



Energy, Mines and Petroleum Resources

Kent Morton  
Project Supervisor  
Giant Yellowknife Mines Ltd.  
P.O. Bag 3000  
Yellowknife, NWT  
X1A 2M2

SEP 14 1990

SC 306701 and SC306704

Dear Kent;

Please find attached your completed copies of the above contracts for the Hi-Temperature Gas Filtration project and the Arsenic Trioxide Feasability and Marketing Study.

Thank you for your help and patience in processing these contracts.

Sincerely Yours

Martin Irving  
Manager, Minerals



# SERVICE CONTRACT

PAGE 1 OF

SC 306704

CONTRACT NUMBER

REGION 1	PROGRAM S.S.	ACTIVITY
-------------	-----------------	----------

(ALLOW FOR ONE &amp; ONE HALF SPACE IN SHADED AREA BELOW)

GENERAL DESCRIPTION research	CONTRACTOR'S NAME AND ADDRESS Giant Yellowknife	REFERENCE DOCUMENT  G.S.N. 1200931913
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LOCATION: Yellowknife

## DETAILS OF TERMS OF CONTRACT

UNIT PRICE

TOTAL

As per attached.

TOTAL

37 500 00

THIS CONTRACT SHALL:

COMMENCE ON THE 1 OF April 19 90 AND TERMINATE ON THE 31 OF March 19 91

THE MAXIMUM AMOUNT

PAYABLE UNDER THIS CONTRACT SHALL NOT EXCEED \$ 37,500.00

LN	TRANS. CD.	INDEX	COSTING	SETT.	PROJECT	ORDER	OBJECT	AMOUNT
1	213	280 867					1554	37 500 00
2								

DUE DATE DESCRIPTION (MAX. 40 CHARACTERS)

research

I/WE AGREE TO SUPPLY THE EQUIPMENT AND/OR PERFORM THE WORK OR SERVICES AS STIPULATED ON THE COVENANTS AND AGREEMENTS CONTAINED ABOVE AND ON THE REVERSE SIDE HEREOF.

ORIGINATOR 27/03/90 DATE	RECOMMENDED BY  SIGNATURE	TITLE
PROGRAM MANAGER 27/03/90 DATE	 SIGNATURE	TITLE

## INVOICING

PLEASE QUOTE SERVICE CONTRACT NUMBER ON ALL INVOICES AND CORRESPONDENCE

CONTRACTOR TO SUBMIT INVOICES IN 2 COPIES TO:

Mineral Development Agreement

Department of Energy, Mines &amp; Petroleum Resources

Government of the Northwest Territories

Box 1320

Yellowknife, N.W.T. XIA 2L9

DATE see attached	SIGNATURE OF CONTRACTOR see attached
DATE see attached	WITNESS
ACCEPTED ON BEHALF OF THE GOVERNMENT	
OF THE NORTHWEST TERRITORIES THIS _____ DAY OF _____ 19 _____	
SPENDING AUTH. (USUALLY PROGRAM MANAGER)  AUTH. NO.	AUTH. NO.
GOVERNMENT AUTH. (USUALLY FINANCE OFFICER)  AUTH. NO.	AUTH. NO.
AUTO PAYMENT	FUNDS COMMITTED DATE
	HOLD BACK %

The parties to this contract covenant and agree as follows:

1. The Contractor will indemnify and save harmless the Commissioner from and against all claims, demands, loss, costs, damages, actions, suits or other proceedings by whomsoever made, brought or prosecuted in any manner based upon, occasioned by or attributable to the activities of the Contractor under this contract.
2. The various works or services are to be carried out and completed to the full satisfaction of the officer signing for the Commissioner.
3. The Contractor may not assign or sublet this contract or any part thereof without the written consent of the officer signing for the Commissioner.
4. The Commissioner reserves the right to terminate this contract at any time before completion for any reason whatsoever. In the event of such termination the Commissioner will pay to the Contractor an amount that, in the opinion of the officer signing for the Commissioner, is equal to that portion of the work or service completed up to the day of termination.
5. In engaging labour for the work or service contemplated by this contract, the contractor will employ as far as practicable and consistent with efficiency and economy only Canadian labour with local labour receiving preference.
6. The Contractor will pay all his employees performing work or services pursuant to this contract such fair and reasonable wages as are generally accepted as current for competent workmen in the district in which the work or services are being performed for the character or class of work in which such employees are respectively engaged.
7. In addition to Item No. 5 above, it is required that the Contractor provide proof that he has complied with the provisions of the Workers' Compensation Act and the Labour Standard Act of the Northwest Territories.
8. Statutory Condition. In compliance with the Northwest Territories Financial Administration Act (Sec. 46) it is a condition of this contract that payment pursuant to the contract is subject to there being a sufficient unencumbered balance in the appropriate activity for the fiscal year in which the funds would be required under the contract.

Yellowknife N.W.T. XIA 010  
Box 1250  
Government of the Northwest Territories  
Department of Energy, Mines & Petroleum Resources  
Incorporated Agreement

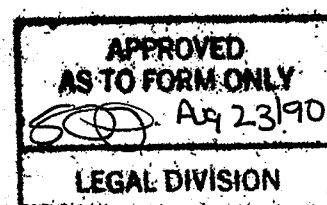
**CANADA/N.W.T. ECONOMIC DEVELOPMENT AGREEMENT**

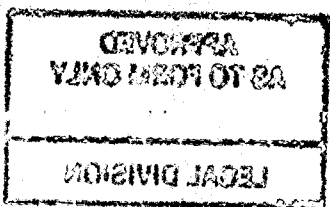
**CONTRIBUTION AGREEMENT**

**GIANT YELLOWKNIFE MINES LTD**

**Implementing Agency:**

**Department of Energy, Mines and Petroleum Resources**





## **CONTRIBUTION AGREEMENT**

**THIS AGREEMENT** (hereinafter referred to as this "Agreement") made this \_\_\_\_\_ day of Sept, 1990.

### **BETWEEN:**

**THE GOVERNMENT OF THE NORTHWEST TERRITORIES** as represented by the Deputy Minister of the Department of Energy, Mines and Petroleum Resources (hereinafter referred to as the "Department").

