

1996 waste oil UST
removal

SEMCO/HK₂, INC.

1751 LESLIE STREET • SAN MATEO, CA 94402 • (415) 572-8033 • (415) 572-9734 FAX

GENERAL ENGINEERING & ENVIRONMENTAL CONTRACTORS LICENSE No. 719103 (A, B, C57, C61-D40, HAZ, ASB)

August 16, 1996

ref: 96-0222

Scott Seery
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
(510) 567-6700 phone
(510) 337-9335 fax

re: Tank removal at 16035 E. 14th St., San Leandro, California

Dear Scott Seery,

Enclosed is the analytical results for the site referenced above.

Please let us know if you have any questions.

Sincerely,

SEMCO/HK₂, Inc.

Mark Dysert
Environmental Specialist

cc: Jerry and Mary Petsas

ENVIRONMENTAL
PROTECTION
96 AUG 19 PM 2:25



North State Environmental Analytical Laboratory

Chain of Custody/Request for Analysis

96-531

(415) 588-9652

Client: HK2, INC		Phone: 572-8033		Report to: HK2, Inc. / SEMCO			Turnaround Time					
Mailing Address: 1751 Leslie St. SAN MATEO, CA 94402				Billing to:			8 Hr <input type="checkbox"/>		24 Hr <input type="checkbox"/>			
Site Address: 16035 E. 14th St, SAN LEANDRO				PO# / Billing Reference: 96-0222 PETSAS			40 Hr <input type="checkbox"/>		5 Days <input type="checkbox"/>			
Sampler: MARK DYERT		Date: 7/29/96					Other <input type="checkbox"/>					
Sample ID	Sample Description	Container # / type	Sampling Time/Date	ANALYSIS REQUESTED								Remarks
				TPH-D	TPH-G	BTEX	O+G	ICAP 5 METALS	SOLO	BZTO	RCI	
1-285-WO@6.5'	SOIL	1 BRASS	1:40p, 7/29	X	X	X	X	X	X	X	X	
2-285-WO@9.5'	SOIL	1 BRASS	2:30p, 7/29	X	X	X	X	X	X	X	X	
3-SP-COMP	SPILLAGE SOIL	4 BRASS	3:00p, 7/29	X	X	X	X	X	X	X	X	
Relinquished by: Mark Ours		Date: 7/29/96 Time: 4:25		Received by: Edward [Signature]			Yes <input type="checkbox"/>		No <input type="checkbox"/>			
Relinquished by:		Date: Time:		Received by:			Were samples Preserved ?		<input checked="" type="checkbox"/>			
Relinquished by:		Date: Time:		Received in lab by:			In good condition ?		<input checked="" type="checkbox"/>			



North State Environmental
Chemical Waste Disposal • Tracking • Consulting

CERTIFICATE OF ANALYSIS

Lab No: 96-531
Client: Semco/HK2
Project: 16035 E.14th St., San Leandro

Date Sampled: 07-29-96
Date Extracted: 08-04-96
Date analyzed: 08-04-96

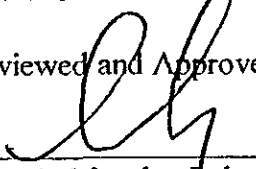
REACTIVE CYANIDE BY SW-846 CHAPTER 7, SEC. 7.3.3.2
REACTIVE SULFIDE BY SW-846 CHAPTER 7, SEC. 7.3.4.2
PH OF SOIL WASTES BY METHOD 9045
FLASHPOINT BY METHOD 1010 CLOSED CUP PENSKEY-MARTENS

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-531-03	SP-Comp SOIL	CYANIDE	CH7 7.3.3.2	ND<10 mg/Kg
		SULFIDE	CH7 7.3.4.2	ND<5 mg/Kg
		PH	9045	8.5
		FLASHPOINT	1010	> 200 F

pH meter was calibrated using 3 buffer solutions from Spectrum Chemical Co., at pH 4,7, and 10.

