaq (Quebec) JOM ICO

Objet : Restauration des sites de la ligne Mid-Canada au Nunavik

Madame la Directrice generale,

Nous desirons par la presente donner suite à votre correspondance du 19 juillet demier et par Ia meme occasion, à celle de Ia presidente du Comite consultatif de l'environnement Kativik du 3 mai 2012 ayant pour meme objet la restauration des sites de la ligne radar Mid-Canada au Nunavik.

Les sites de la ligne Mid-Canada situes au Nunavik ont ete inscrits au passif environnemental du gouvernement du Quebec au meme titre que ceux situes au sud du SSE parallele.

Dans le cadre de la gestion des dossiers inscrits au passif de l'Etat, le Ministere a effectue, depuis 2010, plusieurs demarches concernant la restauration de ces sites.

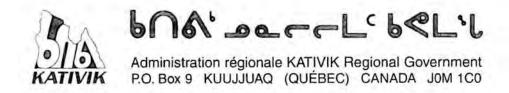
Ainsi, des discussions doivent avoir lieu avec la Direction des affaires juridiques du Ministere ainsi qu'avec le gouvemement federal afin de statuer sur les responsabilites respectives du gouvemement du Quebec et du gouvemement federal en lien avec la restauration de ces sites, considerant le transfert de propriete de 1966, ainsi que la quittance donnee au ministere de la Defense nationale (MDN) par le MDDEP en 2002, suite aux travaux de la phase II.

Le Ministere travaille activement en vue d'obtenir la restauration de ces sites. Nous vous tiendrons volontiers informee des prochaines etapes dans ce dossier. En ce sens, nous vous invitons à communiquer avec madame Edith van de Walle, directrice regionale de l'analyse et de !'expertise de l'Abitibi-Temiscamingue et Nord-du-Quebec, qui peut etre jointe au (819) 763-3333.

Veuillez agreer, Madame la Directrice generale, !'expression de nos sentiments les meilleurs.

La sous-ministre,

Diane Jean



# OFFICE OF THE DIRECTOR GENERAL

July 19, 2012

Diane Jean
Deputy Minister
Ministère du Développement durable, de l'Environnement et des Parcs
Marie-Guyart Building, 30th Floor
674 René-Lévesque Blvd. East
Quebec City QC G1R 5V7

Subject: Restoration of Mid-Canada Line sites in Nunavik

Dear Madam:

This is to bring to your attention the concerns of the Kativik Regional Government (KRG) about the need to undertake clean-up work and mitigation measures at the abandoned Mid-Canada Line sites located in the Kativik Region. This subject has also been brought to your attention in correspondence addressed to you by the Chairperson of the Kativik Environmental Advisory Committee dated May 3, 2012. There are 35 sites located north of the 55th parallel and seven sites located south of the 55th parallel in Québec that were operated by the Department of National Defence (DND) from 1958 to 1965, at which point they were transferred to the Québec government.

In cooperation with the DND and the environment departments of the governments of Canada and Québec, the KRG carried out two phases of clean-up work at the sites located in the Kativik Region, in 1988 and from 2000 to 2002 respectively. In addition, buildings were stabilized to improve public safety. At these sites, there nonetheless remains 37 buildings, many diesel generators, 269 fuel tanks, over 16,000 45-gallon barrels and various metal debris, including heavy equipment. The KRG has a complete inventory of these sites and the work carried out.

Over the last ten years, the Mid-Canada Line sites have been visited sporadically and it is evident that the materials and buildings at the sites continue to deteriorate. With the increased activity and number of visitors to the region, the KRG believes it is important for the Québec government to maintain the integrity of the environment.

I would like to ask you to consider opening discussions with the DND and the KRG regarding a third phase of clean-up work at the Mid-Canada Line sites located in the Kativik Region.



To follow up on this matter, your representative may contact Michael Barrett, Associate Director of the KRG Renewable Resources, Environment, Lands and Parks Department, by telephone at 819-964-2961, ext. 2271, or by email at mbarrett@krg.ca.

Sincerely,

**Director General** 

Sylvie Létourneau, Chairperson, KEAC

#### REFERENCES

BERROUARD, D., N. LYSOTTE and G. GIROUARD. 1986. Inventaire de la Mid-Canada May 3 n 20 Report submitted to the Department of National Defence, the Ministère de l'Environnement du Québec and Environment Canada. Government of Québec and Government of Canada, [n.p.].

Madame Diane Jean

Provinciale Administrator. JBNQ XETT. 2002b. Cleanup of Mid-Canada Line Sites. Min Stènic abundénce apper front d'unable; Study. Volume I: Text and Appendices. Document de l'invironnement du Québec. Kativik Regional Édif Con Veranice filu Kartiji Orgé Opébec.

674 boul. René-Lévesque Est

Briber (Québer) d M.RBSNÉRETT. 2003. Mid-Canada Line Clean-up Project – Phase 2. Final Report 1998–2002. Report submitted to the Ministère de l'Environnement du

Ms. Qinibec Foldtiviik Regional Government. Kuujjuag, Quebec.

Federal Administrator, JBNQA

Canadian Environmental Assessment/Agency

22nd Floor, Place Bell

160 Elgin Street

Ottawa ON K1A 0H3

SUBJECT: Brief Regarding the Complete Restoration of Mid-Canada Line sites in Nunavik

Madames,

Established under Chapter 23 of the James Bay and Northern Québec Agreement (JBNQA), the Kativik Environmental Advisory Committee (KEAC) is a consultative body to responsible government, regional and local authorities in matters relating to environmental and social protection in Nunavik. In this regard, it is the preferential and official forum for the governments of Canada and Quebec as well as the Kativik Regional Government (KRG) and Northern Villages.

The Mid-Canada Line refers to a Doppler radar detection system for aircraft stretching across Canada from Labrador to British Columbia, along the 55th parallel. The Mid-Canada Line was built between 1954 and 1957 and there are 42 stations located in Québec, which were operated by the Department of National Defense (DND) from 1958 to 1965. The Québec government was retroceded these sites in 1966 after they were abandoned by the DND.

From 1988-2002, in collaboration with the DND, the Québec Ministry of Environment (MENV), and Environment Canada, the Kativik Regional Government (KRG) undertook 2 separate phases of work to remove the hazardous waste from these sites, including a large volume of hydrocarbons. In addition, buildings were reinforced or dismantled to

May 3/12

improve public safety on the sites. However, there remain over 16,000 barrels and various metal debris, including heavy equipment, on all 42 sites nor have the buildings been inspected for further decay during the last 10 years.

The Mid-Canada Line sites are of particular concern to Cree, Inuit and Naskapi communities who use these areas for traditional activities. Although some restoration has been made in the past, these communities remain firmly committed to the complete rehabilitation of the sites.

The Kativik Environmental Advisory Committee (KEAC) has studied the documentation associated with past cleanup efforts and have reached the conclusion that further remediation work is necessary to improve public safety and to better protect the environment. Please find enclosed the KEAC brief that summarizes the project and provides several recommendations regarding the next phase of cleanup work on the 35 sites located in Nunavik.

The KEAC asks that you review these recommendations and consider opening discussion with the KRG regarding this topic.

