



B.J. JENKINS

JUN 08 1992

P.O.# 25684

cc: Wayne Casido

Date: 05/22/92

OLIN ORDINANCE
Attn: BILL JENKINS
RAVAENNA ARSENAL
8451 STATE ROUTE 5
RAVENNA, OH44266-9297

This letter will serve to inform you that Clean Harbors has the appropriate permits and licenses for, and will accept, those wastes meeting the specifications established by the Waste Material Profile numbers listed below.

When shipping the below referenced wastes, the waste material profile number must be referenced on the shipping container and the manifest.

Please note that should you desire to ship material types other than those covered by the codes on the following page(s), a Waste Material Profile Sheet must be completed for each new material and submitted for acceptance. If acceptable it will be added to your list and a new letter will be sent to you prior to shipment of the material.

To schedule a shipment contact your area Clean Harbors Customer Service Department at 216-429 .

We appreciate this opportunity to service your environmental needs.

Very truly yours,

CLEAN HARBORS ENVIRONMENTAL SERVICES COMPANIES
Customer Service Department

RECEIVED
JUN 08 1992
PURCHASING



PROFILE #	Generator	Description	Exp. DA
S46002	OLIN ORDINANCE	OILY SLUDGE SEMI-SOLID	05/13/
S46003	OLIN ORDINANCE	OILY WATER	05/13/



ENVIRONMENTAL SERVICES COMPANIES
1200 EAST 55TH STREET
CLEVELAND, OHIO 44103
(216) 429-2401

B.J. JENKINS

MAY 27 1992

*cc: Wayne Casidero
Harold Cooper.
Review and offer
comments.
BJS
5/27/92*

May 26, 1992

Mr. Bill Jenkins
Olin Ordnance
Ravenna Arsenal
8451 State Route 5
Ravenna, Ohio 44266-9297

Dear Mr. Jenkins:

In reference to our conversation, 5/26/92, Purchase Order #25684: At this point in time we have reached \$5147.00 in Labor and Equipment costs. We have at this point in time invoiced you for \$6947.00. The table below reflects the total cost associated with this job.

The above Invoice amount includes analytical of 2 samples. It does not include Transportation and Disposal of the drums. Your staff will be decanting some of the drums to assist in lowering Disposal costs.

The cost break down is as follows:

LABOR AND EQUIPMENT FOR 20 HOURS.....	\$4120.00
VACUUM TRUCK, AT YOUR REQUEST, FOR 8 HOURS @ \$75/HR. (DAY REQUESTED WAS 4/23/92)	\$600.00
ANALYTICAL FOR 2 SAMPLES.....	\$1800.00
(BREAK DOWN OF ANALYTICAL OUTLINED IN PROPOSAL)	
DISPOSAL 7 DRUMS AT \$290.00 / DRUM	\$2030.00
(THIS IS A WORSE CASE SITUATION)	
TRANSPORTATION MINIMUM LOAD CHARGE APPLIES.....	\$250.00
(TRANSPORTING OF 7 DRUMS FOR DISPOSAL)	

*THERE IS A CREDIT OF 3 HOURS OF DOWN TIME FOR VACUUM TRUCK AND WE ARE HONORING OUR PROPOSAL OF NOT TO EXCEED 20 HOURS.

TOTAL.....	\$8800.00
LESS CREDITS OF \$75.00/HR FOR 3 HOURS.....	\$225.00
NET TOTAL JOB COST.....	\$8575.00



Mr. Jenkins
May 26, 1992
Page 2

Our experience with similar projects was displayed in our proposal. When we became aware of your maintenance schedule, and the excessive blockage, we negotiated to bring in a larger unit. We then informed you that Disposal and Analytical might exceed your P.O. You stated that as long as we kept the labor costs under the P.O. that this would be sufficient. On the 2nd day we were asked to bring in our Vacuum Truck for a third time. I stated to Barbara that the Disposal and Analytical would exceed the original P.O. We agreed that in order to accomplish our objective this had to be done. We showed up on 4/23/92 with the Vacuum truck. Both Joe and Wayne stated that we did a good job and were glad that we followed through.

We are looking to improve our relationship with Olin and Ravenna Arsenal. If you have any questions please call me or Mike David at 429-2401.

Thank You,
Daniel S. Morrison

A handwritten signature in cursive script, appearing to read "Daniel S. Morrison".

PC: Victor Amster, Account Manager



ANALYTICAL SERVICES, INC.
BEDFORD DIVISION
213 BURLINGTON ROAD, BEDFORD, MA 01730
(617) 275-6111

B.J. JENKINS

JUN 02 1992

REPORT OF ANALYSIS

*C: Susan McConli
Wayne Caliber*

Clean Harbors of Kingston, Inc.
Cleveland Field Services
1200 E. 55th Street
Cleveland, OH 44103

Project: Olin Ordnance
P.O. #: OH5152

Date Received: 04/28/92
CHAS Lab #: 92X04146

Attn: Mr. Dan Morrison

Enclosed are the results for the sample(s) delivered to our laboratory on the date indicated above.

The methods listed represent those methodologies which were used to develop the best analytical techniques. Analytical results and quality assurance protocols are based on these guidelines. These meet the requirements for the reporting of results under the RCRA, NPDES and Safe Drinking Water Act regulations.

Clean Harbors Analytical Services has an active program of quality assurance and quality control. The program closely follows the guidance provided in the EPA Contract Laboratory Program Statement of Work, the guidance provided in SW-846, and many other pertinent documents.

Should you have any questions concerning this work, please do not hesitate to contact me at the number above.

Please note that samples will be held for a period not to exceed 30 days from date of final report.

The information contained in this report is, to the best of my knowledge, accurate and complete.

Per/Date:

Richard Ravenelle 5/13/92

Richard Ravenelle
Laboratory Manager



Client: Clean Harbors of Kingston, Inc.
 Sample I.D.: Drain L S46003
 Sample Type: Liquid

CHAS Lab #: 92X04146-01
 Date Received: 04/28/92

TCLP Wastes

Waste Code	Description	Regulatory Level*	MDL*	Conc.*
D004	Arsenic	5.0	0.50	ND
D005	Barium	100.0	1.0	2.3
D018	Benzene	0.5	0.10	ND
D006	Cadmium	1.0	0.030	ND
D019	Carbon Tetrachloride	0.5	0.10	ND
D020	Chlordane	0.03	-- Not requested --	
D021	Chlorobenzene	100.0	0.10	ND
D022	Chloroform	6.0	0.10	ND
D007	Chromium	5.0	0.040	ND
D026	Total Cresol	200.0	-- Not requested --	
D016	2,4-D	10.0	-- Not requested --	
D027	1,4-Dichlorobenzene	7.5	-- Not requested --	
D028	1,2-Dichloroethane	0.5	0.10	ND
D029	1,1-Dichloroethylene	0.7	0.10	ND
D030	2,4-Dinitrotoluene	0.13	-- Not requested --	
D012	Endrin	0.02	-- Not requested --	
D031	Heptachlor (and its Epoxide)	0.008	-- Not requested --	
D032	Hexachlorobenzene	0.13	-- Not requested --	
D033	Hexachlorobutadiene	0.5	-- Not requested --	
D034	Hexachloroethane	3.0	-- Not requested --	
D008	Lead	5.0	0.50	0.89
D013	Lindane	0.4	-- Not requested --	
D009	Mercury	0.2	0.0020	ND
D014	Methoxychlor	10.0	-- Not requested --	
D035	Methyl Ethyl Ketone	200.0	0.40	ND
D036	Nitrobenzene	2.0	-- Not requested --	
D037	Pentachlorophenol	100.0	-- Not requested --	
D038	Pyridine	5.0	-- Not requested --	
D010	Selenium	1.0	0.60	ND
D011	Silver	5.0	0.20	ND
D039	Tetrachloroethylene	0.7	0.10	ND
D015	Toxaphene	0.5	-- Not requested --	
D040	Trichloroethylene	0.5	0.10	ND
D041	2,4,5-Trichlorophenol	400.0	-- Not requested --	
D042	2,4,6-Trichlorophenol	2.0	-- Not requested --	
D017	2,4,5-TP (Silvex)	1.0	-- Not requested --	
D043	Vinyl Chloride	0.2	0.10	ND

Notes: ND - Below minimum detectable level (MDL)

TR - Trace amount present but below MDL

* - mg/l

TCLP - Toxicity Characteristic Leaching Procedure, EPA Method 1311 as described in the Federal Register, Volume 55, No. 126.

This is a summary report. Please see the following pages for full results.



Client: Clean Harbors of Kingston, Inc.
 Sample I.D.: Drain L S46003
 Sample Type: Liquid

CHAS Lab #: 92X04146-01A
 Date Received: 04/28/92
 Internal Code: VS30

Volatile Organics - System D
 Toxicity Characteristic Leaching Procedure (TCLP)
 by EPA Method 8260 (ref. c)

Zero Headspace Extraction Date: 05/05/92

Analysis Date: 05/07/92

Parameter	MDL*	Conc.*	Parameter	MDL*	Conc.*
Benzene	0.10	ND	1,1-Dichloroethylene	0.10	ND
Carbon Tetrachloride	0.10	ND	Methyl Ethyl Ketone	0.40	ND
Chlorobenzene	0.10	ND	Tetrachloroethylene	0.10	ND
Chloroform	0.10	ND	Trichloroethylene	0.10	ND
1,2-Dichloroethane	0.10	ND	Vinyl Chloride	0.10	ND

Notes

ND - Below minimum detectable level (MDL)

TR - Trace amount present but below MDL

* = mg/l

TCLP - Toxicity Characteristic Leaching Procedure, EPA Method 1311 as described
 in the Federal Register, Volume 55, No. 126.

