Curtis & Tompkins, Ltd.

Laboratory Number: **138598**
Client: **Geomatrix Consultants**
Project #: **3095.06**

Receipt Date: **03/24/99**

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for two soil samples received from the above referenced project. All samples were received cold and intact.

Volatile Organic Compounds: No analytical problems were encountered.

Semi-Volatile Organic Compounds: The matrix spike duplicate relative percent difference (RPD) for all target compounds except pyrene was outside acceptance limits. The matrix spike recoveries and laboratory control sample recoveries were acceptable for all target compounds. The affected RPDs have been flagged. No other analytical problems were encountered.

Metals: The matrix duplicate relative percent difference (RPD) for mercury was outside acceptance limits. The water matrix spike recovery for beryllium, cadmium, chromium, cobalt, copper, molybdenum, and zinc were outside acceptance limits. The blank spikes met all acceptance criteria for all target compounds. No other analytical problems were encountered.

General Chemistry: No analytical problems were encountered.

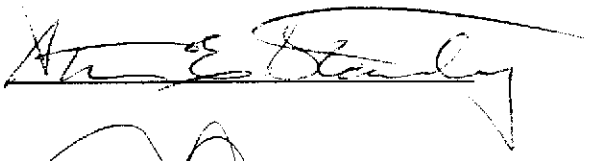
Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

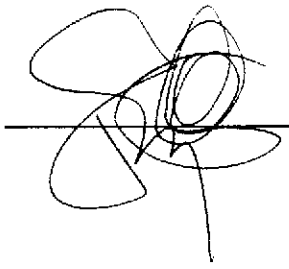
ANALYTICAL REPORT

Prepared for:

Geomatrix Consultants
100 Pine Street
10th Floor
San Francisco, CA 94111

Date: 15-APR-99
Lab Job Number: 138598
Project ID: N/A
Location: 3095.06

Reviewed by: 

Reviewed by: 

138598

CHAIN-OF-CUSTODY RECORD

№ 12916

Date: 3-24

Page 1 of 1

Project No.: 3095.06

Samplers (Signatures):

	Date	Time	Sample Number
1	3-24	12:45	SP-1
2	↓	12:46	SP-2

ANALYSES

	EPA Method 8010	EPA Method 8020	EPA Method 8020 (BTEX only)	EPA Method 8240	EPA Method 8270	TPH as gasoline	TPH as diesel	418.1	CAM Metals	WET Metals	Cooled	Soil (S), Water (W), or Vapor (V)	Acidified	Number of containers
1				X	X			X	X	X		S		1
2				X	X			X	X	X		S		1

REMARKS

Additional Comments

Turnaround time: 72 48 hr TAT

Results to: Brad Sc

Total No. of containers: 2

Relinquished by (signature)	Date:	Relinquished by (signature)	Date:	Relinquished by (signature)	Date:
Printed Name: L.B. Sols	Time: 1315	Printed Name:	Time:	Printed Name:	Time:
Company: Geomatrix		Company:		Company:	
Received by (signature):	Date: 3/24/99	Received by (signature):	Date:	Received by (signature):	Date:
Printed Name: Steven E. Stanley	Time: 1315	Printed Name:	Time:	Printed Name:	Time:
Company: C&T		Company:		Company:	

Method of Shipment:

Laboratory Comments and Log No.:

TEMP. RECEIVED: Chilled °C
RECEIVED BY: dew

GEOMATRIX Geomatrix Consultants
100 Pine Street, 10th Floor
San Francisco, California 94111
415 434 9400

Volatile Organics by GC/MS

Client: Geomatrix Consultants
Location: 3095.06

Analysis Method: EPA 8260A
Prep Method: EPA 5030

Field ID: SP-1
Lab ID: 138598-001
Matrix: Soil
Batch#: 47002
Units: ug/Kg
Diln Fac: 1

Sampled: 03/24/99
Received: 03/24/99
Extracted: 03/24/99
Analyzed: 03/24/99

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	100	80-129
Toluene-d8	97	88-111
Bromofluorobenzene	101	76-128

Volatile Organics by GC/MS

Client:	Geomatrix Consultants	Analysis Method:	EPA 8260A
Location:	3095.06	Prep Method:	EPA 5030
Field ID:	SP-2	Sampled:	03/24/99
Lab ID:	138598-002	Received:	03/24/99
Matrix:	Soil	Extracted:	03/24/99
Batch#:	47002	Analyzed:	03/24/99
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	103	80-129
Toluene-d8	101	88-111
Bromofluorobenzene	102	76-128

EPA 8240 Volatile Organics

Client: Geomatrix Consultants
Location: 3095.06
Analysis Method: EPA 8260A
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 47002
Units: ug/Kg
Diln Fac: 1
Prep Date: 03/24/99
Analysis Date: 03/24/99

MB Lab ID: QC93634

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	103	80-129
Toluene-d8	98	88-111
Bromofluorobenzene	104	76-128

EPA 8240 Volatile Organics

Client:	Geomatrix Consultants	Analysis Method:	EPA 8260A
Location:	3095.06	Prep Method:	EPA 5030

LABORATORY CONTROL SAMPLE

Matrix:	Soil	Prep Date:	03/24/99
Batch#:	47002	Analysis Date:	03/24/99
Units:	ug/Kg		
Diln Fac:	1		

LCS Lab ID: QC93633

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	57.36	50	115	63-144
Benzene	55.67	50	111	74-127
Trichloroethene	55.15	50	110	70-131
Toluene	50.29	50	101	72-131
Chlorobenzene	50.84	50	102	74-126

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	99	80-129
Toluene-d8	93	88-111
Bromofluorobenzene	101	76-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 5 outside limits

Lab #: 138598 BATCH QC REPORT Page

EPA 8240 Volatile Organics

Client: Geomatrix Consultants
Location: 3095.06
Analysis Method: EPA 8260A
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: SP-2
Lab ID: 138598-002
Matrix: Soil
Batch#: 47002
Units: ug/Kg
Diln Fac: 1
Sample Date: 03/24/99
Received Date: 03/24/99
Prep Date: 03/24/99
Analysis Date: 03/24/99