Respectfully yours,

Sylvie Létourneau Chairperson

cc. Maggie Emudluk, Chairperson, KRG



#### INTRODUCTION

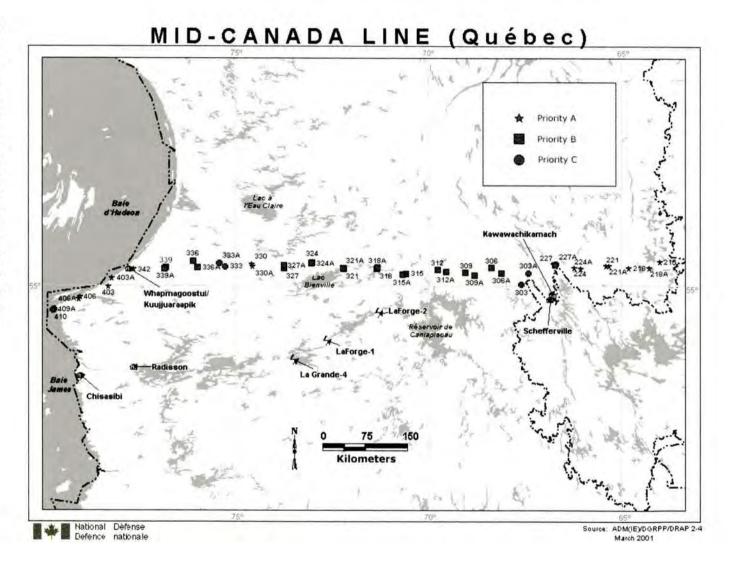
The Mid-Canada Line refers to a Doppler radar detection system for aircraft (Early Warning System), nicknamed the McGill fence, stretching across Canada from Labrador to British Columbia, along the 55th parallel. The Mid-Canada Line was built by the federal government between 1954 and 1957. The 42 stations located in Québec (35 sites north and seven sites south of the 55th parallel) were operated by the Department of National Defense (DND) from 1958 to 1965. The sites were abandoned in 1965. At that time, all equipment, buildings, fuel tanks, barrels, pipelines, pumping stations, machinery, as well as hydrocarbons and contaminated soil were left behind. The detection antennas, some of which were longer than 100 m, were lowered to the ground to eliminate aviation hazards. After the federal government abandoned the Mid-Canada Line, the 42 sites in Québec were ceded to the Government of Quebec in 1966.

In Québec, there are 22 Doppler radar detection sites located approximately 40 km apart and 20 supply sites, each generally located less than 2 km from a detection site. Figure 1 is a map of the 42 sites along the 55th parallel.

Since 1985, there has been a significant amount of restoration work carried out at these 42 sites. The clean-up projects involved a series of rehabilitation measures aimed at ensuring public safety and environmental protection as well as mitigating the current and potential environmental impact of the Mid-Canada Line sites. The measures included stabilizing and demolishing buildings, recovering and removing waste hydrocarbons, recovering and removing hazardous materials, eliminating threats to public safety, stacking empty barrels into piles, collecting waste and performing bio-remediation work on soil contaminated with hydrocarbons.

However, there still remains a significant amount of debris on the sites as well as potential hazards to the environment and to the communities that frequent these areas. Rehabilitation work should be continued in order to ensure better environmental protection and an adequate level of public safety.

This report describes, in brief, the clean-up work undertaken in the past as well as recommendations regarding further work that should be performed to ensure the complete and final clean-up of these sites.



# **CLEAN-UP: PHASE 1**

In 1985, an inventory of the Mid-Canada Line stations located in Québec and Labrador was completed by representatives of the DND, Environment Canada (EC), the Ministère de l'Environnement du Québec (environment, MENV) and the Ministère du Loisir, de la Chasse et de la Pêche (recreation, hunting and fishing, MLCP) (Berrouard *et al.*, 1986). This inventory revealed that the sites posed a risk to the public and to the environment because of the presence of unstable buildings, a small quantity of chemicals and a substantial quantity of hydrocarbons, approximately 320 000 L distributed over 27 of the 42 sites.

Due to the high risk to the environment, in 1987, the MENV and the Kativik Regional Government (KRG) signed an agreement and carried out an operation to dispose of the hydrocarbons, based on the 1985 inventory data, by means of controlled burning. The fieldwork was completed under the supervision of the KRG with Cree, Inuit and Naskapi workers, depending on the sector. As a result, approximately 320 000 L of hydrocarbons were eliminated at 27 sites (Berrouard *et al.*, 1986). This operation later came to be considered the first phase of theMid-Canada Line Clean-up Project.

## **CLEAN-UP: PHASE 2**

# Contribution Agreement

In 1998, a contribution agreement was negotiated and signed by EC, the DND, the MENV, the Canadian Intergovernmental Affairs Secretariat (CIAS) and the KRG. The agreement defined the principles for the parties to work together and presented their respective roles and contributions. The agreement also outlined the development of a work plan by partners and signatories, including the establishment of acceptance criteria for cleaning activities on the sites.

The partners were required to jointly define the objectives of the initiative. Specifically, EC played an advisory role during preparation of the work plan and provided technical advice concerning on-site bio-remediation work. The DND contributed most of the funding for the initiative and was responsible at the federal level for approving the work carried out at the sites as well as related payments. The MENV was responsible for monitoring the work carried out at the sites, decision-making concerning the field work, funding technical support costs and approving at the provincial level the work carried out at the sites as well as related payments. The KRG was the project proponent and coordinator. It acted as the official voice of the Inuit, Cree and Naskapi communities and contributed funding through labour force training and institutional development. The KRG was responsible for obtaining all permits and certificates of authorization required by law and regulation, for ensuring compliance with all laws including the provisions of the James Bay and Northern Québec Agreement (JBNQA), for requesting approval of the work carried out at the sites as well as related payments and, finally, for producing a final report on the clean-up work completed and an assessment of the project.

#### Public Consultations

In 1998 and 1999, two series of public consultations were held in the communities of Chisasibi, Whapmagoostui, Kuujjuarapik and Kawawachikamach. The objective of the consultations was to inform the communities of the contents of the contribution agreement, to prioritize the clean-up work, as well as to identify the sites considered most important and that had the greatest impact on the communities. The work plan was also discussed as were the results of previous soil, surface water and building material analyses. The communities consulted identified the sites they considered priorities and were receptive to the initiative.

# Federal Screening

In 1998 and 1999, the DND conducted an environmental and social impact assessment (screening) pursuant to the *Canadian Environmental Assessment Act*. The assessment concluded that the initiative would have a positive environmental impact.

# Work Plan and Acceptance Criteria

A work plan was officially approved in 1999 and the partners agreed that the work carried out should comply with the applicable regulations. These regulations related primarily to the management of non-hazardous waste, the management of hazardous materials and the management of contaminated soils.

In 2000, a document entitled *Critères d'acceptation des travaux, Projet Mid-Canada* (work acceptance criteria, Mid-Canada Line Clean-up Project) was prepared by the MENV in accordance with the work plan and applicable regulations. The objectives of the clean-up work were established to address the following concerns:

- the sites must not pose a risk to public health and safety;
- the work must not cause unacceptable environmental impacts;
- the work must comply with applicable laws and regulations;
- the visual appearance of the site must be acceptable;
- the work must give priority to reuse of the sites;
- the quality of the work must comply with the requirements of the Québec government, represented by the MENV.

The acceptance criteria were based on the following factors:

- safety:
- waste (buildings, barrels, metal, etc.);
- hazardous materials:
- contaminated soil;
- visual appearance.

Pursuant to applicable environmental procedures under Chapter 23 of the JBNQA and *Environmental Quality Act*, the KRG applied to the MENV, through the committees established under the JBNQA, for certificates of authorization for the sites located above the 55<sup>th</sup> parallel. In 1998, the Kativik Environmental Quality Commission exempted the project from the environmental and social impact assessment and review procedure. Following this decision, the MENV issued an exemption from the assessment and review procedure under section 192 of the *Environment Quality Act*, allowing clean-up work at the 35 sites north of the 55<sup>th</sup> parallel to proceed.

