

MEMORANDUM

NOTE DE SERVICE

P.A.

TO
À

Paul Woodstock
Principal Executive Officer
Deputy Minister's Office
National Health

FROM
DE

Executive Assistant to the
Assistant Deputy Minister
Medical Services Branch

SUBJECT
OBJET

Arsenic Program Yellowknife

SECURITY - CLASSIFICATION — DE SÉCURITÉ

OUR FILE — N/RÉFÉRENCE

850-5-X751 (M17)

YOUR FILE — V/RÉFÉRENCE

DATE

February 5, 1975

I assume that the questions raised by the Member of Parliament Paul Yewchuk refers to items 3 and 4 of the minister's statement made on January 9, 1975 on arsenic pollution in Yellowknife.

a. Survey of arsenic levels on residents of Yellowknife:

The staff of Northwest Territories Region, Medical Services Branch, National Health & Welfare, will carry out this survey. It will also monitor the work to be done by other agencies and departments. Attached you will find a procedure for surveying individuals (see annex A).

I am also attaching, for your information, a list of distribution of tasks to be done by various departments (see annex B).

b. Mr. Yewchuk's second question refers to item 4 of the Press Release and deals with an increase in staff responsible for environmental health inspection.

In addition to the staff required to do the above mentioned survey, we anticipate that we will require one Public Health Nurse, one Environmental Health Officer, one part-time Clerk, and we will also recruit a Public Health Engineer who will be stationed in Edmonton, with primary responsibility for the Northwest Territories but also responsible for the Yukon.

This staff, of course, will keep in close liaison with Health Protection Branch and with the Department of the Environment.

I am leaving it with you to decide how much information we should give to Mr. Yewchuk.

(Signature)

Michel Fillion.

Attach.

Those individuals to be surveyed may be grouped as:

1. Mill workers in both the Giant and the Can mines, especially workers involved in the roasting process.
2. Indians and others who draw water direct from Yellowknife Bay including Detah Village.
3. Other residents on request.

For each individual tested, we must know:

1. Name
2. Age
3. Sex
4. Address (street address in Yellowknife; not a box number)
We must know exactly where the individual lives.
5. Length of residence at that address
6. Length of residence in Yellowknife
7. Occupation
8. Number of years at that occupation
9. Drinking water supply
10. Does individual eat locally grown fruits and/or vegetables

151-1-5 (N3)
January 14, 1975

Phase I

The sample required in the first instance is of scalp hair - (except in bald individuals). The amount needed for testing is 5-10 gm., (not less than 5 gm.).

Samples should be taken with scissors as close to the scalp as possible (multiple sites if required) and enclosed in a clean envelope or folded paper which is sealed with tape and stapled to a data card. (If you can obtain them conveniently, it might be a further safeguard to use duplicate adhesive numbers, one to seal the sample package and the duplicate to be attached to the data card.)

Collected samples should be shipped to Regional Office, at least until the programme is well established, and we will forward them to an appropriate laboratory.

Phase II

Further testing will depend on the scalp hair findings.

If raised levels are found, the donor will be revisited and a 24-hour urine sample will be requested, from which a 100 ml. sample can be extracted for analysis, using the same data and a similar (i.e. duplicate number) identification system. Such samples are to be shipped in plastic bottles as soon after collection as possible. The receiving laboratory will be identified at a later date.

Phase III

The final stage - if raised As levels are found in both hair and urine will be for the patient to be offered a complete medical check at a referral hospital, e.g. Camshell, University of Alberta Hospital or Stanton-Yellowknife.

If evidence of As intoxication were found, appropriate action to reduce intake would be necessary as well as regular follow-up via the Chronic Disease Registry.

From the environmental data available to us, we do not expect that this investigation will progress beyond Phase I, but both Phase II and III will be available if the need arises.

"Annex B"

DEPARTMENT	TASK	TIMING
ALL	Literature Review	Immediate
Atmospheric Environment Service	Meteorology	April 1, 1975 March 31, 1975
Health & Welfare Canada	Hair Sampling Hair Assay Urine Sampling & Assay Clinical Assessment Clinical Assessment of the previously surveyed in 1966 Routine water sampling City Supply Detah Village	Immediate Jan. - Mar. '75 April - May '75 April - Sep. '75 April - Sep. '75 Continuous
Environmental Protection Service	Emission Monitoring Ambient air monitoring Soils) Vegetation) Fish Water Survey	Fiscal year Fiscal year Complete
Giant Mines	Stack sampling	
Department of Indian & Northern Affairs	Mill air sampling	

Annex "B"

*2nd 9/6a
7/25/75*

P.A. 850-5-X751

Public Notice

*Arsenic
File*

Arsenic Testing Program

As promised by the Minister of Health a program of testing residents of the Yellowknife area has now commenced. The aim of this program is to try to detect any evidence of excessive arsenic intake.

The program will be carried out in 3 stages:

In the first stage, small hair samples will be taken and sent to a research laboratory for analysis. Those persons whose hair samples contain an excessive amount of arsenic will be recalled and stage 2 implemented.

In Stage two the individual is asked for a sample of urine, which is then analysed for arsenic content. If abnormal amounts of arsenic are found in the urine of an individual, that person will be given a complete medical examination.

Stage three is the conducting of medical examinations where required.

It should be remembered that stages 2 and 3 will only be commenced if an abnormally high amount of arsenic is found in the hair. If arsenic cannot be found in the hair it will not be found elsewhere in the body and further testing is unnecessary.

Clinics for obtaining hair samples are open to all who wish to volunteer and will be held as follows:

February 3 - 4	9 am - 4 pm	Giant Mine
February 5	9 am - 4 pm	Con Mine
February 6	12 noon-8 pm	Con Mine
February 7	10 am - 4 pm	Detah Village
February 10-11	1 pm - 5 pm	Latham Island at Tree of Peace

a) All Homes in Rainbow Valley will be visited by the nurse from 10:00 a.m. to 12:00 noon.

b) Other residents of Latham Island may attend a clinic at the COMMUNITY HALL on February 10th and 11th 1:00 p.m. - 5:00 p.m.

Clinics for the remainder of Yellowknife residents who wish to participate will be held as follows:

February 12 - 28 9 am - 4 pm

Yellowknife Health Centre

All residents volunteering for the clinic are asked to use the side entrance to the Health Centre, located on 47th Street.

Results of the hair sampling will be reported to all participants whether or not further testing is necessary.

**Health and Welfare Canada
Yellowknife, N.W.T.**