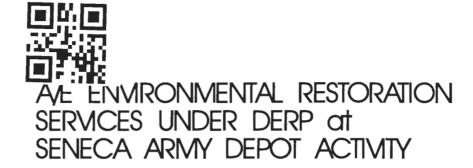
02113



Huntsville Division



Contract No. DACA87-95-D-0031

COST PROPOSAL FOR
ANNEX É
REMEDIAL INVESTIGATIONS / FEASIBILITY STUDIES
AT THE RADIOLOGICAL WASTE BURIAL SITES,
(SEAD-12),
SENECA ARMY DEPOT ACTIMITY, ROMULUS, NEW YORK

Prepared For:

U.S. ARMY CORPS OF ENGINEERS HUNTSVILLE DIVISION

Prepared By:

PARSONS ENGINEERING SCIENCE, INC.

MARCH 25, 1996

CONTRACT PRICING PROPOSAL COVER SHEET (Cost or Pricing Data Required)

1.SOLICITATION/CONTRACT/MODIFICATION NUMBER

DACA87-95-D-0031

OMB NO.: 9000-0013

Expires: 09/30/98

Public reporting burden			rmation is estim		-	•		er		ncluding	the	time for
reviewing instructions, s the collection of infirma	searching existination. Send	•	ces, gathering Irding this burde	and en	maintaining estimate or			ede pect	•	npleting collection	and of it	reviewing nformation,
	reducing this		the FAR Secre			fice of		•		licy, GS		ashington,
2a. NAME OF OFFEROR				За	. NAME OF OFF		POINT OF	- CC	ONTACT			_
Parsons Enginee 2b. FIRST LINE ADDRESS	ring Science, Inc).		3h	Mr. Wilson H		POINT OF	- 00	NTACT	3c. TELE AREA CO		
Prudential Center				50	Vice Presid		1 01141 01		MITAGI	(216)		86-9005
2c. STREET ADDRESS							F CONT	RĄ	CT ACTION	(Chec	:k)	
101 Huntington A	venue	2e. STATE	2f. ZIP CODE		A. NEW CONT B. CHANGE OF				D. LETTER CO			
2d. CITY Boston		MA	02199	1	C. PRICE REV			X		(Specify)		
5. TYPE OF CONTRACT	(Check)			Ш	REDETERM	NATION			Task Orde			
FFP	X CPFF	CPIF	CPAF	_	COST				SED COST	(A+B=C) C. TOTA		
FPI [OTHE (Specify)		1 .	COST \$2,252,882		B. PROF		01,759	\$2,36		
			7. PERFC	DRM	ANCE			,				
	Depot Activity, F	Romulus NY						a. b.	April 1996	to Decen	nber 1	998
8. List and reference the id	dentification, quantity	and total price p	proposed for each co	ontrac	ct line item. A	line item			wn supporting the	his recap	is requ	ired unless
otherwise specified by the Contrac	ting Officer.		and then on plain paper, if		ssary. Use same he							
a. LINE ITEM NO.			b. IDENTIFICATION	ON		c. QUA	NTITY	d.	TOTAL PRIC	E e. PR	OP. R	EF. PAG
1	RI/FS at SEA	AD-12				1			\$2,360,641			
			9.PROVIDE THE			(15	ah/a\					
NAME OF CONTRACT ADMII	NISTRATION OFFI	CE.	9.PROVIDE IN		ME OF AUDIT O			Brar	nch Manager: Harold	Jarvis		
DCMO Glendale; DCMDV				Def	fense Contrac	ct Audit /			Gabriel Valley		ice	
STET ADDRESS	d Class				REET ADDRES		io Couth	C.	ita 200			
'est Broadway, Thire		STATE	ZIP CODE	CIT	00 East Garve	ey Avent	ie South,	, St	ille 300	STATE	ZIP CO	DE
Glendale		CA	91204-1297	We	st Covina						91790	-2900
		NUMBER 500-4525		TEL	LEPHONE -	AREA C(818)	ODE			NUMBER 918-592		
10. WILL YOU REQUIRE THE			PERTY	11a.	.DO YOU REQL		/ERNMEN	T]	11b. TYPE OF			eck one)
IN THE PERFORMANCE OF	F THIS WORK?	(If"Yes",identify)		F	CONTRACT FIN FORM THIS PR TRACT? (# *)	OPOSED			ADVANO PAYMEN			OGRESS YMENTS
YES	X NO				YES X	NO			GUARAI	NTEED LC	ANS	
	WITHIN THE PAS number(s) on reverse of t X NO	T 3 YEARS? form)	(If "Yes," identify		ACCOUNTING PRINCIPLES?	PRACTION (IF "No," exp	CES AND	PRO		D FAR PA		
14. COST ACCO									and FAR PAR			0.4
a. WILL THIS CONTRACT AC (If "No," explain in proposal)	HON BE SUBJECT	TO CASE REGU	LATIONS?	0					CLOSURE STAT	•	;ASB D	iS-1 or 2)?
X YES	NO				X YES	NO	Adequate	(Se	e Block 9)			
c. HAVE YOU BEEN NOTIFIED WITH YOUR DISCLOSURE				F					INCONSISTAN ACCOUNTING S			SCLOSED
(If "Yes," explain in proposal) YES	X NC			ا [YES X	NO						
This proposal is submitted in r	esponse to the soli	citation, contract, m	odification, etc. in ite	m 1	and reflects or	ur best e	stimates an	nd/or	actual costs; as	s of this	date an	d conforms
with the instructions in FAR				brobo				_	gotiation, grants		_	
authorized representative(s) the other data, regardless of type and regardless	_								accounting pro	cedures ar	nd prac	tices, and
information is specifically referenced o						roposed pri	ce.					
15. NAME OF OFFEROR (Mr. Wilson Rown		15. TITLE OF	OFFEROR Vice President	((Type)	16. NAM	Parsons		ngineering Sci	ence, Inc		
17 SIGNATURE									18. DATE OF 8 03/25/96	SUBMISSIO	NC	
								0.7	1115 455 50	511111		

CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, the cost or pricing data (as defined in section 15.801 of the Federal Acquisition Regulation (FAR) and required under FAR subsection 15.804-2) submitted, either actually or by specific identification in writing, to the Contracting Officer or the Contracting Officer's Representative in support of Contract DACA87-95-D-0031, Annex E, are accurate, complete, and current as of March 25, 1996. This certification includes the cost or pricing data supporting any advance agreements between the offeror and the Government that are part of the proposal.

	Firm: Parsons Engineering Science, Inc.
	Name:
	Title:
Date of Execution:	

COST AND PRICING DATA FOR COST PROPOSAL FOR ANNEX E TO CONTRACT NO. DACA87-95-D-0031

- 1.0 LABOR AND OVERHEAD RATES. Direct labor rates used in preparing the cost proposal for the base Scope of Work tasks are the base year rates contained in the subject contract. Direct labor rates for the optional Scope of Work tasks are the Base Year 1 rates contained in the subject contract. Overhead rates used in preparing the cost proposal are the rates contained in the subject contract. The rates are applied in accordance with our disclosure statement.
- 2.0 JUDGMENTAL FACTORS. The number of labor hours and quantities of other items required to perform each task are estimated using engineering judgment and analysis of the work to be performed. The analysis considered the difficulty and complexity of each work element and assumed efficient use of resources to accomplish the tasks. Where possible, the records of efforts required to perform similar types of work were used to estimate the labor hour requirements. The mix of labor categories to accomplish tasks was designed to minimize the overall cost.

The estimated labor hours for each labor category required to perform each task described in Annex E are identified in the cost proposal.

3.0 TRAVEL AND LIVING EXPENSES

- 3.1 <u>Air Travel</u>. Air fares used are standard coach fares obtained by contacting Thomas Cook Travel, Boston Massachusetts.
- 3.2 Personal Automobile. A rate of \$0.31/mile was used for personal automobile use.
- <u>Rental Cars.</u> Automobile rental rates are based on \$55/day. The daily rental rate was formulated on the following methodology:

Daily rental mid-size car	\$38.00/day
Excess mileage @ \$0.23/mile	
(estimated @ 100 miles per 3-day trip)	\$7.66/day
Sales tax (@ 7%)	\$2.74/day
Gasoline costs (estimated 18 gallons @ \$1.10/gal	
per 3-day trip)	\$6.60/day
TOTAL	\$55.00/day

Please note that in addition to the rental rate shown above, tolls and parking costs may be incurred. These were estimated at cost.

<u>9.4</u> Per Diem. Per diem rates are based upon the current FTR rate of \$96/day for the Romulus, New York area.

4.0 OTHER DIRECT COSTS

- 4.1 Reproduction Costs. Costs for photocopies are based on the current estimated cost of \$0.05/copy, and bluelines on the current estimated cost of \$1.00/Sheet. These costs have been reviewed by DCAA and accepted by our ACO.
- <u>4.2</u> <u>Equipment.</u> Equipment costs are based on the Parsons ES standard schedule included in Section 2 of our cost proposal for the basic contract.
- <u>4.3</u> <u>Telephone/Telex.</u> Rates for telephone calls were determined using a \$4.00/call tariff. Fax costs were estimated at \$1.00 per page.
- 4.4 Postage.
 - 4.4.1 U.S. Mail Letters, The rates are current postal rates of \$0.54 per letter.
 - 4.4.2 Express Mail, The rates proposed are based on \$14.50 each for standard overnight letter, and \$96.25 for 50 lb package.
- 4.5 Computer Usage. Costs for computer usage are based on current estimated costs of \$5.00/hour for CADD and \$3.70/hour for word processing and technical calculations on personal computers. These costs have been reviewed by DCAA and accepted by our ACO.

5.0 SUBCONTRACTORS

<u>Analytical Costs.</u> Analytical costs are based upon the unit prices from our team subcontractor Inchcape Testing Services, Aquatec Laboratories, of Colchester, VT that are contained in the subject contract. Unit prices used in preparing the cost proposal for the base Scope of Work tasks are the base year rates.

Analytical costs for the radiological samples were solicited from four (4) subcontractors: Core Laboratories Inc., Accu-Labs Research, Inc., Babcock & Wilcox (Nuclear Environmental Services, Inc.) and Davi Laboratories, Environmental Associates. Davi Laboratories, Environmental Associates is a small-woman owned business and Accu-Labs Research is a small business. The lowest bid was received from a cost quotation from Core Laboratories of Casper WY and we have included these costs as part of our cost proposal and attached the cost quotation as back-up. Parsons ES will provide Huntsville with the request to subcontract following our cost negotiations.

- <u>Surveying.</u> Surveying costs are based upon a quotation received from our team subcontractor Modi Engineers and Land Surveyors using the labor and overhead rates included in the subject contract. Modi Engineers and Land Surveyors is a small minority business enterprise. The cost quotation from Modi has been attached as part of our cost proposal. Parsons ES will provide Huntsville with the request to subcontract following our cost negotiations.
- <u>Photogrammetry.</u> Photogrammetry costs are based upon a quotation received from our team subcontractor Lockwood Mapping, Inc. using the labor and overhead rates included in the subject contract. Lockwood Mapping is a small business enterprise. The cost

quotation from Lockwood has been attached as part of our cost proposal. Parsons ES will provide Huntsville with the request to subcontract following our cost negotiations.

- <u>5.4</u> <u>Drilling.</u> Unit price drilling cost quotations were solicited from three subcontractors: Huntingdon, North Star Drilling, and American Auger. North Star Drilling and American Auger are Small Businesses. The lowest evaluated bid was received from North Star Drilling and their costs are included in this proposal and attached as back-up.
- <u>Waste Disposal</u> Unit price quotations for waste disposal were solicited from two subcontractors: Environmental Waste Resources, Inc. of Waterbury, CT, and Clean Harbors, Inc. of Rochester, NY. Only Environmental Waste Resources responded and their costs are included in this proposal and attached as back-up.
- <u>Mark-up on Subcontractors</u> A 3% material handling reimbursable cost was applied on all Subcontractor charges in accordance with our basic contract negotiation agreement.

Project:

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

SUMMARY

7 Item Breakdown Tasks 1 thru 13

(1)	DIRECT	LABOR	SUMMARY

(' /					
		TASK	HOURS		AMOUNT
		Task # 1 Task # 2 Task # 3 Task # 4 Task # 5 Task # 6 Task # 7 Task # 8 Task # 9 Task # 10 Task # 11 Task # 12 Task # 13	1,348 9,284 150 200 152 256 800 1,000 140 700 700 600 580		\$27,851 \$205,862 \$4,993 \$6,658 \$3,744 \$6,382 \$22,436 \$24,932 \$4,186 \$17,449 \$17,168 \$18,672 \$23,912
(2)	DIRECT LABOR		15,910		\$384,245
(3)	OVERHEAD ON DIREC	T LABOR		1.43	\$549,470
(4)	GEN and ADMIN OVER	HEAD (inc. ir	n 3 above)		\$0
(5)	MATERIALS and SUPP	LIES			\$27,204
(6)	TRAVEL				\$164,758
(7)	OTHERS				\$213,413
			SUBTOTAL I	TEMS 1-7	\$1,339,089
(8)	SUBCONTRACTOR				\$913,792
			PROJECT TO	DTAL -	\$2,252,882
(9)	PROFIT or FEE 4.789	% Percen	t of project tota		\$107,759
			TOTAL ESTIN		\$2,360,641

Army Corps of Engineers.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed:

.2-Mar-96

Parsons Engineering Science, Inc.

FEE

DISTRIBUTION

Tasks 1 thru 13

TASK	AMOUNT	SUBCONTRACTOR	AMT W/O	FEE	TOTAL
			SUBCONTRACTOR		
Task # 1	\$94,849	\$0	\$94,849	\$5,691	\$100,540
Task # 2	\$1,706,222	\$913,792	\$792,430	\$74,960	\$1,781,182
Task #3	\$12,818	\$0	\$12,818	\$769	\$13,588
Task # 4	\$17,219	\$0	\$17,219	\$1,033	\$18,252
Task # 5	\$10,330	\$0	\$10,330	\$620	\$10,949
Task # 6	\$15,658	\$0	\$15,658	\$939	\$16,598
Task#7	\$55,575	\$0	\$55,575	\$3,334	\$58,909
Task #8	\$89,320	\$0	\$89,320	\$5,359	\$94,679
Task # 9	\$10,597	\$0	\$10,597	\$636	\$11,232
Task # 10	\$43,874	\$0	\$43,874	\$2,632	\$46,506
Task # 11	\$72,799	\$0	\$72,799	\$4,368	\$77,166
Task # 12	\$59,319	\$0	\$59,319	\$3,559	\$62,878
Task # 13	\$64,303	\$0	\$64,303	\$3,858	\$68,161
	=======	=======	=======	*********	
TOTAL	\$2,252,882	\$913,792	\$1,339,089	\$107,759	
					=====
PROJECT TOT	TAL.				\$2,360,641

U.S. Army Corps of Engineers Client:

Huntsville Division

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

SUMMARY

Base Tasks 1 thru 13

\$933,715

	Unit			
1505 000 T 0	Cost Units	Quantity	Cost	<u>Notes</u>
ABOR COSTS				
NGINEERS AND SCIENTISTS				
Professional Level 6, Step 2 (P68)	\$58.74 /hour	100	\$5,874	
Professional Level 6, Step 1 (P62)	\$46.47 /hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11 /hour	1162	\$51,256	
Professional Level 5, Step 3 (P56)	\$37.99 /hour	200	\$7,598	
Professional Level 5, Step 2 (P54)	\$32.91 /hour	1205	\$39,657	
Professional Level 5, Step 1 (P52)	\$29.39 /hour	240	\$7,054	
, , , , , , , , , , , , , , , , , , , ,	,		4.,	
Professional Level 4, Step 2 (P48)	\$29.13 /hour	2020	\$58,843	
Professional Level 4, Step 1 (P42)	\$25.20 /hour	2134	\$53,777	
Professional Level 3, Step 1 (P35)	\$24.04 /hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09 /hour	110	\$2,540	
Professional Level 2, Step 2 (P26) Professional Level 2, Step 1 (P22)	\$19.89 /hour	1931	\$38,408	
Professional Level 2, Step 1 (F22)	φ19.09 /IIOuI	1951	\$30,400	
Professional Level 1, Step 2 (P18)	\$18.57 /hour	3399	\$63,119	
Professional Level 1, Step 1 (P12)	\$14.84 /hour	416	\$6,173	
ECHNICAL AND SUPPORT SPECIALISTS				
Technician Level 5 (T55)	\$21.10 /hour	680	\$14,348	
Technician Level 4, Step 2 (T48)	\$16.58 /hour	1655	\$27,440	
Technician Level 4, Step 1 (T42)	\$14.08 /hour	0	\$0	
100million 2010 1, 0.00 1 (1.12)	φττισο πισαι	· ·	Ψ	
Technician Level 3, Step 2 (T38)	\$13.99 /hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61 /hour	0	\$0	
Technician Level 2 (T25)	\$10.13 /hour	0	\$0	
Technician Level 1 (T15)	\$8.89 /hour	0	\$0	
Support Level 3 (S35)	\$20.61 /hour	0	\$0	
Support Level 2 (S25)	\$12.40 /hour	658	\$8,159	
Support Level 1 (S15)	\$8.72 /hour	0	\$0	
OTAL HOURS/LABOR COST Contract Year: 1		15910	\$384,245	
Base Yr			A.	
Overhead Rate: 143%		Labor Burden:	\$549,470	

SUBTOTAL BURDENED LABOR:

Client: U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

SUMMARY

Base Tasks 1 thru 13

	Unit	O	2 .	N
IATERIAL C AND CURRUES	Cost Units	Quantity	Cost	Notes
IATERIALS AND SUPPLIES				
Bottle labels	\$20.00 /roll	6	\$120	
40 mL VOA Vials	\$122.74 /case	8	\$982	
1 Liter Amber Bottles	\$37. 9 5 /case	23	\$873	
32 oz. HDPE Bottles	\$30.75 /case	11	\$338	
Braided Nylon Rope	\$0.15 /foot	500	\$75	
Bubble Pack	\$84.00 /roll	12	\$1,008	
Decon Eqt	\$18.00 /kit	12	\$216	
55g drums fill/mov	\$100.00 each	0	\$0	
Field Notebook	\$14.00 each	27	\$378	
Ice	\$1.00 /bag	100	\$100	
Latex Gloves	\$10.00 /box	40	\$400	
Methanol (Optima)	\$25.00 /bottle	7	\$175	
Hexane (Optima)	\$25.00 /bottle	2	\$50	
Acetone (Optima)	\$50.00 /bottle	2	\$100	
HCI (Optima)	\$285.00 /bottle	5	\$1,425	
HNO3 (Optima)	\$175.00 /bottle	5	\$875	
Ascorbic Acid	\$10.00 /bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00 /box	0	\$0	
Overboots	\$4.00 /pair	883	\$3,532	
Respirator Cartridges	\$15.00 /pair	218	\$3,270	
Packing Tape (doz)	\$72.00 /case	7	\$504	
Padlocks	\$12.00 each	0	\$0	
Sampling Tables	\$40.00 each	13	\$520	
Radiological Badges	\$20.00 each	34	\$680	
Aluminum Foil	\$1.00 /roll	10	\$10	
Stain Stl bwl/spn	\$30.00 /set	16	\$480	
Survey Stake/Flag	\$20.00 /bundle	46	\$920	
Teflon tape	\$8.00 /roll	0	\$0	
Tyveks	\$6.30 each	889	\$5,601	
Water (HPLC Grade)	\$97.00 /case	31	\$3,007	
Ziplock bags	\$3.00 /box	13	\$39	
Calibration Gas	\$450.00 /tank	0	\$0	
Ultra Pure Air	\$310.00 /ton	0	\$0	
Teflon Tubing	\$120.00 /roll	0	\$0	
Teflon Sheeting	\$500.00 /roll	0	\$0	
Folding Live Traps	\$15.00 each	10	\$150	
Glassware	\$25.00 each	0	\$0	
Quartz Filters	\$10.00 each	0	\$0	
Vermiculite Packing	\$16.00 /bag	86	\$1,376	

SUBTOTAL MATLS & SUPPLIES:

\$27,204

U.S. Army Corps of Engineers

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

SUMMARY

Base Tasks 1 thru 13

\$50,365

1 TOP 140. 07 0002 00001					
	Unit		0 !!!	0 1	8 .1 - 4
	Cost	Units	Quantity	<u>Cost</u>	<u>Notes</u>
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	49	\$24,500	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	892	\$85,632	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking, Airport	\$13.00	/day	728	\$9,464	
Auto Rental	\$55.00	/day	374	\$20,570	
Suburban\Van rental	\$585.00	/week	40.5	\$23,693	
Mileage	\$0.31	/mile	2900	\$899	
		SUBTO	TAL TRAVEL:	\$164,758	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	1470	\$5,880	
Word Proc/PC	\$3.70	/hour	628	\$2,324	
CADD	\$5.00	/hour	260	\$1,300	
Facsimile	\$1.00	/page	2930	\$2,930	
Overnight Express					
Letter/2 lb pack	\$14.50	each	197	\$2,857	
Package (50 lbs)	\$96.25	each	316	\$30,415	
Mail 4-lb pack	\$4.10	/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
	Subtotal Services			\$45,705	
REPRODUCTION					
Photocopier	\$0.05	/page	501400	\$25,070	
Aerial Photo repro	\$10.00	/photo	10	\$100	
Blueline repro		/Sheet	5670	\$5,670	
Cronoflex Prod	\$5.50	/Sq Ft	0	\$0	
3-ring binders	\$15.00	each	957	\$14,355	
Color Copies	\$2.00	/page	2585	\$5,170	

Subtotal Reproduction

U.S. Army Corps of Engineers Client:

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

SUMMARY

Base Tasks 1 thru 13

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	16	\$880	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00		5	\$250	
Flow thru pH/Cond meter	\$257.00		4	\$1,028	
DO meter	\$55.00		5	\$275	
Soil Gas Supplies	\$50.00		8	\$400	
Slug test eqt	\$50.00	•	2	\$100	
Water level ind	\$40.00		8	\$320	
Turbidimeter	\$30.00	/week	4	\$120	
Data Logger,Trnsdcr	\$135.00		2	\$270	
Flow Meter	\$30.00	•	2	\$60	
Water coolers	\$40.00	/month	11.5	\$460	
Equipment Trailer	\$1,000.00	/month	11.5	\$11,500	
Grundfus Redi Flow Pump	\$64.00		37	\$2,368	
PUF Sampler	\$150.00	•	0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler	\$75.00	•	6	\$450	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	14	\$350	
Ponar Sediment Sampler	\$27.00	-	11	\$297	
3.2 kw Generator	\$50.00	-	37	\$1,850	
Seismograph	\$200.00	•	5	\$1,000	
EM-31	\$85.00	•	150	\$12,750	
GPR	\$500.00	•	15	\$7,500	
Subtat	al Dontol			\$42,228	
Subtota	al Rental			Φ4 Ζ,ΖΖΟ	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	419	\$20,950	
Alpha Survey Meter	\$80.00	/week	300	\$24,000	
Alpha Scintillation Counter	\$100.00	/week	9	\$900	
Beta Sample Counter	\$100.00	/week	9	\$900	
Gas Proportional Detector	\$100.00	/week	9	\$900	
Gas Prop. Detector-Floor	\$100.00	/week	8	\$800	
Radon Monitor	\$300.00		2	\$600	
Gamma Radiation Meter	\$50.00	/day	372	\$18,600	
Calib Gas	\$10.00	/day	392	\$3,920	
2-way radios	\$15.00		74	\$1,110	
Air Purif Resp	\$20.00	/week	36	\$720	
10-Gal Eye Wash	\$35.00	/week	49	\$1,715	
Combination SCBA/SAR	\$150.00	/day	0	\$0	
Subtota	al H & S			\$75,115	

SUBTOTAL OTHERS: \$213,413

\$1,339,089 SUBTOTAL LABOR & ODC'S:

Client: U.S. Army Corps of Engineers

Huntsville Division

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

SUMMARY

Base Tasks 1 thru 13

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas SEAD-12

Annex E

Unit	Prop No: 979002-00001					
SUBCONTRACTORS GROUNDWATER or SURFACE WATER LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 160 \$64,000 Pest./PCBs (TCL) \$180.00 each 160 \$28,800 Total Metals & CN(TAL) \$170.00 each 160 \$22,800 Iron(Ferrous) \$30.00 each 74 \$2,220 Sulfide \$30.00 each 74 \$2,220 Sulfide \$30.00 each 74 \$2,220 Sulfide \$30.00 each 74 \$2,220 Superior (EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (EPA 9060) \$25.00 each 117 \$2,925 TOX (EPA 9056) \$50.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 117 \$2,925 TOX (EPA 9056) \$50.00 each 74 \$4,440 Sulfate(EPA 300) \$25.00 each 74 \$4,440 Sulfate(EPA 300) \$25.00 each 74 \$4,440 Sulfate(EPA 300) \$25.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 74 \$3,700 pH (EPA 301) \$12.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$400.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 55 \$440 Nitrate (EPA 9055) \$25.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$440 Nitrate (EPA 9055) \$25.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 55 \$440 Nitrate (EPA 355.2) \$20.				-		
STATE STAT		Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
Volatiles (TCL) \$180.00 each 0 \$0 BNNA (TCL) \$400.00 each 160 \$64,000 Pest./PCBs (TCL) \$180.00 each 160 \$28,800 Total Metals & CN(TAL) \$170.00 each 160 \$27,200 Iron(Ferrous) \$30.00 each 74 \$2,220 Sulfide \$30.00 each 74 \$2,220 Sulfide \$30.00 each 74 \$2,220 Spec Cond(EPA 9050) \$8.00 each 0 \$50 Total Organic Carbon (EPA 9060) \$25.00 each 117 \$2,925 TOX (EPA 9056) \$50.00 each 0 \$50 Chloride(EPA 9250) \$25.00 each 117 \$2,925 TOX (EPA 9056) \$25.00 each 0 \$50 Chloride(EPA 9250) \$25.00 each 74 \$1,850 COD \$60.00 each 74 \$1,850 COD \$50.00 each 74 \$1,850 COD \$50.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 Intel Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Organic Carbon (L. Kahn) \$60.00 each 306 \$55,080 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9045) \$8.00 each 0 \$0 Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$1,500.00 each 55 \$6,600 TCLP \$1,500.00 each 55 \$46,600 Subtotal Team Laboratory \$481,364	SUBCONTRACTORS					
B/N/A (TCL) \$400.00 each 160 \$64,000 Pest./PCBs (TCL) \$180.00 each 160 \$22,800 Total Metals & CN(TAL) \$170.00 each 160 \$22,7200 Iron(Ferrous) \$30.00 each 74 \$2,220 Sulfide \$30.00 each 74 \$2,220 Spec Cond(EPA 9050) \$8.00 each 0 \$50 Total Organic Carbon (EPA 9060) \$25.00 each 117 \$2,925 TOX (EPA 9056) \$50.00 each 0 \$50 Chloride(EPA 9250) \$25.00 each 0 \$50 BOD \$60.00 each 74 \$4,440 Sulfate(EPA 300) \$25.00 each 74 \$1,850 COD \$50.00 each 74 \$1,850 COD \$50.00 each 74 \$3,700 PH (EPA 9045) \$8.00 each 74 \$3,700 PH (EPA 9045) \$8.00 each 0 \$50 Volatiles (EPA 524) \$195.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 306 \$55,080 B/N/A (TCL) \$180.00 each 306 \$55,080 SOLLS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOTAL (PA 9056) \$20.00 each 55 \$3,300 TOX (EPA 9050) \$20.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 55 \$440 Nitrate (EPA 9050) \$20.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 55 \$	GROUNDWATER or SURFACE WATER L	ABORATORY	ANALYSIS			
Pest./PCBs (TCL)	Volatiles (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL) \$170.00 each 160 \$27,200 Iron(Ferrous) \$30.00 each 74 \$2,220 Sulfide \$30.00 each 74 \$2,220 Spec Cond(EPA 9050) \$8.00 each 0 \$0 \$0 Total Organic Carbon (EPA 9060) \$25.00 each 117 \$2,925 TOX (EPA 9056) \$25.00 each 0 \$0 \$0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 \$0 BOD \$60.00 each 74 \$4,440 Sulfate(EPA 300) \$25.00 each 74 \$3,700 PH (EPA 9045) \$8.00 each 74 \$3,700 PH (EPA 9045) \$8.00 each 74 \$3,700 PH (EPA 9045) \$8.00 each 74 \$3,700 PH (EPA 9045) \$195.00 each 74 \$3,700 PH (EPA 9045) \$195.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatilies (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$400.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$25.00 each 0 \$0 \$0 TOX (EPA 9056) \$70.00 each 55 \$3,300 TOX (EPA 9056) \$25.00 each 0 \$0 \$0 PH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 55 \$440 Nitrate (EPA 350.00 each 55 \$440 Nitrate (EPA 350.00 each 55 \$440 Nitrat		\$400.00	each	160	\$64,000	
Iron(Ferrous)	Pest./PCBs (TCL)	\$180.00	each	160		
Sulfide \$30.00 each 74 \$2,220 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (EPA 9060) \$25.00 each 117 \$2,925 TOX (EPA 9056) \$50.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 BOD \$60.00 each 74 \$4,440 Sulfate(EPA 300) \$50.00 each 74 \$1,850 COD \$50.00 each 74 \$1,850 COD \$50.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$180.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 PH (EPA 9045) \$8.00 each 0 \$0 PH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 55 \$440 Nitrate (EPA 353.2) \$20.	Total Metals & CN(TAL)	\$170.00	each	160	\$27,200	
Spec Cond(EPA 9050)	Iron(Ferrous)	\$30.00	each	74	\$2,220	
Total Organic Carbon (EPA 9060) \$25.00 each 117 \$2,925 TOX (EPA 9056) \$50.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 S0 Chloride(EPA 9250) \$25.00 each 74 \$4,440 Sulfate(EPA 300) \$25.00 each 74 \$1,850 COD \$50.00 each 74 \$1,850 COD \$50.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 0 \$0 Volatiles (EPA 524) \$195.00 each 1226 \$44,070 Hardness(EPA 130.2) \$15.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 \$\$\$ SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$400.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Organic Carbon (L. Kahn) \$60.00 each 0 \$0 S0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 PH (EPA 9045) \$8.00 each 0 \$0 PH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 55 \$46,600 TCLP \$1,500.00 each 12 \$18,000	Sulfide	\$30.00	each	74	\$2,220	
TOX (EPA 9056) \$50.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 S0 BOD \$60.00 each 74 \$4,440 Sulfate(EPA 300) \$25.00 each 74 \$4,440 Sulfate(EPA 300) \$25.00 each 74 \$1,850 COD \$50.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 74 \$3,700 pH (EPA 524) \$195.00 each 226 \$44,070 Hardness(EPA 130.2) \$15.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/NIA (TCL) \$400.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 55 \$6,600 TCLP \$180.00 each 55 \$6,600 TCLP \$1,500.00 each 55 \$6,600 TCLP \$1,500.00 each 55 \$6,600 TCLP \$1,500.00 each 55 \$1,500.00 each 55 \$6,600 TCLP \$1,500.0	Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Chloride(EPA 9250) \$25.00 each 0 \$0 BOD \$60.00 each 74 \$4,440 Sulfate(EPA 300) \$25.00 each 74 \$1,850 COD \$50.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 0 \$0 Volatiles (EPA 524) \$195.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$400.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 306 \$52,020 Chloride(EPA 9250) \$25.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 Chloride(EPA 9353.2) \$20.00 each 55 \$440 Nitrate (EPA 353.2) \$440	Total Organic Carbon (EPA 9060)	\$25.00	each	117	\$2,925	
BOD \$60.00 each 74 \$4,440 Sulfate(EPA 300) \$25.00 each 74 \$1,850 COD \$50.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 0 \$50 Volatiles (EPA 524) \$195.00 each 226 \$44,070 Hardness(EPA 130.2) \$15.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$440.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Organic Carbon (L. Kahn) \$60.00 each 0 \$0 TOX (EPA 9056) \$8.00 each 0 \$0 TOX (EPA 9056) \$70.00 each 55 \$3,300 TOX (EPA 9056) \$25.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 55 \$6,600 TCLP \$1,500.00 each 55 \$6,600	TOX (EPA 9056)	\$50.00	each	0	\$0	
Sulfate(EPA 300) \$25.00 each 74 \$1,850 COD \$50.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 0 \$0 Volatiles (EPA 524) \$195.00 each 226 \$44,070 Hardness(EPA 130.2) \$15.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,755 Alkalinity(EPA 353.2) \$20.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$400.00 each 306 \$122,400 Pest/PCBs (TCL) \$180.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,020 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 55 \$440 Ni	Chloride(EPA 9250)	\$25.00	each	0	\$0	
COD \$50.00 each 74 \$3,700 pH (EPA 9045) \$8.00 each 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$10 \$195.00 each 117 \$1,755 \$1,755 \$1,818.00 each 117 \$1,755 \$1,404 \$1,755 \$1,404 \$1,755 \$1,404 \$1,755 \$1,404 \$1,755 \$1,7	BOD	\$60.00	each	74	\$4,440	
pH (EPA 9045) \$8.00 each 0 \$0 Volatiles (EPA 524) \$195.00 each 226 \$44,070 Hardness(EPA 130.2) \$15.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$400.00 each 306 \$122,400 Pest./PCBs (TCL) \$180.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride (EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 55 \$440 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	Sulfate(EPA 300)	\$25.00	each	74	\$1,850	
Volatiles (EPA 524) \$195.00 each 226 \$44,070 Hardness(EPA 130.2) \$15.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 \$\$SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$400.00 each 306 \$122,400 Pest./PCBs (TCL) \$180.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 PH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 \$\$Subtotal Team Laboratory \$481,364 \$\$MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	COD	\$50.00	each	74	\$3,700	
Hardness(EPA 130.2) \$15.00 each 117 \$1,755 Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$400.00 each 306 \$122,400 Pest./PCBs (TCL) \$180.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 55 \$3,300 TOX (EPA 9056) \$25.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364	. , ,	•		0	\$0	
Alkalinity(EPA 310) \$12.00 each 117 \$1,404 Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$180.00 each 306 \$122,400 Pest./PCBs (TCL) \$180.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$55,080 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364	• • • • • • • • • • • • • • • • • • • •				\$44,070	
Nitrate (EPA 353.2) \$20.00 each 117 \$2,340 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$400.00 each 306 \$122,400 Pest./PCBs (TCL) \$180.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364	,					
SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$400.00 each 306 \$122,400 Pest./PCBs (TCL) \$180.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000				117	\$1,404	
Volatiles (TCL) \$180.00 each 306 \$55,080 B/N/A (TCL) \$400.00 each 306 \$122,400 Pest./PCBs (TCL) \$180.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each TCLP \$1,500.00 each \$12 \$18,000	Nitrate (EPA 353.2)	\$20.00	each	117	\$2,340	
B/N/A (TCL) \$400.00 each 306 \$122,400 Pest./PCBs (TCL) \$180.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	SOILS - SURFACE or SUBSURFACE LAB	ORATORY AI	NALYSIS			
Pest./PCBs (TCL) \$180.00 each 306 \$55,080 Total Metals & CN(TAL) \$170.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	Volatiles (TCL)	\$180.00	each	306	\$55,080	
Total Metals & CN(TAL) \$170.00 each 306 \$52,020 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 PH (EPA 9045) \$8.00 each 55 \$4440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364	B/N/A (TCL)	\$400.00	each	306	\$122,400	
Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	Pest./PCBs (TCL)	\$180.00	each	306	\$55,080	
Total Organic Carbon (L. Kahn) \$60.00 each 55 \$3,300 TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	Total Metals & CN(TAL)	\$170.00	each	306	\$52,020	
TOX (EPA 9056) \$70.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Chloride(EPA 9250) \$25.00 each 0 \$0 pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	Total Organic Carbon (L. Kahn)	\$60.00	each	55	\$3,300	
pH (EPA 9045) \$8.00 each 55 \$440 Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	TOX (EPA 9056)	\$70.00	each	0	\$0	
Nitrate (EPA 353.2) \$20.00 each 306 \$6,120 Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	Chloride(EPA 9250)	\$25.00	each	0	\$0	
Subtotal Team Laboratory \$481,364 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	pH (EPA 9045)	\$8.00	each	55	\$440	
MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	Nitrate (EPA 353.2)	\$20.00	each	306	\$6,120	
Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	Subtota	al Team Labor	atory		\$481,364	
Grain Size Dist \$120.00 each 55 \$6,600 TCLP \$1,500.00 each 12 \$18,000	MISC. LABORATORY ANALYSIS					
TCLP \$1,500.00 each 12 \$18,000		\$120.00	each	55	\$6.600	
Moisture Content \$15.00 each 0 \$0	Moisture Content	•		0	\$0	
Bulk Density \$35.00 each 15 \$525						
Chromium (Level II) \$30.00 each 0 \$0						
Total Suspended Solids \$20.00 each 43 \$860	` ,			43		
Total Dissolved Solids \$20.00 each 117 \$2,340						
Ammonia \$25.00 each 43 \$1,075	Ammonia					
Phosphate \$25.00 each 43 \$1,075	Phosphate	\$25.00	each	43		
Cation Exchange Capacity \$100.00 each 55 \$5,500	Cation Exchange Capacity	\$100.00	each	55	\$5,500	

Client: U.S. Army Corps of Engineers

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

SUMMARY

Base Tasks 1 thru 13

11001107 010002 00001					
	Unit	l lostes	Overtit :	Cont	Natas
RADIOLOGICAL LABORATORY ANALYSIS	Cost	<u>Units</u>	Quantity	Cost	Notes
Water Samples For: Thorium 232, 230, 227	\$60.00	each	157	\$9,420	
Uranium 238, 235, 233+234	\$60.00		157	\$9,420	
Radium 226,223	\$40.00		157	\$6,280	
Pb214&211,Bi214,Ce137,Co60	\$80.00		157	\$12,560	
Plutonium 239 + 240	\$65.00		157	\$10,205	
Americium 241	\$65.00		157	\$10,205	
Gross AlphaΒ	\$45.00		157	\$7,065	
Soil Samples For:	φ45.00	eacii	137	Φ1,005	
Thorium 232, 230, 227	\$60.00	each	399	\$23,940	
	\$60.00		399	\$23,940	
Uranium 238, 235, 233+234 Radium 226,223	\$40.00		399	\$15,960	
Pb214&211,Bi214,Ce137,Co60		each	399	\$13,300	
	\$65.00		399	\$25,935	
Plutonium 239 + 240 Americium 241	\$65.00		399	\$25,935	
Gamma Spectrometry	\$0.00		399	φ25,955	
Dist. Coef.(ASTM D:4319-83)	\$750.00		8	\$6,000	
Sample Prep/Return		each	399	\$0,000	
Wipe Samples For:	φ0.00	Cacii	333	ΨΟ	
Thorium 232, 230, 227	\$60.00	each	134	\$8,040	
Uranium 238, 235, 233+234	\$60.00		134	\$8,040	
Radium 226,223	\$40.00		134	\$5,360	
Pb214&211,Bi214,Ce137,Co60	\$80.00		134	\$10,720	
	\$65.00		134	\$8,710	
Plutonium 239 + 240 Americium 241	\$65.00		134	\$8,710	
	\$45.00		134	\$6,030	
Gross AlphaΒ	φ45.00	Cacii	134	φ0,030	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00		0	\$0	
Radon (Alpha Film)	\$25.00		100	\$2,500	
radon (rapha ram)	4			+-	
Subtotal	Misc. Labora	atory		\$280,950	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	50515	\$50,515	
	Lump Sum		31600	\$31,600	
Photogrammetry	Lump Sum			\$9,990	
IDW Disposal	Lump Sum		9990 32758	\$32,758	
Surveyor	Lump Sum	cauli	32758	φυ2,100	
Subtotal	Investigation	Subcontrac	ctors	\$124,863	

TASK TOTAL: \$2,252,882

3% Mark-up:

\$887,177

\$913,792

\$26,615

SUBTOTAL SUBCONTRACTORS:

Subtotal Laboratory & Investigation Subcontractors:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army D

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 1

Preliminary Investigations

\$67,678

Prop No: 979	3002-00001					
		Unit		0	04	A1-4
I ADOD CO	SETE	Cost	<u>Units</u>	Quantity	Cost	Notes
LABOR CC)515					
ENGINEERS	AND SCIENTISTS					
Pro	fessional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
	fessional Level 6, Step 1 (P62)	\$46.47		0	\$0	
			_			
	fessional Level 5, Step 4 (P58)	\$44.11		20	\$882	
	fessional Level 5, Step 3 (P56)	\$37.99		0	\$0 \$1.448	
	fessional Level 5, Step 2 (P54)	\$32.91		44	\$1,448	
Pro	fessional Level 5, Step 1 (P52)	\$29.39	mour	0	\$0	
Pro	fessional Level 4, Step 2 (P48)	\$29.13	/hour	280	\$8,156	
	fessional Level 4, Step 1 (P42)	\$25.20		0	\$0	
	, , , ,					
Pro	fessional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Pro	fessional Level 2, Step 2 (P28)	\$23.09	/hour	20	\$462	
	fessional Level 2, Step 1 (P22)	\$19.89		228	\$4,535	
	, , , ,	·			,	
Pro	fessional Level 1, Step 2 (P18)	\$18.57	/hour	280	\$5,200	
Pro	fessional Level 1, Step 1 (P12)	\$14.84	/hour	416	\$6,173	
TECHNICAL	AND SUPPORT SPECIALISTS					
Ted	hnician Level 5 (T55)	\$21.10	/hour	0	\$0	
-	1	040.50				
	chnician Level 4, Step 2 (T48)	\$16.58		60	\$995 *0	
rec	hnician Level 4, Step 1 (T42)	\$14.08	mour	0	\$0	
Tec	hnician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
	chnician Level 3, Step 1 (T32)	\$11.61		0	\$0	
	, , , , , , , , , , , , , , , , , , ,	+			* -	
Tec	hnician Level 2 (T25)	\$10.13	/hour	0	\$0	
Т	hairing Layel 4 (T45)	40.00	/ln a w	0	\$0	
rec	hnician Level 1 (T15)	\$8.89	mour	U	Φ0	
Sup	pport Level 3 (S35)	\$20.61	/hour	0	\$0	
Sup	pport Level 2 (S25)	\$12.40	/hour	0	\$0	
Sur	pport Level 1 (S15)	\$8.72	/hour	0	\$0	
Oup	port Lever 1 (G19)	Ψ0.72	moul	Ü	ΨΟ	
TOTAL HOUR	RS/LABOR COST			1348	\$27,851	
	Contract Year: 1					
	Base Yr					
	Overhead Rate: 143%		D. 100-	Labor Burden:	\$39,827	

SUBTOTAL BURDENED LABOR:

U.S. Army Corps of Engineers

22-Mar-96

Printed:

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E Prop No: 979002-00001 Task # 1

Preliminary Investigations

1100110. 070002 00001	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	5	\$70	
Ice	\$1.00	/bag	0	\$0	
Latex Gloves	\$10.00	/box	5	\$50	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	100	\$400	
Respirator Cartridges	\$15.00	/pair	50	\$750	
Packing Tape (doz)	\$72.00	/case	1	\$72	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	2	\$80	
Radiological Badges	\$20.00	each	5	\$100	
Aluminum Foil	\$1.00	/roll	10	\$10	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00		5	\$100	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	100	\$630	
Water (HPLC Grade)	\$97.00		0	\$0	
Ziplock bags	\$3.00		10	\$30	
Calibration Gas	\$450.00		0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflon Tubing	\$120.00		0	\$0	
Teflon Sheeting	\$500.00		0	\$0	
Folding Live Traps	\$15.00		0	\$0	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$2,292

Client: U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

\$275

Task #1

Preliminary Investigations

	Unit		- "	-	
TD AV /FI	Cost	<u>Units</u>	Quantity	Cost	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	4	\$2,000	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	135	\$12,960	
Subsistence-Huntsville	\$89.00	,	0	\$0	
Parking,Airport	\$13.00	,	60	\$780	
Auto Rental	\$55.00		30	\$1,650	
Suburban\Van rental	\$585.00		4	\$2,340	
Mileage	\$0.31	/mile	100	\$31	
		SUBTOTA	L TRAVEL:	\$19,761	
THERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	60	\$240	
Word Proc/PC	\$3.70		0	\$0	
CADD	\$5.00		0	\$0	
Facsimile	\$1.00	/page	60	\$60	
Overnight Express					
Letter/2 lb pack	\$14.50		0	\$0	
Package (50 lbs)	\$96.25		10	\$963	
Mail 4-lb pack		/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subto	otal Services			\$1,263	
REPRODUCTION					
Photocopier	\$0.05	/page	5500	\$275	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/nage	0	\$0	

Subtotal Reproduction

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task#1

Preliminary Investigations

Prop No: 979002-00001					
	Unit	1.1	O + i+ .	01	Maka
COLUDATAL DENTAL	Cost	Units	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00	,	0	\$0 \$0	
Flow thru pH/Cond meter	\$257.00		0	\$0 \$0	
DO meter	\$55.00		0	\$0 \$0	
Soil Gas Supplies	\$50.00		0	\$0 \$0	
Slug test eqt	\$50.00	,	0	\$0 \$0	
Water level ind	\$40.00		0	\$0 \$0	
Turbidimeter	\$30.00		0	\$0 \$0	
Data Logger,Trnsdcr	\$135.00		0	\$0 \$0	
Flow Meter	\$30.00	•	0	\$0 \$0	
Water coolers		/week /month	1	\$40	
Equipment Trailer	\$1,000.00		1	\$1,000	
Grundfus Redi Flow Pump	\$1,000.00		0	\$1,000 \$0	
PUF Sampler	\$150.00		0	\$0 \$0	
•			0		
PUF Sampler Calibration Kit	\$25.00 \$75.00	•	4	\$0 \$300	
Hi- Vol Sampler			4	\$300 \$100	
Hi- Vol Sampler Calibration Kit	\$25.00 \$27.00	•			
Ponar Sediment Sampler	\$27.00	•	0	\$0 \$0	
3.2 kw Generator	\$50.00	•	0	\$0 \$0	
Seismograph	\$200.00	•	0	\$0 \$0	
EM-31	\$85.00	,	0	\$0 \$0	
GPR	\$500.00	/day	0	\$0	
Subtot	al Rental			\$1,440	
HEALTH & SAEETY EOLIDMENT					
HEALTH & SAFETY EQUIPMENT HNu Meter	\$50.00	/day	20	\$1,000	
	\$80.00	•	20 4	\$1,000	
Alpha Scientillation Counter	\$100.00		0	\$320 \$0	
Alpha Scintillation Counter	\$100.00		0	\$0 \$0	
Beta Sample Counter Gas Proportional Detector	\$100.00		0		
•			0	\$0 \$0	
Gas Prop. Detector-Floor	\$100.00			\$0 \$0	
Radon Monitor	\$300.00		0	\$0 \$200	
Gamma Radiation Meter	\$50.00 \$10.00	•	4	\$200	
Calib Gas	\$10.00 \$15.00		20	\$200 \$120	
2-way radios		/ea/wk	8	\$120 \$160	
Air Purif Resp		/week	8	\$160 \$140	
10-Gal Eye Wash	\$35.00		4	\$140	
Combination SCBA/SAR	\$150.00	/day	0	\$0	
Subtot	al H & S		-	\$2,140	

SUBTOTAL OTHERS:

\$5,118

SUBTOTAL LABOR & ODC'S:

\$94,849

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task#1

Preliminary Investigations

Prop No: 979002-00001					
	Unit		6 (1)		
	Cost	Units	Quantity	Cost	Notes
CURCONTRACTORS					
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	ANAI YSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Iron(Ferrous)	\$30.00		0	\$0	
Sulfide	\$30.00		0	\$0	
Spec Cond(EPA 9050)		each	0	\$0 \$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0 \$0	
			0	\$0 \$0	
TOX (EPA 9056)	\$50.00 \$35.00		0	\$0 \$0	
Chloride(EPA 9250)	\$25.00				
BOD	\$60.00		0	\$0 \$0	
Sulfate(EPA 300)	\$25.00		0	\$0 #0	
COD	\$50.00		0	\$0 #0	
pH (EPA 9045)	\$8.00		0	\$0	
Volatiles (EPA 524)	\$195.00		0	\$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABO		IAI VOIC			
			0	\$0	
Volatiles (TCL)	\$180.00		0		
B/N/A (TCL)	\$400.00		0	\$0 \$0	
Pest./PCBs (TCL)	\$180.00		0	\$0 \$0	
Total Metals & CN(TAL)	\$170.00		0	\$0 \$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0 \$0	
Total Organic Carbon (L. Kahn)	\$60.00		0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Subtatal	Team Labor	ratory		\$0	
Subtotal	realli Labul	atory		ΨΟ	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00		0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0	
Chromium (Level II)	\$30.00		Ö	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0 \$0	
Ammonia	\$25.00		0	\$0 \$0	
Phosphate	\$25.00		0	\$0 \$0	
Cation Exchange Capacity	\$100.00		0	\$0 \$0	
Cation Exchange Capacity	φ100.00	cauli	U	φυ	

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Task #1

Preliminary Investigations

Project: Seneca Army Depot Activity, Romulus New York

Huntsville Division

RI/FS at the Radiological Disposal Areas SEAD-12

Annex E

Prop No: 979002-00001	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANAL					
Nater Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co6			0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Soil Samples For:	• • • • • • • • • • • • • • • • • • • •			•	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co6			0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00		0	\$0	
Nipe Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co6	0 \$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYS	SIS				
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00		0	\$0	
Radon (Alpha Film)	\$25.00		Ö	\$0	
	4-4-1 5 8 1 - 1	.4		\$0	
Sub	total Misc. Labora	atory		Φ0	
NVESTIGATION SUBCONTRACTORS			•	**	
Driller	Lump Sum		0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum	each	0	\$0	
Sub	total Investigation	Subcontrac	tors	\$0	
Subtot	al Laboratory & In	vestigation S	Subcontractors:	\$0	
Subtot			3% Mark-up:	\$0	
	SUBTOTAL :	SLIBCONT		\$0	

TASK TOTAL:

\$94,849

Client: U.S. Army Corps of Engineers

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

\$1,934

\$3,287

Task # 1a Site Visit and Records Review

F100 140. 3730	002-00001					
		Unit Cost	Units	Quantity	Cost	Notes
LABOR CO	STS					
ENGINEERS	AND SCIENTISTS					
Prof	essional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Prof	essional Level 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
	essional Level 5, Step 4 (P58)	\$44.11		4	\$176	
	essional Level 5, Step 3 (P56)	\$37.99	/hour	0	\$0	
Prof	essional Level 5, Step 2 (P54)	\$32.91	/hour	4	\$132	
Prof	essional Level 5, Step 1 (P52)	\$29.39	/hour	0	\$0	
	essional Level 4, Step 2 (P48)	\$29.13		20	\$583	
Prof	essional Level 4, Step 1 (P42)	\$25.20	/hour	0	\$0	
Prof	essional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Prof	essional Level 2, Step 2 (P28)	\$23.09	/hour	20	\$462	
		\$19.89		0	\$0	
Pion	essional Level 2, Step 1 (P22)	φ15.05	/iloui	O		
Prof	essional Level 1, Step 2 (P18)	\$18.57	/hour	0	\$0	
	essional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
	AND SUPPORT SPECIALISTS	• • • • • • • • • • • • • • • • • • • •				
Tech	nnician Level 5 (T55)	\$21.10	/hour	0	\$0	
Tech	nnician Level 4, Step 2 (T48)	\$16.58	/hour	0	\$0	
	nnician Level 4, Step 1 (T42)	\$14.08		0	\$0	
				· ·	·	
Tech	nnician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Tech	nnician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Tech	nnician Level 2 (T25)	\$10.13	/hour	0	\$0	
Tech	nnician Level 1 (T15)	\$8.89	/hour	0	\$0	
Supp	port Level 3 (S35)	\$20.61	/hour	0	\$0	
Supp	port Level 2 (S25)	\$12.40	/hour	0	\$0	
Supp	port Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOUR	S/LABOR COST Contract Year: 1		_	48	\$1,352	
	- 1					

SUBTOTAL BURDENED LABOR:

Labor Burden:

Base Yr

143%

Overhead Rate:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 1a Site Visit and Records Review

Prop No. 979002-00001					
	Unit	I imita	Overtity	Cont	Notes
MAATERIAL C AND CURRULES	Cost	<u>Units</u>	Quantity	<u>Cost</u>	<u>Notes</u>
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	0	\$0	
Ice	\$1.00	/bag	0	\$0	
Latex Gloves	\$10.00	/box	0	\$0	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	0	\$0	
Respirator Cartridges	\$15.00	/pair	0	\$0	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00	each	0	\$0	
Aluminum Foil	\$1.00	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00	/bundle	0	\$0	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	0	\$0	
Water (HPLC Grade)	\$97.00	/case	0	\$0	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00	each	0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$0

U.S. Army Corps of Engineers

22-Mar-96

Printed:

Parsons Engineering Science, Inc.

\$25

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task # 1a Site Visit and Records Review

	Unit				
	<u>Cost</u>	Units	Quantity	Cost	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00		0	\$0	
Airfare Boston\Huntsville	\$900.00		0	\$0	
Subsistence-Seneca	\$96.00	•	0	\$0	
Subsistence-Huntsville	\$89.00	•	0	\$0	
Parking,Airport	\$13.00		0	\$0	
Auto Rental	\$55.00	•	0	\$0	
Suburban\Van rental	\$585.00		0	\$0	
Mileage	\$0.31	/mile	0	\$0	
		SUBTOTA	L TRAVEL:	\$0	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	10	\$40	
Word Proc/PC	\$3.70	/hour	0	\$0	
CADD	\$5.00		0	\$0	
Facsimile	\$1.00	/page	10	\$10	
Overnight Express					
Letter/2 lb pack	\$14.50		0	\$0	
Package (50 lbs)	\$96.25		0	\$0	
Mail 4-lb pack		/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subte	otal Services			\$50	
REPRODUCTION					
Photocopier		/page	500	\$25	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	

Subtotal Reproduction

Client: U.S. Army Corps of Engineers Huntsville Division Printed:

22-Mar-96

Parsons Engineering Science, Inc.