QA/QC

Surrogate Recoveries:

1,2-Dichloroethane-d4: 97 %
 Toluene-d8: 99 %
 p-BFB: 107 %

Acceptance Criteria:

Water	Soil
76-114%	70-121%
88-110%	84-138%
86-115%	59-113%



Client: Clean Harbors of Kingston, Inc.
Sample I.D.: Drain L S46003
Sample Type: Liquid

CHAS Lab #: 92X04146-01M
Date Received: 04/28/92

Parameter	MDL	Result	Units	Analysis Date	Method Number and Reference
Cyanide, Reactive	0.96	ND	mg/kg	04/29/92	7.3.3.2(c)
Flashpoint	--	>200	deg F	05/04/92	1010(c)
pH	--	7.9	--	04/29/92	150.1(a)
Sulfide, Reactive	16	55	mg/kg	04/29/92	7.3.4.2(c)

Notes: ND = Below minimum detectable level (MDL)



Client: Clean Harbors of Kingston, Inc.
Sample I.D.: Drain L S46003
Sample Type: Liquid

CHAS Lab #: 92X04146-01M
Date Received: 04/28/92

Parameter	MDL*	Result*	Digestion Date	Analysis Date	Method Number and Reference
Arsenic - TCLP	0.50	ND	05/06/92	05/07/92	3010/6010(c)
Barium - TCLP	1.0	2.3	05/06/92	05/07/92	3010/6010(c)
Cadmium - TCLP	0.030	ND	05/06/92	05/07/92	3010/6010(c)
Chromium - TCLP	0.040	ND	05/06/92	05/07/92	3010/6010(c)
Lead - TCLP	0.50	0.89	05/06/92	05/07/92	3010/6010(c)
Mercury - TCLP	0.0020	ND	05/07/92	05/08/92	7470(c)
Selenium - TCLP	0.60	ND	05/06/92	05/07/92	3010/6010(c)
Silver - TCLP	0.20	ND	05/06/92	05/07/92	3005/6010(c)

Sample extracted on 05/04/92.

Notes: ND = Below minimum detectable level (MDL)
* = mg/l
All metal results are blank corrected.

TCLP - Toxicity Characteristic Leaching Procedure, EPA Method 1311 as described in the Federal Register, Volume 55, No. 126.



Client: Clean Harbors of Kingston, Inc.
 Sample I.D.: Drain S S46002
 Sample Type: Solid

CHAS Lab #: 92X04146-02
 Date Received: 04/28/92

TCLP Wastes

Waste Code	Description	Regulatory Level*	MDL*	Conc.*
D004	Arsenic	5.0	0.50	ND
D005	Barium	100.0	1.0	1.4
D018	Benzene	0.5	0.10	ND
D006	Cadmium	1.0	0.030	ND
D019	Carbon Tetrachloride	0.5	0.10	ND
D020	Chlordane	0.03	-- Not requested	--
D021	Chlorobenzene	100.0	0.10	ND
D022	Chloroform	6.0	0.10	ND
D007	Chromium	5.0	0.040	ND
D026	Total Cresol	200.0	-- Not requested	--
D016	2,4-D	10.0	-- Not requested	--
D027	1,4-Dichlorobenzene	7.5	-- Not requested	--
D028	1,2-Dichloroethane	0.5	0.10	ND
D029	1,1-Dichloroethylene	0.7	0.10	ND
D030	2,4-Dinitrotoluene	0.13	-- Not requested	--
D012	Endrin	0.02	-- Not requested	--
D031	Heptachlor (and its Epoxide)	0.008	-- Not requested	--
D032	Hexachlorobenzene	0.13	-- Not requested	--
D033	Hexachlorobutadiene	0.5	-- Not requested	--
D034	Hexachloroethane	3.0	-- Not requested	--
D008	Lead	5.0	0.50	ND
D013	Lindane	0.4	-- Not requested	--
D009	Mercury	0.2	0.0020	ND
D014	Methoxychlor	10.0	-- Not requested	--
D035	Methyl Ethyl Ketone	200.0	0.40	ND
D036	Nitrobenzene	2.0	-- Not requested	--
D037	Pentachlorophenol	100.0	-- Not requested	--
D038	Pyridine	5.0	-- Not requested	--
D010	Selenium	1.0	0.60	ND
D011	Silver	5.0	0.20	ND
D039	Tetrachloroethylene	0.7	0.10	ND
D015	Toxaphene	0.5	-- Not requested	--
D040	Trichloroethylene	0.5	0.10	ND
D041	2,4,5-Trichlorophenol	400.0	-- Not requested	--
D042	2,4,6-Trichlorophenol	2.0	-- Not requested	--
D017	2,4,5-TP (Silvex)	1.0	-- Not requested	--
D043	Vinyl Chloride	0.2	0.10	ND

Notes: ND - Below minimum detectable level (MDL)

TR - Trace amount present but below MDL

* - mg/l

TCLP - Toxicity Characteristic Leaching Procedure, EPA Method 1311 as described in the Federal Register, Volume 55, No. 126.

This is a summary report. Please see the following pages for full results.



Client: Clean Harbors of Kingston, Inc.
 Sample I.D.: Drain S S46002
 Sample Type: Solid

CHAS Lab #: 92X04146-02A
 Date Received: 04/28/92
 Internal Code: VS30

Volatile Organics - System D
 Toxicity Characteristic Leaching Procedure (TCLP)
 by EPA Method 8260 (ref. c)

Zero Headspace Extraction Date: 05/05/92

Analysis Date: 05/06/92

Parameter	MDL*	Conc.*	Parameter	MDL*	Conc.*
Benzene	0.10	ND	1,1-Dichloroethylene	0.10	ND
Carbon Tetrachloride	0.10	ND	Methyl Ethyl Ketone	0.40	ND
Chlorobenzene	0.10	ND	Tetrachloroethylene	0.10	ND
Chloroform	0.10	ND	Trichloroethylene	0.10	ND
1,2-Dichloroethane	0.10	ND	Vinyl Chloride	0.10	ND

Notes

ND = Below minimum detectable level (MDL)
 TR = Trace amount present but below MDL
 * = mg/l

TCLP = Toxicity Characteristic Leaching Procedure, EPA Method 1311 as described
 in the Federal Register, Volume 55, No. 126.

QA/QC

Surrogate Recoveries:

1,2-Dichloroethane-d4: 100 %
 Toluene-d8: 95 %
 p-BFB: 97 %

Acceptance Criteria:

Water	Soil
76-114%	70-121%
88-110%	84-138%
86-115%	59-113%



Client: Clean Harbors of Kingston, Inc.
 Sample I.D.: Drain S S46002
 Sample Type: Solid

CHAS Lab #: 92X04146-02M
 Date Received: 04/28/92

Parameter	MDL*	Result*	Digestion Date	Analysis Date	Method Number and Reference
Arsenic - TCLP	0.50	ND	05/06/92	05/07/92	3010/6010(c)
Barium - TCLP	1.0	1.4	05/06/92	05/07/92	3010/6010(c)
Cadmium - TCLP	0.030	ND	05/06/92	04/07/92	3010/6010(c)
Chromium - TCLP	0.040	ND	05/06/92	05/07/92	3010/6010(c)
Lead - TCLP	0.50	ND	05/06/92	05/07/92	3010/6010(c)
Mercury - TCLP	0.0020	ND	05/07/92	05/08/92	7470(c)
Selenium - TCLP	0.60	ND	05/06/92	05/07/92	3010/6010(c)
Silver - TCLP	0.20	ND	05/06/92	05/07/92	3005/6010(c)

Sample extracted on 04/29/92.

Notes: ND = Below minimum detectable level (MDL)

* = mg/l

All metal results are blank corrected.

Soil/solid samples based on sample dry weight.

TCLP = Toxicity Characteristic Leaching Procedure, EPA Method 1311 as described in the Federal Register, Volume 55, No. 126.



CH Cleveland TX

4/28/92

Clean Harbors Analytical, 213 Burlington Rd., Bedford, MA 01730

CHAIN OF CUSTODY RECORD

Sample Custodian - (617) 275-6111

Page of

Client: Clean Harbors of Kingston

Project Name: Jim Advantics

Project No. #: 015752

Date: 4/22/92

Report To: Clean Harbors Inc

Address: 1200 East 55th St Cleveland OH 44103 Phone #: 216-483-2101

Invoice To: Same

Address: Same

Date Samples collected: 4/21/92

by: Dan Morrison

Date Samples Received: 4/28/92

Arbill/Bill of Lading? Y N

NOTE: Samples received unpreserved will be preserved upon arrival at CHS.

Samples were: Preserved

(Unpreserved)

Sampling Information

Sample I.D.	Date	Time	Station Location	Sample Type
<u>DRAIN L</u>	<u>4/29</u>	<u>1630</u>	<u>DRAIN</u>	<u>LIQUID</u>
<u>DRAIN S</u>	<u>4/29</u>	<u>1630</u>	<u>DRAIN</u>	<u>SEMISOLID</u>

Analysis

Flash	PH	TCLP Metals	TCLP Vol	Acet. City
<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>

# of con.	Comments (Special instructions, cautions, etc.)	CHS Sample #
<u>2</u>	<u>546003 oims</u>	<u>92X04146</u>
<u>2</u>	<u>one given to facility</u>	<u>01A 01M</u>
	<u>446002</u>	<u>02A 02M</u>

Relinquished by: [Signature]
Date: 4/28/92 Time: 0800

VOA Vial
Glass Bottle X
Plastic Bot.

Received by: [Signature]
Date: 4/28/92 Time: 0800

Relinquished by: [Signature]
Date: 4/28/92 Time: 1200

Received by: [Signature]
Date: 4/28/92 Time: 1200

Preservation Key: A - Acidified with
B - Filtered, C - Sample chilled, D - NaOH,
E - Methylsulfate, V - Sample Ambient, F - Other

NOT COLLECTED

REMARKS: (Sample storage, nonstandard sample bottles, special instructions)
PLEASE FORWARD REMAINING SAMPLE TO CENTRAL FACILITY FOR SAMPLE APPROVAL

Standard laboratory turnaround time is 2 weeks from date of receipt. Accelerated turnaround may be assessed a surcharge. Accelerated turnaround requested:

Location of samples: RI R3R1
Turnaround: 24 Hrs 48 Hrs 1 Week 2 Weeks Other:

Surcharge:



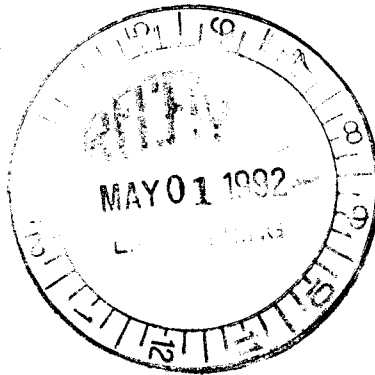
Method References

- (a) "Methods for Chemical Analysis of Water and Wastes." Publication EPA-600/4-79-020. U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, 1979, revised March 1981.
- (b) "Standard Methods for the Examination of Water and Wastewater." 15th ed., American Public Health Association, American Water Works Association, Water Pollution Control Federation, Washington, D.C., 1980.
- (c) "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods." 2nd ed., U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington, D.C., July 1982.
- (d) "The Determination of Polychlorinated Biphenyls in Transformer Fluid and Waste Oils." Publication EPA-600/4-81-043, U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, 1981.
- (e) "EPA-CLP Organic Analyses of Low and Medium Hazardous Waste Sample (Water and Soil) Procedures Revision." U.S. Environmental Protection Agency, July 1985.
- (f) "Test Procedures for Analyses of Organic Pollutants." Code of Federal Regulations, Appendix A, Part 136, July 1, 1985.
- (g) "Measurement of Purgeable Organic Compounds in Drinking Water by Gas Chromatography/Mass Spectrometry." Method 524, U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati.
- (h) "Prescribed Procedures for Measurement of Radioactivity in Drinking Water." Publication EPA-600/4-80-032, U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, August 1980.
- (i) "Clean Harbors Radiological Environmental Analytical Procedures." Clean Harbors Analytical Services, Braintree, MA, October 1985.
- (j) "Methods for Chlorinated Phenoxy Acid Herbicides in Industrial Effluents." MDOAEL, Cincinnati, November 23, 1973.
- (k) "Annual Book of Standards." Section 11: Water and Environmental Technology, Vols. 11.01-11.04, American Society for Testing and Materials, Philadelphia, 1983, 1984, 1985.
- (l) "Methods for Benzidine, Chlorinated Organic Compounds, Pentachloroaromatics and Pesticides in Water and Wastewater." U.S. Environmental Protection Agency, September 1978.
- (m) "Methods for Organochlorine Pesticides in Industrial Effluents." MDOAEL, Environmental Protection Agency, Cincinnati, November 28, 1973.
- (n) "Methods for Determination of Inorganic Substances in Water and Fluvial Sediments." Techniques of Water-Resources Investigation of the U.S. Geological Survey, Book 5, Chapter A-1, U.S. Department of the Interior, 1979.
- (o) "Measurement of Trihalomethanes in Drinking Water by Gas Chromatography/Mass Spectrometry and Selected Ion Monitoring." Method 501.3, U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati.
- (p) "The Analysis of Trihalomethanes in Finished Waters by the Purge and Trap Method." U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati.
- (q) "The Analysis of Trihalomethanes in Drinking Water by Liquid/Liquid Extraction." U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati.
- (r) "Official Methods of Analysis." Association of Official Analytical Chemists, 14th ed., 1964.
- (s) "Each Handbook of Water Analysis," Each Chemical Company, Loveland, CO, 1979.
- (t) E.M. Prichard and T.F. Coeall, "Rapid Measurement of Ra-222 Concentrations in Water with a Commercial Liquid Scintillation Counter," Health Physics, Vol. 33, 1977, pp. 577-581.
- (u) "Petroleum Products and Lubricants (I): D56-D1660," Annual Book of ASTM Standards, Volume 5.01, American Society for Testing and Materials, Philadelphia, 1985.
- (v) "Petroleum Products and Lubricants (III): D2281-D2287 Catalysts," Annual Book of ASTM Standards, Volume 5.01, American Society for Testing and Materials, Philadelphia, 1985.

Clean Harbors

ENVIRONMENTAL SERVICES COMPANIES
1200 EAST 55TH STREET
CLEVELAND, OHIO 44103
(216) 429-2401

400/Disp. # 3200 P.E.
6-8 Drums



J. J. JENKINS
MAY 1 1992

cc: Wayne Carlisle
Jim McGee
Harold Cooper

Can't we have demo
disposal of sludges at a
lower cost than \$3,730.00?

April 30, 1992

Mr. Bill Jenkins
Olin Ordnance
Ravenna Arsenal
8451 State Route 5
Ravenna, Ohio 44266-9297

Dear Mr. Jenkins:

In reference to our conversation, 4/30/92, Purchase Order #25684: At this point in time we have reached \$5147.00 in Labor and Equipment costs. This also includes 8 drums, 8 hours for the Vacuum Truck on 4/23/92. There is a credit for 3 hours of down time on our Vacuum Truck included.

The above does not include Analytical of 2 samples or the Transportation and Disposal of the drums. Your staff will be decanting some of the drums to assist in lowering Disposal costs.

Assuming that the drums contain CNOS coded material and the amount left on sight, we can expect the disposal cost to be \$3,730.00, the analytical cost to be \$1,800.00 totaling \$5,530.00. This would be a worse case assumption.

Our experience with similar projects was displayed in our proposal. When we became aware of your maintenance schedule, and the excessive blockage, we negotiated to bring in a larger unit. We then informed you that Disposal and Analytical might exceed your P.O. You stated that as long as we kept the labor costs under the P.O. that this would be sufficient. On the 2nd day we were asked to bring in our Vacuum Truck for a third time. I stated to Barbara that the Disposal and Analytical would exceed the original P.O. We agreed that in order to accomplish our objective this had to be done. We showed up on 4/23/92 with the Vacuum truck. Both Joe and Wayne stated that we did a good job and were glad that we followed through.



Mr. Jenkins
April 30, 1992
Page 2

We are looking to improve our relationship with Olin and Ravenna Arsenal. If you have any questions please call me or Mike David at 429-2401.

Thank You,
Daniel S. Morrison

A handwritten signature in cursive script, appearing to read "Daniel S. Morrison". The signature is written in dark ink and is positioned below the typed name.

PC: Victor Amster, Account Manager

SUBCONTRACT WEEKLY STATUS REPORT

WEEK ENDING 24 Apr 92

P.O. NUMBER 25684

P.O. DESCRIPTION Clean Under Drains 1034
Clean Headers

WEATHER CONDITIONS _____

PERSONNEL ON JOB _____

DAYS WORKED _____

WORK PERFORMED THIS WEEK See Attached

PERCENT COMPLETE 100%

REMARKS _____

PROJECT ENGINEER Wayne A. Cantelmo 27 Apr 92

Underdrains 1034

Clean Harbors

Tues 4/21

They arrived with a 10000 PSI pressure washer
& a new 8 port lance head

They were still unable to clean out the areas
as required

We finally had our personnel use the Power
Snake & vac truck (for flushing) to clean the
clogged areas while their people cleaned
out the ~~underdrains~~ underdrains that weren't as
severely clogged.

It seems that we could have done better our-
selves if we would have just rented their
vac truck only.

We still have 1 line to be snaked that they couldn't
clean & so I'm arranging their Purchasing
to have their vac truck here on Thursday
4/23 to finish the project.

Underdrains 1034

Thurs 4/23

They sent the vac truck & operator to vac up
Sludges recieved from snaking the final
line.

They were here from approx 9^{AM} untill 2³⁰ pm

The lines are clean & free flowing & all Sludge
is removed from the pits

They have drums of Sludge/oil to dispose
of.

Recomm. - ~~Atly~~ Quarterly we should snake
& flush the under drain system
that would require just renting
the vac truck to pick up the sludges.

JOB # 015152
 DAY & DATE THURS 4/24/92
 CONTACT PERSON BILL TROTTIER
 PHONE # OLL SITE



(24 HOUR SERVICE)

P.O. # _____
 T & M
 CONTRACT
 DEPART FROM SHOP 800
 ARRIVE BACK AT SHOP 430
 OR ARRIVE AT NEXT JOB _____

CLIENT OLIN CRONANCE

JOB LOCATION _____

BILLING ADDRESS ST. LOUIS 5
RAVENNA ATTN: _____

LABOR:

NAME	TITLE	ST	OT	DT
	SUPERVISOR			
	FOREMAN			
	FOREMAN			
<u>DOU PILEY JR</u>	EQUIPMENT OPERATOR	<u>6</u>		
	FIELD TECH			
	FIELD TECH			
	FIELD TECH			
	FIELD CHEMIST			

EQUIPMENT:

QTY	TYPE	FLEET #	# OF HRS	✓ IF DAILY RATE
	PICK-UP TRUCK			
	VACUUM TRAILER			
	TRACTOR			
	VACUUM ST. TRUCK			
	BOX TRUCK			
	VACTOR			
	COMPRESSOR			
	BACKHOE			
	BOBCAT			
	RESPIRATOR (1/2 FACE)			
	RESPIRATOR (FULL)			
	RACK TRUCK			
	EXPLOSION METER			

DISPOSAL:

DESTINATION	AMOUNT	MANIFEST #
LIQUID (BULK)	GALS.	
ESTIMATED SOLIDS IN BULK LOAD (IN GALS)	GALS.	
SOLID (BULK)	TNS/YDS	
LIQUID (DRUMS)	# OF DRUMS AMT GALS.	
SOLID (DRUMS)	# OF DRUMS AMT LBS.	
ADDITIONAL INFO:		

MATERIAL:

QTY	DESCRIPTION	QTY	DESCRIPTION
	SPEEDI DRI		COMBO CARTRIDGES
	17-H DRUM		CHEMICAL CARTRIDGES
	YELLOW TYVEK		
	RAIN GEAR		
	GLOVES		
	SORBENT PADS BL.		
	SORBENT BOOM EA.		
	SORBENT BOOM BL.		
	5-GAL. BUCKET		
	DUCT TAPE		
	AIR BOTTLE		
	OVERBOOTS		
	CHICKEN BOOTS		
	DEGREASER (5 GAL.)		
	PENETONE (1 GAL.)		