Also in 1998, the KRG applied for permission to carry out work at the seven Mid-Canada Line sites south of the 55th parallel. These sites are situated outside of the territory in which the KRG typically carries on its activities. The MENV responded officially to the KRG request, based on a recommendation made by the Evaluation Committee (COMEV), that the project be submitted to the evaluation procedure under Chapter 22 of the EQA. The response included a directive outlining the nature and scope of the impact study that the KRG would have to submit to the MENV for the seven sites. In 2002, the KRG submitted the impact study to the MENV. Following the COMEX recommendation, the MENV refused to authorize KRG to proceed with the proposed clean-up work at the seven sites south of the 55th parallel, although it authorized certain work for reasons of safety.

## Sampling programs and Bio-Remediation Study

Prior to proceeding with clean-up work and remediation measures at the Mid-Canada Line sites, the contribution agreement partners agreed on a sampling strategy aimed at meeting the stated site rehabilitation objectives and complying with both federal and provincial environmental regulations. The purpose of the sampling strategy was to clearly identify the environmental problems and challenges at the sites, while maintaining a proper budget allocation between the characterization phase and the rehabilitation phase.

The sampling program involved the collection of samples of soil, surface water, paint flakes, as well as building and insulation materials for analysis purposes at sites 336, 339, 339A, 403 and 410.

Briefly, with regards to the analysis of PCB concentration, none of the water samples taken revealed these contaminants based on the nine analysis parameters. For its part, soil contamination varied with the site and was largely the result of residual hydrocarbons that had leaked from fuel tanks and barrels. A soil bio-remediation study was conducted and the process was demonstrated to be effective in relatively dry soil. In addition, samples of insulating material potentially containing asbestos were forwarded to a specialized laboratory and the results indicated that the samples contained 10–25% amosite (a type of asbestos) and 75–90% non-fibrous material. The results of this sampling program are described in the environmental and social impact study (Brunelle and Barrett, 2002b).

#### Clean-up Work

For rehabilitation purposes, the Mid-Canada Line was divided into two regions: the Kawawachikamach area in the east covers sites 215 to 312; the Whapmagoostui-Kuujjuarapik area in the west covers sites 315 to 410. Work under the second phase of the Mid-Canada Line Clean-up Project began in 1999 and was completed in December 2002. A description of the activities undertaken at the sites is provided in the following paragraphs.

Buildings: The buildings were examined to verify their structural condition and to ensure that they did not threaten public safety and health. Unstable structures and those considered dangerous were repaired and stabilized or demolished. Cables and metal rods which posed a potential danger to snowmobilers were cut and placed with other debris.

Paint scraped from the walls and other debris was placed in strong bags or barrels and stored in the equipment rooms that hold fire extinguisher canisters and electronic equipment. Broken windows were repaired with a type of Plexiglas, while doors were repaired or replaced with sheets of plywood. Whenever possible, doorways were not permanently blocked in order to preclude vandalism. Waste from any demolition work was piled neatly on the site.

Antennas: Antennas, which had been lowered to the ground when the sites were closed, were not dismantled, as they are generally bulky and can be seen by snowmobilers in winter.

Pipes, pumping station and metal frames: Pipes and pumping stations were inspected to ensure that there were no hydrocarbons or leaking present. Sections of pipes leading to lakes were dismantled and stacked with other waste. Metal frames, such as refrigerators, stoves, oil-burning heaters and so forth, were placed in waste disposal areas. Heavier frames, such as machinery, were left where they were found.

Generating units: The main buildings at the detection sites generally have three generators. Each generator is topped by an approximately 60-litre oil tank and equipped with a 20-litre pan to receive spent oil. The oil tank and pan were emptied and the oil was drained directly into easily transportable containers or barrels. Diesel tanks were checked for residual fuel and completely transferred into barrels.

Barrels and fuel tanks: Empty barrels scattered around the site were collected and stacked. Any barrels situated too close to a body of water were moved and stacked. Barrels that were not empty were opened and their contents examined.

All barrels containing hydrocarbons were removed from the sites by helicopter and sling, or by floatplane, and were transported to a transit site before being shipped (by airplane or truck) to an authorized recycling centre.

#### Debris:

- a) Non-hazardous debris: Debris collected inside the main buildings was placed in strong plastic bags or barrels which were, in turn, stored out of the way in the equipment rooms. Bulky and heavy debris was left were it was found.
- b) Hazardous debris: At the detection sites, batteries and mercury switches were removed from the main buildings, along with other hazardous materials (anti-freeze, solvents, etc.), to be transported from the site.

Mercury switches were carefully removed, placed in heavy-duty containers and, then, removed from the sites by helicopter or airplane. After being stored temporarily in Kuujjuaq, the mercury switches were finally shipped to an authorized recycling centre.

Each of the 18 generator units possessed six batteries (54 units). Other, smaller and lighter, emergency batteries were also sometimes found in the main buildings. Placed in heavy-duty containers, the batteries and other hazardous materials were transported to a staging area, before shipment to an authorized recycling centre.

#### Contaminated soil

Searches for contaminated soil were conducted systematically at each site. First, the appearance and smell of areas bare of vegetation and strategic locations (near fuel tanks, barrels, buildings, equipment, etc.) were examined by digging holes with a shovel. If the smell of hydrocarbons was detected, the area was surveyed at several points, from its centre outwards, in order to determine the extent of the contamination and evaluate its size.

For each contaminated area greater than 1 m<sup>2</sup>, bio-remediation work was performed, except where there was new growth, steep slopes, water-saturated soil, less than 15 cm of soil over bedrock or a stony substrate.

## Information sign and first-aid kit

Information signs in five languages (Cree, Naskapi, Inuktitut, French and English), which provide a brief description of the clean-up project and indicate that any buildings may be used for survival purposes, were installed in one structurally sound building on each site. An emergency first-aid kit was also installed near each information sign.

#### Assessment of sites north of the 55th parallel

Certificates of completion were issued for the 35 sites located north of the 55th parallel, thereby completing the second phase of the Mid-Canada Line Clean-up Project. Table 1 provides a summary of the quantities (removed and remaining) of equipment, debris, hazardous materials, hydrocarbons and contaminated soil at the 35 sites north of the 55th parallel.

#### Assessment of sites south of the 55th parallel

In 2002, verifications and work to ensure public safety and environmental protection were carried out at sites 339, 403, 406 and 406A. No work was carried out at site 342, 409A or 410, although an on-site review was conducted at site 410. Table 2 provides a

summary of the quantities (removed and remaining) of equipment, debris, hazardous materials, hydrocarbons and contaminated soil at the seven sites south of the 55th parallel.

#### CONCLUSIONS AND RECCOMENDATIONS OF THE KEAC

In 2012, there remains a large quantity of buildings, fuel tanks, barrels and various kinds of debris at the sites located north of the 55th parallel. In addition, nearly 23% of the soil contaminated with hydrocarbons inventoried on these sites have not been bioremediated.

The Mid-Canada Line sites are of particular concern to Cree, Inuit and Naskapi communities who wish for the complete rehabilitation of the sites. Responsibility for this work rests with the DND, which abandoned materials at these sites, and with the Québec government, which owns the sites.

Even though the work carried out at the 35 sites situated north of the 55th parallel complies with the acceptance criteria established under the contribution agreement, the clean-up of these sites remains only partially complete. New agreements providing for funding and technical support between the groups and government departments concerned are needed. As well, supply sites, which are often adjacent to bodies of water, should receive special attention as these are zones used by Inuit, Cree and Naskapi. To this end, the KRG should begin discussions with the communities concerned and initiate negotiations with the governments regarding the completion of clean-up work to the satisfaction of the Inuit, Cree and Naskapi communities.