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RI/FS at

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Site Visit and Records Review

Task#1a

110p 140. 373002-00001	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00	/day	0	\$0	
pH/Cond meter	\$50.00	/week	0	\$0	
Flow thru pH/Cond meter	\$257.00	/week	0	\$0	
DO meter	\$55.00	/week	0	\$0	
Soil Gas Supplies	\$50.00		0	\$0	
Slug test eqt	\$50.00	•	0	\$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00		0	\$0	
Flow Meter	\$30.00	-	0	\$0	
Water coolers	•	/month	0	\$0	
Equipment Trailer	\$1,000.00		0	\$0	
Grundfus Redi Flow Pump	\$64.00		0	\$0	
PUF Sampler	\$150.00	•	0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
Hi- Vol Sampler	\$75.00	•	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00		0	\$0	
Ponar Sediment Sampler	\$27.00	•	0	\$0 \$0	
3.2 kw Generator	\$50.00	•	0	\$0 \$0	
	\$200.00	•	0	\$0 \$0	
Seismograph	\$85.00	•	0	\$0 \$0	
EM-31	\$500.00	•	0	\$0 \$0	
GPR	φ300.00	ruay	U	φυ	
Subtot	al Rental			\$0	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	0	\$0	
Alpha Survey Meter	\$80.00	-	0	\$0	
Alpha Scintillation Counter	\$100.00	/week	0	\$0	
Beta Sample Counter	\$100.00	/week	0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00		0	\$0	
Calib Gas	\$10.00	•	0	\$0	
2-way radios		/ea/wk	0	\$0	
Air Purif Resp	\$20.00		0	\$0	
10-Gal Eye Wash	\$35.00		0	\$0	
Combination SCBA/SAR	\$150.00		0	\$0	
				·	
Subtot	al H & S			\$0	

SUBTOTAL OTHERS:

\$75

SUBTOTAL LABOR & ODC'S:

\$3,362

Client: U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 1a Site Visit and Records Review

•	Unit Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LAB	BORATORY	'ANALYSIS	;		
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Iron(Ferrous)	\$30.00	each	0	\$0	
Sulfide	\$30.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0	
TOX (EPA 9056)	\$50.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Volatiles (EPA 524)	\$195.00		0	\$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$0 \$0	
Nitrate (EPA 353.2)	\$20.00	eacn	0	\$0	
SOILS - SURFACE or SUBSURFACE LABOR	RATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Subtotal ⁻	Team Labor	atory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00	each	0	\$0	
Moisture Content	\$15.00	each	0	\$0	
Bulk Density	\$35.00	each	0	\$0	
Chromium (Level II)	\$30.00	each	0	\$0	
Total Suspended Solids	\$20.00	each	0	\$0	
Total Dissolved Solids	\$20.00	each	0	\$0	
Ammonia	\$25.00	each	0	\$0	
Phosphate	\$25.00		0	\$0	
Cation Exchange Capacity	\$100.00	each	0	\$0	

U.S. Army Corps of Engineers Client:

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 1a Site Visit and Records Review

Prop No: 979002-00001						
	Unit					
	Cost	<u>Units</u>	<u>Quantity</u>	Cost	Notes	
RADIOLOGICAL LABORATORY ANALYSIS	5					
Water Samples For:	400.00		•	40		
Thorium 232, 230, 227	\$60.00		0	\$0		
Uranium 238, 235, 233+234	\$60.00		0	\$0		
Radium 226,223	\$40.00		0	\$0		
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0		
Plutonium 239 + 240	\$65.00		0	\$0		
Americium 241	\$65.00		0	\$0		
Gross AlphaΒ	\$45.00	each	0	\$0		
Soil Samples For:						
Thorium 232, 230, 227	\$60.00		0	\$0		
Uranium 238, 235, 233+234	\$60.00		0	\$0		
Radium 226,223	\$40.00		0	\$0		
Pb214&211,Bi214,Ce137,Co60	\$0.00		0	\$0		
Plutonium 239 + 240	\$65.00		0	\$0		
Americium 241	\$65.00		0	\$0		
Gamma Spectrometry	\$0.00		0	\$0		
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0		
Sample Prep/Return	\$0.00	each	0	\$0		
Wipe Samples For:						
Thorium 232, 230, 227	\$60.00	each	0	\$0		
Uranium 238, 235, 233+234	\$60.00	each	0	\$0		
Radium 226,223	\$40.00		0	\$0		
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0		
Plutonium 239 + 240	\$65.00	each	0	\$0		
Americium 241	\$65.00	each	0	\$0		
Gross AlphaΒ	\$45.00	each	0	\$0		
AIR SAMPLES LABORATORY ANALYSIS						
SVOC's	\$490.00	each	0	\$0		
Metals	\$150.00	each	0	\$0		
Radon (Alpha Film)	\$25.00	each	0	\$0		
Subtota	l Misc. Labora	atory	_	\$0		
		•				
INVESTIGATION SUBCONTRACTORS	L C		0	40		
Driller	Lump Sum		0	\$0		
Photogrammetry	Lump Sum		0	\$0		
IDW Disposal	Lump Sum		0	\$0 \$0		
Surve y or	Lump Sum	eacn	0	\$0		
Subtota	I Investigation	Subcontrac	ctors	\$0		
Subtotal La	aboratory & In	vestigation	Subcontractors:	\$0		
			3% Mark-up:	\$0		
SI	UBTOTAL S	SUBCON	TRACTORS:	\$0		
				•		

TASK TOTAL: \$3,362

Project:

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Task # 1b

Archaeological Investigations

\$64,392

F10p No. 313002-00001					
	Unit Cost L	<u>Jnits</u>	Quantity	Cost	<u>Notes</u>
LABOR COSTS	Cost C	<u>Jims</u>	Quantity	<u> </u>	ivotes
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74 /	hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47 /		0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11 /I	hour	16	\$706	
Professional Level 5, Step 3 (P56)	\$37.99 /		0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91 /		40	\$1,316	
Professional Level 5, Step 1 (P52)	\$29.39 /		0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13 /I		260	\$7,574	
Professional Level 4, Step 1 (P42)	\$25.20 /h	hour	0	\$0	
Professional Level 3, Step 1 (P35)	\$24.04 /	hour	0	\$0	
Desfersional Level 2, Stop 2 (D28)	¢22.00 //	2011	0	0.2	
Professional Level 2, Step 2 (P28)	\$23.09 /h \$19.89 /h		228	\$0 \$4,535	
Professional Level 2, Step 1 (P22)	φ13.03 /1	loui	220	φ 4 ,555	
Professional Level 1, Step 2 (P18)	\$18.57 /h	nour	280	\$5,200	
Professional Level 1, Step 1 (P12)	\$14.84 /		416	\$6,173	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10 /h	nour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58 /h	nour	60	\$995	
Technician Level 4, Step 1 (T42)	\$14.08 /		0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99 /h		0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61 /h	nour	0	\$0	
Technician Level 2 (T25)	\$10.13 /h	nour	0	\$0	
Technician Level 1 (T15)	\$8.89 /h	nour	0	\$0	
Support Level 3 (S35)	\$20.61 /h	nour	0	\$0	
Support Level 2 (S25)	\$12.40 /h	nour	0	\$0	
Support Level 1 (S15)	\$8.72 /	nour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1			1300	\$26,499	
Base Yr			Latina David	007.000	
Overhead Rate: 143%			Labor Burden:	\$37,893	

SUBTOTAL BURDENED LABOR:

U.S. Army Corps of Engineers

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 1b

Archaeological Investigations

Prop No: 9/9002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	5	\$70	
Ice	\$1.00	/ba g	0	\$0	
Latex Gloves	\$10.00	/box	5	\$50	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	100	\$400	
Respirator Cartridges	\$15.00	/pair	50	\$750	
Packing Tape (doz)	\$72.00		1	\$72	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	2	\$80	
Radiological Badges	\$20.00		5	\$100	
Aluminum Foil	\$1.00	/roll	10	\$10	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00	/bundle	5	\$100	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30		100	\$630	
Water (HPLC Grade)	\$97.00		0	\$0	
Ziplock bags	\$3.00		10	\$30	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00	each	0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$2,292

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 1b

Archaeological Investigations

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	4	\$2,000	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	135	\$12,960	4.5man-months
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking, Airport	\$13.00	/day	60	\$780	
Auto Rental	\$55.00	/day	30	\$1,650	
Suburban\Van rental	\$585.00	/week	4	\$2,340	
Mileage	\$0.31	/mile	100	\$31	
		SUBTOTA	AL TRAVEL:	\$19,761	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00		50	\$200	
Word Proc/PC	\$3.70		0	\$0	
CADD	\$5.00		0	\$0	
Facsimile	\$1.00	/page	50	\$50	
Overnight Express					
Letter/2 lb pack	\$14.50		0	\$0	
Package (50 lbs)	\$96.25		10	\$963	
Mail 4-lb pack		/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subtotal Services			\$1,213		
REPRODUCTION					
Photocopier		/page	5000	\$250	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	
Subto	tal Reproductio	n		\$250	

Project:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Turitsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 1b

Archaeological Investigations

Prop No: 979002-00001	1 1-:4				
	Unit	Llaita	Quantity	Cont	Motos
FOLUDIALIT BENTAL	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00		0	\$0	
Slug test eqt	\$50.00	•	0	\$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00		0	\$0	
Flow Meter	\$30.00	-	0	\$0	
Water coolers		/week /month	1	\$40	
Equipment Trailer	\$1,000.00		1	\$1,000	
Grundfus Redi Flow Pump	\$64.00		Ö	\$0	
·	\$150.00		0	\$0 \$0	
PUF Sampler PUF Sampler Calibration Kit	\$25.00		0	\$0 \$0	
•	\$75.00	-	4	\$300	
Hi- Vol Sampler	\$25.00		4	\$100	
Hi- Vol Sampler Calibration Kit Ponar Sediment Sampler	\$25.00	,	0	\$100	
•	\$50.00	-	0	\$0 \$0	
3.2 kw Generator		•	0	\$0 \$0	
Seismograph	\$200.00	-	_	\$0 \$0	
EM-31	\$85.00	•	0	\$0 \$0	
GPR	\$500.00	/day	U	ΦΟ	
Subtot	al Rental			\$1,440	
Subtoti	ai i veritai			Φ1,440	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/dav	20	\$1,000	
Alpha Survey Meter	\$80.00	-	4	\$320	
Alpha Scintillation Counter	\$100.00		0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00		4	\$200	
Calib Gas	\$10.00	,	20	\$200	
2-way radios	\$15.00	-	8	\$120	
Air Purif Resp	\$20.00		8	\$160	
10-Gal Eye Wash	\$35.00		4	\$140	
Combination SCBA/SAR	\$150.00		0	\$0	
Combination COD/CAR	Ψ100.00	, au y	Ū	ΨΟ	
Subtota	al H & S			\$2,140	
Gabtott				Ţ-,···	

SUBTOTAL OTHERS:

\$5,043

SUBTOTAL LABOR & ODC'S:

\$91,487

U.S. Army Corps of Engineers Client:

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E Prop No: 979002-00001

Project:

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 1b

Archaeological Investigations

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	'ANALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Iron(Ferrous)	\$30.00	each	0	\$0	
Sulfide	\$30.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00	each	0	\$0	
TOX (EPA 9056)	\$50.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
BOD	\$60.00	each	0	\$0	
Sulfate(EPA 300)	\$25.00	each	0	\$0	
COD	\$50.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Volatiles (EPA 524)	\$195.00	each	0	\$0	
Hardness(EPA 130.2)	\$15.00	each	0	\$0	
Alkalinity(EPA 310)	\$12.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABO	RATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Subtotal	Team Labor	atory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00		0	\$0	
Moisture Content	\$15.00		Ö	\$0	
Bulk Density	\$35.00		0	\$O	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0 \$0	
Total Dissolved Solids	\$20.00		0	\$O	
Ammonia	\$25.00		0	\$0 \$0	
Phosphate	\$25.00		0	\$ 0	
Cation Exchange Capacity	\$100.00		0	\$0 \$0	
Jation Exchange Japacity	Ψ100.00	Juvii	•	ΨΟ	

Client: U.S. Army Corps of Engineers

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E Prop No: 979002-00001 Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task # 1b

Archaeological Investigations

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALY	SIS				
Water Samples For:	000.00		•	Φ0	
Thorium 232, 230, 227	\$60.00		0	\$ 0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0 \$0	
Pb214&211,Bi214,Ce137,Co60			0	\$0 \$0	
Plutonium 239 + 240	\$65.00		0	\$0 \$0	
Americium 241	\$65.00		0	\$0 \$0	
Gross AlphaΒ	\$45.00	eacn	0	\$0	
Soil Samples For:	\$60.00		0	60	
Thorium 232, 230, 227	\$60.00		0	\$0 \$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0 \$0	
Radium 226,223	\$40.00		0	\$0 \$0	
Pb214&211,Bi214,Ce137,Co60		each	0	\$0 \$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0 \$0	
Gamma Spectrometry		each	0	\$0 \$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0 \$0	
Sample Prep/Return	\$0.00	eacn	0	Φ0	
Wipe Samples For:	\$60.00		0	¢ 0	
Thorium 232, 230, 227	\$60.00		0	\$0 \$0	
Uranium 238, 235, 233+234	\$60.00		0 0	\$0 \$0	
Radium 226,223	\$40.00		0		
Pb214&211,Bi214,Ce137,Co60			0	\$0 \$ 0	
Plutonium 239 + 240	\$65.00			\$0 \$0	
Americium 241	\$65.00		0 0	\$0 \$0	
Gross AlphaΒ	\$45.00	eacn	U	ΦΟ	
AIR SAMPLES LABORATORY ANALYSI	S				
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subt	otal Misc. Labora	atory		\$0	
Cubi	ota: 111100: Easort	21019		**	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum		0	\$0	
Photogrammetry	Lump Sum	each	0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum	each	0	\$0	
Subt	otal Investigation	Subcontra	ctors —	\$0	
Subtota	I Laboratory & In	vestigation		\$0	
	CLIDTOTAL	CLIDOOFI	3% Mark-up:	\$0 \$0	
	SUBTOTAL	20RCON	IKACIORS:	\$0	

TASK TOTAL: \$91,487

U.S. Army Corps of Engineers

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

Printed:

22-Mar-96

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task #2

Radiological Waste Disposal Area Field Investigations Summary

Parsons Engineering Science, Inc.

SEAD-12

\$500,245

Prop No: 979002-00001

PTOP NO. 979002-00001					
	Unit <u>Cost</u>	Units	Quantity	Cost	Notes
LABOR COSTS	0031	Offics	gaanary	<u> </u>	140100
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47		0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11	/hour	232	\$10,234	
Professional Level 5, Step 3 (P56)	\$37.99	/hour	0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91		216	\$7,109	
Professional Level 5, Step 1 (P52)	\$29.39		40	\$1,176	
5 () () () () () () () () () (000.40		4000	¢00.400	
Professional Level 4, Step 2 (P48)	\$29.13		1000	\$29,130	
Professional Level 4, Step 1 (P42)	\$25.20	/hour	2009	\$50,627	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	90	\$2,078	
Professional Level 2, Step 1 (P22)	\$19.89		1423	\$28,303	
Professional Level 1, Step 2 (P18)	\$18.57		2279	\$42,321	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	400	\$8,440	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	1595	\$26,445	
Technician Level 4, Step 1 (T42)	\$14.08		0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99		0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1			9284	\$205,862	
Contract Year: 1 Base Yr					
Overhead Rate: 143%			Labor Burden:	\$294,383	
Offilload Nato. 17070			2000, 20100111	+	

SUBTOTAL BURDENED LABOR:

Client: U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 2

Radiological Waste Disposal Area Field Investigations Summary

SEAD-12

· · · · · · · · · · · · · · · · · · ·	Unit	,			
	Cost L	<u>Jnits</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00 /		6	\$120	
40 mL VOA Vials	\$122.74 /	case	8	\$982	
1 Liter Amber Bottles	\$37.95 /		23	\$873	
32 oz. HDPE Bottles	\$30.75 /		11	\$338	
Braided Nylon Rope	\$0.15 /		500	\$75	
Bubble Pack	\$84.00 /	roll	12	\$1,008	
Decon Eqt	\$18.00 /		12	\$216	
55g drums fill/mov	\$100.00 e	each	0	\$0	
Field Notebook	\$14.00 e	each	22	\$308	
Ice	\$1.00 /	bag	100	\$100	
Latex Gloves	\$10.00 /	box	35	\$350	
Methanol (Optima)	\$25.00 /1	bottle	7	\$175	
Hexane (Optima)	\$25.00 /	bottle	2	\$50	
Acetone (Optima)	\$50.00 /	bottle	2	\$100	
HCI (Optima)	\$285.00 /	bottle	5	\$1,425	
HNO3 (Optima)	\$175.00 /k	bottle	5	\$875	
Ascorbic Acid	\$10.00 /	bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00 /	box	0	\$0	
Overboots	\$4.00 /	pair	783	\$3,132	
Respirator Cartridges	\$15.00 /	pair	168	\$2,520	
Packing Tape (doz)	\$72.00 /	case	6	\$432	
Padlocks	\$12.00 e	each	0	\$0	
Sampling Tables	\$40.00 e	each	11	\$440	
Radiological Badges	\$20.00 e	each	29	\$580	
Aluminum Foil	\$1.00 /	roll	0	\$0	
Stain Stl bwl/spn	\$30.00 /	set	16	\$480	
Survey Stake/Flag	\$20.00 /	bundle	41	\$820	
Teflon tape	\$8.00 /1		0	\$0	
Tyveks	\$6.30 e	each	789	\$4,971	
Water (HPLC Grade)	\$97.00 /	case	31	\$3,007	
Ziplock bags	\$3.00 /		3	\$9	
Calibration Gas	\$450.00 /		0	\$0	
Ultra Pure Air	\$310.00 /		0	\$0	
Teflon Tubing	\$120.00 /		0	\$0	
Teflon Sheeting	\$500.00 /		0	\$0	
Folding Live Traps	\$15.00 e		10	\$150	
Glassware	\$25.00 e		0	\$0	
Quartz Filters	\$10.00 e		0	\$0	
Vermiculite Packing	\$16.00 /		86	\$1,376	
Torring and Tabiling	Ψ.0.00 //	~~9		Ψ1,070	

SUBTOTAL MATLS & SUPPLIES:

\$24,912

Client: U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Project:

Annex E

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task#2

Radiological Waste Disposal Area Field Investigations Summary

\$475

SEAD-12

	Allilex L
Prop No:	979002-00001

	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	33	\$16,500	
Airfare Boston\Huntsville	\$900.00		0	\$0	
Subsistence-Seneca	\$96.00		745	\$71,520	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking,Airport	\$13.00	/day	658	\$8,554	
Auto Rental	\$55.00	/day	338	\$18,590	
Suburban\Van rental	\$585.00	/week	36.5	\$21,353	
Mileage	\$0.31	/mile	2600	\$806	
		SUBTOT	AL TRAVEL:	\$137,323	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00		450	\$1,800	
Word Proc/PC	\$3.70	/hour	0	\$0	
CADD	\$5.00		0	\$0	
Facsimile	\$1.00	/page	750	\$750	
Overnight Express					
Letter/2 lb pack	\$14.50		5	\$73	
Package (50 lbs)	\$96.25		136	\$13,090	
Mail 4-lb pack	\$4.10		0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subto	otal Services			\$15,713	
REPRODUCTION					
Photocopier	\$0.05		7500	\$375	
Aerial Photo repro	\$10.00		10	\$100	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	

Subtotal Reproduction

Client: U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

Annex E

SEAD-12

Task # 2

22-Mar-96

Printed:

Radiological Waste Disposal Area

Parsons Engineering Science, Inc.

Field Investigations Summary

SEAD-12

Prop No: 979002-00001

Project:

	Unit			_	
	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	16	\$880	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00		5	\$250	
Flow thru pH/Cond meter	\$257.00		4	\$1,028	
DO meter	\$55.00		5	\$275	
Soil Gas Supplies	\$50.00		8	\$400	
Slug test eqt	\$50.00	•	2	\$100	
Water level ind	\$40.00		8	\$320	
Turbidimeter	\$30.00		4	\$120	
Data Logger,Trnsdcr	\$135.00		2	\$270	
Flow Meter	\$30.00	•	2	\$60	
Water coolers		/month	10.5	\$420	
Equipment Trailer	\$1,000.00		10.5	\$10,500	
Grundfus Redi Flow Pump	\$64.00		37	\$2,368	
PUF Sampler	\$150.00	•	0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
Hi- Vol Sampler	\$75.00	•	2	\$150	
Hi- Vol Sampler Calibration Kit	\$25.00		10	\$250	
Ponar Sediment Sampler	\$27.00	-	11	\$2 97	
3.2 kw Generator	\$50.00	-	37	\$1,850	
Seismograph	\$200.00	•	5	\$1,000	
EM-31	\$85.00	•	150	\$12,750	
GPR	\$500.00	•	15	\$7,500	
GF IX	Ψ500.00	rady	10	Ψ1,000	
Subtotal Rental			\$40,788		
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	399	\$19,950	
	\$80.00	-	296	\$23,680	
Alpha Survey Meter	\$100.00		9	\$900	
Alpha Scintillation Counter	\$100.00		9	\$900	
Beta Sample Counter	\$100.00		9	\$900	
Gas Proportional Detector	\$100.00		8	\$800	
Gas Prop. Detector-Floor			2		
Radon Monitor	\$300.00		368	\$600 \$18.400	
Gamma Radiation Meter	\$50.00	•		\$18,400	
Calib Gas	\$10.00	/day /ea/wk	372	\$3,720	
2-way radios			66	\$990 \$560	
Air Purif Resp	\$20.00		28		
10-Gal Eye Wash	\$35.00		45	\$1,575	
Combination SCBA/SAR	¢450.00	/day	^	ው ለ	
	\$150.00	/day	0	\$0	

SUBTOTAL OTHERS: \$129,951

SUBTOTAL LABOR & ODC'S: \$792,430

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Project:

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task#2

Radiological Waste Disposal Area

Field Investigations Summary

SEAD-12

	Cost	<u>Units</u>	<u>Quantity</u>	Cost	<u>Notes</u>
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER L	ABORATORY	ANALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		160	\$64,000	
Pest./PCBs (TCL)	\$180.00	each	160	\$28,800	
Total Metals & CN(TAL)	\$170.00	each	160	\$27,200	
Iron(Ferrous)	\$30.00	each	74	\$2,220	
Sulfide	\$30.00	each	74	\$2,220	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (EPA 9060)			117	\$2,925	
TOX (EPA 9056)	\$50.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		74	\$4,440	
Sulfate(EPA 300)	\$25.00		74	\$1,850	
COD	\$50.00		74	\$3,700	
pH (EPA 9045) Volatiles (EPA 524)	\$8.00 \$195.00		0	\$0 \$44.070	
Hardness(EPA 33.2)	\$195.00		226 117	\$44,070 \$1,755	
Alkalinity(EPA 310)	\$13.00		117	\$1,733 \$1,404	
Nitrate (EPA 353.2)	\$20.00		117	\$2,340	
SOILS - SURFACE or SUBSURFACE LAB		ΙΔΙ VΟΙΟ			
Volatiles (TCL)	\$180.00		306	\$55,080	
B/N/A (TCL)	\$400.00		306	\$122,400	
Pest./PCBs (TCL)	\$180.00		306	\$55,080	
Total Metals & CN(TAL)	\$170.00		306	\$52,020	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00		55	\$3,300	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	55	\$440	
Nitrate (EPA 353.2)	\$20.00	each	306	\$6,120	
Subtota	al Team Labor	atory		\$481,364	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	55	\$6,600	
TCLP	\$1,500.00	each	12	\$18,000	
Moisture Content	\$15.00	each	0	\$0	
Bulk Density	\$35.00		15	\$525	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		43	\$860	
Total Dissolved Solids	\$20.00		117	\$2,340	
Ammonia	\$25.00		43	\$1,075	
Phosphate	\$25.00		43	\$1,075	
Cation Exchange Capacity	\$100.00	each	55	\$5,500	

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

22-Mar-96

Printed:

Task # 2 Radiological Waste Disposal Area

Field Investigations Summary

Parsons Engineering Science, Inc.

SEAD-12

Prop No: 979002-00001

Project:

Prop No: 9/9002-00001					
	Unit	Units	Quantity	Cost	Notos
RADIOLOGICAL LABORATORY A	Cost	Onits	Quantity	Cost	Notes
	INALIOIO				
Water Samples For: Thorium 232, 230, 227	\$60.00	oach	157	\$9,420	
	•		157	\$9,420 \$9,420	
Uranium 238, 235, 233+2				\$6,280	
Radium 226,223	\$40.00		157	,	
Pb214&211,Bi214,Ce137			157	\$12,560 \$10,305	
Plutonium 239 + 240	\$65.00 \$65.00		157	\$10,205 \$10,205	
Americium 241			157	\$10,205 \$7,065	
Gross AlphaΒ	\$45.00	eacn	157	\$7,065	
oil Samples For:	¢c0.00		200	¢22.040	
Thorium 232, 230, 227	\$60.00		399	\$23,940	
Uranium 238, 235, 233+2			399	\$23,940	
Radium 226,223	\$40.00		399	\$15,960	
Pb214&211,Bi214,Ce137			399	\$0	
Plutonium 239 + 240	\$65.00		399	\$25,935	
Americium 241	\$65.00		399	\$25,935	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319			8	\$6,000	
Sample Prep/Return	\$0.00	each	399	\$0	
Vipe Samples For:					
Thorium 232, 230, 227	\$60.00		134	\$8,040	
Uranium 238, 235, 233+2			134	\$8,040	
Radium 226,223	\$40.00		134	\$5,360	
Pb214&211,Bi214,Ce137	,Co60 \$80.00	each	134	\$10,720	
Plutonium 239 + 240	\$65.00		134	\$8,710	
Americium 241	\$65.00	each	134	\$8,710	
Gross AlphaΒ	\$45.00	each	134	\$6,030	
IR SAMPLES LABORATORY ANA	ALYSIS				
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	100	\$2,500	
	Subtotal Misc. Labora	atory		\$280,950	
NVESTIGATION SUBCONTRACTO	ORS				
Driller	Lump Sum	each	50515	\$50,515	
Photogrammetry	Lump Sum		31600	\$31,600	
IDW Disposal	Lump Sum		9990	\$9,990	
	•			\$32,758	
Surveyor	Lump Sum	eacn	32758	Ψ32,130	

3% Mark-up:

TASK TOTAL: \$1,706,222

\$887,177

\$913,792

\$26,615

SUBTOTAL SUBCONTRACTORS:

Subtotal Laboratory & Investigation Subcontractors:

Client: U.S. Ari

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Project:

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E Task # 2.1

Geophysical Investigations

714,000ft EM-31@6000ft/dy-1 man 71,000 ft GPR @ 2000 ft/dy-2 men

8 Seismic Lines

Prop No: 979002-00001

1 10p 110. 070002 00001					
	Unit <u>Cost</u>	<u>Units</u>	Quantity	Cost	Notes
LABOR COSTS					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11	/hour	80	\$3,529	
Professional Level 5, Step 3 (P56)	\$37.99	/hour	0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91	/hour	0	\$0	
Professional Level 5, Step 1 (P52)	\$29.39		0	\$0	
Professional Level 3, Step 1 (1 32)	Ψ29.59	/IIOui	V	ΨΟ	
Professional Level 4, Step 2 (P48)	\$29.13	/hour	1000	\$29,130	
Professional Level 4, Step 1 (P42)	\$25.20		0	\$0	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89		0	\$0	
Froiessional Level 2, Step 1 (F22)	φ19.09	moui	· ·	φυ	
Professional Level 1, Step 2 (P18)	\$18.57	/hour	400	\$7,428	
Professional Level 1, Step 1 (P12)	\$14.84		0	\$0	
	ψ11.01	mour	· ·	4 0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	400	\$8,440	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08		0	\$0	
reclinician Level 4, Step 1 (142)	φ14.00	moul	Ü	40	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
reclinician Level 2 (123)	φ10.13	moul	O	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
, ,					
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Loyal 1 (S15)	¢0 70	/hour	0	\$0	
Support Level 1 (S15)	φ0.12	/hour	0	\$0	
TOTAL HOURS/LABOR COST			1880	\$48,527	
Contract Year: 1				,	
Base Yr					
Overhead Rate: 143%			Labor Burden:	\$69,393	

SUBTOTAL BURDENED LABOR:

\$117,920

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 2.1

Geophysical Investigations

714,000ft EM-31@6000ft/dy-1 man 71,000 ft GPR @ 2000 ft/dy-2 men

8 Seismic Lines

1.05.10.0.0002.0001				1110 211100	
	Unit	Linita	Overtity.	Cont	Notes
MATERIALS AND SUPPLIES	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74		0	\$0	
1 Liter Amber Bottles	\$37.95		0	\$0	
32 oz. HDPE Bottles	\$30.75		0	\$0	
Braided Nylon Rope	\$0.15		0	\$0	
Bubble Pack	\$84.00		0	\$0	
Decon Eqt	\$18.00		0	\$0	
55g drums fill/mov	\$100.00		0	\$0	
Field Notebook	\$14.00		6	\$84	
Ice	\$1.00		0	\$0	
Latex Gloves	\$10.00		12	\$120	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	150	\$600	
Respirator Cartridges	\$15.00	/pair	15	\$225	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00	each	5	\$100	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00	/bundle	12	\$240	
Teflon tape	\$8.00		0	\$0	
Tyveks	\$6.30		150	\$945	
Water (HPLC Grade)	\$97.00	/case	0	\$0	
Ziplock bags	\$3.00		0	\$0	
Calibration Gas	\$450.00		0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflon Tubing	\$120.00		0	\$0	
Teflon Sheeting	\$500.00		0	\$0	
Folding Live Traps	\$15.00		0	\$0	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$2,314

U.S. Army Corps of Engineers

Printed:

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Parsons Engineering Science, Inc.

Project:

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.1

Geophysical Investigations

714,000ft EM-31@6000ft/dy-1 man 71,000 ft GPR @ 2000 ft/dy-2 men

8 Seismic Lines

Prop No: 979002-00001

P10p No. 313002-00001				Seistific Lilies	
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trin	6	\$3,000	6@1Flt
Airfare Boston\Huntsville	\$900.00	•	0	\$0	OW II II
Subsistence-Seneca	\$96.00		190		190 days total
Subsistence-Huntsville	\$89.00	•	0	\$0	,
Parking, Airport	\$13.00		360	\$4,680	
Auto Rental	\$55.00	•	190	. ,	190 days total
Suburban\Van rental	\$585.00		6		6 weeks
Mileage	\$0.31		1000	\$310	
		SUBTO	TAL TRAVEL:	\$40,190	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	200	\$800	
Word Proc/PC	\$3.70	/hour	0	\$0	
CADD	\$5.00	/hour	0	\$0	
Facsimile	\$1.00	/page	200	\$200	
Overnight Express					
Letter/2 lb pack	\$14.50		5	\$73	
Package (50 lbs)	\$96.25		0	\$0	
Mail 4-lb pack		/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Su	btotal Services			\$1,073	
REPRODUCTION					
Photocopier		/page	1000	\$50	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	
Su	btotal Reproductio	n	_	\$50	

U.S. Army Corps of Engineers

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RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.1

Geophysical Investigations

714,000ft EM-31@6000ft/dy-1 man

71,000 ft GPR @ 2000 ft/dy-2 men

Prop No: 979002-00001 8 Seismic Lines

EQUIPMENT RENTAL EARTH SCIENCES EQUIPMENT Baller \$55.00 /week 0 \$0 \$0 PH/Cond meter \$54.200 /week 0 \$0 PH/Cond meter \$55.00 /week 0 \$0 PH/Cond meter \$257.00 /week 0 \$0 PH/Cond					TOTTING ENTING	
EARTH SCIENCES EQUIPMENT Bailer \$55.00 /week 0 \$0 Magnetometer \$42.00 /week 0 \$0 PH/Cond meter \$55.00 /week 0 \$0 Flow thru pH/Cond meter \$55.00 /week 0 \$0 PO meter \$55.00 /week 0 \$0 Soil Gas Supplies \$50.00 /day 0 \$0 Water level ind \$40.00 /week 0 \$0 Mater level ind \$40.00 /week 0 \$0 Turbidimeter \$30.00 /week 0 \$0 Data Logger, Trisder \$135.00 /day 0 \$0 Flow Meter \$30.00 /week 0 \$0 Plow Meter \$30.00 /week 0 \$0 Flow Meter \$50.00 /day 0 \$0 Flow Meter \$50.00 /day 0 \$0 Flow Sampler \$150.00 /week 0 \$0 Flow Sampler Calibration Kit \$25.00 /day 0 \$0 Flow Sampler Calibration Kit \$25.00 /day 0 \$0 Flow Sampler \$10.00 /week 0 \$0 Flow Sampler \$10.00 /week 0 \$0 Soil Salesmograph \$20.00 /day 0 \$0 Soil Salesmograph \$20.00 /day 150 Flow Subtotal Rental \$24,370 HEALTH & SAFETY EQUIPMENT HNu Meter \$50.00 /day 150 Subtotal Rental \$24,370 HEALTH & SAFETY EQUIPMENT HAND After \$100.00 /week 0 \$0 Gas Proportional Detector \$100.00 /week 0 \$0 Gamma Radiation Meter \$50.00 /day 190 Signor \$15,000 Air Purif Resp \$20.00 /day 190 Signor \$15,000 Air Purif Resp \$20.00 /week 12 \$240 Combination SCBASAR \$150.00 /day 0 \$0 Soil Science \$100.00 /week 12 \$240 Combination SCBASAR \$150.00 /day 0 \$0			1.1=:4=	O	0	N1-4
Bailer	EQUIDMENT DENTAL	Cost	<u>Units</u>	Quantity	Cos	<u>Notes</u>
Bailer	EGOIFMENT NENTAL					
Bailer	EARTH SCIENCES EQUIPMENT					
Magnetometer		\$55.00	/week	0	\$0	
PHICORD meter		,				
Flow thru pH/Cond meter	•	•				
DO meter	·	,		_		
Soil Gas Supplies	·				•	
Slug test eqt		•				
Water level ind	• •		•			
Turbidimeter \$30.00 /week 0 \$0 Data Logger,Trnsdcr \$135.00 /day 0 \$0 Flow Meter \$30.00 /week 0 \$0 Water coolers \$440.00 /month 3 \$120 Equipment Trailer \$1,000.00 /month 3 \$3,000 Grundfus Redi Flow Pump \$64.00 /day 0 \$0 PUF Sampler \$150.00 /week 0 \$0 PUF Sampler Calibration Kit \$25.00 /day 0 \$0 Hi- Vol Sampler \$75.00 /week 0 \$0 Hi- Vol Sampler Calibration Kit \$25.00 /day 0 \$0 PONT Sediment Sampler \$27.00 /day 0 \$0 PONT Sediment Sampler \$27.00 /day 0 \$0 PONT Sediment Sampler \$27.00 /day 0 \$0 Seismograph \$200.00 /day 0 \$0 Seismograph \$200.00 /day 15 \$1,000 EM-31 \$85.00 /day 150 \$12,750 5 units x 3 crews GPR \$500.00 /day 150 \$12,750 5 units x 3 crews HEALTH & SAFETY EQUIPMENT HNu Meter \$50.00 /day 190 \$9,500 Alpha Survey Meter \$80.00 /week 190 \$15,200 Alpha Scintillation Counter \$100.00 /week 0 \$0 Beta Sample Counter \$100.00 /week 0 \$0 Gas Prop. Detector-Floor \$100.00 /week 0 \$0 Gamma Radiation Meter \$50.00 /day 190 \$9,500 Calib Gas \$10.00 /day 190 \$9,500 Air Purif Resp \$20.00 /week 12 \$240 Lond Combination SCBA/SAR \$150.00 /day 0 \$0 Combination SCBA/SAR						
Data Logger,Trnsdcr		•				
Flow Meter		•				
Water coolers			•			
Equipment Trailer		•				
Grundfus Redi Flow Pump \$64.00 /day 0 \$0 PUF Sampler \$150.00 /week 0 \$0 PUF Sampler Calibration Kit \$25.00 /day 0 \$0 Hi- Vol Sampler Calibration Kit \$25.00 /day 0 \$0 Hi- Vol Sampler Calibration Kit \$25.00 /day 0 \$0 Hi- Vol Sampler Calibration Kit \$25.00 /day 0 \$0 Ponar Sediment Sampler \$27.00 /day 0 \$0 3.2 kw Generator \$50.00 /day 5 \$1,000 EM-31 \$85.00 /day 150 \$12,750 5 units x 3 crews GPR \$500.00 /day 15 \$7,500 15 days field Subtotal Rental \$24,370 HEALTH & SAFETY EQUIPMENT HNu Meter \$50.00 /day 190 \$9,500 Alpha Survey Meter \$80.00 /week 190 \$15,200 Alpha Scintillation Counter \$100.00 /week 0 \$0 Beta Sample Counter \$100.00 /week 0 \$0 Gas Proportional Detector \$100.00 /week 0 \$0 Gas Proportional Detector \$100.00 /week 0 \$0 Gas Prop. Detector-Floor \$100.00 /week 0 \$0 Radon Monitor \$300.00 /week 0 \$0 Gamma Radiation Meter \$50.00 /day 190 \$9,500 Calib Gas \$10.00 /day 190 \$1,900 2-way radios \$15.00 /day 190 \$1,900 2-way radios \$15.00 /ea/wk 6 \$90 Air Purif Resp \$20.00 /week 12 \$240 10-Gal Eye Wash \$35.00 /day 0 \$0						
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EM-31			•			
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Subtotal Rental \$24,370			•			
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10-Gal Eye Wash \$35.00 /week 12 \$420 Combination SCBA/SAR \$150.00 /day 0 \$0	•			-		
Combination SCBA/SAR \$150.00 /day 0 \$0	•					
<u> </u>		·				
Subtotal H & S \$36,850		Ç••	·,	-		
	Subtot	tal H & S			\$36,850	

SUBTOTAL OTHERS:

\$62,343

SUBTOTAL LABOR & ODC'S:

\$222,767

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E Task # 2.1

Geophysical Investigations

714,000ft EM-31@6000ft/dy-1 man 71,000 ft GPR @ 2000 ft/dy-2 men

8 Seismic Lines

Prop No: 979002-00001

	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
OBOUNDMATER OUREAGE MATER LA	DODATODY				
GROUNDWATER or SURFACE WATER LA	180.00		0	60	
Volatiles (TCL)	\$400.00			\$0 \$0	
B/N/A (TCL)	\$180.00		0	\$0 \$0	
Pest./PCBs (TCL)	\$170.00		0	\$0 \$0	
Total Metals & CN(TAL) Iron(Ferrous)	\$30.00		0	\$0 \$0	
Sulfide	\$30.00		0	\$0 \$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0 \$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0 \$0	
TOX (EPA 9056)	\$50.00		0	\$0 \$0	
Chloride(EPA 9250)	\$25.00		0	\$0 \$0	
BOD	\$60.00		0	\$0 \$0	
Sulfate(EPA 300)	\$25.00		0	\$0 \$0	
COD	\$50.00		0	\$0 \$0	
pH (EPA 9045)	\$8.00		0	\$0 \$0	
Volatiles (EPA 524)	\$195.00		0	\$0 \$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
Made (El 71 000.2)	Ψ20.00	caon	v	ΨΟ	
SOILS - SURFACE or SUBSURFACE LABO	RATORY AN	ALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Subtotal	Team Labor	atory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00		0	\$0 \$0	
Moisture Content	\$15.00		0	\$0 \$0	
Bulk Density	\$35.00		0	\$0 \$0	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0 \$0	
Ammonia	\$25.00		Ö	\$0 \$0	
Phosphate	\$25.00		Ö	\$0	
Cation Exchange Capacity	\$100.00		Ö	\$0 \$0	
Tanon Extrained Supusity	Ψ.00.00	Juon	•	ΨΟ	

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Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.1 **Geophysical Investigations**

714,000ft EM-31@6000ft/dy-1 man 71,000 ft GPR @ 2000 ft/dy-2 men

8 Seismic Lines

Prop No:	979002-00001

	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSI		<u> </u>	<u> </u>		.10100
Water Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Soil Samples For:	*				
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00		0	\$0	
Wipe Samples For:	•				
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
ALD CAMPLES LABORATORY ANALYSIS					
AIR SAMPLES LABORATORY ANALYSIS	# 400.00	1-	•	*	
SVOC's	\$490.00		0	\$0	
Metals	\$150.00		0	\$0	
Radon (Alpha Film)	\$25.00	eacn	0	\$0	
Subtot	al Misc. Labora	atory		\$0	
INVESTIGATION SUBCONTRACTORS					
	Lumn Sum	oach	0	\$0	
Driller Photogrammotor	Lump Sum Lump Sum		0	\$0 \$0	
Photogrammetry	Lump Sum		0	\$0 \$0	
IDW Disposal	Lump Sum		0	\$0 \$0	
Surveyor	Lump Sem	each	O	φ0	
Subtot	al Investigation	Subcontrac	etors	\$0	
Subtotal L	.aboratory & In	vestigation	Subcontractors:	\$0	
_			3% Mark-up:	\$0	
S	SUBTOTAL	SUBCON	TRACTORS:	\$0	

\$222,767 TASK TOTAL:

U.S. Army Corps of Engineers

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22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task # 2.2

Soil Gas Investigation

\$12,576

120 @15/dy=8dy

Prop No	: 979002-00001					
		Unit	Linita	Quantity	Cont	Notes
LABOR	RCOSTS	Cost	<u>Units</u>	Quantity	<u>Cost</u>	<u>Notes</u>
ENGINE	EERS AND SCIENTISTS					
	Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
	Professional Level 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
	Professional Level 5, Step 4 (P58)	\$44.11	/hour	8	\$353	
	Professional Level 5, Step 3 (P56)	\$37.99	/hour	0	\$0	
	Professional Level 5, Step 2 (P54)	\$32.91	/hour	0	\$0	
	Professional Level 5, Step 1 (P52)	\$29.39		40	\$1,176	
	5 () 11 14 61 6 (546)	000.40	4		4.0	
	Professional Level 4, Step 2 (P48)	\$29.13		0	\$0	
	Professional Level 4, Step 1 (P42)	\$25.20	/hour	0	\$0	
	Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
	Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
	Professional Level 2, Step 1 (P22)	\$19.89		100	\$1,989	
	, , , , , , , , , , , , , , , , , , ,	*******			4.,000	
	Professional Level 1, Step 2 (P18)	\$18.57	/hour	0	\$0	
	Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNI	ICAL AND SUPPORT SPECIALISTS					
	Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
	Technician Level 4, Step 2 (T48)	\$16 <i>.</i> 58	/hour	100	\$1,658	
	Technician Level 4, Step 1 (T42)	\$14.08		0	\$0	
	100/miolan 2010/ 1, 010p 1 (1 12)	Ψ11.00	7110 GI	v	40	
	Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
	Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
	Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
	Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
	Support Level 3 (S35)	\$20.61	/hour	0	\$0	
	Support Level 2 (S25)	\$12.40	/hour	0	\$0	
	Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL	HOURS/LABOR COST Contract Year: 1 Base Yr			248	\$5,175	
	Overhead Rate: 143%			Labor Burden:	\$7,4 01	
	Overnous rate. 1-10/0			Edbo. Daldoll.	\$10.5TO	

SUBTOTAL BURDENED LABOR:

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

\$575

Task # 2.2

Soil Gas Investigation 120 @15/dy=8dy

110p 110. 373002-00001	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	0	\$0	
Ice	\$1.00	/bag	0	\$0	
Latex Gloves	\$10.00	/box	1	\$10	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	16	\$64	
Respirator Cartridges	\$15.00	/pair	16	\$240	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	1	\$40	
Radiological Badges	\$20.00	each	2	\$40	
Aluminum Foil	\$1.00	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00	/bundle	4	\$80	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	16	\$101	
Water (HPLC Grade)	\$97.00	/case	0	\$0	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00	each	0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

U.S. Army Corps of Engineers

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

\$25

Task # 2.2

Soil Gas Investigation

120 @15/dy=8dy

	Unit				
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	0	\$0	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	16	\$1,536	
Subsistence-Huntsville	\$89.00		0	\$0	
Parking,Airport	\$13.00		0	\$0	
Auto Rental	\$55.00		0	\$0	
Suburban\Van rental	\$585.00		2	\$1,170	
Mileage	\$0.31	/mile	0	\$0	
	;	SUBTOTA	AL TRAVEL:	\$2,706	
THERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	10	\$40	
Word Proc/PC	\$3.70	/hour	0	\$0	
CADD	\$5.00		0	\$0	
Facsimile	\$1.00	/page	10	\$10	
Overnight Express					
Letter/2 lb pack	\$14.50		0	\$0	
Package (50 lbs)	\$96.25		0	\$0	
Mail 4-lb pack	\$4.10		0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subt	otal Services			\$50	
REPRODUCTION					
Photocopier	\$0.05		500	\$25	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro	\$1.00		0	\$0	
Cronoflex Prod	\$5.50		0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	

Subtotal Reproduction

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Task # 2.2

Soil Gas Investigation 120 @15/dy=8dy

P10p No. 979002-00001	11.7				
	Unit			•	
	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00		8	\$400	
Slug test eqt	\$50.00	•	0	\$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00		0	\$0	
Flow Meter	\$30.00	•	0	\$0	
Water coolers		/week /month	0.5	\$20	
Equipment Trailer	\$1,000.00		0.5	\$500	
Grundfus Redi Flow Pump	\$64.00		0.0	\$0	
PUF Sampler	\$150.00	•	0	\$0 \$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
Hi- Vol Sampler	\$75.00	•	0	\$0 \$0	
Hi- Vol Sampler Calibration Kit	\$25.00		0	\$0 \$0	
Ponar Sediment Sampler	\$27.00	•	0	\$0 \$0	
•		-		•	
3.2 kw Generator	\$50.00	•	0	\$0 \$0	
Seismograph	\$200.00	-	0	\$0 \$0	
EM-31	\$85.00	•	0	\$0 \$0	
GPR	\$500.00	ruay	U	\$0	
Subtot	al Rental			\$920	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	16	\$800	
Alpha Survey Meter	\$80.00	-	16	\$1,280	
Alpha Scintillation Counter	\$100.00		0	\$0	
Beta Sample Counter	\$100.00		0	\$0 \$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Proportional Detector Gas Prop. Detector-Floor	\$100.00		0	\$0 \$0	
Radon Monitor	\$300.00		2	\$600	
	\$50.00		16	\$800	
Gamma Radiation Meter					
Calib Gas	\$10.00 \$15.00	•	16 2	\$160 \$30	
2-way radios					
Air Purif Resp	\$20.00		4	\$80 \$70	
10-Gal Eye Wash	\$35.00		2	\$70 \$0	
Combination SCBA/SAR	\$150.00	ruay	0	\$0	
Subtot	al H & S			\$3,820	

SUBTOTAL OTHERS:

\$4,815

SUBTOTAL LABOR & ODC'S:

\$20,672

U.S. Army Corps of Engineers

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Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas SEAD-12

Annex E

Prop No: 979002-00001

Task # 2.2

Soil Gas Investigation 120 @15/dy=8dy

. 100 110	5. 979002-00001	1 Init				
		Unit <u>Cost</u>	Units	Quantity	Cost	Notes
SUBC	ONTRACTORS					
GROUN	IDWATER or SURFACE WATER LA	BORATORY	'ANALYSIS			
	Volatiles (TCL)	\$180.00	each	0	\$0	
	B/N/A (TCL)	\$400.00	each	0	\$0	
	Pest./PCBs (TCL)	\$180.00	each	0	\$0	
	Total Metals & CN(TAL)	\$170.00	each	0	\$0	
	Iron(Ferrous)	\$30.00	each	0	\$0	
	Sulfide	\$30.00	each	0	\$0	
	Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
	Total Organic Carbon (EPA 9060)	\$25.00	each	0	\$0	
	TOX (EPA 9056)	\$50.00	each	0	\$0	
	Chloride(EPA 9250)	\$25.00	each	0	\$0	
	BOD	\$60.00	each	0	\$0	
	Sulfate(EPA 300)	\$25.00	each	0	\$0	
	COD	\$50.00	each	0	\$0	
	pH (EPA 9045)	\$8.00	each	0	\$0	
	Volatiles (EPA 524)	\$195.00	each	0	\$0	
	Hardness(EPA 130.2)	\$15.00	each	0	\$0	
	Alkalinity(EPA 310)	\$12.00	each	0	\$0	
	Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS -	SURFACE or SUBSURFACE LABO	RATORY AN	NALYSIS			
	Volatiles (TCL)	\$180.00		0	\$0	
	B/N/A (TCL)	\$400.00		0	\$0	
	Pest./PCBs (TCL)	\$180.00		0	\$0	
	Total Metals & CN(TAL)	\$170.00		0	\$0	
	Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
	Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
	TOX (EPA 9056)	\$70.00	each	0	\$0	
	Chloride(EPA 9250)	\$25.00	each	0	\$0	
	pH (EPA 9045)	\$8.00	each	0	\$0	
	Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
	Subtotal	Team Labor	atory		\$0	
MISC. L	ABORATORY ANALYSIS					
	Grain Size Dist	\$120.00	each	0	\$0	
	TCLP	\$1,500.00		0	\$0	
	Moisture Content	\$15.00		0	\$0	
	Bulk Density	\$35.00	each	0	\$0	
	Chromium (Level II)	\$30.00		0	\$0	
	Total Suspended Solids	\$20.00		0	\$0	
	Total Dissolved Solids	\$20.00	each	0	\$0	
	Ammonia	\$25.00		0	\$0	
	Phosphate	\$25.00		0	\$0	
			04011	•	7.	