JOB DESCRIPTION:

THUMPED OUT SUMP DURING
HUR FLUSH

JOB COMPLETED YES NO

SIGNATURE: [Signature]
 (CLEAN HARBORS REPRESENTATIVE)

ANALYSIS:

QTY	TYPE	DESTINATION

SUBCONTRACTORS:

NAME OF COMPANY	DESCRIPTION

Customer: Ravenna Arsenal Inc.
 (Company Name)
 By: Wayne Corbett
 Signature

 Print Name

 Title

Date: 4/20/92

Date: _____



WASTE MATERIAL PROFILE SHEET

S 46002

Profile Number

A. GENERAL INFORMATION

GENERATOR

Old Ordnance Ravenna Arsenal BILL TO: Ravenna Arsenal S.R.5 Ravenna Ohio

FACILITY ADDRESS

STATE ROUTE 5
RAVENNA OHIO

BILL TO ADDRESS

SIC NUMBER IF KNOWN

CLEAN HARBORS CONTACT PERSON

DAN MORRISON

GENERATOR U.S. EPA ID #

SAMPLE APPROVAL P.O. #

GENERATOR STATE ID #

CUSTOMER CONTACT

BILL TENKINS

TECHNICAL CONTACT

CUSTOMER CONTACT PHONE

TECHNICAL CONTACTS PHONE

B. WASTE DESCRIPTION

COMMON NAME FOR THE WASTE

City sludge semi solid
DABS FOR CI CORGE

PROCESS GENERATING THE WASTE

C. PROPERTIES

PH _____ % ORGANIC NITROGEN _____ % SULFUR _____ % ORGANIC HALOGEN _____ BTU S/POUND _____ % ASH _____

COLOR _____ ODOR _____ % T O C _____

FLASH POINT (°F)

 < 100 100-140 140-200 > 200 NO FLASH**PHYSICAL STATE**
 THICK VISCOUS LIQUID SOLID WITHOUT FREE LIQUIDS WASTE WATER
 LIQUID WITH NO SOLIDS POWDER NON-WASTE WATER
 LIQUID/SOLID MIXTURE

% DISSOLVED SOLIDS _____ % SUSPENDED SOLIDS _____ % SETTLED SOLIDS _____

D. COMPOSITION
CIC _____ %
C/S/SE _____ %
URJET _____ %
SQUID _____ %
D.B.I _____ %
SALT _____ %
100%
E. METALS TOTAL (PPM) TCLP (PPM)

ARSENIC	_____	NICKEL	_____
BARIUM	_____	SELENIUM	_____
CADMIUM	_____	SILVER	_____
CHROMIUM	_____	THALLIUM	_____
CHROMIUM Cr + 6	_____	TIN	_____
COPPER	_____	ZINC	_____
LEAD	_____	OTHER	_____
IRON	_____	BERYLLIUM	_____
MERCURY	_____	OTHER	_____

F. OTHER COMPONENTS

AMMONIA	_____	HEPTACHLOR (AND ITS HYDROXIDES)	_____
BENZENE	_____	HEXACHLOROETHANE	_____
CHLORDANE	_____	HEXACHLOROETHANE	_____
CHLOROBENZENE	_____	LINDANE	_____
CHLOROFORM	_____	METHOXYCHLOR	_____
o-CRESOL	_____	METHYL ETHYL KETONE	_____
m-CRESOL	_____	NITROBENZENE	_____
p-CRESOL	_____	PENTACHLOROPHENOL	_____
CRESOL	_____	PCB'S	_____
CYANIDES	_____	PYRIDINE	_____
2,4-DICHLORO-	_____	SULFIDES	_____
PHENOXYACETIC ACID	_____	TETRACHLOROETHYLENE	_____
1,4-DICHLOROETHYLENE	_____	TOXAPHENE	_____
1,1-DICHLOROETHYLENE	_____	TRICHLOROETHYLENE	_____
2,4-DINITROTOLUENE	_____	2,4,5-TRICHLOROPHENOL	_____
ENDRIN	_____	2,4,6-TRICHLOROPHENOL	_____
F001-F005 SOLVENTS	_____	2,4,5-TRICHLOROPHENOXYPROPIONIC ACID	_____
LIST	_____	VINYL CHLORIDE	_____

G. DEPARTMENT OF TRANSPORTATION INFORMATION
D.O.T. HAZARDOUS MATERIAL YES NO
D.O.T. SHIPPING NAME _____
D.O.T. HAZARD CLASS _____
UN/NA # _____ REPORTABLE QUANTITY VALUE _____
H. SHIPMENT METHOD
 BULK LIQUID BULK SOLID DRUM (SIZE) 55 GALLON
 OTHER (SPECIFY) _____
I. ANTICIPATED VOLUME
10-10 GALS. DRUMS CUBIC YDS.
FREQUENCY: ONE TIME QUARTER YEAR
J. WASTE DISPOSAL STATUS
U.S. EPA HAZARDOUS WASTE YES NO
U.S. EPA HAZARDOUS WASTE NUMBER(S) _____
STATE HAZARDOUS WASTE YES NO
STATE HAZARDOUS WASTE NUMBER(S) _____
K. OTHER HAZARDS

PYROPHORIC	YES	NO
WATER REACTIVE	_____	_____
EXPLOSIVE	_____	_____
RADIOACTIVE	_____	_____
SHOCK SENSITIVE	_____	_____
PESTICIDE	_____	_____
DIOXIN	_____	_____
IS THIS AN ELECTROPLATING WASTE	_____	_____

L. SAMPLE STATUS
A REPRESENTATIVE SAMPLE HAS BEEN SUPPLIED HAS NOT BEEN SUPPLIED
FOR CLEAN HARBORS USE ONLY**M. SPECIFIC GENERATOR REQUEST FOR DISPOSAL**

OTHER GENERATOR COMMENTS _____

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste.

H. R. Cooper

AUTHORIZED SIGNATURE

H. R. Cooper

NAME (PRINT)

4/21/92

DATE



WASTE MATERIAL PROFILE SHEET

S 46003

Profile Number

A. GENERAL INFORMATION

GENERATOR CLIN ORDNANCE MAINTAIN ASSEMBLY BILL TO: SAME

FACILITY ADDRESS S. 21.5 MAUENNA OHIO BILL TO ADDRESS _____

SIC NUMBER IF KNOWN _____ CLEAN HARBORS CONTACT PERSON Don Morrison

GENERATOR U.S. EPA ID # _____ SAMPLE APPROVAL P.O. # _____

GENERATOR STATE ID # _____ CUSTOMER CONTACT Bill Jenkins

TECHNICAL CONTACT _____ CUSTOMER CONTACT PHONE _____

TECHNICAL CONTACTS PHONE _____

B. WASTE DESCRIPTION

COMMON NAME FOR THE WASTE CITY WATER

PROCESS GENERATING THE WASTE PRESSURE TESTING STAINS IN COUPLER

C. PROPERTIES

PH _____ % ORGANIC NITROGEN _____ % SULFUR _____ % ORGANIC HALOGEN _____ BTU'S/POUND _____ % ASH _____

COLOR _____ ODOR _____ % T.O.C. _____

FLASH POINT (°F)
 < 100 100-140 140-200 > 200 NO FLASH

PHYSICAL STATE
 THICK VISCOUS LIQUID SOLID WITHOUT FREE LIQUIDS WASTE WATER
 LIQUID WITH NO SOLIDS POWDER NON-WASTE WATER
 LIQUID/SOLID MIXTURE

% DISSOLVED SOLIDS _____ % SUSPENDED SOLIDS _____ % SETTLED SOLIDS _____

D. COMPOSITION

CITY WATER COUPLER 200%

_____ %

_____ %

_____ %

_____ %

_____ %

_____ %

_____ %

E. METALS

TOTAL (PPM)	TCLP (PPM)	
ARSENIC	_____	NICKEL _____
BARIUM	_____	SELENIUM _____
CADMIUM	_____	SILVER _____
CHROMIUM	_____	THALLIUM _____
CHROMIUM Cr+6	_____	TIN _____
COPPER	_____	ZINC _____
LEAD	_____	OTHER _____
IRON	_____	BERYLLIUM _____
MERCURY	_____	OTHER _____

F. OTHER COMPONENTS

AMMONIA	_____	HEPTACHLOR (AND ITS HYDROXIDES)	_____
BENZENE	_____	HEXACHLOROENZENE	_____
CHLORDANE	_____	HEXACHLOROETHANE	_____
CHLOROBENZENE	_____	LINDANE	_____
CHLOROFORM	_____	METHOXYCHLOR	_____
o-CRESOL	_____	METHYL ETHYL KETONE	_____
m-CRESOL	_____	NITROBENZENE	_____
p-CRESOL	_____	PENTACHLOROPHENOL	_____
CRESOL	_____	PCB'S	_____
CYANIDES	_____	PYRIDINE	_____
2,4-DICHLORO-PHENOXYACETIC ACID	_____	SULFIDES	_____
1,4-DICHLOROENZENE	_____	TETRACHLOROETHYLENE	_____
1,1-DICHLOROETHYLENE	_____	TOXAPHENE	_____
2,4-DINITROTOLUENE	_____	TRICHLOROETHYLENE	_____
ENDRIN	_____	2,4,5-TRICHLOROPHENOL	_____
F001-F005 SOLVENTS	_____	2,4,6-TRICHLOROPHENOL	_____
LIST	_____	2,4,5-TRICHLOROPHENOXYPROPIONIC ACID	_____
		VINYL CHLORIDE	_____

G. DEPARTMENT OF TRANSPORTATION INFORMATION

D.O.T. HAZARDOUS MATERIAL YES NO

D.O.T. SHIPPING NAME CITY WATER

D.O.T. HAZARD CLASS _____

UN/NA # _____ REPORTABLE QUANTITY VALUE _____

H. SHIPMENT METHOD

BULK LIQUID BULK SOLID DRUM (SIZE) 55 GALLON

OTHER (SPECIFY) _____

I. ANTICIPATED VOLUME

2-6 Drums GALS. DRUMS CUBIC YDS

FREQUENCY: ONE TIME QUARTER YEAR

J. WASTE DISPOSAL STATUS

U.S. EPA HAZARDOUS WASTE YES NO

U.S. EPA HAZARDOUS WASTE NUMBER(S) _____

STATE HAZARDOUS WASTE YES NO

STATE HAZARDOUS WASTE NUMBER(S) _____

K. OTHER HAZARDS

	YES	NO
PYROPHORIC	_____	_____
WATER REACTIVE	_____	_____
EXPLOSIVE	_____	_____
RADIOACTIVE	_____	_____
SHOCK SENSITIVE	_____	_____
PESTICIDE	_____	_____
DIOXIN	_____	_____
IS THIS AN ELECTROPLATING WASTE	_____	_____

L. SAMPLE STATUS

A REPRESENTATIVE SAMPLE HAS BEEN SUPPLIED HAS NOT

FOR CLEAN HARBORS USE ONLY

M. SPECIFIC GENERATOR REQUEST FOR DISPOSAL

OTHER GENERATOR COMMENTS _____

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste.