MS Lab ID: QC93635

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	47.69	95	51-137
Benzene	50	<5	48.12	96	53-128
Trichloroethene	50	<5	46.99	94	33-153
Toluene	50	<5	47.53	95	45-134
Chlorobenzene	50	<5	43.29	87	39-132

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	102	80-129
Toluene-d8	102	88-111
Bromofluorobenzene	105	76-128

MSD Lab ID: QC93636

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	49.83	100	51-137	4	35
Benzene	50	50.22	100	53-128	4	34
Trichloroethene	50	48.79	98	33-153	4	44
Toluene	50	46.1	92	45-134	3	44
Chlorobenzene	50	43.46	87	39-132	0	47

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	105	80-129
Toluene-d8	99	88-111
Bromofluorobenzene	103	76-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Client: Geomatrix Consultants	Analysis Method: EPA 8270B
Location: 3095.06	Prep Method: EPA 3550

Field ID: SP-1	Sampled: 03/24/99
Lab ID: 138598-001	Received: 03/24/99
Matrix: Soil	Extracted: 03/24/99
Batch#: 47000	Analyzed: 03/25/99
Units: ug/Kg	
Diln Fac: 5	

Analyte	Result	Reporting Limit
N-Nitrosodimethylamine	ND	1700
Phenol	ND	1700
Aniline	ND	1700
bis(2-Chloroethyl)ether	ND	1700
2-Chlorophenol	ND	1700
1,3-Dichlorobenzene	ND	1700
1,4-Dichlorobenzene	ND	1700
Benzyl alcohol	ND	1700
1,2-Dichlorobenzene	ND	1700
2-Methylphenol	ND	1700
bis(2-Chloroisopropyl) ether	ND	1700
3-,4-Methylphenol	ND	1700
N-Nitroso-di-n-propylamine	ND	1700
Hexachloroethane	ND	1700
Nitrobenzene	ND	1700
Isophorone	ND	1700
2-Nitrophenol	ND	8300
2,4-Dimethylphenol	ND	1700
Benzoic acid	ND	8300
bis(2-Chloroethoxy)methane	ND	1700
2,4-Dichlorophenol	ND	1700
1,2,4-Trichlorobenzene	ND	1700
Naphthalene	ND	1700
4-Chloroaniline	ND	1700
Hexachlorobutadiene	ND	1700
4-Chloro-3-methylphenol	ND	1700
2-Methylnaphthalene	ND	1700
Hexachlorocyclopentadiene	ND	8300
2,4,6-Trichlorophenol	ND	1700
2,4,5-Trichlorophenol	ND	1700
2-Chloronaphthalene	ND	1700
2-Nitroaniline	ND	8300
Dimethylphthalate	ND	1700
Acenaphthylene	ND	1700
2,6-Dinitrotoluene	ND	1700
3-Nitroaniline	ND	8300
Acenaphthene	ND	1700
2,4-Dinitrophenol	ND	8300

Semivolatile Organics by GC/MS

Field ID:	SP-1	Sampled:	03/24/99
Lab ID:	138598-001	Received:	03/24/99
Matrix:	Soil	Extracted:	03/24/99
Batch#:	47000	Analyzed:	03/25/99
Units:	ug/Kg		
Diln Fac:	5		

Analyte	Result	Reporting Limit
4-Nitrophenol	ND	8300
Dibenzofuran	ND	1700
2,4-Dinitrotoluene	ND	1700
Diethylphthalate	ND	1700
Fluorene	ND	1700
4-Chlorophenyl-phenylether	ND	1700
4-Nitroaniline	ND	8300
4,6-Dinitro-2-methylphenol	ND	8300
N-Nitrosodiphenylamine	ND	1700
Azobenzene	ND	1700
4-Bromophenyl-phenylether	ND	1700
Hexachlorobenzene	ND	1700
Pentachlorophenol	ND	8300
Phenanthrene	960 J	1700
Anthracene	ND	1700
Di-n-butylphthalate	ND	1700
Fluoranthene	1000 J	1700
Benzidine	ND	1700
Pyrene	1100 J	1700
Butylbenzylphthalate	ND	1700
3,3'-Dichlorobenzidine	ND	8300
Benzo(a)anthracene	ND	1700
Chrysene	ND	1700
bis(2-Ethylhexyl)phthalate	1500 J	1700
Di-n-octylphthalate	ND	1700
Benzo(b,k)fluoranthene	950 J	1700
Benzo(a)pyrene	ND	1700
Indeno(1,2,3-cd)pyrene	ND	1700
Dibenz(a,h)anthracene	ND	1700
Benzo(g,h,i)perylene	ND	1700

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	87	15-129
Phenol-d5	85	38-132
2,4,6-Tribromophenol	78	23-144
Nitrobenzene-d5	85	22-132
2-Fluorobiphenyl	97	26-137
Terphenyl-d14	98	22-149

J: Estimated Value

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Client:	Geomatrix Consultants	Analysis Method:	EPA 8270B
Location:	3095.06	Prep Method:	EPA 3550
Field ID:	SP-2	Sampled:	03/24/99
Lab ID:	138598-002	Received:	03/24/99
Matrix:	Soil	Extracted:	03/24/99
Batch#:	47000	Analyzed:	03/25/99
Units:	ug/Kg		
Diln Fac:	5		