Project:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 2.2

Soil Gas Investigation

120 @15/dy=8dy

	Unit				
	Cost	Units	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS			•		
Water Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00	each	0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Wipe Samples For:					
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal	Misc. Labora	atory		\$0	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	6776	\$6,776	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum	each	0	\$0	
Surveyor	Lump Sum		0	\$0	
Subtotal	Investigation	Subcontra	ctors	\$6,776	

TASK TOTAL:

3% Mark-up:

\$27,651

\$6,776

\$6,979

\$203

SUBTOTAL SUBCONTRACTORS:

Subtotal Laboratory & Investigation Subcontractors:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

Overhead Rate: 143%

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E Prop No: 979002-00001 Task # 2.3

Radiological Investigations Summary

\$59,357

\$100,866

Prop No: 9/9002-00001					
	Unit		0 "	0 1	
LABOR COSTS	Cost	<u>Units</u>	Quantity	Cost	Notes
LABOR COSTS					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
Destacional Level E Chan 4 (DE0)	¢44.44	//	60	\$2.647	
Professional Level 5, Step 4 (P58)	\$44.11		60	\$2,647	
Professional Level 5, Step 3 (P56)	\$37.99		0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91		120	\$3,949	
Professional Level 5, Step 1 (P52)	\$29.39	/nour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13	/hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20		684	\$17,237	
, , , ,					
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89		0	\$0	
, , ,					
Professional Level 1, Step 2 (P18)	\$18.57	/hour	684	\$12,702	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
	004.40	4	•	0.0	
Technician Level 5 (T55)	\$21.10	/nour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	300	\$4,974	
Technician Level 4, Step 1 (T42)	\$14.08	/hour	0	\$0	
T	040.00	4	•	40	
Technician Level 3, Step 2 (T38)	\$13.99		0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
• •				•	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
	445.45		•	40	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST			1848	\$41,508	
Contract Year: 1					
Base Yr					

SUBTOTAL BURDENED LABOR:

Labor Burden:

Project:

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 2.3

Radiological Investigations Summary

Prop No: 9/9002-00001						
	Unit					
	<u>Cost</u>	<u>Units</u>	Quantity	Cost	Notes	
MATERIALS AND SUPPLIES						
Bottle labels	\$20.00	/roll	1	\$20		
40 mL VOA Vials	\$122.74		0	\$0		
1 Liter Amber Bottles	\$37.95		6	\$228		
32 oz. HDPE Bottles	\$30.75	/case	6	\$185		
Braided Nylon Rope	\$0.15	/foot	500	\$75		
Bubble Pack	\$84.00	/roll	6	\$504		
Decon Egt	\$18.00	/kit	6	\$108		
55g drums fill/mov	\$100.00	each	0	\$0		
Field Notebook	\$14.00	each	9	\$126		
Ice	\$1.00	/bag	20	\$20		
Latex Gloves	\$10.00	•	14	\$140		
Methanol (Optima)	\$25.00	/bottle	1	\$25		
Hexane (Optima)	\$25.00	/bottle	1	\$25		
Acetone (Optima)	\$50.00	/bottle	1	\$50		
HCI (Optima)	\$285.00	/bottle	1	\$285		
HNO3 (Optima)	\$175.00	/bottle	1	\$175		
Ascorbic Acid	\$10.00	/bottle	0	\$0		
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0		
Overboots	\$4.00	/pair	236	\$944		
Respirator Cartridges	\$15.00	/pair	5	\$75		
Packing Tape (doz)	\$72.00	/case	3	\$216		
Padlocks	\$12.00	each	0	\$0		
Sampling Tables	\$40.00	each	7	\$280		
Radiological Badges	\$20.00	each	16	\$320		
Aluminum Foil	\$1.00	/roll	0	\$0		
Stain Stl bwl/spn	\$30.00	/set	12	\$360		
Survey Stake/Flag	\$20.00	/bundle	17	\$340		
Teflon tape	\$8.00	/roll	0	\$0		
Tyveks	\$6.30	each	242	\$1,525		
Water (HPLC Grade)	\$97.00	/case	2	\$194		
Ziplock bags	\$3.00	/box	0	\$0		
Calibration Gas	\$450.00	/tank	0	\$0		
Ultra Pure Air	\$310.00	/ton	0	\$0		
Teflon Tubing	\$120.00		0	\$0		
Teflon Sheeting	\$500.00	/roll	0	\$0		
Folding Live Traps	\$15.00		0	\$0		
Glassware	\$25.00		0	\$0		
Quartz Filters	\$10.00		0	\$0		
Vermiculite Packing	\$16.00	/bag	8	\$128		

SUBTOTAL MATLS & SUPPLIES:

\$6,347

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task	#	2.3	
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Radiological Investigations Summary

Prop No: 979002-00001	Unit				
	Cost	Units	Quantity	Cost	Notes
TRAVEL	0000	<u> </u>	- water	<u> </u>	.10.00
Airfare Boston\Syracuse	\$500.00	/trip	15	\$7,500	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	176	\$16,896	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking, Airport	\$13.00	/day	116	\$1,508	
Auto Rental	\$55.00	•	24	\$1,320	
Suburban\Van rental	\$585.00		12	\$7,020	
Mileage	\$0.31	/mile	900	\$279	
		SUBTOTA	AL TRAVEL:	\$34,523	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00		120	\$480	
Word Proc/PC	\$3.70		0	\$0	
CADD	\$5.00		0	\$0	
Facsimile	\$1.00	/page	300	\$300	
Overnight Express	044.50		0	# 0	
Letter/2 lb pack	\$14.50		0	\$0	
Package (50 lbs)	\$96.25		48	\$4,620	
Mail 4-lb pack	\$4.10	/pack /letter	0 0	\$0 \$0	
Mail letters	φυ.54	neuer		Φ0	
Subto	otal Services			\$5,400	
REPRODUCTION					
Photocopier		/page	3000	\$150	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	
Subto	tal Reproduction	n		\$150	

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Task # 2.3

Radiological Investigations Summary

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00	/week	0	\$0	
pH/Cond meter	\$50.00	/week	0	\$0	
Flow thru pH/Cond meter	\$257.00	/week	0	\$0	
DO meter	\$55.00	/week	0	\$0	
Soil Gas Supplies	\$50.00	/day	0	\$0	
Slug test eqt	\$50.00	/week	0	\$0	
Water level ind	\$40.00	/week	0	\$0	
Turbidimeter	\$30.00	/week	0	\$0	
Data Logger,Trnsdcr	\$135.00	/day	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	3	\$120	
Equipment Trailer	\$1,000.00	/month	3	\$3,000	
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0	
PUF Sampler	\$150.00	/week	0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler	\$75.00	/week	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0	
Ponar Sediment Sampler	\$27.00	/day	0	\$0	
3.2 kw Generator	\$50.00	/day	0	\$0	
Seismograph	\$200.00	/day	0	\$0	
EM-31	\$85.00	/day	0	\$0	
GPR	\$500.00	/day	0	\$0	
Subto	tal Rental			\$3,120	
LICALTIL & CAFETY FOLIDMENT					
HEALTH & SAFETY EQUIPMENT	\$50.00	/day	65	\$3,250	
HNu Meter	\$80.00	,	9	\$3,230 \$720	
Alpha Scintillation Counter	\$100.00		9	\$900	
Alpha Scintillation Counter	\$100.00		9	\$900	
Beta Sample Counter	\$100.00		9	\$900	
Gas Proportional Detector	\$100.00		8	\$800	
Gas Prop. Detector-Floor	\$300.00		0	\$0	
Radon Monitor	\$50.00		43	\$2,150	
Gamma Radiation Meter	\$10.00	•	38	\$380	
Calib Gas		•	28	\$420	
2-way radios		/ea/wk			
Air Purif Resp	\$20.00		0	\$0 \$490	
10-Gal Eye Wash	\$35.00		14 0	\$490 \$0	
Combination SCBA/SAR	\$150.00	raay	U	φU	
Subto	tal H & S		<u></u>	\$10,910	

SUBTOTAL OTHERS:

\$19,580

SUBTOTAL LABOR & ODC'S:

\$161,315

Project:

U.S. Army Corps of Engineers

Cation Exchange Capacity

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

Task # 2.3 Radiological Investigations Summary

SEAD-12 Annex E

Prop No: 979002-00001 Unit Cost Units Quantity Cost Notes **SUBCONTRACTORS** GROUNDWATER or SURFACE WATER LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 0 \$0 B/N/A (TCL) \$400.00 each 0 \$0 Pest./PCBs (TCL) 0 \$180.00 each \$0 Total Metals & CN(TAL) \$170.00 each 0 \$0 Iron(Ferrous) \$30.00 each 0 \$0 Sulfide \$30.00 each 0 \$0 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (EPA 9060) \$25.00 each 0 \$0 TOX (EPA 9056) \$50.00 each 0 \$0 Chloride(EPA 9250) \$25.00 each 0 \$0 BOD \$60.00 each 0 \$0 Sulfate(EPA 300) \$25.00 each 0 \$0 COD 0 \$50.00 each \$0 pH (EPA 9045) \$8.00 each 0 \$0 0 Volatiles (EPA 524) \$195.00 each \$0 Hardness(EPA 130.2) \$15.00 each 0 \$0 Alkalinity(EPA 310) \$12.00 each 0 \$0 Nitrate (EPA 353.2) \$20.00 each 0 \$0 SOILS - SURFACE or SUBSURFACE LABORATORY ANALYSIS Volatiles (TCL) \$180.00 each 0 \$0 B/N/A (TCL) \$400.00 each 0 \$0 Pest./PCBs (TCL) 0 \$180.00 each \$0 Total Metals & CN(TAL) \$170.00 each 0 \$0 Spec Cond(EPA 9050) \$8.00 each 0 \$0 Total Organic Carbon (L. Kahn) \$60.00 each 0 \$0 TOX (EPA 9056) 0 \$70.00 each \$0 \$25.00 each Chloride(EPA 9250) 0 \$0 pH (EPA 9045) \$8.00 each 0 \$0 Nitrate (EPA 353.2) \$20.00 each 0 \$0 Subtotal Team Laboratory \$0 MISC. LABORATORY ANALYSIS Grain Size Dist \$120.00 each 0 \$0 TCLP \$1.500.00 each 0 \$0 Moisture Content \$15.00 each 0 \$0 Bulk Density \$35.00 each 0 \$0 Chromium (Level II) \$30.00 each 0 \$0 Total Suspended Solids \$20.00 each 0 \$0 Total Dissolved Solids \$20.00 each 0 \$0 Ammonia \$25.00 each 0 \$0 \$25.00 each 0 Phosphate \$0

0

\$0

\$100.00 each

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 2.3

Radiological Investigations Summary

P10p No. 979002-00001					
	Unit	Lluita	Ouantitu	Coot	Notes
RADIOLOGICAL LABORATORY ANALYSIS	<u>Cost</u>	<u>Units</u>	Quantity	<u>Cost</u>	Notes
Water Samples For:	,				
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Soil Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gamma Spectrometry	\$0.00	each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Wipe Samples For:					
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtota	l Misc. Labora	atory		\$0	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum		0	\$0	
Subtota	l Investigation	Subcontrac	etors	\$0	
Subtotal	ahoratory & In	vestigation !	Subcontractors:	\$0	
Gubiotal Et	abolatory will	, sougation (3% Mark-up:	\$0	
			e /o main ap.	40	

TASK TOTAL: \$161,315

\$0

SUBTOTAL SUBCONTRACTORS:

Client: U.S. Army Corps of Engineers

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task # 2.3.1

Alpha, Beta, Gamma Screening

Alpha FI76m/h W18m/h Beta/Gamma FI&W 162m/h Ext. Beta/Gamma 260m/h

\$52,537

Prop No: 979002-00001			Ext.	Beta/Gamma 260	m/h
	Unit				
4 ADOD 00070	Cost	<u>Units</u>	Quantity	Cost	Notes
LABOR COSTS					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11	/hour	20	\$882	
Professional Level 5, Step 3 (P56)	\$37.99		0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91		80	\$2,633	
Professional Level 5, Step 2 (P54)	\$29.39		0	\$0	
Professional Level 3, Step 1 (F32)	φ29.59	moul	· ·	φυ	
Professional Level 4, Step 2 (P48)	\$29.13	/hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20	/hour	300	\$7,560	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89		0	\$0	
, , ,					
Professional Level 1, Step 2 (P18)	\$18.57	/hour	300	\$5,571	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	300	\$4,974	
Technician Level 4, Step 2 (143)	\$14.08		0	\$0	
reclinician Level 4, Gtcp 1 (142)	Ψ14.00	modi	Ü	ΨΟ	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
	010.10	at .	•	40	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST			1000	\$21,620	
Contract Year: 1				•	
Base Yr					
Overhead Rate: 143%		-	Labor Burden:	\$30,917	

SUBTOTAL BURDENED LABOR:

U.S. Army Corps of Engineers

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task # 2.3.1

Alpha, Beta, Gamma Screening

Alpha FI76m/h W18m/h Beta/Gamma FI&W 162m/h Ext. Beta/Gamma 260m/h

\$2,368

	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	500	\$75	
Bubble Pack	\$84.00	/roll	1	\$84	
Decon Eqt	\$18.00	/kit	1	\$18	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	4	\$56	
Ice	\$1.00	/bag	0	\$0	
Latex Gloves	\$10.00	/box	4	\$40	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	160	\$640	
Respirator Cartridges	\$15.00	/pair	1	\$15	
Packing Tape (doz)	\$72.00	•	1	\$72	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	2	\$80	
Radiological Badges	\$20.00	each	4	\$80	
Aluminum Foil	\$1.00	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00	/bundle	10	\$200	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	160	\$1,008	
Water (HPLC Grade)	\$97.00	/case	0	\$0	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00		0	\$0	
· ·		-	_		

SUBTOTAL MATLS & SUPPLIES:

Client: U.S. Army Corps of Engineers

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Printed: 22-Ma

22-Mar-96

Parsons Engineering Science, Inc.

Task # 2.3.1

Alpha, Beta, Gamma Screening

Alpha FI76m/h W18m/h Beta/Gamma FI&W 162m/h Ext. Beta/Gamma 260m/h

Prop No: 979002-00001	Ext. Beta/Gamma 260m/h				
	Unit			1	
	<u>Cost</u>	<u>Units</u>	Quantity	Cost	<u>Notes</u>
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	3	\$1,500	
Airfare Boston\Huntsville	\$900.00		0	\$0 \$0	
Subsistence-Seneca	\$96.00	•	90	\$8,640 3@	030days
Subsistence-Huntsville	\$89.00	•	0	\$0	joudayo
Parking, Airport	\$13.00	,	30	\$390	
Auto Rental	\$55.00		0	\$0	
Suburban\Van rental	\$585.00		6	\$3,510	
Mileage	\$0.31		150	\$47	
		SUBTOT	AL TRAVEL:	\$14,087	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	20	\$80	
Word Proc/PC	\$3.70	/hour	0	\$0	
CADD	\$5.00	/hour	0	\$0	
Facsimile	\$1.00	/page	50	\$50	
Overnight Express					
Letter/2 lb pack	\$14.50		0	\$0	
Package (50 lbs)	\$96.25		8	\$770	
Mail 4-lb pack		/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Sub	total Services			\$900	
REPRODUCTION					
Photocopier		/page	500	\$25	
Aerial Photo repro		/photo	0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	
Sub	ototal Reproduction	n		\$25	

Client: U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Project:

Printed:

22-Mar-96

Task # 2.3.1

Alpha, Beta, Gamma Screening

Parsons Engineering Science, Inc.

Alpha FI76m/h W18m/h Beta/Gamma FI&W 162m/h Ext. Beta/Gamma 260m/h

Prop No: 979002-00001				Ext. Beta/Gamma 260m/h		
1 100 110. 070002 00001	Unit		LAC. L	Scia/Camma 200	711711	
	Cost	Units	Quantity	Cost	Notes	
EQUIPMENT RENTAL				<u> </u>	110100	
EARTH SCIENCES EQUIPMENT						
Bailer	\$55.00	/week	0	\$0		
Magnetometer	\$42.00	/week	0	\$0		
pH/Cond meter	\$50.00	/week	0	\$0		
Flow thru pH/Cond meter	\$257.00	/week	0	\$0		
DO meter	\$55.00	/week	0	\$0		
Soil Gas Supplies	\$50.00	/day	0	\$0		
Slug test eqt	\$50.00	/week	0	\$0		
Water level ind	\$40.00	/week	0	\$0		
Turbidimeter	\$30.00	/week	0	\$0		
Data Logger,Trnsdcr	\$135.00	/day	0	\$0		
Flow Meter	\$30.00	/week	0	\$0		
Water coolers	\$40.00	/month	0.5	\$20		
Equipment Trailer	\$1,000.00	/month	0.5	\$500		
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0		
PUF Sampler	\$150.00	/week	0	\$0		
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0		
Hi- Vol Sampler	\$75.00	/week	0	\$0		
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0		
Ponar Sediment Sampler	\$27.00	/day	0	\$0		
3.2 kw Generator	\$50.00	/day	0	\$0		
Seismograph	\$200.00	/day	0	\$0		
EM-31	\$85.00	/day	0	\$0		
GPR	\$500.00	/day	0	\$0		
Subtot	al Rental			\$520	•	
HEALTH & SAFETY EQUIPMENT						
HNu Meter	\$50.00	/day	30	\$1,500		
Alpha Survey Meter	\$80.00	/week	6	\$480		
Alpha Scintillation Counter	\$100.00	/week	6	\$600		
Beta Sample Counter	\$100.00	/week	6	\$600		
Gas Proportional Detector	\$100.00	/week	6	\$600		
Gas Prop. Detector-Floor	\$100.00	/week	6	\$600		
Radon Monitor	\$300.00		0	\$0		
Gamma Radiation Meter	\$50.00	/day	30	\$1,500		
Calib Gas	\$10.00	/day	30	\$300		
2-way radios		/ea/wk	12	\$180		
Air Purif Resp	\$20.00		0	\$0		
10-Gal Eye W ash	\$35.00		6	\$210		
Combination SCBA/SAR	\$150.00	/day	0	\$0		
Subtot	al H & S			\$6,570		

SUBTOTAL OTHERS:

\$8,015

SUBTOTAL LABOR & ODC'S:

\$77,006

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.3.1

Alpha, Beta, Gamma Screening

Alpha FI76m/h W18m/h Beta/Gamma FI&W 162m/h Ext. Beta/Gamma 260m/h

Annex E Prop No: 979002-00001	Ext. Beta/Gamma Fl&vv 162m/n						
P10p No. 979002-00001	Unit		EXt. D	eta/Gaiiiiia 200	111/11		
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>		
SUBCONTRACTORS							
GROUNDWATER or SURFACE WATER LA	BORATORY	ANALYSIS					
Volatiles (TCL)	\$180.00		0	\$0			
B/N/A (TCL)	\$400.00		0	\$0			
Pest./PCBs (TCL)	\$180.00		0	\$0			
Total Metals & CN(TAL)	\$170.00	each	0	\$0			
Iron(Ferrous)	\$30.00	each	0	\$0			
Sulfide	\$30.00	each	0	\$0			
Spec Cond(EPA 9050)	\$8.00	each	0	\$0			
Total Organic Carbon (EPA 9060)	\$25.00	each	0	\$0			
TOX (EPA 9056)	\$50.00	each	0	\$0			
Chloride(EPA 9250)	\$25.00	each	0	\$0			
BOD	\$60.00	each	0	\$0			
Sulfate(EPA 300)	\$25.00	each	0	\$0			
COD	\$50.00	each	0	\$0			
pH (EPA 9045)	\$8.00		0	\$0			
Volatiles (EPA 524)	\$195.00		0	\$0			
Hardness(EPA 130.2)	\$15.00		0	\$0			
Alkalinity(EPA 310)	\$12.00		0	\$0			
Nitrate (EPA 353.2)	\$20.00	each	0	\$0			
SOILS - SURFACE or SUBSURFACE LABOR	RATORY AN	IALYSIS					
Volatiles (TCL)	\$180.00	each	0	\$0			
B/N/A (TCL)	\$400.00	each	0	\$0			
Pest./PCBs (TCL)	\$180.00	each	0	\$0			
Total Metals & CN(TAL)	\$170.00	each	0	\$0			
Spec Cond(EPA 9050)	\$8.00	each	0	\$0			
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0			
TOX (EPA 9056)	\$70.00	each	0	\$0			
Chloride(EPA 9250)	\$25.00	each	0	\$0			
pH (EPA 9045)	\$8.00		0	\$0			
Nitrate (EPA 353.2)	\$20.00	each	0	\$0			
Subtotal	Team Labor	atory		\$0			
MISC. LABORATORY ANALYSIS							
Grain Size Dist	\$120.00	each	0	\$0			
TCLP	\$1,500.00	each	0	\$0			
Moisture Content	\$15.00	each	0	\$0			
Bulk Density	\$35.00	each	0	\$0			
Chromium (Level II)	\$30.00	each	0	\$0			
Total Suspended Solids	\$20.00		0	\$0			
Total Dissolved Solids	\$20.00		0	\$0			
Ammonia	\$25.00		0	\$0			
Phosphate	\$25.00		0	\$0			
Cation Exchange Capacity	\$100.00	each	0	\$0			

Huntsville Division Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Project:

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 2.3.1

Alpha, Beta, Gamma Screening

Alpha Fi76m/h W18m/h Beta/Gamma Fl&W 162m/h Ext. Beta/Gamma 260m/h

Prop No: 979002-00001			/Gamma 260m/h		
	Unit				
DADIOLOGICAL LABORATORY ANALYS	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSI	S			-	
Water Samples For:	00.00		0	40	
Thorium 232, 230, 227	\$60.00		0	\$0 \$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0 \$0	
Radium 226,223	\$40.00		0	\$0 \$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0 \$0	
Plutonium 239 + 240	\$65.00		0	\$0 \$0	
Americium 241	\$65.00		0 0	\$0 \$0	
Gross AlphaΒ	\$45.00	eacn	U	\$0	
Soil Samples For:	00.002	oach	0	\$0	
Thorium 232, 230, 227	\$60.00				
Uranium 238, 235, 233+234	\$60.00		0	\$0 \$0	
Radium 226,223	\$40.00 \$0.00		0	\$0 \$0	
Pb214&211,Bi214,Ce137,Co60 Plutonium 239 + 240			0	\$0 \$0	
	\$65.00		0	\$0 \$0	
Americium 241	\$65.00			\$0 \$0	
Gamma Spectrometry	\$0.00 \$750.00		0	\$0 \$0	
Dist. Coef.(ASTM D:4319-83)	\$0.00		0	\$0 \$0	
Sample Prep/Return Wipe Samples For:	\$0.00	eacii	U	ΦΟ	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 237+234	\$60.00		0	\$0 \$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0 \$0	
Gross AlphaΒ	\$45.00		0	\$0	
Gross Alphadocta	ψ+3.00	Cuon	,	ΨΟ	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00		0	\$0	
Metals	\$150.00		0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtot	al Misc. Labora	itory		\$0	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum		0	\$0	
Subtot	al Investigation	Subcontrac	tors	\$0	
Subtotal I	aboratory & In	vestigation S	Subcontractors:	\$0	
Captotal		. songation (3% Mark-up:	\$0	
S	SURTOTAL	SUBCONT	TRACTORS:	\$0	
	,00,01,12	SOBOOM		ΨΟ	

TASK TOTAL:

\$77,006

U.S. Army Corps of Engineers

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Task # 2.3.2

Alpha, Beta, Gamma **Direct Measurements** Affected 120/dy

\$11,070

Unaffected 100/dy

Prop No: 979002-00001			Unaffe	ected 100/dy	
	Unit	l luite	Quantity	Coat	Notes
LABOR COSTS	Cost	<u>Units</u>	Quantity	<u>Cost</u>	<u>Notes</u>
EABOR COSTS					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 2 (P66)	\$46.47		0	\$0 \$0	
1 101033101141 20001 0, 0100 1 (1 02)	Ψ10.11	711001	·	4.5	
Professional Level 5, Step 4 (P58)	\$44.11		8	\$353	
Professional Level 5, Step 3 (P56)	\$37.99		0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91		8	\$263	
Professional Level 5, Step 1 (P52)	\$29.39	/hour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13	/hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20		90	\$2,268	
1 101000101111 20001 1, 0100 1 (1 12)	Ψ20.20	modi		4 2,200	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
	400.00	,,		40	
Professional Level 2, Step 2 (P28)	\$23.09		0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89	/nour	0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57	/hour	90	\$1,671	
Professional Level 1, Step 1 (P12)	\$14.84		0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Tachminian Lovel E (TEE)	¢24 40	/	0	\$0	
Technician Level 5 (T55)	\$21.10	mour	U	Φ0	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08		0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99		0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
recililician Level 2 (123)	Ψ10.15	moui	Ü	ΨΟ	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
	400.04		•		
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
				•	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST			196	\$4,555	
Contract Year: 1			100	Ψ1,500	
Base Yr					
Overhead Rate: 143%			Labor Burden:	\$6,514	

SUBTOTAL BURDENED LABOR:

U.S. Army Corps of Engineers

Huntsville Division Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Project:

Prop No: 979002-00001

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Task # 2.3.2

Alpha, Beta, Gamma **Direct Measurements** Affected 120/dy

Unaffected 100/dy

MATERIALS AND SUPPLIES Suppli	
Bottle labels	otes
40 mL VOA Vials \$122.74 /case 0 \$0 1 Liter Amber Bottles \$37.95 /case 0 \$0 32 oz. HDPE Bottles \$30.75 /case 0 \$0 Braided Nylon Rope \$0.15 /foot 0 \$0 Bubble Pack \$84.00 /roll 1 \$84 Decon Eqt \$18.00 /kit 1 \$18 55g drums fill/mov \$100.00 each 0 \$0 Field Notebook \$14.00 each 1 \$14 Ice \$1.00 /bag 0 \$0 Latex Gloves \$10.00 /box 2 \$2 Methanol (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$25.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /bottle 0 \$0 Packing Tape (doz) \$72.00 /case 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 2	
40 mL VOA Vials \$122.74 /case 0 \$0 1 Liter Amber Bottles \$37.95 /case 0 \$0 32 oz. HDPE Bottles \$30.75 /case 0 \$0 Braided Nylon Rope \$0.15 /foot 0 \$0 Bubble Pack \$84.00 /roll 1 \$84 Decon Eqt \$18.00 /kit 1 \$18 55g drums fill/mov \$100.00 each 0 \$0 Field Notebook \$14.00 each 1 \$14 Ice \$1.00 /bag 0 \$0 Latex Gloves \$10.00 /box 2 \$2 Methanol (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$25.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 Overboots \$4.00 /pair 18 \$72 Respirator Cartridges \$15.00 /pair 0 \$0 Packing Tape (doz) \$72.00 /case 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 2	
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Braided Nylon Rope Bubble Pack	
Bubble Pack \$84.00 /roll 1 \$84 Decon Eqt \$18.00 /kit 1 \$18 55g drums fill/mov \$100.00 each 0 \$0 Field Notebook \$14.00 each 1 \$14 Ice \$1.00 /bag 0 \$0 Latex Gloves \$10.00 /box 2 \$2 Methanol (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$25.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /botx 0 \$0 Overboots \$4.00 /pair 18 \$72 Respirator Cartridges \$15.00 /pair 0 \$0 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 2	
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Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 Overboots \$4.00 /pair 18 \$72 Respirator Cartridges \$15.00 /pair 0 \$0 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 2 \$40	
Overboots \$4.00 /pair 18 \$72 Respirator Cartridges \$15.00 /pair 0 \$0 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 2 \$40	
Overboots \$4.00 /pair 18 \$72 Respirator Cartridges \$15.00 /pair 0 \$0 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 2 \$40	
Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 2 \$40	
Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 2 \$40	
Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 2 \$40	
Radiological Badges \$20.00 each 2 \$40	
Authinum Foir \$1.00 from \$	
Stain Stl bwl/spn \$30.00 /set 0 \$0	
Survey Stake/Flag \$20.00 /bundle 2 \$40	
Teflon tape \$8.00 /roll 0 \$0	
Tyveks \$6.30 each 24 \$151	
Water (HPLC Grade) \$97.00 /case 0 \$0	
Ziplock bags \$3.00 /box 0 \$0	
Calibration Gas \$450.00 /tank 0 \$0	
Ultra Pure Air \$310.00 /ton 0 \$0	
Teflon Tubing \$120.00 /roll 0 \$0	
Teflon Sheeting \$500.00 /roll 0 \$0	
Folding Live Traps \$15.00 each 0 \$0	
Glassware \$25.00 each 0 \$0	
Quartz Filters \$10.00 each 0 \$0	
Vermiculite Packing \$16.00 /bag 0 \$0	

SUBTOTAL MATLS & SUPPLIES:

\$479

Seneca Army Depot Activity, Romulus New York Task # 2.3.2 Project: RI/FS at the Radiological Disposal Areas Alpha, Beta, Gamma **Direct Measurements** SEAD-12 Affected 120/dv Annex E Unaffected 100/dy Prop No: 979002-00001 Unit Cost Units Quantity Cost Notes **TRAVEL** 2 \$1,000 \$500.00 /trip Airfare Boston\Syracuse \$900.00 /trip Airfare Boston\Huntsville 0 \$0 \$96.00 /day 24 \$2,304 Subsistence-Seneca Subsistence-Huntsville \$89.00 /day 0 \$0 \$13.00 /day 24 \$312 Parking, Airport \$55.00 /day 8 \$440 Auto Rental \$585.00 /week 2 \$1,170 Suburban\Van rental \$47 \$0.31 /mile 150 Mileage SUBTOTAL TRAVEL: \$5,273 **OTHERS IN-HOUSE SERVICES** \$4.00 /call 20 \$80 Telephone \$3.70 /hour \$0 Word Proc/PC 0 CADD \$5.00 /hour 0 \$0 50 \$50 \$1.00 /page Facsimile Overnight Express \$14.50 each 0 \$0 Letter/2 lb pack Package (50 lbs) \$96.25 each 8 \$770 Mail 4-lb pack \$4.10 /pack 0 \$0 \$0 Mail letters \$0.54 /letter 0 \$900 **Subtotal Services** REPRODUCTION \$25 500 Photocopier \$0.05 /page \$0 Aerial Photo repro \$10.00 /photo 0

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Huntsville Division

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Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.3.2

Alpha, Beta, Gamma **Direct Measurements**

Affected 120/dy Unaffected 100/dy

Prop No: 979002-00001

Prop No: 9/9002-00001			Unane	cted 100/dy	
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00	/week	0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
	\$50.00		0	\$ 0	
Soil Gas Supplies		•	0	\$0 \$0	
Slug test eqt	\$50.00		_		
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00	-	0	\$0	
Flow Meter	\$30.00		0	\$0	
Water coolers	\$40.00	/month	0.5	\$20	
Equipment Trailer	\$1,000.00	/month	0.5	\$500	
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0	
PUF Sampler	\$150.00	/week	0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler	\$75.00	•	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00		0	\$0	
Ponar Sediment Sampler	\$27.00	•	0	\$0	
3.2 kw Generator	\$50.00	•	0	\$0	
Seismograph	\$200.00	•	0	\$0	
EM-31	\$85.00	•	0	\$0	
		•	0	\$0 \$0	
GPR	\$500.00	luay	U	φυ	
O. It do	- I D 4- I			¢520	
Subtot	al Rental			\$520	
LIENT THE GASETY SOUNDMENT					
HEALTH & SAFETY EQUIPMENT	450.00		5	\$050	
HNu Meter	\$50.00	•	5	\$250	
Alpha Survey Meter	\$80.00		2	\$160	
Alpha Scintillation Counter	\$100.00		0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00	/week	2	\$200	
Gas Prop. Detector-Floor	\$100.00	/week	2	\$200	
Radon Monitor	\$300.00	/week	0	\$0	
Gamma Radiation Meter	\$50.00	/day	0	\$0	
Calib Gas	\$10.00	/day	8	\$80	
2-way radios	\$15.00	•	4	\$60	
Air Purif Resp	\$20.00		0	\$0	
10-Gal Eye Wash	\$35.00		2	\$70	
Combination SCBA/SAR	\$150.00		0	\$0	
Combination SCDASAN	Ψ130.00	ruay	U	ΨΟ	
Culptot	al H & S			\$1,020	
Subtot	aiii a S			φ1,020	

SUBTOTAL OTHERS:

\$2,465

SUBTOTAL LABOR & ODC'S:

\$19,286

Client: U.S. Army Corps of Engineers

Printed:

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Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E Prop No: 979002-00001 Task # 2.3.2

Alpha, Beta, Gamma **Direct Measurements** Affected 120/dy

Unaffected 100/dy

	Linit			,	
	Unit Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA					
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Iron(Ferrous)	\$30.00		0	\$0	
Sulfide	\$30.00		0	\$0	
Spec Cond(EPA 9050)		each	0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0	
TOX (EPA 9056)	\$50.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)		each	0	\$0	
Volatiles (EPA 524)	\$195.00		0	\$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABO	RATORY AI	NALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00		0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)		each	0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
Subtotal	Team Labor	ratory	-1-4-	\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00		0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0 \$0	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0 \$0	
Ammonia	\$25.00		0	\$0 \$0	
Phosphate	\$25.00		0	\$0 \$0	
Cation Exchange Capacity	\$100.00		0	\$0 \$0	
Satisfi Exchange Sapasity	Ψ100.00	Guoii	0	ΨΟ	

Project:

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Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Alpha, Beta, Gamma **Direct Measurements** Affected 120/dy

Task # 2.3.2

Prop No: 979002-00001

Unaffected 100/dy

Prop No: 9/9002-00001			Unatio	ected 100/dy	
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS	5				
Water Samples For:	400.00		2	40	
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$ 0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:					
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	-	each	0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gamma Spectrometry	\$0.00	each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00	each	0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Wipe Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00		0	\$0	
Radon (Alpha Film)	\$25.00		0	\$0	
Subtota	l Misc. Labora	atory		\$0	
		•			
INVESTIGATION SUBCONTRACTORS			^	4.0	
Driller	Lump Sum		0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum	each	0	\$0	
Subtota	l Investigation	Subcontract	tors	\$0	
Subtotal La	aboratory & Ir	vestigation S	Subcontractors:	\$0	
	-		3% Mark-up:	\$0	
S	UBTOTAL	SUBCONT	RACTORS:	\$0	

TASK TOTAL:

\$19,286

Project:

U.S. Army Corps of Engineers

Printed:

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Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

Overhead Rate:

143%

SEAD-12

Annex E

Performance of Exposure

Rate Surveys

Task # 2.3.3

 $70/dy \times 12.4dy = 870$ measurements

Prop No: 979002-00001

Prop No. 979002-00001					
	Unit	Lluita	Overtite	Cont	Notes
LABOR COSTS	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
EABOR COOTS					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/bour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47		0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11		8	\$353	
Professional Level 5, Step 3 (P56)	\$37.99		0	\$0 *262	
Professional Level 5, Step 2 (P54)	\$32.91		8	\$263	
Professional Level 5, Step 1 (P52)	\$29.39	/nour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13	/hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20	/hour	124	\$3,125	
Desferoismall aval 2 Step 1 (D2F)	\$24.04	/hour	0	\$0	
Professional Level 3, Step 1 (P35)	Φ 24.04	mour	0	40	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89	/hour	0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57	/hour	124	\$2,303	
Professional Level 1, Step 2 (P10)	\$14.84		0	\$0	
1 Totossional Level 1, Otop 1 (1 12)	Ψ14.04	modi	· ·	Ψ	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58		0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08	/hour	0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61		0	\$0	
T	¢40.40	//	0	\$0	
Technician Level 2 (T25)	\$10.13	/nour	0	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
	# 00.04	4	2		
Support Level 3 (S35)	\$20.61	/nour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
Support Level 1 (S13)	Ψ0.72	, noui			
TOTAL HOURS/LABOR COST			264	\$6,044	
Contract Year: 1					
Base Yr			Labor Donale	00.040	

SUBTOTAL BURDENED LABOR:

Labor Burden:

\$8,642

\$14,686

Project:

U.S. Army Corps of Engineers

Printed:

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Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.3.3

Performance of Exposure

Rate Surveys

 $70/dy \times 12.4dy = 870$ measurements

Prop No: 979002-00001

•	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74		0	\$0	
1 Liter Amber Bottles	\$37.95		0	\$0	
32 oz. HDPE Bottles	\$30.75		0	\$0	
Braided Nylon Rope	\$0.15		0	\$0	
Bubble Pack	\$84.00		1	\$84	
Decon Eqt	\$18.00		1	\$18	
55g drums fill/mov	\$100.00		Ö	\$0	
Field Notebook	\$14.00		1	\$14	
Ice	\$1.00		0	\$0	
Latex Gloves	\$10.00	-	2	\$20	
Methanol (Optima)	\$25.00		0	\$0	
Hexane (Optima)	\$25.00		0	\$0	
Acetone (Optima)	\$50.00		0	\$0	
HCI (Optima)	\$285.00		0	\$0	
HNO3 (Optima)	\$175.00		0	\$0	
Ascorbic Acid	\$10.00		0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	24	\$96	
Respirator Cartridges	\$15.00	•	1	\$15	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	1	\$40	
Radiological Badges	\$20.00	each	2	\$40	
Aluminum Foil	\$1.00	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00	/bundle	2	\$40	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	24	\$15 1	
Water (HPLC Grade)	\$97.00	/case	0	\$0	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflon Tubing	\$120.00	/roli	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00		0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$518

U.S. Army Corps of Engineers

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Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.3.3

Performance of Exposure

Rate Surveys

 $70/dy \times 12.4dy = 870$ measurements

Prop No: 979002-00001

	Unit				
	Cost	Units	Quantity	Cost	<u>Notes</u>
TRAVEL					
	#500.00	,, .	2	#1 000	
Airfare Boston\Syracuse	\$500.00		2	\$1,000	
Airfare Boston\Huntsville	\$900.00	•	0	\$0	
Subsistence-Seneca	\$96.00	•	28	\$2,688	
Subsistence-Huntsville	\$89.00	•	0	\$0	
Parking, Airport	\$13.00		28	\$364	
Auto Rental	\$55.00		0	\$0	
Suburban\Van rental	\$585.00		3	\$1,755	
Mileage	\$0.31	/mile	150	\$47	
		SUBTOTA	AL TRAVEL:	\$5,854	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	20	\$80	
Word Proc/PC	\$3.70		0	\$0	
CADD	\$5.00		0	\$0	
Facsimile		/page	50	\$50	
Overnight Express	41.00	, page		***	
Letter/2 lb pack	\$14.50	each	0	\$0	
Package (50 lbs)	\$96.25		8	\$770	
Mail 4-lb pack		/pack	0	\$0	
Mail letters		/letter	0	\$0	
Subte	otal Services			\$900	
REPRODUCTION					
Photocopier	\$0.05	/page	500	\$25	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	
Subto	otal Reproductio	n		\$25	

Client: U.S. Army Corps of Engineers

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Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.3.3

Performance of Exposure

Rate Surveys

 $70/dy \times 12.4dy = 870$ measurements

Drop No. 070002 00001			Tordy x 12.4dy - or officasurements			
Prop No: 979002-00001	Unit					
	Cost	Units	Quantity	Cost	<u>Notes</u>	
EQUIPMENT RENTAL	0031	Office	Quantity	Cost	Notes	
Egon Welt Relative						
EARTH SCIENCES EQUIPMENT						
Bailer	\$55.00	/week	0	\$0		
Magnetometer	\$42.00	/week	0	\$0		
pH/Cond meter	\$50.00		0	\$0		
Flow thru pH/Cond meter	\$257.00	/week	0	\$0		
DO meter	\$55.00	/week	0	\$0		
Soil Gas Supplies	\$50.00	/day	0	\$0		
Slug test eqt	\$50.00	•	0	\$0		
Water level ind	\$40.00	/week	0	\$0		
Turbidimeter	\$30.00	/week	0	\$0		
Data Logger, Trnsdcr	\$135.00		0	\$0		
Flow Meter	\$30.00	•	0	\$0		
Water coolers	\$40.00	/month	0.5	\$20		
Equipment Trailer	\$1,000.00	/month	0.5	\$500		
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0		
PUF Sampler	\$150.00	/week	0	\$0		
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0		
Hi- Vol Sampler	\$75.00	•	0	\$0		
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0		
Ponar Sediment Sampler	\$27.00		0	\$0		
3.2 kw Generator	\$50.00	*	0	\$0		
Seismograph	\$200.00	/day	0	\$0		
EM-31	\$85.00	/day	0	\$0		
GPR	\$500.00	/day	0	\$0		
Subto	tal Rental			\$520		
HEALTH & SAFETY EQUIPMENT						
HNu Meter	\$50.00	/day	13	\$650		
Alpha Survey Meter	\$80.00	•	0	\$0		
Alpha Scintillation Counter	\$100.00		0	\$0		
Beta Sample Counter	\$100.00		0	\$0		
Gas Proportional Detector	\$100.00		Ö	\$0		
Gas Prop. Detector-Floor	\$100.00		0	\$0		
Radon Monitor	\$300.00		0	\$0		
Gamma Radiation Meter	\$50.00		13	\$650		
Calib Gas	\$10.00	•	0	\$0		
2-way radios		/ea/wk	6	\$90		
Air Purif Resp	\$20.00		0	\$0		
10-Gal Eye Wash	\$35.00		2	\$70		
Combination SCBA/SAR	\$150.00		0	\$0		

SUBTOTAL OTHERS:

\$2,905

\$1,460

SUBTOTAL LABOR & ODC'S:

\$23,963

Subtotal H & S

Cation Exchange Capacity

Printed:

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Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.3.3

Performance of Exposure

Rate Surveys

 $70/dy \times 12.4dy = 870$ measurements

Annex E			70/dy x 12.4dy = 870measurements		
Prop No: 979002-00001					
	Unit <u>Cost</u>	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	'ANALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Iron(Ferrous)	\$30.00		0	\$0	
Sulfide	\$30.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0	
TOX (EPA 9056)	\$50.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Volatiles (EPA 524)	\$195.00		0	\$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
SOILS - SURFACE or SUBSURFACE LABO	RATORY AN	VALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00		0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
Subtotal	Team Labor	atory		\$0	
/ISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00		0	\$0 \$0	
Moisture Content	\$1,300.00		0	\$0 \$0	
Bulk Density	\$35.00		0	\$0 \$0	
Chromium (Level II)	\$30.00		0	\$0 \$0	
Total Suspended Solids	\$20.00		0	\$0 \$0	
Total Dissolved Solids	\$20.00		0	\$0 \$0	
Ammonia	\$25.00		0	\$0 \$0	
Phosphate	\$25.00		0	\$0 \$0	
Cation Evolunes Connect:	Ψ2J.00	cauli	0	φ 0	

0

\$0

\$100.00 each

Project:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.3.3

Performance of Exposure

Rate Surveys

 $70/dy \times 12.4dy = 870$ measurements

Prop No: 979002-00001

1100110. 373022 00001	Unit		0 "		
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
RADIOLOGICAL LABORATORY ANALYSIS Water Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gamma Spectrometry	\$0.00	each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00	each	0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Wipe Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal	Misc. Labora	atory		\$0	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
	Lump Sum		0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum	eacii			
Subtotal	Investigation	Subcontrac	tors	\$0	
Subtotal La	boratory & In	vestigation !	Subcontractors:	\$0	
333000 20	,		3% Mark-up:	\$0	
SI	JBTOTAL S	SUBCON'	TRACTORS:	\$0	
00	J	0000011		Ψ Ο	

TASK TOTAL:

\$23,963

Project:

U.S. Army Corps of Engineers

22-Mar-96

Printed:

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task # 2.3.4

Performance of Wipe Sampling

100 Wipes/dy x 10dy=1000Wipes

Prop No. 979002-00001	Unit			
LABOR COSTS	Cost Units	Quantity	Cost	<u>Notes</u>
ENGINEERS AND SCIENTISTS				
Professional Level 6, Step 2 (P68)	\$58.74 /hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47 /hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11 /hour	8	\$353	
Professional Level 5, Step 3 (P56)	\$37.99 /hour	0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91 /hour	8	\$263	
Professional Level 5, Step 1 (P52)	\$29.39 /hour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13 /hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20 /hour	100	\$2,520	
Professional Level 3, Step 1 (P35)	\$24.04 /hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09 /hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89 /hour	0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57 /hour	100	\$1,857	
Professional Level 1, Step 1 (P12)	\$14.84 /hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS				
Technician Level 5 (T55)	\$21.10 /hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58 /hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08 /hour	0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99 /hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61 /hour	0	\$0	
Technician Level 2 (T25)	\$10.13 /hour	0	\$0	
Technician Level 1 (T15)	\$8.89 /hour	0	\$0	
Support Level 3 (S35)	\$20.61 /hour	0	\$0	
Support Level 2 (S25)	\$12.40 /hour	0	\$0	
Support Level 1 (S15)	\$8.72 /hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1		216	\$4,993	
Base Yr Overhead Rate: 143%		Labor Burden:	\$7,140	
2.0111044 1.440.	DTOTAL BURDEN	IED I ADOD	040.400	

SUBTOTAL BURDENED LABOR:

\$12,133

Huntsville Division

Seneca Army Depot Activity, Romulus New York

Printed:

22-Mar-96

Project: RI/FS at the Radiological Disposal Areas

> SEAD-12 Annex E

Task # 2.3.4

Performance of Wipe Sampling 100 Wipes/dy x 10dy=1000Wipes

Parsons Engineering Science, Inc.

Prop No: 979002-00001

MATERIALS AND SUPPLIES	, rop vo. o. o. o.	Unit			
Bottle labels \$20.00 /roll 0 \$0 \$0 40 mL VOA Vials \$122.74 /case 0 \$0 1 Liter Amber Bottles \$37.95 /case 0 \$0 32 oz. HDPE Bottles \$37.95 /case 0 \$0 Braided Nylon Rope \$0.15 /foot 0 \$0 Bubble Pack \$84.00 /roll 1 \$84 Decon Eqt \$18.00 /kit 1 \$18 55g drums fill/mov \$100.00 each 0 \$0 Field Notebook \$14.00 each 1 \$14 Ice \$1,00 /bag 0 \$0 Latex Gloves \$10.00 /bag 0 \$0 Latex Gloves \$10.00 /box 2 \$2 Methanol (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$50.00 /bottle 0 \$0 Acetone (Optima) \$50.00 /bottle 0 \$0 HCI (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Ascorbic Acid \$15.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Ascor		Cost Units	Quantity	Cost	Notes
## A mL VOA Vials	MATERIALS AND SUPPLIES				
40 mL VOA Vials \$122.74 /case 0 \$0 \$0 \$0 \$1 Liter Amber Bottles \$37.95 /case 0 \$0 \$0 \$0 \$22 . HDPE Bottles \$30.75 /case 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Bottle labels	\$20.00 /roll	0	\$0	
1 Liter Amber Bottles \$37.95 /case 0 \$0 32 oz. HDPE Bottles \$30.75 /case 0 \$0 Braided Nylon Rope \$0.15 /foot 0 \$0 Bubble Pack \$84.00 /roll 1 \$84 Decon Eqt \$18.00 /kit 1 \$18 55g drums fill/mov \$100.00 each 0 \$0 Field Notebook \$14.00 each 1 \$14 Ice \$1.00 /bag 0 \$0 Latex Gloves \$10.00 /box 2 \$220 Methanol (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HCI (Optima) \$100 /box 0 \$0 HCI (Optima) \$175.00 /bottle 0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /bottle 0 \$0 Respirator Cartridges \$15.00 /pair 20 \$80 Respirator Cartridges \$15.00 /pair 1 \$15 Packing Taple (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 4 \$80 Aluminum Foil \$1.00 /roll 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Italian Sti bullysp \$30.00 /set 0 \$0 Italian Sti bul		, —	=		
32 oz. HDPE Bottles		•	0		
Braided Nylon Rope		\$30.75 /case	0		
Bubble Pack \$84.00 /roll 1 \$84 Decon Eqt \$18.00 /kit 1 \$18 55g drums fil/mov \$100.00 each 0 \$0 Field Notebook \$14.00 each 1 \$14 Ice \$1100 /bag 0 \$0 Latex Gloves \$10.00 /botw 2 \$2 Methanol (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$50.00 /bottle 0 \$0 HCI (Optima) \$25.00 /bottle 0 \$0 HCI (Optima) \$25.00 /bottle 0 \$0 HO3 (Optima) \$175.00 /bottle 0 \$0 HO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Overboots \$4.00 /pair 20 \$80 Respirator Cartridges \$15.00 /pair 1 \$155 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 4 \$80 Aluminum Foil \$1.00 /roll 0 \$0 Stain Stl bw/lspn \$30.00 /set 0 \$0 Aluminum Foil \$1.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Calibration Gas \$450.00 /tonk 0 \$0 Calibration Gas \$450.00 /tonk 0 \$0 Calibration Gas \$450.00 /tonk 0 \$0 Teflon Tubing \$12.00 /roll 0 \$0 Teflon Tubing \$12.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Teflon Tubing \$12.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0 Caluratz Filters			0	\$0	
Decon Eqt	• •	·	1		
55g drums fill/mov \$100.00 each 0 \$0 Field Notebook \$14.00 each 1 \$14 Ice \$1.00 /bag 0 \$0 Latex Gloves \$10.00 /box 2 \$20 Methanol (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$50.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HCI (Optima) \$175.00 /bottle 0 \$0 HCI (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 Voerboots \$4.00 /pair 20 \$80 Respirator Cartridges \$15.00 /pair 1 \$15 Packing Tape (doz) \$72.00 /case 0 <t< td=""><td></td><td>\$18.00 /kit</td><td>1</td><td></td><td></td></t<>		\$18.00 /kit	1		
Field Notebook \$14.00 each 1 \$14 Ice \$1.00 /bag 0 \$0 Latex Gloves \$10.00 /box 2 \$20 Methanol (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$50.00 /bottle 0 \$0 HCI (Optima) \$225.00 /bottle 0 \$0 HINO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /botx 0 \$0 Policy Company \$10.00 /botx 0 \$0 Packing Tape (doz) \$72.00 /case 0 \$0 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 /case 0 \$0 <td>•</td> <td></td> <td>0</td> <td></td> <td></td>	•		0		
Ice			1	\$14	
Latex Gloves		\$1.00 /bag	0	\$0	
Methanol (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$50.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Packing Tackeid \$10.00 /box 0 \$0 Overboots \$4.00 /pair 20 \$80 Respirator Cartridges \$15.00 /pair 1 \$15 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 1 \$40 Radiological Badges \$20.00 each 1 \$40 Radiological Badges \$20.00 each 4	Latex Gloves		2	\$20	
Hexane (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$50.00 /bottle 0 \$0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0		\$25.00 /bottle	0	\$0	
Acetone (Optima) \$50.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 Overboots \$4.00 /pair 20 \$80 Respirator Cartridges \$15.00 /pair 1 \$15 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 4 \$80 Aluminum Foil \$1.00 /roll 0 \$0 Stain Stl bwl/spn \$30.00 /set 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0		\$25.00 /bottle	0	\$0	
HCI (Optima) \$285.00 /bottle 0 \$0 \$0 \$0 \$175.00 /bottle 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0		\$50.00 /bottle	0	\$0	
HNO3 (Optima)	• • • •	\$285.00 /bottle	0	\$0	
Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 Overboots \$4.00 /pair 20 \$80 Respirator Cartridges \$15.00 /pair 1 \$15 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 4 \$80 Aluminum Foil \$1.00 /roll 0 \$0 Stain Stl bwl/spn \$30.00 /set 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 <		\$175.00 /bottle	0	\$0	
Overboots \$4.00 /pair 20 \$80 Respirator Cartridges \$15.00 /pair 1 \$15 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 4 \$80 Aluminum Foil \$1.00 /roll 0 \$0 Stain Stl bwl/spn \$30.00 /set 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$12.00 /ton 0 \$0 <td></td> <td>\$10.00 /bottle</td> <td>0</td> <td>\$0</td> <td></td>		\$10.00 /bottle	0	\$0	
Overboots \$4.00 /pair 20 \$80 Respirator Cartridges \$15.00 /pair 1 \$15 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 4 \$80 Aluminum Foil \$1.00 /roll 0 \$0 Stain Stl bwl/spn \$30.00 /set 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$50.00 each 0 \$0	Filters (0.45uM & 0.5uM)	\$50.00 /box	0	\$0	
Respirator Cartridges \$15.00 /pair 1 \$15 Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 4 \$80 Aluminum Foil \$1.00 /roll 0 \$0 Stain Stl bwl/spn \$30.00 /set 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0		\$4.00 /pair	20	\$80	
Packing Tape (doz) \$72.00 /case 0 \$0 Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 4 \$80 Aluminum Foil \$1.00 /roll 0 \$0 Stain Stl bwl/spn \$30.00 /set 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0		\$15.00 /pair	1	\$15	
Padlocks \$12.00 each 0 \$0 Sampling Tables \$40.00 each 1 \$40 Radiological Badges \$20.00 each 4 \$80 Aluminum Foil \$1.00 /roll 0 \$0 Stain Stl bwl/spn \$30.00 /set 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0		\$72.00 /case	0	\$0	
Radiological Badges \$20.00 each 4 \$80 Aluminum Foil \$1.00 /roll 0 \$0 Stain Stl bwl/spn \$30.00 /set 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	Padlocks	\$12.00 each	0	\$0	
Radiological Badges \$20.00 each 4 \$80 Aluminum Foil \$1.00 /roll 0 \$0 Stain Stl bwl/spn \$30.00 /set 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	Sampling Tables	\$40.00 each	1	\$40	
Aluminum Foil \$1.00 /roll 0 \$0 Stain Stl bwl/spn \$30.00 /set 0 \$0 Survey Stake/Flag \$20.00 /bundle 0 \$0 Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0		\$20.00 each	4	\$80	
Survey Stake/Flag \$20.00 /bundle 0 \$0 Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	-	\$1.00 /roll	0	\$0	
Teflon tape \$8.00 /roll 0 \$0 Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	Stain Stl bwl/spn	\$30.00 /set	0	\$0	
Tyveks \$6.30 each 20 \$126 Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	Survey Stake/Flag	\$20.00 /bundle	0	,	
Water (HPLC Grade) \$97.00 /case 0 \$0 Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	Teflon tape	\$8.00 /roll	0		
Ziplock bags \$3.00 /box 0 \$0 Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	Tyveks	*	20		
Calibration Gas \$450.00 /tank 0 \$0 Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	Water (HPLC Grade)	\$97.00 /case			
Ultra Pure Air \$310.00 /ton 0 \$0 Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	Ziplock bags	•	0		
Teflon Tubing \$120.00 /roll 0 \$0 Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0					
Teflon Sheeting \$500.00 /roll 0 \$0 Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	Ultra Pure Air			,	
Folding Live Traps \$15.00 each 0 \$0 Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	Teflon Tubing	•	0		
Glassware \$25.00 each 0 \$0 Quartz Filters \$10.00 each 0 \$0	_		=	•	
Quartz Filters \$10.00 each 0 \$0	Folding Live Traps				
	Glassware				
		*	_		
Vermiculite Packing \$16.00 /bag 0 \$0	Vermiculite Packing	\$16.00 /bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

U.S. Army Corps of Engineers

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Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

SEAD-12

Task # 2.3.4 Performance

Performance of Wipe Sampling 100 Wipes/dy x 10dy≈1000Wipes

Top No. 01002	Unit				
	Cost	Units	Quantity	Cost	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	2	\$1,000	
Airfare Boston\Huntsville	\$900.00		0	\$0	
Subsistence-Seneca	\$96.00		20	\$1,920	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking, Airport	\$13.00	,	20	\$260	
Auto Rental	\$55.00		10	\$550	
Suburban\Van rental	\$585.00		0	\$0	
Mileage	\$0.31		150	\$47	
		SUBTOT	AL TRAVEL:	\$3,777	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	20	\$80	
Word Proc/PC	\$3.70		0	\$0	
CADD	\$5.00		0	\$0	
Facsimile	\$1.00		50	\$50	
Overnight Express	*****	. [3 -		•	
Letter/2 lb pack	\$14.50	each	0	\$0	
Package (50 lbs)	\$96.25		8	\$770	
Mail 4-lb pack	\$4.10		0	\$0	
Mail letters	\$0.54		0	\$0	
Subto	otal Services			\$900	
REPRODUCTION					
Photocopier	\$0.05		500	\$25	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro	·	/Sheet	0	\$0	
Cronoflex Prod	\$5.50		0	\$0	
3-ring binders	\$15.00	each	0	\$0	
Color Copies	\$2.00	/page	0	\$0	
Subto	otal Reproduction	า		\$25	

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Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Seismograph

EM-31

GPR

Task # 2.3.4

Performance of Wipe Sampling 100 Wipes/dy x 10dy=1000Wipes

\$0

\$0

\$0

Annex E					
Prop No: 979002-00001					
	Unit				
	Cost	Units	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00	/week	0	\$0	
pH/Cond meter	\$50.00	/week	0	\$0	
Flow thru pH/Cond meter	\$257.00	/week	0	\$0	

pri/Cond meter	Ψ30.00	AACCK	U	φΟ
Flow thru pH/Cond meter	\$257.00	/week	0	\$0
DO meter	\$55.00	/week	0	\$0
Soil Gas Supplies	\$50.00	/day	0	\$0
Slug test eqt	\$50.00	/week	0	\$0
Water level ind	\$40.00	/week	0	\$0
Turbidimeter	\$30.00	/week	0	\$0
Data Logger, Trnsdcr	\$135.00	/day	0	\$0
Flow Meter	\$30.00	/week	0	\$0
Water coolers	\$40.00	/month	0.5	\$20
Equipment Trailer	\$1,000.00	/month	0.5	\$500
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0
PUF Sampler	\$150.00	/week	0	\$0
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0
Hi- Vol Sampler	\$75.00	/week	0	\$0
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0
Ponar Sediment Sampler	\$27.00	/day	0	\$0
3.2 kw Generator	\$50.00	/day	0	\$0