### **OF THE FIRST PART**

- and -

**GIANT YELLOWKNIFE MINES LTD** as represented by the Mine Manager (hereinafter referred to as the "Recipient").

### **OF THE SECOND PART**

**WHEREAS** the Recipient has requested assistance in carrying out the project described in Clause 2(a) that will result in:

**A report on the Manufacture and Marketing of Arsenic Products**

**AND WHEREAS** the Government of the Northwest Territories and the Government of Canada under the Canada/N.W.T. Economic Development Agreement, seek to encourage intergovernmental cooperation and private sector participation to promote planning and implementation of economic and regional development in the Northwest Territories;

**AND WHEREAS** the Canada/N.W.T. Subsidiary Agreement on Mineral Development provides support to the Northern Technological Assistance Program (NTAP);

**AND WHEREAS** the project is expected to contribute to the diversification and expansion of the N.W.T. economy;

**AND WHEREAS** the Technical Advisory Committee has recommended approval of the project specified in Appendix A and whereas the Management Group of the Mineral Development Subsidiary Agreement (MDA) has approved the project and the entering into this Agreement, by the Department of Energy, Mines and Petroleum Resources as the implementing agency;

**AND WHEREAS** the total amount of funding provided by this Agreement is subject to appropriations by the Parliament of Canada and the Legislative Assembly of the Government of the Northwest Territories;

**NOW THEREFORE** this Agreement witnesseth that:

1. The Department agrees to:

a) provide a contribution to the Recipient of up to, but not exceeding Thirty Seven Thousand Five Hundred Dollars (\$37,500.00) for the project described in Clause 2(a); and

b) reimburse the Recipient on the basis of the progress claims described in Clause 2(d).

2. The Recipient agrees to:

(a) perform the work on the project entitled: Manufacture and Marketing of Arsenic Products Project according to the Statement of Work as specified in Appendix A, which is attached to and forms part of this Agreement.

(b) maintain financial records, in accordance with generally accepted accounting principles and practices, which will ensure the adequacy, accuracy, completeness, and timeliness of reports and plans required in Paragraph 2(c);

(c) provide financial and progress reports to the Department and the Scientific Authority on an as requested basis specifying year-to-date expenditures, forecasted total annual expenditures, number of person-days of employment generated to date, and a description of the progress-to-date and forecasted progress;

(d) submit an invoice, copies of paid invoices and five (5) copies of an interim report to the Department for an interim claim which will only be made upon approval by the Scientific Authority and the MDA Coordinator where the interim claim is not less than 30% and not more than 50% of the total Agreement. The interim report must be acceptable to the Scientific Authority and the MDA Coordinator.

(e) submit original, paid invoices and ten (10) copies of the final report to the Department for the final claim for which payment will only be made upon approval by the Scientific Authority and the MDA Coordinator of the final project report and accounting of expenditures, where the final claim is made within three (3) months of the project completion date or April 15, 1991 whichever is earlier;

(f) allow the Department and the Scientific Authority to carry out on-site inspections of the project to verify that any costs submitted for the purpose of claims are those actually incurred during the project;

(g) provide information regarding arrangements for technology transfer to the Scientific Authority;

(h) provide any ancillary post-project information required by the Department, Management Group or the Scientific Authority to conduct an evaluation of the project on the funding program, to assess economic impacts or to examine the attainment of economic objectives;

(i) accept that all reports prepared in respect of the project shall become the property of the Governments of the Northwest Territories and Canada, and that in addition, all other material such as maps, documents and plans shall be provided to the above mentioned governments on request;

(j) adhere to the general terms and conditions established by participating agencies or related Agreements; and

(k) acknowledge credit to the funding which was obtained through the Canada-NWT Mineral Development Agreement in all material produced for public display or distribution, in a manner acceptable to the Management Group.

3. a) For the purposes of the Agreement the Scientific Authority shall be

Marek Stefanski  
Mineral Technology Branch  
Canada Centre for Mineral and Energy Technology  
(CANMET)  
Department of Energy, Mines and Resources  
555 Booth Street,  
Ottawa, Ontario  
K1A 0G1

b) The Scientific Authority of CANMET is responsible for all matters concerning the scientific and technological content of the work under this Agreement. Any proposed changes to the scope of the work are to be discussed with the Scientific Authority, but any resultant changes can only be authorized by the Management Group as an amendment to this Agreement.

4. The Department and the Recipient agree that ownership of all property except as specified in Clause 2 (i), arising out of the work, including intellectual property shall rest with the Recipient, except if the Recipient elects not to file a patent application in respect of any invention arising under the arrangement, then the Recipient shall if requested by the Department to do so, assign or cause to be assigned to the Department all rights necessary to enable the Department to apply on its own behalf for a patent in respect of such invention; and to execute such other documents as may be necessary to vest ownership of such inventions to the Department. In that regard, the Recipient agrees that it:

a) shall disclose in writing to the parties all intellectual property conceived or developed or first reduced to practices in the performance of work;

b) shall grant to parties a non-exclusive, irrevocable, royalty free licence to use any or all of the intellectual property for research and publication purposes;

c) grant the parties the right to sub-licence any or all of the intellectual property to third parties for their own use. This right will not be exercised for at least three (3) years after the completion of the work and will then be exercised only if, in the sole judgement of the parties, the Recipient has failed to utilize the results of the project in commercial opportunities.

5. The Recipient further agrees that all expenditures made by the Recipient from funds contributed pursuant to this Agreement shall be made in accordance with the budget specified in Appendix "A".

6. The Recipient declares that he/she has disclosed all other sources of funding respecting the Project in Appendix "A" and agrees to disclose any additional sources of funding to the Project received during the course of this Agreement.