Analyte	Result	Reporting Limit
N-Nitrosodimethylamine	ND	1700
Phenol	ND	1700
Aniline	ND	1700
bis(2-Chloroethyl)ether	ND	1700
2-Chlorophenol	ND	1700
1,3-Dichlorobenzene	ND	1700
1,4-Dichlorobenzene	ND	1700
Benzyl alcohol	ND	1700
1,2-Dichlorobenzene	ND	1700
2-Methylphenol	ND	1700
bis(2-Chloroisopropyl) ether	ND	1700
3-,4-Methylphenol	ND	1700
N-Nitroso-di-n-propylamine	ND	1700
Hexachloroethane	ND	1700
Nitrobenzene	ND	1700
Isophorone	ND	1700
2-Nitrophenol	ND	8300
2,4-Dimethylphenol	ND	1700
Benzoic acid	ND	8300
bis(2-Chloroethoxy)methane	ND	1700
2,4-Dichlorophenol	ND	1700
1,2,4-Trichlorobenzene	ND	1700
Naphthalene	ND	1700
4-Chloroaniline	ND	1700
Hexachlorobutadiene	ND	1700
4-Chloro-3-methylphenol	ND	1700
2-Methylnaphthalene	ND	1700
Hexachlorocyclopentadiene	ND	8300
2,4,6-Trichlorophenol	ND	1700
2,4,5-Trichlorophenol	ND	1700
2-Chloronaphthalene	ND	1700
2-Nitroaniline	ND	8300
Dimethylphthalate	ND	1700
Acenaphthylene	ND	1700
2,6-Dinitrotoluene	ND	1700
3-Nitroaniline	ND	8300
Acenaphthene	ND	1700
2,4-Dinitrophenol	ND	8300

Semivolatile Organics by GC/MS

Field ID:	SP-2	Sampled:	03/24/99
Lab ID:	138598-002	Received:	03/24/99
Matrix:	Soil	Extracted:	03/24/99
Batch#:	47000	Analyzed:	03/25/99
Units:	ug/Kg		
Diln Fac:	5		

Analyte	Result	Reporting Limit
4-Nitrophenol	ND	8300
Dibenzofuran	ND	1700
2,4-Dinitrotoluene	ND	1700
Diethylphthalate	ND	1700
Fluorene	ND	1700
4-Chlorophenyl-phenylether	ND	1700
4-Nitroaniline	ND	8300
4,6-Dinitro-2-methylphenol	ND	8300
N-Nitrosodiphenylamine	ND	1700
Azobenzene	ND	1700
4-Bromophenyl-phenylether	ND	1700
Hexachlorobenzene	ND	1700
Pentachlorophenol	ND	8300
Phenanthrene	ND	1700
Anthracene	ND	1700
Di-n-butylphthalate	ND	1700
Fluoranthene	ND	1700
Benzidine	ND	1700
Pyrene	ND	1700
Butylbenzylphthalate	ND	1700
3,3'-Dichlorobenzidine	ND	8300
Benzo(a)anthracene	ND	1700
Chrysene	ND	1700
bis(2-Ethylhexyl)phthalate	ND	1700
Di-n-octylphthalate	ND	1700
Benzo(b,k)fluoranthene	ND	1700
Benzo(a)pyrene	ND	1700
Indeno(1,2,3-cd)pyrene	ND	1700
Dibenz(a,h)anthracene	ND	1700
Benzo(g,h,i)perylene	ND	1700

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	97	15-129
Phenol-d5	95	38-132
2,4,6-Tribromophenol	88	23-144
Nitrobenzene-d5	95	22-132
2-Fluorobiphenyl	106	26-137
Terphenyl-d14	107	22-149

EPA 8270 Semi-Volatile Organics

Client: Geomatrix Consultants
Location: 3095.06
Analysis Method: EPA 8270B
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 47000
Units: ug/Kg
Diln Fac: 1
Prep Date: 03/24/99
Analysis Date: 03/25/99

MB Lab ID: QC93625

Analyte	Result	Reporting Limit
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
Aniline	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
3-,4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	1700
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1700
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	1700
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1700
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1700
Acenaphthene	ND	330
2,4-Dinitrophenol	ND	1700
4-Nitrophenol	ND	1700
Dibenzofuran	ND	330

EPA 8270 Semi-Volatile Organics

Client: Geomatrix Consultants
Location: 3095.06
Analysis Method: EPA 8270B
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 47000
Units: ug/Kg
Diln Fac: 1
Prep Date: 03/24/99
Analysis Date: 03/25/99

MB Lab ID: QC93625

Analyte	Result	Reporting Limit
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	330
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	1700
4,6-Dinitro-2-methylphenol	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	1700
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330
Benzidine	ND	330
Pyrene	ND	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1700
Benzo(a)anthracene	ND	330
Chrysene	ND	330
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b,k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenz(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330

Surrogate	%Rec	Recovery Limits
2-Fluorophenol	96	15-129
Phenol-d5	94	38-132
2,4,6-Tribromophenol	84	23-144
Nitrobenzene-d5	98	22-132
2-Fluorobiphenyl	97	26-137
Terphenyl-d14	91	22-149

Lab #: 138598 BATCH QC REPORT Curtis & Tompkins, Ltd.

EPA 8270 Semi-Volatile Organics

Client: Geomatrix Consultants
Location: 3095.06
Analysis Method: EPA 8270B
Prep Method: EPA 3550

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 47000
Units: ug/Kg
Diln Fac: 1
Prep Date: 03/24/99
Analysis Date: 03/25/99

LCS Lab ID: QC93626

Analyte	Result	Spike Added	%Rec #	Limits
Phenol	2852	3333	86	30-139
2-Chlorophenol	3211	3333	96	25-142
1,4-Dichlorobenzene	1531	1667	92	28-120
N-Nitroso-di-n-propylamine	1666	1667	100	30-122
1,2,4-Trichlorobenzene	1617	1667	97	29-119
4-Chloro-3-methylphenol	2934	3333	88	29-139
Acenaphthene	1637	1667	98	31-120
4-Nitrophenol	2748	3333	82	26-141
2,4-Dinitrotoluene	1615	1667	97	29-111
Pentachlorophenol	2221	3333	67	15-148
Pyrene	1638	1667	98	22-122

Surrogate	%Rec	Limits
2-Fluorophenol	97	15-129
Phenol-d5	93	38-132
2,4,6-Tribromophenol	100	23-144
Nitrobenzene-d5	93	22-132
2-Fluorobiphenyl	94	26-137
Terphenyl-d14	96	22-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 11 outside limits

Lab #: 138598 BATCH QC REPORT Curtis & Tompkins, Ltd. Page 1 of 1

EPA 8270 Semi-Volatile Organics

Client: Geomatrix Consultants
Location: 3095.06
Analysis Method: EPA 8270B
Prep Method: EPA 3550