\$200.00 /day

\$500.00 /day

\$85.00 /day

Subt	otal Rental		\$520
HEALTH & SAFETY EQUIPMENT			
HNu Meter	\$50.00 /day	10	\$500
Alpha Survey Meter	\$80.00 /week	0	\$0
Alpha Scintillation Counter	\$100.00 /week	2	\$200
Beta Sample Counter	\$100.00 /week	2	\$200
Gas Proportional Detector	\$100.00 /week	0	\$0
Gas Prop. Detector-Floor	\$100.00 /week	0	\$0
Radon Monitor	\$300.00 /week	0	\$0
Gamma Radiation Meter	\$50.00 /day	0	\$0
Calib Gas	\$10.00 /day	0	\$0
2-way radios	\$15.00 /ea/wk	4	\$60
Air Purif Resp	\$20.00 /week	0	\$0
10-Gal Eye Wash	\$35.00 /week	2	\$70
Combination SCBA/SAR	\$150.00 /day	0	\$0

Subtotal H & S

SUBTOTAL OTHERS: \$2,475

0

0

0

SUBTOTAL LABOR & ODC'S:

\$18,862

\$1,030

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Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.3.4

Performance of Wipe Sampling 100 Wipes/dy x 10dy=1000Wipes

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	<u>Quantity</u>	Cost	<u>Notes</u>
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATOR	Y ANALYSIS			
Volatiles (TCL)	\$180.00) each	0	\$0	
B/N/A (TCL)	\$400.00) each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Iron(Ferrous)	\$30.00	each each	0	\$0	
Sulfide	\$30.00	each each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each each	0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00	each each	0	\$0	
TOX (EPA 9056)	\$50.00	each each	0	\$0	
Chloride(EPA 9250)	\$25.00	each each	0	\$0	
BOD	\$60.00	each each	0	\$0	
Sulfate(EPA 300)	\$25.00	each each	0	\$0	
COD	\$50.00	each each	0	\$0	
pH (EPA 9045)	\$8.00	each each	0	\$0	
Volatiles (EPA 524)	\$195.00	each each	0	\$0	
Hardness(EPA 130.2)	\$15.00	each each	0	\$0	
Alkalinity(EPA 310)	\$12.00	each each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABO	RATORY A	NAI YSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)		each	0	\$0	
Total Organic Carbon (L. Kahn)		each	0	\$0	
TOX (EPA 9056)) each	0	\$0	
Chloride(EPA 9250)		each	0	\$0	
pH (EPA 9045)		each	0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
Subtotal	Team Labo	ratory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00) each	0	\$0	
TCLP	\$1,500.00		0	\$ 0	
Moisture Content		each each	0	\$0	
Bulk Density		each each	0	\$0	
Chromium (Level II)		each	0	\$0	
Total Suspended Solids		each	0	\$0	
Total Dissolved Solids		each	0	\$0	
Ammonia		each each	0	\$0	
Phosphate		each	0	\$0	
Cation Exchange Capacity	\$100.00		0	\$0	
	+		•	ΨΦ	

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Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

Annex E

SEAD-12

Task # 2.3.4

Performance of Wipe Sampling 100 Wipes/dy x 10dy=1000Wipes

Prop No: 979002-00001

Prop No: 979002-00001	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY A			and the l	300.	140100
Water Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+2			0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137			0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Soil Samples For:	Ψ10.00	odon	·	Ψ	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+2			0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137			0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319			0	\$0	
Sample Prep/Return	\$0.00		0	\$0	
Vipe Samples For:	Ψ0.00	Caon	Ü	ΨΟ	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+2			0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137			0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		Ö	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Gross Alphadbeta	Ψ+0.00	Cuon	v	Ψ	
AIR SAMPLES LABORATORY AN	ALYSIS				
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00		0	\$0	
, , ,			<u></u>		
	Subtotal Misc. Labora	atory		\$0	
INIVERSE ATION SUBSCONTRACT	OBC				
NVESTIGATION SUBCONTRACT		aaah	0	\$0	
Driller	Lump Sum		0		
Photogrammetry	Lump Sum		0	\$0 \$0	
IDW Disposal	Lump Sum		0	\$0 \$0	
Surveyor	Lump Sum	eacn	0	\$0	
	Subtotal Investigation	Subcontrac	etors	\$0	
S	Subtotal Laboratory & Ir	vestigation	Subcontractors:	\$0	
	•	•	3% Mark-up:	\$0	
	SUBTOTAL	CLIDOON!	,	\$0	

TASK TOTAL:

\$18,862

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

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Task # 2.3.5

Performance of Radon Investigations Placement of Cannisters = 50/dy Collection of Cannisters = 50/dy

\$5,752

1100110. 373002 00001	Unit Cost	<u>Units</u>	Quantity	Cost	Notes
LABOR COSTS	<u> </u>	Omio	<u>Quantity</u>	<u>5001</u>	140100
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11	/hour	8	\$353	
Professional Level 5, Step 3 (P56)	\$37.99		0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91		8	\$263	
Professional Level 5, Step 1 (P52)	\$29.39	/hour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13		0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20	/hour	40	\$1,008	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89		0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57	/hour	40	\$743	
Professional Level 1, Step 1 (P12)	\$14.84		0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08	/hour	0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1			96	\$2,367	
Base Yr Overhead Rate: 143%			Labor Burden:	\$3,385	
O Torrica Mate. 14070	IDTOTAL	DUDDE	IED I ADOD	φ5,000 Φ5,750	

SUBTOTAL BURDENED LABOR:

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Project:

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task # 2.3.5

Performance of Radon Investigations Placement of Cannisters = 50/dy Collection of Cannisters = 50/dy

	Unit		0	0 1	Madaa
MATERIAL C AND CURRULEC	Cost	Units	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	1	\$84	
Decon Eqt	\$18.00	/kit	1	\$18	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	1	\$14	
Ice	\$1.00	/bag	0	\$0	
Latex Gloves	\$10.00	/box	2	\$20	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	8	\$32	
Respirator Cartridges	\$15.00	/pair	1	\$15	
Packing Tape (doz)	\$72.00	/case	1	\$72	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	1	\$40	
Radiological Badges	\$20.00	each	2	\$40	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00	/bundle	2	\$40	
Teflon tape	\$8.00		0	\$0	
Tyveks	\$6.30	each	8	\$50	
Water (HPLC Grade)	\$97.00		0	\$0	
Ziplock bags	\$3.00		0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00		0	\$0	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$425

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

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Task # 2.3.5

Performance of Radon Investigations Placement of Cannisters = 50/dy Collection of Cannisters = 50/dy

Prop No: 979002-00001		Collection of Carrilsters -			
100 110. 070002 0000.	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	4	\$2,000	
Airfare Boston\Huntsville	\$900.00		0	\$0	
Subsistence-Seneca	\$96.00	/day	8	\$768	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking,Airport	\$13.00	/day	8	\$104	
Auto Rental	\$55.00	/day	6	\$330	
Suburban\Van rental	\$585.00	/week	0	\$0	
Mileage	\$0.31	/mile	150	\$47	
		SUBTOTA	AL TRAVEL:	\$3,249	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00		20	\$80	
Word Proc/PC	\$3.70		0	\$0	
CADD	\$5.00		0	\$0	
Facsimile	\$1.00	/page	50	\$50	
Overnight Express					
Letter/2 lb pack	\$14.50		0	\$0	
Package (50 lbs)	\$96.25		8	\$770	
Mail 4-lb pack		/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subto	otal Services			\$900	
REPRODUCTION					
Photocopier	\$0.05	/page	500	\$25	
Aerial Photo repro	\$10.00	/photo	0	\$0	
Blueline repro	\$1.00	/Sheet	0	\$0	
Cronoflex Prod	\$5.50	/Sq Ft	0	\$0	
3-ring binders	\$15.00	each	0	\$0	
0.1.0.1	¢0.00	I	^	40	

\$2.00 /page

Subtotal Reproduction

0

\$0

\$25

Project:

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Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.3.5

Performance of Radon Investigations Placement of Cannisters = 50/dy

Collection of Cannisters = 50/dy

Prop No: 979002-00001

P10p No. 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00	/week	0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
	\$50.00		0	\$0 \$0	
Soil Gas Supplies		•	0		
Slug test eqt	\$50.00			\$0 \$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00	-	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	0.5	\$20	
Equipment Trailer	\$1,000.00	/month	0.5	\$500	
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0	
PUF Sampler	\$150.00	•	0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
Hi- Vol Sampler	\$75.00	•	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00		0	\$ 0	
Ponar Sediment Sampler	\$27.00	-	0	\$0 \$0	
•		,			
3.2 kw Generator	\$50.00	•	0	\$0	
Seismograph	\$200.00	-	0	\$0	
EM-31	\$85.00	•	0	\$0	
GPR	\$500.00	/day	0	\$0	
Subto	tal Rental			\$520	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	4	\$200	
Alpha Survey Meter	\$80.00	/week	0	\$0	
Alpha Scintillation Counter	\$100.00	/week	0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00	•	0	\$0	
Calib Gas	\$10.00	•	0	\$0	
2-way radios		/ea/wk	0	\$0	
Air Purif Resp	\$20.00		0	\$0	
10-Gal Eye Wash	\$35.00		0	\$0	
Combination SCBA/SAR	\$150.00	/day	0	\$0	
Subto	otal H & S			\$200	

SUBTOTAL OTHERS:

\$1,645

SUBTOTAL LABOR & ODC'S:

\$11,071

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Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.3.5

Performance of Radon Investigations Placement of Cannisters = 50/dy Collection of Cannisters = 50/dy

	Unit				
	Cost	Units	Quantity	Cost	<u>Notes</u>
	3001	Onno	<u>Quartity</u>	0001	<u>rtotes</u>
SUBCONTRACTORS					
COBCONTINCTONO					
GROUNDWATER or SURFACE WATE	R LABORATORY	ANALYS	SIS		
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Iron(Ferrous)	\$30.00	each	0	\$0	
Sulfide	\$30.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (EPA 9	060) \$25.00	each	0	\$0	
TOX (EPA 9056)	\$50.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
BOD	\$60.00	each	0	\$0	
Sulfate(EPA 300)	\$25.00	each	0	\$0	
COD	\$50.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Volatiles (EPA 524)	\$195.00	each	0	\$0	
Hardness(EPA 130.2)	\$15.00	each	0	\$0	
Alkalinity(EPA 310)	\$12.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE					
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kah			0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Cu	htatal Taama Lahan	atam.		<u> </u>	
50	btotal Team Labor	atory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00		0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0	
Ammonia	\$25.00		0	\$0	
Phosphate	\$25.00		0	\$0	
Cation Exchange Capacity	\$100.00		0	\$0	
Daniel Excitatigo Dapaolty	Ψ.00.00	34011	·	Ψ.	

U.S. Army Corps of Engineers

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Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.3.5

Performance of Radon Investigations Placement of Cannisters = 50/dy Collection of Cannisters = 50/dy

Prop No: 979002-00001

Prop No. 979002-00001	11.24				
	Unit	Linito	Quantity	Coot	Notes
RADIOLOGICAL LABORATORY ANALYSIS	<u>Cost</u>	<u>Units</u>	Quantity	<u>Cost</u>	Notes
Water Samples For:	\$60.00	oach	0	\$0	
Thorium 232, 230, 227			0	\$0 \$0	
Uranium 238, 235, 233+234	\$60.00		_		
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:					
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00	each	0	\$0	
Sample Prep/Return	\$0.00		0	\$0	
Wipe Samples For:	40.00	ouom	•	4-	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0 \$0	
•	\$65.00		0	\$0 \$0	
Plutonium 239 + 240			0	\$0 \$0	
Americium 241	\$65.00		_		
Gross AlphaΒ	\$45.00	eacn	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25. 0 0	each	0	\$0	
Subtotal I	Misc. Labora	atory		\$0	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$0 \$0	
IDW Disposal	Lump Sum		0	\$0 \$0	
Surveyor	Lump Sum		0	\$0 \$0	
	·			—————	
Subtotal I	nvestigation	Subcontrac	etors	\$0	
Subtotal Lab	oratory & In	vestigation	Subcontractors:	\$0	
	-		3% Mark-up:	\$0	
01.1	DEOTAL	01.10001	TD A OTO DO.	Φ.Ο.	

TASK TOTAL:

\$11,071

\$0

SUBTOTAL SUBCONTRACTORS:

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

SEAD-12

Annex E

RI/FS at the Radiological Disposal Areas

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Task # 2.3.6

Performance of Special

\$4,688

Sampling

4Samples/dy x 3dy=12Samples

Parsons Engineering Science, Inc.

Prop No: 979002-00001

Prop No: 979002-00001					
	Unit	Linito	Quantity	Cont	Notos
LABOR COSTS	Cost	<u>Units</u>	Quantity	Cost	Notes
LABOR GOOTG					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 2 (F66)	\$46.47		0	\$0	
1 101000101141 20101 0, 010p 1 (1 02)	Ψ.σ	,,,,,	-	4-5	
Professional Level 5, Step 4 (P58)	\$44.11		8	\$353	
Professional Level 5, Step 3 (P56)	\$37.99		0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91		8	\$263	
Professional Level 5, Step 1 (P52)	\$29.39	/hour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13	/hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20		30	\$756	
1 Totasional Level 4, Otep 1 (1 42)	Ψ20.20	711041		Ψ. σσ	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89		0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57		30	\$557	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
Technician Loyal 4 Ston 2 (T49)	\$16.58	/hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$14.08		0	\$0 \$0	
Technician Level 4, Step 1 (T42)	φ14.00	/Houl	O	Φ0	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
reclinician Level 2 (123)	φ10.10	modi	v	Ψ	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS AROS COST			76	£4.020	
TOTAL HOURS/LABOR COST Contract Year: 1			76	\$1,929	
Base Yr					
Overhead Rate: 143%			Labor Burden:	\$2,759	
	DTOTAL		IED I ADOD	A 4 600	

SUBTOTAL BURDENED LABOR:

Project:

U.S. Army Corps of Engineers

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Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Performance of Special

Sampling

Task # 2.3.6

4Samples/dy x 3dy=12Samples

Prop No: 979002-00001

Prop No: 979002-00001	Unit				
	Cost	Units	Quantity	Cost	Notes
MATERIALS AND SUPPLIES	0030	Office	Quantity	0031	INOTES
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	1	\$20	
40 mL VOA Vials	\$122.74		0	\$0	
1 Liter Amber Bottles	\$37.95		6	\$228	
32 oz. HDPE Bottles	\$30.75		6	\$185	
Braided Nylon Rope	\$0.15		0	\$0	
Bubble Pack	\$84.00	/roll	1	\$84	
Decon Eqt	\$18.00	/kit	1	\$18	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	1	\$14	
Ice	\$1.00	/bag	20	\$20	
Latex Gloves	\$10.00	/box	2	\$20	
Methanol (Optima)	\$25.00	/bottle	1	\$25	
Hexane (Optima)	\$25.00	/bottle	1	\$25	
Acetone (Optima)	\$50.00	/bottle	1	\$50	
HCI (Optima)	\$285.00	/bottle	1	\$285	
HNO3 (Optima)	\$175.00	/bottle	1	\$175	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	6	\$24	
Respirator Cartridges	\$15.00	/pair	1	\$15	
Packing Tape (doz)	\$72.00	/case	1	\$72	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	1	\$40	
Radiological Badges	\$20.00	each	2	\$40	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00	/set	12	\$360	
Survey Stake/Flag	•	/bundle	1	\$20	
Teflon tape	\$8.00		0	\$0	
Tyveks	\$6.30		6	\$38	
Water (HPLC Grade)	\$97.00		2	\$194	
Ziplock bags	\$3.00		0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflo n Tubing	\$120.00		0	\$0	
Teflon Sheeting	\$500.00		0	\$0	
Folding Live Traps	\$15.00		0	\$0	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	8	\$128	

SUBTOTAL MATLS & SUPPLIES:

\$2,079

U.S. Army Corps of Engineers

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Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.3.6

Performance of Special

Sampling

4Samples/dy x 3dy=12Samples

\$25

Prop No: 979002-00001				, , ,	•
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	2	\$1,000	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	6	\$576	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking, Airport	\$13.00	/day	6	\$78	
Auto Rental	\$55.00	/day	0	\$0	
Suburban\Van rental	\$585.00	/week	1	\$585	
Mileage	\$0.31	/mile	150	\$47	
		SUBTOTA	AL TRAVEL:	\$2,286	
OTHERS					
IN-HOUSE SERVICES					
Talanhana	\$4.00	/call	20	082	

\$4.00 /call	20	\$80
\$3.70 /hou	r 0	\$0
\$5.00 /hou	r 0	\$0
\$1.00 /pag	e 50	\$50
\$14.50 each	n 0	\$0
\$96.25 each	n 8	\$770
\$4.10 /pac	k 0	\$0
•		\$0
Subtotal Services		\$900
\$0.05 /pag	e 500	\$25
\$10.00 /pho	to 0	\$0
\$1.00 /She	eet 0	\$0
\$5.50 /Sq	Ft 0	\$0
\$15.00 each	n 0	\$0
\$2.00 /pag	e 0	\$0
	\$3.70 /hou \$5.00 /hou \$1.00 /pag \$14.50 each \$96.25 each \$4.10 /pac \$0.54 /lette Subtotal Services \$0.05 /pag \$10.00 /pho \$1.00 /She \$5.50 /Sq \$15.00 each	\$3.70 /hour 0 \$5.00 /hour 0 \$1.00 /page 50 \$14.50 each 0 \$96.25 each 8 \$4.10 /pack 0 \$0.54 /letter 0 Subtotal Services \$0.05 /page 500 \$10.00 /photo 0 \$1.00 /Sheet 0 \$5.50 /Sq Ft 0 \$15.00 each 0

Subtotal Reproduction

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А	-	1	J

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RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Performance of Special

Sampling

Task # 2.3.6

4Samples/dy x 3dy=12Samples

Prop No: 979002-00001

F10p 140. 979002-00001	Unit				
	Cost	Units	Quantity	Cost	Notos
EQUIPMENT RENTAL	Cost	Office	Quantity	Cost	Notes
EGOII MEINT INCINTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00		0	\$0	
Slug test eqt	\$50.00	•	0	\$0	
Water level ind	\$40.00	/week	0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00		0	\$0	
Flow Meter	\$30.00	•	0	\$0	
Water coolers		/month	0.5	\$20	
Equipment Trailer	\$1,000.00	/month	0.5	\$500	
Grundfus Redi Flow Pump	\$64.00		0	\$0	
PUF Sampler	\$150.00	•	0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
Hi- Vol Sampler	\$75.00	/week	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0	
Ponar Sediment Sampler	\$27.00		0	\$0	
3.2 kw Generator	\$50.00	•	0	\$0	
Seismograph	\$200.00	•	0	\$0	
EM-31	\$85.00		0	\$0	
GPR	\$500.00	-	0	\$0	
Subtota	al Rental			\$520	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	3	\$150	
Alpha Survey Meter	\$80.00	•	1	\$80	
Alpha Scintillation Counter	\$100.00		1	\$100	
Beta Sample Counter	\$100.00		1	\$100	
Gas Proportional Detector	\$100.00		1	\$100	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00		0	\$0	
Calib Gas	\$10.00	•	0	\$0	
2-way radios		/ea/wk	2	\$30	
Air Purif Resp	\$20.00		0	\$0	
10-Gal Eye Wash	\$35.00		2	\$70	
Combination SCBA/SAR	\$150.00		0	\$0	
Subtota	al H & S			\$630	

SUBTOTAL OTHERS: \$2,075

SUBTOTAL LABOR & ODC'S: \$11,128

Cation Exchange Capacity

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Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.3.6

Performance of Special

Sampling

4Samples/dy x 3dy=12Samples

\$0

0

Annex E		45amples/dy x 3dy=125amples			
Prop No: 979002-00001					
	Unit	Linito	Ouantit:	Coot	Nata-
	Cost	<u>Units</u>	Quantity	Cost	Notes
UBCONTRACTORS					
ROUNDWATER or SURFACE WATER LAI	BORATORY	ANALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Iron(Ferrous)	\$30.00	each	0	\$0	
Sulfide	\$30.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00	each	0	\$0	
TOX (EPA 9056)	\$50.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
BOD	\$60.00	each	0	\$0	
Sulfate(EPA 300)	\$25.00	each	0	\$0	
COD	\$50.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Volatiles (EPA 524)	\$195.00	each	0	\$0	
Hardness(EPA 130.2)	\$15.00	each	0	\$0	
Alkalinity(EPA 310)	\$12.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABOR	RATORY AN	IALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00		0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
Subtotal	Team Labor	atory		\$0	
		·			
MISC. LABORATORY ANALYSIS	0400.00		•	00	
Grain Size Dist	\$120.00		0	\$0 \$0	
TCLP	\$1,500.00		0	\$0 ***	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0 \$0	
Chromium (Level II)	\$30.00		0	\$0 \$0	
Total Suspended Solids	\$20.00		0	\$0 \$0	
Total Dissolved Solids	\$20.00		0	\$0 \$0	
Ammonia	\$25.00		0	\$0 \$0	
Phosphate	\$25.00	each	0	\$0 *0	

\$100.00 each

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Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task # 2.3.6

Performance of Special

Sampling

4Samples/dy x 3dy=12Samples

1 10p 110. 010002 00001					
	Unit				
DADIOLOGICAL LABORATORY ANALYSIS	<u>Cost</u>	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS					
Vater Samples For:	\$60.00	a a a b	0	40	
Thorium 232, 230, 227	\$60.00		0 0	\$0 \$0	
Uranium 238, 235, 233+234	\$60.00 \$40.00		0	\$0 \$0	
Radium 226,223 Pb214&211,Bi214,Ce137,Co60			0	\$0 \$0	
Plutonium 239 + 240	\$80.00 \$65.00		0	\$0 \$0	
Americium 241	\$65.00 \$65.00		0	\$0 \$0	
	\$45.00		0	\$0 \$0	
Gross AlphaΒ Soil Samples For:	\$45.00	eacn	U	φU	
Thorium 232, 230, 227	\$60.00	aaab	0	\$0	
	\$60.00			\$0 \$0	
Uranium 238, 235, 233+234 Radium 226,223	\$40.00		0 0	\$0 \$0	
Pb214&211,Bi214,Ce137,Co60		each	0	\$0 \$0	
Plutonium 239 + 240	\$65.00		0	\$0 \$0	
Americium 241	\$65.00 \$65.00		0	\$0 \$0	
Gamma Spectrometry	\$0.00		0	\$0 \$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0 \$0	
Sample Prep/Return	\$0.00		0	\$0 \$0	
Vipe Samples For:	\$0.00	each	U	φυ	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0 \$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0 \$0	
Plutonium 239 + 240	\$65.00		0	\$0 \$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
·	ψ-10.00	Cuon	Ŭ	ΨΟ	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00		0	\$0	
Metals	\$150.00		0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal	Misc. Labora	atory		\$0	
NVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum		0	\$0	
Subtotal	Investigation	Subcontrac	tors	\$0	
Subtotal La	boratory & Ir	vestigation s	Subcontractors:	\$0	
	•	•	20/ Marle	40	

TASK TOTAL: \$11,128

\$0

\$0

3% Mark-up:

SUBTOTAL SUBCONTRACTORS:

U.S. Army Corps of Engineers Client:

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Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

Overhead Rate: 143%

RI/FS at the Radiological Disposal Areas

SEAD-12

Project:

Annex E

Task # 2.4

Soil Investigations Summary Surface Soil Sampling Sub-Surface Soil Sampling

Annex E	Test Pit Sampling					
Prop No: 979002-00001	Unit		les	. Pit Sampling		
		Units	Quantity	Cost	Motos	
LABOR COSTS	Cost	Onits	Quantity	Cost	Notes	
LABOR COSTS						
ENGINEERS AND SCIENTISTS						
ENGINEERS AND SCIENTISTS						
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0		
Professional Level 6, Step 2 (P66)	\$46.47		0	\$0		
Professional Level o, Step 1 (1-02)	Ψ+0.+7	moui	O	ΨΟ		
Professional Level 5, Step 4 (P58)	\$44.11	/hour	24	\$1,059		
Professional Level 5, Step 3 (P56)	\$37.99		0	\$0		
Professional Level 5, Step 2 (P54)	\$32.91		48	\$1,580		
Professional Level 5, Step 1 (P52)	\$29.39		0	\$0		
(sz)	420.00	711041	· ·	Ψ0		
Professional Level 4, Step 2 (P48)	\$29.13	/hour	0	\$0		
Professional Level 4, Step 1 (P42)	\$25.20		445	\$11,214		
, reference = 0.10, 1, etcp : (i = 1,	4-00			¥ ,=		
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0		
	*			*-		
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0		
Professional Level 2, Step 1 (P22)	\$19.89		0	\$0		
Professional Level 1, Step 2 (P18)	\$18.57	/hour	445	\$8,264		
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0		
TECHNICAL AND SUPPORT SPECIALISTS						
Technician Level 5 (T55)	\$21.10	/hour	0	\$0		
Technician Level 4, Step 2 (T48)	\$16.58		445	\$7,378		
Technician Level 4, Step 1 (T42)	\$14.08	/hour	0	\$0		
Technician Level 3, Step 2 (T38)	\$13.99		0	\$0		
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0		
			_			
Technician Level 2 (T25)	\$10.13	/hour	0	\$0		
	40.00		•	4.0		
Technician Level 1 (T15)	\$8.89	/hour	0	\$0		
	400.04		•	4.0		
Support Level 3 (S35)	\$20.61	/hour	0	\$0		
0 (1 10 (005)	640.40		0	40		
Support Level 2 (S25)	\$12.40	/nour	0	\$0		
Company Laurel 4 (O45)	40.70	/haur	^	# 0		
Support Level 1 (S15)	\$8.72	/hour	0	\$0		
TOTAL HOURS/LABOR COST			1407	\$29,494		
TOTAL HOURS/LABOR COST Contract Year: 1			1407	Φ ∠ઝ,434		
Base Yr						
Dase II						

SUBTOTAL BURDENED LABOR:

Labor Burden:

\$42,177

\$71,671

Project:

U.S. Army Corps of Engineers

Printed:

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Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task # 2.4

Soil Investigations Summary Surface Soil Sampling

Sub-Surface Soil Sampling

\$7,030

Test Pit Sampling

	Unit				
	Cost	<u>Units</u>	Quantity	<u>Cost</u>	Notes
MATERIALS AND SUPPLIES					
			_		
Bottle labels	\$20.00		3	\$60	
40 mL VOA Vials	\$122.74		4	\$491	
1 Liter Amber Bottles	\$37.95		8	\$304	
32 oz. HDPE Bottles	\$30.75		0	\$0	
Braided Nylon Rope	\$0.15		0	\$0	
Bubble Pack	\$84.00		3	\$252	
Decon Eqt	\$18.00		3	\$54	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00		3	\$42	
Ice	\$1.00	•	40	\$40	
Latex Gloves	\$10.00		6	\$60	
Methanol (Optima)	\$25.00	/bottle	1	\$25	
Hexane (Optima)	\$25.00	/bottle	1	\$25	
Acetone (Optima)	\$50.00	/bottle	1	\$50	
HCI (Optima)	\$285.00		1	\$285	
HNO3 (Optima)	\$175.00	/bottle	1	\$175	
Ascorbic Acid	\$10.00		0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00		0	\$0	
Overboots	\$4.00	/pair	132	\$528	
Respirator Cartridges	\$15.00	/pair	132	\$1,980	
Packing Tape (doz)	\$72.00		3	\$216	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	2	\$80	
Radiological Badges	\$20.00		6	\$120	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00	/set	3	\$90	
Survey Stake/Flag	\$20.00	/bundle	5	\$100	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	132	\$832	
Water (HPLC Grade)	\$97.00	/case	6	\$582	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00	each	0	\$0	
Vermiculite Packing	\$16.00		40	\$640	
v		-			

SUBTOTAL MATLS & SUPPLIES:

U.S. Army Corps of Engineers Client:

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Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Soil Investigations Summary

Task # 2.4

Surface Soil Sampling Sub-Surface Soil Sampling

\$75

Prop No: 979002-00001	Test Pit Sampling				
P10p No. 979002-00001	Unit		100	or it camping	
		<u>Units</u>	Quantity	Cost	Notes
TRAVEL	<u>- TR</u>				
Airfare Boston\Syracuse	\$500.00	/trip	1	\$500	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00		132	\$12,672	
Subsistence-Huntsville	\$89.00		0	\$0	
Parking,Airport	\$13.00		16	\$208	
Auto Rental	\$55.00		44	\$2,420	
Suburban\Van rental	\$585.00		5.5	\$3,218	
Mileage	\$0.31	/mile	300	\$93	
		SUBTOTA	AL TRAVEL:	\$19,111	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	60	\$240	
Word Proc/PC	\$3.70		0	\$0	
CADD	\$5.00		0	\$0	
Facsimile	\$1.00	/page	120	\$120	
Overnight Express					
Letter/2 lb pack	\$14.50	each	0	\$0	
Package (50 lbs)	\$96.25	each	28	\$2,695	
Mail 4-lb pack	\$4.10	/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subto	otal Services			\$3,055	
REPRODUCTION					
Photocopier	\$0.05		1500	\$75	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	

Subtotal Reproduction

Gamma Radiation Meter

Combination SCBA/SAR

Calib Gas

2-way radios Air Purif Resp

10-Gal Eye Wash

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RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4

Soil Investigations Summary Surface Soil Sampling Sub-Surface Soil Sampling

Prop No: 979002-00001	Test Pit Sampling			ipiii ig	
F100 140. 973002-00001	Unit				
	Cost	Units	Quantity	Cost	Notes
EQUIPMENT RENTAL					<u></u>
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00	/week	0	\$0	
pH/Cond meter	\$50.00	/week	0	\$0	
Flow thru pH/Cond meter	\$257.00	/week	0	\$0	
DO meter	\$55.00	/week	0	\$0	
Soil Gas Supplies	\$50.00	/day	0	\$0	
Slug test eqt	\$50.00	/week	0	\$0	
Water level ind	\$40.00	/week	0	\$0	
Turbidimeter	\$30.00	/week	0	\$0	
Data Logger,Trnsdcr	\$135.00	/day	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	1.25	\$50	
Equipment Trailer	\$1,000.00	/month	1.25	\$1,250	
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0	
PUF Sampler	\$150.00	/week	0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler	\$75.00	/week	2	\$150	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	10	\$250	
Ponar Sediment Sampler	\$27.00	/day	0	\$0	
3.2 kw Generator	\$50.00	/day	0	\$0	
Seismograph	\$200.00	•	0	\$0	
EM-31	\$85.00	/day	0	\$0	
GPR	\$500.00		0	\$0	
Subtotal Rental			\$1,700		
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	44	\$2,200	
Alpha Survey Meter	\$80.00	•	6	\$480	
Alpha Scintillation Counter	\$100.00		0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
O	#FO.00		4.4	¢2 200	

SUBTOTAL OTHERS:

44

44

8

12

6

0

\$10,720

\$2,200

\$440

\$120

\$240

\$210

\$5,890

\$0

SUBTOTAL LABOR & ODC'S:

\$108,531

\$50.00 /day

\$10.00 /day

\$15.00 /ea/wk

\$20.00 /week

\$35.00 /week

\$150.00 /day

Subtotal H & S

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Soil Investigations Summary Surface Soil Sampling

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Sub-Surface Soil Sampling Test Pit Sampling

Task # 2.4

Prop No: 979002-00001			lest F	'it Sampling	
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
OROLINIDAVATED OUDEAGE MATERIA		ANALVOIO			
GROUNDWATER or SURFACE WATER LAI			0	\$ 0	
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Iron(Ferrous)	\$30.00		0	\$0	
Sulfide	\$30.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0	
TOX (EPA 9056)	\$50.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
BOD	\$60.00	each	0	\$0	
Sulfate(EPA 300)	\$25.00	each	0	\$0	
COD	\$50.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Volatiles (EPA 524)	\$195.00	each	0	\$0	
Hardness(EPA 130.2)	\$15.00	each	0	\$0	
Alkalinity(EPA 310)	\$12.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
,					
SOILS - SURFACE or SUBSURFACE LABOR	RATORY AN	IALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
(2000)					
Subtotal	Team Labor	atory		\$0	
MISC. LABORATORY ANALYSIS	0.400.00		•	**	
Grain Size Dist	\$120.00		0	\$0	
TCLP	\$1,500.00		0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0	
Ammonia	\$25.00		0	\$0	
Phosphate	\$25.00		0	\$0	
Cation Exchange Capacity	\$100.00	each	0	\$0	

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Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 2.4

Soil Investigations Summary Surface Soil Sampling Sub-Surface Soil Sampling

Test Pit Sampling

110p 140. 070002 00001			1000	i ii Gairipiirig	
	Unit	1.1-4-	0	04	Notes
RADIOLOGICAL LABORATORY ANALYSI	<u>Cost</u>	<u>Units</u>	Quantity	Cost	Notes
Water Samples For:	5				
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Soil Samples For:	Ψ+0.00	Cacii	V	ΨΟ	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60		each	0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry		each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		Ö	\$0	
Sample Prep/Return		each	0	\$0	
Wipe Samples For:	Ψ0.00	Cuon	· ·	40	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		Ö	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		Ö	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Gross Alphadeta	Ψ+3.00	Cacii	Ü	. 40	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Culptote	d Mica I abarr	aton.		\$0	
Subtota	al Misc. Labora	atory		Φυ	
NVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	13940	\$13,940	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		4995	\$4,995	
Surveyor	Lump Sum		0	\$0	
Subtota	al Investigation	Subcontra		\$18,935	

Subtotal Laboratory & Investigation Subcontractors: \$18,935 \$568

3% Mark-up:

SUBTOTAL SUBCONTRACTORS: \$19,503

TASK TOTAL:

\$128,034

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Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.1

Surface Soil Sampling 131 SS @ 8 per day

(16 days)

1 10p 140. 010002 00001					
	Unit Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
LABOR COSTS					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11		8	\$353	
Professional Level 5, Step 3 (P56)	\$37.99	/hour	0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91	/hour	16	\$527	
Professional Level 5, Step 1 (P52)	\$29.39	/hour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13	/hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20		160	\$4,032	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Destantianal Lauri 2 Ctan 2 (D29)	¢22.00	(barre	0	40	
Professional Level 2, Step 2 (P28)	\$23.09		0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89	/hour	0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57	/hour	160	\$2,971	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	160	\$2,653	
Technician Level 4, Step 1 (T42)	\$14.08		0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61		0	\$0	
redifficial Level of Grop 1 (102)	Ψ11,01	modi	v	Ψ	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1			504	\$10,535	
Base Yr Overhead Rate: 143% SU	IBTOTAL	BURDE	Labor Burden: ENED LABOR:	\$15,066 \$25,601	

Project:

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Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.1

Surface Soil Sampling 131 SS @ 8 per day

(16 days)

Prop No: 979002-00001

	Unit	Lleito	Quantity	Cost	Notes
MATERIALS AND SUPPLIES	Cost	<u>Units</u>	Quantity	Cost	ivotes
IVIATERIALS AND SUFFLIES					
Bottle labels	\$20.00	/roll	1	\$20	
40 mL VOA Vials	\$122.74		2	\$245	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	1	\$84	
Decon Eqt	\$18.00	/kit	1	\$18	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	1	\$14	
Ice	\$1.00	/bag	20	\$20	
Latex Gloves	\$10.00	/box	2	\$20	
Methanol (Optima)	\$25.00	/bottle	1	\$25	
Hexane (Optima)	\$25.00	/bottle	1	\$25	
Acetone (Optima)	\$50.00	/bottle	1	\$50	
HCl (Optima)	\$285.00	/bottle	1	\$285	
HNO3 (Optima)	\$175.00	/bottle	1	\$175	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	48	\$192	
Respirator Cartridges	\$15.00	/pair	48	\$720	
Packing Tape (doz)	\$72.00	/case	1	\$72	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	1	\$40	
Radiological Badges	\$20.00	each	3	\$60	
Aluminum Foil	\$1.00	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00	/set	1	\$30	
Survey Stake/Flag	\$20.00	/bundle	2	\$40	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	48	\$302	
Water (HPLC Grade)	\$97.00	/case	2	\$194	
Ziplock bags	\$3.00		0	\$0	
Calibration Gas	\$450.00		0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00		0	\$0	
Folding Live Traps	\$15.00		0	\$0	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	16	\$256	

SUBTOTAL MATLS & SUPPLIES:

\$2,888

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Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.1

Surface Soil Sampling 131 SS @ 8 per day

(16 days)

•	Unit Cost	Units	Quantity	Cost	Notes
TRAVEL	Cost	Office	Quantity	Cost	ivotes
Airfare Boston\Syracuse	\$500.00	/trip	1	\$500	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	48	\$4,608	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking, Airport	\$13.00	/day	16	\$208	
Auto Rental	\$55.00		16	\$880	
Suburban\Van rental	\$585.00		2	\$1,170	
Mileage	\$0.31	/mile	150	\$47	
		SUBTOTA	AL TRAVEL:	\$7,413	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	20	\$80	
Word Proc/PC	\$3.70	/hour	0	\$0	
CADD	\$5.00	/hour	0	\$0	
Facsimile	\$1.00	/page	50	\$50	
Overnight Express					
Letter/2 lb pack	\$14.50	each	0	\$0	
Package (50 lbs)	\$96.25	each	8	\$770	
Mail 4-lb pack	\$4.10	/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subto	tal Services			\$900	
REPRODUCTION					
Photocopier	\$0.05		500	\$25	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro	\$1.00	/Sheet	0	\$0	
Cronoflex Prod	\$5.50		0	\$0	
3-ring binders	\$15.00	each	0	\$0	
Color Copies	\$2.00	/page	0	\$0	
Subto	tal Reproduction	1		\$25	

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RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.1

Surface Soil Sampling 131 SS @ 8 per day

(16 days)

Prop No: 979002-00001

P10p140. 919002-00001					
	Unit	E Imita	Oue-th:	04	NI-4
COLUDATA DENTA	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
	\$55.00	huook	0	\$0	
Bailer			0	\$0 \$0	
Magnetometer	\$42.00		0		
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00	•	0	\$0	
Slug test eqt	\$50.00		0	\$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00	/week	0	\$0	
Data Logger, Trnsdcr	\$135.00	/day	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	0.5	\$20	
Equipment Trailer	\$1,000.00	/month	0.5	\$500	
Grundfus Redi Flow Pump	\$64.00		0	\$0	
PUF Sampler	\$150.00	,	0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
·	\$75.00	•	0	\$0 \$0	
Hi- Vol Sampler			0	\$0 \$0	
Hi- Vol Sampler Calibration Kit	\$25.00	•	-		
Ponar Sediment Sampler	\$27.00	•	0	\$0	
3.2 kw Generator	\$50.00	•	0	\$0	
Seismograph	\$200.00		0	\$0	
EM-31	\$85.00	-	0	\$0	
GPR	\$500.00	/day	0	\$0	
				4500	
Subtot	al Rental			\$520	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	16	\$800	
	\$80.00	-	2	\$160	
Alpha Survey Meter Alpha Scintillation Counter	\$100.00		0	\$100	
•					
Beta Sample Counter	\$100.00		0	\$0 \$0	
Gas Proportional Detector	\$100.00		0	\$0 \$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00	•	16	\$800	
Calib Gas	\$10.00	•	16	\$160	
2-way radios	\$15.00		2	\$30	
Air Purif Resp	\$20.00	/week	6	\$120	
10-Gal Eye Wash	\$35.00	/week	2	\$70	
Combination SCBA/SAR	\$150.00		0	\$0	
		-			
Subtot	al H & S			\$2,140	

SUBTOTAL OTHERS:

\$3,585

SUBTOTAL LABOR & ODC'S:

\$39,486

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Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.1

Surface Soil Sampling 131 SS @ 8 per day

(16 days)

1 10p 110. 070002 00001	Unit				
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA				4.0	
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0 \$0	
Pest./PCBs (TCL)	\$180.00		0	\$0 \$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Iron(Ferrous)	\$30.00		0	\$0 \$0	
Sulfide	\$30.00		0	\$0 \$0	
Spec Cond(EPA 9050)		each	0	\$0 \$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0 \$0	
TOX (EPA 9056)	\$50.00		0	\$0 \$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)		each	0	\$0 \$0	
Volatiles (EPA 524)	\$195.00		0	\$0 \$0	
Hardness(EPA 130.2)	\$15.00		0	\$0 \$0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABO	RATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Subtotal	Team Labor	atory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00		0	\$ 0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0	
Ammonia	\$25.00		0	\$0 \$0	
Phosphate	\$25.00		0	\$0 \$0	
Cation Exchange Capacity	\$100.00		0	\$ 0	
Salisti Exchange Supusity	Ψ100.00	Juon	•	ΨΟ	

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Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.4.1

Surface Soil Sampling 131 SS @ 8 per day

(16 days)

Prop No: 979002-00001

P10p No. 979002-00001	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS					
Water Samples For:					
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:					
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60		each	0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Wipe Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal	Misc. Labora	atory		\$0	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$ 0	
IDW Disposal	Lump Sum		0	\$0 \$0	
Surveyor	Lump Sum		Ö	\$0	
Subtotal	Investigation	Subcontrac	etors ———	\$0	
	-				
Subtotal Lal	ooratory & Ir	vestigation S	Subcontractors:	\$0 \$0	
		01100011	3% Mark-up:	\$0 **C	
SU	RIOIAL	20RCON	TRACTORS:	\$0	

TASK TOTAL:

\$39,486

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Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.2

Sub-Surface Soil Sampling 37 Borings @ 2 per day

(18.5 days)

Prop No: 979002-00001						
		Unit	Linita	Quantity	Cost	Notos
LABOR COSTS		Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
LABOR COSTS						
ENGINEERS AND SCIEN	TISTS					
			_	_		
	rel 6, Step 2 (P68)	\$58.74		0	\$0	
Professional Lev	el 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
Professional Lev	rel 5, Step 4 (P58)	\$44.11	/hour	8	\$353	
	el 5, Step 3 (P56)	\$37.99		0	\$0	
	el 5, Step 2 (P54)	\$32.91		16	\$527	
	el 5, Step 1 (P52)	\$29.39		0	\$0	
Professional Lev	el 4, Step 2 (P48)	\$29.13	/hour	0	\$0	
Professional Lev	el 4, Step 1 (P42)	\$25.20	/hour	185	\$4,662	
Dog Constant II and	-1.0 Ot 4 (D0E)	604.04	0	0	*	
Professional Lev	rel 3, Step 1 (P35)	\$24.04	/nour	0	\$0	
Professional Lev	el 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
	el 2, Step 1 (P22)	\$19.89		0	\$0	
7 701000101101 201	or 2, otop 1 (1 22)	Ψ.σ.σσ	711041	·	4.5	
Professional Lev	el 1, Step 2 (P18)	\$18.57	/hour	185	\$3,435	
Professional Lev	el 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPO	RT SPECIALISTS					
TEOTINIOAE AND GOTT C	ACT OF EOFICEOTO					
Technician Level	5 (T55)	\$21.10	/hour	0	\$0	
Technician Level		\$16.58		185	\$3,067	
Technician Level	4, Step 1 (142)	\$14.08	/nour	0	\$0	
Technician Level	3 Sten 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level		\$11.61		0	\$0	
r confident Level	5, Step 1 (152)	Ψ11.01	moui	v	ΨΟ	
Technician Level	2 (T25)	\$10.13	/hour	0	\$0	
Technician Level	1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 ((\$35)	\$20.61	/hour	0	\$0	
Support Level 5	(000)	Ψ20.01	modi	v	ΨΟ	
Support Level 2 ((\$25)	\$12.40	/hour	0	\$0	
Support Level 1 ((S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR C	OST			579	\$12,044	
	ract Year: 1			313	Ψ (Ζ , Ο Τ Τ	
COM	Base Yr					
Overh	ead Rate: 143%			Labor Burden:	\$17,223	
2 70111		RTOTAL	BURDE	ENED LABOR:	\$29,267	
	302	- , O I / \L			420,201	

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Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.2

Sub-Surface Soil Sampling

37 Borings @ 2 per day

(18.5 days)

Prop No: 979002-00001

	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	1	\$20	
40 mL VOA Vials	\$122.74	/case	1	\$123	
1 Liter Amber Bottles	\$37.95	/case	4	\$152	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	1	\$84	
Decon Eqt	\$18.00	/kit	1	\$18	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	1	\$14	
lce	\$1.00	/bag	10	\$10	
Latex Gloves	\$10.00	/box	2	\$20	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	54	\$216	
Respirator Cartridges	\$15.00	/раіг	54	\$810	
Packing Tape (doz)	\$72.00	/case	1	\$72	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00	each	0	\$0	
Aluminum Foil	\$1.00	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00	/set	1	\$30	
Survey Stake/Flag	\$20.00	/bundle	2	\$40	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	54	\$340	
Water (HPLC Grade)	\$97.00	/case	2	\$194	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00	each	0	\$0	
Vermiculite Packing	\$16.00		16	\$256	
· ·		-			

SUBTOTAL MATLS & SUPPLIES:

\$2,399

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Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.2

Sub-Surface Soil Sampling 37 Borings @ 2 per day

(18.5 days)

•	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	0	\$0	
Airfare Boston\Huntsville	\$900.00		0	\$0	
Subsistence-Seneca	\$96.00	/day	54	\$5,184	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking,Airport	\$13.00	/day	0	\$0	
Auto Rental	\$55.00	/day	18	\$990	
Suburban\Van rental	\$585.00	/week	2.5	\$1,463	
Mileage	\$0.31	/mile	150	\$47	
		SUBTOTA	AL TRAVEL:	\$7,683	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	20	\$80	
Word Proc/PC	\$3.70	/hour	0	\$0	
CADD	\$5.00	/hour	0	\$0	
Facsimile	\$1.00	/page	50	\$50	
Overnight Express					
Letter/2 lb pack	\$14.50	each	0	\$0	
Package (50 lbs)	\$96.25	each	10	\$963	
Mail 4-lb pack	\$4.10	/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subtotal Services				\$1,093	
REPRODUCTION					
Photocopier		/page	500	\$25	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	
Subto	otal Reproductio	n		\$25	

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RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.2

Sub-Surface Soil Sampling 37 Borings @ 2 per day

(18.5 days)

Prop No: 979002-00001

F10p 140. 979002-00001					
	Unit	Linito	Quantity	Cont	Notes
EQUIPMENT RENTAL	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
EQUIPIVIENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00		. 0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00		0	\$0	
Slug test eqt	\$50.00	•	0	\$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00		0	\$0	
Flow Meter	\$30.00	-	0	\$0	
Water coolers	•	/month	0.5	\$20	
Equipment Trailer	\$1,000.00		0.5	\$500	
Grundfus Redi Flow Pump	\$64.00		0	\$0	
PUF Sampler	\$150.00	-	0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
•	\$75.00	•	0	\$0	
Hi- Vol Sampler	\$25.00		0	\$0 \$0	
Hi- Vol Sampler Calibration Kit		•	0	\$0 \$0	
Ponar Sediment Sampler	\$27.00	•	0	\$0 \$0	
3.2 kw Generator	\$50.00	•	0	•	
Seismograph	\$200.00	•	_	\$0 \$0	
EM-31	\$85.00	•	0	\$0 \$0	
GPR	\$500.00	/day	0	\$0	
Subtot	al Rental			\$520	
LIENTIL & CAEETY FOLIDMENT					
HEALTH & SAFETY EQUIPMENT	\$50.00	lday	18	\$900	
HNu Meter	\$80.00	•	2	\$160	
Alpha Survey Meter	\$100.00		0	\$100	
Alpha Scintillation Counter	\$100.00		0	\$0 \$0	
Beta Sample Counter	\$100.00		0	\$0 \$0	
Gas Proportional Detector	\$100.00		0	\$0 \$0	
Gas Prop. Detector-Floor			_	·	
Radon Monitor	\$300.00		0	\$0 \$000	
Gamma Radiation Meter	\$50.00	•	18	\$900	
Calib Gas	\$10.00	•	18	\$180 \$20	
2-way radios		/ea/wk	2	\$30	
Air Purif Resp	\$20.00		0	\$0 #70	
10-Gal Eye Wash	\$35.00		2	\$70	
Combination SCBA/SAR	\$150.00	/day	0	\$0	
Subtot	al H & S			\$2,240	

SUBTOTAL OTHERS:

\$3,878

SUBTOTAL LABOR & ODC'S:

\$43,227

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Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.2

Sub-Surface Soil Sampling 37 Borings @ 2 per day

(18.5 days)

Prop No: 979002-00001

	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
CURCONTRACTORS					
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	'ANALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Iron(Ferrous)	\$30.00	each	0	\$0	
Sulfide	\$30.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00	each	0	\$0	
TOX (EPA 9056)	\$50.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
BOD	\$60.00	each	0	\$0	
Sulfate(EPA 300)	\$25.00	each	0	\$0	
COD	\$50.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Volatiles (EPA 524)	\$195.00	each	0	\$0	
Hardness(EPA 130.2)	\$15.00	each	0	\$0	
Alkalinity(EPA 310)	\$12.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABO	RATORY AN	VAI YSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$ 0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00		0	\$0	
TOX (EPA 9056)	\$70.00		Ö	\$0	
Chloride(EPA 9250)	\$25.00		Ö	\$0	
pH (EPA 9045)	\$8.00		Ö	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
					
Subtotal	Team Labor	ratory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00	each	0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00	each	0	\$0	
Chromium (Level II)	\$30.00	each	0	\$0	
Total Suspended Solids	\$20.00	each	0	\$0	
Total Dissolved Solids	\$20.00	each	0	\$0	
Ammonia	\$25.00	each	0	\$0	
Phosphate	\$25.00	each	0	\$0	
Cation Exchange Capacity	\$100.00	each	0	\$0	

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Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.2

Sub-Surface Soil Sampling 37 Borings @ 2 per day

(18.5 days)

Prop No: 979002-00001

•	Unit				
TABLE LOCION LABORATORY ANALYSIS	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
RADIOLOGICAL LABORATORY ANALYSIS					
Water Samples For:	¢60.00	b	0	\$0	
Thorium 232, 230, 227	\$60.00		0		
Uranium 238, 235, 233+234	\$60.00		0	\$0 \$0	
Radium 226,223	\$40.00		0	\$0 \$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0 0	\$0 \$0	
Plutonium 239 + 240	\$65.00			\$0 \$0	
Americium 241	\$65.00		0	\$0 \$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:	400.00		•	CO	
Thorium 232, 230, 227	\$60.00		0	\$0 ***	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0 \$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00		0	\$0 \$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Wipe Samples For:			_		
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00		0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal N	Misc. Labora	atory		\$0	
INVESTIGATION SUBCONTRACTORS					
	Lump Sum		8220	\$8,220	
č ,	Lump Sum		0	\$0	
	Lump Sum		4995	\$4,995	
Surveyor	Lump Sum	each	0	\$0	
Subtotal I	nvestigation	Subcontra	actors	\$13,215	

Subtotal Laboratory & Investigation Subcontractors:

3% Mark-up:

SUBTOTAL SUBCONTRACTORS: \$13,611

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TASK TOTAL:

\$56,838

\$13,215

\$396

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.4.3

Test Pit Investigations 20 TPs@2/dy=10dys

Prop No: 979002-00001 Unit Cost **Units** Quantity Cost **Notes** LABOR COSTS **ENGINEERS AND SCIENTISTS** \$0 Professional Level 6, Step 2 (P68) \$58.74 /hour 0 Professional Level 6, Step 1 (P62) \$46.47 /hour 0 \$0 \$353 Professional Level 5, Step 4 (P58) \$44.11 /hour 8 Professional Level 5, Step 3 (P56) \$37.99 /hour 0 \$0 16 \$527 Professional Level 5, Step 2 (P54) \$32.91 /hour Professional Level 5, Step 1 (P52) \$29.39 /hour 0 \$0 0 Professional Level 4. Step 2 (P48) \$29.13 /hour \$0 Professional Level 4, Step 1 (P42) \$25.20 /hour 100 \$2,520 \$24.04 /hour 0 \$0 Professional Level 3, Step 1 (P35) \$0 Professional Level 2, Step 2 (P28) \$23.09 /hour 0 Professional Level 2, Step 1 (P22) \$19.89 /hour 0 \$0 \$18.57 /hour 100 \$1.857 Professional Level 1, Step 2 (P18) Professional Level 1, Step 1 (P12) \$14.84 /hour 0 \$0 TECHNICAL AND SUPPORT SPECIALISTS \$21.10 /hour 0 \$0 Technician Level 5 (T55) Technician Level 4, Step 2 (T48) \$16.58 /hour 100 \$1,658 \$14.08 /hour \$0 Technician Level 4, Step 1 (T42) 0 0 \$0 Technician Level 3, Step 2 (T38) \$13.99 /hour Technician Level 3, Step 1 (T32) \$11.61 /hour 0 \$0 Technician Level 2 (T25) \$10.13 /hour 0 \$0 0 \$0 \$8.89 /hour Technician Level 1 (T15) \$0 0 Support Level 3 (S35) \$20.61 /hour Support Level 2 (S25) \$12.40 /hour 0 \$0 \$8.72 /hour 0 \$0 Support Level 1 (S15) \$6,914 324 TOTAL HOURS/LABOR COST Contract Year:

SUBTOTAL BURDENED LABOR:

A - 97

Labor Burden:

\$9,888

\$16,802

Base Yr

143%

Overhead Rate:

Vermiculite Packing

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project: RI/FS at the Radiological Disposal Areas

> SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 2.4.3

Test Pit Investigations 20 TPs@2/dy=10dys

MATERIALS AND SUPPLIES Substitute		Unit			
Bottle labels \$20.00 /roll 1 \$20 \$20 \$40 mL VOA Vials \$122.74 /case 1 \$123 \$11 \$123 \$11 \$124 \$152 \$32 oz. HDPE Bottles \$33.7.95 /case 4 \$152 \$32 oz. HDPE Bottles \$30.75 /case 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0			Quantity	Cost	Notes
40 mL VOA Vials \$122.74 /case 1 \$123 1 Liter Amber Bottles \$37.95 /case 4 \$152 32 oz. HDPE Bottles \$30.75 /case 0 \$0 Braided Nylon Rope \$0.15 /foot 0 \$0 Bubble Pack \$84.00 /roll 1 \$84 Decon Eqt \$18.00 /kit 1 \$18 55g drums fill/mov \$100.00 each 0 \$0 Field Notebook \$14.00 each 0 \$0 Field Notebook \$14.00 each 1 \$14 Ice \$1.00 /bag 10 \$10 Latex Gloves \$10.00 /box 2 \$20 Methanol (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$285.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 <th>MATERIALS AND SUPPLIES</th> <th></th> <th></th> <th></th> <th></th>	MATERIALS AND SUPPLIES				
40 mL VOA Vials \$122.74 /case 1 \$123 1 Liter Amber Bottles \$37.95 /case 4 \$152 32 oz. HDPE Bottles \$30.75 /case 0 \$0 Braided Nylon Rope \$0.15 /foot 0 \$0 Bubble Pack \$84.00 /roll 1 \$84 Decon Eqt \$18.00 /kit 1 \$18 55g drums fill/mov \$100.00 each 0 \$0 Field Notebook \$14.00 each 0 \$0 Field Notebook \$14.00 each 1 \$14 Ice \$1.00 /bag 10 \$10 Latex Gloves \$10.00 /box 2 \$20 Methanol (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$285.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 <td>D. W. Lebert</td> <td>\$20.00 / II</td> <td>4</td> <td>*00</td> <td></td>	D. W. Lebert	\$20.00 / II	4	* 00	
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32 oz. HDPE Bottles \$30.75 /case 0 \$0 Braided Nylon Rope \$0.15 /foot 0 \$0 Bubble Pack \$84.00 /roll 1 \$84 Decon Eqt \$18.00 /kit 1 \$18 55g drums fill/mov \$100.00 each 0 \$0 Field Notebook \$14.00 each 1 \$14 Ice \$1.00 /bag 10 \$10 Latex Gloves \$10.00 /box 2 \$20 Methanol (Optima) \$25.00 /bottle 0 \$0 Hexane (Optima) \$25.00 /bottle 0 \$0 Acetone (Optima) \$50.00 /bottle 0 \$0 HCI (Optima) \$285.00 /bottle 0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 Overboots \$4.00 /pair 30 \$450 Packing Tape (doz) \$72.00 /case 1 \$72		*	·		
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HCI (Optima) \$285.00 /bottle 0 \$0 HNO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 Overboots \$4.00 /pair 30 \$120 Respirator Cartridges \$15.00 /pair 30 \$450 Packing Tape (doz) \$72.00 /case 1 \$72	Hexane (Optima)	\$25.00 /bottle	0		
HNO3 (Optima) \$175.00 /bottle 0 \$0 Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 Overboots \$4.00 /pair 30 \$120 Respirator Cartridges \$15.00 /pair 30 \$450 Packing Tape (doz) \$72.00 /case 1 \$72	Acetone (Optima)	\$50.00 /bottle	0	\$0	
Ascorbic Acid \$10.00 /bottle 0 \$0 Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 Overboots \$4.00 /pair 30 \$120 Respirator Cartridges \$15.00 /pair 30 \$450 Packing Tape (doz) \$72.00 /case 1 \$72	HCI (Optima)	\$285.00 /bottle	0	\$0	
Filters (0.45uM & 0.5uM) \$50.00 /box 0 \$0 Overboots \$4.00 /pair 30 \$120 Respirator Cartridges \$15.00 /pair 30 \$450 Packing Tape (doz) \$72.00 /case 1 \$72	HNO3 (Optima)	\$175.00 /bottle	0	\$0	
Overboots \$4.00 /pair 30 \$120 Respirator Cartridges \$15.00 /pair 30 \$450 Packing Tape (doz) \$72.00 /case 1 \$72	Ascorbic Acid	\$10.00 /bottle	0	\$0	
Respirator Cartridges \$15.00 /pair 30 \$450 Packing Tape (doz) \$72.00 /case 1 \$72	Filters (0.45uM & 0.5uM)	\$50.00 /box	0	\$0	
Packing Tape (doz) \$72.00 /case 1 \$72	Overboots	\$4.00 /pair	30	\$120	
	Respirator Cartridges	\$15.00 /pair	30	\$450	
Padlocks \$12.00 each 0 \$0	Packing Tape (doz)	\$72.00 /case	1	\$72	
	Padlocks	\$12.00 each	0	\$0	
Sampling Tables \$40.00 each 1 \$40	Sampling Tables	\$40.00 each	1	\$40	
Radiological Badges \$20.00 each 3 \$60	Radiological Badges	\$20.00 each	3	\$60	
Aluminum Foil \$1.00 /roll 0 \$0	Aluminum Foil	\$1.00 /roll	0	\$0	
Stain Stl bwl/spn \$30.00 /set 1 \$30	Stain Stl bwl/spn	\$30.00 /set	1	\$30	
Survey Stake/Flag \$20.00 /bundle 1 \$20	Survey Stake/Flag	\$20.00 /bundle	1	\$20	
Teflon tape \$8.00 /roll 0 \$0		\$8.00 /roll	0	\$0	
Tyveks \$6.30 each 30 \$189	·	\$6.30 each	30	\$189	
Water (HPLC Grade) \$97.00 /case 2 \$194	•	\$97.00 /case	2	\$194	
Ziplock bags \$3.00 /box 0 \$0	,		0		
Calibration Gas \$450.00 /tank 0 \$0			0		
Ultra Pure Air \$310.00 /ton 0 \$0			0		
Teflon Tubing \$120.00 /roll 0 \$0			0		
Teflon Sheeting \$500.00 /roll 0 \$0	•		0		
Folding Live Traps \$15.00 each 0 \$0	•		0		
Glassware \$25.00 each 0 \$0			0		
Quartz Filters \$10.00 each 0 \$0					

SUBTOTAL MATLS & SUPPLIES:

\$16.00 /bag

\$1,744

\$128

8

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

\$25

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 2.4.3

Test Pit Investigations 20 TPs@2/dy=10dys

rop No: 979002-00001				
	Unit			
	Cost Ur	nits Quantity	Cost	<u>Notes</u>
TRAVEL				
Airford Rooton/Syracusa	\$500.00 /tri	р 0	\$0	
Airfare Boston\Syracuse Airfare Boston\Huntsville	\$900.00 /tri		\$0 \$0	
Subsistence-Seneca	\$96.00 /til	•	\$2,880	
		•	\$2,000 \$0	
Subsistence-Huntsville	\$89.00 /da	•		
Parking, Airport	\$13.00 /da		\$0	
Auto Rental	\$55.00 /da		\$550	
Suburban\Van rental	\$585.00 /w		\$585	
Mileage	\$0.31 /m	ile 0	\$0	
	SI	JBTOTAL TRAVEL:	\$4,015	
THERS				
IN-HOUSE SERVICES				
Telephone	\$4.00 /ca	all 20	\$80	
Word Proc/PC	\$3.70 /hc		\$0	
CADD	\$5.00 /hc		\$0	
Facsimile	\$1.00 /pa		\$20	
Overnight Express	4	-90 =0	4-4	
Letter/2 lb pack	\$14.50 ea	ch 0	\$0	
Package (50 lbs)	\$96.25 ea		\$963	
Mail 4-lb pack	\$4.10 /pa		\$0	
Mail letters	\$0.54 /lei		\$0	
Subto	tal Services		\$1,063	
REPRODUCTION				
Photocopier	\$0.05 /pa	age 500	\$25	
Aerial Photo repro	\$10.00 /pt	3	\$0	
Blueline repro	\$1.00 /SI		\$0 \$0	
Cronoflex Prod	\$5.50 /Si		\$0 \$0	
	\$15.00 ea		\$0 \$0	
3-ring binders			\$0 \$0	
Color Copies	\$2.00 /pa	ige 0	φυ	

Subtotal Reproduction

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 2.4.3

Test Pit Investigations

20 TPs@2/dy=10dys

Prop No: 979002-00001	Linit				
	Unit <u>Cost</u>	Units	Quantity	Cost	Notes
EQUIPMENT RENTAL	0031	<u>Jinto</u>	Sudiffic	<u> </u>	140103
•					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00		0	\$0	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00	,	0	\$0	
Slug test eqt	\$50.00		0	\$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00	/day	0	\$0	
Flow Meter	\$30.00		0	\$0	
Water coolers		/month	0.25	\$10	
Equipment Trailer	\$1,000.00		0.25	\$250	
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0	
PUF Sampler	\$150.00	/week	0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler	\$75.00	/week	2	\$150	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	10	\$250	
Ponar Sediment Sampler	\$27.00	/day	0	\$0	
3.2 kw Generator	\$50.00	/day	0	\$0	
Seismograph	\$200.00	/day	0	\$0	
EM-31	\$85.00	/day	0	\$0	
GPR	\$500.00	/day	0	\$0	
Subtota	al Rental			\$660	
LIEALTH & CAFETY FOLUDMENT					
HEALTH & SAFETY EQUIPMENT HNu Meter	\$50.00	/day	10	\$500	
	\$80.00	,	2	\$160	
Alpha Scientillation Counter	\$100.00		0	\$100	
Alpha Scintillation Counter Beta Sample Counter	\$100.00		0	\$0 \$0	
Gas Proportional Detector	\$100.00		0	\$0 \$0	
	\$100.00		0	\$0 \$0	
Gas Prop. Detector-Floor	\$300.00		0	\$0 \$0	
Radon Monitor			10	\$500	
Gamma Radiation Meter	\$50.00	•			
Calib Gas	\$10.00 \$15.00		10 4	\$100 \$6 0	
2-way radios					
Air Purif Resp	\$20.00 \$35.00		6	\$120 \$70	
10-Gal Eye Wash			2 0	\$70 \$0	
Combination SCBA/SAR	\$150.00	ruay	U	\$0	
Subtota	al H & S			\$1,510	

SUBTOTAL OTHERS:

\$3,258

SUBTOTAL LABOR & ODC'S:

\$25,818

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task # 2.4.3

Test Pit Investigations 20 TPs@2/dy=10dys

	Unit Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	ANALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Iron(Ferrous)	\$30.00	each	0	\$0	
Sulfide	\$30.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0	
TOX (EPA 9056)	\$50.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Volatiles (EPA 524)	\$195.00		0	\$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABOR	RATORY AN	JAI YSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00		0	\$0	
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Subtotal	Team Labor	atory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00	each	0	\$0	
Moisture Content	\$15.00	each	0	\$0	
Bulk Density	\$35.00	each	0	\$0	
Chromium (Level II)	\$30.00	each	0	\$0	
Total Suspended Solids	\$20.00	each	0	\$0	
Total Dissolved Solids	\$20.00	each	0	\$0	
Ammonia	\$25.00	each	0	\$0	
Phosphate	\$25.00	each	0	\$0	
Cation Exchange Capacity	\$100.00	each	0	\$0	

U.S. Army Corps of Engineers

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Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Prop No: 979002-00001

Annex E

Task # 2.4.3

Test Pit Investigations 20 TPs@2/dy=10dys

	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS					
Water Samples For:	400.00		0		
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:	***		•	00	
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0 \$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Wipe Samples For:				•	
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00		0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal	Misc. Labora	atory	-	\$0	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	5720	\$5,720	
Photogrammetry	Lump Sum	each	0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum		0	\$0	
Subtotal	Investigation	Subcontrac	ctors	\$5,720	

Subtotal Laboratory & Investigation Subcontractors: \$5,720

3% Mark-up: \$172

SUBTOTAL SUBCONTRACTORS: \$5,892

TASK TOTAL: \$31,710

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Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Surface Water and Sediment Sampling

43 Samples @ 4 per day

\$16,162

Prop No: 979002-00001

(10 Days)

Task # 2.5

P10p No. 979002-00001			(10 L	ays)	
	Unit Cost	Units	Quantity	Cost	Notes
LABOR COSTS			-		
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47		0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11	/hour	8	\$353	
Professional Level 5, Step 3 (P56)	\$37.99	/hour	0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91		8	\$263	
			0		
Professional Level 5, Step 1 (P52)	\$29.39	/nour	U	\$0	
Professional Level 4, Step 2 (P48)	\$29.13		0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20	/hour	100	\$2,520	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89	/hour	0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57	/hour	100	\$1,857	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	100	\$1,658	
Technician Level 4, Step 1 (T42)	\$14.08	/hour	0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1 Base Yr			316	\$6,651	
Overhead Rate: 143%			Labor Burden:	\$9,511	

SUBTOTAL BURDENED LABOR:

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Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task # 2.5

Surface Water and Sediment Sampling

43 Samples @ 4 per day

(10 Days)

	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	1	\$20	
40 mL VOA Vials	\$122.74		2	\$245	
1 Liter Amber Bottles	\$37.95		4	\$152	
32 oz. HDPE Bottles	\$30.75		0	\$0	
Braided Nylon Rope	\$0.15		0	\$0 \$0	
Bubble Pack	\$84.00		1	\$8 4	
Decon Eqt	\$18.00		1	\$18	
55g drums fill/mov	\$100.00		0	\$0	
Field Notebook	\$14.00		1	\$1 4	
lce	\$1.00		10	\$10	
Latex Gloves	\$10.00		1	\$10 \$10	
Methanol (Optima)	\$25.00		1	\$25	
Hexane (Optima)	\$25.00		0	\$0	
Acetone (Optima)	\$50.00		0	\$0 \$0	
HCI (Optima)	\$285.00		1	\$285	
HNO3 (Optima)	\$175.00		1	\$175	
Ascorbic Acid	\$10.00		Ó	\$0	
Filters (0.45uM & 0.5uM)	\$50.00		0	\$0	
Overboots	\$4.00		18	\$72	
Respirator Cartridges	\$15.00		0	\$0	
Packing Tape (doz)	\$72.00		0	\$0	
Padlocks	\$12.00		0	\$0	
Sampling Tables	\$40.00		1	\$40	
Radiological Badges	\$20.00		0	\$0	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00		1	\$30	
Survey Stake/Flag	,	/bundle	1	\$20	
Teflon tape	\$8.00		0	\$0	
Tyveks	\$6.30		18	\$113	
Water (HPLC Grade)	\$97.00		2	\$194	
Ziplock bags	\$3.00		1	\$3	
Calibration Gas	\$450.00		0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflon Tubing	\$120.00		0	\$0	
Teflon Sheeting	\$500.00		0	\$0	
Folding Live Traps	\$15.00		0	\$0	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00		8	\$128	
	7.3100			· -	

SUBTOTAL MATLS & SUPPLIES:

\$1,639

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Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.5

Surface Water and Sediment Sampling 43 Samples @ 4 per day

(10 Days)

Prop No: 979002-00001

Prop No: 9/9002-00001			(10	Days)	
	Unit		0 "	0.1	N
	<u>Cost</u>	<u>Units</u>	<u>Quantity</u>	<u>Cost</u>	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	0	\$0	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	18	\$1,728	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking, Airport	\$13.00	/day	18	\$234	
Auto Rental	\$55.00	/day	6	\$330	
Suburban\Van rental	\$585.00	/week	1	\$585	
Mileage	\$0.31	/mile	0	\$0	
		SUBTOTA	AL TRAVEL:	\$2,877	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	10	\$40	
Word Proc/PC	\$3.70	/hour	0	\$0	
CADD	\$5.00	/hour	0	\$0	
Facsimile	\$1.00	/page	10	\$10	
Overnight Express					
Letter/2 lb pack	\$14.50	each	0	\$0	
Package (50 lbs)	\$96.25	each	10	\$963	
Mail 4-lb pack	\$4.10	/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subte	Subtotal Services				
REPRODUCTION					
Photocopier		/page	500	\$25	
Aerial Photo repro	\$10.00	•	0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	
Subto	otal Reproductio	n		\$25	

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Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.5

Surface Water and Sediment Sampling

43 Samples @ 4 per day

Prop No: 979002-00001	43 Samples @ 4 per day (10 Days)						
F10p 140. 979002-00001	Unit		(10 D	(10 Days)			
	Cost	Units	Quantity	Cost	Notes		
EQUIPMENT RENTAL	0000	<u>OTINO</u>	Gadraty	<u>9001</u>	140100		
EARTH SCIENCES EQUIPMENT							
Bailer	\$55.00	/week	0	\$0			
Magnetometer	\$42.00	/week	0	\$0			
pH/Cond meter	\$50.00		1	\$50			
Flow thru pH/Cond meter	\$257.00		0	\$0			
DO meter	\$55.00	/week	1	\$55			
Soil Gas Supplies	\$50.00		0	\$0			
Slug test eqt	\$50.00	•	0	\$0			
Water level ind	\$40.00		0	\$0			
Turbidimeter	\$30.00		0	\$0			
Data Logger,Trnsdcr	\$135.00		0	\$0			
Flow Meter	\$30.00	•	1	\$30			
Water coolers		/month	0.25	\$10			
Equipment Trailer	\$1,000.00		0.25	\$250			
Grundfus Redi Flow Pump	\$64.00		0	\$0			
PUF Sampler	\$150.00		0	\$0			
PUF Sampler Calibration Kit	\$25.00		0	\$0			
Hi- Vol Sampler	\$75.00	-	Ö	\$0			
Hi- Vol Sampler Calibration Kit	\$25.00		0	\$0			
Ponar Sediment Sampler	\$27.00	•	6	\$162			
3.2 kw Generator	\$50.00	•	0	\$0			
Seismograph	\$200.00	•	0	\$0			
EM-31	\$85.00	•	0	\$0			
GPR	\$500.00	•	Ö	\$0			
Subtot	al Rental			\$557			
HEALTH & SAFETY EQUIPMENT							
HNu Meter	\$50.00	/dav	10	\$500			
Alpha Survey Meter	\$80.00	•	10	\$800			
Alpha Scintillation Counter	\$100.00		0	\$0			
Beta Sample Counter	\$100.00		0	\$0			
Gas Proportional Detector	\$100.00		0	\$0			
Gas Prop. Detector-Floor	\$100.00		0	\$0			
Radon Monitor	\$300.00		0	\$0			
Gamma Radiation Meter	\$50.00		10	\$500			
Calib Gas	\$10.00	,	10	\$100			
2-way radios		/ea/wk	2	\$30			
Air Purif Resp	\$20.00		0	\$0			
10-Gal Eye Wash	\$35.00		1	\$35			
Combination SCBA/SAR	\$150.00		Ö	\$0			
Subtot	al H & S			\$1,965			
				-			

SUBTOTAL OTHERS:

\$3,560

SUBTOTAL LABOR & ODC'S:

\$24,237

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Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 2.5

Surface Water and Sediment Sampling

43 Samples @ 4 per day

(10 Days)

Prop No. 979002-00001			(10 Days	? <u>/</u>	
	Unit				
	Cost	<u>Units</u>	<u>Quantity</u>	Cost	<u>Notes</u>
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LAI	BORATORY	ANALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Iron(Ferrous)	\$30.00		0	\$0	
Sulfide	\$30.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00	each	0	\$0	
TOX (EPA 9056)	\$50.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
BOD	\$60.00	each	0	\$0	
Sulfate(EPA 300)	\$25.00	each	0	\$0	
COD	\$50.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Volatiles (EPA 524)	\$195.00	each	0	\$0	
Hardness(EPA 130.2)	\$15.00	each	0	\$0	
Alkalinity(EPA 310)	\$12.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
,					
SOILS - SURFACE or SUBSURFACE LABOR	RATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
` '					
Subtotal	Team Labor	atory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00	each	0	\$0	
Moisture Content	\$15.00	each	0	\$0	
Bulk Density	\$35.00	each	0	\$0	
Chromium (Level II)	\$30.00	each	0	\$0	
Total Suspended Solids	\$20.00	each	0	\$0	
Total Dissolved Solids	\$20.00	each	0	\$0	
Ammonia	\$25.00	each	0	\$0	
Phosphate	\$25.00	each	0	\$0	
Cation Exchange Capacity	\$100.00	each	0	\$0	

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Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Surface Water and Sediment Sampling 43 Samples @ 4 per day

Prop No: 979002-00001

(10 Days)

Task # 2.5

Prop No: 979002-00001			(10 D	ays)	
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS	3				
Water Samples For:					
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gamma Spectrometry	\$0.00	each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00	each	0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Wipe Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtota	l Misc. Labora	atory		\$0	
INIVESTICATION OF BOOMED ACTORS					
INVESTIGATION SUBCONTRACTORS	Luman Cum	o o o b	0	\$0	
Driller	Lump Sum		0	\$0 \$0	
Photogrammetry	Lump Sum Lump Sum		-	\$0 \$0	
IDW Disposal			0	\$0 \$0	
Surveyor	Lump Sum	eacn	<u> </u>	φ0 	
Subtota	l Investigation	Subcontrac	tors	\$0	
Subtotal La	aboratory & In	vestigation	Subcontractors:	\$0	
			3% Mark-up:	\$0	
S	UBTOTAL :	SUBCON ⁻	TRACTORS:	\$0	

TASK TOTAL: \$24,237

U.S. Army Corps of Engineers

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Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.6

Groundwater Sampling Install 28 MW @ 1 per day

Samp 37 Wells @ 2 per Day (2 Rnds)

Prop No: 979002-00001	(65 Days)				er Day (2 Kilds)
1100110. 010002 00001	Unit		, (00		
	Cost	<u>Units</u>	Quantity	Cost	Notes
LABOR COSTS					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	l /hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47	/ /hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11	/hour	24	\$1,059	
Professional Level 5, Step 3 (P56)	\$37.99	hour /	0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91	l /hour	40	\$1,316	
Professional Level 5, Step 1 (P52)	\$29.39	hour /	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13	3 /hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20) /hour	650	\$16,380	
Professional Level 3, Step 1 (P35)	\$24.04	l /hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	hour /	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89	hour /	0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57	/ /hour	650	\$12,071	
Professional Level 1, Step 1 (P12)	\$14.84	l /hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10) /hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58	3 /hour	650	\$10,777	•
Technician Level 4, Step 1 (T42)	\$14.08	3 /hour	0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99	hour /	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	3 /hour	0	\$0	
Technician Level 1 (T15)	\$8.89	hour /	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40) /hour	0	\$0	
Support Level 1 (S15)	\$8.72	? /hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1			2014	\$41,603	

Base Yr

Overhead Rate:

143%

Labor Burden:

\$59,492

SUBTOTAL BURDENED LABOR:

\$101,094

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E Prop No: 979002-00001 Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task # 2.6

Groundwater Sampling Install 28 MW @ 1 per day

Samp 37 Wells @ 2 per Day (2 Rnds)

(65 Days)

Prop No: 9/9002-00001			(65 D	ays)	
	Unit				
	<u>Cost</u>	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	1	\$20	
40 mL VOA Vials	\$122.74	/case	2	\$245	
1 Liter Amber Bottles	\$37.95	/case	5	\$190	
32 oz. HDPE Bottles	\$30.75	/case	5	\$154	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	2	\$168	
Decon Eqt	\$18.00	/kit	2	\$36	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	1	\$14	
Ice	\$1.00	/bag	30	\$30	
Latex Gloves	\$10.00	/box	1	\$10	
Methanol (Optima)	\$25.00	/bottle	4	\$100	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	2	\$570	
HNO3 (Optima)	\$175.00	/bottle	2	\$350	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	195	\$780	
Respirator Cartridges	\$15.00	/pair	0	\$0	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	e ach	0	\$0	
Radiological Badges	\$20.00		0	\$0	
Aluminum Foil	\$1.00	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00		0	\$0	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	195	\$1,229	
Water (HPLC Grade)	\$97.00		20	\$1,940	
Ziplock bags	\$3.00		2	\$6	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	30	\$480	

SUBTOTAL MATLS & SUPPLIES:

\$6,321

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22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.6

Groundwater Sampling Install 28 MW @ 1 per day

Samp 37 Wells @ 2 per Day (2 Rnds)

\$25

Prop No: 979002-00001		(65 Days)				
	Unit Cost	Units	Quantity	Cost	Notes	
TRAVEL	Cost	Offits	Quantity	Cost	Notes	
Airfare Boston\Syracuse	\$500.00		9	\$4,500 3 In	st.+ 3/Rnd.X2	
Airfare Boston\Huntsville	\$900.00		0	\$0		
Subsistence-Seneca	\$96.00	-	195	\$18,720		
Subsistence-Huntsville	\$89.00	•	0	\$0		
Parking,Airport	\$13.00		130	\$1,690		
Auto Rental	\$55.00	/day	65	\$3,575		
Suburban\Van rental	\$585.00	/week	8	\$4,680		
Mileage	\$0.31	/mile	300	\$93		
		SUBTOTA	L TRAVEL:	\$33,258		
OTHERS						
IN-HOUSE SERVICES						
Telephone	\$4.00	/call	20	\$80		
Word Proc/PC	\$3.70	/hour	0	\$0		
CADD	\$5.00	/hour	0	\$0		
Facsimile	\$1.00	/page	50	\$50		
Overnight Express						
Letter/2 lb pack	\$14.50	each	0	\$0		
Package (50 lbs)	\$96.25	each	50	\$4,813		
Mail 4-lb pack	\$4.10	/pack	0	\$0		
Mail letters	\$0.54	/letter	0	\$0		
Subto	otal Services			\$4,943		
REPRODUCTION						
Photocopier	\$0.05	/page	500	\$25		
Aerial Photo repro	\$10.00		0	\$0		
Blueline repro	\$1.00	/Sheet	0	\$0		
Cronoflex Prod	\$5.50	/Sq Ft	0	\$0		
3-ring binders	\$15.00	each	0	\$0		
Color Copies		/page	0	\$0		

Subtotal Reproduction

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Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.6

Groundwater Sampling Install 28 MW @ 1 per day

Samp 37 Wells @ 2 per Day (2 Rnds)

Prop No: 979002-00001		(65 Days)			
•	Unit				
	<u>Cost</u>	<u>Units</u>	Quantity	Cost	<u>Notes</u>
EQUIPMENT RENTAL					
ARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	16	\$880	
Magnetometer	\$42.00	/week	0	\$0	
pH/Cond meter		/week	4	\$200	
Flow thru pH/Cond meter	\$257.00		4	\$1,028	
DO meter		/week	4	\$220	
Soil Gas Supplies	\$50.00	•	0	\$0	
Slug test eqt	\$50.00	/week	2	\$100	
Water level ind		/week	8	\$320	
Turbidimeter		/week	4	\$120	
Data Logger,Trnsdcr	\$135.00	-	2	\$270	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	2	\$80	
Equipment Trailer	\$1,000.00	/month	2	\$2,000	
Grundfus Redi Flow Pump	\$64.00	/day	37	\$2,368	
PUF Sampler	\$150.00		0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler	\$75.00	/week	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0	
Ponar Sediment Sampler	\$27.00	/day	0	\$0	
3.2 kw Generator	\$50.00	/day	37	\$1,850	
Seismograph	\$200.00	/day	0	\$0	
EM-31	\$85.00	/day	0	\$0	
GPR	\$500.00	/day	0	\$0	
Subtot	al Rental			\$9,436	
EALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	65	\$3,250	
Alpha Survey Meter		/week	65	\$5,200	
Alpha Scintillation Counter	\$100.00		0	\$0	
Beta Sample Counter	\$100.00	/week	0	\$0	
Gas Proportional Detector	\$100.00	/week	0	\$0	
Gas Prop. Detector-Floor	\$100.00	/week	0	\$0	
Radon Monitor	\$300.00	/week	0	\$0	
Gamma Radiation Meter	\$50.00	/day	65	\$3,250	
Calib Gas	\$10.00	•	65	\$650	
2-way radios		/ea/wk	16	\$240	
Air Purif Resp		/week	0	\$0	
10-Gal Eye Wash		/week	8	\$280	
Combination SCBA/SAR	\$150.00		0	\$0	
Subtot	al H & S			\$12,870	

SUBTOTAL OTHERS:

\$27,274

SUBTOTAL LABOR & ODC'S:

\$167,947

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Groundwater Sampling

Install 28 MW @ 1 per day

Samp 37 Wells @ 2 per Day (2 Rnds)

Task # 2.6

Prop No: 979002-00001				(65 Days)		
1100110. 010002-00001	Unit		(00 Da	130/		
	Cost	<u>Units</u>	<u>Quantity</u>	Cost	Notes	
SUBCONTRACTORS						
GROUNDWATER or SURFACE WATER LA	BORATOR	Y ANALYSIS				
Volatiles (TCL)	\$180.00		0	\$0		
B/N/A (TCL)	\$400.00	each	0	\$0		
Pest./PCBs (TCL)	\$180.00	each each	0	\$0		
Total Metals & CN(TAL)	\$170.00	each	0	\$0		
Iron(Ferrous)	\$30.00	each each	0	\$0		
Sulfide	\$30.00		0	\$0		
Spec Cond(EPA 9050)		each each	0	\$0		
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0		
TOX (EPA 9056)	\$50.00		0	\$0		
Chloride(EPA 9250)	\$25.00		0	\$0		
BOD	\$60.00		0	\$0		
Sulfate(EPA 300)	\$25.00		0	\$0		
COD	\$50.00		0	\$0		
pH (EPA 9045)	-	each	0	\$0		
Volatiles (EPA 524)	\$195.00		0	\$0		
Hardness(EPA 130.2)	\$15.00		0	\$0 \$0		
Alkalinity(EPA 310)	\$12.00		0	\$0 \$0		
Nitrate (EPA 353.2)	\$20.00	eacn	0	\$0		
SOILS - SURFACE or SUBSURFACE LABO	RATORY A	NALYSIS				
Volatiles (TCL)	\$180.00	each	0	\$0		
B/N/A (TCL)	\$400.00	each	0	\$0		
Pest./PCBs (TCL)	\$180.00	each	0	\$0		
Total Metals & CN(TAL)	\$170.00		0	\$0		
Spec Cond(EPA 9050)		each	0	\$0		
Total Organic Carbon (L. Kahn)	\$60.00		0	\$0		
TOX (EPA 9056)	\$70.00		0	\$0		
Chloride(EPA 9250)	\$25.00		0	\$0		
pH (EPA 9045)		each	0	\$0		
Nitrate (EPA 353.2)	\$20.00	each	0	\$0		
Subtotal	Team Labo	ratory		\$0		
MISC. LABORATORY ANALYSIS						
Grain Size Dist	\$120.00	each	0	\$0		
TCLP	\$1,500.00		0	\$0		
Moisture Content	\$15.00		0	\$0		
Bulk Density	\$35.00		0	\$0		
Chromium (Level II)	\$30.00		0	\$0		
Total Suspended Solids	\$20.00		0	\$0		
Total Dissolved Solids	\$20.00		0	\$0		
Ammonia	\$25.00		0	\$0		
Phosphate	\$25.00		0	\$0		
Cation Exchange Capacity	\$100.00		0	\$0		
• . ,				•		

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Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

Annex E

Prop No: 979002-00001

SEAD-12

Task # 2.6

Groundwater Sampling install 28 MW @ 1 per day

Samp 37 Wells @ 2 per Day (2 Rnds)

(65 Days)

1100110: 070002 00001				<u>~</u>		
	Unit	t lasta	Quantity	Cont	Matan	
RADIOLOGICAL LABORATORY ANALY	Cost	<u>Units</u>	Quantity	Cost	Notes	
Water Samples For:	313					
Thorium 232, 230, 227	\$60.00	each	0	\$0		
Uranium 238, 235, 233+234	\$60.00		0	\$0		
Radium 226,223	\$40.00		0	\$0 \$0		
Pb214&211,Bi214,Ce137,Co6	•		0	\$0		
Plutonium 239 + 240	\$65.00		0	\$0		
Americium 241	\$65.00		0	\$0 \$0		
Gross AlphaΒ	\$45.00		0	\$0		
Soil Samples For:	φ+0.00	Caon	· ·	ΨΟ		
Thorium 232, 230, 227	\$60.00	each	0	\$0		
Uranium 238, 235, 233+234	\$60.00		0	\$0		
Radium 226,223	\$40.00		0	\$0		
Pb214&211,Bi214,Ce137,Co6			0	\$0		
Plutonium 239 + 240	\$65.00		0	\$0		
Americium 241	\$65.00		0	\$0		
Gamma Spectrometry		each	0	\$0		
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0		
Sample Prep/Return	\$0.00		0	\$0		
Wipe Samples For:	40.00	00011	•	4.5		
Thorium 232, 230, 227	\$60.00	each	0	\$0		
Uranium 238, 235, 233+234	\$60.00		0	\$0		
Radium 226,223	\$40.00		0	\$0		
Pb214&211,Bi214,Ce137,Co60	•		0	\$0		
Plutonium 239 + 240	\$65.00		0	\$0		
Americium 241	\$65.00		0	\$0		
Gross AlphaΒ	\$45.00	each	, 0	\$0		
AIR SAMPLES LABORATORY ANALYS	IS					
SVOC's	\$490.00	each	0	\$0		
Metals	\$150.00		0	\$0		
Radon (Alpha Film)	\$25.00		0	\$0		
Sub	total Misc. Labora	atory		\$0		
INVESTIGATION SUBCONTRACTORS						
Driller	Lump Sum	each	29799	\$29,799		
Photogrammetry	Lump Sum		0	\$0		
IDW Disposal	Lump Sum		4995	\$4,995		
Surveyor	Lump Sum		0	\$0		
Sub	total Investigation	Subcontra	actors	\$34,794		

SUBTOTAL SUBCONTRACTORS: \$35,838 _____

> TASK TOTAL: \$203,785

\$34,794

\$1,044

3% Mark-up:

Subtotal Laboratory & Investigation Subcontractors:

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22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.7

Ecological Investigation Terrestrial Invest. (3 days) Aquatic Invest. (3 days)

\$11,419

Prop No: 979002-00001	Wildlife Invest.	(3days)

Prop No. 979002-00001			viidiii	e ilivest. (Juays)	
	Unit <u>Cost</u>	Units	Quantity	Cost	Notes
LABOR COSTS					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74		0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11		8	\$353 \$0	
Professional Level 5, Step 3 (P56)	\$37.99		0		
Professional Level 5, Step 2 (P54)	\$32.91		0	\$0	
Professional Level 5, Step 1 (P52)	\$29.39	/hour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13		0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20	/hour	90	\$2,268	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	90	\$2,078	
Professional Level 2, Step 1 (P22)	\$19.89		0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57	/hour	0	\$0	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08		0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1 Base Yr			188	\$4,699	
Overhead Rate: 143%			Labor Burden:	\$6,720	

SUBTOTAL BURDENED LABOR:

Project:

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

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Parsons Engineering Science, Inc.

Task # 2.7

Ecological Investigation Terrestrial Invest. (3 days) Aquatic Invest. (3 days)

Wildlife Invest. (3days)

	Unit				
	<u>Cost</u>	<u>Units</u>	Quantity	Cost	<u>Notes</u>
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	2	\$28	
Ice	\$1.00	/bag	0	\$0	
Latex Gloves	\$10.00		0	\$0	
Methanol (Optima)	\$25.00		0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00		0	\$0	
Ascorbic Acid	\$10.00		0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00		36	\$144	
Respirator Cartridges	\$15.00		0	\$0	
Packing Tape (doz)	\$72.00		0	\$0	
Padlocks	\$12.00		0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00	each	0	\$0	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00	/bundle	2	\$40	
Teflon tape	\$8.00	/roli	0	\$0	
Tyveks	\$6.30	each	36	\$227	
Water (HPLC Grade)	\$97.00	/case	1	\$97	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflon Tubing	\$120.00		0	\$0	
Teflon Sheeting	\$500.00		0	\$0	
Folding Live Traps	\$15.00		10	\$150	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00		0	\$0	
	*	Ü			

SUBTOTAL MATLS & SUPPLIES:

\$686

U.S. Army Corps of Engineers Client: Printed: Huntsville Division

22-Mar-96

Parsons Engineering Science, Inc.

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

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Task # 2.7 **Ecological Investigation** Terrestrial Invest. (3 days)

Annex E Prop No: 979002-00001			Aquatic Invest. (3 days) Wildlife Invest. (3days)				
•	Unit						
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>		
TRAVEL							
Airfare Boston\Syracuse	\$500.00	/trip	2	\$1,000			
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0			
Subsistence-Seneca	\$96.00	/day	18	\$1,728			
Subsistence-Huntsville	\$89.00	/day	0	\$0			
Parking, Airport	\$13.00	/day	18	\$234			
Auto Rental	\$55.00	/day	9	\$495			
Suburban\Van rental	\$585.00	/week	2	\$1,170			
Mileage	\$0.31	/mile	100	\$31			
		SUBTOTA	AL TRAVEL:	\$4,658			
OTHERS							
IN-HOUSE SERVICES							
Telephone	\$4.00	/call	20	\$80			
Word Proc/PC	\$3.70	/hour	0	\$0			
CADD	\$5.00	/hour	0	\$0			
Facsimile	\$1.00	/page	50	\$50			
Overnight Express		, -					
Letter/2 lb pack	\$14.50	each	0	\$0			
Package (50 lbs)	\$96.25	each	0	\$0			
Mail 4-lb pack	\$4.10	/pack	0	\$0			
Mail letters	\$0.54	/letter	0	\$0			
S	Subtotal Services			\$130			
REPRODUCTION							
Photocopier	\$0.05	/page	500	\$25			
Aerial Photo repro	\$10.00	/photo	10	\$100			

\$1.00 /Sheet

\$5.50 /Sq Ft

\$15.00 each

Subtotal Reproduction

\$2.00 /page

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0

\$0

\$0

\$0

\$0

\$125

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Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 2.7

Ecological Investigation Terrestrial Invest. (3 days) Aquatic Invest. (3 days)

Wildlife Invest. (3days)

	1.1			(,-,	
	Unit	1.1	0	0 1	A.1 - 4
EQUIDATENT DENTAL	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH COURT SOLUBLISHE					
EARTH SCIENCES EQUIPMENT	455.00	, ,	•	20	
Bailer	\$55.00		0	\$0	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00	/day	0	\$0	
Slug test eqt	\$50.00	/week	0	\$0	
Water level ind	\$40.00	/week	0	\$0	
Turbidimeter	\$30.00	/week	0	\$0	
Data Logger,Trnsdcr	\$135.00		0	\$0	
Flow Meter	\$30.00	-	1	\$30	
Water coolers		/month	0.5	\$20	
Equipment Trailer	\$1,000.00		0.5	\$500	
Grundfus Redi Flow Pump	\$64.00		0.0	\$0	
PUF Sampler	\$150.00	•	0	\$0 \$0	
			0	\$0 \$0	
PUF Sampler Calibration Kit	\$25.00	•	-		
Hi- Vol Sampler	\$75.00		0	\$0 ***	
Hi- Vol Sampler Calibration Kit	\$25.00	-	0	\$0	
Ponar Sediment Sampler	\$27.00	-	5	\$135	
3.2 kw Generator	\$50.00	•	0	\$0	
Seismograph	\$200.00		0	\$0	
EM-31	\$85.00	/day	0	\$0	
GPR	\$500.00	/day	0	\$0	
Subtot	al Rental			\$685	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	9	\$450	
Alpha Survey Meter	\$80.00	/week	0	\$0	
Alpha Scintillation Counter	\$100.00	/week	0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00		0	\$0	
Calib Gas	\$10.00		9	\$90	
		/uay /ea/wk		\$60	
2-way radios			4		
Air Purif Resp	\$20.00		0	\$0 \$70	
10-Gal Eye Wash	\$35.00		2	\$70	
Combination SCBA/SAR	\$150.00	/day	0	\$0	
				0.5=5	
Subtot	al H & S			\$670	

SUBTOTAL OTHERS:

\$1,610

SUBTOTAL LABOR & ODC'S:

\$18,372

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Project:

22-Mar-96

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Task # 2.7 **Ecological Investigation** Terrestrial Invest. (3 days)

Parsons Engineering Science, Inc.

Aquatic Invest. (3 days)
Wildlife Invest. (3 days)

Annex E				c Invest. (3 days	
Prop No: 979002-00001			Wildlif	e Invest. (3days)	
	Unit		0 "	•	
	Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	'ANALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Iron(Ferrous)	\$30.00		0	\$0	
Sulfide	\$30.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0	
TOX (EPA 9056)	\$50.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Volatiles (EPA 524)	\$195.00		0	\$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
SOILS - SURFACE or SUBSURFACE LABO	RATORY AN	VALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00		0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
0.14.4.1	T	-1			
Subtotal	Team Labor	atory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00		0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0	
Ammonia	\$25.00		Ö	\$0	
Phosphate	\$25.00		0	\$0	
Cation Exchange Capacity	\$100.00		0	\$0	
= · ·				•	

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 2.7

Ecological Investigation Terrestrial Invest. (3 days) Aquatic Invest. (3 days)

Wildlife Invest. (3days)

	Unit				
	Cost	Units	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS					
Water Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Soil Samples For:				-	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00		0	\$0	
Wipe Samples For:	*			* -	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
		each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00		0	\$0 \$0	
Radon (Alpha Film)	\$25.00		0	\$0 \$0	
(April 1 mill)	420.00	04011	·	40	
Subtotal		\$0			
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum		0	\$0	
•	·				
Subtotal	Investigation	Subcontrac	tors	\$0	
Subtotal La	boratory & In	vestigation S	Subcontractors:	\$0	
	-	_	3% Mark-up:	\$0	
SI	JBTOTAL S	SUBCONT	TRACTORS:	\$0	

TASK TOTAL:

\$18,372

Project:

U.S. Army Corps of Engineers

22-Mar-96

Printed:

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

Annex E

SEAD-12

Prop No: 979002-00001

Task # 2.8

Chemical Analysis

218 Soil, 74 GW, 43 SW&Sed, 378 Data points@3.5hrs/point

	Unit		0 114	0 1	N
LABOR COSTS	Cost	<u>Units</u>	<u>Quantity</u>	Cost	Notes
EABOR COOLG					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47		0	\$0	
			40	4700	
Professional Level 5, Step 4 (P58) Professional Level 5, Step 3 (P56)	\$44.11 \$37.99		16 0	\$706 \$0	
Professional Level 5, Step 3 (P56) Professional Level 5, Step 2 (P54)	\$37.99		0	\$0 \$0	
Professional Level 5, Step 2 (1947)	\$29.39		0	\$0 \$0	
1 Totessional Level 5, Step 1 (1 52)	Ψ20.00	mour	v	ΨΟ	
Professional Level 4, Step 2 (P48)	\$29.13	/hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20	/hour	0	\$0	
Destancianal Level 2 Stor 4 (D25)	¢24.04	/h	0	\$0	
Professional Level 3, Step 1 (P35)	\$24.04	mour	0	Φ0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89	/hour	1323	\$26,314	
Professional Level 1, Step 2 (P18)	\$18.57		0	\$0	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
redifficial Level 3 (133)	Ψ21.10	moui	· ·	ΨΟ	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08	/hour	0	\$0	
	*40.00		•	40	
Technician Level 3, Step 2 (T38)	\$13.99		0	\$0 \$0	
Technician Level 3, Step 1 (T32)	\$11.61	/nour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
,					
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 3 (333)	Ψ20.01	moui	O .	ΨΟ	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST			1339	\$27,020	
Contract Year: 1				,	
Base Yr					
Overhead Rate: 143%			Labor Burden:	\$38,639	

SUBTOTAL BURDENED LABOR:

\$65,659

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Project:

Annex E Prop No: 979002-00001 Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task # 2.8

Chemical Analysis

218 Soil, 74 GW, 43 SW&Sed, 378 Data points@3.5hrs/point

P10p 140. 979002-00001					
	Unit		•		
MATERIAL O AND OLIDRILEO	Cost	Units	<u>Quantity</u>	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74		0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75		0	\$0	
Braided Nylon Rope	\$0.15		0	\$0	
Bubble Pack	\$84.00		0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00		0	\$0	
Field Notebook	\$14.00		0	\$0	
Ice	\$1.00		0	\$0	
Latex Gloves	\$10.00	_	0	\$0	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00		0	\$0	
Acetone (Optima)	\$50.00		0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00		0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	0	\$0	
Respirator Cartridges	\$15.00	/pair	0	\$0	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00	each	0	\$0	
Aluminum Foil	\$1.00	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00	/bundle	0	\$0	
Teflon tape	\$8.00	/roli	0	\$0	
Tyveks	\$6.30	each	0	\$0	
Water (HPLC Grade)	\$97.00	/case	0	\$0	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roli	0	\$0	
Folding Live Traps	\$15.00		0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$0

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.8

Chemical Analysis

218 Soil, 74 GW, 43 SW&Sed, 378 Data points@3.5hrs/point

Prop No: 979002-00001

TRAVEL Airfare Boston\Syracuse	P10p No. 979002-00001	Unit				
### TRAVEL Airfare Boston\Syracuse			<u>Units</u>	Quantity	Cost	Notes
Airfare Boston\Syracuse	TRAVEL			-		-
Airfare Boston\Huntsville \$900.00 /trip 0 \$0 Subsistence-Seneca \$96.00 /day 0 \$0 Subsistence-Huntsville \$89.00 /day 0 \$0 Subsistence-Huntsville \$89.00 /day 0 \$0 Parking,Airport \$13.00 /day 0 \$0 Auto Rental \$55.00 /day 0 \$0 Suburban\Van rental \$555.00 /day 0 \$0 Milleage \$0.31 /mile 0 \$0 SUBTOTAL TRAVEL: \$0 OTHERS IN-HOUSE SERVICES Telephone \$4.00 /call 0 \$0 Word Proc/PC \$3.70 /hour 0 \$0 CADD \$5.00 /hour 0 \$0 Facsimile \$1.00 /page 0 \$0 Overnight Express Letter/2 lb pack \$14.50 each 0 \$0 Package (50 lbs) \$96.25 each 0 \$0 Mail 4-lb pack \$4.10 /pack 0 \$0 Mail letters \$0.54 /letter 0 \$0 Subtotal Services \$0 REPRODUCTION Photocopier \$0.05 /page 0 \$0 Aerial Photo repro \$10.00 /photo 0 \$0 Blueline repro \$1.00 /Sheet 0 \$0 Cronoflex Prod \$5.50 /Sq Ft 0 \$0 Solon Color Copies \$2.00 /page 0 \$0 Color Copies \$0.00 /						
Subsistence-Seneca			•			
Subsistence-Huntsville			•		'	
Parking,Airport						
Auto Rental \$55.00 /day 0 \$0 Suburban\Van rental \$585.00 /week 0 \$0 Mileage \$0.31 /mile 0 \$0 SUBTOTAL TRAVEL: \$0 OTHERS IN-HOUSE SERVICES Telephone \$4.00 /call 0 \$0 Word Proc/PC \$3.70 /hour 0 \$0 CADD \$5.00 /hour 0 \$0 Facsimile \$1.00 /page 0 \$0 Overnight Express Letter/2 lb pack \$14.50 each 0 \$0 Package (50 lbs) \$96.25 each 0 \$0 Mail 4-lb pack \$4.10 /pack 0 \$0 Mail letters \$0.54 /letter 0 \$0 Subtotal Services \$0 REPRODUCTION Photocopier \$0.05 /page 0 \$0 Blueline repro \$1.00 /photo 0 \$0 Blueline repro \$1.00 /photo 0 \$0 Blueline repro \$1.00 /Sheet 0 \$0 Cronoflex Prod \$5.50 /Sq Ft 0 \$0 Color Copies \$2.00 /page 0 \$0			•	_	•	
Suburban Van rental \$585.00				_	· ·	
Mileage				-		
SUBTOTAL TRAVEL: \$0	Suburban\Van rental	·		_	•	
N-HOUSE SERVICES Telephone	Mileage	\$0.31	/mile	0	\$0	
Telephone			SUBTOTA	AL TRAVEL:	\$0	
Telephone	OTHERS					
Word Proc/PC	IN-HOUSE SERVICES					
CADD \$5.00 /hour 0 \$0 Facsimile \$1.00 /page 0 \$0 Overnight Express Letter/2 lb pack \$14.50 each 0 \$0 Package (50 lbs) \$96.25 each 0 \$0 Mail 4-lb pack \$4.10 /pack 0 \$0 Mail letters \$0.54 /letter 0 \$0 Subtotal Services \$0 REPRODUCTION Photocopier \$0.05 /page 0 \$0 Aerial Photo repro \$10.00 /photo 0 \$0 Blueline repro \$1.00 /Sheet 0 \$0 Cronoflex Prod \$5.50 /Sq Ft 0 \$0 3-ring binders \$15.00 each 0 \$0 Color Copies \$2.00 /page 0 \$0	Telephone	\$4.00	/call	0		
Facsimile \$1.00 /page 0 \$0 Overnight Express Letter/2 lb pack \$14.50 each 0 \$0 Package (50 lbs) \$96.25 each 0 \$0 Mail 4-lb pack \$4.10 /pack 0 \$0 Mail letters \$0.54 /letter 0 \$0 Subtotal Services \$0 REPRODUCTION Photocopier \$0.05 /page 0 \$0 Aerial Photo repro \$10.00 /photo 0 \$0 Blueline repro \$1.00 /Sheet 0 \$0 Cronoflex Prod \$5.50 /Sq Ft 0 \$0 3-ring binders \$15.00 each 0 \$0 Color Copies \$2.00 /page 0 \$0	Word Proc/PC					
Overnight Express Letter/2 lb pack \$14.50 each 0 \$0 Package (50 lbs) \$96.25 each 0 \$0 Mail 4-lb pack \$4.10 /pack 0 \$0 Mail letters \$0.54 /letter 0 \$0 Subtotal Services \$0 REPRODUCTION Photocopier \$0.05 /page 0 \$0 Aerial Photo repro \$10.00 /photo 0 \$0 Blueline repro \$1.00 /Sheet 0 \$0 Cronoflex Prod \$5.50 /Sq Ft 0 \$0 3-ring binders \$15.00 each 0 \$0 Color Copies \$2.00 /page 0 \$0	CADD	\$5.00	/hour	0		
Letter/2 lb pack \$14.50 each 0 \$0 Package (50 lbs) \$96.25 each 0 \$0 Mail 4-lb pack \$4.10 /pack 0 \$0 Mail letters \$0.54 /letter 0 \$0 Subtotal Services \$0 REPRODUCTION Photocopier \$0.05 /page 0 \$0 Aerial Photo repro \$10.00 /photo 0 \$0 Blueline repro \$1.00 /Sheet 0 \$0 Cronoflex Prod \$5.50 /Sq Ft 0 \$0 3-ring binders \$15.00 each 0 \$0 Color Copies \$2.00 /page 0 \$0	Facsimile	\$1.00	/page	0	\$0	
Package (50 lbs) \$96.25 each 0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	Overnight Express					
Mail 4-lb pack Mail letters \$4.10 /pack \$0.54 /letter \$0 Subtotal Services \$0 \$0 Aerial Photo repro \$10.00 /photo 0 Blueline repro \$1.00 /Sheet 0 Cronoflex Prod \$5.50 /Sq Ft 0 3-ring binders \$15.00 each 0 Color Copies \$2.00 /page 0					•	
Mail letters				_		
Subtotal Services \$0					•	
REPRODUCTION Photocopier \$0.05 /page 0 \$0 Aerial Photo repro \$10.00 /photo 0 \$0 Blueline repro \$1.00 /Sheet 0 \$0 Cronoflex Prod \$5.50 /Sq Ft 0 \$0 3-ring binders \$15.00 each 0 \$0 Color Copies \$2.00 /page 0 \$0	Mail letters	\$0.54	/letter	0	\$0	
Photocopier \$0.05 /page 0 \$0 Aerial Photo repro \$10.00 /photo 0 \$0 Blueline repro \$1.00 /Sheet 0 \$0 Cronoflex Prod \$5.50 /Sq Ft 0 \$0 3-ring binders \$15.00 each 0 \$0 Color Copies \$2.00 /page 0 \$0	Subt	otal Services			\$0	
Aerial Photo repro \$10.00 /photo 0 \$0 Blueline repro \$1.00 /Sheet 0 \$0 Cronoflex Prod \$5.50 /Sq Ft 0 \$0 3-ring binders \$15.00 each 0 \$0 Color Copies \$2.00 /page 0 \$0	REPRODUCTION					
Blueline repro \$1.00 /Sheet 0 \$0 Cronoflex Prod \$5.50 /Sq Ft 0 \$0 3-ring binders \$15.00 each 0 \$0 Color Copies \$2.00 /page 0 \$0	Photocopier			0		
Cronoflex Prod \$5.50 /Sq Ft 0 \$0 3-ring binders \$15.00 each 0 \$0 Color Copies \$2.00 /page 0 \$0	Aerial Photo repro					
3-ring binders \$15.00 each 0 \$0 Color Copies \$2.00 /page 0 \$0				0	•	
Color Copies \$2.00 /page 0 \$0	Cronoflex Prod			0	•	
	3-ring binders			0		
Subtotal Reproduction \$0	Color Copies	\$2.00	/page	0	\$0	
Captotal (Cop) addition	Subt	otal Reproductio	n		\$0	

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22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Chemical Analysis

