THIRD INTERIM REPORT
SITE CHARACTERIZATION
NINTH AVENUE TERMINAL STUDY AREA
PORT OF OAKLAND
OAKLAND, CALIFORNIA
SCI 133.004

VOLUME VI OF VI

APPENDIX G - ANALYTICAL TEST REPORTS, CHROMATOGRAPHS, AND CHAIN-OF-CUSTODY FORMS FOR SCI'S APRIL/MAY 1997 DATA GAP STUDY (PART 2)

JULY 25, 1997

Subsurface Consultants, Inc.
3736 Mt. Diablo Boulevard ■ Suite 200 ■ Lafayette, California 94549 ■ (510) 299-7960

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33812
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

MB Lab ID: QC45452

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	72	58-130
Bromobenzene	82	62-131

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33812
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

LCS Lab ID: QC45451

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	17.04	20	85	80-120
Toluene	18.68	20	93	80-120
Ethylbenzene	17.4	20	87	80-120
m,p-Xylenes	37.02	40	93	80-120
o-Xylene	19.98	20	100	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	78	58-130
Bromobenzene	90	62-131

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

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		

Field ID:	SCIMW-28@3.5	Sampled:	04/30/97
Lab ID:	129135-003	Received:	05/01/97
Matrix:	Soil	Extracted:	05/08/97
Batch#:	33870	Analyzed:	05/14/97
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	3.0
beta-BHC	ND	3.0
gamma-BHC	ND	3.0
delta-BHC	ND	3.0
Heptachlor	ND	3.0
Aldrin	ND	3.0
Heptachlor epoxide B	ND	3.0
Heptachlor epoxide A	ND	3.0
Endosulfan I	ND	3.0
Dieldrin	ND	6.0
4,4'-DDE	ND	6.0
Endrin	ND	6.0
Endosulfan II	ND	6.0
Endosulfan sulfate	ND	6.0
4,4'-DDD	ND	6.0
Endrin aldehyde	ND	6.0
4,4'-DDT	ND	6.0
Chlordane	ND	30
Methoxychlor	ND	30
Toxaphene	ND	60
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%Recovery	Recovery Limits
TCMX	86	29-108
Decachlorobiphenyl	86	30-125

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		
Field ID:	SCITP-31@1.2	Sampled:	04/30/97
Lab ID:	129135-004	Received:	05/01/97
Matrix:	Soil	Extracted:	05/08/97
Batch#:	33870	Analyzed:	05/14/97
Units:	ug/Kg		
Diln Fac:	5		

Analyte	Result	Reporting Limit
alpha-BHC	ND	15
beta-BHC	ND	15
gamma-BHC	ND	15
delta-BHC	ND	15
Heptachlor	ND	15
Aldrin	ND	15
Heptachlor epoxide B	ND	15
Heptachlor epoxide A	ND	15
Endosulfan I	ND	15
Dieldrin	ND	30
4,4'-DDE	53	30
Endrin	ND	30
Endosulfan II	ND	30
Endosulfan sulfate	ND	30
4,4'-DDD	ND	30
Endrin aldehyde	ND	30
4,4'-DDT	320	30
Chlordane	ND	150
Methoxychlor	ND	150
Toxaphene	ND	300
Aroclor-1016	ND	60
Aroclor-1221	ND	120
Aroclor-1232	ND	60
Aroclor-1242	ND	60
Aroclor-1248	ND	60
Aroclor-1254	ND	60
Aroclor-1260	ND	60