Until such clean-up work is completed, the condition of the sites will continue to deteriorate and eventually compromise public safety and environmental protection. A new and final phase of the clean-up project should therefore allow for the verification of building conditions and for necessary repairs or demolition work.

As well, approximately 16,000 empty barrels remain stacked at the sites. Some contain a certain amount of hydrocarbons that could not be recovered, but that could leak into the natural environment as rust eats away at the barrels. A new and final phase of the clean-up project should therefore provide an appropriate method for recovering these barrels as well as methods for recovering metal debris at the sites that may have value if recycled.

As was demonstrated through laboratory analysis and on-site tests at two sites, the effectiveness of bio-remediation work on soil contaminated with hydrocarbons was satisfactory. Bio-remediation work has also limited the spread of hydrocarbons, confining contamination to specific areas. A new and final phase of the clean-up project should therefore include additional bio-remediation work in large contaminated areas.

Finally, as various work must be performed to ensure the complete and final clean-up of the sites situated north of the 55th parallel, the KEAC would like the governments to initiate discussions with the KRG with a view to reaching a new agreement.

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# CONTRIBUTION AGREEMENT

## BETWEEN

THE GOVERNMENT OF CANADA, as represented by the DEPARTMENT OF THE ENVIRONMENT (hereinafter referred to as « Environment Canada ») and the DEPARTMENT OF NATIONAL DEFENCE (hereinafter referred to as « National Defence »)

# AND

THE GOVERNMENT OF QUEBEC, as represented by the MINISTÈRE DE L'ENVIRONNEMENT ET DE LA FAUNE (hereinafter referred to as « Ministère de l'Environnement et de la Faune Québec ») and the SECRÉTARIAT DES AFFAIRES INTERGOUVERNEMENTALES CANADIENNES (hereinafter referred to as « Secrétariat des affaires intergouverne-mentales canadiennes »)

## AND

KATIVIK REGIONAL GOVERNMENT (hereinafter referred to as « Kativik »)

★ WHEREAS the Government of Québec owns 42 sites known as « Mid-Canada Line » sites;

AND WHEREAS 37 of these sites are located on lands North of Parallel 55, and 5 of these sites are located on lands South of Parallel 55;

AND WHEREAS some infrastructure on these sites is in a condition that could be harmful to the safety of people having access to these sites, and to the environment;

AND WHEREAS some soil found on these sites and materials placed on wetlands on most of these sites are in a condition that could be harmful to the environment;

AND WHEREAS, as a precautionary measure, the Parties to this Contribution Agreement are willing to correct the conditions of these Sites as soon as possible;

AND WHEREAS National Defence is willing to make a maximum contribution of \$1,500,000, an amount deemed to be half of the total cost of the project;

AND WHEREAS the Ministère de l'Environnement et de la Faune Québec is willing to make a contribution of \$120,000 and of any proceeds resulting from the recycling of materials;

AND WHEREAS Kativik is willing to make a contribution of \$150,000 and to be the Promoter of the project;

AND WHEREAS it is most appropriate and convenient to provide to the people of the local communities the opportunity to fully participate in the works necessary to repair the potentially harmful infrastructure and to restore the Sites;

FOR THESE CONSIDERATIONS THE PARTIES HEREINABOVE MENTIONED AGREE AS FOLLOWS:

## 1. PURPOSE OF THE AGREEMENT

This Contribution Agreement concerning Preventive Remediation Measures on the Mid-Canada Line Sites Situated in Quebec is intended to define generally

- the principles under which the Parties will work cooperatively, in a participative
  management scheme, to ensure the success of the Work Plan in a manner that
  ensures maximum benefit to the Parties and to the public, particularly to the Inuit,
  Cree and Nascapi;
- the respective contributions and roles of the Parties to this Contribution Agreement; and
- the terms and conditions of this Contribution Agreement.

# 2. DEFINITIONS

« Priority Sites » means :

(a) the Sites known as Sites 215, 218, 218A, 221, 221A, 224, 224A, 321, 321A, 330, 330A, 342, 403, 403A, 406 and 406A, and designated as Category « A » Sites in Appendix 1;

(b) the Sites known as Sites 306, 306A, 309, 309A, 312, 312A, 315, 315A, 318, 318A, 324, 324A, 327, 327A, 336, 336A, 339 and 339A, and designated as Category « B » Sites in Appendix 1;

- (c) the Sites known as Sites 227, 227A, 303, 303A, 333, 333A, 409A and 410, and designated as Category « C » Sites in Appendix 1;
- « Promoter » means Kativik Regional Government;
- « Sites » means the sites listed in Appendix 1 and shown on the map attached as Appendix 1;
- « Draft Work Plan » means the document attached as Appendix 2. The Final Work Plan will be the draft Work Plan as amended as a result of the public consultation and the environmental assessment, including the fixed costs for each Site.

# 3. PRINCIPLES OF COOPERATION

Parties to this Contribution Agreement will apply the following principles in support of the implementation of the works to be done:

- to ensure that the work on the soil and the infrastructure will be done in accordance with recognized engineering and environmental techniques and criteria, so as to give the people of the local communities a feasible solution to remedy any problems that may be caused by the presence of the infrastructure and of materials on the ground; and
- to ensure, from the social, environmental and financial points of view, the most efficient use of the public funds provided for the preventive remediation of the sites.

# 4. OBLIGATIONS OF THE PARTIES

- 4.1 Environment Canada will:
- act as advisor to maintain the guidance and the feasibility of works elaborated in the Draft Work Plan;
- · participate in the definition of the objectives of the project; and
- act as technical advisor, on request, concerning in situ bio-remediation process.
   Within the budget allocated for this purpose in the Draft Work Plan, it could obtain support from teaching or research institutions, if necessary.

# 4.2 National Defence will:

· participate in the definition of the objectives of the project;

- contribute the sum of \$1,500,000 for works described in the Draft Work Plan, including the sum of \$40,000 for ensuring that federal concerns are well covered in the environmental assessment and, if necessary, the sum of \$100,000 to cover the costs of laboratory analysis during the monitoring activities; and
- be the federal responsible authority for the approval of the works done on the Sites and payment.

# 4.3 Ministère de l'Environnement et de la Faune Québec will:

- · participate in the definition of the objectives of the project;
- · be responsible for the monitoring, by a specialist, of the works on the Sites;
- · be responsible for the decision-making concerning work on site;
- contribute the sum of \$120,000 for costs related to technical support, such as travel, laboratory analysis, and project site monitoring by one or more specialist(s), including a report on the restoration of Kuujjuarapik; and
- be the Quebec authority for the approval of the works done on the Sites and payment.

## 4.4 Kativik will:

- participate in the definition of the objectives of the project, in partnership with the Inuit, Cree and Nascapi communities;
- be the official spoke-person of the Inuit, Cree and Nascapi Communities;
- be the Promoter of the project responsible for the financial management and, in this capacity, ensure that the guidance and the feasibility of the works described in the Final Work Plan are maintained;
- contribute the sum of \$150,000 for the training of manpower and for institutional development, over three years, on issues related to health and safety, management of dangerous substances, and remediation work;
- be the project manager, in collaboration with local communities, in the implementation of the works;
- obtain the permits and authorizations required by statutes and regulations in force;
- ensure compliance with all laws, including the provisions of the James Bay and Northern Quebec Agreement, applicable before and during the execution of the works mentioned in Appendix 2;
- request the approval of the works done on the Sites and payment; and
- be responsible for producing the Final Report on the realization and the appraisal of the project.