7. The Recipient may, with written approval of the Management Group, make transfers within budget items, in "Appendix "A"".

8. Eligible expenditures for purposes of this Agreement shall be those described in Appendix "A". The Recipient further agrees that the following are not eligible expenditures:

(a) any portion of the remuneration of any indeterminate employee of the Governments of Canada or the Northwest Territories or of any Crown Corporation or Agency;

(b) any costs in excess of eligible costs, except where the Recipient has informed the Department in writing immediately when it became aware that a cost overrun was probable and the Management Group has approved the treatment of all or part of the amount of the overrun as an eligible cost;

(c) any project costs incurred prior to the approval of the Project by the Management Group; and

(d) any cost expressly described as ineligible elsewhere in this Agreement.



9. The Recipient agrees that no funds contributed under the Agreement may be used for any purpose except that of carrying out the objective of the Project.

10. Final payments for projects undertaken by the Recipient will be made subject to the approval of the MDA Coordinator and the Scientific Authority.

11. The Recipient agrees to retain all accounting records and supporting documentation until a final audit has been performed by the Department or its representatives, should the Department decide to conduct an audit. In any event, the Recipient shall not destroy or dispose of those records and documents without the prior approval of the Department for a period of three (3) years following completion of the Project.

12. The Department or its representatives may, at any time, audit and inspect the accounting records and supporting documentation of the Recipient who shall make available at all reasonable times all accounting records and supporting documentation to the Department or their authorized representatives, and shall assist the authorized representatives in carrying out any audits or inspections.

13. The Recipient may request an audit of the project, but the cost of the audit will be at the expense of the Recipient.

14. The Recipient agrees to refund any monies provided by the Department which are not expended for the purpose described in Appendix "A" to the Government of the Northwest Territories with thirty (30) days of notification by the Department.

15. If the Recipient becomes bankrupt or insolvent or has a receiving order made against it (whether the Bankruptcy Act or otherwise), or makes an assignment for the benefit of creditors, or if a Receiver is appointed or if an order is made or resolution passed for the winding up of the Recipient's business, or if it takes the benefit of any statute relating to bankrupt or insolvent debtors, the Department may give notice in writing to the Recipient to:

(a) terminate the Agreement;

(b) direct the Recipient to repay forthwith to the Department any part of the contributions made pursuant to this agreement; and/or,

(c) withhold all or part of monies due or accruing due under this Agreement.

In the event that the Department makes a direction pursuant to 15(b), the Recipient shall forthwith repay the Department the amount directed to be paid.

16. The Recipient shall indemnify and save harmless the Governments of Canada and the Northwest Territories and any of their employees and agents against losses, claims, debts, judgments, damages, costs, actions or proceedings arising out of or relating to the performance by the Recipient, its employees or agents, of the services under this Agreement whether as a result of any act, matter or thing done, permitted or omitted to be done, negligently or otherwise, by the Recipient, their employees or agents or any other person engaged by it.

17. The Governments of Canada and the Northwest Territories shall not be held liable or responsible for any personal or bodily injury or property damage of any nature whatsoever that may be suffered or sustained by the Recipient, its employees or agents in connection with or in relation to the carrying out of services under this Agreement.

18. The Recipient shall comply with and observe all the provisions and requirements of:

(a) The Labour Standards Act, Employment Standards Act, Workers' Compensation Act, Mining Safety Act and Regulations and all Acts of the Legislative Assembly of the Northwest Territories in force, as amended, or enacted hereinafter from time-to-time, applicable to the performance of services; as well as ensuring full opportunity provisions for the employment in the project of natives, women and disadvantaged persons; and

(b) All regulations, inclusive of any amendments or substitutions in force from time-to-time under any of the Acts referred to in Clause 18(a) and any bylaw or resolution of any municipal government in the Northwest Territories.

19. An assignment of this Agreement by the Recipient without the consent in writing of the Government of the Northwest Territories shall be void and of no effect. No assignment of this Agreement shall relieve the Recipient from any obligation under the Agreement or impose any liability upon the Government of Canada, or the Government of the Northwest Territories.

20. The Department and Recipient agree that:

(a). No amendment of this Agreement nor waiver of any of the terms and provisions shall be deemed valid unless effected by a written amendment approved by the Department and the Management Group.

(b). No member serving in the House of Commons or Senate for the Government of Canada or the Legislative Assembly of the Government of the Northwest Territories shall be admitted to any share or part of this Agreement or any benefit derived thereof.

(c) This Agreement may be terminated by either party by giving at least thirty (30) days notice in writing to the other.

(d) This Agreement shall take effect from May 1, 1990 and will remain in effect until the project is completed or until March 31, 1991, whichever date is earlier, after which time the Department will no longer be held responsible for costs incurred by the Recipient.

(e) If any dispute between the parties hereto in relation to this Agreement cannot be settled to the satisfaction of both parties then the dispute shall be submitted to a single arbitrator if the parties can agree on one, or if the parties cannot agree, to a board of three (3) arbitrators, one to be appointed by the Minister, one to be appointed by the Contractor, and a third to be appointed by the arbitrators who have been appointed by the parties. The provisions of the Arbitration Act R.S.N.W.T. 1974, c.8, s.4, as amended from time to time, shall apply to each dispute submitted pursuant to this section.

(f) In no event shall the Minister be liable for any of the Contractors's obligations to any subcontractor or other person who has a claim against the Contractor for work done on the project.

(g) This Agreement shall be governed by the laws of the Northwest Territories.

(h) The contractor shall use NWT labour and materials in the performance of the work to the full extent to which they are procurable consistent with proper economy and the expeditious carrying out of the work. Included in the final report should be a statement including the amount of time and money spent in the NWT, and how they were used.

(i) In the event of any legal action arising as a result of this contract the contractor may commence such action against the Minister in the name of the Government of the Northwest Territories as the Defendant, and the Minister may bring such action against the Contractor in the name of the Government of the Northwest Territories as Plaintiff. The parties agree that any such action shall be brought in the Supreme Court of the Northwest Territories.