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 138526-010
Matrix: Soil
Batch#: 47000
Units: ug/Kg
Diln Fac: 2
Sample Date: 03/18/99
Received Date: 03/19/99
Prep Date: 03/24/99
Analysis Date: 03/25/99

MS Lab ID: QC93627

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Phenol	3333	<666.7	2925	88	36-122
2-Chlorophenol	3333	<666.7	3212	96	34-123
1,4-Dichlorobenzene	1667	<666.7	1551	93	21-117
N-Nitroso-di-n-propylamine	1667	<666.7	1672	100	18-116
1,2,4-Trichlorobenzene	1667	<666.7	1710	103	26-119
4-Chloro-3-methylphenol	3333	<666.7	2937	88	35-122
Acenaphthene	1667	<666.7	1710	103	23-129
4-Nitrophenol	3333	104.8	2753	79	24-114
2,4-Dinitrotoluene	1667	<666.7	1430	86	27-110
Pentachlorophenol	3333	<3333	2384	72	15-119
Pyrene	1667	<666.7	2052	123	29-127

Surrogate	%Rec	Limits
2-Fluorophenol	93	15-129
Phenol-d5	92	38-132
2,4,6-Tribromophenol	92	23-144
Nitrobenzene-d5	96	22-132
2-Fluorobiphenyl	102	26-137
Terphenyl-d14	114	22-149

MSD Lab ID: QC93628

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Phenol	3333	1920	58	36-122	42 *	26
2-Chlorophenol	3333	2063	62	34-123	44 *	27
1,4-Dichlorobenzene	1667	999.4	60	21-117	43 *	30
N-Nitroso-di-n-propylamine	1667	1097	66	18-116	41 *	27
1,2,4-Trichlorobenzene	1667	1072	64	26-119	46 *	27
4-Chloro-3-methylphenol	3333	1805	54	35-122	48 *	27
Acenaphthene	1667	1069	64	23-129	46 *	29
4-Nitrophenol	3333	1377	38	24-114	67 *	32
2,4-Dinitrotoluene	1667	678.2	41	27-110	71 *	31
Pentachlorophenol	3333	919	28	15-119	89 *	50
Pyrene	1667	1311	79	29-127	44	45

Surrogate	%Rec	Limits
2-Fluorophenol	57	15-129
Phenol-d5	58	38-132
2,4,6-Tribromophenol	52	23-144
Nitrobenzene-d5	59	22-132
2-Fluorobiphenyl	65	26-137
Terphenyl-d14	70	22-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 10 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

Curtis & Tompkins, Ltd.

SAMPLE ID: SP-1
LAB ID: 138598-001
CLIENT: Geomatrix Consultants
LOCATION: 3095.06
MATRIX: Soil

DATE SAMPLED: 03/24/99
DATE RECEIVED: 03/24/99
DATE REPORTED: 03/26/99

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	12	3.0	1	47032	EPA 6010A	03/26/99
Arsenic	300	0.25	1	47032	EPA 6010A	03/26/99
Barium	560	0.49	1	47032	EPA 6010A	03/26/99
Beryllium	0.28	0.099	1	47032	EPA 6010A	03/26/99
Cadmium	6.6	0.099	1	47032	EPA 6010A	03/26/99
Chromium (total)	50	0.49	1	47032	EPA 6010A	03/26/99
Cobalt	29	0.99	1	47032	EPA 6010A	03/26/99
Copper	1000	9.9	20	47032	EPA 6010A	03/26/99
Lead	250	0.15	1	47032	EPA 6010A	03/26/99
Mercury	0.059	0.040	1	47016	EPA 7471	03/25/99
Molybdenum	7.3	0.99	1	47032	EPA 6010A	03/26/99
Nickel	38	0.99	1	47032	EPA 6010A	03/26/99
Selenium	1.8	0.25	1	47032	EPA 6010A	03/26/99
Silver	3.1	0.49	1	47032	EPA 6010A	03/26/99
Thallium	3.6	0.25	1	47032	EPA 6010A	03/26/99
Vanadium	27	0.49	1	47032	EPA 6010A	03/26/99
Zinc	3400	20	20	47032	EPA 6010A	03/26/99

Curtis & Tompkins, Ltd.

SAMPLE ID: SP-1
LAB ID: 138598-001
CLIENT: Geomatrix Consultants
LOCATION: 3095.06
MATRIX: Soil

DATE SAMPLED: 03/24/99
DATE RECEIVED: 03/24/99
DATE REPORTED: 03/29/99

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	12	3.0	1	47032	EPA 6010A	03/26/99
Arsenic	300	0.25	1	47032	EPA 6010A	03/26/99
Barium	560	0.49	1	47032	EPA 6010A	03/26/99
Beryllium	0.28	0.099	1	47032	EPA 6010A	03/26/99
Cadmium	6.6	0.099	1	47032	EPA 6010A	03/26/99
Chromium (total)	50	0.49	1	47032	EPA 6010A	03/26/99
Cobalt	29	0.99	1	47032	EPA 6010A	03/26/99
Copper	1000	9.9	20	47032	EPA 6010A	03/26/99
Lead	250	0.15	1	47032	EPA 6010A	03/26/99
Mercury	0.059	0.040	1	47016	EPA 7471	03/25/99
Molybdenum	7.3	0.99	1	47032	EPA 6010A	03/26/99
Nickel	38	0.99	1	47032	EPA 6010A	03/26/99
Selenium	1.8	0.25	1	47032	EPA 6010A	03/26/99
Silver	3.1	0.49	1	47032	EPA 6010A	03/26/99
Thallium	3.6	0.25	1	47032	EPA 6010A	03/26/99
Vanadium	27	0.49	1	47032	EPA 6010A	03/26/99
Zinc	3400	20	20	47032	EPA 6010A	03/26/99

Curtis & Tompkins, Ltd.

