DEPARTMENT OF NATIONAL DEFENCE

SPECIFICATIONS FOR THE CLEANUP OF PIN-3, LADY FRANKLIN POINT DEW LINE SITE

Prepared by:

UMA Engineering Ltd.

In association with:

The SGE Group Inc.

February 2002



Job No.: H-L13/1-9101

THE ASSOCIATION OF PROFESSIONAL ENGINEERS. GEOLOGISTS and GEOPHYSICISTS OF THE NORTHWEST TERRITORIES PERMIT NUMBER P 007
UMA ENGINEERING

© COPYRIGHT
HER MAJESTY THE QUEEN IN RIGHT OF CANADA 2002, AS REPRESENTED
BY THE MINISTER OF NATIONAL DEFENCE.

NOTICE TO TENDERERS

AMENDMENTS

TO

STANDARD CONSTRUCTION CONTRACT DOCUMENTS

Since January 1, 1995 Defence Construction Canada STANDARD CONSTRUCTION CONTRACT DOCUMENTS have been included in each Tender Package by reference. These documents have been available through MERX, Canada's Electronic Tendering Service by calling 1-800-964-MERX (6379).

The documents noted below have been amended, and will apply to all tender calls initiated by Defence Construction Canada after July 5, 1999.

- 1. Instructions to Tenderers, DCL Form 193 (R-03-99)
 - 1.1 Section 3. Submission of Tender, item 3.1 has been amended;
 - 1.2 Section 4. Revisions to Tenders, item 4.1 has been amended;
 - 1.3 Section 9. Year 2000 Warranty for Goods, item 9.1 has been added.

Construction de Défense

Canada

DCL 150 (R-08-99)

REGULAR TENDER FORM Defence Construction (1951) Limited

CLOSING DATE/TIME:

April 16, 2002

PROJECT NO: DLCPIN3

14:00 hours, local time

CLOSING LOCATION:

Defence Construction Canada

Place de Ville, Tower B

Ottawa, Ontario

K1A 0K3

FAX NO .:

613-998-9547

PROJECT:

Cleanup of the PIN3, Lady Franklin Point DEW Line Site

Nunavut

1. TENDER DOCUMENTS

1.1. Tender Form - DCL 150 (R 08-99)

- 1.2. STANDARD CONSTRUCTION CONTRACT DOCUMENTS 1999 VERSION Form DCL 250 (included in tender documents by reference. These documents are available from MERX on-line or at 1-800-964-6379)
 - 1.2.1. Instructions to Tenderers Form DCL 193 (R-03-99)
 - 1.2.2. Articles of Agreement Form DCL 24 (R-01-95)
 - 1.2.3. Terms of Payment "B" Form DCL 25 (R-01-97)
 - 1.2.4. General Conditions "C" Form DCL 32 (R-01-97)
 - 1.2.5. Labour Conditions 180 (Rev. 06/91) 7540-21-900-0766
 - 1.2.6. Insurance Conditions "E" Form DCL 243 (R-01-95)
 - 1.2.7. Insurers Certificate of Insurance DCL 232 (R-01-95)
 - 1.2.8. Contract Security Conditions "F" Form DCL32-F (R-01-97)
 - 1.2.9. Request for Acceptance of Alternative Materials Form DCL 242 (R-01-97)
 - 1.2.10. Supplementary Conditions Form DCL 244 (R-01-97)
- 1.3. Drawings, Specifications and Addenda thereto No.
- 1.4. Amendments, Notices, and Minutes of Meetings issued prior to Tender Closing.

2.	W	e,	Company Name
----	---	----	--------------

having informed ourselves fully of the conditions relating to the work to be performed, having inspected the site and having carefully examined the plans and specifications and all the terms and covenants of the Tender Documents (IT BEING UNDERSTOOD AND AGREED THAT FAILURE TO HAVE DONE SO WILL NOT RELIEVE US OF OUR OBLIGATION TO ENTER INTO A CONTRACT AND CARRY OUT THE WORK FOR THE CONSIDERATION SET OUT HEREAFTER) do tender and offer to perform the said work in strict accordance with the said documents and such further details, plans and instructions as may be supplied from time to time and to furnish to Her Majesty the Queen in Right of Canada, all materials, plant, machinery, tools, labour and things necessary for the construction or carrying out and proper completion of the said work for the following sums of lawful money of Canada:

Project Name: Cleanup of PIN3 Location: Lady Franklin Point, Nunavut Project No.: DLCPIN3

* SCHEDULE A:

Item	Description	Unit	Unit Price	Quantity	Total
A.01005-1	Community Meetings	each	\$. 4	\$
A.01005-2	Return Air Transportation for Community Meetings	person-return trip	\$	12	\$
A.01591-1	Engineer's Room and Board	person-day	\$	850	\$
A.01591-2	Casual Meals	each	\$	250	\$
A.01591-3	Return Air Transportation Cambridge Bay to PIN-3	person-return trip	\$	30	\$
A.01591-4	Communication Links	Line-Week	\$	90	\$
A.02060-1	Supply of Barge Containers - PCB Amended Painted Materials	each	\$	5	\$
A.02060-2	Supply of Intermediate Containers - PCB Amended Painted Materials	each	\$	10	\$
A.02066-1	Tier I & Tier I/Type A Contaminated Soil Excavation - Site Areas	cubic metre	\$	2,400	\$
A.02066-2	Tier II & Tier II Type A/B Contaminated Soil Excavations - Site Areas	cubic metre	\$	4,400	\$
A.02066-3	Contaminated Soil Disposal - Landfill Excavations	cubic metre	\$	3,900	\$
A.02066-4	Containerization of Hazardous Contaminated Soil - Landfill Excavations	cubic metre	\$	220	\$
A.02066- 5	Hazardous Contaminated Soil Containers	cubic metre	\$	250	\$
A.02066- 6	Type B and Type B Tier I Contaminated Soil Excavation and Disposal - Site Areas	cubic metre	\$	10,200	\$
A.02066-7	Disposal of Type B - Type B Tier I Contaminated Soil - Landfill Excavations	cubic metre	\$	100	\$
A.02066-8	Hydrocarbon Resistant Liners	cubic metre	\$	100	\$
A.02067-1	Granular Nutrient - Total Nutrient Weight	kilogram	\$	4,200	\$

DCL 150 (R-08-99)

Project Name: Cleanup of PIN3 Location: Lady Franklin Point, Nunavut Project No.: DLCPIN3

Item	Description	Unit	Unit Price	Quantity	Total
A.02067-2	Nutrient Application During Primary Construction Activities	event-hectare	\$	10	\$
A.02067-3	Nutrient Application During Secondary Construction Activities	event-hectare	\$	3	\$
A.02067-4	Tilling Events During Primary Construction Activities	event-hectare	\$	25	\$
A.02067-5	Tilling Events During Secondary Construction Activities	event-hectare	\$. 8	\$
A.02209-1	Reshaping	square metre	\$	50,000	\$
A.02209-2	Types 2, 2 Select 3, 4 and 5 Granular Fill - Above Grade - Main Landfill	cubic metre	\$	72,000	\$
A.02209-3	Trench Excavation 2.5 metres Base Width, 1.5 metres Depth - Main Landfill	lineal metre	\$	620	\$
A.02209-4	Types 2, 4 and 5 Granular Fill - Above Grade - Tier II Disposal Facility	cubic metre	\$	58,000	\$
A.02209-5	Trench Excavation, Tier II Disposal Facility; 4.0 metres Base Width, 1.5 metres Depth	lineal metre	\$	290	\$
A.02209-6	Type 2 Granular Fill	cubic metre	\$	66,000	\$
A.02209-7	Type 2 Select Granular Fill	cubic metre	\$	3,800	\$
A.02209-8	Type 3 Granular Fill	cubic metre	\$	9,000	\$
A.02209-9	Type 6 Intermediate Fill	cubic metre	\$	4,700	\$
A.02209-10	Unclassified Excavation	cubic metre	\$	4,200	\$
A.02209-11	Test Pit Excavation - Equipment Usage	operating hours	\$	30	\$
A.02209-12	Bentonite	kg	\$	92,000	\$
A.02209-13	Water Bentonite Slurry Application	square metre	\$	1,200	\$
A.02209-14	Sand Bentonite Levelling Course	cubic metre	\$	350	\$

DCL 150 (R-08-99)

Project Name: Cleanup of PIN3
Location: Lady Franklin Point, Nunavut
Project No.: DLCPIN3

Item	Description	Unit	Unit Price	Quantity	Total
A.02219-1	Unknown Debris Removal	cubic metre	\$	200	\$
A.02240-1	Secondary Landfill Excavation	cubic metre	\$	1,300	\$
A.02240-2	Disposal of Non-Hazardous Wastes - Landfill Excavation	cubic metre	\$	3,750	\$
A.02498-1	Non-Woven Geotextile - Installation	square metre	\$	58,000	\$
A.02498-2	Woven Geotextile - Installation	square metre	\$	750	\$
A.02499-1	Geomembrane - Installation	square metre	\$	30,000	\$
A.02510-1	Drilling	metre	\$	105	\$
A.02510-2	Monitoring Wells - Supply and Installation	each	\$	16	\$
A.02510-3	Vertical Thermistors - Supply and Installation	each	\$	8	\$
A.02510-4	Survey Control Monuments - Supply and Installation	each	\$	5	\$
	TOTAL SCHEDULE A:			5	S

Item	Description	Amount
B.01005-1	Work Methodology Plan	\$
B.01005-2	Worker Orientation Seminar	\$
B.01110-1	Mobilization	\$
B.01005-2	Primary Demobilization	\$

DCL 150 (R-08-99)

Project Name: Cleanup of PIN3 Location: Lady Franklin Point, Nunavut Project No.: DLCPIN3

Item	Description	Amount
B.01005-3	Secondary Demobilization	\$
B.01380-1	Project Photographs	\$
B.01545-1	Health and Safety Plans	\$
B.01720-1	Project Record Documents	\$
B.02060-1	Demolition: Module Train Rubble including Module Train Runoff Storage Pond and All Related Drainage Facilities	\$
B.02060-2	Demolition: Communication Dishes (4)	\$
B.02060-3	Demolition: (1) Station Area Fuel Storage Tanks and Associated Foundations and Pipe (65,000 US Gal Capacity each)	\$
B.02060-4	Demolition: (2) Beach Area Fuel Storage Tanks and Associated Foundations and Pipe (65,000 US Gal Capacity each)	\$
B.02060-5	Demolition: (2) Underground Fuel Storage Tanks - Airstrip Apron Area	\$
B.02060-6	Demolition: Utility Poles including HF Air Ground Antenna	\$
B.02060-7	Demolition: TVRO Antenna	\$
B.02060-8	Demolition: Sewage Outfall Line	\$
B.02060-9	Demolition: Abandoned POL Line - Station, Hangar, South and Main Landfill Areas	\$
B.02060-10	Demolition: Hazmat POL Storage Shed	\$
B.02067-1	Landfarm Operation	\$
B.02067-2	Landfarm Closure	\$
B.02219-1	Known Debris Removal - Site Area	\$