(j) Payment by the Minister pursuant to this Agreement is subject to Section 46 of the Financial Administration Act which states:

"It is a condition of every contract made by or on behalf of the Government requiring an expenditure that an expenditure pursuant to the contract will be incurred only if there is sufficient uncommitted balance in the appropriated item for the fiscal year in which the expenditure is required under the contract."

21. For all purposes of this Agreement, including giving notice the Department's address shall be:

Department of Energy, Mines and Petroleum Resources  
Government of the Northwest Territories  
Box 1320  
Yellowknife, NWT  
X1A 2L9

and the address of the Recipient shall be:

Giant Yellowknife Mines attn: Kent Morton  
Bag 3000  
Yellowknife, NWT

22. The Department and the Recipient agree that invoices, progress reports and final reports under this Agreement are to be submitted to:

MDA Coordinator  
Department of Energy, Mines and Petroleum Resources  
GNWT  
Box 1320  
Yellowknife, NWT  
X1A 2L9

This Agreement shall ensure to the benefit of and be binding upon the parties hereto, their successors and permitted assigns.

This contract constitutes and expresses the entire Agreement of the parties hereto and shall take effect in substitution for all previous Agreements and arrangements whether written or implied between the Minister and the Contractor and all such Agreements and arrangements shall be deemed to have been terminated by mutual consent with effect from the date of the signing hereof;

ACCEPTED ON BEHALF OF:

(Witness)

90/9/4  
(Date)

x Mr. P. L. York.  
(Giant Yellowknife Mines Ltd.)

90/9/2.  
(Date)

Ferne Newton  
(Witness)

Sept 10/90  
(Date)

(Government of the Northwest Territories)

Sept 10/90  
(Date)

(Witness)

Sept 10/90  
(Date)

(MDA Management Group  
DIAND Co-chair)

Sept 10, 1990  
(Date)

(Witness)

Sept 10/90  
(Date)

(MDA Management Group  
EM&PR Co-Chair)

SEP 10, 1990  
(Date)

## Appendix A

### STATEMENT OF WORK

#### 1. Introduction

A series of tests have been done over the past couple of years for the purpose of designing a purification process for crude arsenic trioxide. When the current high temperature filter pilot program has been completed, testwork will have reached the point where a commercial facility can be built, using data generated by the testwork.

The worldwide demand for arsenic trioxide does not equal the level of production. The disposal of the crude byproduct is still a problem. In the meantime, there are no Canadian manufacturers of arsenicals, and the majority of suppliers to the North American market are from Europe and South America. Manufacture of a range of arsenical products would help to give Canadian producers a competitive edge, and could turn what is now a disposal problem into a profitable business.

Giant is therefore interested in examining the potential for producing arsenic metal and/or other arsenical products in the same plant that will be used to produce arsenic trioxide. There is a 1200 tonne annual market in North America for arsenic metal, all of which is produced offshore, primarily in China. The prefeasibility program would include a technology search, preliminary plant design, and a marketing study for a number of arsenic products. Depending upon the process technology, some laboratory testing may be included in the program. Total cost of the project is estimated at \$50,000.

#### 2. Objectives

The study is intended to define the opportunities for manufacture and marketing of a range of arsenical products, primarily for distribution to the North America market. High quality arsenic trioxide is recognized as being the product most likely to be sold in large tonnages, and Giant's processing plant will be built mainly for the manufacture of this product. This does not preclude the possibility of adding one or more additional product lines, if technologically and economically feasible. Having one of the world's largest crude arsenic reserves, Giant could be an important source of arsenical products other than arsenic trioxide for many years to come, and the study will determine whether detailed examination of this apparent opportunity is warranted.

#### 3. Scope of Work

The study will be split into two areas of examination; marketing and production. The marketing study will determine the main arsenical compounds being produced and marketed, source of supply, annual sales volume, production costs (if available), selling price, special handling requirements, consumer information etc...

The production study will use the information generated by the marketing study to identify the products and product specifications that may be useful to Giant in assessing marketing opportunities and plant production alternatives. This will involve literature searches, communication with producers, marketing agents, market analysts, consumers etc... and may include plant visits, laboratory testing, pilot testing etc... Possible modifications to existing plant design may be referred to an engineering consultant.

At completion of the study, it is possible that a short list of arsenic products may be worth more detailed consideration for manufacture in Giants's arsenic trioxide purification facility. If so, these products will be subject to a full scale feasibility study. Optimization of As<sub>2</sub>O<sub>3</sub> product specification will also be a feature of the study.

#### 4 PY Requirements

The marketing study was largely done by telephone, letter and fax, and should be done by a marketing professional. Giant has had good success with a Ontario firm engaged to conduct such a study for arsenic trioxide and would suggest that this firm, with their particular knowledge of the arsenic industry, be retained to conduct the study. It is estimated that the study could be completed in about two weeks.

The technology study will be somewhat more time consuming, and the quality of the information gathered depends largely upon the findings of the marketing study. If there are a large number of products to examine, then they will not be given the same level of attention that they would get if there are very few products to examine.

In any case the time spent on the study will be appropriate to the project budget, estimated at about 60 mandays.

#### 5 Budget

Total project costs are estimated at \$50,000, as follows:

Marketing study		\$ 5,000
Salary and NWLC 60 days at \$350		15,000
Plant Visits		3,000
Process consultants		4,000
Lab testing		7,000
Pilto Testing		15,000
Miscellaneous		1,000
TOTAL		\$50,000
NTAP	75%	\$37,500
Giant	25%	\$12,500

#### 6 Timetable

##### Phase 1: Marketing Study

The study will not be completed in a single two week period, and it is more likely that a month will be required to complete the study and write the report. It is proposed that this portion of the study be conducted during August, 1990, with completion scheduled for August 30, 1990.