ELAP Certificate No: 1753

Reviewed and Approved:


John A. Murphy, Laboratory Director

*Stackpile
(for disposal)*



CERTIFICATE OF ANALYSIS

Lab No: 96-531
 Client: Semco/HK2
 Project: 16035 E. 14th St., San LEandro

Date Sampled: 07-29-96
 Date Extracted: 08-03-96
 Date analyzed: 08-04-96

TTLc Metals by Atomic Absorption Spectroscopy
 Sample prepared by Method 3050

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
96-531-01	1-285-WO 6.5' Soil	Nickel	7520	42 mg/Kg
		Zinc	7950	49 mg/Kg
		Chromium	7190	39 mg/Kg
		Cadmium	7130	ND
		Lead	7420	ND
96-531-02	2-285-WO 9.5' Soil	Nickel	7520	42 mg/Kg
		Zinc	7950	46 mg/Kg
		Chromium	7190	41 mg/Kg
		Cadmium	7130	ND
		Lead	7420	ND
96-531-03	SP-Comp	Nickel	7520	41 mg/Kg
		Zinc	7950	92 mg/Kg
		Chromium	7190	39 mg/Kg
		Cadmium	7130	ND
		Lead	7420	44

Quality Control Quality Assurance Summary:

Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
Nickel	7520	5.0 mg/Kg	ND	87/95	3
Zinc	7950	1.0 mg/Kg	ND	95/94	4
Chromium	7190	5.0 mg/Kg	ND	87/92	1
Cadmium	7130	2.0 mg/Kg	ND	92/94	2
Lead	7420	2.0 mg/Kg	ND	100/102	2

ELAP Certificate NO: 1753

Reviewed and Approved:


 John A. Murphy, Laboratory Director



CERTIFICATE OF ANALYSIS

JOB NO: 96-531
CLIENT: Semco/HK2
PROJECT ID: 16035 E. 14th st., San Leandro

DATE SAMPLED: 07-29-96
DATE EXTRACTED: 07-30-96
DATE ANALYZED: 07-30-96

8010 Volatile halogenated organics by GC/MS Method 8260

Laboratory Number	96-531-01	96-531-02	96-531-03
Client ID	1-285-wo @ 6.5	2-285-WO @ 9.5	SP-COMP
Matrix	SOIL	SOIL	SOIL
Analyte	Results	Results	Results
Chlormethane	ND<25	ND<25	
Vinyl Chloride	ND<25	ND<25	ND<25
Bromomethane	ND<25	ND<25	ND<25
Chloroethane	ND<25	ND<25	ND<25
Trichlorofluoroethane	ND<5	ND<5	ND<25
1,1-Dichloroethene	ND<5	ND<5	ND<5
Methylene Chloride	ND<5	ND<5	ND<5
trans-1,2-Dichloroethene	ND<5	ND<5	ND<5
1,1-Dichloroethane	ND<5	ND<5	ND<5
cis-1,2-Dichloroethene	ND<5	ND<5	ND<5
Chloroform	ND<5	ND<5	ND<5
1,1,1-Trichloroethane	ND<5	ND<5	ND<5
Carbon Tetrachloride	ND<5	ND<5	ND<5
1,2-Dichloroethane	ND<5	ND<5	ND<5
Trichloroethene	ND<5	ND<5	ND<5
Bromodichloroethane	ND<5	ND<5	ND<5
trans-1,3-Dichloropropene	ND<5	ND<5	ND<5
cis-1,3-Dichloropropene	ND<5	ND<5	ND<5
1,1,2-Trichloroethane	ND<5	ND<5	ND<5
Tetrachloroethene	ND<5	ND<5	ND<5
Dibromobenzene	ND<5	ND<5	ND<5
Chlorobenzene	ND<5	ND<5	ND<5
1,1,2,2-Tetrachloroethane	ND<5	ND<5	ND<5
1,3-Dichlorobenzene	ND<5	ND<5	ND<5
1,4-Dichlorobenzene	ND<5	ND<5	ND<5
1,2-Dichloroethane	ND<5	ND<5	ND<5
Surrogate Recoveries			
1,2-Dichloroethane d4	92%	93%	93%
Toluene d8	94%	96%	94%
4-Bromofluorobenzene	92%	94%	94%