DCL 150 (R-08-99)

Project Name: Cleanup of PIN3

Location: Lady Franklin Point, Nunavut

Project No.: DLCPIN3

Item	Description	Amount
B.02240-1	Primary Landfill Excavation - South Beach Landfill	\$
B.02240-2	Primary Landfill Excavation - Main Landfill	\$
B.02498-1	Non-Woven Geotextile - Supply	\$
B.02498-2	Woven Geotextile - Supply	\$
B.02499-1	Geomembrane - Supply	\$
	TOTAL SCHEDULE B:	\$

** SCHEDULE C:

Item	Description	Amount
C.01591-1	Engineer's Office Supplies	\$ 75,000
C.02090-1	Unknown Hazardous Material Collection	\$ 100,000
	TOTAL SCHEDULE C:	\$ 175,000

SCHEDULE D:

Balance of Project Complete - (Firm Price)

\$

DCL 150 (R-08-99)

Project Name: Cleanup of PIN3

Location: Lady Franklin Point, Nunavut

Project No.: DLCPIN3

TOTAL TENDER:

Item	m Description Ame	
A.	Unit Prices: Total Schedule A	\$
В.	Lump Sum Items: Total Schedule B	\$
C.	Prime Cost Allowances: Total Schedule C	\$175,000
D.	Balance of Project Complete: Schedule D	\$
	TOTAL TENDER: (Item A + Item B + Item C + Item D above)	\$

^{*} The quantities mentioned in Schedule A above are estimated quantities only and may be increased or decreased in accordance with the requirements of the work. All payments shall be based upon the actual quantity of materials supplied and work performed as approved by the engineer.

We hereby certify that no imbalance exists neither between our unit and lump sum prices, nor between our individual unit prices, and further, we understand that any such imbalance(s) would be considered cause to render our Tender invalid.

Bidders should note that where unit prices are required by the Tender Form (DCL 150), the "Unit Price" entered by the contractor shall take precedence over the extension price should an error in the extension be discovered.

- **Bidders are to allow the Prime Cost Allowances in Schedule C above. These allowances will be adjusted to actual costs as certified by the Engineer. Any provision for profit, overhead, administration, etc., will be deemed to be included in the Firm Price portion of the Tender Schedule D. Should the Prime Cost Allowance be exceeded, no further payment on account of profit, overhead, administration, etc., shall be made by the Crown.
- 3. We understand and agree that all applicable taxes, duties, permits and fees are our responsibility and are included in our Tendered Price. The exception to the foregoing is the Goods and Services Tax (GST). GST will be paid to the contractor by Defence Construction Canada in addition to any amounts due under the contract. Our Goods and Services Tax Registration number is:
- 4. It is understood and agreed that, with respect to Building Permits only, General Conditions paragraphs GC14.1 to GC14.4 inclusive Form DCL 32, shall not apply.
- 5. We certify that Bid Security, if required, in one of the forms outlined in paragraph 5 of the "Instruction to Tenderers", Form DCL 193 accompanies this Tender.

DCL 150 (R-08-99)

Project Name: Cleanup of PIN3

Location: Lady Franklin Point, Nunavut

Project No.: DLCPIN3

6. It is understood and agreed that in the event of this Tender being accepted within 30 (thirty) calendar days of the time stated for closing of tenders and our failing or refusing to carry out the contract in accordance with the terms of our Tender, our bid security, if required by the tender, (i) if in the form of a certified cheque, bank draft, or bonds of, or bonds unconditionally guaranteed as to principal and interest by the Government of Canada, or (ii) if in the form of a Bid Bond, shall be forfeited to Her Majesty the Queen in Right of Canada and the Bonding Company shall be liable in accordance with the terms of the Bond.

- 7. It is further understood and agreed that notwithstanding (i) the forfeiture of the certified cheque or bonds of (ii) the liability of the Bonding Company, Her Majesty shall be entitled to the payment of any additional amounts that may be required to meet the cost of all loss and damage suffered by Her Majesty by reason of our default in carrying out the contract.
- 8. We understand that all site work on this project must be fully complete by no later than November 30, 2003 with the exception of the final operation and closure of the Landfarm area which is required to be completed by no later than September 30, 2004. If our Tender is accepted, we agree to start work within _____ calendar days of notification of contract award and to work vigorously and continuously to complete the project within this prescribed time.

9.	Modifications set forth in the following Amendment Nos. (please list all amendments)				
	to the tender documents are reflected in the Firm Price/Total				
	Tender.				

N.B. There is no need to return the Amendment(s) with the tender.

DCL 150

Project Name: Cleanup of PIN3 Location: Lady Franklin Point, Nunavut Project No.: DLCPIN3

(R-08-99)

	Tenderer's Company:
Vitness Name:	Tenderer's Full Name:
Witness Signature:	Tenderer's Signature: CORPORATE SEAL (if applicable)
Date:	Title:
	Address:
Phone No.:	Fax No.:

DEPARTMENT OF NATIONAL DEFENCE

SPECIFICATIONS FOR THE CLEANUP OF PIN-3, LADY FRANKLIN POINT DEW LINE SITE

Prepared by:

UMA Engineering Ltd.

In association with:

The SGE Group Inc.

February 2002



Job No.: H-L13/1-9101

THE ASSOCIATION OF PROFESSIONAL ENGINEERS.
GEOLOGISTS and GEOPHYSICISTS OF THE NORTHWEST TERRITORIES
PERMIT NUMBER
P 007
UMA ENGINEERING
LTD.

© COPYRIGHT

HER MAJESTY THE QUEEN IN RIGHT OF CANADA 2002, AS REPRESENTED

BY THE MINISTER OF NATIONAL DEFENCE.

National Defence

Job No.: H-L13/1-9101 DEW Line Cleanup Project

DEW Line Cleanup Project
Page 1 of 2
PIN-3: Lady Franklin Point Table of Contents
2002-02-25

		No. of Pages
Table of Contents		2
List of Drawings		1
List of Acronyms		1
List of Actoryms		1
Schedule A	Schedule of Unit Prices	2
Schedule B	Schedule of Lump Sum Pay Items	1
Schedule C	Schedule of Prime Cost Allowances	1
Schedule D	Balance of Project Complete	1
	Summary of Cost Schedules	1
Section 01005	General Instructions	21
Section 01014	Project Control	6
Section 01020	Prime Cost Allowances	4
Section 01110	Mobilization and Demobilization	2
Section 01340	Shop Drawings, Product Data, Samples and Mock-Ups	5
Section 01380	Project Photographs	4
Section 01410	Testing Laboratory Services	6
Section 01500	Temporary Facilities	5
Section 01545	Safety, Medical and Security Requirements	6
Section 01546	Fire Safety Requirements	5
Section 01560	Environmental Protection	5
Section 01591	Construction Camp	12
Section 01593	Rental Vehicles	3
Section 01594	Available On-Site Support	2
Section 01600	Material and Equipment	3
Section 01720	Project Record Documents	3
Section 02060	Demolition	19
Section 02066	Contaminated Soils	16
Section 02067	Landfarm Operation	9
Section 02081	Asbestos Abatement	23
Section 02090	Hazardous Waste Material	15
Section 02209	Grading	24
Section 02219	Debris Removal	3
Section 02226	Aggregates: General	4
Section 02240	Landfill Waste Excavation	11
Section 02498	Geotextiles	5
Section 02499	Geomembranes	11
Section 02510	Instrumentation	10

National Defence Job No.: H-L13/1-9101		
DEW Line Cleanup Project		Page 2 of 2
PIN-3: Lady Franklin Point	Table of Contents	2002-02-25

1 111-5. Lady 1 fain	Table of Contents	2002-02-25
Appendix A	Demolition Inventory	
Appendix B	PCB-Amended Painted Material Disposal Requirements	
Appendix C	Geotechnical Reports	
Appendix D	Site Photographs: Demolition, Debris	
Appendix E	Environmental Protection Plan	
Appendix F	Site Use Restrictions	
Appendix G	Land Use Permit	
Appendix H	Nunavut Water Board - Draft Contingency Plan	

National Defence Job No.: H-L13/1-9101 DEW Line Cleanup Project

DEWL	ine Cleanup Project		Page 1 of 1
	Lady Franklin Point	List of Drawings	2002-02-25
			-
	Drawing No.	Title	
Siting:			
	H-L13/1-9101-101	Overall Site Plan	
	H-L13/1-9101-102	Project Layout	
	H-L13/1-9101-103	Station Area, Site Plan	
	H-L13/1-9101-104	Main Landfill Area, Site Plan	
	H-L13/1-9101-105	Hanger Area, Site Plan	
	H-L13/1-9101-106	Non-Hazardous Waste Landfill and Tier	II Disposal Facility
	***	Areas, Site Plans	J
	H-L13/1-9101-107	North and South Landfill Areas, Site Plan	ıs
	H-L13/1-9101-108	Non-Hazardous Waste Landfill, Cross-Se	
	H-L13/1-9101-109	Landfarm, Plan and Cross-Section	
	H-L13/1-9101-110	Main Landfill, Excavation Plan and Cross	s-Sections
	H-L13/1-9101-111	Main Landfill, Key Trench Excavation Pl	
		Grading/Instrumentation Plan	
	H-L13/1-9101-112	Main Landfill, Key Trench Centreline Pro	ofile
	H-L13/1-9101-113	Main Landfill, Cross-Sections, Sheet 1	
	H-L13/1-9101-114	Main Landfill, Cross Sections, Sheet 2	
	H-L13/1-9101-115	Tier II Disposal Facility, Key Trench Exc	cavation Plan and
		Grading/Instrumentation Plan	
	H-L13/1-9101-116	Tier II Disposal Facility, Key Trench Cer.	ntreline Profile
	H-L13/1-9101-117	Tier II Disposal Facility, Cross-Section	
	H-L13/1-9101-118	Miscellaneous Details - Thermistor Instal	lations, Sheet 1
	H-L13/1-9101-119	Miscellaneous Details, Sheet 2	
Structur	al:		
	H-L13/1-9101-201	Station Area, Hangar Area and Beach PC Site Plans	L Area - Demolition
	H-L13/1-9101-202	Communication Dish, Elevations	
	H-L13/1-9101-203	Fuel Tanks and TVRO Antenna, Plans ar	nd Elevations
	H-L13/1-9101-204	Module Train Runoff Storage Ponds - De	etails

National Defence Job No.: H-L13/1-9101

DEW Line Cleanup Project
PIN-3: Lady Franklin Point
List of Acronyms
2002-02-25

ASTM American Society for Testing and Materials

CCME Canadian Council of Ministers of the Environment

CEPA Canadian Environmental Protection Act
CGSB Canadian General Standards Board
CSA Canadian Standards Association
CWBS Contract Work Breakdown Structure
DCC DEW Line Clean Up Criteria

DCL Defence Construction Canada Ltd.
DEW Line Distant Early Warning Line

DIAND Department of Indian Affairs and Northern Development

DND Department of National Defence ("Owner")
DNWSO Director North Warning System Office

EPP Environmental Protection Plan

ESG Environmental Sciences Group - Royal Military College

GNWT Government of Northwest Territories HEPA High Efficiency Particulate Air

IATA International Air Transport Association

LEL Lower Explosive Limit

LIUNA Labourers International Union of North America

LRR Long Range Radar
NFC National Fire Code
NHW Non-Hazardous Waste

NIOSH National Institute of Occupational Safety and Health

NT Nunavut Territory

NTCL Northern Transportation Company Ltd.