##### Phase 2: Technological Study

The technological study will overlap Phase 1 to some extent in that As<sub>2</sub>O<sub>3</sub> product specification testing will be conducted as the marketing study is underway. Other aspects of the technological study, ie. discussions with producers and consumers, plant visits, lab testing, etc., will have to await for completion of Phase 1. Completion of Phase 2, including distribution of the final report, is scheduled for October 30, 1990.

# SERVICE CONTRACT

PAGE 1 OF 1

SC 306701

CONTRACT NUMBER

REGION 1	PROGRAM 5.5	ACTIVITY
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GENERAL DESCRIPTION geological Research.	CONTRACTOR'S NAME AND ADDRESS Giant Yellowknife Mines Bag 3000 Yellowknife NWT	REFERENCE DOCUMENT  G.S.N. 120931913
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LOCATION: Yellowknife	DETAILS OF TERMS OF CONTRACT see attached.	UNIT PRICE	TOTAL
			45,000.00

THIS CONTRACT SHALL:

COMMENCE ON THE 1 OF April 19 90 AND TERMINATE ON THE 31 OF March 19 91

THE MAXIMUM AMOUNT PAYABLE UNDER THIS CONTRACT SHALL NOT EXCEED \$ 45,000.00

LN	TRANS. CD.	INDEX	COSTING	SETT.	PROJECT	ORDER	OBJECT	AMOUNT
1	213	281956					1593	45,000.00
2								

DUE DATE	DESCRIPTION (MAX. 40 CHARACTERS)
	research.

I/WE AGREE TO SUPPLY THE EQUIPMENT AND/OR PERFORM THE WORK OR SERVICES AS STIPULATED ON THE COVENANTS AND AGREEMENTS CONTAINED ABOVE AND ON THE REVERSE SIDE HEREOF.

ORIGINATOR 17/03/90 DATE	RECOMMENDED BY <i>[Signature]</i> SIGNATURE	TITLE
PROGRAM MANAGER 17/03/90 DATE	<i>[Signature]</i> SIGNATURE	TITLE

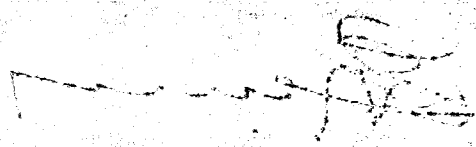
DATE	see attached	SIGNATURE OF CONTRACTOR
DATE		WITNESS
ACCEPTED ON BEHALF OF THE GOVERNMENT		
OF THE NORTHWEST TERRITORIES THIS _____ DAY OF _____ 19 _____		
SPENDING AUTH. (USUALLY PROGRAM MANAGER)		AUTH. NO.
COMMITTEE AUTH. (USUALLY FINANCE OFFICER)		AUTH. NO.
AUTO PAYMENT	FUNDS COMMITTED DATE	HOLD BACK %

INVOICING  
PLEASE QUOTE SERVICE CONTRACT NUMBER ON ALL INVOICES AND CORRESPONDENCE  
CONTRACTOR TO SUBMIT INVOICES IN 2 COPIES TO:

Mineral Development Agreement  
Department of Energy, Mines & Petroleum Resources  
Government of the Northwest Territories  
Box 1320  
Yellowknife, N.W.T. XIA 2L9

The parties to this contract covenant and agree as follows:

1. The Contractor will indemnify and save harmless the Commissioner from and against all claims, demands, loss, costs, damages, actions, suits or other proceedings by whomsoever made, brought or prosecuted in any manner based upon, occasioned by or attributable to the activities of the Contractor under this contract.
2. The various works or services are to be carried out and completed to the full satisfaction of the officer signing for the Commissioner.
3. The Contractor may not assign or sublet this contract or any part thereof without the written consent of the officer signing for the Commissioner.
4. The Commissioner reserves the right to terminate this contract at any time before completion for any reason whatsoever. In the event of such termination the Commissioner will pay to the Contractor an amount that, in the opinion of the officer signing for the Commissioner, is equal to that portion of the work or service completed up to the day of termination.
5. In engaging labour for the work or service contemplated by this contract, the contractor will employ as far as practicable and consistent with efficiency and economy only Canadian labour with local labour receiving preference.
6. The Contractor will pay all his employees performing work or services pursuant to this contract such fair and reasonable wages as are generally accepted as current for competent workmen in the district in which the work or services are being performed for the character or class of work in which such employees are respectively engaged.
7. In addition to Item No. 5 above, it is required that the Contractor provide proof that he has complied with the provisions of the Workers' Compensation Act and the Labour Standard Act of the Northwest Territories.
8. Statutory Condition. In compliance with the Northwest Territories Financial Administration Act (Sec. 46) it is a condition of this contract that payment pursuant to the contract is subject to there being a sufficient unencumbered balance in the appropriate activity for the fiscal year in which the funds would be required under the contract.



Mineral Development Agreement  
Department of Energy, Mines & Petroleum Resources  
Government of the Northwest Territories  
Rev 1980  
Yellowknife, N.W.T. XIA 219



**CANADA/N.W.T. ECONOMIC DEVELOPMENT AGREEMENT**

**CONTRIBUTION AGREEMENT**

**GIANT YELLOWKNIFE MINES LTD**

**Implementing Agency:**

**Department of Energy, Mines and Petroleum Resources**

## CONTRIBUTION AGREEMENT

THIS AGREEMENT (hereinafter referred to as this "Agreement") made this \_\_\_\_\_ day of July, 1990.

BETWEEN:

THE GOVERNMENT OF THE NORTHWEST TERRITORIES as represented by the Deputy Minister of the Department of Energy, Mines and Petroleum Resources (hereinafter referred to as the "Department").

OF THE FIRST PART

- and -

GIANT YELLOWKNIFE MINES LTD as represented by the Mine Manager (hereinafter referred to as the "Recipient").