H.R. Cooper

AUTHORIZED SIGNATURE

H R Cooper

NAME (PRINT)

4/21/92

DATE

REQUEST FOR PURCHASE ORDER CORRECTION

Date 6-4-92

Purchase Order No. 25684

To: PURCHASING DIVISION

Account No. _____

Please change Purchase Order dated 4-15-92

M.O. No. 2776

on Clean Harbors (Company)

Original Estimated Cost \$5350.00

In the following respect:

Revised Estimated Cost \$8575.00

Increase Purchase Order by \$3,225.00

Reason for Change: Disposal of seven drums of non-hazardous sludges

Approvals: (must be the same as on original requisition.)

HR Lopez

Purchasing Division
Contract Officer's Represent

Dept.

Dept.

Revenna Arsenal, Inc.

Signed Wayne Carkido
Department Requesting Correction

Wayne Carkido

PURCHASE ORDER

RAVENNA ARSENAL, INC.

8451 STATE ROUTE 5
RAVENNA, OHIO 44266-9297
(216) 358-7111

CONTRACT NO. DAAA09-88-Z-0001

25684

P.O./REL. NO.

This Number and Shipper's Name Must Appear on All Shipments & Papers Relating To This Order.

DO NOT OVERSHIP— OVERSHIPMENTS WILL BE RETURNED

DATE	04/15/92 2105	TERMS	NET 30 DAYS	F.O.B.	DEST
SHIP VIA	VENDOR	PER YOUR QUOTATION	04-15-92	JOB REL. NO.	20AT

TO
00064X
CLEAN HARBOR
1200 EAST 55TH. ST.
CLEVELAND, OH 44103

SHIP TO
RAVENNA ARSENAL, INC.
8451 STATE ROUTE 5
BLDG. 1035
RAVENNA, OH 44266
F/W. CARKIDO

ITEM	QUANTITY	UNIT	DESCRIPTION	PRICE		
				UNIT	TOTAL	
1	1	EA	<p>CLEAN OUT THE UNDER DRAIN SYSTEM AND CLEAN OUT AT BLDG. 1034, APPROXIMATELY 400 FT., PER RAI ENGINEERS DIRECTIONS. ANY ACCUMULATED SLUDGES/WASTE PRODUCTS SHALL BE PROPERLY SAMPLED AND DISPOSED OF BY SUBCONTRACTOR AT AN OLIN APPROVED LANFILL.</p> <p>THE SCOPE OF SERVICES TO BE PROVIDED BY CLEAN HARBORS IS: -SAFETY MEETING WILL BE HELD PRIOR TO START OF JOB -POWER LANCES 400 FT. OF FLOOR DRAINS -VACUUM OUT RINSEATES -DECANT RINSEATES INTO WATER TREATMENT -DRUM SOLIDS FROM DRAINS -DRUM SOLIDS FROM VACUUM TRUCK -SAMPLE AND ANALYZE ALL MATERIAL GENERATED. (SAMPLES WILL BE ANALYZED AT OUR BEDFORD LAB.)</p> <p>THE PRICE BREAKDOWN IS AS FOLLOWS: I. LABOR, SUPPLIES, AND EQUIPMENT - \$206.00/HR PORTAL TO PORTAL NOT TO EXCEED 20 HOURS. II. ANALYTICAL A. TOTAL PETROLEUM HYDROCARBONS \$ 90.00 B. FLASH 50.00 C. pH 25.00 D. REACTIVITY 115.00 E. TCLP* METALS 275.00 F. TCLP* VOC** 345.00 *TOXICITY CHARACTERISTIC LEACHING PROCEDURE **VOLATILE ORGANIC CONTAMINANTS ALL PRICES ARE ON A PER SAMPLE BASIC</p>	39 Y	5350.	5350.
PROMISED DATE: 04/16/92				TOTAL		

ALL MATERIAL FURNISHED ON THIS ORDER MUST BE IN COMPLIANCE WITH THE BUY AMERICAN ACT. PRIORITY RATING DO-C3. CERTIFIED FOR NATIONAL DEFENSE USE UNDER DMS

RAVENNA ARSENAL, INC.

Purchasing Manager

CONTRACT PROCUREMENT & PURCHASING

REGULATION: _____ AUTHORIZED SIGNATURE AND TITLE

DEPT. COPY

PURCHASE ORDER

RAVENNA ARSENAL, INC.

8451 STATE ROUTE 5
 RAVENNA, OHIO 44266-9297
 (216) 358-7111

CONTRACT NO. DAAA09-88-Z-0001

25694

P.O./REL. NO.

This Number and Shipper's Name Must Appear on All Shipments & Papers Relating To This Order.

DO NOT OVERSHIP— OVERSHIPMENTS WILL BE RETURNED

DATE	04/15/92 2106	TERMS	NET 30 DAYS	F.O.B.	DEST
SHIP VIA	VENDOR	PER YOUR QUOTATION	04-15-92	JOB REL. NO.	20AT

TO
 0C064X
 CLEAN HARBOR
 1200 EAST 55TH. ST.
 CLEVELAND, OH 44103

SHIP TO
 RAVENNA ARSENAL, INC.
 8451 STATE ROUTE 5
 BLDG. 1035
 RAVENNA, OH 44266
 P/W CARKIDD

ITEM	QUANTITY	UNIT	DESCRIPTION	PRICE	
				UNIT	TOTAL
			III. TRANSPORTATION AND DISPOSAL (ALL PRICES PENDING APPROVAL) A. DISPOSAL A31-SPECIFICATION OILS (FOR OIL RECOVERY) \$ 65.00/DRUM A22-NON HALOGENATED, WATER SOLUBLE, ORGANICS & WATER MIXTURES \$ 240.00/DRUM CNO-NON-HAZARDOUS ORGANIC SOLIDS FOR LANDFILL \$ 220.00/DRUM CNOS-NON-HAZARDOUS ORGANIC SEMI-SOLIDS FOR LANDFILL \$ 290.00/DRUM B. TRANSPORTATION \$ 25.00/DRUM MINIMUM \$250.00/LOAD CLEAN HARBORS BALITMORE IS THE PROPOSED FACILITY. SUBCONTRACTOR TO PROVIDE RAVENNA ARSENAL, INC., CONTRACT/PROCUREMENT & PURCHASING ADMINISTRATOR WITH WORK SCHEDULE SHOWING STARTING AND ESTIMATED COMPLETION DATES, TOGETHER WITH A COMPLETED ADVANCE PASS REQUEST (FORM RA-588) FOR EACH EMPLOYEE SCHEDULED TO WORK AT THE SITE, AT LEAST ONE WEEK PRIOR TO COMMENCEMENT OF WORK. SCHEDULING SHALL BE ARRANGED THROUGH THE RAVENNA ARSENAL, INC., PROJECT ENGINEER. PERMISSION MUST BE SECURED WHENEVER IT IS DESIRED TO WORK HOURS OTHER THAN 8:00 A.M. TO 4:30 P.M., MONDAY THROUGH FRIDAY. ALL EQUIPMENT AND MATERIALS BROUGHT INTO PROMISED DATE: 04/15/92		
			TOTAL		

ALL MATERIAL FURNISHED ON THIS ORDER MUST BE IN COMPLIANCE WITH THE BUY AMERICAN ACT. PRIORITY RATING DO-C3. CERTIFIED FOR NATIONAL DEFENSE USE UNDER DMS

RAVENNA ARSENAL, INC.

Purchasing Manager

CONTRACT PROCUREMENT & PURCHASING

REGULATION: _____ AUTHORIZED SIGNATURE AND TITLE

DEPT. COPY

PURCHASE ORDER

RAVENNA ARSENAL, INC.

8451 STATE ROUTE 5
RAVENNA, OHIO 44266-9297
(216) 358-7111

CONTRACT NO. DAAA09-88-Z-0001

P.O./REL. NO. 25684

This Number and Shipper's Name Must Appear on All Shipments & Papers Relating To This Order.

DO NOT OVERSHIP— OVERSHIPMENTS WILL BE RETURNED

DATE	04/15/92 2106	TERMS	NET 30 DAYS	F.O.B.	DEST
SHIP VIA	VENDOR	PER YOUR QUOTATION	04-15-92	JOB REL. NO. 20AT	

TO
 0C064X
 CLEAN HARBOR
 1200 EAST 55TH. ST.
 CLEVELAND, OH 44103

SHIP TO
 RAVENNA ARSENAL, INC.
 8451 STATE ROUTE 5
 BLDG. 1035
 RAVENNA, OH 44266
 F/W CARKIDO

ITEM	QUANTITY	UNIT	DESCRIPTION	PRICE	
				UNIT	TOTAL
			<p>THE AREA SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR. RAVENNA ARSENAL, INC., PROJECT ENGINEER MAY BE CONTACTED FOR INFORMATION CONCERNING STORAGE OF MATERIALS AND THE DESIGNATED AREA.</p> <p>ALL SUBCONTRACTOR TOOLS MUST BE MARKED WITH SUBCONTRACTOR'S DISTINGUISHING MARKS IN ORDER TO PROVIDE RAVENNA ARSENAL, INC., WITH EVIDENCE OF PROOF OF OWNERSHIP. EGRESS WILL BE CHECKED BY RAVENNA ARSENAL, INC., SECURITY, AND A PACKAGE PASS FOR ALL SUBCONTRACTOR-OWNED TOOLS, EQUIPMENT AND MATERIAL LEAVING THE SITE MUST BE OBTAINED EACH DAY FROM THE PROJECT ENGINEER, RAVENNA ARSENAL, INC.</p> <p>TECHNICAL PROBLEMS WILL BE BROUGHT TO THE ATTENTION OF THE RAVENNA ARSENAL, INC., PROJECT ENGINEER BY THE SUBCONTRACTOR, AND ANY DISPUTES ARISING SHALL BE SETTLED BY THE CONTRACT/PROCUREMENT & PURCHASING ADMINISTRATOR RAVENNA ARSENAL, INC.</p> <p>SAFETY REQUIREMENTS WILL BE REVIEWED WITH PERSONNEL ASSIGNED TO PERFORM THE WORK ON THIS CONTRACT AND ONLY APPROVED METHODS AND EQUIPMENT WILL BE ALLOWED. SUBCONTRACTOR SHALL COMPLY WITH SAFETY AND SECURITY REGULATIONS OF RAVENNA ARSENAL, INC., AS SET FORTH IN THE ATTACHED BOOKLET DATED JANUARY, 1991. ALL REGULATIONS WILL BE STRICTLY ENFORCED.</p> <p>THE ATTACHED TERMS AND CONDITIONS FOR</p>		
			PROMISED DATE: 04/16/92	TOTAL	

ALL MATERIAL FURNISHED ON THIS ORDER MUST BE IN COMPLIANCE WITH THE BUY AMERICAN ACT. PRIORITY RATING DO-C3. CERTIFIED FOR NATIONAL DEFENSE USE UNDER DMS

RAVENNA ARSENAL, INC.