NWS North Warning System
NWT Northwest Territories

OSHA Occupational Safety and Health Act

PACE Petroleum Association for Conservation of the Canadian Environment

PAP PCB Amended Painted
POL Petroleum, Oils and Lubricants
SGT Satellite Ground Terminal

SRR Short Range Radar TBM Temporary Benchmark

TDG Transportation of Dangerous Goods
TDGA Transportation of Dangerous Goods Act

TPH Total Petroleum Hydrocarbon USAF United States Air Force

UV Ultraviolet

VOC Volatile Organic Compound

WHMIS Workplace Hazardous Materials Information System

PIN-3: Lady Franklin Point

Schedule of Unit Prices

Schedule A Page 1 of 2 2002-02-25

Item	Description	Unit	Unit Price	Quantity	Total
A.01005-1	Community Meetings	each	\$	4	\$
	Return Air Transportation for Community		\$	12	\$
	Meetings	trip			
A.01591-1	Engineer's Room and Board	person-day	\$	850	\$
	Casual Meals	each	\$	250	\$
-3	Return Air Transportation Cambridge Bay to PIN-3	person-return trip	\$	30	\$
-4	Communication Links	Line-Week	\$	90	\$
A.02060-1	Supply of Barge Containers - PCB Amended Painted Materials	each	\$	5	\$
-2	Supply of Intermediate Containers - PCB Amended Painted Materials	each	\$	10	\$
A.02066-1	Tier I & Tier I/Type A Contaminated Soil Excavation - Site Areas	cubic metre	\$	2,400	\$
-2	Tier II & Tier II Type A/B Contaminated Soil Excavations - Site Areas	cubic metre	\$	4,400	\$
-3	Contaminated Soil Disposal - Landfill Excavations	cubic metre	\$	3,900	\$
-4	Containerization of Hazardous Contaminated Soil - Landfill Excavations	cubic metre	\$	220	\$
- 5	Hazardous Contaminated Soil Containers	cubic metre	\$	250	\$
	Type B and Type B Tier I Contaminated Soil Excavation and Disposal - Site Areas	cubic metre	\$	10,200	\$
	Disposal of Type B - Type B Tier I Contaminated Soil - Landfill Excavations	cubic metre	\$	100	\$
-8	Hydrocarbon Resistant Liners	cubic metre	\$	100	\$
A.02067-1	Granular Nutrient - Total Nutrient Weight	kilogram	\$	4,200	\$
	Nutrient Application During Primary Construction Activities	event-hectare	\$	10	\$
	Nutrient Application During Secondary Construction Activities	event-hectare	\$	3	\$
	Tilling Events During Primary Construction Activities			25	\$
	Tilling Events During Secondary Construction Activities	event-hectare	\$	8	\$
4a.02.xls					

PIN-3: Lady Franklin Point

Schedule of Unit Prices

Schedule A Page 2 of 2 2002-02-25

Item	Description	Unit	Unit Price	Quantity	Total
A 02200 1	Rechaning	equation makes	\$	50,000	9
	Reshaping	square metre	\$		\$
	2 Types 2, 2 Select, 3, 4 and 5 Granular Fill - Above Grade - Main Landfill		\$	72,000	\$
:-3	3 Trench Excavation 2.5 metres Base Width, 1.5 metres Depth - Main Landfill	lineal metre	\$	620	\$
-4	Types 2, 4 and 5 Granular Fill - Above Grade - Tier II Disposal Facility	cubic metre	\$	58,000	\$
-5	Trench Excavation, Tier II Disposal Facility; 4.0 metres Base Width, 1.5 metres Depth	lineal metre	\$	290	\$
-6	Type 2 Granular Fill	cubic metre	\$	66,000	\$
-7	Type 2 Select Granular Fill	cubic metre	\$	3,800	\$
-8	3 Type 3 Granular Fill	cubic metre	\$	9,000	\$
-9	Type 6 Intermediate Fill	cubic metre	\$	4,700	\$
-10	Unclassified Excavation	cubic metre	\$	4,200	\$
-11	Test Pit Excavation - Equipment Usage	operating	\$	30	\$
-12	Bentonite	kg	\$	92,000	\$
-13	Water Bentonite Slurry Application	square metre	\$	1,200	\$
-14	Sand Bentonite Levelling Course	cubic metre	\$	350	\$
A.02219-1	Unknown Debris Removal	cubic metre	\$	200	\$
A.02240-1	Secondary Landfill Excavation	cubic metre	\$	1,300	\$
-2	Disposal of Non-Hazardous Wastes - Landfill Excavation	cubic metre	\$	3,750	\$
A.02498-1	Non-Woven Geotextile - Installation	square metre	\$	58,000	\$
-2	Woven Geotextile - Installation	square metre	\$	750	\$
A.02499-1	Geomembrane - Installation	square metre	<u>\$</u>	30,000	\$
A.02510-1	Drilling	metre	\$	105	\$
-2	Monitoring Wells - Supply and Installation	each	\$	16	\$
-3	Vertical Thermistors - Supply and Installation	each	\$	8	\$
-4	Survey Control Monuments - Supply and Installation	each	\$	5	\$
R-14a.02.xls	TOTAL SCHEDULE A				\$

Schedule of Lump Sum Pay Items

Schedule B Page 1 of 1 2002-02-25

Item Description	Amount
P. 01005 1 W/salt Mathodology Plan	•
B.01005-1 Work Methodology Plan -2 Worker Orientation Seminar	4
-2 Worker Orientation Seminar	>
B.01110-1 Mobilization	\$
-2 Primary Demobilization	\$
-3 Secondary Demobilization	\$
B.01380-1 Project Photographs	\$
B.01545-1 Health and Safety Plans	\$
B.01720-1 Project Record Documents	\$
B.02060-1 Demolition: Module Train Rubble including Module Train Runoff Storage Pond and All Related Drainage Facilities	\$
-2 Demolition: Communication Dishes (4)	\$
 -3 Demolition: (1) Station Area Fuel Storage Tanks and Associated Foundations and Pipe (65,000 US Gal Capacity each) 	\$
 -4 Demolition: (2) Beach Area Fuel Storage Tanks and Associated Foundations and Pipe (65,000 US Gal Capacity each) 	\$
-5 Demolition: (2) Underground Fuel Storage Tanks - Airstrip Apron Area	\$
-6 Demolition: Utility Poles including HF Air Ground Antenna	\$
-7 Demolition: TVRO Antenna	\$
-8 Demolition: Sewage Outfall Line	\$
-9 Demolition: Abandoned POL Line - Station, Hangar, South and Main Landfill Areas	\$
-10 Demolition: Hazmat POL Storage Shed	\$
	0
B.02067-1 Landfarm Operation	>
-2 Landfarm Closure	>
B.02219-1 Known Debris Removal - Site Area	\$
B.02240-1 Primary Landfill Excavation - South Beach Landfill	\$
-2 Primary Landfill Excavation - Main Landfill	\$
B.02498-1 Non-Woven Geotextile - Supply	\$
-2 Woven Geotextile - Supply	\$
B.02499-1 Geomembrane - Supply	\$
TOTAL SCHEDULE B	\$

National Defence

Job No.: H-L13/1-9101Schedule CDEW Line Cleanup ProjectPage 1 of 1PIN-3: Lady Franklin PointSchedule of Prime Cost Allowances2002-02-25

Item	Description	A	Mount
C.01591-1 Engineer's Office Su	pplies	\$	75,000
C.02090-1 Unknown Hazardou	s Material Collection	\$	100,000
TOTAL SCHEDUL	E C	\$	175,000

National Defence Job No.: H-L13/1-9101 DEW Line Cleanup Project		Schedule D Page 1 of 1
PIN-3: Lady Franklin Point	Balance of Project Complete	2002-02-25
Balance of Project Co	mplete (Firm Price)	\$

National Defence Job No.: H-L13/1-9101 DEW Line Cleanup Project Page 1 of 1 PIN-3: Lady Franklin Point Summary of Cost Schedules 2002-02-25 Unit Prices: Total Schedule A \$____ A. Lump Sum Items: Total Schedule B B. Prime Cost Allowances: Total Schedule C C. \$ 175,000 D. Balance of Project Complete: Total Schedule D

TOTAL

DEW Li	Defence H-L13/1-9101 ne Cleanup Project General ady Franklin Point Instructions	Section 01005 Page 1 of 21 2002-02-25
1	Description of Work	
2	Documents Required	
3	Site Conditions	
1	Owner's Representative	
5	Work Schedule	
,	Cost Breakdown	
,	Measurement for Payment	
3	Contractor's Use of Site	
)	Codes and Standards	
.0	Permits	
1	Project Meetings	
.2	Site Supervision .	
3	Community Relations	
4	Setting Out of Work	
5	Location of Equipment and Fixtures	
6	Cutting, Fitting and Patching	
7	Existing Services	
8	Additional Drawings	
9	Materials and Equipment	
0	Indemnification	
1	Relics and Antiquities	
.2	Work Methodology Plan	
.3	Worker Orientation Seminar	
4	Examination of Site	
5	Statistical Information	
.6	Site Maintenance	
7	Contractor Submission Requirements	