Task # 2.8

218 Soil, 74 GW, 43 SW&Sed, 378 Data points@3.5hrs/point

\$0

\$65,659

Prop No: 979002-00001

	Unit				
	<u>Cost</u>	Units	Quantity	Cost	Notes
EQUIPMENT RENTAL				-	
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00		0	\$0	
Slug test eqt	\$50.00	•	0	\$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00		0	\$0	
Flow Meter	\$30.00	•	0	\$0	
Water coolers	•	/month	0	\$0	
Equipment Trailer	\$1,000.00		0	\$0	
Grundfus Redi Flow Pump	\$64.00		0	\$0	
PUF Sampler	\$150.00		0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
Hi- Vol Sampler	\$75.00	•	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00		0	\$0	
Ponar Sediment Sampler	\$27.00		0	\$ 0	
3.2 kw Generator	\$50.00	•	0	\$0	
Seismograph	\$200.00	•	0	\$0	
EM-31	\$85.00	•	0	\$0 \$0	
GPR	\$500.00	•	0	\$0 \$0	
OF IX	Ψ000.00	rady	Ü	ΨΟ	
Subto	tal Rental			\$0	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	0	\$0	
Alpha Survey Meter	\$80.00	-	0	\$0	
Alpha Scintillation Counter	\$100.00	/week	0	\$0	
Beta Sample Counter	\$100.00	/week	0	\$0	
Gas Proportional Detector	\$100.00	/week	0	\$0	
Gas Prop. Detector-Floor	\$100.00	/week	0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00		0	\$0	
Calib Gas	\$10.00	•	0	\$0	
2-way radios		/ea/wk	0	\$0	
Air Purif Resp	\$20.00		0	\$0	
10-Gal Eye Wash	\$35.00		0	\$0	
Combination SCBA/SAR	\$150.00		0	\$0	
Subto	tal H & S			\$0	

SUBTOTAL LABOR & ODC'S:

SUBTOTAL OTHERS:

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

378 Data points@3.5hrs/point

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

Task # 2.8 RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Chemical Analysis 218 Soil, 74 GW, 43 SW&Sed,

Prop No: 979002-00001

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	'ANALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	160	\$64,000	117+14M+22R+7D
Pest./PCBs (TCL)	\$180.00	each	160		117+14M+22R+7D
Total Metals & CN(TAL)	\$170.00		160		117+14M+22R+7D
Iron(Ferrous)	\$30.00		74		74GW(37x2Rnds.)
Sulfide	\$30.00		74		74GW(37x2Rnds.)
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00		117		74GW+43SW
TOX (EPA 9056)	\$50.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		74		74GW(37x2Rnds.)
Sulfate(EPA 300)	\$25.00		74		74GW(37x2Rnds.)
COD	\$50.00		74		74GW(37x2Rnds.)
pH (EPA 9045)	\$8.00		0	\$0	74000(07,2111100.)
Volatiles(EPA524or8260)	\$195.00		226		117+14M+66B+22R+7
Hardness(EPA 130.2)	\$15.00		117		74GW+43SW
Alkalinity(EPA 310)	\$12.00		117		74GW+43SW
Nitrate (EPA 353.2)	\$20.00		117		74GW+43SW
	,			4-,0	
SOILS - SURFACE or SUBSURFACE LABO	RATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00	each	306	\$55,080	158+43+60T+30M+15
B/N/A (TCL)	\$400.00	each	306	\$122,400	158+43+60T+30M+15
Pest./PCBs (TCL)	\$180.00	each	306	\$55,080	158+43+60T+30M+15
Total Metals & CN(TAL)	\$170.00	each	306	\$52,020	158+43+60T+30M+15
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	55	\$3,300	6SB+6TP+43SD
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	55	\$440	6SB+6TP+43SD
Nitrate (EPA 353.2)	\$20.00	each	306	\$6,120	158+43+60T+30M+15
Subtotal	Team Labor	atory		\$481,364	
MISC LABORATORY AND VSIS					
MISC. LABORATORY ANALYSIS Grain Size Dist	\$120.00	each	55	\$6 600	6SB+6TP+43SD
			12		
TCLP	\$1,500.00 \$15.00		0	\$10,000	6SB+6TP
Moisture Content			_		SCR LETT LICE
Bulk Density	\$35.00		15		6SB+6TP+3SD
Chromium (Level II)	\$30.00		0	\$0	42014
Total Suspended Solids	\$20.00		43		43SW
Total Dissolved Solids	\$20.00		117		74GW+43SW
Ammonia	\$25.00		43	\$1,075	
Phosphate	\$25.00		43	\$1,075	
Cation Exchange Capacity	\$100.00	eacn	55	\$5,500	6SB+6TP+43SD

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.8

Chemical Analysis

218 Soil, 74 GW, 43 SW&Sed, 378 Data points@3.5hrs/point

Prop No: 979002-00001

Project:

	Unit	1.1	O	0	NI-4
RADIOLOGICAL LABORATORY ANA	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
Water Samples For:	ALTOIO .				
Thorium 232, 230, 227	\$60.00	each	157	\$9.420	74+43+12M+22R+6D
Uranium 238, 235, 233+234			157		74+43+12M+22R+6D
Radium 226,223	\$40.00		157		74+43+12M+22R+6D
Pb214&211,Bi214,Ce137,C	,		157		74+43+12M+22R+6D
Plutonium 239 + 240	\$65.00		157		74+43+12M+22R+6D
Americium 241	\$65.00		157		74+43+12M+22R+6D
Gross AlphaΒ	\$45.00		157		74+43+12M+22R+6D
Soil Samples For:	Ų 10.00	ouon		ψ1,000	71-10-12.11-22.11-05
Thorium 232, 230, 227	\$60.00	each	399	\$23.940	302S+43SD+38M+16
Uranium 238, 235, 233+234			399		302S+43SD+38M+16
Radium 226,223	\$40.00		399		302S+43SD+38M+16
Pb214&211,Bi214,Ce137,C			399	\$0	
Plutonium 239 + 240	\$65.00	each	399	\$25,935	302S+43SD+38M+16
Americium 241	\$65.00		399		302S+43SD+38M+16
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-8	3) \$750.00	each	8	\$6,000	
Sample Prep/Return	\$0.00	each	399	\$0	
Wipe Samples For:					
Thorium 232, 230, 227	\$60.00	each	134	\$8,040	98W+12S+12M+6B+6
Uranium 238, 235, 233+234	\$60.00	each	134	\$8,040	98W+12S+12M+6B+6
Radium 226,223	\$40.00	each	134	\$5,360	98W+12S+12M+6B+6
Pb214&211,Bi214,Ce137,C	o60 \$80.00	each	134	\$10,720	98W+12S+12M+6B+6
Plutonium 239 + 240	\$65.00	each	134	\$8,710	98W+12S+12M+6B+6
Americium 241	\$65.00	each	134	\$8,710	98W+12S+12M+6B+6
Gross AlphaΒ	\$45.00	each	134	\$6,030	98W+12S+12M+6B+6
AIR SAMPLES LABORATORY ANAL	YSIS				
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	100	\$2,500	
S	Subtotal Misc. Labora	atory		\$280,950	
INVESTIGATION SUBCONTRACTOR					
Driller	Lump Sum		0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surve y or	Lump Sum	each	0	\$0	
S	Subtotal Investigation	Subcontra	ctors	\$0	

Subtotal Laboratory & Investigation Subcontractors:

3% Mark-up:

\$762,314 \$22,869

SUBTOTAL SUBCONTRACTORS:

\$785,183

TASK TOTAL:

\$850,843

Project:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.9 Surveying

(318 Sampling Points) (600 Archeological Points)

\$2,878

Prop No: 979002-00001

110p 110. 070002 00001	Unit Cost	Units	Quantity	Cost	Notes
LABOR COSTS					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74		0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11		4	\$176	
Professional Level 5, Step 3 (P56)	\$37.99		0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91		0	\$0 \$0	
Professional Level 5, Step 1 (P52)	\$29.39	/nour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13		0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20	/hour	40	\$1,008	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89	/hour	0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57	/hour	0	\$0	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
ECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08	/hour	0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	0	\$0	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1 Base Yr			44	\$1,184	
Overhead Rate: 143%			Labor Burden:	\$1,694	

SUBTOTAL BURDENED LABOR:

U.S. Army Corps of Engineers

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E Prop No: 979002-00001 Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 2.9

Surveying (318 Sampling Points)

(600 Archeological Points)

	Unit				
	<u>Cost</u>	<u>Units</u>	<u>Quantity</u>	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	0	\$0	
Ice	\$1.00	/bag	0	\$0	
Latex Gloves	\$10.00	/box	0	\$0	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	0	\$0	
Respirator Cartridges	\$15.00	/pair	0	\$0	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00		0	\$0	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00		0	\$0	
Survey Stake/Flag	\$20.00	/bundle	0	\$0	
Teflon tape	\$8.00		0	\$0	
Tyveks	\$6.30		0	\$0	
Water (HPLC Grade)	\$97.00		0	\$0	
Ziplock bags	\$3.00		0	\$0	
Calibration Gas	\$450.00		0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflon Tubing	\$120.00		0	\$0	
Teflon Sheeting	\$500.00		0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$0

U.S. Army Corps of Engineers

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22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.9 Surveying

(318 Sampling Points)

(600 Archeological Points)

Prop	No:	979002-00001
		0.000

Prop No: 9/9002-00001					
	Unit		_		
	<u>Cost</u>	<u>Units</u>	Quantity	<u>Cost</u>	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	0	\$0	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	0	\$0	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking,Airport	\$13.00	/day	0	\$0	
Auto Rental	\$55.00		0	\$0	
Suburban\Van rental	\$585.00		0	\$0	
Mileage	\$0.31	/mile	0	\$0	
		SUBTOTAL TRAVEL:		\$0	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	10	\$40	
Word Proc/PC	\$3.70	/hour	0	\$0	
CADD	\$5.00	/hour	0	\$0	
Facsimile	\$1.00	/page	10	\$10	
Overnight Express					
Letter/2 lb pack	\$14.50	each	0	\$0	
Package (50 lbs)	\$96.25	each	0	\$0	
Mail 4-lb pack		/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subtotal Services				\$50	
REPRODUCTION					
Photocopier	\$0.05	/page	0	\$0	
Aerial Photo repro	\$10.00	/photo	0	\$0	
Blueline repro	\$1.00	/Sheet	0	\$0	
Cronoflex Prod	\$5.50	/Sq Ft	0	\$0	
3-ring binders	\$15.00	each	0	\$0	
Color Copies	\$2.00	/page	0	\$0	
	\$0				

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Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.9 Surveying

(318 Sampling Points) (600 Archeological Points)

Prop No: 979002-00001

P10p 140. 979002-00001					
	Unit	Llmita	Ouer##	04	Mate
EOLUDAENT DENTAL	Cost	Units	<u>Quantity</u>	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/wook	0	\$0	
	\$42.00		0	\$0 \$0	
Magnetometer	•		0	\$0 \$0	
pH/Cond meter	\$50.00				
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00	•	0	\$0	
Slug test eqt	\$50.00		0	\$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00	•	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	0	\$0	
Equipment Trailer	\$1,000.00	/month	0	\$0	
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0	
PUF Sampler	\$150.00	•	0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
Hi- Vol Sampler	\$75.00	•	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00		0	\$0	
Ponar Sediment Sampler	\$27.00	-	0	\$0	
3.2 kw Generator	\$50.00	-	0	\$0 \$0	
		-			
Seismograph	\$200.00	•	0	\$0 \$0	
EM-31	\$85.00	•	0	\$0 \$0	
GPR	\$500.00	/day	0	\$0	
Culptot	al Dantal			\$0	
Subtotal Rental				\$ 0	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	0	\$0	
	\$80.00	•	0	\$0	
Alpha Survey Meter Alpha Scintillation Counter	\$100.00		0	\$0 \$0	
•	\$100.00		0	\$0 \$0	
Beta Sample Counter	•				
Gas Proportional Detector	\$100.00		0	\$0 \$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00	•	0	\$0	
Calib Gas	\$10.00	/day	0	\$0	
2-way radios	\$15.00	/ea/wk	0	\$0	
Air Purif Resp	\$20.00	/week	0	\$0	
10-Gal Eye Wash	\$35.00	/week	0	\$0	
Combination SCBA/SAR	\$150.00		0	\$0	
		•		·	
Subtot	al H & S			\$0	

SUBTOTAL OTHERS:

\$50

SUBTOTAL LABOR & ODC'S:

\$2,928

Huntsville Division

Seneca Army Depot Activity, Romulus New York

Printed:

22-Mar-96

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 2.9 Surveying

(318 Sampling Points) (600 Archeological Points)

Parsons Engineering Science, Inc.

Prop No: 979002-00001

Project:

Prop No: 979002-00001					
	Unit		_		
	Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	ANALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$ 0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0 \$0	
Iron(Ferrous)	\$30.00		0	\$0 \$0	
Sulfide	\$30.00		0	\$0 \$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0 \$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0 \$0	
TOX (EPA 9056)	\$50.00		0	\$0 \$0	
	\$25.00			\$0 \$0	
Chloride(EPA 9250)	\$25.00		0 0		
BOD	•			\$0 \$0	
Sulfate(EPA 300)	\$25.00		0	\$0 \$0	
COD	\$50.00		0	\$0 #0	
pH (EPA 9045)	\$8.00		0	\$0 \$0	
Volatiles (EPA 524)	\$195.00		0	\$0 \$0	
Hardness(EPA 130.2)	\$15.00		0	\$ 0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABO	RATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TČL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
Subtotal	Team Labor	ratory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00	each	0	\$0	
Moisture Content	\$15.00	each	0	\$0	
Bulk Density	\$35.00	each	0	\$0	
Chromium (Level II)	\$30.00	each	0	\$0	
Total Suspended Solids	\$20.00	each	0	\$0	
Total Dissolved Solids	\$20.00	each	0	\$0	
Ammonia	\$25.00	each	0	\$0	
Phosphate	\$25.00	each	0	\$0	
Cation Exchange Capacity	\$100.00	each	0	\$0	
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U.S. Army Corps of Engineers

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Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task # 2.9 Surveying

(318 Sampling Points) (600 Archeological Points)

Prop No: 979002-00001

	Unit			•	
DADIOLOGICAL LADODATODY ANALYCIC	Cost	Units	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS					
Water Samples For:	\$60.00	oach	0	\$0	
Thorium 232, 230, 227 Uranium 238, 235, 233+234	\$60.00		0	\$0 \$0	
	\$40.00		0	\$0 \$0	
Radium 226,223	\$80.00		0	\$0 \$0	
Pb214&211,Bi214,Ce137,Co60			0	\$0 \$0	
Plutonium 239 + 240	\$65.00 \$65.00		0	\$0 \$0	
Americium 241			0	\$0 \$0	
Gross AlphaΒ	\$45.00	eacn	U	φu	
Soil Samples For:	¢c0.00		0	40	
Thorium 232, 230, 227	\$60.00		0	\$0 \$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0 \$0	
Radium 226,223	\$40.00		0	\$0 #0	
Pb214&211,Bi214,Ce137,Co60	\$0.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0 #0	
Sample Prep/Return	\$0.00	each	0	\$0	
Wipe Samples For:			•	••	
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal Mis	c. Labora	atory	-	\$0	
INIVESTICATION SUBCONTRACTORS					
INVESTIGATION SUBCONTRACTORS	ımn Sum	each	0	\$0	
	ımp Sum ımp Sum		31600	\$31,600	
,	ımp Sum ımp Sum		0	\$31,000	
•	ınıp Sum ımp Sum		32758	\$32,758	
Surveyor Lu	iith 2011	cauli	32730	Ψ32,130	

Subtotal Laboratory & Investigation Subcontractors:

3% Mark-up:

\$64,358 \$1,931

SUBTOTAL SUBCONTRACTORS:

\$66,289

TASK TOTAL:

\$69,217

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task#3

Monthly Field Activity Reports

\$12,133

6 Reports

P100 No. 979002-00001	Unit	11.24	0	0 - 4	
LABOR COSTS	Cost	<u>Units</u>	Quantity	Cost	Notes
ENGINEERS AND SCIENTISTS					
Desferoismell aval C. Chan 2 (DCC)	¢50.74	/hour	0	\$0	
Professional Level 6, Step 2 (P68) Professional Level 6, Step 1 (P62)	\$58.74 \$46.47		0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11	/hour	60	\$2,647	
Professional Level 5, Step 3 (P56)	\$37.99	/hour	0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91	/hour	60	\$1,975	
Professional Level 5, Step 1 (P52)	\$29.39	/hour	0	. \$0	
Professional Level 4, Step 2 (P48)	\$29.13		0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20	/hour	0	\$0	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89		0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57	/hour	0	\$0	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08	/hour	0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	30	\$372	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1			150	\$4,993	
Base Yr			Lohor Burden	¢7.440	
Overhead Rate: 143%			Labor Burden:	\$7,140	

SUBTOTAL BURDENED LABOR:

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task#3

Monthly Field Activity Reports

\$0

6 Reports

	11 1				
	Unit Cost	Unito	Quantity	Coot	Notos
MATERIALS AND SUPPLIES	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74		0	\$0	
1 Liter Amber Bottles	\$37.95		0	\$0	
32 oz. HDPE Bottles	\$30.75		0	\$0	
Braided Nylon Rope	\$0.15		0	\$0	
Bubble Pack	\$84.00		0	\$0	
Decon Eqt	\$18.00		0	\$0	
55g drums fill/mov	\$100.00		0	\$0	
Field Notebook	\$14.00		0	\$0	
Ice	\$1.00		0	\$0	
Latex Gloves	\$10.00	•	0	\$0	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00		0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	0	\$0	
Respirator Cartridges	\$15.00	/pair	0	\$0	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00	each	0	\$0	
Aluminum Foil	\$1.00	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00	/bundle	0	\$0	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	0	\$0	
Water (HPLC Grade)	\$97.00	/case	0	\$0	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00	each	0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	
			_		

SUBTOTAL MATLS & SUPPLIES:

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task #3

Monthly Field Activity Reports

6 Reports

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roil	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	0	\$0	
Ice	\$1.00		0	\$0	
Latex Gloves	\$10.00	/box	0	\$0	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	0	\$0	
Respirator Cartridges	\$15.00	/pair	0	\$0	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00		0	\$0	
Aluminum Foil	\$1.00	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00		0	\$0	
Survey Stake/Flag	\$20.00	/bundle	0	\$0	
Teflon tape	\$8.00		0	\$0	
Tyveks	\$6.30	each	0	\$0	
Water (HPLC Grade)	\$97.00		0	\$0	
Ziplock bags	\$3.00		0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflon Tubing	\$120.00		0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$0

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task#3

Monthly Field Activity Reports

\$75

6 Reports

Prop No: 979002-00001					
1100110. 070002 00001	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00		0	\$0	
Airfare Boston\Huntsville	\$900.00		0	\$0	
Subsistence-Seneca	\$96.00	•	0	\$0	
Subsistence-Huntsville	\$89.00		0	\$0	
Parking,Airport	\$13.00	/day	0	\$0	
Auto Rental	\$55.00	/day	0	\$0	
Suburban\Van rental	\$585.00	/week	0	\$0	
Mileage	\$0.31	/mile	0	\$0	
		SUBTO	TAL TRAVEL:	\$0	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	20	\$80	
Word Proc/PC	\$3.70	/hour	20	\$74	
CADD	\$5.00	/hour	0	\$0	
Facsimile	\$1.00	/page	50	\$50	
Overnight Express					
Letter/2 lb pack	\$14.50	each	28	\$406	
Package (50 lbs)	\$96.25	each	0	\$0	
Mail 4-lb pack	\$4.10	/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
	Subtotal Services		_	\$610	
REPRODUCTION					
Photocopier	\$0.05	/page	1500	\$75	
Aerial Photo repro	\$10.00	/photo	0	\$0	
Blueline repro	\$1.00	/Sheet	0	\$0	
Cronoflex Prod	\$5.50	/Sq Ft	0	\$0	
3-ring binders	\$15.00	each	0	\$0	
Color Copies	\$2.00	/page	0	\$0	
			_		

Subtotal Reproduction

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task #3

Monthly Field Activity Reports

6 Reports

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00	/week	0	\$0	
Flow thru pH/Cond meter	\$257.00	/week	0	\$0	
DO meter	\$55.00	/week	0	\$0	
Soil Gas Supplies	\$50.00	/day	0	\$0	
Slug test eqt	\$50.00	/week	0	\$0	
Water level ind	\$40.00	/week	0	\$0	
Turbidimeter	\$30.00	/week	0	\$0	
Data Logger, Trnsdcr	\$135.00	/day	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	0	\$0	
Equipment Trailer	\$1,000.00	/month	0	\$0	
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0	
PUF Sampler	\$150.00	/week	0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler	\$75.00	/week	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0	
Ponar Sediment Sampler	\$27.00	/day	0	\$0	
3.2 kw Generator	\$50.00	/day	0	\$0	
Seismograph	\$200.00	/day	0	\$0	
EM-31	\$85.00	/day	0	\$0	
GPR	\$500.00	/day	0	\$0	
Subtot	al Rental			\$0	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	0	\$0	
Alpha Survey Meter	\$80.00	-	0	\$0	
Alpha Scintillation Counter	\$100.00	/week	0	\$0	
Beta Sample Counter	\$100.00	/week	0	\$0	
Gas Proportional Detector	\$100.00	/week	0	\$0	
Gas Prop. Detector-Floor	\$100.00	/week	0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00		0	\$0	
Calib Gas	\$10.00		0	\$0	
2-way radios		/ea/wk	0	\$0	
Air Purif Resp	\$20.00		0	\$0	
10-Gal Eye Wash	\$35.00		0	\$0	
Combination SCBA/SAR	\$150.00		0	\$0	
Subtot	al H & S			\$0	
				Ŧ -	

SUBTOTAL OTHERS:

\$685

SUBTOTAL LABOR & ODC'S:

\$12,818

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E Prop No: 979002-00001

Task#3

Monthly Field Activity Reports

6 Reports

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	ANALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Iron(Ferrous)	\$30.00	each	0	\$0	
Sulfide	\$30.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00	each	0	\$0	
TOX (EPA 9056)	\$50.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
BOD	\$60.00	each	0	\$0	
Sulfate(EPA 300)	\$25.00	each	0	\$0	
COD	\$50.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Volatiles (EPA 524)	\$195.00	each	0	\$0	
Hardness(EPA 130.2)	\$15.00	each	0	\$0	
Alkalinity(EPA 310)	\$12.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABO	DRATORY AN	JAI YSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00		0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Subtota	l Team Labor	atory		\$0	
Subtota	i Tealli Laboi	atory		ΨΟ	
MISC. LABORATORY ANALYSIS				4 -	
Grain Size Dist	\$120.00		0	\$0	
TCLP	\$1,500.00		0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0	
Ammonia	\$25.00		0	\$0	
Phosphate	\$25.00		0	\$0	
Cation Exchange Capacity	\$100.00	each	0	\$0	

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task#3

Monthly Field Activity Reports

6 Reports

Prop No: 979002-00001					
	Unit			_	
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS	5				
Water Samples For:	400.00		•	0.0	
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:			_		
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00		0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gamma Spectrometry	\$0.00	each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00	each	0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Nipe Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00		0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtota	I Misc. Labor	atory		\$0	
NVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum		0	\$0	
Subtota	ıl Investigatior	Subcontrac	tors	\$0	
Subtotal L	aboratory & Ir	vestigation	Subcontractors:	\$0	
	•	-	3% Mark-up:	\$0	
				0.0	

\$12,818

\$0

TASK TOTAL:

SUBTOTAL SUBCONTRACTORS:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

Overhead Rate: 143%

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task#4

Quarterly Reports

8 Reports

Prop No: 979002-00001						
		Unit	Linita	Ougatitu	Cost	Notes
LABOR COSTS		Cost	<u>Units</u>	<u>Quantity</u>	Cost	<u>Notes</u>
ENGINEERS AND SCIEN	TISTS					
Professional Lev	el 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
	el 6, Step 1 (P62)	\$46.47		0	\$0	
Professional Lev	el 5, Step 4 (P58)	\$44.11	/hour	80	\$3,529	
	el 5, Step 3 (P56)	\$37.99		0	\$0	
	el 5, Step 2 (P54)	\$32.91		80	\$2,633	
	el 5, Step 1 (P52)	\$29.39		0	\$0	
i Torcoolonai Ecv	or 0, 0top 1 (1 02)	Ψ20.00	modi	· ·	Ψ0	
Professional Lev	el 4, Step 2 (P48)	\$29.13	/hour	0	\$0	
Professional Lev	el 4, Step 1 (P42)	\$25.20	/hour	0	\$0	
Professional Lev	el 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Lev	el 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
	el 2, Step 1 (P22)	\$19.89		0	\$0 \$0	
1 Torcosionar Ecv	ci 2, Otop 1 (1 22)	Ψ10.00	modi	Ü	ΨΟ	
Professional Lev	el 1, Step 2 (P18)	\$18.57	/hour	0	\$0	
	el 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPO	RT SPECIALISTS					
Technician Level	5 (T55)	\$21.10	/hour	0	\$0	
redifficial Level	3 (100)	Ψ21.10	modi	Ü	Ψ	
Technician Level	4, Step 2 (T48)	\$16.58	/hour	0	\$0	
Technician Level	4, Step 1 (T42)	\$14.08	/hour	0	\$0	
	0 (T00)	0.40.00			2.0	
Technician Level		\$13.99		0	\$0	
Technician Level	3, Step 1 (132)	\$11.61	/nour	0	\$0	
Technician Level	2 (T25)	\$10.13	/hour	0	\$0	
7 00111 1101011 20101	- (•)	4		_	**	
Technician Level	1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3	(025)	\$20.61	/hour	0	\$0	
Support Level 3	(333)	φ20.01	moul	Ü	φυ	
Support Level 2	(S25)	\$12.40	/hour	40	\$496	
	(045)			•	**	
Support Level 1	(815)	\$8.72	hour /	0	\$0	
TOTAL HOURS/LABOR C	OST			200	\$6,658	
	ract Year: 1				•	
	Base Yr					

SUBTOTAL BURDENED LABOR:

Labor Burden:

\$9,520

\$16,178

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Task #4

Quarterly Reports

8 Reports

F10p 140. 37 3002-00001	11.16				
	Unit	1.1-24-	0	0 1	N1 4
MATERIAL O AND OLIDRUIES	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	0	\$0	
Ice	\$1.00 /	/bag	0	\$0	
Latex Gloves	\$10.00	/box	0	\$0	
Methanol (Optima)	\$25.00 /	/bottle	0	\$0	
Hexane (Optima)	\$25.00 /	/bottle	0	\$0	
Acetone (Optima)	\$50.00 /	/bottle	0	\$0	
HCI (Optima)	\$285.00 /	/bottle	0	\$0	
HNO3 (Optima)	\$175.00 /	/bottle	0	\$0	
Ascorbic Acid	\$10.00 /	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00 /	/pair	0	\$0	
Respirator Cartridges	\$15.00 /	/pair	0	\$0	
Packing Tape (doz)	\$72.00 /	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00	each	0	\$0	
Aluminum Foil	\$1.00 /	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00 /	/set	0	\$0	
Surve y Stake/Flag	\$20.00 /	/bundle	0	\$0	
Teflon tape	\$8.00 /	/roll	0	\$0	
Tyveks	\$6.30		0	\$0	
Water (HPLC Grade)	\$97.00 /		0	\$0	
Ziplock bags	\$3.00 /	/box	0	\$0	
Calibration Gas	\$450.00 /		0	\$0	
Ultra Pure Air	\$310.00 /		0	\$0	
Teflon Tubing	\$120.00 /		0	\$0	
Teflon Sheeting	\$500.00 /	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00 /	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$0

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Quarterly Reports

8 Reports

Task#4

Prop No: 979002-00001

	Unit		.		
TRAVEL	Cost	<u>Units</u>	Quantity	Cost	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	0	\$0	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	0	\$0	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking,Airport	\$13.00	/day	0	\$0	
Auto Rental	\$55.00		0	\$0	
Suburban\Van rental	\$585.00	/week	0	\$0	
Mileage	\$0.31	/mile	0	\$0	
		SUBTOT	AL TRAVEL:	\$0	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	20	\$80	
Word Proc/PC	\$3.70	/hour	20	\$74	
CADD	\$5.00	/hour	0	\$0	
Facsimile	\$1.00	/page	50	\$50	
Overnight Express					
Letter/2 lb pack	\$14.50		56	\$812	
Package (50 lbs)	\$96.25		0	\$0	
Mail 4-lb pack		/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subto	otal Services			\$1,016	
REPRODUCTION					
Photocopier		/page	500	\$25	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	
Subto	otal Reproductio	n		\$25	

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task#4

Quarterly Reports

8 Reports

Prop No	: 979002-00001					
		Unit				
		Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPM	IENT RENTAL					
FARTH	SCIENCES EQUIPMENT					
L/\\\\\\\\	Bailer	\$55.00	/week	0	\$0	
	Magnetometer	\$42.00		0	\$0	
	pH/Cond meter	\$50.00		0	\$0 \$0	
	Flow thru pH/Cond meter	\$257.00		0	\$0 \$0	
	DO meter	\$55.00		0	\$0 \$0	
	Soil Gas Supplies	\$50.00		0	\$0 \$0	
	Slug test eqt	\$50.00		0	\$0 \$0	
	Water level ind	\$40.00		0	\$0 \$0	
	Turbidimeter	\$30.00		0	\$0 \$0	
	Data Logger,Trnsdcr	\$135.00		0	\$0 \$0	
	Flow Meter	\$30.00	•	0	\$0 \$0	
	Water coolers		/week /month	0	\$0 \$0	
	Equipment Trailer	\$1,000.00		0	\$0 \$0	
	Grundfus Redi Flow Pump	\$64.00		0	\$0 \$0	
	PUF Sampler	\$150.00	•	0	\$0 \$0	
	PUF Sampler Calibration Kit	\$25.00		0	\$0 \$0	
	Hi- Vol Sampler	\$75.00	•	0	\$0 \$0	
	Hi- Vol Sampler Calibration Kit	\$25.00		0	\$0 \$0	
	Ponar Sediment Sampler	\$27.00	-	0	\$0 \$0	
	3.2 kw Generator	\$50.00	•	0	\$0 \$0	
	Seismograph	\$200.00	•	0	\$0 \$0	
	EM-31	\$85.00	•	0	\$0 \$0	
	GPR	\$500.00	•	0	\$0 \$0	
	GFK	φ300.00	/uay	U	ΦΟ	
	Subtotal	Rental			\$0	
	LA CASSTV SOLUBNISHT					
HEALIF	1 & SAFETY EQUIPMENT	¢50.00	/-l	0	00	
	HNu Meter	\$50.00		0	\$ 0	
	Alpha Survey Meter	\$80.00		0	\$0	
	Alpha Scintillation Counter	\$100.00		0	\$0	
	Beta Sample Counter	\$100.00		0	\$0	
	Gas Proportional Detector	\$100.00		0	\$0	
	Gas Prop. Detector-Floor	\$100.00		0	\$0	
	Radon Monitor	\$300.00		0	\$0	
	Gamma Radiation Meter	\$50.00	•	0	\$0	
	Calib Gas	\$10.00	•	0	\$0	
	2-way radios	\$15.00		0	\$0	
	Air Purif Resp	\$20.00		0	\$0	
	10-Gal Eye Wash	\$35.00		0	\$0	
	Combination SCBA/SAR	\$150.00	/day	0	\$0	

SUBTOTAL OTHERS:

\$1,041

\$0

SUBTOTAL LABOR & ODC'S:

\$17,219

Subtotal H & S

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task #4

Quarterly Reports

8 Reports

110p 110. 073002 00001					
	Unit <u>Cost</u>	<u>Units</u>	Quantity	Cost	<u>Notes</u>
SUBCONTRACTORS					
GROUNDWATER or SURFACE WAT				•	
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Iron(Ferrous)	\$30.00		0	\$0	
Sulfide	\$30.00		0	\$0 \$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0 \$0	
Total Organic Carbon (EPA			0	\$0 \$0	
TOX (EPA 9056)	\$50.00		0	\$0 \$0	
Chloride(EPA 9250)	\$25.00		0	\$0 \$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$ 0	
Volatiles (EPA 524)	\$195.00		0	\$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$ 0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE	LABORATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kal			0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
	-b-4-1-T1b	4			
50	ubtotal Team Labor	atory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00	each	0	\$0	
Moisture Content	\$15.00	each	0	\$0	
Bulk Density	\$35.00	each	0	\$0	
Chromium (Level II)	\$30.00	each	0	\$0	
Total Suspended Solids	\$20.00	each	0	\$0	
Total Dissolved Solids	\$20.00	each	0	\$0	
Ammonia	\$25.00	each	0	\$0	
Phosphate	\$25.00	each	0	\$0	
Cation Exchange Capacity	\$100.00	each	0	\$0	

U.S. Army Corps of Engineers

22-Mar-96

Printed:

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task#4

Quarterly Reports

8 Reports

Prop No: 979002-00001

1 10p 140. 37 3002 0001					
	Unit				
DADIOLOGICAL LADODATORY ANALYO	Cost	<u>Units</u>	<u>Quantity</u>	Cost	<u>Notes</u>
RADIOLOGICAL LABORATORY ANALYSI Water Samples For:	S				
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00		0	\$0	
Wipe Samples For:	*****			**	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
	*			**	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtot	al Misc. Labora	atory		\$0	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$0 \$0	
IDW Disposal	Lump Sum		0	\$0 \$0	
•	Lump Sum		0	\$0 \$0	
Surveyor	Lump Sum	each	O	Φ0	
Subtot	al Investigation	Subcontra	ctors	\$0	
Subtotal I	_aboratory & In	vestigation	Subcontractors:	\$0	
Captotal			3% Mark-up:	\$0	
Ş	SUBTOTAL	SUBCON	ITRACTORS:	\$0	
`				+ -	

TASK TOTAL:

\$17,219

Huntsville Division Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task #5

Field Sampling Letter Reports

\$9,099

1 Report

Prop No	o: 979002-00001					
		Unit	Linita	Quantity	Cost	Notes
LABOR	RCOSTS	Cost	<u>Units</u>	Quantity	<u> </u>	ivotes
ENGINE	EERS AND SCIENTISTS					
	Professional Level 6, Step 2 (P68)	\$58.74		0	\$0	
	Professional Level 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
	Professional Level 5, Step 4 (P58)	\$44.11		16 0	\$706 \$0	
	Professional Level 5, Step 3 (P56)	\$37.99		=		
	Professional Level 5, Step 2 (P54)	\$32.91		16	\$527	
	Professional Level 5, Step 1 (P52)	\$29.39	/hour	0	\$0	
	Professional Level 4, Step 2 (P48)	\$29.13	/hour	0	\$0	
	Professional Level 4, Step 1 (P42)	\$25.20	/hour	80	\$2,016	
	Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
	Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
	Professional Level 2, Step 1 (P22)	\$19.89		0	\$0	
	Professional Level 1, Step 2 (P18)	\$18.57	/hour	0	\$0	
	Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHN	ICAL AND SUPPORT SPECIALISTS					
	Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
	Technician Level 4, Step 2 (T48)	\$16.58	/hour	0	\$0	
	Technician Level 4, Step 1 (T42)	\$14.08	/hour	0	\$0	
	Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
	Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
	Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
	Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
	Support Level 3 (S35)	\$20.61	/hour	0	\$0	
	Support Level 2 (S25)	\$12.40	/hour	40	\$496	
	Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL	HOURS/LABOR COST Contract Year: 1 Base Yr			152	\$3,744	
	Overhead Rate: 143%			Labor Burden:	\$5,354	
	01.11	D=0=4.			40.000	

SUBTOTAL BURDENED LABOR:

U.S. Army Corps of Engineers

Huntsville Division

Vermiculite Packing

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Task#5

Field Sampling Letter Reports

1 Report

Prop No: 979002-00001					
	Unit				
	Cost	Units	<u>Quantity</u>	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95		0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	0	\$0	
lce	\$1.00	/bag	0	\$0	
Latex Gloves	\$10.00	/box	0	\$0	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	0	\$0	
Respirator Cartridges	\$15.00	/pair	0	\$0	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00		0	\$0	•
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00		0	\$0	
Survey Stake/Flag		/bundle	0	\$0	
Teflon tape	\$8.00		0	\$0	
Tyveks	\$6.30		0	\$0	
Water (HPLC Grade)	\$97.00		0	\$0	
Ziplock bags	\$3.00		0	\$0	
Calibration Gas	\$450.00		0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflon Tubing	\$120.00		0	\$0	
Teflon Sheeting	\$500.00		0	\$0	
Folding Live Traps	\$15.00		0	\$0	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00	each	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$16.00 /bag

\$0

\$0

0

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task#5

Field Sampling Letter Reports

\$750

1 Report

Annex E Prop No: 979002-00001				
1 100 110. 070002 00001	Unit			
	Cost Units	Quantity	Cost	Notes
TRAVEL				
Airfare Boston\Syracuse	\$500.00 /trip	0	\$0	
Airfare Boston\Huntsville	\$900.00 /trip	0	\$0	
Subsistence-Seneca	\$96.00 /day	0	\$0	
Subsistence-Huntsville	\$89.00 /day	0	\$0	
Parking, Airport	\$13.00 /day	0	\$0	
Auto Rental	\$55.00 /day	0	\$0	
Suburban\Van rental	\$585.00 /week	0	\$0	
Mileage	\$0.31 /mile	0	\$0	
	SUBTOTA	AL TRAVEL:	\$0	
OTHERS				
IN-HOUSE SERVICES				
Telephone	\$4.00 /call	20	\$80	
Word Proc/PC	\$3.70 /hour	40	\$148	
CADD	\$5.00 /hour	0	\$0	
Facsimile	\$1.00 /page	50	\$50	
Overnight Express				
Letter/2 lb pack	\$14.50 each	14	\$203	
Package (50 lbs)	\$96.25 each	0	\$0	
Mail 4-lb pack	\$4.10 /pack	0	\$0	
Mail letters	\$0.54 /letter	0	\$0	
Subto	otal Services		\$481	
REPRODUCTION				
Photocopier	\$0.05 /page	15000	\$750	
Aerial Photo repro	\$10.00 /photo	0	\$0	
Blueline repro	\$1.00 /Sheet	0	\$0	
Cronoflex Prod	\$5.50 /Sq Ft	0	\$0	
3-ring binders	\$15.00 each	0	\$0	
Color Copies	\$2.00 /page	0	\$0	

Subtotal Reproduction

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task#5

Field Sampling Letter Reports

1 Report

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00		0	\$0	
Slug test eqt	\$50.00		0	\$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00		0	\$0	
Flow Meter	\$30.00	•	0	\$0	
Water coolers		/month	0	\$0	
Equipment Trailer	\$1,000.00		0	\$0	
Grundfus Redi Flow Pump	\$64.00		0	\$0	
PUF Sampler	\$150.00	,	0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
Hi- Vol Sampler	\$75.00	•	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00		0	\$0	
Ponar Sediment Sampler	\$27.00	,	0	\$0	
3.2 kw Generator	\$50.00		0	\$0	
Seismograph	\$200.00	•	0	\$0	
EM-31	\$85.00		0	\$0	
GPR	\$500.00		0	\$0	
	4000.00	, ,			
Subtota	al Rental			\$0	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	0	\$0	
Alpha Survey Meter	\$80.00	/week	0	\$0	
Alpha Scintillation Counter	\$100.00	/week	0	\$0	
Beta Sample Counter	\$100.00	/week	0	\$0	
Gas Proportional Detector	\$100.00	/week	0	\$0	
Gas Prop. Detector-Floor	\$100.00	/week	0	\$0	
Radon Monitor	\$300.00	/week	0	\$0	
Gamma Radiation Meter	\$50.00	/day	0	\$0	
Calib Gas	\$10.00	/day	0	\$0	
2-way radios	\$15.00	/ea/wk	0	\$0	
Air Purif Resp	\$20.00	/week	0	\$0	
10-Gal Eye Wash	\$35.00	/week	0	\$0	
Combination SCBA/SAR	\$150.00	/day	0	\$0	
		-			

SUBTOTAL OTHERS:

\$1,231

\$0

SUBTOTAL LABOR & ODC'S:

\$10,330

Subtotal H & S

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 5

Field Sampling Letter Reports

1 Report

1 10p 140. 373002-00001					
	Unit <u>Cost</u>	<u>Units</u>	Quantity	Cost	Notes
OLIDO ONTD A OTO TO	T				
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	ANALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Iron(Ferrous)	\$30.00	each	0	\$0	
Sulfide	\$30.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0	
TOX (EPA 9056)	\$50.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Volatiles (EPA 524)	\$195.00		0	\$0 \$0	
Hardness(EPA 130.2)	\$15.00		0	\$0 \$0	
Alkalinity(EPA 310)	\$13.00		0	\$0 \$0	
,			0		
Nitrate (EPA 353.2)	\$20.00	eacn	U	\$0	
SOILS - SURFACE or SUBSURFACE LABO	RATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
0.14.4					
Subtotal	l Team Labor	атогу		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00	each	0	\$0	
Moisture Content	\$15.00	each	0	\$0	
Bulk Density	\$35.00	each	0	\$0	
Chromium (Level II)	\$30.00	each	0	\$0	
Total Suspended Solids	\$20.00	each	0	\$0	
Total Dissolved Solids	\$20.00		0	\$0	
Ammonia	\$25.00		0	\$0	
Phosphate	\$25.00		0	\$0	
Cation Exchange Capacity	\$100.00		0	\$0	
- addit Extriding o deputity	Ψ100.00	-4011	U	ΨΟ	

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Seneca Army Depot Activity, Romulus New York Project:

Huntsville Division

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task #5

Field Sampling Letter Reports

1 Report

Prop No: 979002-00001	11				
	Unit	Unite	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS	Cost	Units	Quantity	Cost	<u>Notes</u>
Vater Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
	\$60.00		0	\$0 \$0	
Uranium 238, 235, 233+234	\$40.00		0	\$0 \$0	
Radium 226,223	\$80.00		0	\$0 \$0	
Pb214&211,Bi214,Ce137,Co60 Plutonium 239 + 240	\$65.00		0	\$0 \$0	
Americium 241	\$65.00		0	\$0 \$0	
	\$45.00		0	\$0 \$0	
Gross AlphaΒ	\$45.00	eacn	U	\$0	
soil Samples For:	\$60.00	oach	0	\$0	
Thorium 232, 230, 227	\$60.00		0	\$0 \$0	
Uranium 238, 235, 233+234	\$60.00		0		
Radium 226,223	\$40.00		0	\$0 \$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00		0	\$0 \$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00	eacn	0	\$0	
/ipe Samples For:	400.00			0.0	
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
IR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00		0	\$0	
Metals	\$150.00		0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal	Misc. Labora	atory		\$0	
VESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum		0	\$0	
Subtotal	Investigation	Subcontrac	tors	\$0	

SUBTOTAL SUBCONTRACTORS: \$0

TASK TOTAL:

3% Mark-up:

\$10,330

\$0

\$0

Subtotal Laboratory & Investigation Subcontractors:

U.S. Army Corps of Engineers

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Task # 6

Contaminant Fate and Transport

\$15,508

Prop No: 979002-00001					
	Unit				
LAROR COCTO	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
LABOR COSTS					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47		0	\$0	
			4.0		
Professional Level 5, Step 4 (P58)	\$44.11		16	\$706	
Professional Level 5, Step 3 (P56)	\$37.99		0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91		20	\$658	
Professional Level 5, Step 1 (P52)	\$29.39	/nour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13	/hour	100	\$2,913	
Professional Level 4, Step 1 (P42)	\$25.20		0	\$0	
1 vereserena 2010: 1, etep : (1 12)	7 _00	7770		4-	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89		0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57	/hour	100	\$1,857	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08		0	\$0 \$0	
redifficial Level 4, Step 1 (142)	Ψ14.00	/ Ioui	O	ΨΟ	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
		_		4-	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 2 (S25)	\$12.40	/hour	20	\$248	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST			256	\$6,382	
Contract Year: 1			200	+ -,	
Base Yr					
Overhead Rate: 143%			Labor Burden:	\$9,126	
0.1.1	DTOTAL	BUBBE	1501 4000	45 500	

SUBTOTAL BURDENED LABOR:

Huntsville Division Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task #6

Contaminant Fate and Transport

\$0

	Unit			
	Cost Units	Quantity	Cost	Notes
MATERIALS AND SUPPLIES		·		
Bottle labels	\$20.00 /roll	0	\$0	
40 mL VOA Vials	\$122.74 /case	0	\$0	
1 Liter Amber Bottles	\$37.95 /case	0	\$0	
32 oz. HDPE Bottles	\$30.75 /case	0	\$0	
Braided Nylon Rope	\$0.15 /foot	0	\$0	
Bubble Pack	\$84.00 /roll	0	\$0	
Decon Eqt	\$18.00 /kit	0	\$0	
55g drums fill/mov	\$100.00 each	0	\$0	
Field Notebook	\$14.00 each	0	\$0	
Ice	\$1.00 /bag	0	\$0	
Latex Gloves	\$10.00 /box	0	\$0	
Methanol (Optima)	\$25.00 /bottle	9 0	\$0	
Hexane (Optima)	\$25.00 /bottle	9 0	\$0	
Acetone (Optima)	\$50.00 /bottle	9 0	\$0	
HCI (Optima)	\$285.00 /bottle	9 0	\$0	
HNO3 (Optima)	\$175.00 /bottle	9 0	\$0	
Ascorbic Acid	\$10.00 /bottle	9 0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00 /box	0	\$0	
Overboots	\$4.00 /pair	0	\$0	
Respirator Cartridges	\$15.00 /pair	0	\$0	
Packing Tape (doz)	\$72.00 /case	0	\$0	
Padlocks	\$12.00 each	0	\$0	
Sampling Tables	\$40.00 each	0	\$0	
Radiological Badges	\$20.00 each	0	\$0	
Aluminum Foil	\$1.00 /roll	0	\$0	
Stain Stl bwl/spn	\$30.00 /set	0	\$0	
Survey Stake/Flag	\$20.00 /bund	le 0	\$0	
Teflon tape	\$8.00 /roll	0	\$0	
Tyveks	\$6.30 each	0	\$0	
Water (HPLC Grade)	\$97.00 /case	0	\$0	
Ziplock bags	\$3.00 /box	0	\$0	
Calibration Gas	\$450.00 /tank	0	\$0	
Ultra Pure Air	\$310.00 /ton	0	\$0	
Teflon Tubing	\$120.00 /roll	0	\$0	
Teflon Sheeting	\$500.00 /roll	0	\$0	
Folding Live Traps	\$15.00 each	0	\$0	
Glassware	\$25.00 each	0	\$0	
Quartz Filters	\$10.00 each	0	\$0	
Vermiculite Packing	\$16.00 /bag	0	\$0	

A - 152

SUBTOTAL MATLS & SUPPLIES:

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Annex F

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task#6

Contaminant Fate and Transport

\$50

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	0	\$0	
Airfare Boston\Huntsville	\$900.00		0	\$0	
Subsistence-Seneca	\$96.00		0	\$0	
Subsistence-Huntsville	\$89.00		0	\$0	
Parking, Airport	\$13.00		0	\$0	
Auto Rental	\$55.00		0	\$0	
Suburban\Van rental	\$585.00	,	0	\$0	
Mileage	\$0.31		0	\$0	
		SUBTOTA	AL TRAVEL:	\$0	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	20	\$80	
Word Proc/PC	\$3.70	/hour	0	\$0	
CADD	\$5.00	/hour	0	\$0	
Facsimile	\$1.00	/page	20	\$20	
Overnight Express					
Letter/2 lb pack	\$14.50	each	0	\$0	
Package (50 lbs)	\$96.25	each	0	\$0	
Mail 4-lb pack	\$4.10	/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subto	otal Services			\$100	
REPRODUCTION					
Photocopier	\$0.05	/page	1000	\$50	
Aerial Photo repro	\$10.00	/photo	0	\$0	
Blueline repro	\$1.00	/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	

Subtotal Reproduction

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task#6

Contaminant Fate and Transport

P10p No. 979002-00001	Unit				
	Cost	Units	Quantity	Cost	Notos
EQUIPMENT RENTAL	<u>0091</u>	OTHES	Qualitity	Cost	Notes
and the state of t					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00	/week	0	\$0	
pH/Cond meter	\$50.00	/week	0	\$0	
Flow thru pH/Cond meter	\$257.00	/week	0	\$0	
DO meter	\$55.00	/week	0	\$0	
Soil Gas Supplies	\$50.00	/day	0	\$0	
Slug test eqt	\$50.00	/week	0	\$0	
Water level ind	\$40.00	/week	0	\$0	
Turbidimeter	\$30.00	/week	0	\$0	
Data Logger,Trnsdcr	\$135.00	/day	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	0	\$0	
Equipment Trailer	\$1,000.00	/month	0	\$0	
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0	
PUF Sampler	\$150.00	/week	0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler	\$75.00	/week	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0	
Ponar Sediment Sampler	\$27.00	/day	0	\$0	
3.2 kw Generator	\$50.00	/day	0	\$0	
Seismograph	\$200.00	/day	0	\$0	
EM-31	\$85.00	/day	0	\$0	
GPR	\$500.00	/day	0	\$0	
Subtot	tal Rental			\$0	
LIEALTIL & CAFETY FOUNDMENT					
HEALTH & SAFETY EQUIPMENT HNu Meter	\$50.00	/day	0	0.9	
Alpha Survey Meter	\$80.00	•	0	\$0 \$0	
Alpha Scintillation Counter	\$100.00		0	\$0 \$0	
Beta Sample Counter	\$100.00		0	\$0 \$0	
Gas Proportional Detector	\$100.00		0	\$0 \$0	
Gas Proportional Detector Gas Prop. Detector-Floor	\$100.00		0	\$0 \$0	
Radon Monitor	\$300.00		0	\$0 \$0	
Gamma Radiation Meter	\$50.00		0	\$0 \$0	
Calib Gas	\$10.00		0	\$0 \$0	
2-way radios		/ea/wk	0	\$ 0	
Air Purif Resp	\$20.00		0	\$0 \$0	
10-Gal Eye Wash	\$35.00		0	\$0 \$0	
Combination SCBA/SAR	\$150.00		0	\$0 \$0	
Combination CODA CAIC	Ψ150.00	ruay	O	ΨΟ	
Out to	-11100				

SUBTOTAL OTHERS:

\$150

\$0

SUBTOTAL LABOR & ODC'S:

\$15,658

Subtotal H & S

Huntsville Division

Printed:

22-Mar-96 Parsons Engineering Science, Inc.