[Signature]
 Purchasing Manager

CONTRACT PROCUREMENT & PURCHASING

REGULATION: _____
 AUTHORIZED SIGNATURE AND TITLE

DEPT. COPY

PURCHASE ORDER

RAVENNA ARSENAL, INC.

8451 STATE ROUTE 5
RAVENNA, OHIO 44266-9297
(216) 358-7111

CONTRACT NO. DAAA09-88-Z-0001

25684

P.O./REL. NO.

This Number and Shipper's Name Must Appear on All Shipments & Papers Relating To This Order.

DO NOT OVERSHIP— OVERSHIPMENTS
WILL BE RETURNED

429-2401

DATE	04/15/92 2106	TERMS	NET 30 DAYS	F.O.B.	DEST
SHIP VIA	VENDOR	PER YOUR QUOTATION	94-15-92	JOB REL. NO.	20AT

TO
0C054X
CLEAN HARBOR
1200 EAST 55TH. ST.
CLEVELAND, OH 44103

SHIP TO
RAVENNA ARSENAL, INC.
8451 STATE ROUTE 5
BLDG. 1035
RAVENNA, OH 44266
P/M. CARKIDD

ITEM	QUANTITY	UNIT	DESCRIPTION	PRICE	
				UNIT	TOTAL
			<p>MAINTENANCE, CONSTRUCTION, AND ENGINEERING CONTRACTS AND SPECIAL TERMS AND CONDITIONS APPLICABLE TO SUBCONTRACTS AND PURCHASE ORDERS ISSUED UNDER GOVERNMENT PRIME CONTRACTS OR GOVERNMENT SUBCONTRACTS, WILL APPLY.</p> <p>PLEASE PAY PARTICULAR ATTENTION TO CLAUSES 11 AND 16.</p> <p>THIS CONTRACT SHALL BE PERFORMED IN ACCORDANCE WITH THE SERVICES CONTRACT ACT OF 1965. THE WAGES AND FRINGE BENEFITS SHALL BE AT LEAST EQUAL TO THE PREVAILING RATES IN THIS AREA FOR THE TECHNICIANS/ OPERATORS AND LABORERS.</p> <p>SUBCONTRACTOR TO SUBMIT A WAIVER OF LIEN WITH EACH INVOICE.</p> <p>THE SUBCONTRACTOR WILL BE REQUIRED TO COMPLY WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT AND THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (VOLUME 36, NUMBER 75, PART II OF THE FEDERAL REGISTER). ANY PENALTIES ASSESSED RESULTING FROM AN ALLEGED VIOLATION FOR YOUR FAILURE TO COMPLY WILL BE YOUR RESPONSIBILITY TO PAY. ANY ASSESSMENT OF PENALTIES AGAINST RAVENNA ARSENAL, INC., RESULTING FROM YOUR FAILURE TO COMPLY WILL BE CHARGED TO YOUR ACCOUNT AND THE ASSESSED AMOUNT WITHHELD FROM YOUR PAYMENT. IN THE EVENT OF A PENALTY ASSESSED RAVENNA ARSENAL, INC.,</p>		
			PROMISED DATE: 04/16/92	TOTAL	

ALL MATERIAL FURNISHED ON THIS ORDER MUST BE IN COMPLIANCE WITH THE BUY AMERICAN ACT. PRIORITY RATING DO-C3. CERTIFIED FOR NATIONAL DEFENSE USE UNDER DMS

RAVENNA ARSENAL, INC.

Purchasing
Manager

CONTRACT PROCUREMENT & PURCHASING

REGULATION: _____
AUTHORIZED SIGNATURE AND TITLE

DEPT. COPY

PURCHASE ORDER

RAVENNA ARSENAL, INC.

8451 STATE ROUTE 5
 RAVENNA, OHIO 44266-9297
 (216) 358-7111

CONTRACT NO. DAAA09-88-Z-0001

25684

P.O./REL. NO. _____

This Number and Shipper's Name Must Appear on All Shipments & Papers Relating To This Order.

DO NOT OVERSHIP— OVERSHIPMENTS
 WILL BE RETURNED

DATE	04/15/92 2106	TERMS	NET 30 DAYS	F.O.B.	DEST
SHIP VIA	VENDOR	PER YOUR QUOTATION	04-15-92	JOB REL. NO.	20AT

TO
 0C064X
 CLEAN HARBOR
 1200 EAST 55TH. ST.
 CLEVELAND, OH 44103

SHIP TO
 RAVENNA ARSENAL, INC.
 8451 STATE ROUTE 5
 BLDG. 1035
 RAVENNA, OH 44266
 F/W. CARKIDD

ITEM	QUANTITY	UNIT	DESCRIPTION	PRICE	
				UNIT	TOTAL
			<p>DUE TO FAILURE TO COMPLY BY MORE THAN ONE (1) SUBCONTRACTOR, AMOUNTS OF ASSESSMENT FOR SAID PENALTY WILL BE PROPORTIONATE IN ACCORDANCE WITH THE BEST JUDGMENT OF THE CONTRACT/PROCUREMENT & PURCHASING ADMINISTRATOR, RAVENNA ARSENAL, INC.</p> <p>THE FINANCIAL LIABILITY OF RAVENNA ARSENAL, INC., UNDER THIS PURCHASE AGREEMENT WILL BE LIMITED TO THE VALUE OF GOODS OR SERVICES ACTUALLY RECEIVED OR PERFORMED UNDER THIS AGREEMENT.</p> <p>CONFIRMING/QUOTE DTD 4-15-92/DAN MORRISON DO NOT DUPLICATE</p> <p>*ENGR/BJJ/jh JOB # 20AT, W/O # 0098, CATEGORY 7921</p> <p>Title to materials to be delivered hereunder shall not pass until the materials reach the receiving point indicated and are accepted. Billings for sales tax on taxable items shall be limited to the applicable State of Ohio and local Portage County taxes and shall be clearly identified as such.</p>		
			PROMISED DATE: 04/16/92	TOTAL	95350

ALL MATERIAL FURNISHED ON THIS ORDER MUST BE IN COMPLIANCE WITH THE BUY AMERICAN ACT. PRIORITY RATING DO-C3. CERTIFIED FOR NATIONAL DEFENSE USE UNDER DMS

RAVENNA ARSENAL, INC.

Purchasing Manager

CONTRACT PROCUREMENT & PURCHASING

REGULATION: _____
 AUTHORIZED SIGNATURE AND TITLE

PURCHASE ORDER CHANGE

RAVENNA ARSENAL, INC.

Ravenna, Ohio 44266

(216) 358-7111

Contract No. DAAA09-88-Z-0001

Wayne

Page 1 of 1

OC064X

Date 06/08/92

A

CLEAN HARBOR

P. O. No. 25684 Chg#001

1200 EAST 55TH. ST.
CLEVELAND, OH 44103

ACCT. No. 3065

Please amend our Purchase Order No. 25684, Dated 04/15/92, as follows:

- ITEM #001 : Change UNIT PRICE from 5,350.0000 to 8,575.0000
- : Change EXTENDED PRICE from 5,350.00 to 8,575.00
- : Charge to ACCOUNT 3065

*ENGR/BJJ/jh

Total Revised Cost: \$8,575.00

This order, except as herein amended, shall in all other respects remain as before, unless completely cancelled.

RAVENNA ARSENAL, INC.

By *B. J. Johnson*
Contract, Procurement &
Purchasing

Approved By _____
For Contracting Officer

CarKido

PURCHASE ORDER CHANGE

RAVENNA ARSENAL, INC.
Ravenna, Ohio 44266
(216) 358-7111
Contract No. DAAA09-88-Z-0001

Page 1 of 1

OC064X

Date 10/07/92

A

CLEAN HARBOR

1200 EAST 55TH. ST.
CLEVELAND, OH 44103

P. O. No. 25684 Chg#002

ACCT. No. 1090

Please amend our Purchase Order No. 25684, Dated 04/15/92, as follows:

- ITEM #001 : Change JOB NUMBER from 2OAT to 3OAT
- : Change RELEASE NUMBER from 2OAT to 3OAT
- : Change WORK ORDER from 0098 to 0159

*ENGR/BJJ/jh

Total Revised Cost: \$8,575.00

This order, except as herein amended, shall in all other respects remain as before, unless completely cancelled.

RAVENNA ARSENAL, INC.

By *D A Ducloux*
Contract/Procurement &
Purchasing

Approved By _____
For Contracting Officer



ENVIRONMENTAL SERVICES COMPANIES

D-3442, BOSTON, MA 02241-3442

(617) 849-1800

INVOICE

OFFICE

CLEAN HARBORS ENVIRONMENTAL SERVICES
1000 EAST 58TH ST
CLEVELAND, OH 44103
28-000-0000

If you have any questions regarding this invoice, please contact your customer service representative at the location listed above.

S
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D

WAYNE W. DANKO
GULF CORPORATION
RAVENNA REGIONAL
1451 STATE ROUTE 1
RAVENNA, OH 44069-0001

S
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T
E

CUSTOMER	JOB. NO.	PURCHASE ORDER NO.	SALESMAN	TERMS	INVOICE DATE	INVOICE NO.

QUANTITY	ITEM I.D.	DESCRIPTION	PRICE	U/M	AMOUNT
----------	-----------	-------------	-------	-----	--------

10/13/92 WAC ~~10/13/92~~ PAY ONLY \$1628.00

TOTAL CONTRACT 8575.00

MM Corp

10/13/92

I certify that all the terms and conditions for purchase order _____ have been met for the material and/or labor covered by this invoice.

2. _____
Purchasing Division Date

Hold
wait until I
release.

BDD
7/24/92

3.98 F.O.B. A.C. OH State Tax	SUBTOTAL SALES TAX	1628.00
TERMS: 90 FROM LAST DAY OF WORK ON THIS INVOICE (06/13/92)	PAY ONLY	1628.00
	INVOICE TOTAL	1628.00

OFFICE

INVOICE

REMIT TO:

LEAN HARBORS OF KINGSTON, INC.
200 EAST 55TH ST
LEVELAND, OH 44103
16-429-2401

Page: 2



ENVIRONMENTAL SERVICES COMPANIES
D-3442, BOSTON, MA 02241-3442
(617) 849-1800

JOB DESC.