Section 01005 Page 2 of 21 2002-02-25

1 <u>Description of Work</u>

- .1 Work under this contract covers the environmental cleanup and demolition of facilities at the PIN-3, Lady Franklin Point DEW Line Site, as indicated on the Drawings and Specifications.
- 2 Specific cleanup work at the PIN-3 site includes, but is not limited to, the following:
 - .1 Mobilization and demobilization of all personnel, equipment, support facilities and materials required to complete the work.
 - .2 Excavation of DCC Tier I, DCC Tier II, Type A, Type B hydrocarbon contaminated soil, and potential excavation of hazardous contaminated soil.
 - .3 Disposal/treatment of contaminated soil, excluding hazardous contaminated, as indicated on the Drawings and in the Specifications.
 - .4 Provision of containers and containerization of any hazardous contaminated soil
 - .5 Demolition of structures, including removal of asbestos material, building materials coated with PCB-amended and lead-based paint, creosote-treated poles, related utilities, communication equipment and other ancillary facilities as indicated on the Drawings.
 - .6 Provision of containers and containerization of PCB-amended painted demolition materials (>50 ppm PCBs).
 - .7 Disposal of contents, cleaning, demolition and disposal of POL, mogas and diesel storage tanks and distribution lines, as indicated on the Drawings.
 - .8 Collection, double-bagging and disposal of asbestos containing material.
 - .9 Collection, sorting and disposal of site debris including POL barrels and contents, scrap metal, and building components.
 - .10 Packaging and containerization, including the supply of containers, of all hazardous waste materials collected or generated by the Contractor.
 - .11 Establishment of a Temporary PCB Materials Storage Area at a location approved by the Engineer and transportation of hazardous waste materials, including containerized PCB Amended Painted Materials, to this Temporary Storage Area at PIN-3.
 - .12 Closure and regrading of existing landfills at the PIN-3 site (NWS Landfill, North and South Landfills), including:
 - .1 Placement of additional granular fill over the landfill.
 - 2 Grading to promote positive drainage away from the landfill area.
 - .13 Closure and leachate containment of an existing landfill at the PIN-3 site (Portion of Main Landfill), including:
 - .1 Supply and installation of geomembranes and geotextiles on specific areas, where indicated on the Drawings.
 - .2 Placement of additional granular fill over the landfill.
 - .3 Grading to promote positive drainage away from the landfill area.
 - .4 Supply and installation of groundwater monitoring wells, and thermistor strings, as indicated on the Drawings.

National Defence Job No.: H-L13/1-9101 DEW Line Cleanup Project PIN-3: Lady Franklin Point	General Instructions	Section 01005 Page 3 of 21 2002-02-25
.14	Development and closure of one Non-Herin-3 site, including: 1 Construction of exterior berms. 2 Placement of non-hazardous demartier I contaminated soil in the land. 3 Compaction of landfill debris. 4 Placement and compaction of intilandfill. 5 Placement and compaction of fina. 6 Grading to promote drainage away. 7 Supply and installation of ground around the landfill, as indicated on	olition waste and site debris and dfill. The definition of the landfill of th
.15	Development and closure of a new Tier I DEW Line Site, including: 1 Site preparation and reshaping. 2 Construction of exterior berms. 3 Supply and installation of geot indicated on the Drawings. 4 Placement of Tier II contaminated on the Drawings. 5 Placement and compaction of intilandfill. 6 Placement and compaction of final Grading to promote drainage away. 8 Supply and installation of therm monitoring wells in and around Drawings.	extiles and geomembranes, as a soil in the landfill. The granular cover in the landfill.
.16	Partial excavation of the Main Landfill, inc. 1 Excavation of contaminated soil hazardous and non-hazardous con. 2 On-site disposal of contaminated soil Placement of clean granular materian promote drainage away from the a	and sorting of the debris into nponents. soil. al following landfill excavation to
.17	Complete excavation of the South Beach I 1 Excavation of contaminated soil a sorting of the debris into he components. 2 On-site disposal of non-hazardous debris into he components. 3 Containerization of hazardous debris soil, as required. 4 Placement of granular material promote drainage away from the and Development, operation and closure of a Treatment Area at the PIN-3 site, as indicated to construction of treatment area, incomposed as required.	Landfill, including. and debris from the landfill and nazardous and non-hazardous and elebris and contaminated soil. oris and hazardous contaminated following landfill excavation to area. Hydrocarbon Contaminated Soil ated on the Drawings, including:

roads, as required.

National Defence
Job No.: H-L13/1-9101
DEW Line Cleanup Project
PIN-3: Lady Franklin Point

Section 01005 Page 4 of 21 2002-02-25

- .2 Placement and/or stockpiling of Type B hydrocarbon contaminated soil at the treatment area.
- .3 Work specific activities associated with the treatment of hydrocarbon contaminated soil, such as tilling and the application of nutrients.
- .4 Management of surface water runoff.
- .5 Supply and installation of groundwater monitoring wells in and around the treatment area, as indicated on the drawings.
- .6 Closure of the treatment area, and decommissioning of monitoring instrumentation.
- .19 General site grading of work areas at the PIN-3 site, including:
 - Contaminated soil excavation areas.
 - .2 Construction of the Temporary PCB Materials Storage Area, as approved by the Engineer.
 - .3 Areas disturbed during the removal of site debris, demolition activities, borrow extraction operations, and any areas disturbed during the establishment and operation of laydown, construction camp, and equipment storage areas.
- .20 Provision of adequate mechanical excavating equipment to excavate test pits, as required by the Engineer, to a maximum depth of 2.5 m at PIN-3 in advance of primary cleanup activities.
- .21 Provision of survey information as required for setting out of work, measurement for payment, and Record Drawing purposes.
- .22 Installation of permanent survey control monuments in the work areas at the PIN-3 site, as designated on the Drawings.
- .23 Provision of the following site support services:
 - .1 Construction Camp as specified in Section 01591 Construction Camp, including operation, maintenance, catering and janitorial service.
 - 2 Provision and maintenance of Engineer's vehicles as specified.
 - .3 Safety, fire protection, office and medical services as specified.
 - .4 Return air transportation services for Contractor's personnel, and Engineer and Engineer's support personnel from Cambridge Bay to the PIN-3 DEW Line site.
 - .5 Communication services for the Contractor and Engineer.
 - .6 Provision of wildlife monitors as specified in the Environmental Protection Plan.
- Specific testing requirements of the Contractor as identified in Section 01410
 Testing Laboratory Services, or elsewhere within these Specifications, that will be the responsibility of the Contractor.
- .3 Specific work related to the project that is not included under this contract includes:
 - .1 Specific testing requirements, as specified in Section 01410 Testing Laboratory Services, that will be the responsibility of the Owner.
 - .2 Testing of hazardous waste materials in accordance with all appropriate regulations for shipment and off-site disposal.

National	Defence
Job No.:	H-L13/1-9101
DEW Li	ne Cleanup Project
PIN-3-T	adv Franklin Point

Section 01005 Page 5 of 21 2002-02-25

.3 The off-site transport of the waste materials from the Temporary Storage Area and the disposal of the waste materials at licensed disposal facilities.

2 Documents Required

- .1 Maintain at job site, one copy each of the following:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Change orders.
 - .5 Other modifications to Contract.
 - .6 Field test reports.
 - .7 Copy of approved work schedule.
 - .8 Standards listed in specific sections of the Specification including NIOSH, OSHA, WHMIS, TDGA, etc.
 - .9 Permits, licenses, and land use regulations.
 - .10 Labour and Materials Payment and Performance Bonds.
 - .11 Up to date Record Drawings.
 - .12 Site specific Safe Work Plan and Contractor's Company Safety Manual.
 - .13 First Aid Credentials of Site Medic.
 - .14 Health and Safety Plan.

3 Site Conditions

- Limited subsurface investigation was carried out.
- .2 Geotechnical Reports are included in the Contract tender package.
- .3 The geotechnical reports are engineering reports giving properties of the soils and recommendations for the design as prepared for the use of the Engineer. The recommendations given in the reports are not to be construed as requirements of the contract unless they are contained in sections of the Specifications or are specifically referenced therein.
- .4 Information is supplied to assist in evaluating and carrying out the contract requirements. However, the Engineer will use these reports as a guide as to what will be considered good construction practice.
- .5 The geotechnical reports by their nature cannot reveal all conditions that exist or can occur on the site, and the Contractor is assumed to be knowledgeable of the limitations of testing procedures. Should subsurface conditions be found to vary substantially from the Geotechnical Reports, changes in the design will be made with the resulting credits or expenditures accruing to the Owner.

National Defence
Job No.: H-L13/1-9101
DEW Line Cleanup Project
PIN-3: Lady Franklin Point

Section 01005 Page 6 of 21 2002-02-25

- Geotechnical data is provided for information only and is based on conditions at the time of investigation and at the test hole locations shown and may not be indicative of the entire site or the present conditions. The Owner, Engineer and Owner's Consultants and Consultants' employees disclaim any responsibility for the accuracy, true location and extent of geotechnical investigations that have been prepared by others. They further disclaim responsibility for interpretation of that data by bidders, such as in projecting rock profiles, soil stability and present level and extent of underground water, etc.
- .7 The information presented on the Drawings and in the Specifications is based upon site conditions as reported during field investigation programs of July and August of 2000 and 2001.
- .8 Information obtained from USAF records indicates that the following waste materials may exist at the DEW Line Site:
 - waste oil
 - PCB transformers/capacitors
 - asbestos
 - sewage
 - lead-based paints
 - radioactive tubes
 - scrap metal
 - radar components
 - fuel drums
 - lime
 - antifreeze
 - wood
 - AVGAS (aviation fuel)
 - sulfamic acid
 - cathode-ray tubes and screens
 - filtron tubes
 oscillators
 - meters
 - copper wire

- transmission fluid
- l-l-trichloroethane
- PBX telephone equipment
- mercury vapour rectifier tubes
- paint thinners
- batteries
- chlorinated hydrocarbons
- corrosion inhibitors
- lye
- corrosives
- paper
- plastics
- solvent
- dvnamite
- RF interference filters
- generators
- scopes
- vehicles
- rubber fuel bladders
- .9 A limited number of record drawings of upgraded and existing Long Range Radar (LRR) facilities at the PIN-3 site, as well as colour copies of the photographs and exhibits included in the Appendix are available for review, upon making an appointment at the following office:
 - .1 UMA Engineering Ltd. 17007 - 107 Avenue Edmonton, Alberta Phone: 780-486-7000

A copy of the record drawings (11" x 17") of the existing LRR facilities at PIN-3 will be made available to the Contractor following the award of the Contract.

Section 01005 Page 7 of 21 2002-02-25

- .10 Information regarding the delineation and analytical testing of contaminated soil areas, as indicated on the Drawings, has been provided by the Environmental Sciences Group - Royal Military College.
- .11 The PIN-3 Site Video included with the tender package shows site conditions recorded during the 2000 and 2001 field investigation program. This information is intended to provide information on the general conditions of the site, and is not intended to depict the total scope of work. The Owner and Engineer cannot guarantee the accuracy of and are not responsible for the interpretation of this information.