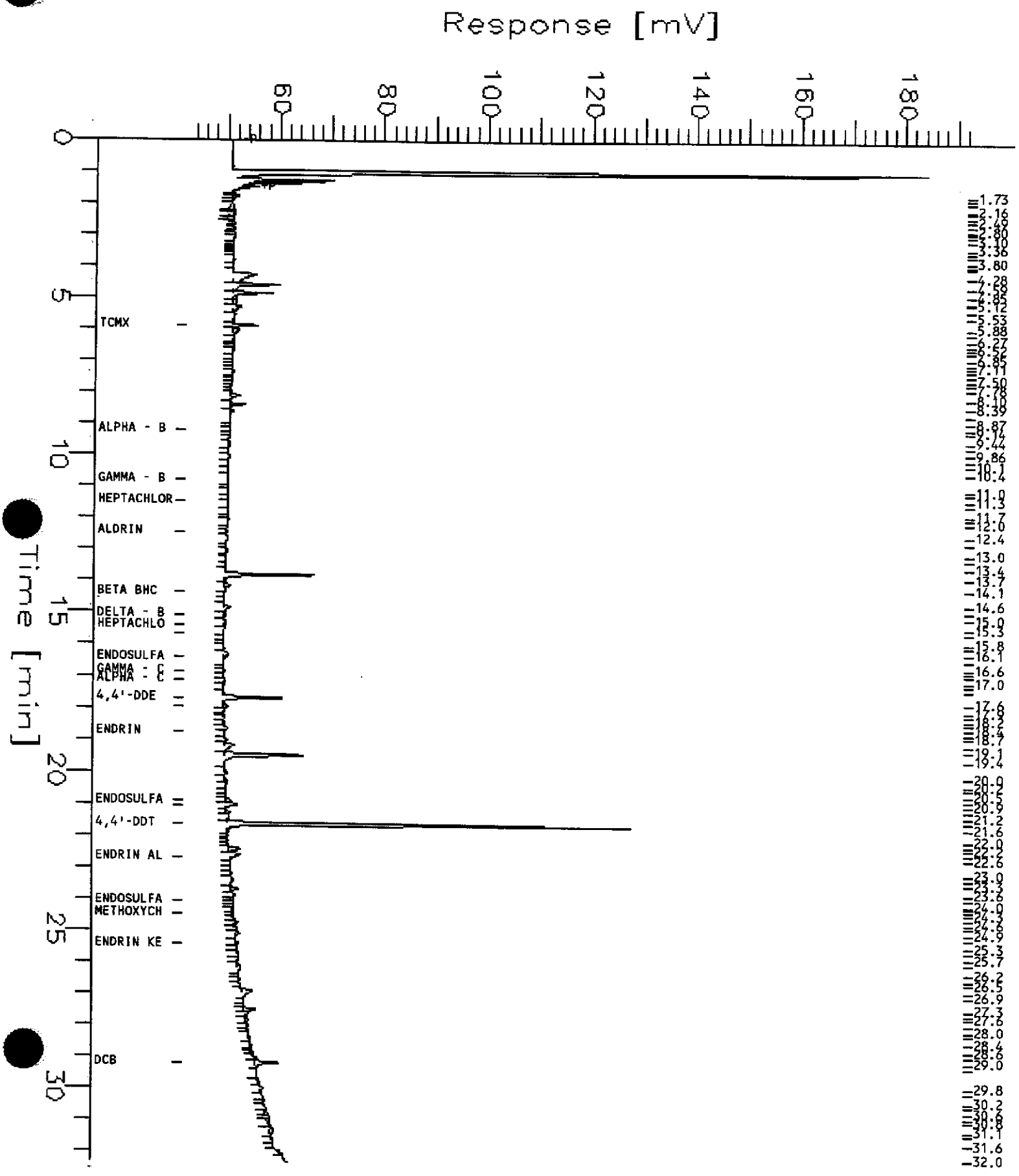
Surrogate	%Recovery	Recovery Limits
TCMX	116*	29-108
Decachlorobiphenyl	74	30-125

* Values outside of QC limits

GC14 RTx1701.32mm vol in: 3ul

Sample Name : 129135-004
FileName : g:\gc14\cha\132A066.raw
Method : PEST-CNT.ins
Start Time : 0.00 min End Time : 32.35 min
Scale Factor: -1.0 Plot Offset: 42 mV

Sample #: 33870
Date : 5/14/97 03:24 PM
Time of Injection: 5/14/97 02:52 PM
Low Point : 42.19 mV High Point : 192.19 mV
Plot Scale: 150.0 mV



Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		

Field ID:	SCITP-32@2.5	Sampled:	04/30/97
Lab ID:	129135-005	Received:	05/01/97
Matrix:	Soil	Extracted:	05/08/97
Batch#:	33870	Analyzed:	05/13/97
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	3.0
beta-BHC	ND	3.0
gamma-BHC	ND	3.0
delta-BHC	ND	3.0
Heptachlor	ND	3.0
Aldrin	ND	3.0
Heptachlor epoxide B	ND	3.0
Heptachlor epoxide A	ND	3.0
Endosulfan I	ND	3.0
Dieldrin	ND	6.0
4,4'-DDE	ND	6.0
Endrin	ND	6.0
Endosulfan II	ND	6.0
Endosulfan sulfate	ND	6.0
4,4'-DDD	ND	6.0
Endrin aldehyde	ND	6.0
4,4'-DDT	ND	6.0
Chlordane	ND	30
Methoxychlor	ND	30
Toxaphene	ND	60
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%Recovery	Recovery Limits
TCMX	85	29-108
Decachlorobiphenyl	82	30-125

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	TP-32	Sampled:	04/30/97
Lab ID:	129135-007	Received:	05/01/97
Matrix:	Water	Extracted:	05/06/97
Batch#:	33837	Analyzed:	05/14/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.047
beta-BHC	ND	0.047
gamma-BHC	ND	0.047
delta-BHC	ND	0.047
Heptachlor	ND	0.047
Aldrin	ND	0.047
Heptachlor epoxide B	ND	0.047
Heptachlor epoxide A	ND	0.047
Endosulfan I	ND	0.047
Dieldrin	ND	0.094
4,4'-DDE	ND	0.094
Endrin	ND	0.094
Endosulfan II	ND	0.094
Endosulfan sulfate	ND	0.094
4,4'-DDD	ND	0.094
Endrin aldehyde	ND	0.094
4,4'-DDT	ND	0.094
Chlordane	ND	0.47
Methoxychlor	ND	0.47
Toxaphene	ND	0.94
Aroclor-1016	ND	0.47
Aroclor-1221	ND	0.94
Aroclor-1232	ND	0.47
Aroclor-1242	ND	0.47
Aroclor-1248	ND	0.47
Aroclor-1254	ND	0.47
Aroclor-1260	ND	0.47