OF THE SECOND PART

WHEREAS the Recipient has requested assistance in carrying out the project described in Clause 2(a) that will result in:

### High Temperature Gas Filtration Project

AND WHEREAS the Government of the Northwest Territories and the Government of Canada under the Canada/N.W.T. Economic Development Agreement, seek to encourage intergovernmental cooperation and private sector participation to promote planning and implementation of economic and regional development in the Northwest Territories;

AND WHEREAS the Canada/N.W.T. Subsidiary Agreement on Mineral Development provides support to the Northern Technological Assistance Program;

AND WHEREAS the project is expected to contribute to the diversification and expansion of the N.W.T. economy;

AND WHEREAS the Technical Advisory Committee has recommended approval of the project specified in Appendix A and whereas the Management Group of the Mineral Development Subsidiary Agreement (MDA) has approved the project and the entering into this Agreement, by the Department of Energy, Mines and Petroleum Resources as the implementing agency;

AND WHEREAS the total amount of funding provided by this Agreement is subject to appropriations by the Parliament of Canada and the Legislative Assembly of the Government of the Northwest Territories;

NOW THEREFORE this Agreement witnesseth that:

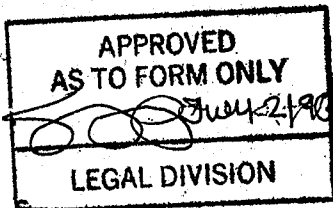
1. The Department agrees to:

a) provide a contribution to the Recipient of up to, but not exceeding Forty Five Thousand Dollars (\$45,000.00) for the project described in Clause 2(a); and

b) reimburse the Recipient on the basis of the progress claims described in Clause 2(d).

2. The Recipient agrees to:

(a) perform the work on the project entitled: High Temperature Gas Filtration Project according to the Statement of Work as specified in Appendix A, which is attached to and forms part of this Agreement.



(b) maintain financial records, in accordance with generally accepted accounting principles and practices, which will ensure the adequacy, accuracy, completeness, and timeliness of reports and plans required in Paragraph 2(c);

(c) provide financial and progress reports to the Department and the Scientific Authority on an as requested basis specifying year-to-date expenditures, forecasted total annual expenditures, number of person-days of employment generated to date, and a description of the progress-to-date and forecasted progress;

(d) submit an invoice, copies of paid invoices and an interim report to the Department for an interim claim which will only be made upon approval by the Scientific Authority and the MDA Coordinator where the interim claim is not less than 30% and not more than 50% of the total Agreement. The interim report must be acceptable to the Scientific Authority and to the MDA Coordinator;

(e) submit original, paid invoices and a final report to the Department for the final claim for which payment will only be made upon approval by the MDA Coordinator and the Scientific Authority of the final project report and accounting of expenditures, where the final claim is made within three (3) months of the project completion date or April 15, 1990 whichever is earlier;

(f) allow the Department and the Scientific Authority to carry out on-site inspections of the project to verify that any costs submitted for the purpose of claims are those actually incurred during the project;

(g) provide information regarding arrangements for technology transfer to the Scientific Authority;

(h) provide any ancillary post-project information required by the Department, Management Group or the Scientific Authority to conduct an evaluation of the project on the funding program, to assess economic impacts or to examine the attainment of economic objectives;

(i) accept that all reports prepared in respect of the project shall become the property of the Governments of the Northwest Territories and Canada, and that in addition, all other material such as maps, documents and plans shall be provided to the above mentioned governments on request;

(j) adhere to the general terms and conditions established by participating agencies or related Agreements; and

(k) acknowledge credit to the funding which was obtained through the Canada-NWT Mineral Development Agreement in all material produced for public display or distribution, in a manner acceptable to the Management Group.

3. a) For the purposes of the Agreement the Scientific Authority shall be

Jim Skeaff  
Mineral Technology Branch  
Canada Centre for Mineral and Energy Technology  
(CANMET)  
Department of Energy, Mines and Resources  
555 Booth Street,  
Ottawa, Ontario  
K1A 0G1

b) The Scientific Authority of CANMET is responsible for all matters concerning the scientific and technological content of the work under this Agreement. Any proposed changes to the scope of the work are to be discussed with the Scientific Authority, but any resultant changes can only be authorized by the Management Group as an amendment to this Agreement.

4. The Department and the Recipient agree that ownership of all property except as specified in Clause 2 (i), arising out of the work, including intellectual property shall rest with the Recipient, except if the Recipient elects not to file a patent application in respect of any invention arising under the arrangement, then the Recipient shall if requested by the Department to do so, assign or cause to be assigned to the Department all rights necessary to enable the Department to apply on its own behalf for a patent in respect of such invention; and to execute such other documents as may be necessary to vest ownership of such inventions to the Department. In that regard, the Recipient agrees that it:

a) shall disclose in writing to the parties all intellectual property conceived or developed or first reduced to practices in the performance of work;

b) shall grant to parties a non-exclusive, irrevocable, royalty free licence to use any or all of the intellectual property for research and publication purposes;

c) grant the parties the right to sub-licence any or all of the intellectual property to third parties for their own use. This right will not be exercised for at least three (3) years after the completion of the work and will then be exercised only if, in the sole judgement of the parties, the Recipient has failed to utilize the results of the project in commercial opportunities.

5. The Recipient further agrees that all expenditures made by the Recipient from funds contributed pursuant to this Agreement shall be made in accordance with the budget specified in Appendix "A".

6. The Recipient declares that he/she has disclosed all other sources of funding respecting the Project in Appendix "A" and agrees to disclose any additional sources of funding to the Project received during the course of this Agreement.

7. The Recipient may, with written approval of the Management Group, make transfers within budget items, in "Appendix "A"".