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E Prop No: 979002-00001

Task #6

Contaminant Fate and Transport

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LAB	BORATORY	'ANALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Iron(Ferrous)	\$30.00	each	0	\$0	
Sulfide	\$30.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00	each	0	\$0	
TOX (EPA 9056)	\$50.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
BOD	\$60.00	each	0	\$0	
Sulfate(EPA 300)	\$25.00	each	0	\$0	
COD	\$50.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Volatiles (EPA 524)	\$195.00	each	0	\$0	
Hardness(EPA 130.2)	\$15.00	each	0	\$0	
Alkalinity(EPA 310)	\$12.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABOR	RATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Subtotal 1	Геа т Labor	atory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00		0	\$0 \$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0 \$0	
Chromium (Level II)	\$30.00		0	\$0 \$0	
Total Suspended Solids	\$20.00		0	\$0 \$0	
Total Dissolved Solids	\$20.00		0	\$0 \$0	
Ammonia	\$25.00		0	\$0 \$0	
Phosphate	\$25.00		0	\$0	
Cation Exchange Capacity	\$100.00		0	\$0	
Janon Englishingo Japaning	Ψ.00.00	- 3011	· ·	40	

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Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task #6

Contaminant Fate and Transport

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS					
Water Samples For:					
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gamma Spectrometry	\$0.00	each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00	each	0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Nipe Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal	Misc. Labora	atory		\$0	
NVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum		0	\$0	
Subtotal	Investigation	Subcontra	ctors	\$0	
Subtotal Lat	ooratory & Ir	vestigation	Subcontractors:	\$0	
			3% Mark-up:	\$0	
CLI	IDTOTAL	CLIDOON	TD A CTODC.	Φ.Ω	

TASK TOTAL: \$15,658

\$0

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SUBTOTAL SUBCONTRACTORS:

U.S. Army Corps of Engineers

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task #7

Baseline Risk Assessment

\$54,519

Prop No: 979002-00001					
	Unit	l leit-	Ouant't	04	Netss
LABOR COSTS	Cost	<u>Units</u>	<u>Quantity</u>	Cost	<u>Notes</u>
LABOR COSTS					
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47	/hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11	/hour	60	\$2,647	
Professional Level 5, Step 3 (P56)	\$37.99		200	\$7,598	
Professional Level 5, Step 2 (P54)	\$32.91		0	\$0	
Professional Level 5, Step 1 (P52)	\$29.39		200	\$5,878	
1 Tolessional Level 6, Glop 1 (1 62)	Ψ20.00	711041	200	ψο,σ,σ	
Professional Level 4, Step 2 (P48)	\$29.13	/hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20	/hour	0	\$0	
Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89		280	\$5,569	
, , ,					
Professional Level 1, Step 2 (P18)	\$18.57	/hour	0	\$0	
Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS					
Technician Level 5 (T55)	\$21.10	/hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58	/hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08		0	\$0	
redifficial Level 4, Step 1 (142)	Ψ14.00	modi	Ü	ΨΟ	
Technician Level 3, Step 2 (T38)	\$13.99	/hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61	/hour	0	\$0	
Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
Support Level 3 (S35)	\$20.61	/hour	0	\$0	
Support Level 3 (333)	φ20.01	moul	U	ΨΟ	
Support Level 2 (S25)	\$12.40	/hour	60	\$744	
Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL HOURS/LABOR COST			800	\$22,436	
Contract Year: 1			000	Ψ22,730	
Base Yr					
Overhead Rate: 143%			Labor Burden:	\$32,083	
011	DTOTAL	DUDDEN	IED I ADOD.	ΦE4. 540	

SUBTOTAL BURDENED LABOR:

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

\$0

Task#7

Baseline Risk Assessment

	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Datt to be	#20.00	/ II	0	22	
Bottle labels	\$20.00		0	\$0 \$0	
40 mL VOA Vials	\$122.74		0	\$ 0	
1 Liter Amber Bottles	\$37.95		0	\$0	
32 oz. HDPE Bottles	\$30.75		0	\$0	
Braided Nylon Rope	\$0.15		0	\$0	
Bubble Pack	\$84.00		0	\$0	
Decon Eqt	\$18.00		0	\$0	
55g drums fill/mov	\$100.00		0	\$0	
Field Notebook	\$14.00		0	\$0	
lce	\$1.00		0	\$0	
Latex Gloves	\$10.00		0	\$0	
Methanol (Optima)	\$25.00		0	\$0	
Hexane (Optima)	\$25.00		0	\$0	
Acetone (Optima)	\$50.00		0	\$0	
HCI (Optima)	\$285.00		0	\$0	
HNO3 (Optima)	\$175.00		0	\$0	
Ascorbic Acid	\$10.00		0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00		0	\$0	
Overboots	\$4.00	•	0	\$0	
Respirator Cartridges	\$15.00		0	\$0	
Packing Tape (doz)	\$72.00		0	\$0	
Padlocks	\$12.00		0	\$0	
Sampling Tables	\$40.00		0	\$0	
Radiological Badges	\$20.00		0	\$0	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag	\$20.00	/bundle	0	\$0	
Teflon tape	\$8.00		0	\$0	
Tyveks	\$6.30	each	0	\$0	
Water (HPLC Grade)	\$97.00		0	\$0	
Ziplock bags	\$3.00		0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00	each	0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	
-		_			

SUBTOTAL MATLS & SUPPLIES:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task #7

Baseline Risk Assessment

\$250

Prop No: 979002-00001					
	Unit				
	<u>Cost</u> <u>Ur</u>	<u>nits</u>	Quantity	Cost	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00 /tr		0	\$0	
Airfare Boston\Huntsville	\$900.00 /tr		0	\$0	
Subsistence-Seneca	\$96.00 /d	ay	0	\$0	
Subsistence-Huntsville	\$89.00 /d	ay	0	\$0	
Parking, Airport	\$13.00 /da	ay	0	\$0	
Auto Rental	\$55.00 /da	ay	0	\$0	
Suburban\Van rental	\$585.00 /w	/eek	0	\$0	
Mileage	\$0.31 /m	nile	0	\$0	
	SI	UBTOTAL T	RAVEL:	\$0	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00 /ca	all	30	\$120	
Word Proc/PC	\$3.70 /he	our	80	\$296	
CADD	\$5.00 /hc	our	0	\$0	
Facsimile	\$1.00 /pa	age	100	\$100	
Overnight Express					
Letter/2 lb pack	\$14.50 ea		20	\$290	
Package (50 lbs)	\$96.25 ea		0	\$0	
Mail 4-lb pack	\$4.10 /pa		0	\$0	
Mail letters	\$0.54 /le	etter	0	\$0	
Subto	otal Services			\$806	
REPRODUCTION					
Photocopier	\$0.05 /pa		5000	\$250	
Aerial Photo repro	\$10.00 /pl		0	\$0	
Blueline repro	\$1.00 /S		0	\$0	
Cronoflex Prod	\$5.50 /S		0	\$0	
3-ring binders	\$15.00 ea	ach	0	\$0	
Color Copies	\$2.00 /pa	age	0	\$0	

Subtotal Reproduction

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Pron No: 979002-00001

Task #7

Baseline Risk Assessment

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00	/week	0	\$0	
pH/Cond meter	\$50.00	/week	0	\$0	
Flow thru pH/Cond meter	\$257.00	/week	0	\$0 .	
DO meter	\$55.00	/week	0	\$0	
Soil Gas Supplies	\$50.00	/day	0	\$0	
Slug test eqt	\$50.00	/week	0	\$0	
Water level ind	\$40.00	/week	0	\$0	
Turbidimeter	\$30.00	/week	0	\$0	
Data Logger,Trnsdcr	\$135.00	/day	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	0	\$0	
Equipment Trailer	\$1,000.00	/month	0	\$0	
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0	
PUF Sampler	\$150.00	/week	0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler		/week	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0	
Ponar Sediment Sampler	\$27.00	•	0	\$0	
3.2 kw Generator	\$50.00	•	0	\$0	
Seismograph	\$200.00	•	0	\$0	
EM-31	\$85.00	•	0	\$0	
GPR	\$500.00	•	0	\$0	
Subto	tal Rental			\$0	
				**	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	•	0	\$0	
Alpha Survey Meter		/week	0	\$0	
Alpha Scintillation Counter	\$100.00		0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00	/day	0	\$0	
Calib Gas	\$10.00	/day	0	\$0	
2-way radios	\$15.00	/ea/wk	0	\$0	
Air Purif Resp	\$20.00	/week	0	\$0	
10-Gal Eye Wash		/week	0	\$0	
Combination SCBA/SAR	\$150.00	/day	0	\$0	
Subto	tal H & S			\$0	
Gabto				ΨΟ	

SUBTOTAL LABOR & ODC'S:

SUBTOTAL OTHERS:

\$55,575

\$1,056

U.S. Army Corps of Engineers Client: Huntsville Division

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task #7

Baseline Risk Assessment

Prop No: 979002-00001					
	Unit			_	
	Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER L	ABORATORY	'ANALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Iron(Ferrous)	\$30.00		0	\$0	
Sulfide	\$30.00		0	\$0	
Spec Cond(EPA 9050)		each	0	\$0	
Total Organic Carbon (EPA 9060)			0	\$0	
TOX (EPA 9056)	\$50.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Volatiles (EPA 524)	\$195.00		0	\$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
Milato (El A 555.2)	Ψ20.00	Cuon	v	Ψ	
SOILS - SURFACE or SUBSURFACE LAB	ORATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Subtota	al Team Labor	atory		\$0	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00		0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0	
Chromium (Level II)	\$30.00		0	\$0 \$0	
Total Suspended Solids	\$20.00		0	\$0 \$0	
Total Suspended Solids Total Dissolved Solids	\$20.00		0	\$0 \$0	
Ammonia	\$20.00		0	\$0 \$0	
	\$25.00		0	\$0 \$0	
Phosphate Cation Exchange Capacity	\$25.00		0	\$0 \$0	
Cation Exchange Capacity	φ100.00	cauli	U	φυ	

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22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task #7

Baseline Risk Assessment

Prop No: 979002-00001	Unit				
	Cost	Units	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALY:					
Vater Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gamma Spectrometry	\$0.00	each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00	each	0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Vipe Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00	each	0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
IR SAMPLES LABORATORY ANALYSI	S				
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subto	otal Misc. Labora	atory		\$0	
NVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum	each	0	\$0	
Surveyor	Lump Sum	each	0	\$0	
Subto	otal Investigation	Subcontrac	tors	\$0	
Subtotal	I Laboratory & In	vestigation s	Subcontractors:	\$0	
	-	-	3% Mark-up:	\$0	

TASK TOTAL: \$55,575

\$0

SUBTOTAL SUBCONTRACTORS:

Huntsville Division

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Task #8 RI Report Pre-Draft, Draft, Draft-Final, Final

Prop No: 979002-00001

1100110. 373002 00001				
	Unit Cost <u>U</u> nits	<u>Quantity</u>	Cost	Notes
LABOR COSTS				110100
ENGINEERS AND SCIENTISTS				
Professional Level 6, Step 2 (P68)	\$58.74 /hou	r 0 ·	\$0	
Professional Level 6, Step 1 (P62)	\$46.47 /hou		\$0	
Professional Level 5, Step 4 (P58)	\$44.11 /hou	r 80	\$3,529	
Professional Level 5, Step 3 (P56)	\$37.99 /hou	r 0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91 /hou		\$6,582	
Professional Level 5, Step 1 (P52)	\$29.39 /hou		\$0	
Professional Level 3, Step 1 (1 32)	φ23.33 /110α	0	ΨΟ	
Professional Level 4, Step 2 (P48)	\$29.13 /hou	r 200	\$5,826	
Professional Level 4, Step 1 (P42)	\$25.20 /hou	r 0	\$0	
Professional Level 3, Step 1 (P35)	\$24.04 /hou	r 0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09 /hou	r 0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89 /hou	r 0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57 /hou	r 300	\$5,571	
Professional Level 1, Step 1 (P12)	\$14.84 /hou		\$0	
TECHNICAL AND SUPPORT SPECIALISTS				
Technician Level 5 (T55)	\$21.10 /hou	r 80	\$1,688	
Technician Level 4, Step 2 (T48)	\$16.58 /hou	r 0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08 /hou	r 0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99 /hou	r 0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61 /hou		\$0	
Technician Level 2 (T25)	\$10.13 /hou	r 0	\$0	
Technician Level 1 (T15)	\$8.89 /hou	r 0	\$0	
Support Level 3 (S35)	\$20.61 /hou	r 0	\$0	
Support Level 2 (S25)	\$12.40 /hou	r 140	\$1,736	
Support Level 1 (S15)	\$8.72 /hou	r 0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1		1000	\$24,932	
Base Yr Overhead Rate: 143%		Labor Burden:	\$35,652	
Overhead Nate. 14070		Editor Darderi.	400,002	

SUBTOTAL BURDENED LABOR:

\$60,584

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 8 RI Report Pre-Draft, Draft, Draft-Final,Final

Prop No: 979002-00001

Project:

	Unit	11.4	Q .::		
MATERIAL O AND OLIDRUIES	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	0	\$0	
Ice	\$1.00	/bag	0	\$0	
Latex Gloves	\$10.00	/box	0	\$0	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCl (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	0	\$0	
Respirator Cartridges	\$15.00	/pair	0	\$0	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00		0	\$0	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00		0	\$0	
Survey Stake/Flag	\$20.00		0	\$0	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	0	\$0	
Water (HPLC Grade)	\$97.00		0	\$0	
Ziplock bags	\$3.00		0	\$0	
Calibration Gas	\$450.00		0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflon Tubing	\$120.00		0	\$0	
Teflon Sheeting	\$500.00		0	\$0	
Folding Live Traps	\$15.00		0	\$0	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

\$18,710

Task # 8 RI Report Pre-Draft,Draft, Draft-Final,Final

P10p No. 9/9002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	<u>Cost</u>	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	0	\$0	
Airfare Boston\Huntsville	\$900.00		0	\$0	
Subsistence-Seneca	\$96.00	•	0	\$0	
Subsistence-Huntsville	\$89.00	-	0	\$0	
Parking, Airport	\$13.00	•	0	\$0	
Auto Rental	\$55.00	•	0	\$0	
Suburban\Van rental	\$585.00		0	\$0	
Mileage	\$0.31	/mile	0	\$0	
		SUBTO	 DTAL TRAVEL:	\$0	
				, ,	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00		100	\$400	
Word Proc/PC	\$3.70		120	\$444	
CADD	\$5.00		100	\$500	
Facsimile	\$1.00	/page	500	\$500	
Overnight Express	****				
Letter/2 lb pack	\$14.50		0	\$0	
Package (50 lbs)	\$96.25		85	\$8,181	
Mail 4-lb pack		/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
	Subtotal Services		_	\$10,025	
REPRODUCTION					
Photocopier	\$0.05	/page	203000	\$10,150	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro	\$1.00	/Sheet	2030	\$2,030	
Cronoflex Prod	\$5.50	/Sq Ft	0	\$0	
3-ring binders	\$15.00	each	300	\$4,500	
Color Copies	\$2.00	/page	1015	\$2,030	

Subtotal Reproduction

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task #8 RI Report Pre-Draft, Draft, Draft-Final,Final

Annex E			Drait-	-ınaı,rınaı	
Prop No: 979002-00001					
	Unit				
	Cost	Units	Quantity	Cost	<u>Notes</u>
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer		/week	0	\$0	
pH/Cond meter		/week	0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0 \$0	
•			0		
DO meter		/week	_	\$0	
Soil Gas Supplies	\$50.00	,	0	\$0	
Slug test eqt		/week	0	\$0	
Water level ind		/week	0	\$0	
Turbidimeter		/week	0	\$0	
Data Logger,Trnsdcr	\$135.00	/day	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	0	\$0	
Equipment Trailer	\$1,000.00	/month	0	\$0	
Grundfus Redi Flow Pump	\$64.00		0	\$0	
PUF Sampler	\$150.00		0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
Hi- Vol Sampler		/week	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00		0	\$0	
·	\$27.00		0	\$0 \$0	
Ponar Sediment Sampler			-		
3.2 kw Generator	\$50.00	•	0	\$0 \$0	
Seismograph	\$200.00	•	0	\$0	
EM-31	\$85.00	•	0	\$0	
GPR	\$500.00	/day	0	\$0	
Subto	tal Rental			\$0	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	0	\$0	
Alpha Survey Meter	\$80.00	/week	0	\$0	
Alpha Scintillation Counter	\$100.00	/week	0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00		0	\$0 \$0	
		•	_		
Calib Gas	\$10.00	•	0	\$0 *0	
2-way radios		/ea/wk	0	\$0	
Air Purif Resp		/week	0	\$0	
10-Gal Eye Wash	\$35.00		0	\$0	
Combination SCBA/SAR	\$150.00	/day	0	\$0	

SUBTOTAL OTHERS: \$28,735

\$0

SUBTOTAL LABOR & ODC'S: \$89,320

Subtotal H & S

Huntsville Division

Seneca Army Depot Activity, Romulus New York

Printed:

22-Mar-96

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E Task # 8 RI Report Pre-Draft,Draft, Draft-Final,Final

Parsons Engineering Science, Inc.

Prop No: 979002-00001

Project:

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
30BCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	ANALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Iron(Ferrous)	\$30.00	each	0	\$0	
Sulfide	\$30.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0	
TOX (EPA 9056)	\$50.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)		each	0	\$0	
Volatiles (EPA 524)	\$195.00		0	\$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
(Li 7 (000.2)	Ψ20,00	04011		*-	
SOILS - SURFACE or SUBSURFACE LABO	RATORY AI	VALYSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)		each	0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
,					
Subtotal	Team Labor	ratory		\$0	
MISC. LABORATORY ANALYSIS	2400.00		0	00	
Grain Size Dist	\$120.00		0	\$0	
TCLP	\$1,500.00		0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0 \$0	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0	
Ammonia	\$25.00		0	\$0	
Phosphate	\$25.00		0	\$0	
Cation Exchange Capacity	\$100.00	each	0	\$0	

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task #8 RI Report

Pre-Draft, Draft, Draft-Final,Final

Prop No: 979002-00001

P10p No. 373002-00001	Unit	Unito	Quantity	Cost	Notos
RADIOLOGICAL LABORATORY ANALYSIS	<u>Cost</u>	Units	Quantity	Cost	Notes
Water Samples For:	,				
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Soil Samples For:	ψ.σ.σσ	odon	·	4.5	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60		each	0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry		each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return		each	0	\$0	
Wipe Samples For:	Ψ0.00	Cuon	v	Ψ0	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
O1033 Alphadeta	Ψ+0.00	Cuon	· ·	Ψ.	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00		0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtota	l Misc. Labora	atory		\$0	
		,			
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum		0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum	each	0	\$0	
Subtota	I Investigation	Subcontra	ctors	\$0	
Subtotal La	aboratorv & Ir	vestigation	Subcontractors:	\$0	
odbiotal Et	2 3. , 3. 11		3% Mark-up:	\$0	
S	UBTOTAL	SUBCON	TRACTORS:	\$0	
0	JD: JI/ (L	2020011	,	40	

TASK TOTAL:

\$89,320

U.S. Army Corps of Engineers

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

Overhead Rate:

143%

SEAD-12

Annex E Prop No: 979002-00001 Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task #9

Treatability Study

Requirements Assessment

	Unit			
LABOR COCTS	Cost Units	Quantity	Cost	<u>Notes</u>
LABOR COSTS				
ENGINEERS AND SCIENTISTS				
Professional Level 6, Step 2 (P68)	\$58.74 /hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47 /hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11 /hour	30	\$1,323	
Professional Level 5, Step 3 (P56)	\$37.99 /hour	0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91 /hour	45	\$1,481	
Professional Level 5, Step 1 (P52)	\$29.39 /hour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13 /hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20 /hour	45	\$1,134	
Professional Level 3, Step 1 (P35)	\$24.04 /hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09 /hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89 /hour	0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57 /hour	0	\$0	
Professional Level 1, Step 1 (P12)	\$14.84 /hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS				
Technician Level 5 (T55)	\$21.10 /hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58 /hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08 /hour	0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99 /hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61 /hour	0	\$0	
Technician Level 2 (T25)	\$10.13 /hour	0	\$0	
Technician Level 1 (T15)	\$8.89 /hour	0	\$0	
Support Level 3 (S35)	\$20.61 /hour	0	\$0	
Support Level 2 (S25)	\$12.40 /hour	20	\$248	
Support Level 1 (S15)	\$8.72 /hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1		140	\$4,186	
Base Yr			45.000	

SUBTOTAL BURDENED LABOR:

Labor Burden:

\$5,986

\$10,173

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task#9

Treatability Study

Requirements Assessment

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	0	\$0	
Ice	\$1.00	/bag	0	\$0	
Latex Gloves	\$10.00	/box	0	\$0	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
Overboots	\$4.00	/pair	0	\$0	
Respirator Cartridges	\$15.00	/pair	0	\$0	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00	each	0	\$0	
Sampling Tables	\$40.00		0	\$0	
Radiological Badges	\$20.00	each	0	\$0	
Aluminum Foil	\$1.00	/roll	0	\$0	
Stain Stl bwl/spn	\$30.00		0	\$0	
Survey Stake/Flag		/bundle	0	\$0	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	0	\$0	
Water (HPLC Grade)	\$97.00		0	\$0	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$0

Project:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

SEAD-12 Annex E

RI/FS at the Radiological Disposal Areas

Task #9

Treatability Study

Requirements Assessment

Prop No: 979002-00001

	Unit Cost	Units	Quantity	Coat	Mater
TRAVEL	Cost	Units	Quantity	Cost	Notes
TIMEL					
Airfare Boston\Syracuse	\$500.00	/trip	0	\$0	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	•	0	\$0	
Subsistence-Huntsville	\$89.00	•	0	\$0	
Parking, Airport	\$13.00	•	0	\$0	
Auto Rental	\$55.00		0	\$0	
Suburban\Van rental	\$585.00		0	\$0	
Mileage	\$0.31	/mile	0	\$0	
		SUBTOTA	AL TRAVEL:	\$0	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	50	\$200	
Word Proc/PC	\$3.70	/hour	20	\$74	
CADD	•	/hour	0	\$0	
Facsimile	\$1.00	/page	100	\$100	
Overnight Express					
Letter/2 lb pack	\$14.50		0	\$0	
Package (50 lbs)	\$96.25		0	\$0	
Mail 4-lb pack		/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subt	otal Services			\$374	
REPRODUCTION					
Photocopier		/page	1000	\$50	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro		/Sheet	0	\$0	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00		0	\$0	
Color Copies	\$2.00	/page	0	\$0	
Subt	otal Reproductio	n		\$50	

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task #9

Treatability Study

Requirements Assessment

P10p 140. 979002-00001	11.74		····-		
	Unit	Linite	Quantity	Coot	Notes
EQUIPMENT RENTAL	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00	/week	0	\$0	
pH/Cond meter	\$50.00	/week	0	\$0	
Flow thru pH/Cond meter	\$257.00	/week	0	\$0	
DO meter	\$55.00	/week	0	\$0	
Soil Gas Supplies	\$50.00	/day	0	\$0	
Slug test eqt	\$50.00	/week	0	\$0	
Water level ind	\$40.00	/week	0	\$0	
Turbidimeter	\$30.00	/week	0	\$0	
Data Logger,Trnsdcr	\$135.00	/day	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	0	\$0	
Equipment Trailer	\$1,000.00	/month	0	\$0	
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0	
PUF Sampler	\$150.00	/week	0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler	\$75.00	/week	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0	
Ponar Sediment Sampler	\$27.00	/day	0	\$0	
3.2 kw Generator	\$50.00	/day	0	\$0	
Seismograph	\$200.00	/day	0	\$0	
EM-31	\$85.00	/day	0	\$0	
GPR	\$500.00	/day	0	\$0	
Subtot	al Rental			\$0	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	0	\$0	
Alpha Survey Meter	\$80.00		0	\$0	
Alpha Scintillation Counter	\$100.00		0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00		0	\$0	
Calib Gas	\$10.00	•	0	\$0	
2-way radios		/ea/wk	0	\$0	
Air Purif Resp		/week	0	\$0	
10-Gal Eye Wash		/week	0	\$0	
Combination SCBA/SAR	\$150.00		0	\$0	
	, , , , , ,	,			

SUBTOTAL OTHERS:

\$424

\$0

SUBTOTAL LABOR & ODC'S:

\$10,597

Subtotal H & S

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task#9

Treatability Study

Requirements Assessment

P10p No. 979002-00001					
	Unit		0 "	•	
	<u>Cost</u>	Units	Quantity	Cost	Notes
0110001701070					
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LABO				• •	
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Iron(Ferrous)	\$30.00		0	\$0	
Sulfide	\$30.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0	
TOX (EPA 9056)	\$50.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
BOD	\$60.00	each	0	\$0	
Sulfate(EPA 300)	\$25.00	each	0	\$0	
COD	\$50.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Volatiles (EPA 524)	\$195.00	each	0	\$0	
Hardness(EPA 130.2)	\$15.00	each	0	\$0	
Alkalinity(EPA 310)	\$12.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
,					
SOILS - SURFACE or SUBSURFACE LABORA	ATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00		0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
(4.77.55.2)	¥	- 4. 4	_	**	
Subtotal Te	eam Labor	atorv		\$ 0	
		,		**	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
	\$1,500.00		0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		Ö	\$0	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0	
Ammonia	\$25.00		0	\$0	
Phosphate	\$25.00		0	\$0	
Cation Exchange Capacity	\$100.00		0	\$0 \$0	
Cation Exchange Capacity	Ψ100.00	CdOII	U	ΨΟ	

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task #9 Treatability Study

Requirements Assessment

Prop No: 979002-00001					
	Unit				
	Cost	Units	Quantity	Cost	Notes
DADIOLOGICAL LABORATORY ANALYSIS					

	Unit				
	Cost	Units	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS			•		
Water Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Soil Samples For:	Ψ10.00	odon	ŭ	40	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$ 0	
Americium 241	\$65.00		0	\$0 \$0	
Gamma Spectrometry	\$0.00		0	\$0 \$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0 \$0	
•	\$0.00		0	\$0 \$0	
Sample Prep/Return	φ0.00	each	0	φυ	
Wipe Samples For:	¢60.00	b	0	40	
Thorium 232, 230, 227	\$60.00		0	\$0 \$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0 *°	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
ALD CAMPLED LADODATORY ANALYSIS					
AIR SAMPLES LABORATORY ANALYSIS	# 400.00		•	0.0	
SVOC's	\$490.00		0	\$0	
Metals	\$150.00		0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
0.11.1.1	Maria III				
Subtotal	Misc. Labora	atory		\$0	
INDUCATION OF TOOLS					
INVESTIGATION SUBCONTRACTORS			0	CO	
Driller	Lump Sum		0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum	each	0	\$0	
Subtotal I	nvestigation	Subcontr	actors	\$0	
Subtotal Lab	oratory & In	vestigation	n Subcontractors:	\$0	
			20/ Mark up	0.2	

3% Mark-up: \$0

SUBTOTAL SUBCONTRACTORS: \$0

TASK TOTAL: \$10,597

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task # 10 Feasibility Study

Prop No:	9/9002-00001					
		Unit				
		Cost	Units	Quantity	Cost	Notes
LABOR	COSTS					
CNOINE	THE AND COLENTICES					
ENGINEE	ERS AND SCIENTISTS					
	Professional Level 6, Step 2 (P68)	\$58.74	/hour	0	\$0	
	Professional Level 6, Step 1 (P62)	\$46.47		0	\$0	
	Troicessional Level o, etcp 1 (1 02)	ψ+0.+7	modi	v	ΨΟ	
	Professional Level 5, Step 4 (P58)	\$44.11	/hour	40	\$1,764	
	Professional Level 5, Step 3 (P56)	\$37.99	/hour	0	\$0	
	Professional Level 5, Step 2 (P54)	\$32.91		100	\$3,291	
	Professional Level 5, Step 1 (P52)	\$29.39		0	\$0	
	, , , , ,					
	Professional Level 4, Step 2 (P48)	\$29.13	/hour	200	\$5,826	
	Professional Level 4, Step 1 (P42)	\$25.20	/hour	0	\$0	
	Professional Level 3, Step 1 (P35)	\$24.04	/hour	0	\$0	
	Professional Level 2, Step 2 (P28)	\$23.09	/hour	0	\$0	
	Professional Level 2, Step 1 (P22)	\$19.89	/hour	0	\$0	
	Professional Level 1, Step 2 (P18)	\$18.57	/hour	200	\$3,714	
	Professional Level 1, Step 1 (P12)	\$14.84	/hour	0	\$0	
TECHNIC	AL AND SUPPORT SPECIALISTS					
				400	00 ((0	
	Technician Level 5 (T55)	\$21.10	/hour	100	\$2,110	
	Tackwisian Lavel 4 Chan 2 (T48)	04C E0	/1	0	40	
	Technician Level 4, Step 2 (T48)	\$16.58		0	\$0	
	Technician Level 4, Step 1 (T42)	\$14.08	/nour	0	\$0	
	Tachnician Laval 2 Stan 2 (T29)	\$13.99	/bour	0	\$0	
	Technician Level 3, Step 2 (T38)			0	\$0 \$0	
	Technician Level 3, Step 1 (T32)	\$11.61	Moul	O	φυ	
	Technician Level 2 (T25)	\$10.13	/hour	0	\$0	
	reclinician Level 2 (123)	ψ10.15	Moul	ŭ	ΨΟ	
	Technician Level 1 (T15)	\$8.89	/hour	0	\$0	
	redifficiant Ecver 1 (110)	Ψ0.00	modi	ŭ	ΨΟ	
	Support Level 3 (S35)	\$20.61	/hour	0	\$0	
	oupport Level o (ooo)	Ψ20.01	modi	ŭ	Ψ	
	Support Level 2 (S25)	\$12.40	/hour	60	\$744	
	Support 2010; 2 (323)	Ψ.Σ	111041		* · · ·	
	Support Level 1 (S15)	\$8.72	/hour	0	\$0	
TOTAL H	OURS/LABOR COST			700	\$17,449	
	Contract Year: 1				-	
	Base Yr					
	Overhead Rate: 143%			Labor Burden:	\$24,953	
	-··-					

SUBTOTAL BURDENED LABOR:

\$42,402

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 10

Feasibility Study

Prop No	: 9/9002-00001					
		Unit				
		Cost	Units	Quantity	Cost	Notes
MATER	RIALS AND SUPPLIES					
	Bottle labels	\$20.00	/roll	0	\$0	
	40 mL VOA Vials	\$122.74	/case	0	\$0	
	1 Liter Amber Bottles	\$37.95	/case	0	\$0	
	32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
	Braided Nylon Rope	\$0.15	/foot	0	\$0	
	Bubble Pack	\$84.00	/roli	0	\$0	
	Decon Eqt	\$18.00	/kit	0	\$0	
	55g drums fill/mov	\$100.00	each	0	\$0	
	Field Notebook	\$14.00	each	0	\$0	
	Ice	\$1.00	/bag	0	\$0	
	Latex Gloves	\$10.00	/box	0	\$0	
	Methanol (Optima)	\$25.00	/bottle	0	\$0	
	Hexane (Optima)	\$25.00	/bottle	0	\$0	
	Acetone (Optima)	\$50.00	/bottle	0	\$0	
	HCI (Optima)	\$285.00	/bottle	0	\$0	
	HNO3 (Optima)	\$175.00	/bottle	0	\$0	
	Ascorbic Acid	\$10.00	/bottle	0	\$0	
	Filters (0.45uM & 0.5uM)	\$50.00	/box	0	\$0	
	Overboots	\$4.00	/pair	0	\$0	
	Respirator Cartridges	\$15.00	/pair	0	\$0	
	Packing Tape (doz)	\$72.00	/case	0	\$0	
	Padlocks	\$12.00	each	0	\$0	
	Sampling Tables	\$40.00	each	0	\$0	
	Radiological Badges	\$20.00	each	0	\$0	
	Aluminum Foil	\$1.00	/roll	0	\$0	
	Stain Stl bwl/spn	\$30.00		0	\$0	
	Survey Stake/Flag		/bundle	0	\$0	
	Teflon tape	\$8.00	/roll	0	\$0	
	Tyveks	\$6.30		0	\$0	
	Water (HPLC Grade)	\$97.00		0	\$0	
	Ziplock bags	\$3.00	/box	0	\$0	
	Calibration Gas	\$450.00		0	\$0	
	Ultra Pure Air	\$310.00	/ton	0	\$0	
	Teflon Tubing	\$120.00	/roll	0	\$0	
	Teflon Sheeting	\$500.00	/roll	0	\$0	
	Folding Live Traps	\$15.00	each	0	\$0	
	Glassware	\$25.00	each	0	\$0	
	Quartz Filters	\$10.00	each	0	\$0	
	Vermiculite Packing	\$16.00	/bag	0	\$0	
	-		_			

SUBTOTAL MATLS & SUPPLIES:

\$0

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Project:

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 10 Feasibility Study

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	0	\$0	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	0	\$0	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking, Airport	\$13.00	/day	0	\$0	
Auto Rental	\$55.00	/day	0	\$0	
Suburban\Van rental	\$585.00	/week	0	\$0	
Mileage	\$0.31	/mile	0	\$0	
		SUBTO	TAL TRAVEL:	\$0	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	50	\$200	
Word Proc/PC	\$3.70		60	\$222	
CADD	· ·	/hour	80	\$400	
Facsimile		/page	50	\$50	
Overnight Express	,	1 - 3 -		*	
Letter/2 lb pack	\$14.50	each	0	\$0	
Package (50 lbs)	\$96.25	each	0	\$0	
Mail 4-lb pack	\$4.10	/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
	Subtotal Services			\$872	
REPRODUCTION					
Photocopier	\$0.05	/page	2000	\$100	
Aerial Photo repro	\$10.00	/photo	0	\$0	
Blueline repro	\$1.00	/Sheet	500	\$500	
Cronoflex Prod	\$5.50	/Sq Ft	0	\$0	
3-ring binders	\$15.00	each	0	\$0	
Color Copies	\$2.00	/page	0	\$0	
	Subtotal Reproductio	n		\$600	

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

Task # 10 Feasibility Study

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00	/week	0	\$0	
pH/Cond meter	\$50.00	/week	0	\$0	
Flow thru pH/Cond meter	\$257.00	/week	0	\$0	
DO meter	\$55.00	/week	0	\$0	
Soil Gas Supplies	\$50.00		0	\$0	
Slug test eqt	\$50.00	/week	0	\$0	
Water level ind	\$40.00	/week	0	\$0	
Turbidimeter	\$30.00	/week	0	\$0	
Data Logger, Trnsdcr	\$135.00	/day	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	0	\$0	
Equipment Trailer	\$1,000.00	/month	0	\$0	
Grundfus Redi Flow Pump	\$64.00	/day	0	\$0	
PUF Sampler	\$150.00	/week	0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler	\$75.00	/week	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0	
Ponar Sediment Sampler	\$27.00	/day	0	\$0	
3.2 kw Generator	\$50.00	/day	0	\$0	
Seismograph	\$200.00	/day	0	\$0	
EM-31	\$85.00	/day	0	\$0	
GPR	\$500.00	/day	0	\$0	
Subtota	al Rental			\$0	
Gubtott	a restrui			4.0	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00		0	\$0	
Alpha Survey Meter	\$80.00		0	\$0	
Alpha Scintillation Counter	\$100.00		0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00	•	0	\$0	
Calib Gas	\$10.00		0	\$0	
2-way radios		/ea/wk	0	\$0	
Air Purif Resp	\$20.00		0	\$0	
10-Gal Eye Wash	\$35.00		0	\$0	
Combination SCBA/SAR	\$150.00	/day	0	\$0	
Subtota	al H & S			\$0	

SUBTOTAL OTHERS:

\$1,472

SUBTOTAL LABOR & ODC'S:

\$43,874

Project:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 10 Feasibility Study

Prop No: 979002-00001					
	Unit				
	Cost	Units	Quantity	Cost	Notes
SUBCONTRACTORS					
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	BORATORY	ANALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Iron(Ferrous)	\$30.00	each	0	\$0	
Sulfide	\$30.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00	each	0	\$0	
TOX (EPA 9056)	\$50.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Volatiles (EPA 524)	\$195.00		0	\$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
,					
SOILS - SURFACE or SUBSURFACE LABO					
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$0	
Total Metals & CN(TAL)	\$170.00		0	\$0	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00		0	\$0	
TOX (EPA 9056)	\$70.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Cubtatal	Toom Labor	oton.		\$0	
Subtotal	Team Labor	atory		Φυ	
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00		0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0	
Ammonia	\$25.00		0	\$0	
Phosphate	\$25.00		0	\$0	
Cation Exchange Capacity	\$100.00		0	\$0	
Outlon Exchange Supusity	Ψ.00.00	54011	J	Ψυ	

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 10 Feasibility Study

Prop No: 979002-00001

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSI	S				
Water Samples For:	000.00		•		
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:	000.00		•	20	
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60		each	0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	•	each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Wipe Samples For:					
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal Misc. Laboratory				\$0	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	oach	0	\$0	
Photogrammetry	Lump Sum		0	\$0 \$0	
IDW Disposal	Lump Sum		0	\$0 \$0	
Surveyor	Lump Sum		0	\$0 \$0	
Subtot	al Investigation	Subcontra		\$0	
Subtotal L	aboratory & Ir	vestigation	Subcontractors:	\$0	
_			3% Mark-up:	\$0	
SUBTOTAL SUBCONTRACTORS:				\$0	

TASK TOTAL:

\$43,874

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Project:

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

Annex E

SEAD-12

Task # 11 FS Report Pre-Draft, Draft, Draft-Final, Final

Prop No: 979002-00001

Prop No: 9/9002-00001					
	Unit Cost	Units	Quantity	Cost	Notes
LABOR COSTS	Cost	Office	Quantity	0031	ivotes
ENGINEERS AND SCIENTISTS					
Professional Level 6, Step	2 (P68) \$58.74	4 /hour	0	\$0	
Professional Level 6, Step	o 1 (P62) \$46.47	7 /hour	0	\$0	
Professional Level 5, Step	o 4 (P58) \$44.1	1 /hour	60	\$2,647	
Professional Level 5, Step	'	hour /	0	\$0	
Professional Level 5, Step		/hour	100	\$3,291	
			0	\$0	
Professional Level 5, Step) (P52)	9 /hour	U	φυ	
Professional Level 4, Step	2 (P48) \$29.13	3 /hour	160	\$4,661	
Professional Level 4, Step	o 1 (P42) \$25.20) /hour	0	\$0	
Professional Level 3, Step	o 1 (P35) \$24.04	4 /hour	0	\$0	
Professional Level 2, Step	2 (P28) \$23.09	9 /hour	0	\$0	
Professional Level 2, Step	, ,	hour /	0	\$0	
•					
Professional Level 1, Step	2 (P18) \$18.57	7 /hour	160	\$2,971	
Professional Level 1, Step	o 1 (P12) \$14.84	4 /hour	0	\$0	
TECHNICAL AND SUPPORT SPE	CIALISTS				
Technician Level 5 (T55)	\$21.10) /hour	100	\$2,110	
Technician Level 4, Step 2	2 (T48) \$16.58	3 /hour	0	\$0	
Technician Level 4, Step	` '	3 /hour	0	\$0	
			_		
Technician Level 3, Step 2	` '	9 /hour	0	\$0	
Technician Level 3, Step	1 (T32) \$11.61	l /hour	0	\$0	
Technician Level 2 (T25)	\$10.13	3 /hour	0	\$0	
Technician Level 1 (T15)	\$8.88	9 /hour	0	\$0	
Support Level 3 (S35)	\$20.6	1 /hour	0	\$0	
Support Level 2 (S25)	\$12.40) /hour	120	\$1,488	
Support Level 1 (S15)	\$8.72	2 /hour	0	\$0	
TOTAL HOURS/LABOR COST			700	\$17,168	
Contract Year					
Overhead Dete	Base Yr		Labor Burden:	¢24 550	
Overhead Rate	: 143%		Labor Burden:	\$24,550	

SUBTOTAL BURDENED LABOR:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

\$0

Project:

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

FS Report

Pre-Draft, Draft, Draft-Final, Final

Task # 11

Prop No: 979002-00001

	Unit				
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
MATERIALS AND SUPPLIES					
D. Wallada	¢20.00	to a U	0	C O	
Bottle labels	\$20.00		0	\$0 \$0	
40 mL VOA Vials	\$122.74		0	,	
1 Liter Amber Bottles	\$37.95		0	\$0 \$0	
32 oz. HDPE Bottles	\$30.75		0	\$0	
Braided Nylon Rope	\$0.15		0	\$0	
Bubble Pack	\$84.00		0	\$0	
Decon Eqt	\$18.00		0	\$0	
55g drums fill/mov	\$100.00		0	\$0	
Field Notebook	\$14.00		0	\$0	
Ice	\$1.00	•	0	\$0	
Latex Gloves	\$10.00		0	\$0	
Methanol (Optima)	\$25.00		0	\$0	
Hexane (Optima)	\$25.00		0	\$0	
Acetone (Optima)	\$50.00		0	\$0	
HCl (Optima)	\$285.00		0	\$0	
HNO3 (Optima)	\$175.00		0	\$0	
Ascorbic Acid	\$10.00		0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00		0	\$0	
Overboots	\$4.00	•	0	\$0	
Respirator Cartridges	\$15.00	•	0	\$0	
Packing Tape (doz)	\$72.00		0	\$0	
Padlocks	\$12.00		0	\$0	
Sampling Tables	\$40.00		0	\$0	
Radiological Badges	\$20.00		0	\$0	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00		0	\$0	
Surve y Stake/Flag	\$20.00	/bundle	0	\$0	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30	each	0	\$0	
Water (HPLC Grade)	\$97.00	/case	0	\$0	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	
	•	J			

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SUBTOTAL MATLS & SUPPLIES:

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Project:

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

\$21,630

Task # 11 FS Report Pre-Draft,Draft, Draft-Final,Final

rop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	0	\$0	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	0	\$0	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking, Airport	\$13.00	/day	0	\$0	
Auto Rental	\$55.00	/day	0	\$0	
Suburban\Van rental	\$585.00	/week	0	\$0	
Mileage	\$0.31	/mile	0	\$0	
		SUBTOTA	AL TRAVEL:	\$0	
THERS					
N-HOUSE SERVICES					
Telephone	\$4.00	/call	100	\$400	
Word Proc/PC	\$3.70	/hour	100	\$370	
CADD	\$5.00	/hour	80	\$400	
Facsimile	\$1.00	/page	100	\$100	
Overnight Express					
Letter/2 lb pack	\$14.50		0	\$0	
Package (50 lbs)	\$96.25		85	\$8,181	
Mail 4-lb pack	\$4.10		0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subto	tal Services		•	\$9,451	
REPRODUCTION					
Photocopier		/page	157000	\$7,850	
Aerial Photo repro	\$10.00	/photo	0	\$0	
Blueline repro	•	/Sheet	3140	\$3,140	
Cronoflex Prod		/Sq Ft	0	\$0	
3-ring binders	\$15.00	each /page	500 1570	\$7,500 \$3,140	

Subtotal Reproduction

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task # 11 FS Report Pre-Draft,Draft, Draft-Final,Final

Prop No. 979002-00001					
	Unit	1.1	O	04	Mata
SOLUBLISHE DENEM	Cost	<u>Units</u>	Quantity	Cost	Notes
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00		0	\$0	
Slug test eqt	\$50.00	,	0	\$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger,Trnsdcr	\$135.00		0	\$0	
Flow Meter	\$30.00	•	0	\$0	
Water coolers		/month	0	\$0	
Equipment Trailer	\$1,000.00		0	\$0	
Grundfus Redi Flow Pump	\$64.00		0	\$0	
PUF Sampler	\$150.00		0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
Hi- Vol Sampler	\$75.00	•	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00		0	\$0	
Ponar Sediment Sampler	\$27.00	•	0	\$0	
3.2 kw Generator	\$50.00	•	0	\$0	
Seismograph	\$200.00	•	0	\$0	
EM-31	\$85.00	•	0	\$0	
GPR	\$500.00	•	0	\$0	
		,			
Subto	otal Rental			\$0	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	0	\$0	
Alpha Survey Meter	\$80.00		Ö	\$0	
Alpha Scintillation Counter	\$100.00		0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Proportional Detector Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00		0	\$0	
Calib Gas	\$10.00	•	0	\$0	
2-way radios	\$15.00	•	0	\$0	
Air Purif Resp	\$20.00		Ö	\$0	
10-Gal Eye Wash	\$35.00		0	\$0 \$0	
Combination SCBA/SAR	\$150.00		0	\$0	
Combination COD/COAIX	Ψ100.00	. 44,	ū	Ψ-5	
Subto	otal H & S			\$0	
				•	

SUBTOTAL OTHERS: \$31,081

SUBTOTAL LABOR & ODC'S: \$72,799

Huntsville Division Seneca Army Depot Activity, Romulus New York

Project: RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 11 FS Report Pre-Draft, Draft, Draft-Final,Final

110p 140. 979002-00001	Lleit				
	Unit	Unito	Quantity	Cost	Notes
	Cost	<u>Units</u>	Quantity	Cost	Notes
OLIDOONITDA OTODO					
SUBCONTRACTORS					
		ANALVOIO			
GROUNDWATER or SURFACE WATER LAI			0	\$0	
Volatiles (TCL)	\$180.00		0		
B/N/A (TCL)	\$400.00			\$0 \$0	
Pest./PCBs (TCL)	\$180.00		0	\$0 60	
Total Metals & CN(TAL)	\$170.00		0	\$0 60	
Iron(Ferrous)	\$30.00		0	\$0 ***	
Sulfide	\$30.00		0	\$0 ***	
Spec Cond(EPA 9050)	\$8.00		0	\$0	
Total Organic Carbon (EPA 9060)	\$25.00		0	\$0	
TOX (EPA 9056)	\$50.00		0	\$0	
Chloride(EPA 9250)	\$25.00		0	\$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)	\$8.00		0	\$0	
Volatiles (EPA 524)	\$195.00	each	0	\$0	
Hardness(EPA 130.2)	\$15.00	each	0	\$0	
Alkalinity(EPA 310)	\$12.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABOR	RATORY AN	NALYSIS			
Volatiles (TCL)	\$180.00	each	0	\$0	
B/N/A (TCL)	\$400.00	each	0	\$0	
Pest./PCBs (TCL)	\$180.00	each	0	\$0	
Total Metals & CN(TAL)	\$170.00	each	0	\$0	
Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
TOX (EPA 9056)	\$70.00	each	0	\$0	
Chloride(EPA 9250)	\$25.00	each	0	\$0	
pH (EPA 9045)	\$8.00	each	0	\$0	
Nitrate (EPA 353.2)	\$20.00		0	\$0	
(======================================					
Subtotal	Team Labor	atory		\$0	
		•			
MISC. LABORATORY ANALYSIS					
Grain Size Dist	\$120.00	each	0	\$0	
TCLP	\$1,500.00	each	0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0	
Chromium (Level II)	\$30.00		0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00		0	\$0	
Ammonia	\$25.00		0	\$0	
Phosphate	\$25.00		0	\$0	
Cation Exchange Capacity	\$100.00		0	\$0	
Oddon Exchange Capacity	Ψ100,00	Juon	V	ΨΟ	

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York Project:

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Task # 11 FS Report Pre-Draft, Draft, Draft-Final, Final

Prop No: 979002-00001

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	<u>Cost</u>	Notes
RADIOLOGICAL LABORATORY ANALYSIS					
Water Samples For:	444			••	
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
Soil Samples For:					
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60		each	0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry		each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00	each	0	\$0	
Wipe Samples For:					
Thorium 232, 230, 227	\$60.00		0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00	each	0	\$0	
Plutonium 239 + 240	\$65.00	each	0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00	each	0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal	Misc. Labor	atory		\$0	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sur		0	\$0	
Subtotal	Investigation	n Subcontra	ctors	\$0	
Subtotal La	boratory & Ir	nvestigation	Subcontractors:	\$0	
Castotal Ea	2514t01 y 0t 11	conganon	3% Mark-up:	\$0	
CI	IDTOTAL	CLIDOON	TDAOTODO:	ΦΟ	

TASK TOTAL: \$72,799

\$0

SUBTOTAL SUBCONTRACTORS:

U.S. Army Corps of Engineers

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 12

Post FS Support

Prop No. 979002-00001	Unit			
	Unit <u>Cost Units</u>	Quantity	Cost	Notes
LABOR COSTS	<u> </u>	Scattling	0031	110163
ENGINEERS AND SCIENTISTS				
ENGINEERS AND SCIENTISTS				
Professional Level 6, Step 2 (P68)	\$58.74 /hour	0	\$0	
Professional Level 6, Step 1 (P62)	\$46.47 /hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11 /hour	180	\$7,940	
Professional Level 5, Step 3 (P56)	\$37.99 /hour	0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91 /hour	180	\$5,924	
Professional Level 5, Step 1 (P52)	\$29.39 /hour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13 /hour	80	\$2,330	
Professional Level 4, Step 1 (P42)	\$25.20 /hour	0	\$0	
Professional Level 3, Step 1 (P35)	\$24.04 /hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09 /hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89 /hour	0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57 /hour	80	\$1,486	
Professional Level 1, Step 1 (P12)	\$14.84 /hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS				
Technician Level 5 (T55)	\$21.10 /hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58 /hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08 /hour	0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99 /hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61 /hour	0	\$0	
Technician Level 2 (T25)	\$10.13 /hour	0	\$0	
Technician Level 1 (T15)	\$8.89 /hour	0	\$0	
Support Level 3 (S35)	\$20.61 /hour	0	\$0	
Support Level 2 (S25)	\$12.40 /hour	80	\$992	
Support Level 1 (S15)	\$8.72 /hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1		600	\$18,672	
Base Yr Overhead Rate: 143%		Labor Burden:	\$26,700	
O torrida rate. 14070	DECEMBER OF THE PERSON		4.5.7.00	

SUBTOTAL BURDENED LABOR:

\$45,372

U.S. Army Corps of Engineers

Huntsville Division

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task#1	2
Post FS	Support

PTOP NO. 979002-00001					
	Unit				
	Cost	Units	<u>Quantity</u>	Cost	Notes
MATERIALS AND SUPPLIES					
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74		0	\$0 \$0	
1 Liter Amber Bottles	\$37.95		0	\$0 \$0	
32 oz. HDPE Bottles	\$30.75		0	\$0 \$0	
	\$0.75		0	\$0 \$0	
Braided Nylon Rope	\$84.00		0	\$0 \$0	
Bubble Pack	\$18.00		0	\$0 \$0	
Decon Eqt			0	\$0 \$0	
55g drums fill/mov	\$100.00		0	\$0 \$0	
Field Notebook	\$14.00			\$0 \$0	
lce	\$1.00	•	0	·	
Latex Gloves	\$10.00		•	\$0 \$0	
Methanol (Optima)	\$25.00		0	\$0 \$0	
Hexane (Optima)	\$25.00		0	\$0 \$0	
Acetone (Optima)	\$50.00		0	\$0	
HCI (Optima)	\$285.00		0	\$0	
HNO3 (Optima)	\$175.00		0	\$0	
Ascorbic Acid	\$10.00		0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00		0	\$0	
Overboots	\$4.00		0	\$0	
Respirator Cartridges	\$15.00	-	0	\$0	
Packing Tape (doz)	\$72.00		0	\$0	
Padlocks	\$12.00		0	\$0	
Sampling Tables	\$40.00		0	\$0	
Radiological Badges	\$20.00	each	0	\$0	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00		0	\$0	
Survey Stake/Flag	\$20.00	/bundle	0	\$0	
Teflon tape	\$8.00	/roll	0	\$0	
Tyveks	\$6.30		0	\$0	
Water (HPLC Grade)	\$97.00	/case	0	\$0	
Ziplock bags	\$3.00	/box	0	\$0	
Calibration Gas	\$450.00	/tank	0	\$0	
Ultra Pure Air	\$310.00	/ton	0	\$0	
Teflon Tubing	\$120.00	/roll	0	\$0	
Teflon Sheeting	\$500.00	/roll	0	\$0	
Folding Live Traps	\$15.00	each	0	\$0	
Glassware	\$25.00	each	0	\$0	
Quartz Filters	\$10.00	each	0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	
ŭ		-			

SUBTOTAL MATLS & SUPPLIES:

\$0

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 12 Post FS Support

7 TOP 140. 37 3002-00001	Unit			
	Cost Units	Quantity	<u>Cost</u>	<u>Notes</u>
TRAVEL				
Airfare Boston\Syracuse	\$500.00 /trip	8	\$4,000	
Airfare Boston\Huntsville	\$900.00 /trip	0	\$0	
Subsistence-Seneca	\$96.00 /day	8	\$768	
Subsistence-Huntsville	\$89.00 /day	0	\$0	
Parking, Airport	\$13.00 /day	8	\$104	
Auto Rental	\$55.00 /day	4	\$220	
Suburban\Van rental	\$585.00 /week	0	\$0	
Mileage	\$0.31 /mile	100	\$31	
	SUBTOT	AL TRAVEL:	\$5,123	
OTHERS				
IN-HOUSE SERVICES				
Telephone	\$4.00 /call	50	\$200	
Word Proc/PC	\$3.70 /hour	120	\$444	
CADD	\$5.00 /hour	0	\$0	
Facsimile	\$1.00 /page	100	\$100	
Overnight Express				
Letter/2 lb pack	\$14.50 each	50	\$725	
Package (50 lbs)	\$96.25 each	0	\$0	
Mail 4-lb pack	\$4.10 /pack	0	\$0	
Mail letters	\$0.54 /letter	0	\$0	
Subto	tal Services		\$1,469	
REPRODUCTION				
Photocopier	\$0.05 /page	100000	\$5,000	
Aerial Photo repro	\$10.00 /photo	0	\$0	
Blueline repro	\$1.00 /Sheet	0	\$0	
Cronoflex Prod	\$5.50 /Sq Ft	0	\$0	
3-ring binders	\$15.00 each	157	\$2,355	
Color Copies	\$2.00 /page	0	\$0	
Subto	tal Reproduction		\$7,355	

Huntsville Division

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Parsons Engineering Science, Inc.