4 Owner's Representatives

- .1 Engineer: Within the context of these Specifications, the term Engineer refers to the Owner's representative, an employee of Defence Construction Canada Ltd. Direct all primary communication to the Engineer.
- .2 Engineer's Authorized Personnel: Within the context of these Specifications, the term Engineer's Authorized Personnel refers to personnel from the Environmental Sciences Group and/or Owner's Consultants. Engineer's Authorized Personnel provide recommendations/technical guidance to the Engineer, as required, for the enforcement of these specifications. Instructions from Engineer's Authorized Personnel shall be transmitted through the Engineer.

5 Work Schedule

- .1 Provide and maintain work schedule in accordance with instructions of Section 01014 - Project Control.
- .2 Keep the Engineer advised of planned work activities in accordance with the instructions of Section 01014 - Project Control, and at least 24 hours in advance of operations, unless otherwise indicated herein.

6 Cost Breakdown

- .1 Submit breakdown of firm price items in the Contract. Obtain approval by the Engineer of the format of this submission prior to submitting first progress claim.
- .2 Provide cost breakdown line items for the elements of the Contract Work Breakdown Structure (CWBS) specified in Section 01014 - Project Control, for the work of individual sections as specified in the applicable sections, and for any additional items as requested by or agreed with the Engineer.
- .3 Submit the Contract Work Breakdown Structure (CWBS) within 30 days following the contract award date. SUBMIT A PRELIMINARY DRAFT OF THE CWBS WITH THE TENDER PACKAGE.

National Defence Job No.: H-L13/1-9101 DEW Line Cleanup Project PIN-3: Lady Franklin Point

General Instructions

Section 01005 Page 8 of 21 2002-02-25

7 Measurement for Payment

- .1 Notify Engineer of planned work activities in accordance with requirements of Section 01014 - Project Control, and at least 48 hours in advance of operations to permit required measurements for payment.
- .2 Items measured for payment will be paid under Schedule A, Schedule of Unit Prices of the Tender Form. Specific lump sum pay items will be paid under Schedule B Schedule of Lump Sum Items of the Tender Form. Items specified to be paid on a cost recoverable basis will be paid under Schedule C Prime Cost Allowance, of the Tender Form. All other items, whether specifically defined in the specific sections of the Specifications or not, will be paid under Schedule D, Balance of Project complete, in the Tender Form.
- .3 Direct costs include all costs directly attributable to a particular pay item including equipment, operators, materials, equipment maintenance and depreciation, etc. All direct costs for unit price items are to be included in the appropriate unit price in Schedule A, Schedule of Unit Prices in the Tender Form.
 - All direct costs for lump sum items are to be included in the appropriate lump sum price in Schedule B, Schedule of Lump Sum Items in the Tender Form.
- .4 Indirect costs include all costs not directly attributable to the pay items including profit, camp, supervision, overhead, administration, etc. All indirect costs associated with pay items in Schedule A and B shall be included in Schedule D, Balance of Project Complete in the Tender Form.
- .5 Include costs of any statement of or requirement for work, goods or services required in this section that are not covered by appropriate payment clauses in other sections (including fixed camp costs) in Schedule D Balance of Project Complete, Firm Price, in the Tender Form.
- .6 Include equipment depreciation and major equipment repair costs in the appropriate unit price, lump sum or prime cost allowance pay item.
- .7 Fixed camp costs shall include costs for:
 - .1 Design, supply, installation and operation of construction camp facilities as specified in Section 01591 - Construction Camp.
 - .2 Design, supply, installation and operation of camp support facilities including heating, lighting, fuel, potable and domestic water systems, sewage collection, treatment and disposal, refuse and garbage collection and disposal, fire safety requirements, kitchen equipment, laundry equipment, recreational facilities and vehicle parking.

National Defence
Job No.: H-L13/1-9101
DEW Line Cleanup Project
PIN-3: Lady Franklin Point

Section 01005 Page 9 of 21 2002-02-25

- .3 Obtaining and complying with all licenses, permits, and authorizations required to comply fully with all laws, ordinances and regulations of the Federal, Territorial and local authorities, including all costs for the inspection of camp and electrical facilities by Government of Nunavut.
- .4 Shutdown and reopening of the construction camp.
- .5 Demobilization of the construction camp from the site at the completion of the Contract.
- .8 Except as otherwise indicated herein, work under this Section will not be measured. Include all costs in Schedule D - Balance of Project Complete in the Tender Form.

8 Contractor's Use of Site

- .1 The PIN-3 site serves as a NWS site, and will remain unoccupied for the duration of the project, except during the periodic maintenance and inspection of the facilities by NWSO personnel. The PIN-3 Module Train was destroyed by fire in January 2000.
- .2 Contractor has use of the PIN-3 site with the following restrictions:
 - .1 Do not unreasonably encumber sites with materials or equipment.
 - .2 Move stored products or equipment which interfere with operations of Engineer.
 - .3 Use of site shall comply with the Site Use Restrictions included in the Appendix, and with the environmental protection requirements of Section 01560 - Environmental Protection and the Environmental Protection Plan.
 - .4 Contractor's operations shall not interfere with the operations of the NWS.
 - .5 There is no NWS equipment or fuel available on site for use by the Contractor.
- .3 Maintain all access roads used by the Contractor during cleanup/construction activities.

9 Codes and Standards

- .1 Perform work in accordance with the Specifications and meet or exceed all codes, standards and regulations applicable to the Work and issued under the authority of the Government of Canada and the Government of Nunavut. Advise the Engineer of any discrepancies in the codes, standards and regulations applicable to the Work.
- .2 Codes, standards and regulations applicable to the work and which form part of the Contract have been referenced in various Sections of the Contract Specifications.
- .3 Additional codes, standards and regulations applicable to the work, but which are not part of the Contract Documents, shall be considered by the Contractor. Nonreference of any such codes does not relieve the Contractor from his responsibility to comply with such codes, standards or regulations.

National Defence
Job No.: H-L13/1-9101
DEW Line Cleanup Project
PIN-3: Lady Franklin Point

Section 01005 Page 10 of 21 2002-02-25

.4 In any case of conflict between the requirements specified in the codes, standards or regulations applicable to the work, the most stringent requirement shall apply.

10 Permits

- .1 The Contractor shall be responsible for obtaining and paying for all permits and licenses associated with the development and operation of the construction camp.
- .2 The Owner has applied for a Water Use License and a Quarrying Permit. A Land Use Permit has been issued and is included with this specification. All restrictions and requirements of this License shall apply to the Contractor.
- .3 Pay all costs associated with complying to the requirements for the permits and licenses noted in Clauses 10.1 and 10.2 above.
- .4 Register, obtain and pay for all required licenses and permits for individual tradesmen employed for work as referenced in the various Sections of the Contract Specifications.
- .5 The Engineer will register the Temporary PCB Materials Storage Area with the National Registry of PCB Storage Facilities. Provide to the Engineer all requested information including the contents, location and access of the Temporary PCB Storage Area.

11 <u>Project Meetings</u>

.1 Project meetings will be held as outlined in Section 01014 - Project Control.

12 <u>Site Supervision</u>

.1 Designate a competent and qualified supervisor to be on site at all times during construction, to have full authority to make decisions for the Contractor, to be knowledgeable of the requirements of the contract, and to act upon Engineer's instructions.

13 <u>Community Relations</u>

- .1 Prior to the commencement of work and at the beginning and end of each construction season, arrange meetings with the Engineer, Owner, local leaders, officials, authorities, and public in Kugluktuk. Be prepared to discuss local hiring practices and any other items of operations which may impact upon the local communities.
- .2 Provide and pay for the following associated with these meetings:
 - .1 Translation services for these meetings.
 - .2 Meeting facility rental (including beverages, coffee, tea, etc.).

National Defence
Job No.: H-L13/1-9101
DEW Line Cleanup Project
PIN-3: Lady Franklin Point

Section 01005 Page 11 of 21 2002-02-25

- .3 Return air and ground transportation for Engineer's personnel from Cambridge Bay to Kugluktuk. A maximum of three representatives from the Owner/Engineer will attend these meetings.
- .3 Costs for the items identified in Clauses 13.2.1 and 13.2.2 above will be measured for payment by the number of meetings held and will be paid under Item A.01005-1 in the Schedule of Unit Prices.
- .4 Costs for the items identified in Clause 13.2.3 above will be measured for payment by the number of person-return-trips, and will be paid under Item A.01005-2 in the Schedule of Unit Prices.
- .5 The unit price items, as described in Clauses 13.3 and 13.4 above, shall include direct costs only. All indirect costs associated with the work described in Clauses 13.3 and 13.4 above, including profit, camp, supervision, overhead, etc., shall be included in Schedule D Balance of Project Complete in the Tender Form.

14 Setting Out of Work

- .1 Existing survey control data required for layout of the work is shown on the Drawings.
- .2 Install additional permanent survey control monuments as indicated on the Drawings or where approved by the Engineer, in accordance with Section 02510 -Instrumentation, of the specifications.
- .3 Employ fully qualified and experienced survey personnel to provide all survey control required for the work.
- .4 Set grades and lay out work in detail from control points and grades given by Engineer and shown on the Drawings.
- .5 Notify Engineer immediately of any discrepancies between existing ground elevations and design ground lines.
- .6 Assume full responsibility for and execute complete layout of work to locations, lines and elevations indicated.
- .7 Provide devices, instruments and labour needed to lay out and construct work.
- .8 Supply survey equipment as specified in Section 01500 Temporary Facilities, to facilitate Engineer's inspection of work.
- .9 Supply fluorescent orange paint, stakes, marker posts, flagging, and other survey markers required for laying out work and for the Engineer's use in checking survey.

National Defence
Job No.: H-L13/1-9101
DEW Line Cleanup Project
PIN-3: Lady Franklin Point

Section 01005 Page 12 of 21 2002-02-25

- .10 Provide and pay for a survey rodman when required to assist the Engineer with survey work associated with the Contract. The requirement for this assistance will be limited to an average of four hours per week during the cleanup/construction period at the site.
- .11 Provide to the Engineer, on request, all survey information.
- .12 Protect existing survey stakes, benchmarks and monuments. Re-establish benchmarks and monuments disturbed by the Contractor at no cost to the Owner.

15 Location of Equipment and Fixtures

- .1 Location of equipment, fixtures and outlets indicated or specified are to be considered as approximate.
- .2 Inform Engineer of impending installation and obtain his approval for actual location if deviation from specified location is contemplated.
- .3 Submit field drawings to indicate relative position of various services and equipment when required by Engineer.