8. Eligible expenditures for purposes of this Agreement shall be those described in Appendix "A". The Recipient further agrees that the following are not eligible expenditures:

(a) any portion of the remuneration of any indeterminate employee of the Governments of Canada or the Northwest Territories or of any Crown Corporation or Agency;

(b) any costs in excess of eligible costs, except where the Recipient has informed the Department in writing immediately when it became aware that a cost overrun was probable and the Management Group has approved the treatment of all or part of the amount of the overrun as an eligible cost;

(c) any project costs incurred prior to the approval of the Project by the Management Group; and

(d) any cost expressly described as ineligible elsewhere in this Agreement.

9. The Recipient agrees that no funds contributed under the Agreement may be used for any purpose except that of carrying out the objective of the Project.

10. Final payments for projects undertaken by the Recipient will be made subject to the approval of the MDA Coordinator and the Scientific Authority.

11. The Recipient agrees to retain all accounting records and supporting documentation until a final audit has been performed by the Department or its representatives, should the Department decide to conduct an audit. In any event, the Recipient shall not destroy or dispose of those records and documents without the prior approval of the Department for a period of three (3) years following completion of the Project.

12. The Department or its representatives may, at any time, audit and inspect the accounting records and supporting documentation of the Recipient who shall make available at all reasonable times all accounting records and supporting documentation to the Department or their authorized representatives, and shall assist the authorized representatives in carrying out any audits or inspections.

13. The Recipient may request an audit of the project, but the cost of the audit will be at the expense of the Recipient.

14. The Recipient agrees to refund any monies provided by the Department which are not expended for the purpose described in Appendix "A" to the Government of the Northwest Territories with thirty (30) days of notification by the Department.

15. If the Recipient becomes bankrupt or insolvent or has a receiving order made against it (whether the Bankruptcy Act or otherwise), or makes an assignment for the benefit of creditors, or if a Receiver is appointed or if an order is made or resolution passed for the winding up of the Recipient's business, or if it takes the benefit of any statute relating to bankrupt or insolvent debtors, the Department may give notice in writing to the Recipient to:

(a) terminate the Agreement;

(b) direct the Recipient to repay forthwith to the Department any part of the contributions made pursuant to this agreement; and/or,

(c) withhold all or part of monies due or accruing due under this Agreement.

In the event that the Department makes a direction pursuant to 15(b), the Recipient shall forthwith repay the Department the amount directed to be paid.

16. The Recipient shall indemnify and save harmless the Governments of Canada and the Northwest Territories and any of their employees and agents against losses, claims, debts, judgments, damages, costs, actions or proceedings arising out of or relating to the performance by the Recipient, its employees or agents, of the services under this Agreement whether as a result of any act, matter or thing done, permitted or omitted to be done, negligently or otherwise, by the Recipient, their employees or agents or any other person engaged by it.

17. The Governments of Canada and the Northwest Territories shall not be held liable or responsible for any personal or bodily injury or property damage of any nature whatsoever that may be suffered or sustained by the Recipient, its employees or agents in connection with or in relation to the carrying out of services under this Agreement.

18. The Recipient shall comply with and observe all the provisions and requirements of:

(a) The Labour Standards Act, Employment Standards Act, Workers' Compensation Act, Mining Safety Act and Regulations and all Acts of the Legislative Assembly of the Northwest Territories in force, as amended, or enacted hereinafter from time-to-time, applicable to the performance of services; as well as ensuring full opportunity provisions for the employment in the project of natives, women and disadvantaged persons; and

(b) All regulations, inclusive of any amendments or substitutions in force from time-to-time under any of the Acts referred to in Clause 18(a) and any bylaw or resolution of any municipal government in the Northwest Territories.

19. An assignment of this Agreement by the Recipient without the consent in writing of the Government of the Northwest Territories shall be void and of no effect. No assignment of this Agreement shall relieve the Recipient from any obligation under the Agreement or impose any liability upon the Government of Canada, or the Government of the Northwest Territories.

20. The Department and Recipient agree that:

(a). No amendment of this Agreement nor waiver of any of the terms and provisions shall be deemed valid unless effected by a written amendment approved by the Department and the Management Group.

(b). No member serving in the House of Commons or Senate for the Government of Canada or the Legislative Assembly of the Government of the Northwest Territories shall be admitted to any share or part of this Agreement or any benefit derived thereof.

(c) This Agreement may be terminated by either party by giving at least thirty (30) days notice in writing to the other.

(d) This Agreement shall take effect from April 15, 1990 and will remain in effect until the project is completed or until March 31, 1991, whichever date is earlier, after which time the Department will no longer be held responsible for costs incurred by the Recipient.

(e) If any dispute between the parties hereto in relation to this Agreement cannot be settled to the satisfaction of both parties then the dispute shall be submitted to a single arbitrator if the parties can agree on one, or if the parties cannot agree, to a board of three (3) arbitrators, one to be appointed by the Minister, one to be appointed by the Contractor, and a third to be appointed by the arbitrators who have been appointed by the parties. The provisions of the Arbitration Act R.S.N.W.T. 1974, c.8, s.4, as amended from time to time, shall apply to each dispute submitted pursuant to this section.

(f) In no event shall the Minister be liable for any of the Contractors's obligations to any subcontractor or other person who has a claim against the Contractor for work done on the project.

(g) This Agreement shall be governed by the laws of the Northwest Territories.

(h) The contractor shall use NWT labour and materials in the performance of the work to the full extent to which they are procurable consistent with proper economy and the expeditious carrying out of the work. Included in the final report should be a statement including the amount of time and money spent in the NWT, and how they were used.

(i) In the event of any legal action arising as a result of this contract the contractor may commence such action against the Minister in the name of the Government of the Northwest Territories as the Defendant, and the Minister may bring such action against the Contractor in the name of the Government of the Northwest Territories as Plaintiff. The parties agree that any such action shall be brought in the Supreme Court of the Northwest Territories.

(j) Payment by the Minister pursuant to this Agreement is subject to Section 46 of the Financial Administration Act which states:

"It is a condition of every contract made by or on behalf of the Government requiring an expenditure that an expenditure pursuant to the contract will be incurred only if there is sufficient uncommitted balance in the appropriated item for the fiscal year in which the expenditure is required under the contract."