SAMPLE ID: SP-1
LAB ID: 138598-001
CLIENT: Geomatrix Consultants
LOCATION: 3095.06
MATRIX: WET Leachate

DATE SAMPLED: 03/24/99
DATE RECEIVED: 03/24/99
DATE REPORTED: 03/29/99

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	3000	10	47055	EPA 6010A	03/28/99
Arsenic	2800	250	10	47055	EPA 6010A	03/28/99
Barium	11000	500	10	47055	EPA 6010A	03/28/99
Beryllium	ND	100	10	47055	EPA 6010A	03/28/99
Cadmium	ND	250	10	47055	EPA 6010A	03/28/99
Chromium (total)	550	500	10	47055	EPA 6010A	03/28/99
Cobalt	ND	1000	10	47055	EPA 6010A	03/28/99
Copper	ND	500	10	47055	EPA 6010A	03/28/99
Lead	1300	150	10	47055	EPA 6010A	03/28/99
Mercury	ND	2.0	1	47096	EPA 7470	03/29/99
Molybdenum	ND	1000	10	47055	EPA 6010A	03/28/99
Nickel	1200	1000	10	47055	EPA 6010A	03/28/99
Selenium	ND	250	10	47055	EPA 6010A	03/28/99
Silver	ND	250	10	47055	EPA 6010A	03/28/99
Thallium	ND	250	10	47055	EPA 6010A	03/28/99
Vanadium	1200	500	10	47055	EPA 6010A	03/28/99
Zinc	45000	1000	10	47055	EPA 6010A	03/28/99

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: SP-2
LAB ID: 138598-002
CLIENT: Geomatrix Consultants
LOCATION: 3095.06
MATRIX: Soil

DATE SAMPLED: 03/24/99
DATE RECEIVED: 03/24/99
DATE REPORTED: 03/26/99

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	7.1	3.0	1	47032	EPA 6010A	03/26/99
Arsenic	180	0.25	1	47032	EPA 6010A	03/26/99
Barium	640	0.50	1	47032	EPA 6010A	03/26/99
Beryllium	0.38	0.099	1	47032	EPA 6010A	03/26/99
Cadmium	5.5	0.099	1	47032	EPA 6010A	03/26/99
Chromium (total)	46	0.50	1	47032	EPA 6010A	03/26/99
Cobalt	25	0.99	1	47032	EPA 6010A	03/26/99
Copper	780	0.50	1	47032	EPA 6010A	03/26/99
Lead	220	0.15	1	47032	EPA 6010A	03/26/99
Mercury	0.078	0.037	1	47016	EPA 7471	03/25/99
Molybdenum	5.7	0.99	1	47032	EPA 6010A	03/26/99
Nickel	41	0.99	1	47032	EPA 6010A	03/26/99
Selenium	2.7	0.25	1	47032	EPA 6010A	03/26/99
Silver	1.5	0.50	1	47032	EPA 6010A	03/26/99
Thallium	2.6	0.25	1	47032	EPA 6010A	03/26/99
Vanadium	30	0.50	1	47032	EPA 6010A	03/26/99
Zinc	3200	20	20	47032	EPA 6010A	03/26/99

Curtis & Tompkins, Ltd.

SAMPLE ID: SP-2
LAB ID: 138598-002
CLIENT: Geomatrix Consultants
LOCATION: 3095.06
MATRIX: Soil

DATE SAMPLED: 03/24/99
DATE RECEIVED: 03/24/99
DATE REPORTED: 03/29/99

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	7.1	3.0	1	47032	EPA 6010A	03/26/99
Arsenic	180	0.25	1	47032	EPA 6010A	03/26/99
Barium	640	0.50	1	47032	EPA 6010A	03/26/99
Beryllium	0.38	0.099	1	47032	EPA 6010A	03/26/99
Cadmium	5.5	0.099	1	47032	EPA 6010A	03/26/99
Chromium (total)	46	0.50	1	47032	EPA 6010A	03/26/99
Cobalt	25	0.99	1	47032	EPA 6010A	03/26/99
Copper	780	0.50	1	47032	EPA 6010A	03/26/99
Lead	220	0.15	1	47032	EPA 6010A	03/26/99
Mercury	0.078	0.037	1	47016	EPA 7471	03/25/99
Molybdenum	5.7	0.99	1	47032	EPA 6010A	03/26/99
Nickel	41	0.99	1	47032	EPA 6010A	03/26/99
Selenium	2.7	0.25	1	47032	EPA 6010A	03/26/99
Silver	1.5	0.50	1	47032	EPA 6010A	03/26/99
Thallium	2.6	0.25	1	47032	EPA 6010A	03/26/99
Vanadium	30	0.50	1	47032	EPA 6010A	03/26/99
Zinc	3200	20	20	47032	EPA 6010A	03/26/99

Curtis & Tompkins, Ltd.

SAMPLE ID: SP-2
LAB ID: 138598-002
CLIENT: Geomatrix Consultants
LOCATION: 3095.06
MATRIX: WET Leachate

DATE SAMPLED: 03/24/99
DATE RECEIVED: 03/24/99
DATE REPORTED: 03/29/99

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	3000	10	47055	EPA 6010A	03/28/99
Arsenic	4400	250	10	47055	EPA 6010A	03/28/99
Barium	14000	500	10	47055	EPA 6010A	03/28/99
Beryllium	ND	100	10	47055	EPA 6010A	03/28/99
Cadmium	ND	250	10	47055	EPA 6010A	03/28/99
Chromium (total)	800	500	10	47055	EPA 6010A	03/28/99
Cobalt	ND	1000	10	47055	EPA 6010A	03/28/99
Copper	ND	500	10	47055	EPA 6010A	03/28/99
Lead	880	150	10	47055	EPA 6010A	03/28/99
Mercury	ND	2.0	1	47096	EPA 7470	03/29/99
Molybdenum	ND	1000	10	47055	EPA 6010A	03/28/99
Nickel	1300	1000	10	47055	EPA 6010A	03/28/99
Selenium	ND	250	10	47055	EPA 6010A	03/28/99
Silver	ND	250	10	47055	EPA 6010A	03/28/99
Thallium	ND	250	10	47055	EPA 6010A	03/28/99
Vanadium	1200	500	10	47055	EPA 6010A	03/28/99
Zinc	52000	1000	10	47055	EPA 6010A	03/28/99

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Geomatrix Consultants
JOB NUMBER: 138598