# 5. SCHEDULE OF WORK AND METHOD OF PAYMENT

- 5.1 Shortly after the date of the signature of this Contribution Agreement, National Defence will advance to the Promoter the sum of \$60,000 to proceed with the public consultation and environmental assessment. This advance, which includes the sum of \$40,000 for ensuring that federal concerns are well covered in the environmental assessment, is to be deducted from its total contribution amount of \$1,500,000. Any amount not used for the environmental assessment shall be used for the work on the Sites.
- 5.2 Shortly after the date of the signature of this Contribution Agreement, National Defence will advance to the Promoter the sum of \$25,000 to prepare cost estimates and a detailed Final Work Plan. This advance is to be deducted from its total contribution amount of \$1,500,000. Any amount not used for the preparation of the Final Work Plan shall be used for the work on the Sites.
- 5.3 Assuming that the results of the environmental assessment will be available by June 3, 1998, and that the final projected cost by Site is determined by June 17, 1998, work will start on or shortly after July 6, 1998 and will be terminated on October 31, 2001 at the latest.
- 5.4 On or about June 30, 1998, National Defence will advance to the Promoter the sum of \$120,000 for start-up costs. This advance is to be deducted from its total contribution amount of \$1,500,000.
- 5.5 On or about July 31, 1998, National Defence will advance to the Promoter the sum of \$295,000 to complete the first third of its total contribution. This advance is to be deducted from its total contribution amount of \$1,500,000.
- 5.6 The second third of the total contribution of National Defence shall not be used until the work done on Sites of Category «A» has been completed to the satisfaction of all the Parties and final discharge for these Sites given to National Defence by the Ministère de l'Environnement et de la Faune Québec. The final discharge for a Site may be given as soon as the work is completed to the satisfaction of the Parties for that Site.
- 5.7 The last third of the total contribution of National Defence shall not be used until the work done on Sites of Category «B» has been completed to the satisfaction of all the Parties and final discharge for these Sites given to National Defence by the Ministère de l'Environnement et de la Faune Québec. The final discharge for a Site may be given as soon as the work is completed to the satisfaction of the Parties for that Site.

- 5.8 The final discharge referred to in subsections 5.6 et 5.7 is an official acknowledgement by the Government of Québec, as represented by the Ministère de l'Environnement et de la Faune Québec, that
  - (a) it waives any claims against the Gouvernment of Canada concerning the previous and current conditions of the Sites; and
  - (b) it accepts the current condition of the Sites.
- 5.9 When the Promoter will have completed the works on a Site, it will request Ministère de l'Environnement et de la Faune Québec for its approval of the works. After the works on the Site have been approved by the Ministère de l'Environnement et de la Faune Québec, the Promoter will ask for the approval by National Defence. Once the latter has approved the works on the ecotoxicological basis where there was soil contamination, the Promoter may be paid from the advance.
- 5.10 The Promoter may present a request for approval of work accomplished but not yet completed, in order to receive partial payment for the work done.
- 5.11 The Promoter may present a request for approval of work accomplished, for safety reasons, on a Category « B » or « C » Site, before work is completed for Category « A » Sites, in order to receive payment. Sums paid for this work should be applied to the Site for which they were reserved.
- 5.12 The costs of works on each Site, as identified during and after the consultation process and mentioned in the Final Work Plan, are fixed and cannot be overrun. If the Promoter considers that unforeseen works should be done and that they would imply an increase of 10% or more of the budget allocated for the Site, it will ask for the approval of the Parties for this purpose.
- 5.13 Any surplus for one Site can be transferred to the budget of another Site. Similarly, any surplus for Category « A » Sites can be transferred to the budget of Category « B » Sites and any surplus for Category « B » Sites to the budget of Category « C » sites.
- 5.14 In the event that the amounts advanced by National Defence are not used for works to be done according to the Final Work Plan, these amounts shall be promptly reimbursed to National Defence.

#### 6. AUTHORITY TO APPROVE THE WORK

- 6.1 For Ministère de l'Environnement et de la Faune Québec, the Deputy Minister or her authorized representative is the person designated to approve the work completed.
- 6.2 For National Defence, the Director General Environment or his authorized representative is the person designated to approve the work completed.

#### 7. EXCLUSION

No Member of the House of Commons will be admitted to any share or part of this Agreement or to any benefit therefrom.

#### 8. PUBLICITY

- 8.1 Publicity and communications related specifically to the implementation of this Agreement will be jointly coordinated by all the Parties.
- 8.2 Kativik will prepare and install, at appropriate locations, promotion signs describing the Project and the contribution of all the Parties.

#### 9. COMING INTO FORCE OF THE AGREEMENT

- 9.1 This Contribution Agreement will come into force retroactively to the date of the signature, once the three conditions set below will be met:
- the Executive Committee of Kativik Regional Government will adopt a resolution authorizing its Secretary to sign this Contribution Agreement;
- the result of the public consultation done by Kativik will indicate that the different stakeholders and the population of the area agree with the approach described in the Draft Work Plan; and
- the Parties agree on a Final Work Plan and Site by Site fixed costs, before June 23, 1998, on the basis of the financial parameters of this Contribution Agreement, the Draft Work Plan and the comments received during the public consultation and the environmental assessment.

9.2 Notwithstanding subsection 9.1, the amounts of \$60,000 and \$25,000 mentioned in subsections 5.1 and 5.2 will be paid shortly after the date of the signature of this Contribution Agreement.

#### 10. AMENDMENT

This Agreement, and particularly the categorization of the Sites in section 2 and Appendix 1, may be amended by written agreement of the Parties hereto.

#### 11. ENTIRE AGREEMENT

This Agreement and the two Appendices constitute the entire understanding and agreement between the Parties, and there are no representations or promises, express or implied, other than those contained in this Contribution Agreement.

#### 12. SIGNIFICANT CHANGE OR UNEXPECTED EVENT

In the event of an unforeseeable material change (« force majeure ») that significantly affects the position of any of the Parties, the affected Party will forthwith notify all the other Parties of this change, and all the Parties agree to work in good faith to find a means to continue this initiative in order to meet the purposes of this Agreement.

#### 13. RESOLUTION OF DISPUTES

Should differences arise which cannot be resolved at the working levels of the Parties, they shall be referred to the Signatories of this Agreement for resolution.

#### 14. TERMINATION OF AGREEMENT

This Agreement will terminate when the works described in the Final Work Plan will be ended, when all the sums are expended, or on October, 31, 2001, whatever date is first.

#### 15. LANGUAGE

This Agreement has been prepared in English and in French and both versions have equal value.

IN WITNESS THEREOF, the Parties' duly authorized representatives hereto have executed this Agreement in this 20 day of the month of Wat 1998.

Jean-Pierre Gauthier

Regional Director General, Québec

**Environment Canada** 

Anthony T. Downs

Director General Environment

National Defence

Diane Gaudet

Deputy Minister,

Ministère de l'Environnement et Faune Québec

Michel Boivin

Associate General Secretary

Affaires gouvernementales canadiennes

Malee Saunders Secretary

Kativik Regional Government

#### APPENDIX 1

#### SITES

First Priority: Category « A »:

Sites known as Sites 215, 218, 218A, 221, 221A, 224, 224A, 321, 321A, 330, 330A, 342, 403, 403A, 406 and 406A, and figuring on the attached map.

Second Priority: Category « B »:

Sites known as Sites 306, 306A, 309, 309A, 312, 312A, 315, 315A, 318, 318A, 324, 324A, 327, 327A, 336, 336A, 339 and 339A, and figuring on the attached map.

Third Priority: Category « C »:

Sites known as Sites 227, 227A, 303, 303A, 333, 333A, 409A and 410, and figuring on the attached map.