Surrogate	%Recovery	Recovery Limits
TCMX	53	34-128
Decachlorobiphenyl	36*	50-150

* Values outside of QC limits

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	TP-31	Sampled:	04/30/97
Lab ID:	129135-008	Received:	05/01/97
Matrix:	Water	Extracted:	05/06/97
Batch#:	33837	Analyzed:	05/13/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.047
beta-BHC	ND	0.047
gamma-BHC	ND	0.047
delta-BHC	ND	0.047
Heptachlor	ND	0.047
Aldrin	ND	0.047
Heptachlor epoxide B	ND	0.047
Heptachlor epoxide A	ND	0.047
Endosulfan I	ND	0.047
Dieldrin	ND	0.094
4,4'-DDE	ND	0.094
Endrin	ND	0.094
Endosulfan II	ND	0.094
Endosulfan sulfate	ND	0.094
4,4'-DDD	ND	0.094
Endrin aldehyde	ND	0.094
4,4'-DDT	0.35	0.094
Chlordane	ND	0.47
Methoxychlor	ND	0.47
Toxaphene	ND	0.94
Aroclor-1016	ND	0.47
Aroclor-1221	ND	0.94
Aroclor-1232	ND	0.47
Aroclor-1242	ND	0.47
Aroclor-1248	ND	0.47
Aroclor-1254	ND	0.47
Aroclor-1260	ND	0.47

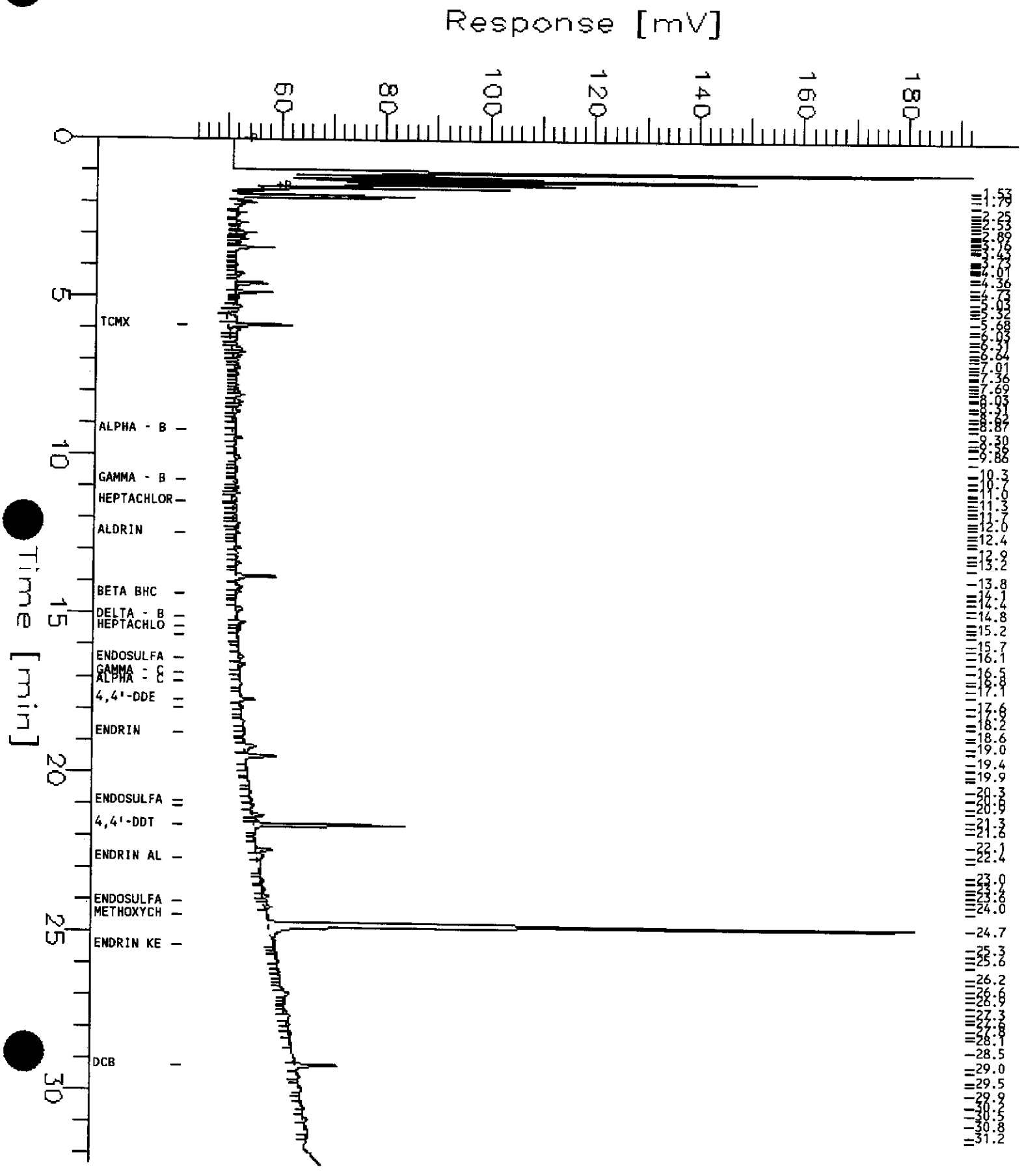
Surrogate	%Recovery	Recovery Limits
TCMX	75	34-128
Decachlorobiphenyl	28*	50-150