North State Environmental
Chemical Waste Disposal • Trucking • Consulting

CERTIFICATE OF ANALYSIS

JOB NO: 96-531
CLIENT: Semco/HK2
PROJECT ID: 16035 E. 14th st., San Leandro

DATE SAMPLED: 07-29-96
DATE EXTRACTED: 07-30-96
DATE ANALYZED: 07-30-96

8010 Volatile halogenated organics by GC/MS Method 8260 Quality Control/Quality Assurance Summary

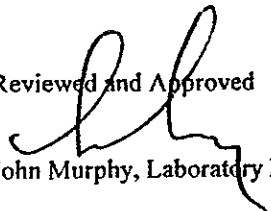
Laboratory Number	96-531	MS/MSD
Client ID	Blank	Recoveries
Matrix	SOIL	SOIL

Analyte	Results	
Chlormethane	ND<25	
Vinyl Chloride	ND<25	
Bromomethane	ND<25	
Chloroethane	ND<25	
Trichlorofluoroethane	ND<5	
1,1-Dichloroethene	ND<5	106/101
Methylene Chloride	ND<5	
trans-1,2-Dichloroethene	ND<5	
1,1-Dichloroethane	ND<5	
cis-1,2-Dichloroethene	ND<5	
Chloroform	ND<5	
1,1,1-Trichloroethane	ND<5	
Carbon Tetrachloride	ND<5	
1,2-Dichloroethane	ND<5	
Trichloroethene	ND<5	95/96
Bromodichloroethane	ND<5	
trans-1,3-Dichloropropene	ND<5	
cis-1,3-Dichloropropene	ND<5	
1,1,2-Trichloroethane	ND<5	
Tetrachloroethene	ND<5	
Dibromobenzene	ND<5	
Chlorobenzene	ND<5	124/104
1,1,2,2-Tetrachloroethane	ND<5	
1,3-Dichlorobenzene	ND<5	
1,4-Dichlorobenzene	ND<5	
1,2-Dichloroethane	ND<5	

Surrogate Recoveries

1,2-Dichloroethane d4	92%	91/84
Toluene d8	94%	94/105
4-Bromofluorobenzene	92%	94/102

Reviewed and Approved


John Murphy, Laboratory Director

Page 2 of 2



Superior

Analytical Laboratory

NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project
Reported on August 6, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Chronology

Laboratory Number 2166

Sample ID		Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
96531-01	<i>wo@6.5</i>	07/29/96	07/30/96	07/30/96	07/31/96	CG302.24	01
96531-02	<i>" " 9.5</i>	07/29/96	07/30/96	07/30/96	07/31/96	CG302.24	02
96531-03	<i>SP comp</i>	07/29/96	07/30/96	07/30/96	07/31/96	CG302.24	03

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
CG302.24-14	Method Blank	MB	Soil	07/30/96	07/30/96
CG302.24-15	Laboratory Spike	LS	Soil	07/30/96	07/30/96
CG302.24-16	Laboratory Spike Duplicate	LSD	Soil	07/30/96	07/30/96
CG302.24-21	31.3-SP2	MS 21667-01	Soil	07/30/96	07/31/96
CG302.24-22	31.3-SP2	MSD 21667-01	Soil	07/30/96	07/31/96



Superior

Analytical Laboratory

NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project
Reported on August 6, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
21669-01	96531-01	Soil	1.0	-
21669-02	96531-02	Soil	1.0	-
21669-03	96531-03	Soil	1.0	-