16 <u>Cutting, Fitting and Patching</u>

- .1 Execute cutting (including excavation), fitting and patching required to make work fit properly.
- .2 Where new work connects with existing and where existing work is altered, cut, patch, join and make good to match existing work.
- .3 Where demolition has exposed openings in facilities to remain, repair and make good such openings.

17 Existing Services

- .1 The location of equipment, fixtures, outlets, and utility services specified or indicated on the Drawings is to be considered as approximate.
- .2 Where work involves breaking into or connecting to existing services, carry out work, with minimum of disturbance to site operations.
- .3 Before commencing Work, establish location and extent of services in area of Work, and notify Engineer of findings. Confirm locations of buried utilities by non-destructive testing methods and/or hand-excavate test excavations within 0.9 metres of the buried utility.

Section 01005 Page 13 of 21 2002-02-25

- .4 Submit schedule to and obtain approval from Engineer for any shut-down or closure of active service or facility. Comply with the requirements of the Site Use Restrictions included in the Appendix. Adhere to approved schedule and provide notice to affected parties.
- .5 Where unknown services are encountered, immediately advise Engineer and confirm findings in writing.
- .6 Record locations of maintained, joined, re-routed and abandoned service lines indicating horizontal distances and vertical elevations.
- .7 Take necessary precautions and prevent damage to existing services and facilities.
- .8 Repair and replace services or facilities damaged as a result of Contractor's operations at no additional cost to the Engineer.

18 Additional Drawings

- .1 Engineer may furnish additional drawings to assist proper execution of work. These drawings will be issued for clarification only. Such drawings shall have the same meaning and intent as if they were included with plans referred to in Contract documents.
- .2 Contractor will be responsible for printing and distributing drawings and specifications for his own requirements.

19 Materials and Equipment

- .1 Provide material and equipment of specified design and quality, performing to published ratings, and for which replacement parts are readily available.
- .2 No substitutions will be permitted without prior written approval of the Engineer.

20 Indemnification

Indemnify and save harmless the Owner, the Engineer, the Owner's Consultants and Consultants' employees against liability occasioned in any way through provision of the goods and services of the Contractor. Pay all royalties and fully indemnify the Owner, the Engineer, the Owner's Consultants and Consultants' employees against all suits or actions arising from the claim of any persons who are, or claim to be, patentees of any apparatus or process used on or in connection with the work.

21 Relics and Antiquities

- .1 Relics and antiquities and items of historical or scientific interest such as cairns, tent rings, commemorative plaques, inscribed tablets, and similar objects found on-site or in buildings to be demolished shall remain the property of the appropriate jurisdictional authority. Comply with environmental protection requirements of Section 01560 Environmental Protection, and the Environmental Protection Plan.
- 2 Prior to commencing work at the site, review the following with the Engineer:
 - .1 The extent of the archaeological sensitive areas.
 - .2 The methods to be used by the Contractor to mark and protect the areas from construction/cleanup activities.
- 3 Give immediate notice to Engineer if evidence of archaeological finds are encountered during construction/cleanup activities, and await the Engineer's written instructions before proceeding with work in this area.
- .4 Protect archaeological finds and similar objects found during course of work.

22 Work Methodology Plan

- Submit five copies of a preliminary draft of the Work Methodology Plan to the Engineer for review with the tender package. The Work Methodology Plan shall demonstrate how the various cleanup and demolition activities will be carried out. The Draft Work Methodology Plan to be submitted with the tender package must include the names and qualifications of the Contractor's superintendent, hazardous waste material practitioner, drilling subcontractor, and quantity surveyor. FAILURE TO SUBMIT THE DRAFT WORK METHODOLOGY PLAN WITH THE TENDER MAY BE CAUSE FOR REJECTION OF THE TENDER.
- .2 Provide, prior to the start of work, five copies of a final draft of the Work Methodology Plan.
- .3 Do not commence mobilization to the site and on site work until the Work Methodology Plan has been reviewed by the Engineer, and until the Contractor has demonstrated to the Engineer that all required permits to be acquired by the Contractor for the work have been obtained.
- .4 The Work Methodology Plan is to address, but is not necessarily limited to, the following cleanup activities:
 - .1 Demolition (Section 02060).
 - .2 Contaminated Soil Excavation (Section 02066).
 - .3 Landfarm Operation (Section 02067).
 - .4 Asbestos Abatement (Section 02081).
 - .5 Hazardous Waste Material (Section 02090).

General Instructions Section 01005 Page 15 of 21 2002-02-25

- .6 Landfilling (Section 02209).
- .7 Closure of Landfills (Section 02209).
- .8 Landfill Waste Excavation (Section 02240).
- .5 Specific information to be included in the Work Methodology Plan is identified in the relevant sections of the Specifications. In addition to these specific requirements, the Plan shall also describe the proposed wildlife monitoring plan, including the number and experience of the bear monitors, number and gauge of firearms to be used, etc.
- .6 The Work Methodology Plan shall clearly and succinctly describe how the Contractor proposes to undertake the work.
- .7 Upon completion of review, Engineer will review the Work Methodology Plan and return it to the Contractor noted either "Reviewed/No Comment"; "Revise and Resubmit"; "Rejected/See Remarks"; or "Not Reviewed", as applicable.
- .8 All costs for the preparation and submission to the Engineer of the Work Methodology Plan are to be included in the lump sum price for the Work Methodology Plan, Item B.01005-1, as indicated in Schedule B, Schedule of Lump Sum Items in the Tender Form.
- .9 The lump sum payment for the Work Methodology Plan will be made upon review of the final version of the Plan by the Engineer, and the demonstration by the Contractor to the Engineer that all required permits to be acquired by the Contractor for the Work have been obtained.

23 Worker Orientation Seminar

- .1 Develop, prior to the start of work, course material for a Worker Orientation Seminar. The outline of this seminar is to be approved by the Engineer and is intended to describe the cleanup activities at the site, and provide instruction in the applicable health, safety, and environmental policies and regulations as related to the site work activities. Course material is to be prepared and presented in the English language and the local Inuit dialect.
- .2 Submit five copies of the Worker Orientation Seminar course material to the Engineer for review at least thirty days prior to mobilizing to the site. Include information describing the facility to be used for conducting the seminars.
- .3 The Orientation Course is to address, but is not necessarily limited to, the following topics:
 - .1 Project Communication:
 - .1 Roles of Engineer and Engineer's authorized representatives.
 - .2 Lines of Project Communication.

National Defence Job No.: H-L13/1-9101 DEW Line Cleanup Project PIN-3: Lady Franklin Point	General Instructions	Section 01005 Page 16 of 21 2002-02-25
.2	Cleanup Activities (Scope of Work) 1 Demolition and disposal or contamaterials. 2 Excavation and disposal/containe 3 Landfill waste excavation. 4 Asbestos abatement. 5 Collection and disposal of site deb 6 Collection, containerization, and transterial. 7 Construction of landfills. 8 Regrading of landfills. 9 Landfarm construction and operated 10 Site grading. Regional Overview of the Kugluktuk Area 1 Land Use of Area (hunting, fishing) 2 Location of site relative to communication.	rization of contaminated soils. oris. cansportation of hazardous waste tion. g activities, etc.)
.4	 .3 Heritage Resources .4 Climate .5 Geology, Hydrology .6 Flora and Fauna Project Organization/Schedule/Administr .1 Personnel Policies .2 Supervisory Reporting Relationshi .3 Communication 	
.5	.4 Payroll and Banking Procedures .5 Work Schedules and Hours .6 Camp Rules Environmental Issues and Protection Proc .1 Climate .2 Land Use	cedures
.6	.3 Water Resources/Fisheries .4 Terrestrial Resources .5 Heritage Resources .6 Spill Contingency Plans/Procedur .7 Training Activities General Health and Safety .1 Teamwork .2 Work Attitudes/Productivity .3 First Aid Procedures .4 Protective Equipment and Clothin .5 Safe Operation of Equipment and .6 WHMIS Requirements .7 Shared Use of Roads	ng

General Instructions

Section 01005 Page 17 of 21 2002-02-25

- .7 Work Specific Task Requirements
 - .1 Asbestos Abatement
 - .2 Contaminated Soil Cleanup
 - .3 Demolition and Material Disposal
 - .4 Barrel Collection and Disposal/Containerization
 - .5 Transportation of Dangerous Goods
 - .6 Permafrost Protection
 - .7 Environmental Mitigation Procedures
- .4 Prior to the start of work and at the start of each construction season, conduct Worker Orientation Seminars for all supervisors, foremen, the Contractor's general workforce, the Engineer, and the Engineer's on-site support staff based on the course material approved by the Engineer.
- .5 Develop a training seminar of approximately eight hours in length for supervisors, foremen, the Engineer, and the Engineer's on-site support staff. Develop a training seminar of approximately four hours in length for the Contractor's general workforce. Each person on site is to attend one of the seminars. Require each attendee to sign a record of attendance upon completion of the seminar. Retain, for the Engineer's review at any time, this record of attendance.
- All costs for the preparation of the Worker Orientation Seminar Material and for conducting the seminars, including the preparation of meeting room facilities as required, are to be included in the lump sum price for Worker Orientation Seminar, Item B.01005-2, as indicated in Schedule B, Schedule of Lump Sum Items in the Tender Form.
- .7 The lump sum payment for the Worker Orientation Seminar will be made in two progress instalments as follows:
 - .1 Sixty percent of the lump sum price tendered for the Worker Orientation Seminar will be paid upon completion by the Contractor and review by the Engineer of the Worker Orientation Seminar course material, and upon conducting the seminar prior to the start of work.
 - .2 Forty percent of the lump sum price tendered for the Worker Orientation Seminar will be paid upon demonstration by the Contractor to the Engineer that all of the Contractor's workforce have attended the seminar at the start of each construction season, and upon demobilization from the site, as described in Section 01110, Mobilization and Demobilization.

24 Examination of Site

.1 Prior to mobilization, check field conditions to obtain actual dimensions required to ensure correct execution of the Work, and notify the Engineer in writing, of all matters which could prejudice proper execution of the work.

National Defence
Job No.: H-L13/1-9101
DEW Line Cleanup Project
PIN-3: Lady Franklin Point

General Instructions

Section 01005 Page 18 of 21 2002-02-25

.2 Commencement of mobilization shall constitute acceptance of existing conditions, and verification of dimensions.

25 Statistical Information

- .1 Provide statistical and status reports as outlined in Annex A of the Form of Tender.
- .2 This information is required to provide statistics that will aid in assessing and monitoring socioeconomic benefits of this project.