* Values outside of QC limits

GC14 RTx1701.32mm vol in: 3ul

Sample Name : 129135-008
FileName : g:\gc14\cha\132A039.raw
Method : PEST-CNT.ins
Start Time : 0.00 min End Time : 32.35 min
Scale Factor: -1.0 Plot Offset: 42 mV

Sample #: 33837 Page 1 of 1
Date : 5/13/97 08:45 PM
Time of Injection: 5/13/97 08:13 PM
Low Point : 42.28 mV High Point : 192.28 mV
Plot Scale: 150.0 mV



EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33837
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

MB Lab ID: QC45553

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.05
beta-BHC	ND	0.05
gamma-BHC	ND	0.05
delta-BHC	ND	0.05
Heptachlor	ND	0.05
Aldrin	ND	0.05
Heptachlor epoxide B	ND	0.05
Heptachlor epoxide A	ND	0.05
Endosulfan I	ND	0.05
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
Endosulfan sulfate	ND	0.1
4,4'-DDD	ND	0.1
Endrin aldehyde	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	0.5
Methoxychlor	ND	0.5
Toxaphene	ND	1.0
Aroclor-1016	ND	0.5
Aroclor-1221	ND	1.0
Aroclor-1232	ND	0.5
Aroclor-1242	ND	0.5
Aroclor-1248	ND	0.5
Aroclor-1254	ND	0.5
Aroclor-1260	ND	0.5

Surrogate	%Rec	Recovery Limits
TCMX	75	34-128
Decachlorobiphenyl	93	50-150

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 33870
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/13/97

MB Lab ID: QC45684

Analyte	Result	Reporting Limit
alpha-BHC	ND	3.0
beta-BHC	ND	3.0
gamma-BHC	ND	3.0
delta-BHC	ND	3.0
Heptachlor	ND	3.0
Aldrin	ND	3.0
Heptachlor epoxide B	ND	3.0
Heptachlor epoxide A	ND	3.0
Endosulfan I	ND	3.0
Dieldrin	ND	6.0
4,4'-DDE	ND	6.0
Endrin	ND	6.0
Endosulfan II	ND	6.0
Endosulfan sulfate	ND	6.0
4,4'-DDD	ND	6.0
Endrin aldehyde	ND	6.0
4,4'-DDT	ND	6.0
Chlordane	ND	30
Methoxychlor	ND	30
Toxaphene	ND	60
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%Rec	Recovery Limits
TCMX	88	29-108
Decachlorobiphenyl	90	30-125

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33837
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/13/97

BS Lab ID: QC45554

Analyte	Spike Added	BS	%Rec #	Limits
gamma-BHC	0.5	0.51	102	57-120
Heptachlor	0.5	0.49	98	51-109
Aldrin	0.5	0.52	104	57-105
Dieldrin	0.5	0.5	100	62-122
Endrin	0.5	0.54	108	70-128
4,4'-DDT	0.5	0.51	102	67-128

Surrogate	%Rec	Limits
TCMX	78	34-128
Decachlorobiphenyl	96	50-150

BSD Lab ID: QC45555

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
gamma-BHC	0.5	0.53	106	57-120	4	20
Heptachlor	0.5	0.47	94	51-109	4	20
Aldrin	0.5	0.5	100	57-105	4	20
Dieldrin	0.5	0.49	98	62-122	2	20
Endrin	0.5	0.53	106	70-128	2	20
4,4'-DDT	0.5	0.49	98	67-128	4	20

Surrogate	%Rec	Limits
TCMX	72	34-128
Decachlorobiphenyl	94	50-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33870
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/13/97

LCS Lab ID: QC45685

Analyte	Result	Spike Added	%Rec #	Limits
gamma-BHC	16.38	17	98	49-115
Heptachlor	16.33	17	98	51-119
Aldrin	17.45	17	105	55-112
Dieldrin	16.99	17	102	54-123
Endrin	17.78	17	107	63-128
4,4'-DDT	16.66	17	100	57-131

Surrogate	%Rec	Limits
TCMX	93	29-108
Decachlorobiphenyl	95	30-125

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCIMW-26@3.5
Lab ID: 129135-001
Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Sampled: 04/30/97
Received: 05/01/97
Extracted: 05/05/97
Analyzed: 05/05/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	99	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	102	79-122

