New Cassel Industrial Area Groundwater RI/FS (Site I.D. No. 1-30-043)

Work Assignment No. D002676-42

WORK PLAN

Prepared for:

New York State Department of Environmental Conservation
Division of Environmental Remediation

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WORKPLAN

1.1 INTRODUCTION

Lawler, Matusky & Skelly Engineers (LMS) has been given the work assignment of conducting a Remedial Investigation/Feasibility Study (RI/FS) for the groundwater contamination at the New Cassel Industrial Area (NYSDEC Site No. 1-30-043), Town of North Hempstead, Nassau County under terms of the State Superfund Standby Contract. The groundwater RI/FS encompasses all on-site and off-site locations at the industrial area where impacts to the groundwater related to past disposal practices at this site have been found.

1.1.1 Background

This industrial area contains numerous Registry sites as a result of past disposal practices of the various industries and businesses in the area. During the Preliminary Site Assessment (PSA) conducted by LMS an extensive area of chlorinated solvent groundwater contamination was discovered in several area of the industrial area. The purpose of the groundwater investigation is to complete two additional rounds of groundwater sampling on 40 on-site and off-site wells in the impacted area (Figure 1-1). This data will then be summarized and compiled with all previous data to provide a single picture of the nature and extent of the groundwater contamination in the vicinity of the NCIA. The RI data will then be used to complete a Health and Environmental Pathway Analysis and a Phase I FS. Based on the results of the Phase I FS a scope of work for the Phase II FS will be developed.

The following sections outline the tasks for the groundwater RI/FS.

1.2 TASK 1 - WORK PLAN DEVELOPMENT

1.2.1 Subtask 1.1 - Background Review

LMS will review all relevant existing information and data on the NCIA to determine the maximum number of wells, which may be sampled. The current information suggests that between 125 and 150 wells have been installed by the Nassau County Department of Health, the

Figure 1-1

Site Plan

OFFSITE GROUNDWATER
NEW CASSEL INDUSTRIAL AREA
NYSDEC I.D. No. 130043

LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

USGS, PRPs and the DEC in the vicinity of the industrial area.

1.2.2 **Subtask 1.2 - Scoping Session**

A meeting of NYSDEC and LMS representatives will be held in Albany on 1 February 1999 to discuss the scope of the groundwater investigation. A scoping plan will also be prepared under this subtask. The scoping plan will provide a rough estimate of the number of monitoring wells available for sampling and provide an estimated level of effort (LOE) to conduct the groundwater investigation.

1.2.3 **Subtask 1.3 - Draft Work Plan**

Under this subtask LMS will prepare the draft work plan. The work plan will include a detailed description of all tasks to conduct the groundwater investigation. A draft Field Activities Plan (FAP) that will be prepared will include proposed monitoring well locations, number of samples, and analytical methods. A detailed description of the sampling methods will be provided. The work plan will also include a list of the proposed subcontractors, the minority/women-owned business enterprise (MBE/WBE) utilization plan, and the proposed project organization and staffing plan. As part of the work plan, LMS will prepare a project schedule that will highlight all work activities, including field work, deliverable dates, and other important project milestones. LMS will contact NYSDEC at least one week prior to conducting of any fieldwork.

A detailed budget will be prepared for each task and subtask that will provide the LOE in terms of man-hours. The budget will also provide a breakdown of the expenses associated with the tasks and subtasks. The budget will be prepared utilizing the cost rates and factors in the base Standby Contract. The 2.11 series of schedules will be used to prepare the budget estimate.

1.2.4 **Subtask 1.4 - Final Work Plan**

After receipt of comments from NYSDEC on the draft work plan, LMS will incorporate the comments and prepare the final work plan.

Concurrent with preparation of the final work plan, the existing NCIA PSA Health and Safety Plan (HASP), and PSA Quality Assurance Project Plan (QAPjP) will be updated for this investigation. The QAPjP will be updated to reflect the laboratory used, sample media, analyses to be performed, analytical methods to be used, and level of quality assurance/quality control

(QA/QC) to be employed.

A Citizen Participation Plan (CPP) has been developed by the NYSDEC based on the past and ongoing activities in the NCIA. Upon finalization of the work plan a copy will be placed in the repositories established in the CPP.

1.2.5 **Subtask 1.5 - Task Management**

The administrative costs associated with the task are included under this subtask. This includes reviewing subcontractor invoices, preparation of the cost control report (CCR), preparation of the contractor application for payment (CAP), and a monthly progress report.

1.3 **TASK 2 - MONITORING WELL SAMPLING**

1.3.1 **Subtask 2.1 - Monitoring Well Location Database**

This subtask will include the construction of a database, which will include the well designations, exact locations and elevations in the field, construction details, and depth of each of the monitoring wells, which have been installed in the NCIA. The database will be compiled from existing Nassau County, USGS, NYSDEC and LMS files regarding monitoring well locations. The database will serve as the master list of the wells, which will be sampled and will provide sufficient detail to locate the wells in the field in an efficient and rapid fashion.

The database will be field checked and the location and condition of each well noted along with any special sampling requirements. Once field checked the database will be appended to the FAP for use during the sampling. Once the well locations have been verified in the field LMS will recommend a subset of approximately 40 to 50 wells which should be sampled during the two rounds of groundwater sampling in the RI (see Subtask 2.3).

1.3.2 **Subtask 2.2 - Mobilization / Demobilization**

This subtask will include assisting the NYSDEC in securing access to each of the known monitoring well locations. This subtask will also include the necessary preparations required to complete the sampling including scheduling, purchasing and preparing equipment, and laboratory coordination prior to the sampling.

LMS assumes that the monitoring well purge water will be discharged to the Nassau County sewer system for treatment at the wastewater treatment plant and LMS will obtain any necessary permits or approvals for the disposal of the purge water.

1.3.3 **Subtask 2.3 - Monitoring Well Sampling**

This subtask will include all the necessary field activities to complete 2 rounds of sampling on a subset of the existing wells in the vicinity of the site. Current information indicates that between 125 and 150 wells have been installed in the vicinity of the NCIA. The exact number of wells available for sampling will be determined under Subtask 2.1. For costing purposes LMS has assumed that 40 monitoring wells will require sampling to provide adequate cover of the industrial area. After adequately purging each well, groundwater sample will be collected from the each of the existing wells. Each of the monitoring well samples will be submitted to the NYSDEC standby laboratory and will be analyzed for TCL organics. As need the necessary QA/QC samples will be collected including trip and equipment blanks, blind duplicates, and MS/MD/MSB.

1.3.4 **Subtask 2.4 - Data Management/Usability Report**

This subtask will include the daily coordination with the analytical laboratory and compiling and summarizing the data received from the NYSDEC.

The NYSDEC will perform data validation on the monitoring well samples. The LMS QA officer will then prepare a data usability summary report once the data and validation report have been received from the NYSDEC. The data validation/usability summary will be submitted to NYSDEC as an appendix to the draft RI report.

1.3.5 **Subtask 2.5 - Early Warning Well Biannual Sampling**

Four early warning wells (EW-01B & C, and EW-02B & C) were installed upgradient of the Bowling Green production wells in 1997. Each of the four wells will be sampled and analyzed for VOC's twice during 1999. The timing of the sampling events will correspond sampling events of the monitoring wells in the NCIA. A total of 2 sampling events will occur; the existing dedicated pumps will be used for the deep wells and a 2-inch submersible pump used for the shallow wells. Each of the samples will be submitted to the NYSDEC contract laboratory for analysis. Once the analysis is completed the NYSDEC will perform data validation on each of

the groundwater samples.

1.3.6 **Subtask 2.6 - Public Participation**

Public information meetings are routinely held to update the public on the progress of the NCIA remedial efforts. LMS will assist NYSDEC in presenting the results and status of the groundwater investigation. This may include the preparation of slides and/or overheads at the request of NYSDEC.

1.3.7 **Subtask 2.7 - Task Management**

Administrative costs associated with the task are included under this subtask, including reviewing subcontractor invoices, preparation of the CCR, preparation of the CAP, and the monthly progress report.

1.4 **TASK 3 - GROUNDWATER INVESTIGATION REPORT**

1.4.1 **Subtask 3.1 - Compile and Summarize Previous Data**

The previous data collected at the NCIA will be compiled and summarized into a database. This database will then be used to determine temporal trends in the data set for the individual contaminants.

1.4.2 **Subtask 3.2 - Data Evaluation/Plume Map Construction**

The data collected from the monitoring well sampling will be used to construct groundwater plume maps of the measured contamination. The plume maps will be broken down by depth if possible. Cross sections showing concentration with depth will also be prepared in the major plume areas.

1.4.3 **Subtask 3.3 - Draft Report**

The data generated from the monitoring well sampling will be summarized in tabular form and included in the report after receipt of the validated data and preparation of the usability report. The report will also include a summary of all-previous data; monitoring well sampling logs, and sampling point locations. The groundwater investigation report will also include an assessment

of the results of the investigation, discuss the fate and transport of the contaminants, and identify any data gaps. A meeting will be held in Albany after submission and review of the draft report. Comments received during the meeting will be incorporated into the report so that the report can be finalized.

1.4.4 **Subtask 3.4 - Final Report**

Based on the comments received from the NYSDEC the draft report will be finalized. The final report will include electronic copies of the databases and plume maps if requested. LMS assumes a total of 21 copies of the report will be required.

1.4.5 **Subtask 3.5 - Public Participation**

Public information meetings are routinely held to update the public on the progress of the NCIA remedial efforts. LMS will assist NYSDEC in presenting the results and status of the groundwater investigation. This may include the preparation of slides and/or overheads at the request of NYSDEC.

1.4.6 **Subtask 3.6 - Task Management**

The administrative costs associated with the task are included under this subtask. This includes reviewing subcontractor invoices, preparation of the CCR, preparation of the CAP, and the monthly progress reports.

1.5 **TASK 4 - DOWNGRADIENT MONITORING WELLS**

1.5.1 **Subtask 4.1 - Selection of Drilling Locations**

Four (4) new shallow monitoring wells will be installed at the assumed downgradient extent of the off-site plumes. It is likely the new wells will be located in a residential area. The selection of the drilling location will depend on the actual conditions on the ground; all locations will be selected to minimize disturbance to the local residents. LMS has assumed that one meeting and site inspection with NYSDEC and the Town will be required to select the final drilling locations.

1.5.2 **Subtask 4.2 - Mobilization/Demobilization**

Mobilization activities will include scheduling and coordinating with the drilling subcontractor, obtaining any permits or approvals for work within the roadway, and meeting with Town representatives at the site as required to describe the scope of work and schedule.

1.5.3 **Subtask 4.3 - Monitoring Well Installation**

This subtask will include the installation of up to 4 monitoring wells at predetermined locations downgradient of the NCIA. Each of the wells will be shallow upper glacial aquifer monitoring wells. The wells will be installed using hollow stem augers and the maximum depth of the wells will be 70 ft. If the results of Task 2 and Task 3 indicate that additional wells or deeper wells are needed the work assignment will be amended to include the additional out-of-scope drilling and sampling activities. All drilling cuttings and fluids will be containerized and stored at a predetermined staging area prior to off-site disposal.

1.5.4 **Subtask 4.4 - Monitoring Well Sampling**

Each of the monitoring wells, which were installed under subtask 4.3, will be sampled twice and the samples sent to the NYSDEC contract laboratory for analysis of VOC's.

1.5.5 **Subtask 4.5 - Drilling Cuttings Disposal**

The drilling cuttings from the monitoring well installation will be placed in a 15 cubic yard rolloff. This subtask will involve coordinating and arranging for the final disposal of the drilling cutting. It is anticipated that the cuttings will be uncontaminated solid waste and will be disposed of properly by an LMS subcontractor. It is unlikely that an on-site disposal location can be found since the wells will be drilled in a residential area.

1.6 **TASK 5 –PHASE I - FEASIBILITY STUDY**

1.6.1 **Subtask 5.1 - Health and Environmental Pathway Analysis**

A health and environmental pathway analysis will be prepared. The objective of the analysis will be to identify potential exposure pathways that may exist. The results of the analysis will be presented in a short letter report. Based on the results of the pathway analysis this subtask may be amended to include additional investigations associated with the health risk associated with

identified pathways as requested by the NYSDEC.