26 <u>Site Maintenance</u>

- .1 Keep the site free from the accumulation of waste materials and debris as specified in Section 01560 - Environmental Protection.
- .2 Upon completion of the work, clean away and dispose of all surplus material, supplies, rubbish and temporary works leaving the site neat and tidy to the requirements of the Engineer and the Land Use Permit.

27 <u>Contractor Submission Requirements</u>

- .1 A listing of the documents and information to be submitted by the Contractor is presented in Table 01005-1 at the end of this Section.
- .2 Submit all information and documents by the dates indicated, unless otherwise directed by the Engineer.
- .3 THE FAILURE OF TENDERERS TO SUBMIT ALL DOCUMENTS AND INFORMATION AS INDICATED TO BE SUBMITTED <u>WITH THE TENDER</u> MAY BE CAUSE FOR REJECTION OF THE TENDER.

Section 01005 Page 19 of 21 2002-02-25

General Instructions

DEW Line Cleanup Project PIN-3: Lady Franklin Point

National Defence Job No.: H-L13/1-9101

PIN-3, Lady Franklin Point: DEW Line Cleanup Project

TABLE 01005-1

CONTRACTOR SUBMITTAL SCHEDULE

Specification		Bacorintion	Dose
Section	Clause	nondinser	Date
Tender Form		Tender Form DCL 150	With Tender
Tender Form	5	Bid Security	With Tender
Standard Const. Cont. Documents	E - 4.1	Proof of Insurance	Prior to start of on-site work
Standard Const. Cont. Documents	H	Contract Security Requirements	Within 14 days of Tender acceptance
Price Schedules		Schedule A - Schedule of Unit Prices	With Tender
Price Schedules		Schedule B - Schedule of Lump Sum Pay Items	With Tender
Price Schedules		Schedule C - Schedule of Prime Cost Allowances	With Tender
Price Schedules		Schedule D - Balance of Project Complete	With Tender
Price Schedules		Summary of Price Schedules	With Tender
Annex A		Inuit Benefits Report	30th of each month
01005	6.1	Breakdown of Firm Price Items in Contract	For Engineer's approval prior to first progress claim
01005	6.3	Preliminary Draft Contract Work Breakdown Structure	With Tender
01014	1.1.1.6		
01005	6.3	Final Contract Work Breakdown Structure	30 days following award
01014	1.1.1.6		
01005	14.11	Survey Information	Upon Engineer's request
01005	22.1	Preliminary Draft Work Methodology Plan (5 copies)	With Tender
01005	22.2	Final Work Methodology Plan (5 copies)	Prior to start of work
01005	23.2	Worker Orientation Course Seminar Info. (5 copies)	30 days prior to mobilization
01005	23.5	Record of Attendance to Training Centre	Upon Engineer's request
01014	1.1.2.3	Preliminary Draft - Site Cleanup Schedule	With Tender
01014	1.1.2.3	Final Draft - Site Cleanup Schedule	30 days following award
01014	2.3/5.1.5	Updated Site Cleanup Schedule	With Progress Payment request
01014	1.1.3.2	Cash Flow Reporting and Projections	Upon Engineer's request
01014	1.1.4.1	Status of Materials and Equipment	Upon Engineer's request
01014	1.1.5.3	Lost Time Accident Statistics	Upon Engineer's request

Section 01005 Page 20 of 21 2002-02-25

> General Instructions

DEW Line Cleanup Project PIN-3: Lady Franklin Point

lob No.: I4-L13/1-9101

At season completion, or upon Engineer's request Within 7 days of Engineer's written request Prior to acquisition/installation of camp Prior to acquisition/installation of camp Prior to final progress payment request Prior to commencing camp operations Date Prior to fabrication or construction Prior to each construction season Upon delivery of materials to site Monthly with progress statement Upon Engineer's use of facilities Upon Engineer's use of facilities Prior to start of construction Prior to star: of construction Prior to start of construction Monthly during construction Prior to start of construction Prior to establishing camp Upon Engineer's request Promptly after incident Prior to opening camp Before opening camp Prior to mobilization As required Monthly Weekly Weekly Material Testing Laboratory Report - Perf. Specified Material Documentation Certifying Calibration of Survey Equipment Key-locks and keys for Engineer's Office and Laboratory Copies of Environmental Agency Submittals/Approvals Procedures for the Handling and Storage of Firearms Key-locks and Keys for Engineer's Sleeping Quarters Proof of Adherence to Environmental Regulations Proof of Camp Licenses, Permits, Authorizations List of Critical Material Items Awaiting Receipt Oil and Hazardous Material Contingency Plan Plan of Construction Camp Layout and Siting Sewage Lagoon - Depth of Permafrost Data Description Request for Contract Progress Payments Estimates for Prime Cost Allowances Progress Photographs and Negatives Details of Sewage Disposal System CAEAL Laboratory Certification Final Photographs and Negatives Results of Water Supply Testing Sketch of Proposed Laboratory Proof of First Aid Credentials Details of Fire Safety Program Material and Equipment List Weekly Progress Reports Safety Meeting Minutes All Survey Information WHMIS Data Sheets Manpower Report Accident Reports Camp Details Camp Rules 3.9,4.13,5.3 2.6,4.12,5.3 1.1.5.1/2.3 4.14/10.11 2.3/2.4 Clause 3.5/3.6 11.3 4.13 16.2 2.5 2.3 2.3 4.7 2.4 1.5 1.9 4.5 5.1 9.2 1.2 1.3 3.2 5.6 5.7 2.4 3.2 4.3 7.7 2.2 5.1 3.1 Specification 01410/01591 Section 01014 01014 01014 01410 01545 01014 01020 01380 01380 01410 01500 01545 01560 01545 01545 01545 01560 01560 01560 01600 01720 01546 01591 01591 01591 01591 01591 01591 01600 01591

Section 01005 Page 21 of 21 2002-02-25

> General Instructions

National Defence Job No.: H-I.13/1-9101 DEW Line Cleanup Project PIN-3: Lady Franklin Point

Section Clause 01720 1.5 P 01720 2.2 N 01720 3.1 R 02060 1.7.1 I 02060 3.5.9 I 02060 3.7.8 I 02066 3.2.7 I 02067 3.3.9 I 02081 1.10.1 A 02081 1.11.2.2 V 02081 1.11.2.2 V 02081 3.4.3.1 C		200
1.5 2.2 3.1 1.7.1 1.7.1 3.5.9 3.6.7 3.7.8 3.2.7 3.3.9 1.10.1 1.10.3 1.11.2.2 3.0.1/3.6.7 3.4.3.1		
2.2 3.1 1.7.1 3.5.9 3.6.7 3.2.7 3.2.7 3.3.9 1.10.1 1.10.3 1.11.2.2 3.0.1/3.6.7 3.4.3.1	Project Record Drawings	At project completion/prior to final inspect.
3.1 1.7.1 3.5.9 3.6.7 3.7.8 3.2.7 3.3.9 1.10.1 1.10.3 1.11.2.2 3.0.1/3.6.7 3.4.3.1	Manufacturers' Data Books	Within 120 days of project completion
1.7.1 3.5.9 3.6.7 3.7.8 3.2.7 3.3.9 1.10.1 1.10.3 1.11.2.2 3.0.1/3.6.7 3.4.3.1	Records	Within 90 days of project completion
3.5.9 3.6.7 3.7.8 3.2.7 3.3.9 1.10.1 1.10.3 1.11.2.2 3.0.1/3.6.7 3.6.1/3.6.7	Drawings, Diagrams, Details of Disassembly Work	Prior to demolition work (as required)
3.6.7 3.7.8 3.2.7 3.3.9 1.10.1 1.10.3 1.11.2.2 3.0.1/3.6.7 3.4.3.1	Inventory of Contents in Containers	Upon completion of demolition work
3.7.8 3.2.7 3.3.9 1.10.1 1.10.3 1.11.2.2 3.0.1/3.6.7 3.4.3.1	Results of VOC (LEL) Testing of Tanks	Upon Engineer's request
3.2.7 3.3.9 1.10.1 1.10.3 1.11.2.2 3.0.1/3.6.7 3.4.3.1	Inventory of Contents in Containers	Upon completion of demolition activities
3.3.9 1.10.1 1.10.3 1.11.2.2 3.0.1/3.6.7 3.4.3.1	List of Numbered Hazardous Contaminated Soil Containers	Prior to project completion
1.10.1 1.10.3 1.11.2.2 3.0.1/3.6.7 3.4.3.1	Landfarm Operation Report	Monthly
1.10.1 1.10.3 1.11.2.2 3.0.1/3.6.7 3.4.3.1	Minutes of Contractor's Meeting with the Government of Nunavut re:	
1.10.3 1.11.2.2 3.0.1/3.6.7 3.4.3.1	Asbestos Plan	After meeting
3.01/3.6.7	Notifications to Regulatory Authorities of Asbestos Schedule	Prior to commencement of asbestos work
3.0.1/3.6.7	Written Approval of Asbestos Plan	When required
3.4.3.1	Asbestos Removal Inventory	Upon completion of demolition work
	General Plan for Decontamination Facilities	Prior to Acquisition and Installation of the Facilities
02240 3.4.4 F	Record of Excavated and Stockpiled Material	Daily
02498 1.4.1	Manufacturer's Certification - Geotextiles	Prior to shipment of material to the site
02499	Manufacturer's Certification - Geomembranes	Prior to shipment of material to the site
02510	O & M Manuals for Data Loggers	Immediately following data logger installation
3.6.1	Monitoring Well Installation Reports and Keys	Upon completion of installation
3.7.1	Thermistor Cable Installation Reports and Keys	Upon completion of thermistor installation

Job No. DEW L	l Defence : H-L13/1-9101 ine Cleanup Project Lady Franklin Point Project Control	Section 01014 Page 1 of 6 2002-02-25
1	Project Control	
2	Method	
3	Project Milestones	
4	Cleanup Stage Network Planning	
5	Updating, Monitoring and Reporting Progress	
6	Effect of Acceptance	
7	Measurement for Payment	

Project Control

Section 01014 Page 2 of 6 2002-02-25

Project Control

- .1 Implement and operate throughout the Contract period until the completion of all work, a project control system which includes the following features:
 - .1 Contract Work Breakdown Structure:
 - .1 Contract Work Breakdown Structure (CWBS) based on the Contractor's costs breakdown and any modifications requested by the Engineer.
 - .2 CWBS shall be an organization of the work to be performed, services to be provided and data to be submitted by the Contractor, as well as payments to be made to the Contractor under the terms of the Contract.
 - .3 The CWBS shall clearly define the work elements of each item of the CWBS.
 - .4 The CWBS shall include a breakdown of pay items included under Schedule D, Balance of Project Complete in the Tender Form. All unit price, lump sum, and cost allowance pay items included in Schedule A, B, and C, respectively, of the Tender Form shall also be included in the CWBS. In addition, specific labour and equipment rates for the various work components shall be provided.
 - .5 Prepare the CWBS in computerized spreadsheet format compatible with the most recent release of Microsoft Excel software. Provide CWBS in hard copy and diskette format.
 - .6 Submit a preliminary draft of the CWBS with the tender package. Submit the final CWBS within 30 days following contract award date.