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCIMW-27@3.5
Lab ID: 129135-002
Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Sampled: 04/30/97
Received: 05/01/97
Extracted: 05/05/97
Analyzed: 05/05/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	96	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	103	79-122

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCIMW-28@3.5
Lab ID: 129135-003
Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Sampled: 04/30/97
Received: 05/01/97
Extracted: 05/05/97
Analyzed: 05/05/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	102	79-122

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCITP-31@1.2
Lab ID: 129135-004
Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Sampled: 04/30/97
Received: 05/01/97
Extracted: 05/06/97
Analyzed: 05/06/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	96	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	103	79-122

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCITP-32@2.5
Lab ID: 129135-005
Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Sampled: 04/30/97
Received: 05/01/97
Extracted: 05/06/97
Analyzed: 05/06/97

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	38	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	5.1 J	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

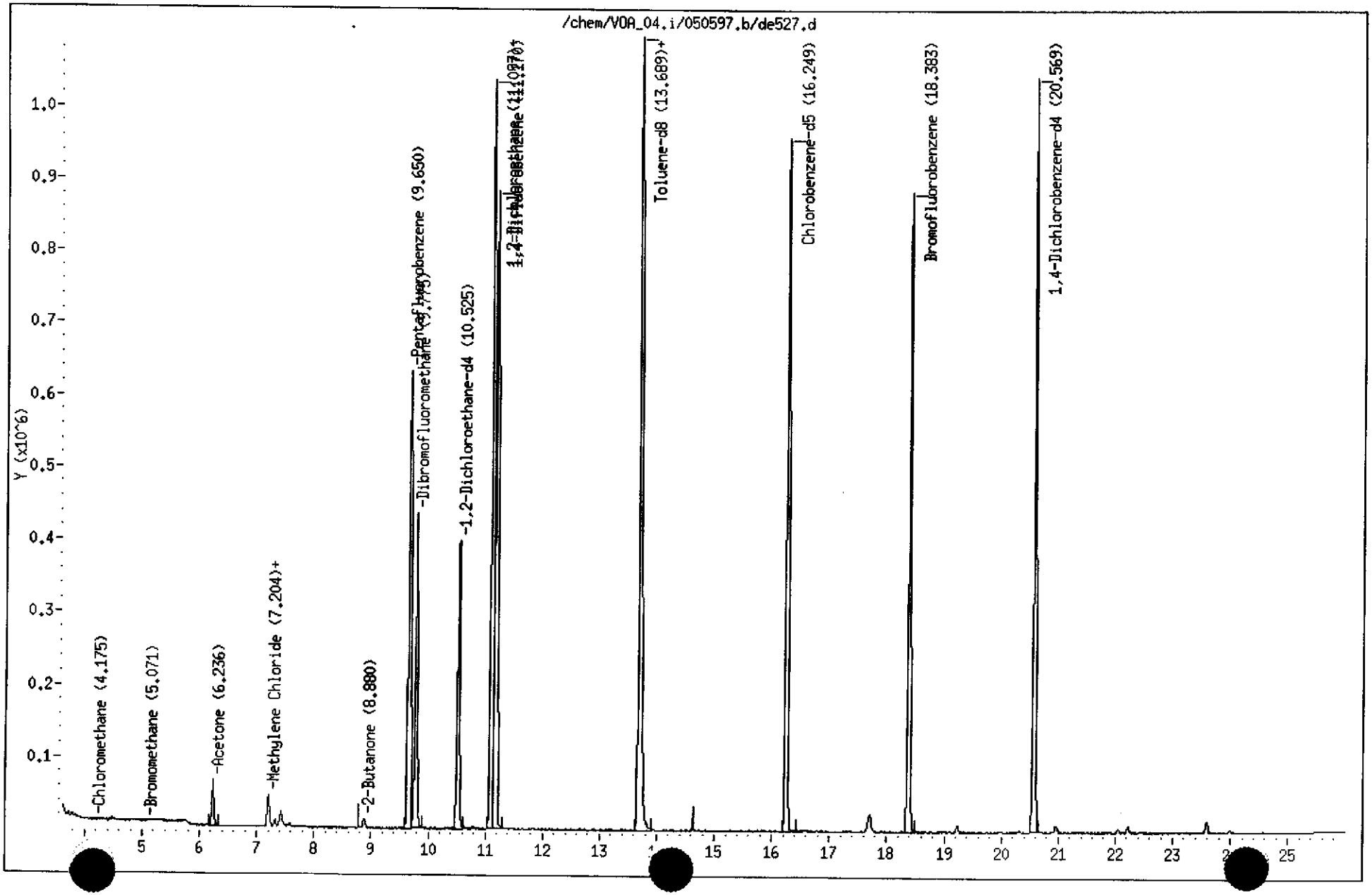
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	99	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	102	79-122