DATE REPORTED: 03/29/99

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Antimony	ND	3	mg/Kg	1	47032	EPA 6010A	03/26/99
Antimony	ND	3000	ug/L	10	47055	EPA 6010A	03/28/99
Arsenic	ND	0.25	mg/Kg	1	47032	EPA 6010A	03/26/99
Arsenic	ND	250	ug/L	10	47055	EPA 6010A	03/28/99
Barium	ND	0.5	mg/Kg	1	47032	EPA 6010A	03/26/99
Barium	ND	500	ug/L	10	47055	EPA 6010A	03/28/99
Beryllium	ND	0.1	mg/Kg	1	47032	EPA 6010A	03/26/99
Beryllium	ND	100	ug/L	10	47055	EPA 6010A	03/28/99
Cadmium	ND	0.1	mg/Kg	1	47032	EPA 6010A	03/26/99
Cadmium	ND	250	ug/L	10	47055	EPA 6010A	03/28/99
Chromium (total)	ND	0.5	mg/Kg	1	47032	EPA 6010A	03/26/99
Chromium (total)	ND	500	ug/L	10	47055	EPA 6010A	03/28/99
Cobalt	ND	1	mg/Kg	1	47032	EPA 6010A	03/26/99
Cobalt	ND	1000	ug/L	10	47055	EPA 6010A	03/28/99
Copper	1.7	0.5	mg/Kg	1	47032	EPA 6010A	03/26/99
Copper	ND	500	ug/L	10	47055	EPA 6010A	03/28/99
Lead	ND	0.15	mg/Kg	1	47032	EPA 6010A	03/26/99
Lead	ND	150	ug/L	10	47055	EPA 6010A	03/28/99
Mercury	ND	0.04	mg/Kg	1	47016	EPA 7471	03/25/99
Molybdenum	ND	1	mg/Kg	1	47032	EPA 6010A	03/26/99
Molybdenum	ND	1000	ug/L	10	47055	EPA 6010A	03/28/99
Nickel	ND	1	mg/Kg	1	47032	EPA 6010A	03/26/99
Nickel	ND	1000	ug/L	10	47055	EPA 6010A	03/28/99
Selenium	ND	0.25	mg/Kg	1	47032	EPA 6010A	03/26/99
Selenium	ND	250	ug/L	10	47055	EPA 6010A	03/28/99
Silver	ND	0.5	mg/Kg	1	47032	EPA 6010A	03/26/99
Silver	ND	250	ug/L	10	47055	EPA 6010A	03/28/99
Thallium	ND	0.25	mg/Kg	1	47032	EPA 6010A	03/26/99
Thallium	ND	25	ug/L	1	47055	EPA 6010A	03/28/99
Vanadium	ND	0.5	mg/Kg	1	47032	EPA 6010A	03/26/99

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Geomatrix Consultants
JOB NUMBER: 138598

DATE REPORTED: 03/29/99

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Vanadium	ND	500	ug/L	10	47055	EPA 6010A	03/28/99
Zinc	1.4	1	mg/Kg	1	47032	EPA 6010A	03/26/99
Zinc	ND	1000	ug/L	10	47055	EPA 6010A	03/28/99

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Geomatrix Consultants
JOB NUMBER: 138598

DATE REPORTED: 03/29/99

BATCH QC REPORT
BLANK SPIKE / BLANK SPIKE DUPLICATE

Compound	Spike Amount	BS Result	BSD Result	Units	BS% Rec.	BSD% Rec.	Rec. Limits	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Antimony	25	22.2	23.15	mg/Kg	89	93	80-120	4	35	47032	EPA 6010A	03/26/99
Antimony	500	431	486	ug/L	86	98	80-120	12	35	47055	EPA 6010A	03/28/99
Arsenic	100	84.5	89.5	mg/Kg	85	90	80-120	6	35	47032	EPA 6010A	03/26/99
Arsenic	2000	1920	1950	ug/L	96	98	80-120	2	35	47055	EPA 6010A	03/28/99
Barium	100	86	90	mg/Kg	86	90	80-120	5	35	47032	EPA 6010A	03/26/99
Barium	2000	1940	1970	ug/L	97	99	80-120	2	35	47055	EPA 6010A	03/28/99
Beryllium	2.5	2.275	2.39	mg/Kg	91	96	80-120	5	35	47032	EPA 6010A	03/26/99
Beryllium	50	50.6	51	ug/L	101	102	80-120	1	35	47055	EPA 6010A	03/28/99
Cadmium	2.5	2.265	2.44	mg/Kg	91	98	80-120	7	35	47032	EPA 6010A	03/26/99
Cadmium	50	50.2	51.1	ug/L	100	102	80-120	2	35	47055	EPA 6010A	03/28/99
Chromium (total)	10	8.55	8.95	mg/Kg	86	90	80-120	5	35	47032	EPA 6010A	03/26/99
Chromium (total)	200	192	194	ug/L	96	97	80-120	1	35	47055	EPA 6010A	03/28/99
Cobalt	25	21.2	22.2	mg/Kg	85	89	80-120	5	35	47032	EPA 6010A	03/26/99
Cobalt	500	477	480	ug/L	95	96	80-120	1	35	47055	EPA 6010A	03/28/99
Copper	12.5	10.7	11.2	mg/Kg	86	90	80-120	5	35	47032	EPA 6010A	03/26/99
Copper	250	235	237	ug/L	94	95	80-120	1	35	47055	EPA 6010A	03/28/99
Lead	25	21.85	23.1	mg/Kg	87	92	80-120	6	35	47032	EPA 6010A	03/26/99
Lead	500	489	496	ug/L	98	99	80-120	1	35	47055	EPA 6010A	03/28/99
Mercury	1.000	1.028	1.044	mg/Kg	103	104	80-120	2	35	47016	EPA 7471	03/25/99
Molybdenum	20	16.7	17.7	mg/Kg	84	89	80-120	6	35	47032	EPA 6010A	03/26/99
Molybdenum	400	377	381	ug/L	94	95	80-120	1	35	47055	EPA 6010A	03/28/99
Nickel	25	22.05	24	mg/Kg	88	96	80-120	9	35	47032	EPA 6010A	03/26/99
Nickel	500	499	507	ug/L	100	101	80-120	2	35	47055	EPA 6010A	03/28/99
Selenium	100	83.5	87	mg/Kg	84	87	80-120	4	35	47032	EPA 6010A	03/26/99
Selenium	2000	1930	1960	ug/L	97	98	80-120	2	35	47055	EPA 6010A	03/28/99
Silver	5	4.405	4.58	mg/Kg	88	92	80-120	4	35	47032	EPA 6010A	03/26/99
Silver	100	101	99.3	ug/L	101	99	80-120	2	35	47055	EPA 6010A	03/28/99
Thallium	100	84.5	92	mg/Kg	85	92	80-120	9	35	47032	EPA 6010A	03/26/99
Thallium	2000	1870	1880	ug/L	94	94	80-120	1	35	47055	EPA 6010A	03/28/99
Vanadium	25	21.1	22.15	mg/Kg	84	89	80-120	5	35	47032	EPA 6010A	03/26/99
Vanadium	500	475	479	ug/L	95	96	80-120	1	35	47055	EPA 6010A	03/28/99
Zinc	25	20.6	21.9	mg/Kg	82	88	80-120	6	35	47032	EPA 6010A	03/26/99
Zinc	500	463	467	ug/L	93	93	80-120	1	35	47055	EPA 6010A	03/28/99