1.6.2 **Subtask 5.2 – Phase I FS- Development of Alternatives**

Under this subtask, the remedial alternatives for the contaminated groundwater will be developed. In developing alternatives, the volumes or areas of groundwater will be identified where contamination is present. The media to be treated will be determined by information on the nature and extent of contamination, applicable or relevant and appropriate New York State Standards, Criteria, and Guidelines (SCGs), and cleanup criteria/standards. The remedial action alternatives and associated technologies will be screened to identify those that would be effective for the media of interest at the site. The information obtained during these two activities will be used in assembling technologies and the media to which they will be applied into alternatives for the site. Remedial cleanup objectives for groundwater will be assumed to be class GA standards (maximum contaminant levels [MCLs]).

1.6.3 **Subtask 5.3 – Phase I FS- Preliminary Screening of Remedial Alternatives**

The alternatives developed under Subtask 5.2 will be screened under this subtask to reduce the number of alternatives that must be evaluated in detail. Alternatives will be screened on the basis of effectiveness and implementibility as per the NYSDEC requirements. Screening is used as a tool throughout the alternative selection process to narrow the options being considered. For example, if an in-situ groundwater treatment technology is selected as a possible alternative it may be eliminated under this subtask because the contamination found in the groundwater is not amenable to this treatment. A list of alternatives will be selected for further evaluation as site-wide remediation alternatives.

During the screening of the alternatives, if additional information needs to be obtained in order to adequately evaluate the effectiveness of certain alternatives, a recommendation will be made by LMS to conduct these additional studies. These additional studies may include bench-scale testing of treatment methods, or the construction of a comprehensive groundwater flow and transport model of the industrial area. An amendment to this work assignment will be needed for these additional studies if the studies are approved by the NYSDEC.

A preliminary draft FS report will be prepared upon completion of the preliminary screening of alternatives. The report will include a brief description of the alternatives evaluated, the results of the screening evaluation, and list of potential alternatives to be evaluated. Based on the

preliminary draft FS NYSDEC will select the alternatives for detailed analysis.

1.6.4 **Subtask 5.4 – Phase II FS- Scoping**

The scoping for the Phase II FS (detailed evaluation of the final set of alternatives) will be performed under this subtask. The Phase II FS Scoping will assume that the detailed evaluation of alternatives will be based on the following NYSDEC criteria: compliance with SCGs; overall protection of human health and the environment; short term impacts and effectiveness; long term effectiveness and permanence; reduction in toxicity, mobility, and volume; implementability; cost; and community acceptance. The Phase II FS Scoping will also assume the remaining alternatives selected from the preliminary draft FS will be fully defined and evaluated to determine the most effective option to meet the remedial action objectives at the site. The scoping will define the estimated level of effort to adequately evaluate the exact number of alternatives and sub-alternatives. Based on the anticipated level of effort a budget amendment to complete the PASE II FS will be prepared and submitted to NYSDEC for approval. The Phase II FS budget will also include the required level of effort to complete the FS report and assist the NYSDEC with any public participation activities which may be needed in support of the FS.

1.6.5 **Subtask 5.5 - Task Management**

The administrative costs associated with the task are included under this subtask. This includes reviewing subcontractor invoices, preparation of the CCR, preparation of the CAP, and a monthly progress report.

CHAPTER 2

2.1 PROJECT STAFFING PLAN

LMS, as prime contractor, will be responsible for overall project technical direction and administration. Subcontractors will be utilized as necessary to complete certain tasks. The major subcontractors proposed for our project team are:

- Delta Well & Pump – drilling
- Waste Management of Long Island- drill cutting disposal
- Corporate Reproduction- report production

Other minor subcontractors will be brought on board as required. The proposed project organization is shown on Figure 2-1.

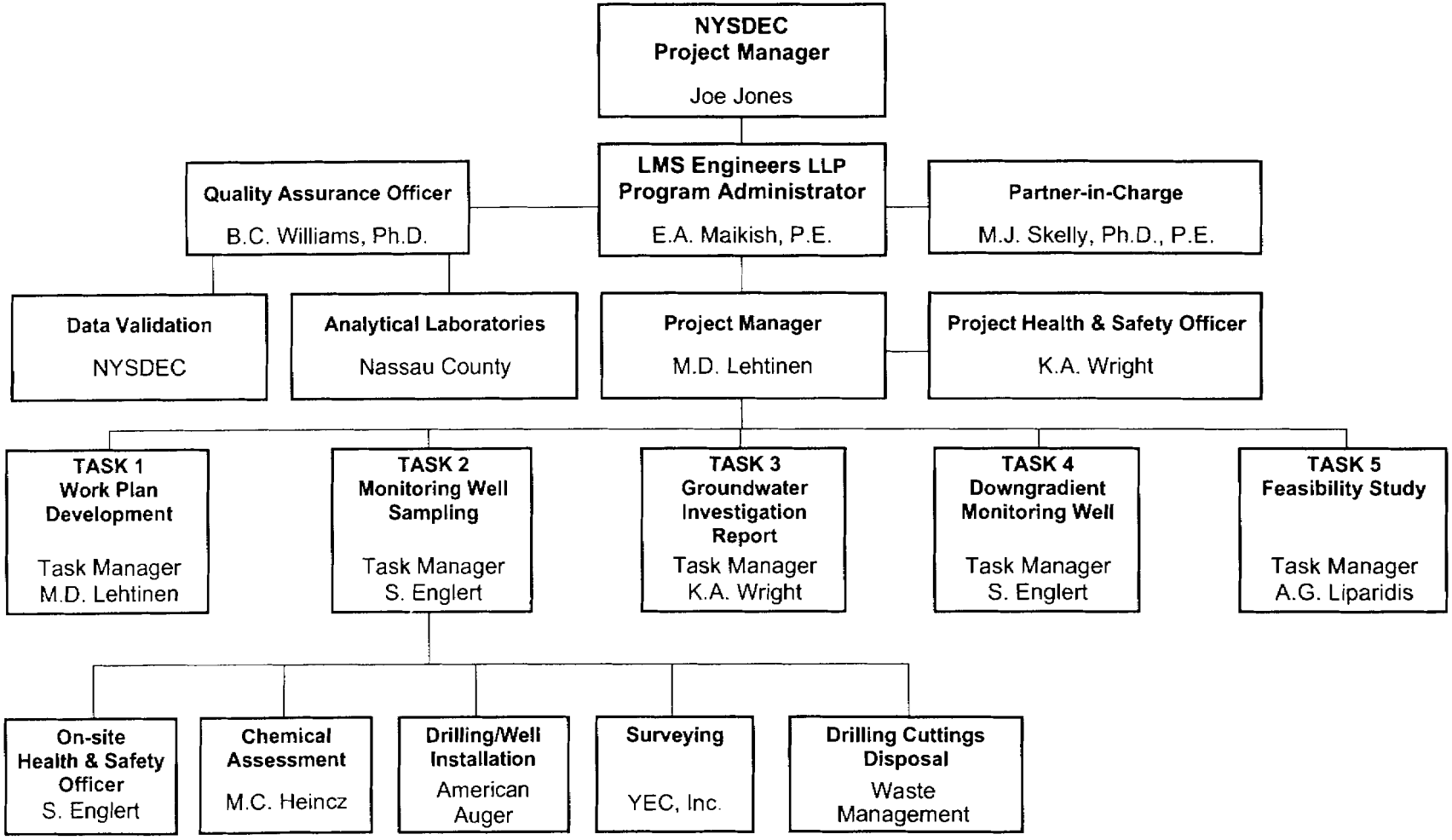
Mr. Edward A. Maikish, P.E., director of LMS' Site Investigation Section (NSPE Grade 7), will be the program administrator for this work assignment. Mr. Maikish will be directly responsible to NYSDEC for the conduct of the program and will provide overall supervision and guidance of project personnel. He will ensure staff and resources availability for completion of the project; approve assignments, work scopes, budgets, and staffing plans; and provide technical advice on the project approach.

Dr. Michael J. Skelly, P.E., LMS' general managing partner (NSPE Grade 9), will be the partner-in-charge for this work assignment. As partner-in-charge he will review the major technical conclusions drawn and administrative decisions made.

Mr. Michael D. Lehtinen (NSPE Grade 3) will be the project manager for the New Cassel Groundwater RI/FS, and will be NYSDEC's primary LMS contact. Mr. Lehtinen's responsibilities will include technical and administrative management of task managers and subcontractors, personnel and equipment scheduling, tracking and management of the project budget, and technical review of all submittals. Mr. Lehtinen will serve as the citizen participation coordinator for the project and as task manager of Task 1 - Work Plan Development. Mr. Lehtinen will also function as the project hydrogeologist, whose duties will include evaluation of the field information obtained.

Figure 2-1

Proposed Project Organization
New Cassell Industrial Area Offsite Groundwater RI/FS



Ms. Karen A. Wright (NSPE Grade 5) will serve as the project's Health and Safety Officer (HSO). In this role she will be responsible for preparing the HASP for the New Cassel Groundwater RI/FS and ensuring compliance with HASP provisions. Ms. Wright will ensure that all field personnel have received appropriate health and safety, first aid, and CPR training and have met the requirements of LMS' medical monitoring program.

Dr. Bradley Williams (NSPE Grade 5) will be the project Quality Assurance Officer (QAO). In this capacity, Dr. Williams will provide ongoing surveillance of project activities to ensure conformance with the QAPjP, coordinate laboratory analyses of environmental and QA/QC samples, and coordinate data validation activities. Dr. Williams also will be responsible for reviewing project sampling and analytical procedures to ensure representative sample collection and performance of analytical methodologies within specified criteria. Upon completion of data validation, Dr. Williams and his staff will prepare a data usability report qualifying the analytical results as necessary.

Mr. Scott Englert (NSPE Grade 2) will serve as task manager for Task 2- Remedial Investigation including oversight of all field activities. His duties will include technical and administrative coordination of the drilling; supervision of environmental sampling; and scheduling of field activities. He will serve as the on-site HSO and the on-site coordinator of all RI field activities associated with the project.

Mr. Michael Musso (NSPE Grade 2) will be responsible for completion of the FS as task manager for Task 3. Mr. Mussos' responsibilities will include screening and detailed evaluation of alternatives. He will be the primary author of the preliminary draft FS reports, as well as the final report.

Ms. Maria C. Heincz (NSPE Grade 2) will be responsible for chemical assessments related to the New Cassel Groundwater RI/FS. Her duties will also include maintaining contact with the field team members, analytical laboratory, and data validator and subsequent evaluation of the data generated, including preparation of data usability reports.