J: Estimated Value

Data File: /chem/VOA_04.i/050597.b/de527.d
Date : 06-MAY-97 00:51
Client ID: DYNA P&T
Sample Info: S,129135-005
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_04.i

Operator: DM
Column diameter: 0.32



Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCITP-33@4.0
Lab ID: 129135-006
Matrix: Soil
Batch#: 33816
Units: ug/Kg
Diln Fac: 25

Sampled: 04/30/97
Received: 05/01/97
Extracted: 05/08/97
Analyzed: 05/08/97

Analyte	Result	Reporting Limit
Chloromethane	ND	250
Bromomethane	ND	250
Vinyl Chloride	ND	250
Chloroethane	ND	250
Methylene Chloride	ND	500
Acetone	ND	500
Carbon Disulfide	ND	130
Trichlorofluoromethane	ND	130
1,1-Dichloroethene	ND	130
1,1-Dichloroethane	ND	130
trans-1,2-Dichloroethene	ND	130
cis-1,2-Dichloroethene	ND	130
Chloroform	ND	130
Freon 113	ND	130
1,2-Dichloroethane	ND	130
2-Butanone	ND	250
1,1,1-Trichloroethane	ND	130
Carbon Tetrachloride	ND	130
Vinyl Acetate	ND	1300
Bromodichloromethane	ND	130
1,2-Dichloropropane	ND	130
cis-1,3-Dichloropropene	ND	130
Trichloroethene	ND	130
Dibromochloromethane	ND	130
1,1,2-Trichloroethane	ND	130
Benzene	ND	130
trans-1,3-Dichloropropene	ND	130
Bromoform	ND	130
2-Hexanone	ND	250
4-Methyl-2-Pentanone	ND	250
1,1,2,2-Tetrachloroethane	ND	130
Tetrachloroethene	ND	130
Toluene	ND	130
Chlorobenzene	ND	130
Ethylbenzene	1800	130
Styrene	ND	130
m,p-Xylenes	930	130
o-Xylene	68 J	130

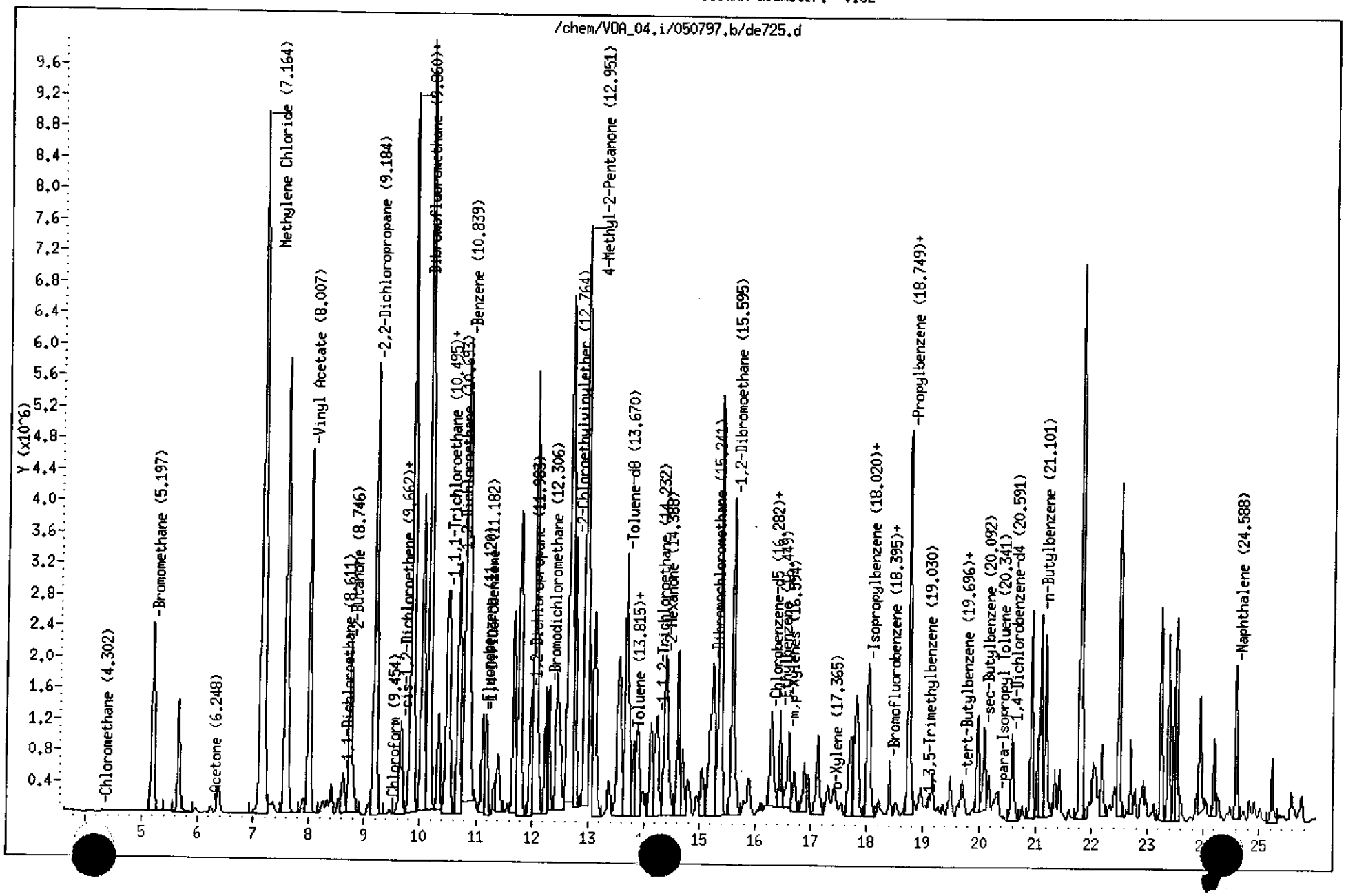
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	86	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	96	79-122