RESULTS OF ANALYSIS

Compound	21669-01		21669-02		21669-03	
	Conc.	RL	Conc.	RL	Conc.	RL
	ug/Kg		ug/Kg		ug/Kg	
bis(2-chloroethyl) ether	ND	300	ND	300	ND	300
aniline	ND	300	ND	300	ND	300
phenol	ND	300	ND	300	ND	300
2-chlorophenol	ND	300	ND	300	ND	300
1,3-dichlorobenzene	ND	300	ND	300	ND	300
1,4-dichlorobenzene	ND	300	ND	300	ND	300
1,2-dichlorobenzene	ND	300	ND	300	ND	300
benzyl alcohol	ND	300	ND	300	ND	300
bis-(2-chloroisopropyl) ether	ND	300	ND	300	ND	300
2-methylphenol	ND	300	ND	300	ND	300
hexachloroethane	ND	300	ND	300	ND	300
n-nitroso-di-n-propylamine	ND	300	ND	300	ND	300
4-methylphenol	ND	300	ND	300	ND	300
nitrobenzene	ND	300	ND	300	ND	300
isophorone	ND	300	ND	300	ND	300
2-nitrophenol	ND	300	ND	300	ND	300
2,4-dimethylphenol	ND	300	ND	300	ND	300
bis(2-chloroethoxy) methane	ND	300	ND	300	ND	300
2,4-dichlorophenol	ND	300	ND	300	ND	300
1,2,4-trichlorobenzene	ND	300	ND	300	ND	300
naphthalene	ND	300	ND	300	ND	300
benzoic acid	ND	1500	ND	1500	ND	1500
4-chloroaniline	ND	300	ND	300	ND	300
hexachlorobutadiene	ND	300	ND	300	ND	300
4-chloro-3-methylphenol	ND	300	ND	300	ND	300
2-methyl-naphthalene	ND	300	ND	300	ND	300
hexachlorocyclopentadiene	ND	1500	ND	1500	ND	1500
2,4,6-trichlorophenol	ND	300	ND	300	ND	300
2,4,5-trichlorophenol	ND	300	ND	300	ND	300
2-chloronaphthalene	ND	300	ND	300	ND	300
2-nitroaniline	ND	300	ND	300	ND	300



Superior

Analytical Laboratory

NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project
Reported on August 6, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
21669-01	96531-01	Soil	1.0	-
21669-02	96531-02	Soil	1.0	-
21669-03	96531-03	Soil	1.0	-

RESULTS OF ANALYSIS

Compound	21669-01		21669-02		21669-03	
	Conc.	RL	Conc.	RL	Conc.	RL
	ug/Kg		ug/Kg		ug/Kg	
acenaphthylene	ND	300	ND	300	ND	300
dimethylphthlate	ND	300	ND	300	ND	300
2,6-dinitrotoluene	ND	300	ND	300	ND	300
Acenaphthene	ND	300	ND	300	ND	300
3-nitroaniline	ND	300	ND	300	ND	300
2,4-dinitrophenol	ND	1500	ND	1500	ND	1500
dibenzofuran	ND	300	ND	300	ND	300
2,4-dinitrotoluene	ND	300	ND	300	ND	300
4-nitrophenol	ND	300	ND	300	ND	300
fluorene	ND	300	ND	300	ND	300
4-chlorophenyl-phenylether	ND	300	ND	300	ND	300
diethylphthlate	ND	300	ND	300	ND	300
4-nitroaniline	ND	1500	ND	1500	ND	1500
4,6-dinitro-2-methylphenol	ND	300	ND	300	ND	300
n-nitrosodiphenylamine	ND	300	ND	300	ND	300
4-bromo-phenyl-phenylether	ND	300	ND	300	ND	300
hexachlorobenzene	ND	300	ND	300	ND	300
pentachlorophenol	ND	1500	ND	1500	ND	1500
phenanthrene	ND	300	ND	300	ND	300
anthracene	ND	300	ND	300	ND	300
di-n-butylphthlate	ND	300	ND	300	ND	300
fluoranthene	ND	300	ND	300	ND	300
benzidine	ND	1500	ND	1500	ND	1500
pyrene	ND	300	ND	300	ND	300
butylbenzylphthlate	ND	300	ND	300	ND	300
3,3'-dichlorobenzidine	ND	300	ND	300	ND	300
Benzo(a) Anthracene	ND	300	ND	300	ND	300
chrysene	ND	300	ND	300	ND	300
bis(2-ethylhexyl)phthalate	ND	300	ND	300	ND	300
di-n-octylphthalate	ND	300	ND	300	ND	300
Benzo(b) Fluoranthene	ND	300	ND	300	ND	300