CLEAN OUT FLOOR DRAINS

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OLIN ORDINANCE
WAYNE A. CARKIDO
RAVAENNA ARSENAL
8451 STATE ROUTE 5
RAVENNA, OH 44266-9297

RAVAENNA ARSENAL
8451 STATE ROUTE 5
RAVENNA, OH 44266

JOB SITE

CUSTOMER	JOB NO.	PURCHASE ORDER NO.	DATE WORK PERFORMED	TERMS	INVOICE DATE	INVOICE NO.
OLI160	OH5152	25684	SEE TOTAL PAGE	30 *	05/15/92	OH1110001

QUANTITY	ITEM I.D.	DESCRIPTION	PRICE	U/M	AMOUNT
--Cost Category Totals--					
		MATERIAL			240.00
		EQUIPMENT			600.00
		ANALYTICAL			1,800.00
		OTHER			4,307.00

DISPOSED PHYSICAL
0% WAC 5/22/92

1. _____
Originating Division Date

I certify that all the terms and conditions for
Purchase Order _____ have been met for
the material and/or labor covered by this invoice.

2. _____
Purchasing Division Date

J O B T O T A L : OH State Tax:	INVOICE TOTAL TAX TRANSPORTATION PREPAID	6,947.00 0.00
* TERMS: 30 FROM LAST DAY OF WORK ON THIS INVOICE (04/28/92)		INVOICE TOTAL 6,947.00

* * * * *

OFFICE

INVOICE

REMIT TO:

CLEAN HARBORS OF KINGSTON, INC.
1200 EAST 55TH ST
CLEVELAND, OH 44103
216-429-2401

Page: 1



ENVIRONMENTAL SERVICES COMPANIES

D-3442, BOSTON, MA 02241-3442

(617) 849-1800

JOB DESC:

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OLIN ORDINANCE
WAYNE A. CARKIDD
RAVAENNA ARSENAL
8451 STATE ROUTE 5
RAVENNA, OH 44266-9297

CLEAN OUT FLOOR DRAINS

RAVAENNA ARSENAL
8451 STATE ROUTE 5
RAVENNA, OH 44266

JOB SITE

CUSTOMER	JOB NO.	PURCHASE ORDER NO.	DATE WORK PERFORMED	TERMS	INVOICE DATE	INVOICE NO.
OLI160	OH5152	- 25684	SEE TOTAL PAGE	30 *	05/15/92	OH1110031

QUANTITY	ITEM ID	DESCRIPTION	PRICE	U/M	AMOUNT
		04/16/92			
4.00	MATERIAL	17H DRUM	30.00	EA	120.00
2.00	ANALYTICAL	ANALYTICAL	900.00	EA	1800.00
10.00	OTHER	LABOR, SUPPLIES AND EQUIPMENT	206.00	HR	2060.00
3.00	OTHER	CREDIT VAC TRUCK	-75.00	HR	-225.00
		04/21/92			
4.00	MATERIAL	17H DRUM	30.00	EA	120.00
12.00	OTHER	LABOR SUPPLIES AND EQUIPMENT	206.00	EA	2472.00
		04/24/92			
8.00	EQUIPMENT	STRAIGHT VACUUM TRUCK	75.00	HR	600.00

INVOICE TOTAL
TAX
TRANSPORTATION
PREPAID

**INVOICE
TOTAL**

MECHANICAL ORDER REQUEST
RAVENNA ARSENAL INC

D3

DATE: 16-Apr-92

WRITTEN BY: ENGINEERING

M.O. NUMBER:

0 - 2776

FOR:

PRG CHG OR COST POOL:
ACRN / CLIN:

20AT-0098
AUTO OHD

PROJECT NUMBER:

NEW CONSTRUCTION ALTERATIONS
NEW EQUIPMENT REPLACEMENT EQUIPMENT
REPAIRS & MAINTENANCE

COST ACCOUNTING:

SM 4/15/92
RAR 4/15/92

COST DATA:	205	LABOR
	102	FRINGES
	0	MATERIAL/PURCH SERV
	5,350	SUBCONTRACTS Po #
	3,500	EQUIPMENT
	0	ALLOCATED OVERHEAD
	0	GENERAL OVERHEAD
	0	G&A OVERHEAD
	0	FEE

	\$ 5657	\$ 2,807 TOTAL

ASSIGNED TO:

W. CARKIDO

STAFF ENGINEER:

W. CARKIDO

W.A. Carkido

DESCRIPTION / LOCATION OF ITEM:

CLEAN OUT UNDER DRAIN SYSTEM IN BLDG 1034
SAMPLE/DISPOSE OF ACCUMULATED SLUDGES/WASTE PRODUCTS

REASON FOR M.O. REQUEST:

UNDER DRAIN SYSTEM IS CLOGGED AND CAUSING BACK UPS OF DRAINS INTO SAID BUILDING

FULL EXPLANATION OF REQUEST:

PROVIDE SUBCONTRACTOR TO SUPPLY ALL LABOR MATERIAL AND EQUIPMENT NECESSARY TO CLEAN OUT THE UNDER DRAIN SYSTEM AND CLEAN OUT AT BLDG 1034 PER RAI ENGINEER DIRECTIONS. ANY ACCUMULATED SLUDGES/WASTE PRODUCTS SHALL BE PROPERLY SAMPLED AND DISPOSED BY THE SUBCONTRACTOR.

APPROVALS:

ENGINEERING MANAGER: *[Signature]*

ORIGINATING DEPT/DIV MGR: _____

GENERAL MANAGER: *[Signature]*

PLANT PROTECTION MGR: _____

ACCOUNTING MANAGER: *[Signature]*

SAFETY MANAGER: *[Signature]*

CONTRACTING OFFICER'S REP: *[Signature]*

CONTRACT ADMINISTRATOR: *[Signature]* 4/15/92

Emergency Repairs

RAVENNA ARSENAL INC.
 COST ESTIMATE FOR: CLEAR DRAIN 1034

DATE: 16-Apr-92

REFERENCE:
 IS THIS A DEPT OHD CHARGE (Y OR N)? Y
 IS IT A GENERAL PLANT CHG (Y OR N)? N
 BASED ON DISCLOSURE RATES AS OF: REV 2 w/FY91 175mm & 152mm DEMIL

DIRECT MATERIALS, SERVICES: \$0

DIRECT LABOR:	HOURS	AVG RATE	LABOR	
2320 GEN MTCE	0.0	\$0.00	\$0	
2580 RDS & GRDS MTCE	0.0	\$0.00	\$0	
1060 MUNITIONS HNDLNG	0.0	\$0.00	\$0	
2560 PACKAGE LINES	0.0	\$0.00	\$0	
1570 SCRAP & SALVAGE	0.0	\$0.00	\$0	
1980 DEMIL PRODUCTION	0.0	\$0.00	\$0	
OTHER HOURLY CHARGES	0.0	\$0.00	\$0	
TOTAL HOURLY COST	-----		-----	\$0
2540 ENGINEERING	12.0	\$17.08	\$205	
5530 SURVEILLANCE	0.0	\$0.00	\$0	
OTHER SALARY CHARGES	0.0	\$0.00	\$0	
1980 DEMIL SUPERVISOR	0.0	\$0.00	\$0	
TOTAL SALARY COST	-----		-----	\$205
TOTAL HOURS	12.0			
DIRECT FRINGES:		RATE	DOLLARS	
HOURLY	\$0	66.99%	\$0	
SALARIED	\$205	49.96%	\$102	
			-----	\$102

TOTAL DIRECT LABOR AND FRINGES AND MATERIALS \$307

ALLOCATED OVERHEAD:	UNITS	RATE	DOLLARS
2200 STEAM LBS	0	\$0.020	\$0
2260 WATER/SEWAGE GAL	0	\$0.053	\$0
2270 ELECTRIC KWH	0	\$0.142	\$0
2120 RAILROAD HRS	0.0	\$39.748	\$0
2130 LIFT USAGE HRS	0.0	\$26.472	\$0
4510 SECURITY EFFORT	0.0	\$13,561	\$0
4520 FIRE SQ FOOTAGE	0	\$0.144	\$0
OTHER EQUIP CHARGES	0	\$0.00	\$0
2320 GEN MTCE	0.0	\$12.623	\$0
2580 RDS & GRDS MTCE	0.0	\$27.742	\$0
1060 MUNITIONS HNDLNG	0.0	\$11.999	\$0
2560 PACKAGE LINES	0.0	\$10.410	\$0
1570 SCRAP & SALVAGE	0.0	\$5.396	\$0
5530 SURVEILLANCE	0.0	\$38.165	\$0

TOTAL ALLOCATED OVERHEAD			\$0 5350
SUBCONTRACTS			\$3,500
EQUIPMENT - REGULAR FUNDS			\$0
TOTAL COST INPUT			-----
GENERAL OVERHEAD	55.965%		\$0
G&A OVERHEAD	13.024%		\$0
FEE	3.277%		\$0
EQUIPMENT - SPECIAL FUNDS			\$0

TOTAL COST ESTIMATE - WITH OVERHEADS ~~\$3,007~~ 5657

DETAIL OF MATERIAL AND LABOR CHARGES:

MATERIAL AND SERVICES:	UNITS	UOM	COST/UOM	TOTAL COST
DESCRIPTION	0	EA	\$0.00	\$0.00
DESCRIPTION	0	EA	\$0.00	\$0.00
DESCRIPTION	0	EA	\$0.00	\$0.00
DESCRIPTION	0	EA	\$0.00	\$0.00
DESCRIPTION	0	EA	\$0.00	\$0.00
DESCRIPTION	0	EA	\$0.00	\$0.00
DESCRIPTION	0	EA	\$0.00	\$0.00