J: Estimated Value

Data File: /chem/VOA_04.i/050797.b/de725.d
Date : 08-MAY-97 00:46
Client ID: DYNA P&T
Sample Info: S,129135-006
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_04.i

Operator: DM
Column diameter: 0.32



THIRD INTERIM REPORT
SITE CHARACTERIZATION
NINTH AVENUE TERMINAL STUDY AREA
PORT OF OAKLAND
OAKLAND, CALIFORNIA
SCI 133.004

VOLUME VI OF VI

APPENDIX G - ANALYTICAL TEST REPORTS, CHROMATOGRAPHS, AND CHAIN-OF-CUSTODY FORMS FOR SCI'S APRIL/MAY 1997 DATA GAP STUDY (PART 2)

JULY 25, 1997

Subsurface Consultants, Inc.
3736 Mt. Diablo Boulevard ■ Suite 200 ■ Lafayette, California 94549 ■ (510) 299-7960

APPENDIX G - ANALYTICAL TEST REPORTS, CHROMATOGRAPHS, AND CHAIN-OF-CUSTODY FORMS FOR SCI'S APRIL/MAY 1997 DATA GAP STUDY (PART 2)

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 19-MAY-97
Lab Job Number: 129135
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: Tracy Babb

Reviewed by: Damaris Moore

Curtis & Tompkins, L.

Client: Subsurface Consultants

Laboratory Login Number: 129135

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 15 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD: SMWW 17:5520EF**

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129135-001	SCIMW-26@3.5	Soil	30-APR-97	01-MAY-97	14-MAY-97	ND	mg/Kg	50	DLP	33972
129135-002	SCIMW-27@3.5	Soil	30-APR-97	01-MAY-97	14-MAY-97	210	mg/Kg	50	DLP	33972
129135-003	SCIMW-28@3.5	Soil	30-APR-97	01-MAY-97	14-MAY-97	ND	mg/Kg	50	DLP	33972
129135-004	SCITP-31@1.2	Soil	30-APR-97	01-MAY-97	14-MAY-97	230	mg/Kg	50	DLP	33972
129135-005	SCITP-32@2.5	Soil	30-APR-97	01-MAY-97	14-MAY-97	ND	mg/Kg	50	DLP	33972
129135-006	SCITP-33@4.0	Soil	30-APR-97	01-MAY-97	14-MAY-97	2200	mg/Kg	50	DLP	33972

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129135

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 15 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD:** SMWW 17:5520BF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129135-007	TP-32	Water	30-APR-97	01-MAY-97	12-MAY-97	ND	mg/L	5	DLP	33926
129135-008	TP-31	Water	30-APR-97	01-MAY-97	12-MAY-97	ND	mg/L	5	DLP	33926

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129135
Report Date: 15 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 33972**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	50	mg/Kg	SMWW 17:5520EF	14-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	85%	SMWW 17:5520EF	14-MAY-97
BSD	82%	SMWW 17:5520EF	14-MAY-97

		Control Limits
Average Spike Recovery	84%	80% - 120%
Relative Percent Difference	3.4%	< 20%

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129135
Report Date: 15 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 33926**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	5	mg/L	SMWW 17:5520BF	12-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	94%	SMWW 17:5520BF	12-MAY-97
BSD	89%	SMWW 17:5520BF	12-MAY-97

		Control Limits
Average Spike Recovery	91%	80% - 120%
Relative Percent Difference	5.8%	< 20%

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129135-001	SCIMW-26@3.5	33854	04/30/97	05/08/97	05/08/97	
129135-002	SCIMW-27@3.5	33854	04/30/97	05/09/97	05/09/97	
129135-003	SCIMW-28@3.5	33854	04/30/97	05/09/97	05/09/97	
129135-004	SCITP-31@1.2	33854	04/30/97	05/09/97	05/09/97	

Matrix: Soil

Analyte Diln Fac:	Units	129135-001 1	129135-002 1	129135-003 1	129135-004 1
Gasoline	mg/Kg	<1	<1	<1	<1
Surrogate					
Trifluorotoluene	%REC	54	54	52	53
Bromobenzene	%REC	92	91	86	86