.2 Schedule:

- Provide a Site Cleanup Schedule in a bar chart format that identifies the critical path. Schedule shall cover the complete project from Contract award to completion including work of subcontractors, activity sequencing and duration estimates for submittal of shop drawings and samples, procurement of materials, award of subcontracts, installation and testing. Schedule shall be based on the framework of the CWBS and the milestone dates specified herein.
- .2 Within the Site Cleanup Schedule, present the breakdown of work tasks into sufficient detail such that the maximum duration of any single work task is seven days.
- .3 Submit a preliminary draft of the Site Cleanup Schedule with the tender package. Submit the final Schedule within 30 days following contract award date.
- .4 Submit the updated Site Cleanup Schedule with the request for Contract progress payments. The updated Site Cleanup Schedule shall show revision number and revision date, and bear authorizing signature.

.3 Cost and Quantity Control:

- .1 Maintain accurate up to date record of quantities of work carried out. Do not exceed authorized quantities unless authorized by the Engineer in writing.
- .2 Provide cash flow reporting and projections based on the outline of the CWES upon Engineer's request.

Section 01014 Page 3 of 6 2002-02-25

- .4 Equipment and Material Control:
 - Record data on status of construction material and equipment and report upon Engineer's request.
- .5 Manpower:
 - 1 Record and report manpower listing for each company employed under this Contract, including subcontractors, detailing man-hours during the current month and cumulative total to date and report upon Engineer's request.
 - .2 Provide statistical reporting as specified in Annex A of the Form of Tender.
 - .3 Provide statistics related to lost time accidents upon Engineer's request.
- .2 The purpose of the Project Control information is to:
 - .1 Provide the Owner with the basis for allocating Owner's resources to the project.
 - .2 Identify cash flow requirements.
 - .3 Document how specific project milestones will be achieved.

Revisions to the plan will be permitted if the Contractor can demonstrate that such revisions will maximize project efficiencies.

2 Method

- .1 Manage cleanup utilizing project control system as specified.
- .2 Submit to Engineer for approval, as part of the Work Methodology Plan, full details of project control system.
- .3 Contractor's monthly request for Contract progress payments shall be accompanied by monthly progress reports including updated Contractor's Site Cleanup Schedule. Manpower report and a list of critical material and equipment items awaiting receipt shall be provided at Engineer's request.
- .4 Submit monthly request for Contract progress payments in a spreadsheet format approved by the Engineer.
- .5 Prepare a brief weekly progress report describing major areas of cleanup activity, weekly safety meeting minutes, and weekly manpower and equipment employed. Report format shall be agreed to with the Engineer prior to the first submission.

Section 01014 Page 4 of 6 2002-02-25

3 Project Milestones

- .1 Incorporate the following project milestones into the Site Cleanup Schedule:
 - .1 Installation and survey of permanent survey control at designated Work Areas: September 15, 2002 or prior to commencement of work, whichever date comes first.
 - .2 Provision of adequate mechanical excavating equipment to excavate test pits: September 20, 2002 or prior to commencement of work, whichever date comes first.
 - .3 Installation of all background groundwater monitoring wells: September 15, 2002.
 - .4 Installation of groundwater monitoring wells: prior to commencement of landfill or landfarrn development.
 - .5 Substantial Completion of all works: September 30, 2003.
 - .6 Final Completion of all works, except possibly the operation and closure of the Landfarm Area: November 30, 2003.
 - .7 Final Completion of all works including closure of Landfarm Area: September 30, 2004.
- .2 Schedule work to minimize impacts on the nesting and breeding activities of birds observed near the DEW Line site as described in the Environmental Protection Plan.

4 <u>Cleanup Stage Network Planning</u>

- .1 Prior to award of Contract and within 48 hours of notice, the Contractor may be required to submit information in support of the Contractor's tender including Contractor qualifications.
- .2 Within 10 working days from Contract award date, meet with Engineer via teleconference call to Edmonton and Ottawa, to confirm scope of project and to outline intended cleanup approach and project control methods. Engineer will review content, format, schedule, and medium for project control data submittals. The Contractor shall pay for long distance charges for this teleconference call.
- .3 For the duration of the project, provide specified data and reports to the Engineer.

5 Updating, Monitoring and Reporting Progress

.1 Arrange participation on site and off site of Subcontractors, Suppliers, and other Contractors performing work for Owner, Government authorities and third parties, as and when necessary, for purpose of network planning, scheduling, updating and progress monitoring. Requirements are as follows:

Project Control

Section 01014 Page 5 of 6 2002-02-25

- .1 Meetings are to be held on site once every month during the construction season.
- .2 A Preconstruction Meeting will be held in Cambridge Bay prior to the commencement of the first construction season. This meeting will include a one-day Partnering Session. The Partnering Session is to be attended by key Contractor personnel including the Site Superintendent and Project Manager; representatives from Defence Construction Canada including the Site Engineer, the Consultant, and the Environmental Sciences Group. The Owner shall provide and pay for the meeting facility and the facilitator, as required.
- .3 The Preconstruction Meeting/Partnering Session will also include a visit to the PIN-3 site by all meeting participants and a wildlife monitor for this site visit. The maximum time to be spent on the ground at the PIN-3 site during this visit will be 6 hours. Provide and pay for ground and air transportation for all meeting participants between Cambridge Bay and the PIN-3 site, and the wildlife monitor for this site visit.
- .4 A Preconstruction Meeting will be held at Cambridge Bay prior to the commencement of each construction season.
- .5 Submit Updated Site Cleanup Schedules to the Engineer and distribute to all subcontractors at least once every month during the construction season.
- .2 Inspect whole of work with Engineer at least once per month to establish progress on each current activity shown on the applicable Site Cleanup Schedule.
- .3 Meet with the Engineer and Engineer's support personnel at least once per week during the construction season to review work progress, upcoming scheduled activities, and other project issues.
- .4 Provide written explanations on activities which are overrunning estimated time. If any such activities are on the critical path, indicate what corrective action will be taken to bring them back on schedule.
- .5 If Contractor considers it necessary or advantageous to change sequencing of activities shown on reviewed schedules, he shall submit proposed revisions to the Engineer for consideration. No change shall be made in order of work activities until the Engineer's comments on the review of the revised schedule have been received.

6 Effect of Acceptance

.1 Acceptance by Engineer of Site Cleanup Schedule and revisions thereto, does not relieve Contractor from any duties or responsibilities required by the Contract.

Measurement for Payment

.1 The provision of return air and ground transportation from Cambridge Bay to PIN-3 of Engineer's personnel during the Partnering Session will be measured for payment by the number of person-return trips, and will be paid under Item A.01591-3 in the Schedule of Unit Prices, as described in Section 01591 - Construction Camp. National Defence

Job No.: H-L13/1-9101 DEW Line Cleanup Project PIN-3: Lady Franklin Point

Project Control

Section 01014 Page 6 of 6 2002-02-25

- .2 The provision of return air transportation from Cambridge Bay to PIN-3 of Engineer's personnel for the monthly project management meetings will be measured for payment by the number of person-return trips, and will be paid under Item A.01591-3 in the Schedule of Unit Prices, as described in Section 01591 Construction Camp.
- .3 Except as indicated in Clauses 7.1 and 7.2 above, work under this section will not be measured. Include all costs in Schedule D Balance of Project Complete in the Tender Form. Indicate cost of the work of this section as a separate line item in the Cost Breakdown specified in Section 01005 General Instructions.
- .4 The provision and transport of wildlife monitors as required for the site visit during the Partnering Session, shall be considered incidental to the work, and will not be measured separately.

Job No DEW I	al Defence .: H-L13/1-9101 Line Cleanup Project Lady Franklin Point	Prime Cost Allowances	Section 01020 Page 1 of 4 2002-02-25
1	General		
2	Prime Cost Allowance		
3	Engineer's Office Supplies		
4	Unknown Hazardous Waste Material Collection		

Prime Cost Allowances Section 01020 Page 2 of 4 2002-02-25

1 General

- .1 Expend each allowance as directed by Engineer.
- .2 Each cash allowance will be adjusted to actual cost as defined hereunder and contract price will be amended accordingly by written order.
- .3 Progress payments for work and material authorized under cash allowances will be made in accordance with contract terms of payment.

2 Prime Cost Allowances

- .1 The following cash allowances are included in Schedule C of the Tender Form:
 - .1 \$75,000 Item C.01591-1: Engineer's Office Supplies.
 - .2 \$100,000 Item C.02090-1: Unknown Hazardous Waste Material Collection.
- .2 These allowances will be adjusted to actual costs as certified by the Engineer. Costs for the following items shall not be included in the actual costs:
 - .1 Fixed camp costs: these costs shall be included in Balance of Project Complete in the Tender Form. Indicate the cost of this work as a separate line item in the Cost Breakdown specified in Section 01005 - General Instructions.
 - .2 Supervision, overhead, profit, and administration costs: these costs shall be included in Balance of Project Complete in the Tender Form. Indicate the cost of this work as a separate line item in the Cost Breakdown specified in Section 01005 General Instructions.
- .3 Refer to Clause 7.5 of Section 01005 General Instructions for a description of fixed camp costs.
- .4 No mark-up on the actual costs shall be paid to the Contractor.

3 Engineer's Office Supplies

- .1 Costs for the provision of Engineer's consumable office supplies, including Engineer's charges for satellite and/or long distance telephone and e-mail account charges, will be paid under Prime Cost Allowance, Schedule C, Item C.01591-1 of the Tender Form for Engineer's Office Supplies.
- .2 The Contractor shall be responsible for all costs associated with the packaging, handling, and transport of the granular material and soil samples (for confirmatory testing) to the Owner's off-site testing laboratory. These costs will be reimbursed to the Contractor, and paid under the Prime Cost Allowance Schedule C: 01591-1 of the Tender Form for Engineer's Office Supplies. IT IS CRITICALLY IMPORTANT THAT THE CONTRACTOR ENSURES THAT THE SOIL SAMPLES ARE EXPEDITIOUSLY DELIVERED FROM THE SITE.