2.2 PROJECT SCHEDULE

New Cassel Groundwater RI/FS Site #1-30-143
Work Assignment #D002676-42
PROJECT SCHEDULE

Task	Subtask	Work Task Date	Due Date or Date
1		WORK PLAN DEVELOPMENT	
	1.1	Background Review	
	1.2	Scoping Session	02/01/99
		Scoping Meeting	02/01/99
		Submit Scoping Plan	02/01/99
		Submit Level of Effort (LOE)	02/01/99
		Approve Scoping Plan and Authorization to Prepare Work Plan	02/05/99
	1.3	Draft Field Activities Plan (FAP)	02/10/99
		Draft Work Plan, LOE, Budget	
		NYSDEC Comments to Work Plan, FAP	2/19/99
	1.4	Final Work Plan, FAP, Updated NCIA Health and Safety Plan (HASP), Updated NCIA Quality Assurance Project Plan (QAPjP)	3/3/99
		NYSDEC Approval and Notice to Proceed with Field Work	3/31/99
2		MONITORING WELL SAMPLING	
	2.1	Monitoring Well Location Database	03/17/99-04/02/99
	2.2	Mobilization/Demobilization	4/5/99
	2.3	Existing Monitoring Well Sampling	
		Round 1	04/12/99-04/21/99
		Round 2	08/06/99-08/15/99
	2.4	Data Management/Usability Report	05/21/99-06/18/99

Task	Subtask	Work Task Date	Due Date or Date
	2.5	Early Warning Well Quarterly Sampling	
		Round 1	4/20/99
		Round 2	8/15/99
	2.6	Public Participation	TBA
3		GROUNDWATER INVESTIGATION REPORT	
	3.1	Compile and Summarize Previous Data	04/12/99-06/18/99
	3.2	Data Evaluation/Plume Map Construction	06/18/99-08/27/99
	3.3	Draft RI Report	04/09/99-9/30/99
	3.4	Final RI Report	10/30/99
	3.5	Public Participation	TBA
4		DOWNGRADIENT MONITORING WELLS	
	4.1	Selection of Drilling Locations	3/15/99
	4.2	Mobilization/Demobilization	03/31/1999-04/09/9
	4.3	Monitoring Well Installation	04/12/99-04/16/99
	4.4	Downgradient Monitoring Well Sampling	
		Round 1	4/21/99
		Round 2	8/14/99
	4.5	Drilling Cuttings Disposal	04/16/99-05/15/99

Task	Subtask	Work Task Date	Due Date or Date
5		PASE I - FS	
	5.1	Health and Environmental Exposure Assessment	6/18/99-10/30/99
	5.2	Development of Alternatives	4/18/99-6/30/99
	5.3	Preliminary Screening of Remedial Alternatives	4/18/99-6/30/99
	5.4	Scoping of 2nd Phase FS	7/07/99-8/06/99
6		PHASE II - FS	
	6.1	Detailed Analysis of Remedial Alternatives	8/23/99-10/22/99
	6.2	Draft FS Report	8/23/99-10/22/99
		NYSDEC Comments of Draft FS	10/29/99
		Final FS	11/22/99

LMS' proposed project schedule for the New Cassel Groundwater RI/FS is presented on Table 2-1. The RI/FS field schedule, which is slated to start in early 1999, assumes that we receive NYSDEC approval on the final Field Activities Plan and notice to proceed on the field work by 1999. If this approval is delayed, the field schedule and RI deadline/reports will be similarly delayed.

2.3 PROJECT DELIVERABLES

A listing of the project deliverables for the New Cassel Groundwater RI/FS is presented on Table 2-2. These deliverables are based on meeting the schedule listed on Table 2-1.

2.4 PROJECT SUBCONSULTANTS AND SUBCONTRACTORS

The subcontractors we propose to use on this project are presented in Table 2-3.

YEC is a subconsultant to LMS on this project and will provide surveting services in support of the RI. Delta Well & Pump are one of LMS' stand-by drillers, they provided the low bid for this assignment (see Appendix A). Waste Management of Long Island provided the low bid for drill cutting disposal (see Appendix A). Corporate Reproductions is an MBE whose services are less than $5,000 to reproduce the final RI/FS report. Documentation that their estimate is reasonable is presented in Appendix A.

2.5 MBE/WBE UTILIZATION PLAN

This document outlines LMS' MBE/WBE utilization plan as required by the New York State Superfund Standby Contract. The purpose of the plan is to document our intent to comply with the regulations under 9NYCRR Part 543 entitled "Requirements and Procedures Regarding Business Participation Opportunities for Minorities and Women on State Contracts." LMS will make every effort to meet the goals established by those regulations, i.e., 15% MBE participation and 5% WBE participation, through implementation of our proposed utilization plan as described below.

LMS is committed to equal opportunity employment, with corporate involvement meeting or exceeding the state regulations referenced in this contract. Evidence of this is provided by the fact that, as a whole, LMS currently employs 8% minorities and 28% women. To assure full

Table 2-2

New Cassel Groundwater RI/FS Site #1-30-143
Work Assignment #D002676-42
DELIVERABLES

Task	Subtask	Deliverable	Proposed Due Date	Copies
1	1.2	Scoping Plan	2/1/99	1
1	1.3	Draft Work Plan, LOE, Budget Draft FAP	2/10/99	6
1	1.4	Final Work Plan, FAP, HASP QAPjP	2/26/99	12
3	3.3	Draft RI Report	9/30/99	12
3	3.4	Final RI Report	10/30/99	21
5	5.3	Preliminary Draft FS	6/30/99	12
5	5.5	Draft FS Report	10/22/99	12
5	5.5	Final FS Report	11/22/99	21

Table 2-3

PROPOSED SUBCONTRACTORS LIST

New Cassel Groundwater RI/FS Site #1-30-143

AREA OF SUBCONTRACTING	SCOPE OF WORK	PROPOSED SUBCONTRACTOR
Surveying	Survey Well Elevations	YEC
Drilling	Install Monitoring Wells	Delta Well & Pump
Soil Disposal	Drilling Cuttings Disposal	Waste Management
Printing	Print Final RI/FS Report	Corporate Reproductions

implementation of the equal employment policy, we will take steps to ensure that:

a. Persons are recruited, hired, assigned, and promoted without regard to race, religion, marital status, color, sexual orientation, national origin, sex, veteran's status, age, or non-job-related disability of any kind.

b. All other personnel actions, such as compensation, benefits, transfers, layoffs and recall from layoffs, access to training, education, tuition assistance and social recreation programs are administered without regard to race, marital status, religion, color, sexual orientation, national origin, sex, veteran's status, age, or non-job-related disability of any kind.

To date, LMS has made a good-faith effort to obtain MBE/WBE subcontractors for completion of the New Cassel Groundwater RI/FS project. The MBE and WBE firms that will be utilized as subcontractors for this project are listed below. A number of other MBE/WBE firms were identified and contacted to provide bids on services to be conducted as part of this RI/FS; however, a number of factors precluded the use of some of these firms.

MBE Utilization:

- YEC, Inc.: This MBE firm was selected to provide surveying services. The MBE utilization from the above subconsultant is approximately $4,224.00.

- Corporate Reproductions, Inc.: This MBE firm was selected to provide printing services for reproduction of the final RI and final FS reports. The MBE utilization from the above subcontractor is approximately $2,460.00.

The MBE contribution resulting from the utilization of the above subcontractors is approximately $6,684.00, or 3% utilization.

WBE Utilization:

- Delta Well & Pump: This WBE firm was selected to provide drilling services for the RI/FS investigation. The WBE utilization from the above subcontractor is approximately $ 16,477.00.

The WBE contribution resulting from the utilization of the above subcontractors is approximately $ 16,477.00, or 7.3%.

Depending on the project administration of this work assignment, activities that are not currently included in LMS' scope of work may also represent potential MBE/WBE subcontracting opportunities.

CHAPTER 3
PROJECT BUDGET

3.1 SCHEDULE 2.11 TABLES

The schedule 2.11 Tables presenting the draft costing for this project are attached.

SCHEDULE 2.11 (a)
SUMMARY OF WORK ASSIGNMENT PRICE
Work Assignment Number D002676-42
NCIA Groundwater RI/FS

LINE ITEM	AMOUNT ($)
1. Direct Salary Costs (Schedules 2.10 (a) and 2.11 (b))	60,770.83
2. Indirect Costs (Schedule (2.10 (g))	94,194.81
3. Direct Non-Salary Costs (Schedules 2.10 (d,e,f) and 2.11 (c,d)	30,027.30

Subcontract Costs:

Name of Subcontractor	Services to be Performed	Subcontract Price
1. YEC	Surveying	4,224.22
4. Total Cost-Plus-Fixed Fee Subcontracts		4,224.22

Unit Price Subcontracts (Schedule 2.10 (f) and 2.11 (f))

Name of Subcontractor	Services to be Performed	Subcontract Price
1. Corporate Reproductions	Report Reproductions	2,460.00
2. Delta Well and Pump	Monitoring well installation	16,477.00
3. Waste Management	Drill Cuttings Disposal	1,490.00

5. Total Unit Price Subcontracts	20,427.00
6. Subcontract Management Fee (Schedule 2.11[f])	823.85
7. Total Subcontract Costs (lines 4 + 5)	24,651.22
8. Fixed Fee (Schedule 2.10 (h))	15,496.61
9. Total Work Assignment Price (lines 1 + 2 + 3 + 6 + 7)	225,964.62

SCHEDULE 2.11(b)
LABOR COST SUMMARY
Work Assignment Number D002676-42
NCIA Groundwater RI/FS

LABOR CATEGORY AVERAGE SALARY RATE (1999)	IX $63.86	VIII $49.09	VII $43.07	VI $40.35	V $35.99	IV $28.15	III $25.21	II $24.51	I $18.59	WP $16.55	TOTAL
Task 1	3	0	14	0	0	44	9	33	33	6	142
Task 2	5	0	38	0	24	56	82	104	782	21	1,112
Task 3	4	0	35	0	0	168	84	64	276	18	649
Task 4	1	0	15	0	0	9	54	42	89	9	219
Task 5	2	0	30	0	0	24	96	220	114	22	508
TOTAL HOURS:	14	0	132	0	24	301	325	463	1,294	76	2,629
Total Direct Labor Costs	894.04	0.00	5,685.24	0.00	863.76	8,473.15	8,193.25	11,348.13	24,055.46	1,257.80	60,770.83

INDIRECT LABOR COSTS:	94,194.81
SUBTOTAL:	154,965.64
FIXED FEE:	15,496.61
TOTAL BUDGETED LABOR COSTS:	170,462.25

ENGINEER/CONTRACT No.: Lawler, Matusky & Skelly Engineers LLP
PROJECT NAME: NCIA Groundwater RI/FS
WORK ASSIGNMENT No.: D002676-42

DATE PREPARED: 04 Feb 99

SCHEDULE 2.11(b-1)
DIRECT ADMINISTRATIVE LABOR HOURS BUDGETED

NSPE LABOR CLASSIFICATION	IX	VIII	VII	VI	V	IV	III	II	I	WP	TOTAL No. OF DIRECT ADMINISTRATIVE LABOR HOURS BUDGETED
Task 1	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	16.0	0.0	18.0
Task 2	1.0	0.0	4.0	0.0	0.0	0.0	8.0	0.0	6.0	2.0	21.0
Task 3	0.5	0.0	2.0	0.0	0.0	0.0	2.0	0.0	4.0	4.0	12.5
Task 4	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	2.0	1.0	7.0
Task 5	0.5	0.0	6.0	0.0	0.0	0.0	6.0	0.0	4.0	2.0	18.5
TOTAL HOURS:	2.0	0.0	15.0	0.0	0.0	0.0	19.0	0.0	32.0	9.0	77.0

Contract/Project administrative hours would include but not necessarily be limited to the following activities:

1. Work Plan Development
   - Conflict of Interest Check
   - Develop of budget schedules and supporting documentation
2. Review work assignment (WA) progress
   - Conduct progress reviews
   - Prepare monthly project report
   - Update WA progress schedule
   - Prepare monthly M/WBE Utilization Report
3. Review work assignment costs
   - Prepare monthly cost control report
   - Cost control reviews
4. CAP Preparation
   - Oversee and prepare monthly CAP
   - Respond to payment issues/disallowances
   - NSPE list updates
   - Equipment Inventory
5. Manage subcontracts
6. Implement and manage program management and staffing plans
7. Conduct Health and Safety Reviews
8. Word processing and graphic artists
9. Report editing

Contract/Project administration hours would NOT include activities such as:

1. QA/Qc reviews
2. Technical oversight by management
3. Develop subcontracts
4. Work plan development
5. Review of deliverables

SCHEDULE 2.11(c) - DIRECT NON-SALARY COSTS
Work Assignment Number D002676-42
NCIA Groundwater RI/FS