#### APPENDIX 1

#### SITES

First Priority: Category « A »:

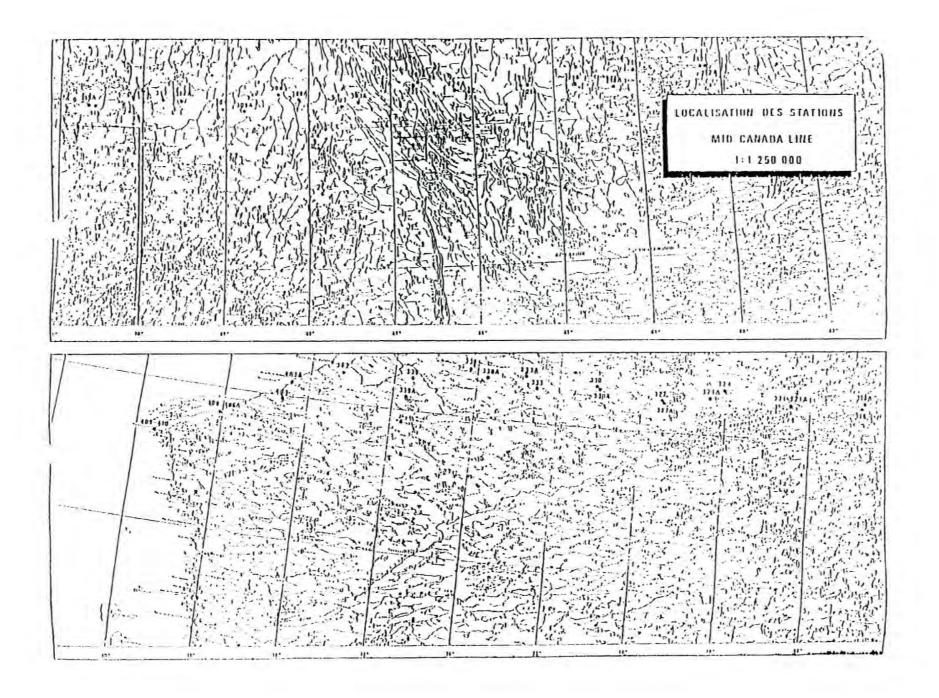
Sites known as Sites 215, 218, 218A, 221, 221A, 224, 224A, 321, 321A, 330, 330A, 342, 403, 403A, 406 and 406A, and figuring on the attached map.

Second Priority: Category « B »:

Sites known as Sites 306, 306A, 309, 309A, 312, 312A, 315, 315A, 318, 318A, 324, 324A, 327, 327A, 336, 336A, 339 and 339A, and figuring on the attached map.

Third Priority: Category «C»:

Sites known as Sites 227, 227A, 303, 303A, 333, 333A, 409A and 410, and figuring on the attached map.



#### APPENDIX 2

#### DRAFT WORK PLAN

- 1. Environmental assessment:
  - ensuring that federal concerns (applicable laws, including the James Bay and Northern Quebec Agreement) are well covered: \$ 40,000 (within National Defence's total contribution)
  - public consultation and environmental assessment: \$ 20,000 (within National Defence's total contribution)
  - preparation of the cost estimates and detailed Final Work Plan: \$ 25,000 (within National Defence's total contribution)
- 2. Training of manpower on site over the first three years: \$150,000 (within Kativik's contribution).
- Removal and disposal (including recycling) of potentially harmful infrastructure at Sites 224A, 403 and 410.
- 4. Removal and recycling of the infrastructure known as « billboard antennas » and « radar towers with billboard antenna of great dimension ».
- 5. Immediate safety measures, and future dismantling of the infrastructure known as « the five big storage tanks », four of which have a capacity of 200,000 litres and the other one a capacity of 400,000 litres, at Site 410, including disposal or treatment of the contents of the said infrastructure.
- 6. Building and parts of building that are no longer structurally sound will be considered as debris and reused, or stored, in an appropriate manner, especially at Sites 342,403, 406 and 406A. The areas surrounding the buildings should be cleared of debris.
- 7. Repair (stabilize), including paint of the exterior, of infrastructure at all Sites where possible and feasible.
- 8. Removal of dangerous substances (e.g. DDT, batteries), if any, from all Sites.
- Emptying and removal of pipes that could cause a danger to safety or the environment. Gathering, and where possible recycling, of the contents of these pipes.
- 10. Repair, if necessary, and paint of aboveground tanks at all Sites for potential reuse. On all such tanks, installation of blind flanges or other device to prevent any future leak.
- 11. Bio-degradation in situ of contaminated soil at all Sites, and especially at Sites where there are wetlands.

- Revegetation, especially at Sites where there is bio-degradation or where there are wetlands.
- 13. Materials that cannot be recycled will be stored in an appropriate manner taking into consideration the integrity of the Site. Where possible, barrels will be crushed or flattened, and stored, in a similar manner.
- 14. Analysis, including bio-essays when appropriate, during the monitoring activities: \$100,000 (within National Defence's total contribution).
- 15. Technical support, such as travel, laboratory analysis, and project site monitoring by a specialist: \$110,000 (within the Ministère de l'Environnement et de la Faune Québec's contribution).
- 16. Production of a Final Report on the project for October 31, 2001.



De : Audette, Denis

Envoyé: 1 février 2012 11:30 À: Nancy Dea (ndea@krg.ca)

Objet : Axes routiers et ferroviaires projetés

#### Bonjour,

À la suite de votre demande, voici les principaux corridors prévus au cours des prochaines années dans la région administrative Nord-du-Québec. Dans le budget 2011-2012 du Québec, trois axes ont été identifiés soit le lien Radisson-Kuujjuarapik, Schefferville-Kuujjuaq et Chibougamau-monts Otish (voir carte ouverture du territoire). Quant au lien Schefferville-Kuujjuaq, il existe plusieurs possibilités dont un lien ferroviaire (voir carte 3.1 de cette étude <a href="http://www.transquebecexpress.ca/etude">http://www.transquebecexpress.ca/etude</a> prefaisabilite 2011.html).

À ce jour, il n'y aucune décision de prise pour cet axe (route vs ferroviaire).

En effet, cela va dépendre de l'évolution des projets miniers. J'ai donc joint une carte des projets d'exploration en cours. Comme elle est en grand format (1 m X 1m), je pourrais vous acheminer une copie par la poste si vous n'avez pas accès à une imprimante adéquate. Pour plus de précision sur les travaux d'exploration minière, vous pouvez rejoindre le géologue du MRNF qui couvre cette région. Il s'appelle Patrick Houle et il est basé à Chibougamau (418-748-2647 #251).

Bref, il n'y a aucun lien est-ouest prévu à court ou moyen terme le long du 55<sup>e</sup> parallèle. La seule possibilité est-ouest « envisageable » pour rejoindre les projets miniers dans la région de Baie-James serait de construire une voie ferroviaire en parallèle (et au nord) de la route transtaïga (qui relie les centrales d'Hydro-Québec) afin de sortir le minerai par un port sur la baie d'Hudson (peut-être dans la région de Kuujjuarapik). Cependant, cette hypothèse n'est même pas dans les prévisions de notre ministère tant que les projets miniers dans le secteur au nord du réservoir Caniapiscau et près de la rivière Grande Baleine (Hudson Bay Great Whale Iron) sont encore très peu avancès.