Superior

Analytical Laboratory

NORTH STATE ENVIRONMENTAL
Attn: JOHN MURPHY

Project
Reported on August 6, 1996

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
21669-01	96531-01	Soil	1.0	-
21669-02	96531-02	Soil	1.0	-
21669-03	96531-03	Soil	1.0	-

RESULTS OF ANALYSIS

Compound	21669-01		21669-02		21669-03	
	Conc.	RL	Conc.	RL	Conc.	RL
	ug/Kg		ug/Kg		ug/Kg	
Benzo(k) Fluoranthene	ND	300	ND	300	ND	300
Benzo(a) Pyrene	ND	300	ND	300	ND	300
Indeno(1, 2, 3) Pyrene	ND	300	ND	300	ND	300
dibenzo[a, h] anthracene	ND	300	ND	300	ND	300
9H-Carbazole	ND	300	ND	300	ND	300
Benzo(g, h, i) Perylene	ND	300	ND	300	ND	300

>> Surrogate Recoveries (%) <<

2-fluorophenol	64	37	54
phenol-d5	71	52	64
nitrobenzene-d5	67	50	62
2-fluorobiphenyl	71	64	70
2,4,6-tribromophenol	90	83	89
terphenyl-d14	71	67	73



EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 21669

Method Blank(s)

CG302.24-14

Conc. RL

ug/Kg

dibenzofuran	ND	300
2,4-dinitrotoluene	ND	300
4-nitrophenol	ND	300
fluorene	ND	300
4-chlorophenyl-phenylether	ND	300
diethylphthlate	ND	300
4-nitroaniline	ND	1500
4,6-dinitro-2-methylphenol	ND	300
n-nitrosodiphenylamine	ND	300
4-bromo-phenyl-phenylether	ND	300
hexachlorobenzene	ND	300
penta-chlorophenol	ND	1500
phenanthrene	ND	300
anthracene	ND	300
di-n-butylphthlate	ND	300
fluoranthene	ND	300
benzidine	ND	1500
pyrene	ND	300
butylbenzylphthlate	ND	300
3,3'-dichlorobenzidine	ND	300
Benzo(a) Anthracene	ND	300
chrysene	ND	300
bis(2-ethylhexyl)phthalate	ND	300
di-n-octylphthalate	ND	300
Benzo(b) Fluoranthene	ND	300
Benzo(k) Fluoranthene	ND	300
Benzo(a) Pyrene	ND	300
Indeno(1,2,3) Pyrene	ND	300
dibenzo[a,h]anthracene	ND	300
9H-Carbazole	ND	300
Benzo(g,h,i) Perylene	ND	300



Superior

Analytical Laboratory

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 21669

Method Blank(s)

CG302.24-14

Conc. RL

ug/Kg

>> Surrogate Recoveries (%) <<

2-fluorophenol	70
phenol-d5	77
nitrobenzene-d5	77
2-fluorobiphenyl	79
2,4,6-tribromophenol	80
terphenyl-d14	78



EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 21669

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPI %
----------	--------------	-----------	------------	------------	----------	-------

For Soil Matrix (ug/Kg)

CG302.24 15 / 16 - Laboratory Control Spikes

phenol		3300	2326/2196	70/67	26-90	4
2-chlorophenol		3300	2344/2212	71/67	25-102	6
1,4-dichlorobenzene		1650	1256/1177	76/71	28-104	7
n-nitroso-di-n-propylamine		1650	1382/1297	84/79	41-126	6
1,2,4-trichlorobenzene		1650	1335/1182	81/72	38-107	12
4-chloro-3-methylphenol		3300	2518/2219	76/67	26-103	13
Acenaphthene		1650	1379/1247	84/76	31-137	10
2,4-dinitrotoluene		1650	1140/1059	69/64	28-118	8
4-nitrophenol		3300	2235/1988	68/60	11-114	13
pentachlorophenol		3300	2434/2199	74/67	17-109	10
pyrene		1650	1566/1470	95/89	35-142	7