ITEM	MAXIMUM REIMBURSEMENT RATE ($)	UNIT	ESTIMATED NUMBER OF UNITS	TOTAL ESTIMATED COST ($)
A. Material Costs:				
Telephone	1.00	(at cost)	754	754.00
Reproduction	0.07	(per page)	11,690	818.30
General PC usage	1.50	(per hr)	402	603.00
Auto CADD	15.00	(per hr)	52	780.00
Fax	1.00	(per page)	576	576.00
Overnight shipping	1.00	(at cost)	2,440	2,440.00
Disposable Field Items:				
Nylon Rope	0.20	(per ft)	14,000	2,800.00
½" ID tubing	0.30	(per ft)	14,000	4,200.00
Decon Chemicals	1.00	(at cost)	90	90.00
Decon D.I. Water	0.12	(per gal.)	300	36.00
Sample bottles	42.95	(per case)	12	515.40
Ice for samples	1.00	(at cost)	140	140.00
Disposable Bailer	11.50	(ea)	91	1,046.50
Repair of NYSDEC Meters	125.00	(lump sum)	2	250.00
			SUBTOTAL:	15,059.20
B. Travel Costs:				
Truck/van rental	31.34	(per day)	43	1,347.62
Truck/van mileage	0.133	(per mile)	3,560	473.48
Personal mileage	0.33	(per mile)	3,000	975.00
Per diem	108.00	(per day)	71	7,668.00
Tolls	1.00	(at cost)	490	490.00
Parking	1.00	(at cost)	10	10.00
			SUBTOTAL:	10,964.10
C. Equipment Costs:				
Personal Protective Equipment:				
Level D	12.00	(per day)	69	828.00
2" Submersible Pump (110 V)	15.00	(per day)	34	510.00
Generators - Honda (6,500 watt)	51.00	(per day)	34	1,734.00
PID - HNu (P1-101)	23.00	(per day)	21	483.00
PID - HNu (HW-101) @	0.00	(per day)	16	0.00
FID - Foxboro (OVA-128) @	0.00	(per day)	14	0.00
Static well level - Slope Ind. Co. (5145	0.00	(per day)	35	0.00
Conductivity w/temp. meter - YEI @	0.00	(per day)	30	0.00
DO/temp. meter - YEI (50' + 100')	23.00	(per day)	7	161.00
pH meter - CP (pH pen)	4.00	(per day)	16	64.00

SCHEDULE 2.11(c) - DIRECT NON-SALARY COSTS
Work Assignment Number D002676-42
NCIA Groundwater RI/FS

ITEM	MAXIMUM REIMBURSEMENT RATE ($)	UNIT	ESTIMATED NUMBER OF UNITS	TOTAL ESTIMATED COST ($)
C. Equipment Costs (continued):				
pH meter - Orion @	0.00	(per day)	21	0.00
Turbidity meter - Monitek @	0.00	(per day)	21	0.00
Turbidity meter - Hoch	14.00	(per day)	16	224.00
			SUBTOTAL:	4,004.00
			TOTAL DIRECT NON-SALARY COSTS:	30,027.30

SCHEDULE 2.11(e)

COST-PLUS FIXED FEE SUBCONTRACTS

Work Assignment Number D002676-42
NCIA Groundwater RI/FS

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE
1. YEC	Surveying	$4,224.22

A. Direct Salary Costs

PROFESSIONAL RESPONSIBILITY LEVEL	LABOR CLASS.	AVERAGE REIMB. RATE ($/hr)	ESTIMATED NUMBER OF HOURS	TOTAL ESTIMATED DIRECT SALARY COST ($)
	VIII	47.69	2	$95.38
	V	31.53	32	$1,008.96
	IV	27.40	0	$0.00
	III	23.78	0	$0.00
	II	17.60	26	$457.60
	I	15.94	0	$0.00
			TOTAL DIRECT SALARY COSTS:	$1,561.94

FOOTNOTES:

1 - These rates will be held firm until October 31, 1999.
2 - Reimbursement will be limited to the lesser of either the individuals actual hourly rate or the maximum rate for each labor category.
3 - Reimbursement will be limited to the maximum reimbursement rate for the professional responsibility level of the actual work performed.
4 - Only those labor classifications indicated with an asterix will be entitled to overtime.
5 - Reimbursement for technical time of principals, owners and officers will be limited to the maximum maximum reimbursement rate of that labor category, the actual hourly labor rate paid, or the Federal GS-18 rate, whichever is lower.
6 - The maximum rates in each labor category can be modified only by mutual written agreement and approved by both the Department and the Comptroller.
7 - This footnote applies to Schedules for years 4 thru 7 only. If the U.S. cost-of-living index increases at a rate greater than 6% compounded annually, the maximum salary rates will be subject to renegotiation for future years of the contract.

SCHEDULE 2.11(e)

COST-PLUS FIXED FEE SUBCONTRACTS

Work Assignment Number D002676-42

NCIA Groundwater RI/FS

B. Indirect Costs

Indirect costs shall be paid based on a percentage of direct salary costs incurred which shall not exceed a maximum of 131% or the actual rate calculated in accordance with 48 CFR Federal Acquisition Regulations, whichever is lower.

Amount budgeted for indirect costs: $1,827.47

C. Maximum Reimbursement Rates for Direct Non-Salary Costs

ITEM	$ MAX REIMBURSEMENT RATE (Specify Unit)	EST. NO. OF UNITS	TOTAL EST. COST ($)
Materials			$100.00
Travel			$96.40
Equipment			$130.00
Subs			$0.00
* - See attached schedules for detailed breakdown.			
		TOTAL DIRECT NON-SALARY COSTS:	$326.40

D. Fixed Fee

The fixed fee is:

See Schedule 2.10(h) for how the fixed fee should be claimed: $508.41

TOTAL: $4,224.22

SCHEDULE 2.11(f)

UNIT PRICE SUBCONTRACTS

Work Assignment Number D002676-42
NCIA Groundwater RI/FS

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MGMT. FEE
1. Corporate Reproductions	Report Reproductions	$2,460.00	$0.00

ITEM	$ MAX REIMBURSEMENT RATE (Specify Unit)	EST. NO. OF UNITS	TOTAL EST. COST ($)
Subtask 3.4 Final Report			
Report Reproductions	$82 /ea	30	$2,460.00
		Subtotal Subtasks 3.4:	$2,460.00
		Subcontract Total:	$2,460.00
		Subcontract Management Fee:	$0.00

NOTE: A subcontract management fee of 5% will be allowed on total subcontracts over $10,000 subject to the terms specified in the management fee protocol.

SCHEDULE 2.11(f)

UNIT PRICE SUBCONTRACTS

Work Assignment Number D002676-42
NCIA Groundwater RI/FS

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MGMT. FEE
2. Delta Well and Pump	Monitoring well installation	$16,477.00	$823.85

ITEM	$ MAX REIMBURSEMENT RATE (Specify Unit)	EST. NO. OF UNITS	TOTAL EST. COST ($)
Task 4.3 Monitoring well installation			
3 4.25 HSA (0'-50')	$15 /lf	200	$3,000.00
6 4.25 HSA (50'-100')	$15 /lf	80	$1,200.00
32 Split Spoons (0'-50')	$35 /lf	40	$1,400.00
34 Split Spoons (50'-100')	$40 /lf	20	$800.00
42 Well Screen 2in. #10 slot sch.40	$5 /lf	40	$200.00
48 Well Screen End Cap	$6 /ea	4	$24.00
53 Well Riser 2in. Sch.40	$2 /lf	240	$480.00
62 Screen Sandpack (50'-100')	$7.5 /lf	48	$360.00
83 Seal 2in. In 4.25 HSA (50'-100')	$16 /lf	20	$320.00
104 Riser Backfill (0-50')	$6 /lf	200	$1,200.00
111 Riser Backfill (50-100')	$6.5 /lf	12	$78.00
149 55 Gallon Drums	$40 /ea	4	$160.00
15 Moving 55 Gallon Drums (fluids)	$75 /hr	12	$900.00
154 Well Development (50'-100')	$120 /hr	16	$1,920.00
170 Decontamination Pad	$500 /ea	1	$500.00
171 Decontamination	$120 /hr	8	$960.00
191 Steam Cleaner[1]	$25 /day	5	$125.00
192 Water Tanker	$150 /day	5	$750.00
Additional Items			
Manhole Cover*	$150 /ea	4	$600.00
Bobcat to move drilling cuttings	$150 /day	5	$750.00
Moving Cuttings with Bobcat	$75 /hr	10	$750.00
		Subcontract Total:	$16,477.00
		Subcontract Management Fee:	$823.85

NOTE: A subcontract management fee of 5% will be allowed on total subcontracts over $10,000 subject to the terms specified in the management fee protocol.
1 - Steam cleaner has built in generator.
* Must be suitable for use in high traffic area's on roads

SCHEDULE 2.11(f)

UNIT PRICE SUBCONTRACTS

Work Assignment Number D002676-42
NCIA Groundwater RI/FS

NAME OF SUBCONTRACTOR	SERVICES TO BE PERFORMED	SUBCONTRACT PRICE	MGMT. FEE
3. Waste Management	Drill Cuttings Disposal	$1,490.00	$0.00

ITEM	METHOD	$ MAX REIMBURSEMENT RATE (Specify Unit)	EST. NO. OF UNITS	TOTAL EST. COST ($)
TASK 4.5 Drill Cuttings Disposal				
Project Costs				
Monthly Rental		$150 /mo	3	$450.00
Disposal		$15 /yd	25	$375.00
Stage & Transport		$665 /Rolloff	1	$665.00
			SUBTOTAL:	$1,490.00
			Subcontract Subtotal:	$1,490.00
			Subcontract Management Fee:	$0.00

NOTE: A subcontract management fee of 5% will be allowed on total subcontracts over $10,000 subject to the terms specified in the management fee protocol.

ENGINEER: Lawler, Matusky & Skelly Engineers LLP
CONTRACT No.: D002676
PROJECT NAME: NCIA Groundwater RI/FS
WORK ASSIGNMENT No.: D002676-42
TASK No./NAME: Summary
COMPLETE: 0%

DATE PREPARED: 04 Feb 99
BILLING PERIOD:
INVOICE No.:
CAP No.:

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

EXPENDITURE CATEGORY	A COST CLAIMED THIS PERIOD	B PAID TO DATE	C TOTAL DISSALLOWED TO DATE	D TOTAL COSTS PAID TO DATE (A+B)	E ESTIMATED COSTS TO COMPLETION	F ESTIMATED TOTAL WORK ASSIGNMENT PRICE (A+B+E)	G APPROVED BUDGET	H ESTIMATED UNDER/OVER (G-F)
1. Direct Salary Costs:	0.00	0.00	0.00	0.00	60,770.83	60,770.83	60,770.83	0.00
2. Indirect Salary Costs (1.55):	0.00	0.00	0.00	0.00	94,194.81	94,194.81	94,194.81	0.00
3. Subtotal Direct Salary and Indirect Costs:	0.00	0.00	0.00	0.00	154,965.64	154,965.64	154,965.64	0.00
4. Travel:	0.00	0.00	0.00	0.00	10,964.10	10,964.10	10,964.10	0.00
5. Other Non-Salary Costs:								
Material Costs:	0.00	0.00	0.00	0.00	15,059.20	15,059.20	15,059.20	0.00
Equipment Costs:	0.00	0.00	0.00	0.00	4,004.00	4,004.00	4,004.00	0.00
6. Subtotal Direct Non-Salary Costs:	0.00	0.00	0.00	0.00	30,027.30	30,027.30	30,027.30	0.00
7. Subs:								
Subconsultants:								
Subcontractors:								
8. Total Work Assignment Costs:	0.00	0.00	0.00	0.00	209,644.16	209,644.16	209,644.16	0.00
9. Fees:								
Fixed Fee:	0.00	0.00	0.00	0.00	15,496.61	15,496.61	15,496.61	0.00
Management Fee:	0.00	0.00	0.00	0.00	823.85	823.85	823.85	0.00
10. Total Work Assignment Price:	0.00	0.00	0.00	0.00	225,964.62	225,964.62	225,964.62	0.00

Project Manager (Engineer): _____ Date: _____

ENGINEER: Lawler, Matusky & Skelly Engineers LLP
CONTRACT No.: D002676-42 650-421
PROJECT NAME: NCIA Groundwater RI/FS
WORK ASSIGNMENT No.: D002676-42
TASK No./NAME: Task 1
COMPLETE: 0%

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

DATE PREPARED: 04 Feb 99
BILLING PERIOD:
INVOICE No.:
CAP No.:

EXPENDITURE CATEGORY	A COST CLAIMED THIS PERIOD	B PAID TO DATE	C TOTAL DISSALLOWED TO DATE	D TOTAL COSTS PAID TO DATE (A+B)	E ESTIMATED COSTS TO COMPLETION	F ESTIMATED TOTAL WORK ASSIGNMENT PRICE (A+B+E)	G APPROVED BUDGET	H ESTIMATED UNDER/OVER (G-F)
1. Direct Salary Costs:	0.00	0.00	0.00	0.00	3,781.65	3,781.65	3,781.65	0.00
2. Indirect Salary Costs (1.55):	0.00	0.00	0.00	0.00	5,861.56	5,861.56	5,861.56	0.00
3. Subtotal Direct Salary and Indirect Costs:	0.00	0.00	0.00	0.00	9,643.21	9,643.21	9,643.21	0.00
4. Travel:	0.00	0.00	0.00	0.00	195.50	195.50	195.50	0.00
5. Other Non-Salary Costs:								
Material Costs:	0.00	0.00	0.00	0.00	459.30	459.30	459.30	0.00
Equipment Costs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. Subtotal Direct Non-Salary Costs:	0.00	0.00	0.00	0.00	654.80	654.80	654.80	0.00
7. Subs:								
Subconsultants:								
Subcontractors:								
8. Total Work Assignment Costs:	0.00	0.00	0.00	0.00	10,298.01	10,298.01	10,298.01	0.00
9. Fees:								
Fixed Fee:	0.00	0.00	0.00	0.00	964.33	964.33	964.33	0.00
Management Fee:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10. Total Work Assignment Price:	0.00	0.00	0.00	0.00	11,262.34	11,262.34	11,262.34	0.00

Project Manager (Engineer): _____ **Date:** _____

ENGINEER: Lawler, Matusky & Skelly Engineers
CONTRACT No.: D002676
PROJECT NAME: NCIA Groundwater RI/FS
WORK ASSIGNMENT No.: D002676-42
TASK No./NAME: Task 2
COMPLETE: 0%

DATE PREPARED: 04 Feb 99
BILLING PERIOD:
INVOICE No.:
CAP No.:

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

EXPENDITURE CATEGORY	A COST CLAIMED THIS PERIOD	B PAID TO DATE	C TOTAL DISSALLOWED TO DATE	D TOTAL COSTS PAID TO DATE (A+B)	E ESTIMATED COSTS TO COMPLETION	F ESTIMATED TOTAL WORK ASSIGNMENT PRICE (A+B+E)	G APPROVED BUDGET	H ESTIMATED UNDER/OVER (G-F)
1. Direct Salary Costs:	0.00	0.00	0.00	0.00	23,897.31	23,897.31	23,897.31	0.00
2. Indirect Salary Costs (1.55):	0.00	0.00	0.00	0.00	37,040.83	37,040.83	37,040.83	0.00
3. Subtotal Direct Salary and Indirect Costs:	0.00	0.00	0.00	0.00	60,938.14	60,938.14	60,938.14	0.00
4. Travel:	0.00	0.00	0.00	0.00	8,669.90	8,669.90	8,669.90	0.00
5. Other Non-Salary Costs:								
Material Costs:	0.00	0.00	0.00	0.00	11,839.30	11,839.30	11,839.30	0.00
Equipment Costs:	0.00	0.00	0.00	0.00	3,310.00	3,310.00	3,310.00	0.00
6. Subtotal Direct Non-Salary Costs:	0.00	0.00	0.00	0.00	23,819.20	23,819.20	23,819.20	0.00
7. Subs:								
Subconsultants:								
YEC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subcontractors:								
8. Total Work Assignment Costs:	0.00	0.00	0.00	0.00	84,757.34	84,757.34	84,757.34	0.00
9. Fees:								
Fixed Fee:	0.00	0.00	0.00	0.00	6,093.83	6,093.83	6,093.83	0.00
Management Fee:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10. Total Work Assignment Price:	0.00	0.00	0.00	0.00	90,851.17	90,851.17	90,851.17	0.00

Project Manager (Engineer): _____ Date: _____

ENGINEER: Lawler, Matusky & Skelly Engineers
CONTRACT No.: D002676
PROJECT NAME: NCIA Groundwater RI/FS
WORK ASSIGNMENT No.: D002676-42
TASK No./NAME: Task 3
COMPLETE: 0%

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

DATE PREPARED: 04 Feb 99
BILLING PERIOD:
INVOICE No.:
CAP No.:

EXPENDITURE CATEGORY	A COST CLAIMED THIS PERIOD	B PAID TO DATE	C TOTAL DISSALLOWED TO DATE	D TOTAL COSTS PAID TO DATE (A+B)	E ESTIMATED COSTS TO COMPLETION	F ESTIMATED TOTAL WORK ASSIGNMENT PRICE (A+B+E)	G APPROVED BUDGET	H ESTIMATED UNDER/OVER (G-F)
1. Direct Salary Costs:	0.00	0.00	0.00	0.00	15,575.18	15,575.18	15,575.18	0.00
2. Indirect Salary Costs (1.55):	0.00	0.00	0.00	0.00	24,141.54	24,141.54	24,141.54	0.00
3. Subtotal Direct Salary and Indirect Costs:	0.00	0.00	0.00	0.00	39,716.72	39,716.72	39,716.72	0.00
4. Travel:	0.00	0.00	0.00	0.00	236.50	236.50	236.50	0.00
5. Other Non-Salary Costs:								
Material Costs:	0.00	0.00	0.00	0.00	1,811.70	1,811.70	1,811.70	0.00
Equipment Costs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. Subtotal Direct Non-Salary Costs:	0.00	0.00	0.00	0.00	2,048.20	2,048.20	2,048.20	0.00
7. Subs:								
Subconsultants:								
Subcontractors:								
Corporate Reproductions	0.00	0.00	0.00	0.00	2,460.00	2,460.00	2,460.00	0.00
8. Total Work Assignment Costs:	0.00	0.00	0.00	0.00	44,224.92	44,224.92	44,224.92	0.00
9. Fees:								
Fixed Fee:	0.00	0.00	0.00	0.00	3,971.68	3,971.68	3,971.68	0.00
Management Fee:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10. Total Work Assignment Price:	0.00	0.00	0.00	0.00	48,196.60	48,196.60	48,196.60	0.00

Project Manager (Engineer): _____ Date: _____

ENGINEER: Lawler, Matusky & Skelly Engineers LLP
CONTRACT No.: D002676
PROJECT NAME: NCIA Groundwater RI/FS
WORK ASSIGNMENT No.: D002676-42
TASK No./NAME: Task 4
COMPLETE: 0%

DATE PREPARED: 04 Feb 99
BILLING PERIOD:
INVOICE No.:
CAP No.:

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

EXPENDITURE CATEGORY	A COST CLAIMED THIS PERIOD	B PAID TO DATE	C TOTAL DISSALLOWED TO DATE	D TOTAL COSTS PAID TO DATE (A + B)	E ESTIMATED COSTS TO COMPLETION	F ESTIMATED TOTAL WORK ASSIGNMENT PRICE (A + B + E)	G APPROVED BUDGET	H ESTIMATED UNDER/OVER (G-F)
1. Direct Salary Costs:	0.00	0.00	0.00	0.00	5,157.48	5,157.48	5,157.48	0.00
2. Indirect Salary Costs (1.55):	0.00	0.00	0.00	0.00	7,994.10	7,994.10	7,994.10	0.00
3. Subtotal Direct Salary and Indirect Costs:	0.00	0.00	0.00	0.00	13,151.58	13,151.58	13,151.58	0.00
4. Travel:	0.00	0.00	0.00	0.00	1,678.70	1,678.70	1,678.70	0.00
5. Other Non-Salary Costs:								
Material Costs:	0.00	0.00	0.00	0.00	564.20	564.20	564.20	0.00
Equipment Costs:	0.00	0.00	0.00	0.00	694.00	694.00	694.00	0.00
6. Subtotal Direct Non-Salary Costs:	0.00	0.00	0.00	0.00	2,936.90	2,936.90	2,936.90	0.00
7. Subs:								
Subconsultants:								
YEC	0.00	0.00		0.00	4,224.22	4,224.22	4,224.22	0.00
Subcontractors:								
Delta Well and Pump	0.00	0.00	0.00	0.00	16,477.00	16,477.00	16,477.00	0.00
Waste Management	0.00	0.00	0.00	0.00	1,490.00	1,490.00	1,490.00	0.00
8. Total Work Assignment Costs:	0.00	0.00	0.00	0.00	38,279.70	38,279.70	38,279.70	0.00
9. Fees:								
Fixed Fee:	0.00	0.00	0.00	0.00	1,315.17	1,315.17	1,315.17	0.00
Management Fee:	0.00	0.00	0.00	0.00	823.85	823.85	823.85	0.00
10. Total Work Assignment Price:	0.00	0.00	0.00	0.00	40,418.72	40,418.72	40,418.72	0.00

Project Manager (Engineer): _____ **Date:** _____

ENGINEER: Lawler, Matusky & Skelly Engineers
CONTRACT No.: D002676
PROJECT NAME: NCIA Groundwater RI/FS
WORK ASSIGNMENT No.: D002676-42
TASK No./NAME: Task 5
COMPLETE: 0%

SCHEDULE 2.11(g)

MONTHLY COST CONTROL REPORT
SUMMARY OF FISCAL INFORMATION

DATE PREPARED: 04 Feb 99
BILLING PERIOD:
INVOICE No.:
CAP No.:

EXPENDITURE CATEGORY	A COST CLAIMED THIS PERIOD	B PAID TO DATE	C TOTAL DISSALLOWED TO DATE	D TOTAL COSTS PAID TO DATE (A + B)	E ESTIMATED COSTS TO COMPLETION	F ESTIMATED TOTAL WORK ASSIGNMENT PRICE (A + B + E)	G APPROVED BUDGET	H ESTIMATED UNDER/OVER (G-F)
1. Direct Salary Costs:	0.00	0.00	0.00	0.00	12,359.21	12,359.21	12,359.21	0.00
2. Indirect Salary Costs (1.55):	0.00	0.00	0.00	0.00	19,156.78	19,156.78	19,156.78	0.00
3. Subtotal Direct Salary and Indirect Costs:	0.00	0.00	0.00	0.00	31,515.99	31,515.99	31,515.99	0.00
4. Travel:	0.00	0.00	0.00	0.00	183.50	183.50	183.50	0.00
5. Other Non-Salary Costs:								
Material Costs:	0.00	0.00	0.00	0.00	384.70	384.70	384.70	0.00
Equipment Costs:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6. Subtotal Direct Non-Salary Costs:	0.00	0.00	0.00	0.00	568.20	568.20	568.20	0.00
7. Subs:								
Subconsultants:								
Subcontractors:								
8. Total Work Assignment Costs:	0.00	0.00	0.00	0.00	32,084.19	32,084.19	32,084.19	0.00
9. Fees:								
Fixed Fee:	0.00	0.00	0.00	0.00	3,151.60	3,151.60	3,151.60	0.00
Management Fee:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10. Total Work Assignment Price:	0.00	0.00	0.00	0.00	35,235.79	35,235.79	35,235.79	0.00

Project Manager (Engineer): _____ Date: _____

ENGINEER: Lawler, Matusky & Skelly Engineers LLP
CONTRACT No.: D002676
PROJECT NAME: NCIA Groundwater RI/FS
WORK ASSIGN. No.: D002676-42

SCHEDULE 2.11(h)

MONTHLY COST CONTROL REPORT

SUMMARY OF LABOR HOURS

Number of Direct Labor Hours Expended to Date/Estimated Number of Direct Labor Hours to Completion

DATE PREPARED: 04 Feb 99
BILLING PERIOD:
INVOICE No.:

LABOR CLASSIFICATION / SALARY RATE	IX $48.86		VIII $37.56		VII $32.96		VI $30.87		V $27.54		IV $21.64		III $19.28		II $17.78		I $13.48		WP $12.66		TOTAL NO. OF DIRECT LABOR HRS.	
	EXP.	/EST.	EXP.	/EST.	EXP.	/EST.	EXP.	/EST.	EXP.	/EST.	EXP.	/EST.	EXP.	/EST.	EXP.	/EST.	EXP.	/EST.	EXP.	/EST.	EXP.	/EST.
Task 1	0.0	3.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	44.0	0.0	9.0	0.0	33.0	0.0	33.0	0.0	6.0	0.0	142.0
Task 2	0.0	5.0	0.0	0.0	0.0	38.0	0.0	0.0	0.0	24.0	0.0	56.0	0.0	82.0	0.0	104.0	0.0	782.0	0.0	21.0	0.0	1,112.0
Task 3	0.0	3.5	0.0	0.0	0.0	35.0	0.0	0.0	0.0	0.0	0.0	168.0	0.0	84.0	0.0	64.0	0.0	276.0	0.0	18.0	0.0	648.5
Task 4	0.0	1.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	54.0	0.0	42.0	0.0	89.0	0.0	9.0	0.0	219.0
Task 5	0.0	1.5	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0	96.0	0.0	220.0	0.0	114.0	0.0	22.0	0.0	507.5
Task 6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Task 7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Task 8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
																					0.0	2,629.0
TOTAL HOURS:	0.0	14.0	0.0	0.0	0.0	132.0	0.0	0.0	0.0	24.0	0.0	301.0	0.0	325.0	0.0	463.0	0.0	1,294.0	0.0	76.0	[redacted]	2,629.0

NOTES:

ENGINEER: Lawler, Matusky & Skelly Engineers LLP
CONTRACT No.: D002676
PROJECT NAME: NCIA Groundwater RI/FS
WORK ASSIGN. No.: D002676-42

SCHEDULE 2.11(h)

MONTHLY COST CONTROL REPORT

SUMMARY OF LABOR HOURS

Number of Direct Labor Hours Budgeted/Expended Number of Direct Labor Hours

DATE PREPARED: 04 Feb 99
BILLING PERIOD:
INVOICE No.:

LABOR CLASSIFICATION SALARY RATE	IX $48.86		VIII $37.56		VII $32.96		VI $30.87		V $27.54		IV $21.54		III $19.28		II $17.78		I $13.48		WP $12.66		TOTAL NO. OF DIRECT LABOR HRS.	
	BUD	EXP.	BUD	EXP.	BUD	EXP.	BUD	EXP.	BUD	EXP.	BUD	EXP.	BUD	EXP.	BUD	EXP.	BUD	EXP.	BUD	EXP.	BUD	EXP.
Task 1	3.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	44.0	0.0	9.0	0.0	33.0	0.0	33.0	0.0	6.0	0.0	142.0	0.0
Task 2	5.0	0.0	0.0	0.0	38.0	0.0	0.0	0.0	24.0	0.0	56.0	0.0	82.0	0.0	104.0	0.0	782.0	0.0	21.0	0.0	1,112.0	0.0
Task 3	3.5	0.0	0.0	0.0	35.0	0.0	0.0	0.0	0.0	0.0	168.0	0.0	84.0	0.0	64.0	0.0	276.0	0.0	18.0	0.0	648.5	0.0
Task 4	1.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	54.0	0.0	42.0	0.0	89.0	0.0	9.0	0.0	219.0	0.0
Task 5	1.5	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0	96.0	0.0	220.0	0.0	114.0	0.0	22.0	0.0	507.5	0.0
Task 6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Task 7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Task 8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
																					2,629.0	0.0
TOTAL HOURS:	14.0	0.0	0.0	0.0	132.0	0.0	0.0	0.0	24.0	0.0	301.0	0.0	325.0	0.0	463.0	0.0	1,294.0	0.0	76.0	0.0		

NOTES:

ENGINEER:	Lawler, Matusky & Skelly Engineers LLP	**SCHEDULE 2.11(g) - SUPPLEMENTAL**	**PAGE:** 12 of 12
CONTRACT No.:	D002676		**DATE PREPARED:** 04 Feb 99
PROJECT NAME:	NCIA Groundwater RI/FS	**COST CONTROL REPORT**	**BILLING PERIOD:**
WORK ASSIGNMENT No.:	D002676-42	**SUBCONTRACTOR**	**INVOICE No.:**
			CAP No.:

SUBCONTRACT NAME	A SUBCONTRACT COST CLAIMED THIS APPLICATION INCLUDING RESUBMITTALS	B SUBCONTRACT COST APPROVED FOR PAYMENT ON PREVIOUS APPLICATIONS	C TOTAL SUBCONTRACT COSTS TO DATE (A PLUS B)	D SUBCONTRACT APPROVED BUDGET	E MANAGEMENT FEE BUDGET	F MANAGEMENT FEE PAID	G TOTAL COSTS TO DATE (C PLUS F)
1. Corporate Reproductions	0.00	0.00	0.00	2,460.00	0.00	0.00	0.00
2. Delta Well and Pump	0.00	0.00	0.00	16,477.00	823.85	0.00	0.00
3. Waste Management	0.00	0.00	0.00	1,490.00	0.00	0.00	0.00
TOTALS:	0.00	0.00	0.00	20,427.00	823.85	0.00	0.00

Project Manager: _____ **Date:** _____

Notes: (1) Costs listed in columns A, B, C & D do not include any management fee costs.
(2) Management fee is applicable to only properly procured, satisfactorily completed, unit price subcontracts over $10,000.
(3) Total line, column G should equal line 7 (subcontractors), column D of Summary Cost Control Report.

LABOR HOURS AND COSTS
TASK SUMMARY
NCIA Groundwater RI/FS

NSPE/ASCE LABOR CLASS	1998 HOURLY RATE ($)	TASK 1: 1997 RATES	TASK 2: 1998 RATES	TASK 3: 1996 RATES	TASK 4: 1998 RATES	TASK 5: 1996 RATES	TOTAL HOURS	SUBTOTAL ($)
IX	63.86	3.00	5.00	3.50	1.00	1.50	14.00	894.04
VIII	49.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VII	43.07	14.00	38.00	35.00	15.00	30.00	132.00	5,685.24
VI	40.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V	35.99	0.00	24.00	0.00	0.00	0.00	24.00	863.76
IV	28.15	44.00	56.00	168.00	9.00	24.00	301.00	8,473.15
III	25.21	9.00	82.00	84.00	54.00	96.00	325.00	8,193.25
II	24.51	33.00	104.00	64.00	42.00	220.00	463.00	11,348.13
I	18.59	33.00	782.00	276.00	89.00	114.00	1,294.00	24,055.46
WP	16.55	6.00	21.00	18.00	9.00	22.00	76.00	1,257.80
TOTAL UNITS:		142.00	1,112.00	648.50	219.00	507.50	2,629.00	
DIRECT SALARY COSTS ($):		3,781.65	23,897.31	15,575.18	5,157.48	12,359.21		60,770.83
INDIRECT SALARY								
1.55		5,861.56	37,040.83	24,141.54	7,994.10	19,156.78		94,194.81
SUBTOTAL ($):		9,643.21	60,938.14	39,716.72	13,151.58	31,515.99		154,965.64
0.10		964.33	6,093.83	3,971.68	1,315.17	3,151.60		15,496.61
MATERIAL COSTS ($):		459.30	11,839.30	1,811.70	564.20	384.70		15,059.20
TRAVEL COSTS ($):		195.50	8,669.90	236.50	1,678.70	183.50		10,964.10
FIELD EQUIPMENT ($):		0.00	3,310.00	0.00	694.00	0.00		4,004.00
SUBS ($):		0.00	0.00	2,460.00	22,191.22	0.00		24,651.22
0.05		0.00	0.00	0.00	823.85	0.00		823.85
TOTAL ($):		11,262.34	90,851.17	48,196.60	40,418.72	35,235.79		225,964.62

LABOR HOURS AND COSTS
TASK 1: WORK PLAN DEVELOPMENT
NCIA Groundwater RI/FS

NSPE/ASCE LABOR CLASS	HOURLY RATE ($)	1.1 BACKGROUND REVIEW	1.2 SCOPING SESSION	1.3 DRAFT WORK PLAN	1.4 FINAL WORK PLAN	1.5 TASK MANAGEMENT	TOTAL HOURS	SUBTOTAL ($)
IX	63.86	0.0	0.0	2.0	1.0	0.0	3.0	191.58
VIII	49.09	0.0	0.0	0.0	0.0	0.0	0.0	0.00
VII	43.07	1.0	2.0	8.0	2.0	1.0	14.0	602.98
VI	40.35	0.0	0.0	0.0	0.0	0.0	0.0	0.00
V	35.99	0.0	0.0	0.0	0.0	0.0	0.0	0.00
IV	28.15	8.0	8.0	24.0	4.0	0.0	44.0	1,238.60
III	25.21	2.0	2.0	4.0	0.0	1.0	9.0	226.89
II	24.51	0.0	12.0	11.0	10.0	0.0	33.0	808.83
I	18.59	7.0	2.0	4.0	4.0	16.0	33.0	613.47
WP	16.55	0.0	0.0	4.0	2.0	0.0	6.0	99.30
TOTAL UNITS:		18.0	26.0	57.0	23.0	18.0	142.0	
DIRECT SALARY COSTS ($):		448.82	693.06	1,658.89	615.16	365.72		3,781.65
INDIRECT SALARY COSTS ($):	1.55:	695.67	1,074.24	2,571.28	953.50	566.87		5,861.56
SUBTOTAL ($):		1,144.49	1,767.30	4,230.17	1,568.66	932.59		9,643.21
FIXED FEE ($):	0.10:	114.45	176.73	423.02	156.87	93.26		964.33
MATERIAL COSTS ($):		61.30	63.00	160.00	140.00	35.00		459.30
TRAVEL COSTS ($):		0.00	178.50	8.50	8.50	0.00		195.50
FIELD EQUIPMENT ($):		0.00	0.00	0.00	0.00	0.00		0.00
SUBS ($):		0.00	0.00	0.00	0.00	0.00		0.00
MGMT FEE ($):	0.05:	0.00	0.00	0.00	0.00	0.00		0.00
TOTAL ($):		1,320.24	2,185.53	4,821.69	1,874.03	1,060.85		11,262.34

MATERIAL COSTS
TASK 1: WORK PLAN DEVELOPMENT
NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	1.1 BACKGROUND REVIEW	1.2 SCOPING SESSION	1.3 DRAFT WORK PLAN	1.4 FINAL WORK PLAN	1.5 TASK MANAGEMENT	TOTAL ($)
Telephone	(at cost)	1.00	20	20	10	5	5	60.00
Reproduction	(per page)	0.07	190	100	1,000	1,000	100	167.30
General PC usage	(per hr)	1.50	4	4	20	10	2	60.00
Fax	(per page)	1.00	2	10	10	10	10	42.00
Overnight shipping	(at cost)	1.00	20	20	40	40	10	130.00
	TOTAL UNITS:		236	154	1,080	1,065	127	
	TASK TOTAL ($):		61.30	63.00	160.00	140.00	35.00	459.30

TRAVEL COSTS
TASK 1: WORK PLAN DEVELOPMENT
NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	1.1 BACKGROUND REVIEW	1.2 SCOPING SESSION	1.3 DRAFT WORK PLAN	1.4 FINAL WORK PLAN	1.5 TASK MANAGEMENT	TOTAL ($)
Personal mileage	(per mile)	0.325	0	500	20	20	0	175.50
Tolls	(at cost)	1.00	0	16	2	2	0	20.00
	TOTAL UNITS:		0	516	22	22	0	
	TASK TOTAL ($):		0.00	178.50	8.50	8.50	0.00	195.50