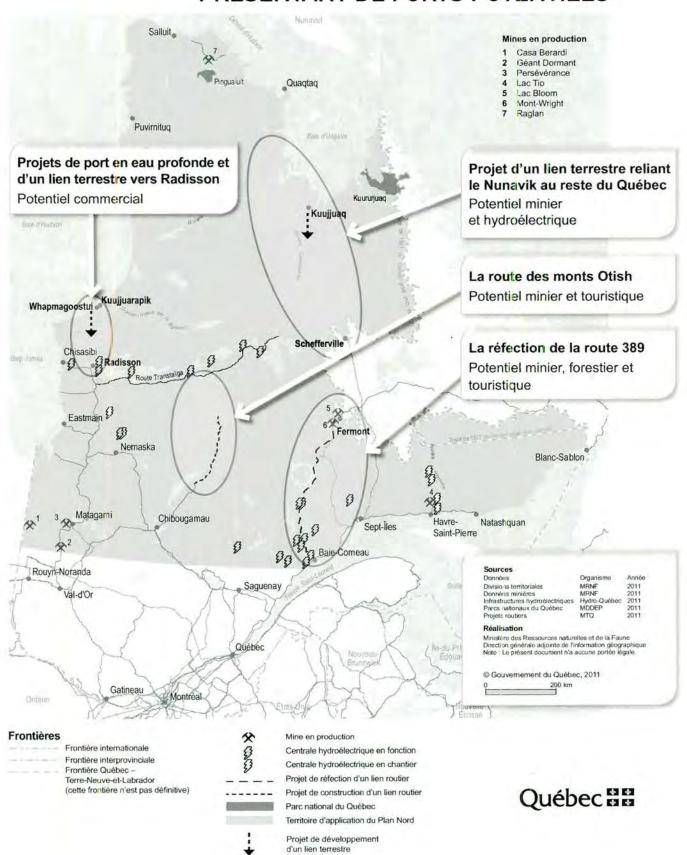
J'espère que ces renseignements répondront à votre attente.

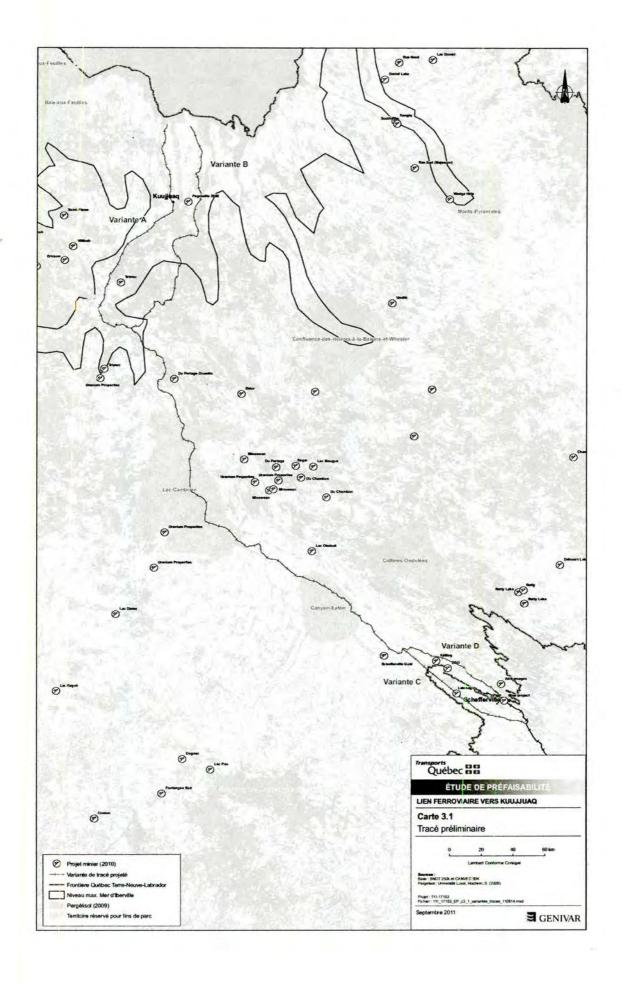
Denis Audette, biologiste, M. Env.

Agent de recherche, Ministère des Transports du Québec

Bureau de la coordination du Nord-du-Québec

### OUVERTURE DU TERRITOIRE SELON LES ZONES PRÉSENTANT DE FORTS POTENTIELS







## ₽∪₡¸₻₢└└┌。₽๘୯¸₢

Administration régionale KATIVIK Regional Government P.O. Box 9 KUUJJUAQ (QUÉBEC) CANADA JOM 1C0

Offer Fites in Canada?

Website

Ont. Govt Wille Cartan &

(705) 235-1192 1 800 487 1940

Env. Canada - Lucie Olivien Gother Romers!

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Edith variolel walle (819) 763-333

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# CONTRIBUTION AGREEMENT (RENEWAL)

#### BETWEEN

THE GOVERNMENT OF CANADA

THE GOUVERNEMENT DU QUÉBEC

AND

THE KATIVIK REGIONAL GOVERNMENT

CONCERNING

THE RESTORATION OF THE SITES KNOWN AS

THE MID-CANADA LINE

#### THE GOVERNMENT OF CANADA

as represented by the Department of the Environment (hereinafter referred to as "Environment Canada") and the Department of National Defence (hereinafter referred to as "National Defence");

AND

#### THE GOUVERNEMENT DU QUÉBEC

as represented by the ministère de l'Environnement du Québec (hereinafter referred to as "Environnement Québec"), the Secrétariat aux Affaires intergouvernementales canadiennes (hereinafter referred to as "Affaires intergouvernementales canadiennes") and the Secrétariat aux Affaires autochtones;

AND

#### KATIVIK REGIONAL GOVERNMENT

(hereinafter referred to as "Kativik");

WHEREAS, on April 30, 1998, a contribution agreement was entered into by the parties for the purpose of restoring a series of sites comprising what is known as the Mid-Canada Line (copy of the agreement and appendices attached as Appendix 1);

WHEREAS, under section 14, the aforementioned agreement would cease to be in effect upon completion of the work described in the final work plan, upon expenditure of all amounts, or on October 31, 2001, whichever came first;

WHEREAS the work described in the final work plan (copy attached as Appendix 2), devised in application of the aforementioned agreement, has not been completed on 13 of the 42 sites originally contemplated;

WHEREAS not all of the amounts provided for in the contribution agreement have been spent and at least 30% of National Defence's maximum contribution of \$1 500 000 is still available;

WHEREAS the parties wish to reinstate the aforementioned contribution agreement by ratifying the present agreement until December 31, 2002;

THEREFORE, THE PARTIES AGREE TO REINSTATE THE CONTRIBUTION AGREEMENT SIGNED ON APRIL 30, 1998, UNDER THE FOLLOWING CONDITIONS:

- All of the provisions of the contribution agreement ratified on April 30, 1998 continue to apply, to the extent that they are still relevant and the necessary adaptations are made;
- 2. The present agreement reinstates the contribution agreement, replacing every occurrence of the maximum end-date of the agreement with December 31, 2002, instead of the former October 31, 2001. This amendment also applies to every document filed as an appendix to the contribution agreement and to the appendices of the present agreement;
- 3. Thirteen sites are covered by the present agreement, namely, those in:
  - CATEGORY A: known as sites 342, 403, 406 and 406A;
  - CATEGORY B: known as sites 327A, 336, 336A, 339 and 339A;
  - CATEGORY C: known as sites 333, 333A, 409A and 410.
- 4. National Defence currently has at its disposal at least 30% of the maximum contribution of \$1 500 000 provided for in the contribution agreement, and intends to use the remainder of that budget to clean up the 13 sites contemplated in section 3 of the present agreement;
- 5. Subsection 5.6 of the contribution agreement is amended with regard to the Category A sites located on the territory described in section 133 of the *Environment Quality Act* (R.S.Q., c. Q-2), namely, those known as sites 342, 403, 406 and 406A. Environnement Québec gives final discharge for these sites to National Defence upon completion of the work to the satisfaction of the parties and, where applicable, according to the conditions set forth in the certificate of authorization issued by Environnement Québec or by the Gouvernement du Québec further to the application of section 164 or 167 of the *Environment Quality Act*, if such a certificate is issued;
- 6. Subsection 5.7 of the contribution agreement is amended with regard to the Category B site located on the territory described in section 133 of the Environment Quality Act (R.S.Q., c. Q-2), namely, that known as site 339. Environnement Québec gives final discharge for this site to National Defence upon completion of the work to the satisfaction of the parties and, where applicable, according to the conditions set forth in the certificate of authorization issued by Environnement Québec or by the Gouvernement du Québec further to the application of section 164 or 167 of the Environment Quality Act, if such a certificate is issued;