Curtis & Tompkins, Ltd.

CLIENT: Geomatrix Consultants
JOB NUMBER: 138598

DATE REPORTED: 03/29/99

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Antimony	138579-001	<2.985	<2.985	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Antimony	138577-001	<3000.000	<3000.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Arsenic	138579-001	0.4221	<0.249	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Arsenic	138577-001	3025	2930	ug/L	3	20	47055	EPA 6010A	03/28/99
Barium	138579-001	<0.498	<0.498	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Barium	138577-001	1630	1600	ug/L	2	20	47055	EPA 6010A	03/28/99
Beryllium	138579-001	0.1611	0.1781	mg/Kg	10	35	47032	EPA 6010A	03/26/99
Beryllium	138577-001	<100.000	<100.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Cadmium	138579-001	<0.100	<0.100	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Cadmium	138577-001	<250.000	<250.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Chromium (total)	138579-001	<0.498	<0.498	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Chromium (total)	138577-001	<500.000	<500.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Cobalt	138579-001	<0.995	<0.995	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Cobalt	138577-001	<1000.000	<1000.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Copper	138579-001	2.351	2.562	mg/Kg	9	35	47032	EPA 6010A	03/26/99
Copper	138577-001	<500.000	<500.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Lead	138579-001	<0.149	<0.149	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Lead	138577-001	<150.000	<150.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Mercury	138526-007	0.218	0.1387	mg/Kg	45*	35	47016	EPA 7471	03/25/99
Molybdenum	138579-001	<0.995	<0.995	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Molybdenum	138577-001	<1000.000	<1000.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Nickel	138579-001	<0.995	<0.995	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Nickel	138577-001	<1000.000	<1000.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Selenium	138579-001	<0.249	<0.249	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Selenium	138577-001	335	<250.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Silver	138579-001	<0.498	<0.498	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Silver	138577-001	<250.000	<250.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Thallium	138579-001	<0.249	<0.249	mg/Kg	NC	35	47032	EPA 6010A	03/26/99
Thallium	138577-001	<250.000	<250.000	ug/L	NC	20	47055	EPA 6010A	03/28/99
Vanadium	138579-001	119.2	127.4	mg/Kg	7	35	47032	EPA 6010A	03/26/99
Vanadium	138577-001	1320	1295	ug/L	2	20	47055	EPA 6010A	03/28/99
Zinc	138579-001	7.115	6.07	mg/Kg	16	35	47032	EPA 6010A	03/26/99
Zinc	138577-001	<1000.000	<1000.000	ug/L	NC	20	47055	EPA 6010A	03/28/99

* = Out of Limits
NC = Not Calculable

Curtis & Tompkins, Ltd.