LABOR HOURS AND COSTS
TASK 2: MONITORING WELL SAMPLING
NCIA Groundwater RI/FS

NSPE/ASCE LABOR CLASS	HOURLY RATE ($)	2.1 MONITORING WELL LOCATION DATABASE	2.2 MOBILIZATION/ DEMOBILIZATION	2.3 MONITORING WELL SAMPLING	2.4 DATA MANAGEMENT	2.5 EARLY WARNING BIANNUAL SAMPLING	2.6 PUBLIC PARTICIPATION	2.7 TASK MANAGEMENT	TOTAL HOURS	SUBTOTAL ($)
IX	63.86	1.0	1.0	2.0	0.0	0.0	0.0	1.0	5.0	319.30
VIII	49.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
VII	43.07	8.0	4.0	12.0	1.0	8.0	1.0	4.0	38.0	1,636.66
VI	40.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
V	35.99	0.0	0.0	4.0	20.0	0.0	0.0	0.0	24.0	863.76
IV	28.15	40.0	4.0	6.0	0.0	4.0	2.0	0.0	56.0	1,576.40
III	25.21	12.0	20.0	20.0	6.0	8.0	8.0	8.0	82.0	2,067.22
II	24.51	24.0	4.0	8.0	60.0	8.0	0.0	0.0	104.0	2,549.04
I	18.59	120.0	20.0	560.0	20.0	48.0	8.0	6.0	782.0	14,537.38
WP	16.55	8.0	4.0	4.0	1.0	0.0	2.0	2.0	21.0	347.55
TOTAL UNITS:		213.0	57.0	616.0	108.0	76.0	21.0	21.0	1,112.0	
DIRECT SALARY COSTS ($):		4,788.38	1,388.98	12,134.30	2,773.08	1,747.24	482.87	582.46		23,897.31
INDIRECT SALARY COSTS ($):	1.55:	7,421.99	2,152.92	18,808.17	4,298.27	2,708.22	748.45	902.81		37,040.83
SUBTOTAL ($):		12,210.37	3,541.90	30,942.47	7,071.35	4,455.46	1,231.32	1,485.27		60,938.14
FIXED FEE ($):	0.10:	1,221.04	354.19	3,094.25	707.14	445.55	123.13	148.53		6,093.83
MATERIAL COSTS ($):		162.00	92.00	10,032.30	452.00	1,070.60	20.40	10.00		11,839.30
TRAVEL COSTS ($):		454.72	71.50	7,469.60	32.50	594.58	47.00	0.00		8,669.90
FIELD EQUIPMENT ($):		0.00	0.00	3,094.00	0.00	216.00	0.00	0.00		3,310.00
SUBS ($):		0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
MGMT FEE ($):	0.05:	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00
TOTAL ($):		14,048.13	4,059.59	54,632.62	8,262.99	6,782.19	1,421.85	1,643.80		90,851.17

MATERIAL COSTS

TASK 2: MONITORING WELL SAMPLING

NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	2.1 MONITORING WELL LOCATION DATABASE	2.2 MOBILIZATION/ DEMOBILIZATION	2.3 MONITORING WELL SAMPLING	2.4 DATA MANAGEMENT	2.5 EARLY WARNING BIANNUAL SAMPLING	2.6 PUBLIC PARTICIPATION	2.7 TASK MANAGEMENT	TOTAL ($)
Telephone	(at cost)	1.00	80	20	200	20	80	10	10	420.00
Reproduction	(per page)	0.07	100	100	600	600	200	20	0	113.40
General PC usage	(per hr)	1.50	10	10	40	60	6	6	0	198.00
Fax	(per page)	1.00	20	20	100	100	20	0	0	260.00
Overnight shipping	(at cost)	1.00	40	20	1,500	200	0	0	0	1,760.00
Photography	(at cost)	1.00	0	10	0	0	0	0	0	10.00
Disposable Field Items:										
Nylon Rope	(per ft)	0.20	0	0	13,000	0	1,000	0	0	2,800.00
½" ID tubing	(per ft)	0.30	0	0	13,000	0	1,000	0	0	4,200.00
Decon Chemicals	(at cost)	1.00	0	0	50	0	40	0	0	90.00
Decon D.I. Water	(per gal.)	0.12	0	0	100	0	200	0	0	36.00
Sample bottles	(per case)	42.95	0	0	4	0	8	0	0	515.40
Ice for samples	(at cost)	1.00	0	0	100	0	40	0	0	140.00
Disposable Bailer	(ea)	11.50	0	0	91	0	0	0	0	1,046.50
Repair of NYSDEC Meters	(lump sum)	125.00	0	0	2	0	0	0	0	250.00
	TOTAL UNITS:		250	180	28,787	980	2,594	36	10	
	TASK TOTAL ($):		162.00	92.00	10,032.30	452.00	1,070.60	20.40	10.00	11,839.30

TRAVEL COSTS

TASK 2: MONITORING WELL SAMPLING

NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	2.1 MONITORING WELL LOCATION DATABASE	2.2 MOBILIZATION/ DEMOBILIZATION	2.3 MONITORING WELL SAMPLING	2.4 DATA MANAGEMENT	2.5 EARLY WARNING BIANNUAL SAMPLING	2.6 PUBLIC PARTICIPATION	2.7 TASK MANAGEMENT	TOTAL ($)
Auto rental	(per day)	70.00	0	0	0	0	0	0	0	0.00
Truck/van rental	(per day)	31.34	3	0	28	0	2	0	0	1,034.22
Truck/van mileage	(per mile)	0.133	400	0	1760	0	300	0	0	327.18
Personal mileage	(per mile)	0.325	220	220	400	100	0	120	0	344.50
Per diem	(per day)	108.00	2	0	56	0	4	0	0	6,696.00
Tolls	(at cost)	1.00	10	0	180	0	60	8	0	258.00
Parking	(at cost)	1.00	10	0	0	0	0	0	0	10.00
	TOTAL UNITS:		645	220	2,424	100	366	128	0	
	TASK TOTAL ($):		454.72	71.50	7,469.60	32.50	594.58	47.00	0.00	8,669.90

TABLE 2 (Page 4 of 4)

FIELD EQUIPMENT COSTS

TASK 2: MONITORING WELL SAMPLING

NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	2.1 MONITORING WELL LOCATION DATABASE	2.2 MOBILIZATION/ DEMOBILIZATION	2.3 MONITORING WELL SAMPLING	2.4 DATA MANAGEMENT	2.5 EARLY WARNING BIANNUAL SAMPLING	2.6 PUBLIC PARTICIPATION	2.7 TASK MANAGEMENT	TOTAL ($)
Personal Protective Equipment:										
Level D	(per day)	12	0	0	56	0	4	0	0	720.00
2" Submersible Pump (110 V)	(per day)	15	0	0	28	0	2	0	0	450.00
Generators - Honda (6,500 watt)	(per day)	51	0	0	28	0	2	0	0	1530.00
PID - HNu (P1-101)	(per day)	23	0	0	14	0	0	0	0	322.00
PID - HNu (HW-101) @	(per day)	0	0	0	14	0	2	0	0	0.00
FID - Foxboro (OVA-128) @	(per day)	0	0	0	14	0	0	0	0	0.00
Static well level - Slope Ind. Co. (51453) @	(per day)	0	0	0	28	0	0	0	0	0.00
Conductivity w/temp. meter - YEI @	(per day)	0	0	0	28	0	2	0	0	0.00
pH meter - CP (pH pen)	(per day)	4	0	0	14	0	2	0	0	64.00
pH meter - Orion @	(per day)	0	0	0	14	0	0	0	0	0.00
Turbidity meter - Monitek @	(per day)	0	0	0	14	0	0	0	0	0.00
Turbidity meter - Hoch	(per day)	14	0	0	14	0	2	0	0	224.00
	SUBTOTAL:		0.00	0.00	252.00	0.00	36.00	0.00	0.00	
	TOTAL UNITS:		0	0	266	0	16	0	0	
	TASK TOTALS ($):		0.00	0.00	3,094.00	0.00	216.00	0.00	0.00	3310.00

@ - NYSDEC meters to be used.

LABOR HOURS AND COSTS

TASK 3: GROUNDWATER INVESTIGATION REPORT

NCIA Groundwater RI/FS

NSPE/ASCE LABOR CLASS	HOURLY RATE ($) 1996	3.1 COMPILE AND SUMMARIZE PREVIOUS DATA	3.2 DATA EVALUATION/ PLUME MAPS	3.3 DRAFT REPORT	3.4 FINAL REPORT	3.5 PUBLIC PARTICIPATION	3.6 TASK MANAGEMENT	TOTAL HOURS	SUBTOTAL ($)
IX	63.86	0.0	0.0	2.0	1.0	0.0	0.5	3.5	223.51
VIII	49.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
VII	43.07	8.0	10.0	8.0	6.0	1.0	2.0	35.0	1,507.45
VI	40.35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
V	35.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
IV	28.15	4.0	60.0	80.0	16.0	8.0	0.0	168.0	4,729.20
III	25.21	16.0	40.0	16.0	10.0	0.0	2.0	84.0	2,117.64
II	24.51	8.0	20.0	20.0	16.0	0.0	0.0	64.0	1,568.64
I	18.59	100.0	60.0	80.0	20.0	12.0	4.0	276.0	5,130.84
WP	16.55	0.0	2.0	6.0	4.0	2.0	4.0	18.0	297.90
TOTAL UNITS:		136.0	192.0	212.0	73.0	23.0	12.5	648.5	
DIRECT SALARY COSTS ($):		2,915.60	4,766.80	5,204.34	1,854.94	524.45	309.05		15,575.18
INDIRECT SALARY COSTS ($):	1.55	4,519.18	7,388.54	8,066.73	2,875.16	812.90	479.03		24,141.54
SUBTOTAL ($):		7,434.78	12,155.34	13,271.07	4,730.10	1,337.35	788.08		39,716.72
FIXED FEE ($):	0.10	743.48	1,215.53	1,327.11	473.01	133.74	78.81		3,971.68
MATERIAL COSTS ($):		138.00	962.00	350.00	204.00	88.70	69.00		1,811.70
TRAVEL COSTS ($):		75.00	72.50	21.00	21.00	47.00	0.00		236.50
FIELD EQUIPMENT ($):		0.00	0.00	0.00	0.00	0.00	0.00		0.00
SUBS ($):		0.00	0.00	0.00	2,460.00	0.00	0.00		2,460.00
MGMT FEE ($):	0.05	0.00	0.00	0.00	0.00	0.00	0.00		0.00
TOTAL ($):		8,391.26	14,405.37	14,969.18	7,888.11	1,606.79	935.89		48,196.60

MATERIAL COSTS

TASK 3: GROUNDWATER INVESTIGATION REPORT

NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	3.1 COMPILE AND SUMMARIZE PREVIOUS DATA	3.2 DATA EVALUATION/ PLUME MAPS	3.3 DRAFT REPORT	3.4 FINAL REPORT	3.5 PUBLIC PARTICIPATION	3.6 TASK MANAGEMENT	TOTAL ($)
Telephone	(at cost)	1.00	40	20	20	10	0	10	100.00
Reproduction	(per page)	0.07	400	600	3,000	200	10	100	301.70
General PC usage	(per hr)	1.50	40	100	0	40	0	8	282.00
Auto CADD	(per hr)	15.00	0	48	0	0	4	0	780.00
Fax	(per page)	1.00	10	30	20	20	8	20	108.00
Overnight shipping	(at cost)	1.00	0	0	100	100	20	20	240.00
	TOTAL UNITS:		490	798	3,140	370	42	158	
	TASK TOTAL ($):		138.00	962.00	350.00	204.00	88.70	69.00	1,811.70

TRAVEL COSTS

TASK 3: GROUNDWATER INVESTIGATION REPORT

NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	3.1 COMPILE AND SUMMARIZE PREVIOUS DATA	3.2 DATA EVALUATION/ PLUME MAPS	3.3 DRAFT REPORT	3.4 FINAL REPORT	3.5 PUBLIC PARTICIPATION	3.6 TASK MANAGEMENT	TOTAL ($)
Truck/van rental	(per day)	31.34	0	0	0	0	0	0	0.00
Truck/van mileage	(per mile)	0.133	0	0	0	0	0	0	0.00
Personal mileage	(per mile)	0.325	200	100	40	40	120	0	162.50
Per diem	(per day)	108.00	0	0	0	0	0	0	0.00
Tolls	(at cost)	1.00	10	40	8	8	8	0	74.00
	TOTAL UNITS:		210	140	48	48	128	0	
	TASK TOTAL ($):		75.00	72.50	21.00	21.00	47.00	0.00	236.50