>> Surrogate Recoveries (%) <<

2-fluorophenol				68/67	25-121	
phenol-d5				74/70	24-113	
nitrobenzene-d5				81/71	23-120	
2-fluorobiphenyl				77/73	30-115	
2,4,6-tribromophenol				90/89	19-122	
terphenyl-d14				89/84	18-137	

For Soil Matrix (ug/Kg)

CG302.24 21 / 22 - Sample Spiked: 21667 - 01

phenol	ND	3300	1941/1954	59/59	26-90	0
2-chlorophenol	ND	3300	2059/2113	62/64	25-102	3
1,4-dichlorobenzene	ND	1650	1041/1087	63/66	28-104	5
n-nitroso-di-n-propylamine	ND	1650	1125/1120	68/68	41-126	0
1,2,4-trichlorobenzene	ND	1650	1129/1169	68/71	38-107	4
4-chloro-3-methylphenol	ND	3300	2301/2314	70/70	26-103	0
Acenaphthene	ND	1650	1234/1284	75/78	31-137	4
2,4-dinitrotoluene	ND	1650	1219/1203	74/73	28-118	1
4-nitrophenol	ND	3300	2301/2357	70/71	11-114	1
pentachlorophenol	ND	3300	2122/2170	64/66	17-109	3



Superior

Analytical Laboratory

EPA SW-846 Method 8270 Semivolatile Organics by GC/MS

Quality Assurance and Control Data

Laboratory Number: 21669

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
pyrene	ND	1650	1357/1195	82/72	35-142	13
>> Surrogate Recoveries (%) <<						
2-fluorophenol				56/57	25-121	
phenol-d5				65/65	24-113	
nitrobenzene-d5				64/66	23-120	
2-fluorobiphenyl				69/71	30-115	
2,4,6-tribromophenol				94/98	19-122	
terphenyl-d14				81/74	18-137	

Definitions:

- ND = Not Detected
- RL = Reporting Limit
- NA = Not Analysed
- RPD = Relative Percent Difference
- ug/L = parts per billion (ppb)
- mg/L = parts per million (ppm)

- ug/kg = parts per billion (ppb)
- mg/kg = parts per million (ppm)



North State Environmental Analytical Laboratory

Chain of Custody/Request for Analysis

(415) 588-9652

Client: NSE		Phone: 588-9652	Report to: J. MURPHY		Turnaround Time								
Mailing Address: 905 SPRING 'W' SSFCA 94080			Billing to:		8 Hr <input type="checkbox"/>	24 Hr <input type="checkbox"/>							
Site Address: 16035 E. 14th ST.			PO# / Billing Reference: 96-531		40 Hr <input type="checkbox"/>	5 Days <input type="checkbox"/>							
Sampler: J. MURPHY		Date: 7/24/96	ANALYSIS REQUESTED		Other NOBIL								
Sample ID:	Sample Description	Container # / type			Sampling Time/Date	TPH-D	TPH-G	BTEX	O+G	8270	Remarks		
76531-01	1-285-WO@6.5	19L	7/29/96					X					
↓ 2	2-285-WO@9.5	19L	↓					X					
↓ 3	SP COMA	19L	↓					X					
Please Initial: _____ Samples Stored in ice. _____ Appropriate containers _____ Samples preserved _____ VOA's without headspace _____ Comments: _____ _____ _____ _____				(SOILS IN GLASS)									
Relinquished by:		Date: 7/30/96 Time: 11:30	Received by: X [Signature]		Yes <input type="checkbox"/> No <input type="checkbox"/>								
Relinquished by:		Date: 7/30/96 Time: 1:05	Received by: _____		Were samples Preserved ? <input checked="" type="checkbox"/>								
Relinquished by: _____		Date: 07/30/96 Time: 1:32	Received in lab by: [Signature]		In good condition ? <input checked="" type="checkbox"/>								