CLIENT: Geomatrix Consultants
JOB NUMBER: 138598

DATE REPORTED: 04/07/99

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.		Rec. Limit	QC Batch	Method	Analysis Date
Antimony	25	138579-001	<3.000	23.1	mg/Kg	92		65-135	47032	EPA 6010A	03/26/99
Antimony	2500	138577-001	<3000.000	3160	ug/L	126		65-135	47055	EPA 6010A	03/28/99
Arsenic	100	138579-001	0.4221	89	mg/Kg	89		65-135	47032	EPA 6010A	03/26/99
Arsenic	10000	138577-001	3025	11750	ug/L	87		65-135	47055	EPA 6010A	03/28/99
Barium	100	138579-001	<0.500	92.5	mg/Kg	93		65-135	47032	EPA 6010A	03/26/99
Barium	10000	138577-001	1630	14700	ug/L	131		65-135	47055	EPA 6010A	03/28/99
Beryllium	2.5	138579-001	0.1611	2.545	mg/Kg	95		65-135	47032	EPA 6010A	03/26/99
Beryllium	250	138577-001	<100.000	379.5	ug/L	152*		65-135	47055	EPA 6010A	03/28/99
Cadmium	2.5	138579-001	<0.100	2.495	mg/Kg	100		65-135	47032	EPA 6010A	03/26/99
Cadmium	250	138577-001	<250.000	<250.000	ug/L	0*		65-135	47055	EPA 6010A	03/28/99
Chromium (total)	10	138579-001	<0.500	9.3	mg/Kg	93		65-135	47032	EPA 6010A	03/26/99
Chromium (total)	1000	138577-001	<500.000	1365	ug/L	137*		65-135	47055	EPA 6010A	03/28/99
Cobalt	25	138579-001	<1.000	22.4	mg/Kg	90		65-135	47032	EPA 6010A	03/26/99
Cobalt	2500	138577-001	<1000.000	3395	ug/L	136*		65-135	47055	EPA 6010A	03/28/99
Copper	12.5	138579-001	2.351	14.1	mg/Kg	94		65-135	47032	EPA 6010A	03/26/99
Copper	1250	138577-001	<500.000	1850	ug/L	148*		65-135	47055	EPA 6010A	03/28/99
Lead	25	138579-001	<0.150	23.15	mg/Kg	93		65-135	47032	EPA 6010A	03/26/99
Lead	2500	138577-001	<150.000	2340	ug/L	94		65-135	47055	EPA 6010A	03/28/99
Mercury	1.000	138526-007	0.218	1.016	mg/Kg	80		65-135	47016	EPA 7471	03/25/99
Mercury	5	138647-012	<0.200	4.546	ug/L	91		65-135	47096	EPA 7470	03/29/99
Mercury	50	138577-001	<2.000	46.66	ug/L	93		65-135	47096	EPA 7470	03/29/99
Molybdenum	20	138579-001	<1.000	18.4	mg/Kg	92		65-135	47032	EPA 6010A	03/26/99
Molybdenum	2000	138577-001	<1000.000	2855	ug/L	143*		65-135	47055	EPA 6010A	03/28/99
Nickel	25	138579-001	<1.000	23.85	mg/Kg	95		65-135	47032	EPA 6010A	03/26/99
Nickel	2500	138577-001	<1000.000	3325	ug/L	133		65-135	47055	EPA 6010A	03/28/99
Selenium	100	138579-001	<0.250	92.5	mg/Kg	93		65-135	47032	EPA 6010A	03/26/99
Selenium	10000	138577-001	335	9050	ug/L	87		65-135	47055	EPA 6010A	03/28/99
Silver	5	138579-001	<0.500	4.705	mg/Kg	94		65-135	47032	EPA 6010A	03/26/99
Silver	500	138577-001	<250.000	530	ug/L	106		65-135	47055	EPA 6010A	03/28/99
Thallium	100	138579-001	<0.250	92.5	mg/Kg	93		65-135	47032	EPA 6010A	03/26/99
Thallium	10000	138577-001	<250.000	8500	ug/L	85		65-135	47055	EPA 6010A	03/28/99
Vanadium	25	138579-001	119.2	146.5	mg/Kg	109	NM	65-135	47032	EPA 6010A	03/26/99
Vanadium	2500	138577-001	1320	4560	ug/L	130		65-135	47055	EPA 6010A	03/28/99
Zinc	25	138579-001	7.115	28.6	mg/Kg	86		65-135	47032	EPA 6010A	03/26/99
Zinc	2500	138577-001	<1000.000	3395	ug/L	136*		65-135	47055	EPA 6010A	03/28/99

* = Out of Limits
NM = Not Meaningful

Lab#: 138598
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Curtis & Tompkins, Ltd.

Total Petroleum Hydrocarbons, EPA 418.1

Client: Geomatrix Consultants
Location : 3095.06

Analysis Method: EPA 418.1
Prep Method: EPA 418.1

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
138598-001	SP-1	47027	24-MAR-99	25-MAR-99	-
138598-002	SP-2	47027	24-MAR-99	25-MAR-99	-
QC93726	Method Blank	47027	-	25-MAR-99	-

Analyte: Petroleum Hydrocarbons **Matrix:** Soil **Units:** mg/Kg

Sample #	Client ID		Result	Reporting Limit	Dilution Factor
138598-001	SP-1		1600	100	4
138598-002	SP-2		150	25	1
QC93726	Method Blank	ND		25	1

ND = None Detected at or above Reporting Limit

Curtis & Tompkins, Ltd.

Total Petroleum Hydrocarbons, EPA 418.1

Client: Geomatrix Consultants
Location : 3095.06

Analysis Method: EPA 418.1
Prep Method: EPA 418.1

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC93727	Lab Control Sample	47027	-	25-MAR-99	-

Analyte: Petroleum Hydrocarbons **Matrix:** Soil **Units:** mg/Kg

Sample #	Sample Type	Spike Amt.	Result	%Recovery	Limits
QC93727	Lab Control Sample	397.0	444.0	112	80-120

Lab#: 138598
Page 1 of 1

Curtis & Tompkins, Ltd.

Total Petroleum Hydrocarbons, EPA 418.1

Client: Geomatrix Consultants
Location : 3095.06

Analysis Method: EPA 418.1
Prep Method: EPA 418.1

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC93728	MS of 138598-002	47027	24-MAR-99	25-MAR-99	-
QC93729	MSD of 138598-002	47027	24-MAR-99	25-MAR-99	-

Analyte: Petroleum Hydrocarbons **Matrix:** Soil **Units:** mg/Kg

Sample #	Client ID	Spikeamt	Result	%Rec	Limits	%RPD	Limit
QC93728	MS of 138598-002	397.0	607.0	116	75-125		
QC93729	MSD of 138598-002	397.0	615.0	118	75-125	1	35
138598-002	SP-2		148.0				

CHAIN-OF-CUSTODY RECORD

Nº 1291[illegible] | Date: 3.21 | Page 1 of 1

Project No.: 3095.06

Samplers (Signatures):

Date	Time	Sample Number	EPA Method 8010	EPA Method 8020	EPA Method 8020 (BTEX only)	EPA Method 8240	EPA Method 8270	TPH as gasoline	TPH as diesel	<illegible>	CAM Metals	LUFT Metals	Cooled	Soil (S), Water (W), or Vapor (V)	Acidified	Number of containers
3.21	12:45	SP-1				X	X			X	X	X		S		1
↓	12:48	SP-2				X	X			X	X	X		S		1

ANALYSES

REMARKS

Additional Comments

Turnaround time: 72 48 hr TAT

Results to: Brad W

Total No. of containers: 2

Relinquished by (signature):	Date:	Relinquished by (signature):	Date:	Relinquished by (signature):	Date:	Method of Shipment:
Printed Name: L.F.	Time:	Printed Name:	Time:	Printed Name:	Time:	Laboratory Comments and Log No.:
Company: Geomatrix	1515	Company:		Company:		
Received by (signature):	Date: 3/24/94	Received by (signature):	Date:	Received by (signature):	Date:	
Printed Name: Steven E. Stanley	Time: 1315	Printed Name:	Time:	Printed Name:	Time:	
Company: C.T.		Company:		Company:		

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