- 7. Subsection 5.7.1 is added to the agreement, and stipulates that Environnement Québec gives final discharge to National Defence for the Category C sites located on the territory described in section 133 of the *Environment Quality Act* (R.S.Q., c. Q-2), namely, those known as sites 409A and 410 upon completion of the work to the satisfaction of the parties and, where applicable, according to the conditions set forth in the certificate of authorization issued by Environnement Québec or by the Gouvernement du Québec further to the application of section 164 or 167 of the *Environment Quality Act*, if such a certificate is issued;
- 8. Subsection 5.8 of the agreement is amended through the inclusion, in the first line, of a reference to subsection 5.7.1.

IN WITNESS WHEREOF, the duly authorized representatives of the parties have signed this agreement:

Mimi Breton	Madeleine Paulin
Regional Director General	Deputy Minister
Environment Canada	Environnement Québec
This 20th day of March 2002	This 20th day of March 2002
in	in
Ginger Stones Director General Environment National Defence	Gilbert Charland Associate Secretary General Affaires intergouvernementales canadiennes
This 20th day of March 2002	This <u>20th</u> day of <u>March</u> 2002
in	in
Ina Gordon Secretary Kativik Regional Government	Diane Gaudet Associate Secretary General Secrétariat aux Affaires autochtones
This 20th day of March 2002	This <u>20th</u> day of <u>March</u> 2002
in	in

Table 3 Review of the quantities of equipment, debris, hazardous materials, hydrocarbons and contaminated soil at the 35 Mid-Canada Line sites north of the 55th parallel

Site	Equipment					Debris*	Hazardous materials removed			Hydrocarbons removed (L)				Soil	Kit and	Lexan	
no.	Buildings	Generators	Fuel tanks	(Barrels)	Heavy equip.	(m³)	Batteries	Mercury sw.	Others	Oil	Diesel	Grease	Others	Contaminated	Treated	sign	
215	1 + 1 shelter demolished	0	2	(31)	1 bulldozer	20+	0	8	tar	130	200	0	- 0	80	80	yes	yes
218	1	2	6	272	1 bulldozer	30+	8	3	•	140	375	0	25	25	25	yes	yes
218A	l cabin demolished	n/a	10	705	•	34+	n/a	n/a		0	100	0	200	60	60	yes	yes
221	1	1	17	156	4.	36+	18	15	-	120	500	0	0	25 + 25 on rock	23	yes	yes
221A	0	n/a	7	615		20+	n/a	n/a	*	200	1100	0	200	15	0 (drainage)	n/a	n/a
224	1	1	8	91	•	20	1 emergency	3	•	540	0	0	0	0	0	yes	yes
224A	1 shelter demolished	n/a	0	672		50+	n/a	n/a	•	0	0	0	0	25	25	n/a	n/a
227	1	0	2	70	*	undet.	0	0	-	0	0	0	0	0	0	yes	yes
227A	1	n/a	3	283	•	3+	n/a	n/a	•	800	2600	0	0	1	1	n/a	n/a
303	1	0	0	90	*	28+	3	0	*	0	0	0	0	137	137	yes	yes
303A	0	n/a	4	800	•	5+	n/a	n/a	•	0	0	0	0	10	6	n/a	n/a
306	2	3	9	332	1 snowmobile 1 Herman Nelson	undet.	18	16	•	100	0	0	0	120	120	yes	yes
306A	0	n/a	2	. 504		3+	n/a	n/a	•	0	0	0	0	5+	0 (drainage)	n/a	n/a
309	2	3	18	196	I helicopter	5+	18	17	•	300	60	0	300	100+	100	yes	yes
309A	0	n/a	16	468	1 snowmobile	8+	n/a	n/a	•	0	0	0	0	22	12	n/a	n/a
312	2	3	9	196	I bulldozer	35+	6	19	Anti-freeze, paint, Molybdenium Disulfide (200mL)	250	20	0	2	65	65	yes	yes
312A	1	n/a	7	708	*	3+	n/a	n/a	paint	0	0	0	600	48	48	yes	yes
315	2	3	9	126		15+ and caulking	12	14		400	0	0	600	135	35>	yes	yes
315A	1 + 1 cabin	n/a	7	525	*	undet.	n/a	n/a	*	0	40	0	600	7	7	yes	yes
318	2	3	9	400	1 muskeg	50+	13 + 4 emergency	10	•	240	0	0	0	100	56	yes	yes
318A	1 + 1 shed	n/a	7	915	*	undet.	n/a	n/a	*	0	0	0	130	49	45	yes	yes
321	2	3	3	63	1 helicopter	undet.	18	5	•	500	0	45	0	160	5?>	yes	yes
321A	1 shelter demolished + 1 cabin	n/a	10	600	-	7+	n/a	n/a		0	0	0	0	43	43	n/a	n/a
324	2	3	9	489	•	20+	16	undet.	•	350	0	13	0	184	184	yes	yes
324A	(1 structure)	n/a	0	97	•	2+	n/a	n/a	•	0	0	0	0	0	0	n/a	n/a
327	2	3	13	1280		undet.	16	15	*	300	0	0	0	120	120	yes	yes
327A	0	n/a	9	200	2 muskegs	25+	n/a	n/a	•	0	850	0	0	115	41	n/a	n/a



				Barrelo		Debnis											
330	2	3	9	530		undet.	18	4+?		355	150	20	30	285	168	yes	yes
330A	1	n/a	7	912	1 compressor 2 generators	undet.	n/a	n/a	æ.	0	400	0	400	3	3	yes	yes
333	2	3	14	1338	1 bulldozer 1 Herman Nelson	15+	8	6+?	Ethyl hydrate	300	85	0	0	180	142	yes	yes
333A	1 shelter demolished (+ 1 Cree camp)	n/a	10	449	2 muskegs	17+	n/a	n/a	12	0	400	0	0	55	55	n/a	n/a
336	2	3	9	1080	•	20+	20 + 2 small	5 + ?	anti-freeze, tar, paint	300	0	0	0	368	357	yes	yes
336A	1	n/a	7	245	1 generator	20+	n/a	n/a	•	362	400	0	180	8	8	yes	yes
339A	1 (+1 Cree cabin)	n/a	4	233	1 snowmobile 1 generator	55+	n/a	n/a	•	0	400*	0	0	150	150	yes	yes
403A	0	n/a	13	388	1 snowmobile	5+	n/a	n/a	•	0	0	0	0	4	0	n/a	n/a
Total	37 + 4 shelters demolished	37	269	16109	22	544+	173	114+		5687	7280	78	3267	2704	2091		

<sup>\*</sup> Estimate referring to the quantity of debris collected or total quantity (may be underestimated).

\*\* Barrels left on-site at the request of the Cree and with MENV approval.

n/a: not applicable undet.: undetermined