SUBCONSULTANTS/SUBCONTRACTORS COSTS
TASK 3: GROUNDWATER INVESTIGATION REPORT
NCIA Groundwater RI/FS

ITEM	3.1 COMPILE AND SUMMARIZE PREVIOUS DATA	3.2 DATA EVALUATION/ PLUME MAPS	3.3 DRAFT REPORT	3.4 FINAL REPORT	3.5 PUBLIC PARTICIPATION	3.6 TASK MANAGEMENT	TOTAL ($)
Subconsultants:							
SUBTOTAL:	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subcontractors:							
Corporate Reproductions	0.00	0.00	0.00	2,460.00	0.00	0.00	2,460.00
SUBTOTAL:	0.00	0.00	0.00	2,460.00	0.00	0.00	2,460.00
TOTAL:	0.00	0.00	0.00	2,460.00	0.00	0.00	2,460.00

LABOR HOURS AND COSTS

TASK 4: DOWNGRADEINT MONITORING WELLS

NCIA Groundwater RI/FS

NSPE/ASCE LABOR CLASS	HOURLY RATE ($)	4.1 SELECTION OF DRILLING LOCATIONS	4.2 MOBILIZATION/ DEMOBILIZATION	4.3 MONITORING WELL INSTALLATION	4.4 MONITORING WELL SAMPLING	4.5 DRILL CUTTING DISPOSAL	4.6 TASK MANAGEMENT	TOTAL HOURS	SUBTOTAL ($)
IX	63.86	1.0	0.0	0.0	0.0	0.0	0.0	1	63.86
VIII	49.09	0.0	0.0	0.0	0.0	0.0	0.0	0	0.00
VII	43.07	1.0	0.0	8.0	2.0	2.0	2.0	15	646.05
VI	40.35	0.0	0.0	0.0	0.0	0.0	0.0	0	0.00
V	35.99	0.0	0.0	0.0	0.0	0.0	0.0	0	0.00
IV	28.15	1.0	0.0	8.0	0.0	0.0	0.0	9	253.35
III	25.21	8.0	16.0	12.0	8.0	8.0	2.0	54	1,361.34
II	24.51	2.0	0.0	32.0	8.0	0.0	0.0	42	1,029.42
I	18.59	2.0	4.0	32.0	48.0	1.0	2.0	89	1,654.51
WP	16.55	1.0	4.0	2.0	0.0	1.0	1.0	9	148.95
TOTAL UNITS:		16	24	94	66	12	7	219	
DIRECT SALARY COSTS ($):		439.51	543.92	2,284.58	1,376.22	322.96	190.29		5,157.48
INDIRECT SALARY COSTS ($):	1.55	681.24	843.08	3,541.10	2,133.14	500.59	294.95		7,994.10
SUBTOTAL ($):		1,120.75	1,387.00	5,825.68	3,509.36	823.55	485.24		13,151.58
FIXED FEE ($):	0.10	112.08	138.70	582.57	350.94	82.36	48.52		1,315.17
MATERIAL COSTS ($):		74.50	74.50	157.00	178.60	68.60	11.00		564.20
TRAVEL COSTS ($):		106.30	106.30	803.20	566.60	96.30	0.00		1,678.70
FIELD EQUIPMENT ($):		0.00	0.00	290.00	404.00	0.00	0.00		694.00
SUBS ($):		0.00	0.00	20,701.22	0.00	1,490.00	0.00		22,191.22
MGMT FEE ($):	0.05	0.00	0.00	823.85	0.00	0.00	0.00		823.85
TOTAL ($):		1,413.63	1,706.50	29,183.52	5,009.50	2,560.81	544.76		40,418.72

MATERIAL COSTS

TASK 4: DOWNGRADEINT MONITORING WELLS

NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	4.1 SELECTION OF DRILLING LOCATIONS	4.2 MOBILIZATION/ DEMOBILIZATION	4.3 MONITORING WELL INSTALLATION	4.4 MONITORING WELL SAMPLING	4.5 DRILL CUTTING DISPOSAL	4.6 TASK MANAGEMENT	TOTAL ($)
Telephone	(at cost)	1.00	10	10	80	10	10	4	124.00
Reproduction	(per page)	0.07	100	100	200	80	80	100	46.20
General PC usage	(per hr)	1.50	5	5	2	2	2	0	24.00
Fax	(per page)	1.00	10	10	20	40	40	0	120.00
Overnight shipping	(at cost)	1.00	40	40	40	120	10	0	250.00
	TOTAL UNITS:		165	165	342	252	142	104	
	TASK TOTAL ($):		74.50	74.50	157.00	178.60	68.60	11.00	564.20

TRAVEL COSTS
TASK 4: DOWNGRADEINT MONITORING WELLS
NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	4.1 SELECTION OF DRILLING LOCATIONS	4.2 MOBILIZATION/ DEMOBILIZATION	4.3 MONITORING WELL INSTALLATION	4.4 MONITORING WELL SAMPLING	4.5 DRILL CUTTING DISPOSAL	4.6 TASK MANAGEMENT	TOTAL ($)
Truck/van rental	(per day)	31.34	1	1	5	2	1	0	313.40
Truck/van mileage	(per mile)	0.133	120	120	500	240	120	0	146.30
Personal mileage	(per mile)	0.325	120	120	0	0	120	0	117.00
Per diem	(per day)	108.00	0	0	5	4	0	0	972.00
Tolls	(at cost)	1.00	20	20	40	40	10	0	130.00
	TOTAL UNITS:		261	261	550	286	251	0	
	TASK TOTAL ($):		106.30	106.30	803.20	566.60	96.30	0.00	1,678.70

SUBCONSULTANTS/SUBCONTRACTORS COSTS
TASK 4: DOWNGRADEINT MONITORING WELLS
NCIA Groundwater RI/FS

ITEM		4.1 SELECTION OF DRILLING LOCATIONS	4.2 MOBILIZATION/ DEMOBILIZATION	4.3 MONITORING WELL INSTALLATION	4.4 MONITORING WELL SAMPLING	4.5 DRILL CUTTING DISPOSAL	4.6 TASK MANAGEMENT	TOTAL ($)
Subconsultants:								
YEC (survey)		0.00	0.00	4,224.22	0.00	0.00	0.00	4,224.22
	SUBTOTAL:	0.00	0.00	4,224.22	0.00	0.00	0.00	4,224.22
Subcontractors:								
Delta Well and Pump		0.00	0.00	16,477.00	0.00	0.00	0.00	16,477.00
Waste Management		0.00	0.00	0.00	0.00	1,490.00	0.00	1,490.00
	SUBTOTAL:	0.00	0.00	16,477.00	0.00	1,490.00	0.00	17,967.00
	TOTAL:	0.00	0.00	20,701.22	0.00	1,490.00	0.00	22,191.22

FIELD EQUIPMENT COSTS
TASK 4: DOWNGRADEINT MONITORING WELLS
NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	4.1 SELECTION OF DRILLING LOCATIONS	4.2 MOBILIZATION/ DEMOBILIZATION	4.3 MONITORING WELL INSTALLATION	4.4 MONITORING WELL SAMPLING	4.5 DRILL CUTTING DISPOSAL	4.6 TASK MANAGEMENT	TOTAL ($)
Personal Protective Equipment:									
Level D	(per day)	12	0	0	5	4	0	0	108.00
2" Submersible Pump (110 V)	(per day)	15	0	0	0	4	0	0	60.00
Generators - Honda (6,500 watt)	(per day)	51	0	0	0	4	0	0	204.00
PID - HNu (P1-101)	(per day)	23	0	0	5	2	0	0	161.00
Static well level - Slope Ind. Co. (51453) @	(per day)	0	0	0	5	2	0	0	0.00
DO/temp. meter - YEI (50' + 100')	(per day)	23	0	0	5	2	0	0	161.00
pH meter - Orion @	(per day)	0	0	0	5	2	0	0	0.00
Turbidity meter - Monitek @	(per day)	0	0	0	5	2	0	0	0.00
	TOTAL UNITS:		0	0	30	22	0	0	
	TASK TOTALS ($):		0.00	0.00	290.00	404.00	0.00	0.00	694.00

@ - NYSDEC Meter.

LABOR HOURS AND COSTS

TASK 5: Phase I - FEASIBILITY STUDY

NCIA Groundwater RI/FS

NSPE/ASCE LABOR CLASS	HOURLY RATE ($)	5.1 DEVELOPMENT OF ALTERNATIVES	5.2 PRELIMINARY SCREENING OF ALTERNATIVES	5.3 PHASE II FS - SCOPING	5.4 TASK MANAGEMENT	TOTAL HOURS	SUBTOTAL ($)
IX	63.86	1.0	0.0	0.0	0.5	1.5	95.79
VIII	49.09	0.0	0.0	0.0	0.0	0	0.00
VII	43.07	10.0	10.0	4.0	6.0	30	1,292.10
VI	40.35	0.0	0.0	0.0	0.0	0	0.00
V	35.99	0.0	0.0	0.0	0.0	0	0.00
IV	28.15	8.0	8.0	8.0	0.0	24	675.60
III	25.21	30.0	60.0	0.0	6.0	96	2,420.16
II	24.51	60.0	160.0	0.0	0.0	220	5,392.20
I	18.59	50.0	40.0	20.0	4.0	114	2,119.26
WP	16.55	8.0	12.0	0.0	2.0	22	364.10
TOTAL UNITS:		167	290	32	18.5	508	
DIRECT SALARY COSTS ($):		4,008.56	7,032.30	769.28	549.07		12,359.21
INDIRECT SALARY COSTS ($):	1.55	6,213.27	10,900.07	1,192.38	851.06		19,156.78
SUBTOTAL ($):		10,221.83	17,932.37	1,961.66	1,400.13		31,515.99
FIXED FEE ($):	0.10	1,022.18	1,793.24	196.17	140.01		3,151.60
MATERIAL COSTS ($):		186.00	152.00	29.00	17.70		384.70
TRAVEL COSTS ($):		86.00	0.00	97.50	0.00		183.50
FIELD EQUIPMENT ($):		0.00	0.00	0.00	0.00		0.00
SUBS ($):		0.00	0.00	0.00	0.00		0.00
MGMT FEE ($):	0.05	0.00	0.00	0.00	0.00		0.00
TOTAL ($):		11,516.01	19,877.61	2,284.33	1,557.84		35,235.79

MATERIAL COSTS

TASK 5: Phase I - FEASIBILITY STUDY

NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	5.1 DEVELOPMENT OF ALTERNATIVES	5.2 PRELIMINARY SCREENING OF ALTERNATIVES	5.3 PHASE II FS - SCOPING	5.4 TASK MANAGEMENT	TOTAL ($)
Telephone	(at cost)	1.00	10	10	20	10	50.00
Reproduction	(per page)	0.07	1,400	1,200	100	10	189.70
General PC usage	(per hr)	1.50	12	12	0	2	39.00
Fax	(per page)	1.00	20	20	2	4	46.00
Overnight shipping	(at cost)	1.00	40	20	0	0	60.00
	TOTAL UNITS:		1,482	1,262	122	26	
	TASK TOTAL ($):		186.00	152.00	29.00	17.70	384.70

TRAVEL COSTS

TASK 5: Phase I - FEASIBILITY STUDY

NCIA Groundwater RI/FS

ITEM	RATE BASE	ESTIMATED $ PER UNIT	5.1 DEVELOPMENT OF ALTERNATIVES	5.2 PRELIMINARY SCREENING OF ALTERNATIVES	5.3 PHASE II FS - SCOPING	5.4 FS REPORT	5.5 PUBLIC PARTICIPATION	5.6 TASK MANAGEMENT	TOTAL ($)
Personal mileage	(per mile)	0.325	240	0	300	0	0	0	175.50
Tolls	(at cost)	1.00	8	0	0	0	0	0	8.00
	TOTAL UNITS:		248	0	300	0	0	0	
	TASK TOTAL ($):		86.00	0.00	97.50	0.00	0.00	0.00	183.50