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex F

Task # 12 Post FS Support

Annex E					
Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00	/week	0	\$0	
pH/Cond meter	\$50.00	/week	0	\$0	
Flow thru pH/Cond meter	\$257.00	/week	0	\$0	
DO meter	\$55.00	/week	0	\$0	
Soil Gas Supplies	\$50.00	/day	0	\$0	
Slug test eqt	\$50.00	/week	0	\$0	
Water level ind	\$40.00	/week	0	\$0	
Turbidimeter	\$30.00	/week	0	\$0	
Data Logger,Trnsdcr	\$135.00	/day	0	\$0	
Flow Meter	\$30.00	/week	0	\$0	
Water coolers	\$40.00	/month	0	\$0	
Equipment Trailer	\$1,000.00	/month	0	\$0	
Grundfus Redi Flow Pump	\$64.00		0	\$0	
PUF Sampler	\$150.00	•	0	\$0	
PUF Sampler Calibration Kit	\$25.00		0	\$0	
Hi- Vol Sampler	\$75.00	•	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00		0	\$0	
Ponar Sediment Sampler	\$27.00	•	0	\$0	
3.2 kw Generator	\$50.00		0	\$0	
Seismograph	\$200.00	•	0	\$0	
EM-31	\$85.00	•	0	\$0	
GPR	\$500.00	•	0	\$0	
	4 2 2 3 3	,		4-	
Subtotal	Rental			\$0	
Cubiotal	rtoritai			4.5	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	0	\$0	
Alpha Survey Meter	\$80.00	•	0	\$0	
Alpha Scintillation Counter	\$100.00		0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00		0	\$0	
Calib Gas	\$10.00	,	0	\$0	
2-way radios		/uay /ea/wk	0	\$0 \$0	
Air Purif Resp	\$20.00		0	\$0 \$0	
10-Gal Eye Wash	\$35.00		0	\$0 \$0	
Combination SCBA/SAR	\$150.00		0	\$0 \$0	
COMBINATION SCHARAC	φ130.00	ruay	U	φυ	

SUBTOTAL OTHERS: \$8,824

SUBTOTAL LABOR & ODC'S: \$59,319

Subtotal H & S

Huntsville Division

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 12 Post FS Support

Prop No	5: 979002-00001					
		Unit				
		Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
SUBC	ONTRACTORS					
GROUN	IDWATER or SURFACE WATER LAB	ORATORY	ANALYSIS			
	Volatiles (TCL)	\$180.00	each	0	\$0	
	B/N/A (TCL)	\$400.00	each	0	\$0	
	Pest./PCBs (TCL)	\$180.00	each	0	\$0	
	Total Metals & CN(TAL)	\$170.00	each	0	\$0	
	Iron(Ferrous)	\$30.00	each	0	\$0	
	Sulfide	\$30.00		0	\$0	
	Spec Cond(EPA 9050)	\$8.00		0	\$0	
	Total Organic Carbon (EPA 9060)	\$25.00		0	\$0	
	TOX (EPA 9056)	\$50.00		0	\$0	
	Chloride(EPA 9250)	\$25.00		0	\$0	
	BOD	\$60.00		0	\$0	
	Sulfate(EPA 300)	\$25.00		0	\$0	
	COD	\$50.00		0	\$0	
	pH (EPA 9045)	\$8.00		0	\$0	
	Volatiles (EPA 524)	\$195.00		0	\$0	
	Hardness(EPA 130.2)	\$15.00		0	\$0	
	Alkalinity(EPA 310)	\$12.00		0	\$0	
	Nitrate (EPA 353.2)	\$20.00		0	\$0	
	(=====,	,				
SOILS -	SURFACE or SUBSURFACE LABOR.	ATORY AN	NALYSIS			
	Volatiles (TCL)	\$180.00	each	0	\$0	
	B/N/A (TCL)	\$400.00	each	0	\$0	
	Pest./PCBs (TCL)	\$180.00	each	0	\$0	
	Total Metals & CN(TAL)	\$170.00	each	0	\$0	
	Spec Cond(EPA 9050)	\$8.00	each	0	\$0	
	Total Organic Carbon (L. Kahn)	\$60.00	each	0	\$0	
	TOX (EPA 9056)	\$70.00	each	0	\$0	
	Chloride(EPA 9250)	\$25.00	each	0	\$0	
	pH (EPA 9045)	\$8.00	each	0	\$0	
	Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
	Subtotal To	eam Labor	atory		*************************************	
	- Cubician i	oam 2 000.	a.o.,		Ų.	
MISC. L	ABORATORY ANALYSIS	A / A = = =		_		
	Grain Size Dist	\$120.00		0	\$0	
		\$1,500.00		0	\$0	
	Moisture Content	\$15.00		0	\$0	
	Bulk Density	\$35.00		0	\$0	
	Chromium (Level II)	\$30.00		0	\$0	
	Total Suspended Solids	\$20.00		0	\$0	
	Total Dissolved Solids	\$20.00		0	\$0	
	Ammonia	\$25.00		0	\$0	
	Phosphate	\$25.00		0	\$0	
	Cation Exchange Capacity	\$100.00	each	0	\$0	

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Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Task # 12

Post FS Support

Prop No: 979002-00001	Linit				
	Unit <u>Cost</u>	Units	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS		Office	Quality	0031	Notes
Water Samples For:	,				
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Soil Samples For:	φ+5.00	Caon	· ·	ΨΟ	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$0.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry	\$0.00		0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return	\$0.00		0	\$0	
Wipe Samples For:	ψ0.00	Caon	· ·	ΨΟ	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00		Ö	\$0	
Radon (Alpha Film)	\$25.00		0	\$0	
. , , ,					
Subtota	I Misc. Labora	atory		\$0	
INVESTIGATION SUBCONTRACTORS					
Driller	Lump Sum	each	0	\$0	
Photogrammetry	Lump Sum	each	0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum		0	\$0	
Subtota	Investigation	Subcontrac	etors	\$0	
Subtotal La	aboratory & In	vestigation	Subcontractors:	\$0	
	,	•	3% Mark-up:	\$0	
S	UBTOTAL S	SUBCON	TRACTORS:	\$0	

TASK TOTAL:

\$59,319

U.S. Army Corps of Engineers

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

Overhead Rate:

143%

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Task # 13

Project Management 24 Monthly Reports

F10p 140. 979002-00001				
	Unit Cost Units	Quantity	Cost	Notes
LABOR COSTS	<u> </u>	<u> </u>	3001	IVOCO
ENGINEERS AND SCIENTISTS				
Professional Level 6, Step 2 (P68)	\$58.74 /hour	100	\$5,874	
Professional Level 6, Step 1 (P62)	\$46.47 /hour	0	\$0	
Professional Level 5, Step 4 (P58)	\$44.11 /hour	288	\$12,704	
Professional Level 5, Step 3 (P56)	\$37.99 /hour	0	\$0	
Professional Level 5, Step 2 (P54)	\$32.91 /hour	144	\$4,739	
Professional Level 5, Step 1 (P52)	\$29.39 /hour	0	\$0	
Professional Level 4, Step 2 (P48)	\$29.13 /hour	0	\$0	
Professional Level 4, Step 1 (P42)	\$25.20 /hour	0	\$0	
Professional Level 3, Step 1 (P35)	\$24.04 /hour	0	\$0	
Professional Level 2, Step 2 (P28)	\$23.09 /hour	0	\$0	
Professional Level 2, Step 1 (P22)	\$19.89 /hour	0	\$0	
Professional Level 1, Step 2 (P18)	\$18.57 /hour	0	\$0	
Professional Level 1, Step 1 (P12)	\$14.84 /hour	0	\$0	
TECHNICAL AND SUPPORT SPECIALISTS				
Technician Level 5 (T55)	\$21.10 /hour	0	\$0	
Technician Level 4, Step 2 (T48)	\$16.58 /hour	0	\$0	
Technician Level 4, Step 1 (T42)	\$14.08 /hour	0	\$0	
Technician Level 3, Step 2 (T38)	\$13.99 /hour	0	\$0	
Technician Level 3, Step 1 (T32)	\$11.61 /hour	0	\$0	
Technician Level 2 (T25)	\$10.13 /hour	0	\$0	
Technician Level 1 (T15)	\$8.89 /hour	0	\$0	
Support Level 3 (S35)	\$20.61 /hour	0	\$0	
Support Level 2 (S25)	\$12.40 /hour	48	\$595	
Support Level 1 (S15)	\$8.72 /hour	0	\$0	
TOTAL HOURS/LABOR COST Contract Year: 1		580	\$23,912	
Base Yr			004.404	

SUBTOTAL BURDENED LABOR:

Labor Burden:

\$34,194

\$58,106

U.S. Army Corps of Engineers

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

Task # 13

Project Management 24 Monthly Reports

	Unit				
	Cost	Units	Quantity	Cost	Notes
MATERIALS AND SUPPLIES			•		
Bottle labels	\$20.00	/roll	0	\$0	
40 mL VOA Vials	\$122.74	/case	0	\$0	
1 Liter Amber Bottles	\$37.95	/case	0	\$0	
32 oz. HDPE Bottles	\$30.75	/case	0	\$0	
Braided Nylon Rope	\$0.15	/foot	0	\$0	
Bubble Pack	\$84.00	/roll	0	\$0	
Decon Eqt	\$18.00	/kit	0	\$0	
55g drums fill/mov	\$100.00	each	0	\$0	
Field Notebook	\$14.00	each	0	\$0	
Ice	\$1.00	/bag	0	\$0	
Latex Gloves	\$10.00	/box	0	\$0	
Methanol (Optima)	\$25.00	/bottle	0	\$0	
Hexane (Optima)	\$25.00	/bottle	0	\$0	
Acetone (Optima)	\$50.00	/bottle	0	\$0	
HCI (Optima)	\$285.00	/bottle	0	\$0	
HNO3 (Optima)	\$175.00	/bottle	0	\$0	
Ascorbic Acid	\$10.00	/bottle	0	\$0	
Filters (0.45uM & 0.5uM)	\$50.00		0	\$0	
Overboots	\$4.00	/pair	0	\$0	
Respirator Cartridges	\$15.00	/pair	0	\$0	
Packing Tape (doz)	\$72.00	/case	0	\$0	
Padlocks	\$12.00		0	\$0	
Sampling Tables	\$40.00	each	0	\$0	
Radiological Badges	\$20.00	each	0	\$0	
Aluminum Foil	\$1.00		0	\$0	
Stain Stl bwl/spn	\$30.00	/set	0	\$0	
Survey Stake/Flag		/bundle	0	\$0	
Teflon tape	\$8.00		0	\$0	
Tyveks	\$6.30		0	\$0	
Water (HPLC Grade)	\$97.00		0	\$0	
Ziplock bags	\$3.00		0	\$0	
Calibration Gas	\$450.00		0	\$0	
Ultra Pure Air	\$310.00		0	\$0	
Teflon Tubing	\$120.00		0	\$0	
Teflon Sheeting	\$500.00		0	\$0	
Folding Live Traps	\$15.00		0	\$0	
Glassware	\$25.00		0	\$0	
Quartz Filters	\$10.00		0	\$0	
Vermiculite Packing	\$16.00	/bag	0	\$0	

SUBTOTAL MATLS & SUPPLIES:

\$0

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Printed: 22-Mar-96

Parsons Engineering Science, Inc.

\$120

Task # 13

Project Management 24 Monthly Reports

Prop No: 979002-00001	11.4				
	Unit	Unite	Quantity	Cont	Notes
TDAVEL	Cost	<u>Units</u>	Quantity	Cost	Notes
TRAVEL					
Airfare Boston\Syracuse	\$500.00	/trip	4	\$2,000	
Airfare Boston\Huntsville	\$900.00	/trip	0	\$0	
Subsistence-Seneca	\$96.00	/day	4	\$384	
Subsistence-Huntsville	\$89.00	/day	0	\$0	
Parking, Airport	\$13.00	/day	2	\$26	
Auto Rental	\$55.00	/day	2	\$110	
Suburban\Van rental	\$585.00	/week	0	\$0	
Mileage	\$0.31	/mile	100	\$31	
		SUBTOTA	AL TRAVEL:	\$2,551	
OTHERS					
IN-HOUSE SERVICES					
Telephone	\$4.00	/call	500	\$2,000	
Word Proc/PC	\$3.70	/hour	48	\$178	
CADD	\$5.00	/hour	0	\$0	
Facsimile	\$1.00	/page	1000	\$1,000	
Overnight Express					
Letter/2 lb pack	\$14.50		24	\$348	
Package (50 lbs)	\$96.25		0	\$0	
Mail 4-lb pack		/pack	0	\$0	
Mail letters	\$0.54	/letter	0	\$0	
Subto	otal Services			\$3,526	
REPRODUCTION					
Photocopier	\$0.05	/page	2400	\$120	
Aerial Photo repro	\$10.00		0	\$0	
Blueline repro	\$1.00	/Sheet	0	\$0	
Cronoflex Prod	\$5.50	/Sq Ft	0	\$0	
3-ring binders	\$15.00	each	0	\$0	
Color Copies	\$2.00	/page	0	\$0	

Subtotal Reproduction

Huntsville Division

Printed: 22-Mar-96 Parsons Engineering Science, Inc.

Project:

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task # 13

Project Management 24 Monthly Reports

Prop No. 979002-00001					
	Unit				
EQUIDATE IZ DENTAL	Cost	<u>Units</u>	Quantity	Cost	<u>Notes</u>
EQUIPMENT RENTAL					
EARTH SCIENCES EQUIPMENT					
Bailer	\$55.00	/week	0	\$0	
Magnetometer	\$42.00		0	\$0	
pH/Cond meter	\$50.00		0	\$0	
Flow thru pH/Cond meter	\$257.00		0	\$0	
DO meter	\$55.00		0	\$0	
Soil Gas Supplies	\$50.00		0	\$0	
Slug test eqt	\$50.00	,	0	\$0	
Water level ind	\$40.00		0	\$0	
Turbidimeter	\$30.00		0	\$0	
Data Logger, Trnsdcr	\$135.00		0	\$0	
Flow Meter	\$30.00	•	0	\$0	
Water coolers		/month	0	\$0	
Equipment Trailer	\$1,000.00	/month	0	\$0	
Grundfus Redi Flow Pump	\$64.00		0	\$0	
PUF Sampler	\$150.00	•	0	\$0	
PUF Sampler Calibration Kit	\$25.00	/day	0	\$0	
Hi- Vol Sampler	\$75.00	/week	0	\$0	
Hi- Vol Sampler Calibration Kit	\$25.00	/day	0	\$0	
Ponar Sediment Sampler	\$27.00	/day	0	\$0	
3.2 kw Generator	\$50.00	/day	0	\$0	
Seismograph	\$200.00	/day	0	\$0	
EM-31	\$85.00	/day	0	\$0	
GPR	\$500.00	/day	0	\$0	
Subtota	l Rental			\$0	
HEALTH & SAFETY EQUIPMENT					
HNu Meter	\$50.00	/day	0	\$0	
Alpha Survey Meter	\$80.00	,	0	\$0 \$0	
Alpha Scintillation Counter	\$100.00		0	\$0	
Beta Sample Counter	\$100.00		0	\$0	
Gas Proportional Detector	\$100.00		0	\$0	
Gas Prop. Detector-Floor	\$100.00		0	\$0	
Radon Monitor	\$300.00		0	\$0	
Gamma Radiation Meter	\$50.00		0	\$0	
Calib Gas	\$10.00	•	0	\$0	
2-way radios		/ea/wk	0	\$0	
Air Purif Resp	\$20.00		0	\$0	
10-Gal Eye Wash	\$35.00		0	\$0	
Combination SCBA/SAR	\$150.00		0	\$0	
	,	,	-	Ŧ -	

SUBTOTAL OTHERS:

\$3,646

\$0

SUBTOTAL LABOR & ODC'S:

\$64,303

Subtotal H & S

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Project: Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12

Annex E

Prop No: 979002-00001

Task # 13

Project Management

24 Monthly Reports

Prop No: 979002-00001					
	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
SUBCONTRACTORS					
GROUNDWATER or SURFACE WATER LA	ABORATORY	ANAI YSIS			
Volatiles (TCL)	\$180.00		0	\$0	
B/N/A (TCL)	\$400.00		0	\$0	
Pest./PCBs (TCL)	\$180.00		0	\$ 0	
, ,	\$170.00		0	\$0 \$0	
Total Metals & CN(TAL)	\$30.00		0	\$0 \$0	
lron(Ferrous)			0	\$0 \$0	
Sulfide	\$30.00		0	\$0 \$0	
Spec Cond(EPA 9050)		each	0	\$0 \$0	
Total Organic Carbon (EPA 9060)	\$25.00			\$0 \$0	
TOX (EPA 9056)	\$50.00		0		
Chloride(EPA 9250)	\$25.00		0	\$0 \$0	
BOD	\$60.00		0	\$0	
Sulfate(EPA 300)	\$25.00		0	\$0	
COD	\$50.00		0	\$0	
pH (EPA 9045)		each	0	\$0	
Volatiles (EPA 524)	\$195.00		0	\$0	
Hardness(EPA 130.2)	\$15.00		0	\$0	
Alkalinity(EPA 310)	\$12.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
SOILS - SURFACE or SUBSURFACE LABO	DRATORY AN	NAI YSIS			
Volatiles (TCL)	\$180.00		0	\$0	
• • •	\$400.00		0	\$0 \$0	
B/N/A (TCL) Pest./PCBs (TCL)	\$180.00		0	\$0 \$0	
, ,	\$170.00		0	\$ 0	
Total Metals & CN(TAL)	\$8.00		0	\$0 \$0	
Spec Cond(EPA 9050)			0	\$0 \$0	
Total Organic Carbon (L. Kahn)	\$60.00			\$0 \$0	
TOX (EPA 9056)	\$70.00		0		
Chloride(EPA 9250)	\$25.00		0	\$0 ***	
pH (EPA 9045)	\$8.00		0	\$0	
Nitrate (EPA 353.2)	\$20.00	each	0	\$0	
Subtotal	l Team Labor	atory		\$ 0	
		,			
MISC. LABORATORY ANALYSIS	A		•	20	
Grain Size Dist	\$120.00		0	\$0	
TCLP	\$1,500.00		0	\$0	
Moisture Content	\$15.00		0	\$0	
Bulk Density	\$35.00		0	\$0	
Chromium (Level II)	\$30.00	each	0	\$0	
Total Suspended Solids	\$20.00		0	\$0	
Total Dissolved Solids	\$20.00	each	0	\$0	
Ammonia	\$25.00	each	0	\$0	
Phosphate	\$25.00	each	0	\$0	
Cation Exchange Capacity	\$100.00	each	0	\$0	
· , ,					

Printed:

22-Mar-96

Parsons Engineering Science, Inc.

Huntsville Division

Seneca Army Depot Activity, Romulus New York

RI/FS at the Radiological Disposal Areas

SEAD-12 Annex E

Prop No: 979002-00001

Project:

Task # 13

Project Management 24 Monthly Reports

P10p No. 979002-00001	Unit				
	Cost	<u>Units</u>	Quantity	Cost	Notes
RADIOLOGICAL LABORATORY ANALYSIS					
Water Samples For:					
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00	each	0	\$0	
Radium 226,223	\$40.00	each	0	\$0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gross AlphaΒ	\$45.00		0	\$0	
Soil Samples For:	4.0			*-	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$0	
Pb214&211,Bi214,Ce137,Co60		each	0	\$0	
Plutonium 239 + 240	\$65.00		0	\$0	
Americium 241	\$65.00		0	\$0	
Gamma Spectrometry		each	0	\$0	
Dist. Coef.(ASTM D:4319-83)	\$750.00		0	\$0	
Sample Prep/Return		each	0	\$0	
Wipe Samples For:	Ψ0.00	Cacii	· ·	ΨΟ	
Thorium 232, 230, 227	\$60.00	each	0	\$0	
Uranium 238, 235, 233+234	\$60.00		0	\$0	
Radium 226,223	\$40.00		0	\$ 0	
Pb214&211,Bi214,Ce137,Co60	\$80.00		0	\$ 0	
Plutonium 239 + 240	\$65.00		0	\$0 \$0	
Americium 241	\$65.00		0	\$0 \$0	
	\$45.00		0	\$0 \$0	
Gross AlphaΒ	φ45.00	eacii	U	φυ	
AIR SAMPLES LABORATORY ANALYSIS					
SVOC's	\$490.00	each	0	\$0	
Metals	\$150.00	each	0	\$0	
Radon (Alpha Film)	\$25.00	each	0	\$0	
Subtotal	Misc. Labora	eton.		\$ 0	
Subtotal	Wilde. Eudore	atory		Ψ	
NVESTIGATION SUBCONTRACTORS			_	4-	
Driller	Lump Sum		0	\$0	
Photogrammetry	Lump Sum		0	\$0	
IDW Disposal	Lump Sum		0	\$0	
Surveyor	Lump Sum	each	0	\$0	
Subtotal	Investigation	Subcontrac	tors	\$0	
Subtotal La	boratory & In	vestigation S	Subcontractors:	\$0	
	•	-	3% Mark-up:	\$0	
	IDTOTAL	0110001	TD 4 0 TO DO	ΦΦ	

TASK TOTAL:

\$64,303

\$0

SUBTOTAL SUBCONTRACTORS:

SUBCONTRACTOR COSTS BACKUP DATA

LABORATORY SUBCONTRACTOR COSTS BACKUP DATA

Item	Services at the Seneca Army Depot Del. Order E - Investigation of SEAD-12	Unit		Estimated	Ectimat	ed
Itom	Description of Servies*	Cost			Total C	
I.	Perform an analysis of soil or water using	Soil \$	180	306	\$	55080
NYSDEC CLP	the protocols specified in the 12/91 revisions to	3011 \$	100	300	Ф	33000
TCL VOC's	the NYSDEC Analytical Services Protocol (ASP)	Water \$	180	0	\$	0
2.	Perform an analysis of soil or water using	Soil \$	400	306	\$	122400
NYSDEC CLP	the protocols specified in the 12/91 revisions to	3011 \$	400	300	Φ	122400
TCL Semi-VOC's	the NYSDEC ASP Category B data package	Water \$	400	160	\$	64000
3.	Perform an analysis of soil or water using	Soil \$	180	306	\$	55080
NYSDEC CLP	the protocols specified in the 12/91 revisions to	2011 \$	100	300	Φ	22000
		Water	100	160	•	20000
TCL Pest./PCB's	the NYSDEC ASP Category B data package	Water \$	180	160	\$	28800
4.	Perform an analysis of soil or water using	Soil \$	170	306	2	52020
NYSDEC CLP	the protocols specified in the 12/91 revisions to	117	170	1.60	Φ.	27200
TAL Inorganics	the NYSDEC ASP Category B data package	Water \$	170	160	\$	27200
5,	Perform an analysis of soil or water using	Soil \$	180	0	\$	(
EPA Method 8330	the protocols specified in SW-846, with an	TYT O	100			
Explosives	ASP Category B validatable data package	Water \$	180	0	\$	(
6.	Perform an analysis of soil or water using					
EPA Method 524.2	the protocols specified in SW-846, with an					
VOC's	ASP Category B validatable data package	Water \$	195	226	\$	44070
7.	Perform an analysis of soil or water using					
EPA Method 418.1	the protocols specified in SW-846, with an					
TRPH	ASP Category B validatable data package	Water \$	50	0	\$	(
8.	Perform an analysis of soil or water using the	Soil \$	120	55	\$	6600
ASTM D422-63	protocols specified in ASTM Method D422-63.					<u> </u>
Grain Size Analysis		<u></u>				
9.	Perform an analysis of soil or water using	Soil \$	60	55	\$	3300
EPA Method 415.1	the protocols specified in SW-846, with an	10				
Total Organic Carbon	ASP Category B validatable data package	Water \$	25	117	\$	2925
10.	Perform an analysis of water using					
EPA Method 130.2	the protocols specified in SW-846, with an					
Hardness	ASP Category B validatable data package	Water \$	15	117	\$	1755
11.	Perform an analysis of soild materials using				İ	-
Asbestos	Polarized Light Microscopy, with dispersion	Solids N	lo Bid	0	\$	(
EPA600/M4-82-020	staining. Level 3 delivery package.					
12.	Perform an analysis of water using	Soil \$	8	55	\$	440
EPA Method 9045	the protocols specified in SW-846, with an					
рН	ASP Category B validatable data package				-	
13.	Perform an analysis of soil or water using	Soil \$	20	306	\$	6120
EPA Method 353.2	the protocols specified in SW-846, with a	2011		200	-	
NO3	Level 4 delivery package.	Water \$	20	117	\$	234
14.	Perform an analysis of soil or water	παιοι ψ		11/	1 4	237
	LI SELVELLI GII GIIGIYAIA VI AVII VI WAIVI	1			1	
Iron(Ferrous)	for Iron(Ferrous)					

Notes: * - All analyses should include the costs for sample preparation, including extraction.

All analyses should include the costs for sample disposal.
All analyses should include the costs for pre-preserved bottles.

Laboratory Subcontractor Quote for					
	Unit		Estimated	Estimat	ed
	Cost			1	
sulfide.	-				
	Water \$	30	74	\$	2220
Perform an analysis of soil or water for					
BOD					
	Water \$	60	74	\$	4440
the protocols specified in SW-846.					
	Water \$	25	74	\$	1850
				1	
COD	<u> </u>				
	Water \$	50	74	\$	3700
				:	
the protocols specified in SW-846.	777		117		1.10.1
					1404
	Soil \$	1500	12	\$	18000
Charactristic Leaching Procedures.					
Perform an analysis of soil for Bulk	Soil \$	35	15	\$	525
density.					
Perform an analysis of water for total suspended					
solids.					
	Water \$	20	43	\$	860
solids.					
					2340
Perform an analysis of soil for Ammonia	Soil \$	25	43	\$	1075
Perform an analysis of soil for Phosphate	Soil \$	25	43	\$	1075
1 office an analysis of soil for a mospilato	- 50π φ			-	
	0 11 0	100		T 6	
Perform an analysis of soil for cation exchange	Soil \$	100	55	\$	5500
	Del. Order E - Investigation of SEAD-12 Description of Servies* Perform an analysis of soil or water for sulfide. Perform an analysis of soil or water using the protocols specified in SW-846. Perform an analysis of soil or water using the protocols specified in SW-846. Perform an analysis of soil or water using the protocols specified in SW-846. Perform an analysis of soil or water using the protocols specified in SW-846. Perform an analysis of soil by Toxicity Charactristic Leaching Procedures. Perform an analysis of soil for Bulk density. Perform an analysis of water for total suspended solids. Perform an analysis of soil for Ammonia Perform an analysis of soil for Phosphate	Del. Order E - Investigation of SEAD-12 Unit Description of Servies* Cost Perform an analysis of soil or water for sulfide. Perform an analysis of soil or water for BOD Perform an analysis of soil or water using the protocols specified in SW-846. Perform an analysis of soil or water for COD Perform an analysis of soil or water using the protocols specified in SW-846. Perform an analysis of soil or water using the protocols specified in SW-846. Perform an analysis of soil or water using the protocols specified in SW-846. Perform an analysis of soil or water using the protocols specified in SW-846. Perform an analysis of soil by Toxicity Charactristic Leaching Procedures. Perform an analysis of soil for Bulk density. Perform an analysis of water for total suspended solids. Water \$ Perform an analysis of water for total disolved solids. Perform an analysis of soil for Ammonia Soil \$ Perform an analysis of soil for Phosphate Soil \$	Del. Order E - Investigation of SEAD-12	Del. Order E - Investigation of SEAD-12	Del. Order E - Investigation of SEAD-12

Notes: * - All analyses should include the costs for sample preparation, including extraction.

Tot \$517,339.00

All analyses should include the costs for sample disposal.

All analyses should include the costs for pre-preserved bottles.

Name of Laboratory:	Core Labs, Inc.
Address:	420 W. 1ST Street
	Casper, WY
	82601
Name and phone number of contact person	

X none __current __expired Business Classifications: __small __disadvantaged __woman owned

U.S.A.C.O.E. Missourl River Division certification:

- Sample Medium: WATER

Proposed Method Anticipated Proposed Method MDA for AnalysisTurn Cost per Additional Nuclides Detected by Number of

Item#	Radionuclide (and req	uired MDA)	Samples	Proposed Analysis Method	Water Analyses	Around Time	Analysis nx2)	Proposed Analysis
1	Thorlum 232	(1 to 6 pC/L)	231	HASL 300	1 pCi/l	4 week	60.00	\$13,860.00
2	Thorium 230	(1 to 5 pCI/L)	231	HASL 300	a pci/t	4 week	(1)	(1)
3	Thorlum 227	(1 to 5 pCVL)	231	HASL 300	1 pCi/l	4 week	(1)	(1)
4	Uranium 238	(1 to 5 pCVL)		HASL 300	1 pCi/l	4 week	60.00	13,860.00
5	Uranium 235	(1 to 5 pCi/L)	231	HASL 300	1 pCi/l	4 week.	(4)	(4)
8	Uranlum 233+234	(1 to 5 pCVL)	231	HASL 300	1 pCi/l	4 week	(4)	(4)
7	Radium 228	(1 to 5 pCl/L)		EPA 903.1	1 pCi/l	3 week	40.00	9,240.00
8	Radium 223	(1 to 5 pCVL)	117	EPA 903.1	1 pCi/l	3 week	(7)	(7)
9	Plutonium 239+240	(1 to 6 pCVL)	117	HASL 300	1 pCi/l	4 week	65.00	7,605.00
10	Americium 241	(1 to 5 pCVL)	117	HASL 300	1 pCi/l	4 week	:65:00	7,605.00
11	Lead 214	(1 to 5 pCVL)	231	EPA 901.1	1 pci/l	3 week	80.00	18,480.00
12	Lead 211	(1 to 5 pCVL)	117	EPA 901.1	1 pCi/l	3 week	(11) .	(11)
13	Bismuth 214	(1 to 5 pCVL	231	EPA 901.1	1 pCi/l	3 week	(Ì1)	(11)
14	Gross Alpha	(10 pCl/L)	231	EPA 900	10 pci/1	3 week	45.00	10,395.00
15	Gross Beta	(25 pCVL)	231	EPA 900	25 pCi/1	3 week	(14)	(14)
16	Ceslum 137	(1 to 5 pCVL	231	EPA 901.1	1 pCi/l	3 week	(11)	(11)
17	Cobalt 60	(1 to 5 pCI/L	231	EPA 901.1	1 pCi/l	3 week	(11)	(11)
18	Alpha Spectroscopy	(See MAS of the siphs crelting isotopes fieled above.)	0	HASL 300	1 pCi/l	3-4 week	60.00	0.00

⁽¹⁾ The analysis cost should be based upon providing a Level IV or equivalent data package and should include all preparation costs
(2) Please Indicate if multiple isotopes are included in a single analysis cost by referencing the item number of the priced analysis in the cost column of the other isotope(s).

ological Analysis Information Request Sheet

Name of Laboratory	Core Labs, Inc.	U.S.A.C.O.E. Missouri River Division certification	n:
Address	: 420 W. 18T Street	X nonecurrentexpired	
	Casper, WY	Business Classifications:	
	82601	smalldisadvantagedwoman owned	
Name and phor	e		
number of conta	ct c		
perso	n:	Allerings on various sees only	

Sample Medium:

100 cm^2 WIPE 8AMPLE

item #	Radionucide (and re	quired MDA)	Anticipated Number of Samples	Proposed Analysis Method	Proposed Method MDA for Wipe Analyses		Proposed Method Cost per Analysis (1)(2)	Additional Nuclides Detected by Proposed Analysis
1	Thorium 232	-(1-to-5-pG/A.)	188	HASL 300	*1.*p'Ci/l .	4 week	60.00	\$11,280.00
2	Thorium 230	-(1 to 5 pCl/L)	188	HASL 300	*1 pci/l	4 week	(1)	(1)
3	Thorlum 227	-(1 to 5 pG/L)	188	HASE 300	*1 pCi/l	4 week	(1)	(1)
4	Uranium 238	-(1-to-5-pG/AL)	188	HASL 300	*1 pCi/l	4 week	60.00	11,280.00
5	Uranium 235	-(1 to 5 pC/L)	188	HASL 300	*1 pCi/l	4 week.	(4)	. (4)
6	Uranium 233+234	-(1- 10-5 -pG/A.)	188	HASL 300	*1 pCi/l	4 week	(4)	(4)
7	Radium 226	-(1-to-5-pCUL)	188	EPA 903.1	*1 pCi/l	3 week	40.00	7,520.00
8	Radium 223	-(1-to-5-pCi/L)	49	EPA 903.1	*1 pCi/l	3 week	(7)	(7)
9	Plutonium 239+240	-{1-lo-6-p6i/L	49	HASL 300	*1 pCi/l	4 week	65.00	3,185.00
10	Americium 241	- (1 to 5 pCirl.	49	HASL 300	*1 pCi/l	4 week	65.00	3,185.00
11	Lead 214	- (1 to 5 pCi/L	188	EPA 901.1	*1 pCi/l	3 week	80.00	15,040.00
12	Lead 211	_{1105pCIA	. 49	EPA 901.1	*1~p'Ci71	3 week	(11)	(11)
13	Bismuth 214	-{+to-5-peid.	188	EPA 901.1	*1 pCi/l	3 week	(11)	(11)
14	Gross Alpha	- (10-pCVL)	188	EPA 900.0	*10pCi/l	3 week	45.00	8,460.00
15	Gross Beta	- (25-pGVL)	188	EPA 900.0	*25pCi/l	3 week	(14)	(14)
		-ttto5pcifL	188	EPA 901.1	*1 pCi/l	3 week	(11)	(11)
17	Cubalt 80	- (1 to 5 pCb/L	188	EPA 901,1	*1 pCi/l	3 week	(11)	(11)
18	Alpha Spectroscopy	(See MDAs of the siphs amiling isolopes i.sted above.)	0	HASL 300	*1 pCi/l	3≐4 week	60.00	0.00

- The analysis cost should be based upon providing a Level IV or equivalent data package and should include all preparation costs
 Please indicate if multiple isotopes are included in a single analysis cost by referencing the item number of the priced analysis in the cost column of the other isotope(s).
- Assuming a single swipe/analyte, water MDAs are achievable.

Radiological Analysis Information Request Sheet

Name of Laboratory: Core Labs, Inc.

Address: 420 W. 1ST Street

Casper, WY

82601

Name and phone number of contact person: Peter Brixius (307) 235–5741

U.S.A.C.O.E. Missouri River Division certification: X none __current __expired

Business Classifications: __small __disadvantaged __woman owned

Sample Medium: SOILS

ltem #	Radionuclide (and re	quired MDA)	Anticipated Number of Samples	Proposed Analysis Method	Proposed Method MDA for Soil Analyses			Additional Nuclides Detected by Proposed Analysis
1	Thorium 232	(0.5 pCi/g)	592	HASL 300	0.5 pÇi/g	4 Week	60,00	\$35,520,00
2	Thorium 230	(0.5 pCi/g)	592	HASL 300	0.5 pCi/g	4 week	(1)	(1)
3	Thorium 227	(0.5 pCi/g)	592	HASL 300	0.5 pCi/g	4 week	(1)	(1)
4	Uranium 238	(0.5 pCi/g)	592	HASL 300	0.5 pCi/g	4 week	60.00	35,520.00
5	Uranium 235	(0.5 pCi/g)	592	HASL 300	0.5 pCi/g	4 week	(4)	(4)
6	Uranium 233+234	(0.5 pCi/g)	592	HASL 300	0.5 pCi/g	4 week	(4)	(4)
7	Radium 226	(0.5 pCi/g)	592	EPA 901.1	0.5 pCi/g	3 week	40.00	23,680.00
8	Radium 223	(0.5 pCi/g)	303	EPA 901.1	0.5 pCi/a	3 week	(7)	(7)
9	Plutonium 239+240	(0.5 pCi/g)	303	HASL 300	0.5 pCi/g	4 week	65.00	19,695.00
10	Americium 241	(0.5 pCi/g)	303	HASL 300	0.5 pCi/g	4 week	65.00	19,695.00
11	Lead 214	(0.5 pCi/g)	592	EPA 901.1	0.5 pCi/g	3 week	(7)	(7)
12	Lead 211	(0.5 pCi/g)	303	EPA 901.1	0.5 pCi/g	3 week	(7)	(7)
13	Bismuth 214	(0.5 pCi/g)	592	EPA 901.1	0.5 pCi/g	3 week	(7)	(7)
14	Gross Alpha	(NA)	0.	EPA 900.0	10 pCi/g	3 week	45.00	0.00
15	Gross Beta	(NA)	0	EPA 900.0	20 pCi/g	3 week	(14)	(14)
16	Cesium 137	(0.5 pCi/g)	303	EPA 901.1	0.5 pCi/a	3 week	(7)	(7)
17	Cobalt 60	(0.5 pCi/g)	303	EPA 901.1	0.5 pCi/g	3 week	(7)	(7)
18	Alpha Spectroscopy	(See MDAs of the alpha emitting isotopes listed above.)	0	HASL 300	0.5 pCi/g	3-4 week	60.00	0.00

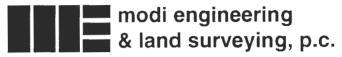
⁽¹⁾ The analysis cost should be based upon providing a Level IV or equivalent data package and should include all preparation costs

⁽²⁾ Please indicate if multiple isotopes are included in a single analysis cost by referencing the item number of the priced analysis in the cost column of the other isotope(s).

SURVEYING SUBCONTRACTOR COSTS BACKUP DATA

RAMESH MODI, P.E. 'RESIDENT

Re:



DONALD H. FRY, L.S. LINA R. MODI

Minority Business Enterprise 1981 - 1996

February 16, 1996

Parsons Engineering Science, Inc.

Prudential Center Boston, MA 02199--7697

Estimate for Surveying Services

SEAD-12

Seneca Army Depot Romulus, New York RECEIVED

FFB 2 2 1996

E.S.-BOSTON

Attn: Mr. Michael Ducheneau

Project Manager

Modi Engineering & Land Surveying, P.C. is pleased to provide a detailed breakdown of our estimate for the above referenced project in accordance with your request on February 16, 1996 to provide surveying services. All rates utilized to prepare this estimate were approved by the Huntsville Corps of Engineers and include direct labor, overhead and fixed fee costs.

Scope of work is as follows:

1) Locations of Samples

Description of Services	Number of Points
Provide Horizontal Survey Control for:	
Seismic Line Nodes	16
EM-31 Geophysical Survey Nodes	50
GPR Geophysical Survey Nodes	20
Soil Gas Locations	25
Surface Water/Sediment Locations	25
Surface Soil Locations	65
Additional Surface Scanning Locations	60
Provide Horizontal and Vertical Survey Control for:	
Monitoring Well Locations	28
Soil Borings	9
Test Pit Locations	20

Two-Man Field Crew: 120 hrs x \$114.82/hr = \$ 13,778.40

2) Monuments

Check horizontal distances and elevations on 3 existing monuments at each site. After commencing the survey, Parsons Engineering Science will provide us with the state plane coordinates and elevations of these monuments.

Two-Man Field Crew: 8 hrs x \$114.82/hr = \$ 918.56

----- consulting engineers & land surveyors -



Page 2

. . . .

3) Tabulated List

Provide a tabulated list of item #1, including there coordinates and elevations as required.

Survey Manager:

24 hrs x \$53.00

= \$ 1,272.00

Description Card 4)

Description card shall show a sketch of each monument and its location relative to reference marks, building, road, poles, etc.

Survey Manager

8 hrs x \$53.00/hr = \$

424.00

5) Office Work Provided

All field notes on vertical and horizontal control with computations and adjustments will be submitted on the final control report.

Survey Manager

16 hrs x \$53.00

848.00

Licensed Land Surveyor 4 hrs x \$65.00

= \$ 260.00

AutoCADD 6)

An AutoCADD disk detailing all sample locations, monuments, X- and Ycoordinates and all required elevations will be submitted to your office.

CADD Manager

Nodi

40 hrs x \$60.00

= \$ 2,400.00

Total

= \$ 19,900.60

Should you require additional information, or have any questions regarding this estimate, please contact Mr. Douglas Keib of this office at (315) 699-9006.

Sincerely,

MODI ENGINEERING & LAND SURVEYING, P.C.

Liha Modi

Managing Engineer

LM:sp

RAMESH MODI, P.E. PRESIDENT



DONALD H. FRY. L.S. LINA R. MODI

Minority Business Enterprise 1981 - 1996

February 20, 1996

Parsons Engineering Science, Inc.

Prudential Center Boston, MA 02199-7697

Re:

Estimate for Surveying Services

SEAD-12

Seneca Army Depot Romulus, New York

Revised estimate in accordance with your letter dated 02/19/96: **Archaeological Sample Locations**

Attn: Mr. Michael Ducheneau

Project Manager

Modi Engineering & Land Surveying, P.C. is pleased to provide a detailed breakdown of our estimate for the above referenced project in accordance with your request on February 16, 1996 to provide surveying services. All rates utilized to prepare this estimate were approved by the Huntsville Corps of Engineers and include direct labor, overhead and fixed fee costs.

Scope of work is as follows:

Locations of Samples 1)

Description of Services	Number of Points
Provide Horizontal Survey Control for:	
Seismic Line Nodes	16
EM-31 Geophysical Survey Nodes	50
GPR Geophysical Survey Nodes	20
Soil Gas Locations	25
Surface Water/Sediment Locations	25
Surface Soil Locations	65
Additional Surface Scanning Locations	60
Provide Horizontal and Vertical Survey Control for:	
Monitoring Well Locations	28
Soil Borings	9
Test Pit Locations	20
Archaeological Sample Locations	600
Two-Man Field Crew: 200 hrs x \$114.82/hr =	\$ 22,964.00

2) Monuments

Check horizontal distances and elevations on 3 existing monuments at each site. After commencing the survey, Parsons Engineering Science will provide us with the state plane coordinates and elevations of these monuments.

Two-Man Field Crew: 8 hrs x \$114.82/hr = \$ 918.56

consulting engineers & land surveyors -



Page 2

3) Tabulated List

Provide a tabulated list of item #1, including there coordinates and elevations as required.

Survey Manager:

48 hrs x \$53,00

= \$ 2,544.00

4) Description Card

Description card shall show a sketch of each monument and its location relative to reference marks, building, road, poles, etc.

Survey Manager

8 hrs x \$53.00/hr

424.00 = \$

5) Office Work Provided

All field notes on vertical and horizontal control with computations and adjustments will be submitted on the final control report.

Survey Manager

16 hrs x \$53.00

848.00

Licensed Land Surveyor 4 hrs x \$65.00

= \$ 260.00

6) AutoCADD

An AutoCADD disk detailing all sample locations, monuments, X- and Ycoordinates and all required elevations will be submitted to your office.

CADD Manager

80 hrs x \$60.00

= \$ 4,800.00

Total

= \$ 32,758.56

Should you require additional information, or have any questions regarding this estimate, please contact Mr. Douglas Keib of this office at (315) 699-9006.

Sincerely,

MODI ENGINEERING & LAND SURVEYING, P.C.

Lina-Modi

Managing Engineer

LM:sp



36 KARLAN DRIVE - ROCHESTER NEW YORK 14617 716-342-5810 FAX: 716-342-6847

February 16, 1996

Mr. Mark E. Baker Remediation Manager Parsons Engineering Science, Inc. Prudential Center Boston, MA 02199-7697

Re: L.M.I. Project 6366/94

Remedial Investigation at SEAD-12

Seneca Army Depot

Dear Mark:

In response to our telephone conversation and your follow-up FAX note, Lockwood Mapping would produce mapping for the area requested for \$35.00 per acre, the same price as the previous mapping area. Since we are now considering a fairly large area, we should incorporate the existing ground control with some new survey points and an analytical aerial triangulation for control densification and extension.

Such triangulation would cost an additional \$975.00.

Mapping would be produced at 1"/50' with 2' contours as before, and presented as both ink on mylar plots and AutoCAD disks.

Should you have any questions, please call.

Sincerely,

Lockwood Mapping, Inc.

Keith P. Adams

KPA:bss

Seneca Army Depot SEAD-12 Aerial Mapping Services

	UNIT	ESTIMATED	TOTAL
ITEM	COST	QUANTITY	COST
Aerial Mapping	\$35.00/acre	875	\$30,625.00
Aerial Triangulation	\$975.00	1	\$975.00
TOTAL			\$31,600.00

DRILLING SUBCONTRACTOR COSTS BACKUP DATA

Drilling Subcontractor Quote for Services at the Seneca Army Denot

	Services at the Seneca Army Depot							
	Remedial Investigation of SEAD-12	Estimated	Maxim Tech	Maxim Tech.	N. Star	N. Star	A. Auger	A. Auger
Item	Description of Services	Quantity 2	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
1.	Mob./Demob. a truck mounted drilling rig		\$325	\$650	\$250	\$500	\$800	\$1,60
Mobilization/	to the site in Romulus, NY. Include security		per event		per event		per event	
Demobilization	requirements to enter the base.							
2.	Provide meals and living costs for one drilling	33	\$0	\$0	\$0	\$0	\$90	\$2,970
Per Diem	crew during the conduct of drilling services.		per day	L	per day		per day	
3	Provide a cost to drive an AW Drilling Rod	120	\$60	\$7,200	\$25	\$3,000	\$50	\$6,000
Install Soil Gas	into the subsurface soil approximately 5 feet.		per probe]	per probe		per probe	
Probes	Cost will include rod removal.						il	
4.	Construct a temporary decon. pad, on-site, to	1	\$200	\$200	\$100	\$100	\$500	\$500
Construct a	perform all decon. of drilling equipment.		per pad		per pad		per pad	
Decon. Pad	Pad will collect all decon. water.							
5.	Provide an hourly rate to steam decon, drilling	66	\$140	\$9,240	\$125	\$8,250	\$105	\$6,930
Decon. Time	equipment; include decon. equipment rental.		per hour		per hour		per hour	
6.	Provide a cost to supply a DOT approved	46	\$55	\$2,530	\$50	\$2,300	\$35	\$1,610
Provide Empty	steel drum, with covers, to contain all drilling		per drum	l i	per drum		per drum	ĺ
Drums	wastes, including decon. water.							
7.	Provide a cost to move a drum, 3/4 full, a	46	\$25	\$1,150	\$25	\$1,150	\$35	\$1,610
Move Drums	distance of 100 ft to a central storage location		per drum		per drum		per drum	
8.	Provide cost to perform Hollow Stem	370	\$16	\$5,920	\$15	\$5,550	\$17	\$6,290
Hollow Stem	Augering using a 6.25" auger with a plug.		per foot		per foot		per foot	
Augering								
9.	Provide cost to perform Hollow Stem	0	\$0	\$0	\$50	\$0	\$19	\$1
Hollow Stem	Augering using a 10" auger with a plug.		per foot		per foot		per foot	
Augering							I	l
10.	Provide a cost to collect a 3" split-spoon	185	\$16	\$2,960	\$15	\$2,775	\$18	\$3,330
Split-Spoon	sample, following the completion of		per split-		per split-		per split-	
Sampling	Hollow Stem Augering.		spoon		spoon		spoon	
11.	Provide a cost for the drilling crew to standby	66	\$140	\$9,240	\$125	\$8,250	li .	\$6,600
Standby Time	during completion of an activity.		per hour		per hour		per hour	
12.	Provide a cost to grout a borehole upon	90	\$8	\$720	\$4	\$360		\$720
Grout Boreholes	completion of soil sampling activities.		per foot		per foot		per foot	
13.	Provide a cost, including materials, to install	28	\$225	\$6,300	\$225	\$6,300	\$200	\$5,600
Installation of	a 15' overburden monitoring well as specified		per well		per well		per well	
Monitoring Wells	in the attached text.							
14.	Provide a cost, including materials, to install	28	\$75	\$2,100	\$150	\$4,200		\$6,30
Ballards	three ballards around each monitoring well.		per well		per well		per well	
15	Provide a cost, including materials, to install	28	\$100	\$2,800	\$25	\$700	1	\$2,10
Concrete Collar	a concrete collar around each monitoring well		per well		per well		per well	
16.	Provide a cost, including materials, to install a	28	\$100	\$2,800	\$100	\$2,800	-	\$2,80
Steel Casing	4" steel casing, with a cap & a weep hole.		per well		per well		per well	
17.	Provide a cost to supply a brass, weather	28	\$25	\$700	\$10	\$280		\$56
Brass Locks	resistant, lock for each well.		per well		per well		per well	
18.	Provide a cost to supply a bulldozer to tow the	1	\$500	\$500	\$1,000	\$1,000	\$800	\$800
Bulldozer	drill rig, include standby, mob. & operator.		per week		per week		per week	
19.	Provide a cost for the drill crew to upgrade	30	\$30	\$900	\$50	\$1,500	\$20	\$60
evel C Surcharge	to Level C, including support equipment.		per hour		per hour		per hour	
20.	Provide a cost for the drill crew to upgrade	10	\$150	\$1,500	\$150	\$1,500	\$80	\$800
evel B Surcharge	to Level B, including support equipment.		per hour		per hour		per hour	
	TOTALs			\$57,410		\$50,515		\$57,72

Inc.

P.O. Box 67, Cortland, NY 13045

Phone: 607-756-8820 Fax: 607-753-9911

Transmittal

February 16, 1996 Date:

To: Parsons Engineering Science, Inc.

> Prudential Center Boston, MA 02199

Attn: Michael Duchesneau, P.E.

Re: Seneca Army Depot

Romulus, New York

From: Jeff Thew

We are sending you by fax, with original by mail, the attached Drilling Subcontractor Quote for technical drilling services in connection with the referenced project as per your letter request of February 15, 1996.

The Contractor Safety Data Questionnaire will be forwarded by mail, along with the original quote.

If you should have any questions or require additional information, please do not hesitate to call. We thank you for the invitation to quote on this work and look forward to the possibility of being of service on the project.

JJT:pb

Encs.

Drilling Subcontractor Quote for Services at the Seneca Army Depot

	Services at the Seneca Army Depot		· · · · · · · · · · · · · · · · · · ·	
	Remedial Investigation of SEAD-12		Estimated	Estimated
Item	Description of Services	Unit Cost	Quantity	Total Cost
1.	Mob./Demob. a truck mounted drilling rig	\$ 250.00		
Mobilization/	to the site in Romulus, NY. Include security	per event	2	\$ 500.00
Demobilization	requirements to enter the base.		·	
2.	Provide meals and living costs for one drilling	\$ 0.00	. 33	
Per Diem	crew during the conduct of drilling services.	per day		\$ 0.00
3	Provide a cost to drive an AW Drilling Rod	\$ 25.00	120	
Install Soil Gas	into the subsurface soil approximately 5 feet.	per probe		\$3,000.00
Probes	Cost will include rod removal.			
4.	Construct a temporary decon. pad, on-site, to	\$ 100.00	I	
Construct a	perform all decon. of drilling equipment.	per pad		\$ 100.00
Decon. Pad	Pad will collect all decon, water.			
5.	Provide an hourly rate to steam decon. drilling	\$ 125.00	66	
Decon. Time .	equipment, include decon, equipment rental.	per hour		\$8,250.00
6.	Provide a cost to supply a DOT approved	\$ 50.00	46	
Provide Empty	steel drum, with covers, to contain all drilling	per drum		\$2,300.00
Drums	wastes, including decon water.			, , -
7-	Provide a cost to move a drum, 3/4 full, a	\$ 25.00	46	
Move Drums	distance of 100 ft to a central storage location	per drum	, ,	\$1,150.00
8.	Provide cost to perform Hollow Stem	\$ 15.00	370	\$1,170.00
Hollow Stem	Augering using a 6.25" auger with a plug.	per foot] 3,0	\$5,550.00
_	Augering using a 0.23 auger will a plug.	periodi		\$5,550.00
Augering 9.	Provide cost to perform Hollow Stem	\$ 50.00	0	
= *	Augering using a 10" auger with a plug.	per foot		\$ 0.00
Hollow Stem	Augering using a 10 auger with a plug.	per root		\$ 0.00
Augering	Provide a cost to collect a 3" split-spoon	\$ 15.00	185	
10.	l		165	\$2,775.00
Split-Spoon	sample, following the completion of	per split-		Ψ2,//).00
Sampling	Hollow Stem Augering.	\$poon	66	
11.	Provide a cost for the drilling crew to standby	\$ 125.00	00	\$8,250.00
Standby Time	during completion of an activity.	per hour	- 00	\$0,250.00
12.	Provide a cost to grout a borehole upon	1 .	90	\$ 360.00
Grout Boreholes	completion of soil sampling activities.	per foot	20	7 700.00
13.	Provide a cost, including materials, to install	\$ 225.00	28	
Installation of	a 15' overburden monitoring well as specified	per well		\$6,300.00
Monitoring Wells	in the attached text.	£ 150 00	20	
14.	Provide a cost, including materials, to install	\$ 150.00	28	#1. 000 00
Ballards	three ballards around each monitoring well.	per well	20	\$4,200.00
15	Provide a cost, including materials, to install	\$ 25.00	28	
Concrete Collar	a concrete collar around each monitoring well	per well		\$ 700.00
16.	Provide a cost, including materials, to install a	\$ 100.00	28	
Steel Casing	4" steel casing, with a cap & a weep hole.	per well		\$2,800.00
17.	Provide a cost to supply a brass, weather	\$ 10.00	28	4 200 00
Brass Locks	resistant, lock for each well.	per well		\$ 280.00
18.	Provide a cost to supply a bulldozer to tow the	\$1000.00	I	
Bulldozer	drill rig, include standby, mob. & operator.	per week		\$1,000.00
19.	Provide a cost for the drill crew to upgrade	\$ 50.00	30	
Level C Surcharge	to Level C, including support equipment.	per hour		\$1,500.00
20.	Provide a cost for the drill crew to upgrade	\$ 150.00	10	
Level B Surcharge	to Level B, including support equipment.	per hour		\$1,500.00

WASTE DISPOSAL SUBCONTRACTOR COSTS BACKUP DATA

Seneca Army Depot RI/FS at SEAD-12 Waste Disposal Costs

	UNIT		ESTIMATED	TOTAL
ITEM	COST	UNIT	QUANTITY	COST
Transportation/Round Trip	\$850	Trip	2	\$1,700
Transp. /Round Trip Vac. Truck	\$850	Trip	1	\$850
Disposal of Soil Drums	\$202	Drum	9	\$1,814
Disposal of Empty Drums	\$25	Drum	47	\$1,175
Inspection Fee	\$0	Each	1	\$0
Demurrage Time (Loading)	\$75	Hour	10	\$750
Bulk Rate for Liquid Disposal	\$0.60	Gallon	560	\$333
Additional Labor	\$35	Hour	14	\$490
Disposal of Liquid Drum	\$106	Drum	14	\$1,477
Overpacks of Liquid Drums	\$100	Drum	14	\$1,400

TOTALS

\$9,989

Seneca Army Depot RI/FS at SEAD-12 Waste Disposal Costs

	UNIT		ESTIMATED	TOTAL
ITEM	COST	UNIT	QUANTITY	COST
Transportation/Round Trip	\$850	Trip	2	\$1,700
Transp. /Round Trip Vac. Truck	\$850	Trip	1	\$850
Disposal of Soil Drums	\$202	Drum	9	\$1,814
Disposal of Empty Drums	\$25	Drum	47	\$1,175
Inspection Fee	\$0	Each	1	\$0
Demurrage Time (Loading)	\$75	Hour	10	\$750
Bulk Rate for Liquid Disposal	\$0.60	Gallon	560	\$333
Additional Labor	\$35	Hour	14	\$490
Disposal of Liquid Drum	\$106	Drum	14	\$1,477
Overpacks of Liquid Drums	\$100	Drum	14	\$1,400
			TOTALS	\$9,989

Note: The unit cost column of this table includes any applicable insurance surcharges. Insurance surcharges are \$5.50 / drum and \$0.035 / gallon of liquid waste.

PHONE NO. : 617 585 6833 Feb. 19 1996 01:04PM P2

ID:203-755-5748

FROM : EWR GREG DORN

I.

II.

EWR, INC.

FEB 15'96 __17:39 No.011 F.02

Seneca Army Depot RVFS at SEAD-12 Waste Disposal Costs

ITEM	UNTT COST	UNIT	ESTIMATED QUANTITY	TOTAL
Transportation/Round Trip	\$ 850.00	Trip	2	\$1700.00
Disposal of Soil Drum	\$ 196.00	Drum	9	\$1764.00
Inspection Fee	\$	Each	i	
Bulk Rate for Liquid Disposal	\$ 0.56	Gallon	\$60 ×	\$313.00
Disposal of Liquid Drum	\$ 100.00	Drum	14	\$1400.00
Transportation of Bulk Liquid(Vac Trk)	\$850.00	Trip	2	\$1700.00
Additional Labor (if necessary)	\$ 35.00	Hour	. 14	\$490.00

III. 85 Gallon Overpacks \$100.00 EA (if necessary) Drum Demurrage Time (Loading on Site) HR \$ 75.00 Hour IV. \$ 25.00 EA Drum Empty Drums ٧.

VI. Insurance Surcharges:
Drums@ \$5.50/drum
Gallons@ \$0.035/gallon