LABOR - HOURLY:	HOURS	RATE	LABOR COST
DEPT:			
2320 W-CLASS & DESC	0.0	\$13.44	\$0.00
2320 W-CLASS & DESC	0.0	\$13.69	\$0.00
2320 W-CLASS & DESC	0.0	\$13.44	\$0.00
2320 W-CLASS & DESC	0.0	\$13.44	\$0.00
2320 W-CLASS & DESC	0.0	\$13.44	\$0.00
2320 W-CLASS & DESC	0.0	\$13.47	\$0.00
2580 W-CLASS & DESC	0.0	\$12.95	\$0.00
2580 W-CLASS & DESC	0.0	\$12.95	\$0.00
2580 W-CLASS & DESC	0.0	\$12.95	\$0.00
2580 W-CLASS & DESC	0.0	\$12.95	\$0.00
2580 W-CLASS & DESC	0.0	\$12.95	\$0.00
2580 W-CLASS & DESC	0.0	\$12.95	\$0.00
1060 W-CLASS & DESC	0.0	\$12.30	\$0.00
1060 W-CLASS & DESC	0.0	\$12.30	\$0.00
1060 W-CLASS & DESC	0.0	\$12.30	\$0.00
1060 W-CLASS & DESC	0.0	\$12.30	\$0.00
1060 W-CLASS & DESC	0.0	\$12.30	\$0.00
1060 W-CLASS & DESC	0.0	\$12.30	\$0.00
2560 W-CLASS & DESC	0.0	\$13.49	\$0.00
2560 W-CLASS & DESC	0.0	\$12.98	\$0.00
1570 W-CLASS & DESC	0.0	\$12.41	\$0.00
1570 W-CLASS & DESC	0.0	\$12.41	\$0.00
1980 W-CLASS & DESC	0.0	\$12.41	\$0.00
1980 W-CLASS & DESC	0.0	\$12.41	\$0.00
OTHER W-CLASS & DESC	0.0	\$0.00	\$0.00
OTHER W-CLASS & DESC	0.0	\$0.00	\$0.00
OTHER W-CLASS & DESC	0.0	\$0.00	\$0.00
OTHER W-CLASS & DESC	0.0	\$0.00	\$0.00
OTHER W-CLASS & DESC	0.0	\$0.00	\$0.00

LABOR - SALARY:	HOURS	RATE	LABOR COST
DEPT:			
2540 ENGINEERING	12.0	\$17.08	\$204.91
5530 SURVEILLANCE	0.0	\$12.56	\$0.00
OTHER SALARY CHARGES	0.0	\$0.00	\$0.00
1980 DEMIL SUPERVISOR	0.0	\$0.00	\$0.00

Date: 4-15-92

PURCHASE REQUISITION

Dept.: 39

*** These Sections To Be Filled In By Purchasing Division Only**

VENDOR _____

ADDRESS _____

Ship Via: _____ Date Promised: _____

Terms: _____ F.O.B. _____ D.O. _____ D.M.S. Reg. _____

Confirming: _____ Order To: _____ Per Your Quote: _____ Buyer: _____

Receiving Dept.: _____ Deliver To: _____

Quantity	Stock No.	Description (Please Type)	* Price	Unit
		Provide subcontractor to supply all labor, material and equipment necessary to clean out the under drain system and clean outs at Bldg. 1034 per RAI Engineers directions. Any accumulated sludges/waste products shall be properly sampled and disposed of by subcontractor.		
		Under drains are currently clogged and backing		

Reason For Ordering: up into said building. Estimated Cost: \$3,500.00

Ordered By: W. Garkido Delivery Required: ASAP Acct. or M.O.: 2CAT-0098

Approved By: [Signature] Approved By: [Signature]

Wayne A. Carter Dept. &/or Div. Mgr. Comptroller #7921

SUBCONTRACT WEEKLY STATUS REPORT

WEEK ENDING 17 Apr 92

P.O. NUMBER 25684

P.O. DESCRIPTION Clean Underdrain System @ 1034
Clean Harbors

WEATHER CONDITIONS _____

PERSONNEL ON JOB _____

DAYS WORKED _____

WORK PERFORMED THIS WEEK

See Attached

PERCENT COMPLETE 5%

REMARKS _____

PROJECT ENGINEER Wayne A. Carls 20 Apr 92

Clean underdrain System @ 1034

Clean Harbors

They arrived on site @ approx 7³⁰ AM. Their vac truck had mechanical problem & was delayed by approx 2 hrs.

They didn't have the appropriate plug for the man-hole (just east of 1034) so we arranged for them to use an old tractor inner tube to plug the line.

They also agreed to dispose of the two drums of product/sludge that our personal cleaned out prior to their obtaining the contract (these 2 drums will be included into their composite sample)

They got very little completed today they just didn't have the proper equipment required to perform the scope of work

Bill Jenkins Made it very clear to them that they will contact Robertson Pipe Service & work with them ~~to~~ on Mon 20 Apr 92 to complete the Project with in budget or provide the proper equipment to perform the contract with in budget.



ENVIRONMENTAL SERVICES COMPANIES
 1200 EAST 55TH STREET
 CLEVELAND, OHIO 44103
 (216) 429-2401

J. JENKINS

APR 16 1992

cc: Wayne Cusido

April 15, 1992

Proposal No. 92.405

Mr. Bill Jenkins
 Olin Ordnance
 Ravenna Arsenal Inc.
 8451 State Route 5
 Ravenna, Ohio 44266-9297

Dear Mr. Jenkins:

Clean Harbors of Kingston, Inc.'s Cleveland Service Center (CLEAN HARBORS) is pleased to submit the following proposal for the cleaning of your drains at building 1034.

CLEAN HARBORS is one of the largest providers of comprehensive environmental services. Our hazardous waste management services include treatment, storage, resource recovery, transportation and disposal of hazardous materials in bulk, totes, or drums. We also provide turnkey lab pack services for the disposal of laboratory chemicals. Our environmental remediation services include surface remediation, groundwater restoration, underground storage tank removal and site decontamination. We also provide analytical and engineering services which compliment our customer's complex environmental requirements. These services are available on a 24 hour emergency basis.

Our proposal is based on information provided to CLEAN HARBORS, per a recent site visit by our **SPECIALIST** Mr. Morrison and our experience with similar projects. The following sections include the scope of work, general approach, and pricing to complete your project.

Scope of Work

The scope of services to be provided by **CLEAN HARBORS** is:

- o **Safety Meeting** will be held prior to start of job.
- o **Power Lance** 400 ft. of floor drains.
- o **Vacuum** out rinseates.
- o **Decant** rinseates into water treatment.
- o **Drum solids** from drains.
- o **Drum solids** from Vacuum Truck.
- o **Sample and Analyze** all materials generated.
 (Samples will be analyzed at our **BEDFORD LAB.**)



Mr. Jenkins
 April 15, 1992
 Page 2

Pricing

The price breakdown is as follows:

I. Labor, Supplies, and Equipment \$206.00/hour
 Portal to Portal not to exceed 20 hours.

II. Analytical

a. Total Petroleum Hydrocarbons	\$90.00
b. Flash	\$50.00
c. pH	\$25.00
d. Reactivity	\$115.00
e. TCLP* Metals	\$275.00
f. TCLP* VOC**	\$345.00

* Toxicity Characteristic Leaching Procedure
 ** Volatile Organic Contaminants
 All prices are on a per sample basis.

III. Transportation and Disposal (all prices pending approval)

a. Disposal (see page 3 and 4 for code descriptions)	
A31-Specification oils (for oil recovery)	\$65.00/drum
A22-Non halogenated, Water soluble organics & water mixtures	\$240.00/drum
CNO-Non-hazardous organic solids for landfill	\$220.00/drum
CNOS-Non-hazardous organic semi-solids for landfill	\$290.00/drum
b. Transportation	\$25.00/drum Minimum \$250.00/load

CLEAN HARBORS BALTIMORE is our proposed facility.

Pricing Conditions

The above pricing is based on the following conditions:

- o CLEAN HARBORS will have access to all work areas, and an authorized site representative will be available.
- o At no time will CLEAN HARBORS assume generator status.

Terms and Conditions

Pricing is firm for 30 days. Pricing subject to revision if work commences 30 days beyond proposal.

Terms are net 30 days (pending credit approval) commencing the last day of work performed at the job site listed on the invoice.



Mr. Bill Jenkins

April 15, 1992

Page 3

For any work extending beyond thirty days (30) days, labor, supplies and equipment will be invoiced based upon a percentage of completion. Disposal, transportation and analytical will be invoiced upon completion.

All work will be performed in strict compliance with all CLEAN HARBORS safety standards. All disposal will be conducted in accordance with all applicable State and Federal laws and regulations.

To commence work on this project, please sign the enclosed field services agreement and return it to my attention.

Conclusion

I would like to emphasize that CLEAN HARBORS is a full service company and our philosophy is to provide you with a turn-key operation that is dependable, cost effective and environmentally responsible. Our service extends beyond each individual project to help you cope with the full range of hazardous waste management problems.

We are very proud of our excellent compliance record. All CLEAN HARBORS field personnel receive an initial 40 hours of OSHA training and a minimum of 24 hours additional training per year, as required by government agencies. In addition our drivers receive an additional 40 hours of DOT training and our transportation fleet is inspected daily.

Thank you for the opportunity to present our proposal and I trust that it addresses all your requirements. If you should have any questions or require additional information, please call me or Mr. Mike David at (216) 429-2401.

WASTE DESCRIPTIONS

- A22-Non-halogenated, water soluble organics and water mixtures
- less than 5ppm PCB's
- less than 3% organic halogen
- must not set up in water or organic solvents
- PH 2-12
- less than one inch of solids in the drum
- no pesticides



Mr. Bill Jenkins
April 15, 1992
Page 4

A31-Specification oils (for recovery)

- PCB's non detectable
- less than 1000ppm organic halogens
- flashpoint greater than 100 f
- total lead less than 100ppm
- total arsenic less than 5ppm
- total chrome less than 10ppm
- total cadmium less than 2ppm
- cannot be mixed with RCRA wastes
- less than 5% water
- PH 4-11
- less than one inch of solids in the drum

CNO-Non-hazardous organic solids for landfill

- non-pourable at 70 F
- no free liquids
- must be able to pass the paint filter test
- must be able to be landfilled
- no pesticides, herbicides, or cyanides
- less than 20ppm PCB's

CNOS-non-hazardous organic semi-solids for landfill

- must be able to be landfilled
- no pesticides, herbicides, or cyanides
- less than 20ppm PCB's
- flashpoint greater than 140 F

Sincerely,

A handwritten signature in cursive script, appearing to read "Daniel S. Morrison". The signature is written in dark ink and is positioned above the typed name.

Daniel S. Morrison
Supervisor

pc: Mr. Victor Amster, Account Manager
Proposal File 92.405

W. JENKINS

APR 16 1992

cc: Wayne C. Sider