21. For all purposes of this Agreement, including giving notice the Department's address shall be:

Department of Energy, Mines and Petroleum Resources  
Government of the Northwest Territories  
Box 1320  
Yellowknife, NWT  
X1A 2L9

and the address of the Recipient shall be:

Giant Yellowknife Mines attn: Kent Morton  
Bag 3000  
Yellowknife, NWT

22. The Department and the Recipient agree that any progress reports under this Agreement are to be submitted to the Scientific Authority as specified in Clause 3 (a) and to:

MDA Coordinator  
Department of Energy, Mines and Petroleum Resources  
GNWT  
Box 1320  
Yellowknife, NWT  
X1A 2L9

This Agreement shall ensure to the benefit of and be binding upon the parties hereto, their successors and permitted assigns.

This contract constitutes and expresses the entire Agreement of the parties hereto and shall take effect in substitution for all previous Agreements and arrangements whether written or implied between the Minister and the Contractor and all such Agreements and arrangements shall be deemed to have been terminated by mutual consent with effect from the date of the signing hereof;

ACCEPTED ON BEHALF OF:

(Witness)

(Date)

(Witness)

(Date)

(Witness)

(Date)

(Witness)

(Date)

(Giant Yellowknife Mines Ltd.)

(Date)

(Government of the Northwest Territories)

(Date)

(MDA Management Group  
DIAND Co-chair)

(Date)

(MDA Management Group  
EM&PR Co-Chair)

(Date)



## Appendix A

### STATEMENT OF WORK

#### 1. Introduction

During the past several years, Giant Yellowknife Mines has marketed a small amount of crude arsenic trioxide produced as a by-product of the gold extraction process. Due to the poor quality of the product, the market has always been extremely limited and recently, Giant's sole customer declined to renew their purchase contract. Unless the quality of the product can be greatly improved, the product can not be sold.

Over the past several months, Giant has developed a purification process that will achieve the necessary product purity while producing a residue containing relatively high concentrations of gold and antimony oxide.

The process, sublimation of crude baghouse dust, followed by high temperature gas filtration, condensation and agglomeration, has been thoroughly proven. Detailed filtration testwork is all that remains of the research phase of the program.

#### 2. Objectives

Successful completion of the filtration testwork will enable Giant Mines to detail purification plant design for the purpose of full scale production. The \$10,000,000 plant will employ 12 to 15 people and will be capable of producing 7,000 stpy of high purity product. The high temperature gas filter will help to improve product quality from approximately 65%  $\text{As}_2\text{O}_3$  to 99.5%  $\text{As}_2\text{O}_3$ . The possibility of producing a saleable antimony oxide concentrate produced from hot filter residues also exists though further testing is required.

There are several benefits that Giant might realize from high temperature gas filtration testwork and eventual production of a high purity product. These benefits are summarized below.

1. produce a saleable arsenic trioxide product.
2. recover gold values contained in high temperature filter residues.
3. empty underground arsenic storage chambers, making surrounding gold bearing ore available for mining.
4. recover antimony oxide values from high temperature gas filter residues.
5. eliminate storage requirements for currently produced  $\text{As}_2\text{O}_3$  bearing baghouse dust.
6. eliminate long-term storage concerns related to permanent mine closure.

#### 3. Scope of Work

The work involves design and fabrication of a high temperature sintered metal pilot scale filter followed by a two week pilot plant campaign. The testing will be done at Giant Yellowknife's plant. Fabrication of the test filter will be done by Pall Corporation, who are represented by Pall Canada of Toronto. Testing will be done using crude baghouse dust from Giant.

Giant representatives will monitor the pilot plant during the testing to ensure that all data necessary for full scale filter design is being collected. The Research and Productivity Council of New Brunswick will be consulted during the preparation of a final report of the test program that is expected to enable Giant to detail filter specifications required in the purification plant.

#### 4 PY Requirements

The work involved in conducting the test can be separated into 3 distinct areas, design and preparation, fabrication and installation, and testing and reporting. Manpower required at each stage is as follows:

Design and Preparation	100 hours @ \$40.00/hr
Fabrication and Installation	250 hours @ \$50.00/hr
Testing and Reporting	1153 hours @ \$44.55/hr
Total	1503 hours @ \$45.15/hr

#### 5 Budget

Total project costs are estimated at \$100,000 divided as follows:

- \$80,000 (Eighty Thousand Dollars) for the subcontracted cost of work to be completed by Pall (Canada) Limited, the cost of consulting services of W.R. Hatch, the cost of plant setup and modification and the cost of performing the testwork.

- \$20,000. Interpreting test data for use in detailed plant design, supervision and program monitoring, internal accounting and administration, report writing, etc...

#### 6 Timetable

##### Phase 1: Filter Design, Plant Setup

Hi-temp filter, design and engineering	\$13,625
Condenser, baghouse, etc. installation	\$7,648
Instrumentation and ancillary equipment	\$16,227
- Start February, 1990 - Completion March, 1990	
- Total Cost = \$37,500 (\$30,000 from NTAP and \$7,500 from Giant).	

##### Phase 2: Filter Installation, Plant Setup

Hi-temp filter purchase	\$13,625
Hi-temp filter installation and tuning	\$5,273
Complete plant installation and test run	\$7,648
- Start April, 1990 - Completion May, 1990	
- Total Cost = \$26,546	

##### Phase 3: Plant Operation

Two weeks of operation	\$23,535
- start May, 1990 - Completion May, 1990	

##### Phase 4: Reporting

Analysis of results and completion of final report	\$12,419
- Start June, 1990 - Completed June, 1990.	

Total Cost Phase two, three and four:	\$62,500
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NTAP - 68% of eligible project costs up to a maximum of	\$45,000
Giant Yellowknife Mines	\$19,500

Phase One has been completed and approved by the Scientific Authority and the MDA Management Group.