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129135-005	SCITP-32@2.5	33854	04/30/97	05/09/97	05/09/97	
129135-006	SCITP-33@4.0	33854	04/30/97	05/09/97	05/09/97	

Matrix: Soil

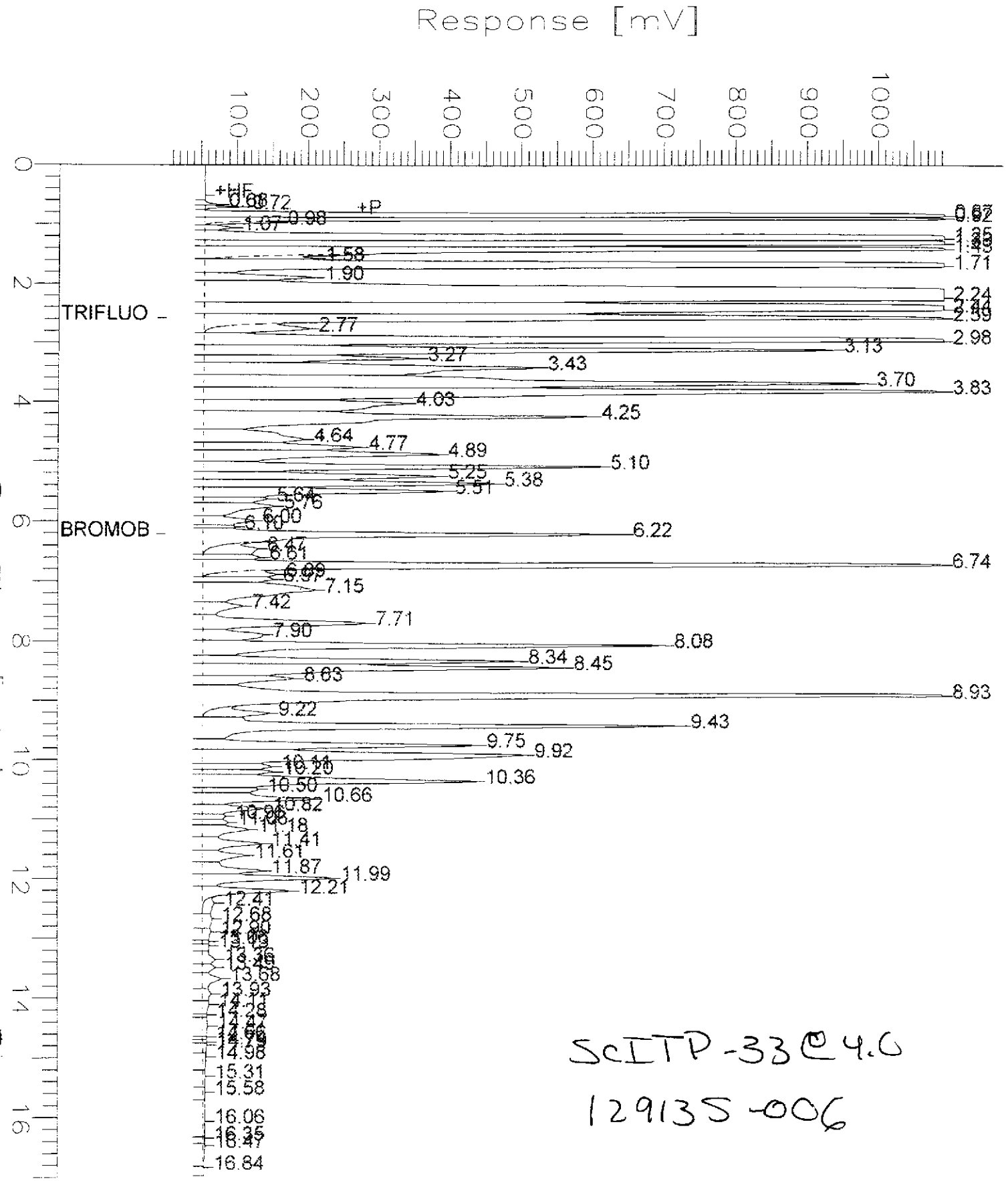
Analyte	Units	129135-005	129135-006	
Diln Fac:		1	2	
Gasoline	mg/Kg	<1	140	YL
Surrogate				
Trifluorotoluene	%REC	55	372	*
Bromobenzene	%REC	91	360	*

* Values outside of QC limits
Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

GC04 TVH 'J' Data File Rtx1FID

Sample Name : D,129135-006,33854
FileName : G:\GC04\DATA\128J034.raw
Method : TVMAR14
Start Time : 0.00 min End Time : 17.00 min
Scale Factor: 1.0 Plot Offset: 3 mV

Sample #: Page 1 of 1
Date : 5/9/97 05:53 AM
Time of Injection: 5/9/97 05:36 AM
Low Point : 3.06 mV High Point : 1094.30 mV
Plot Scale: 1091.2 mV



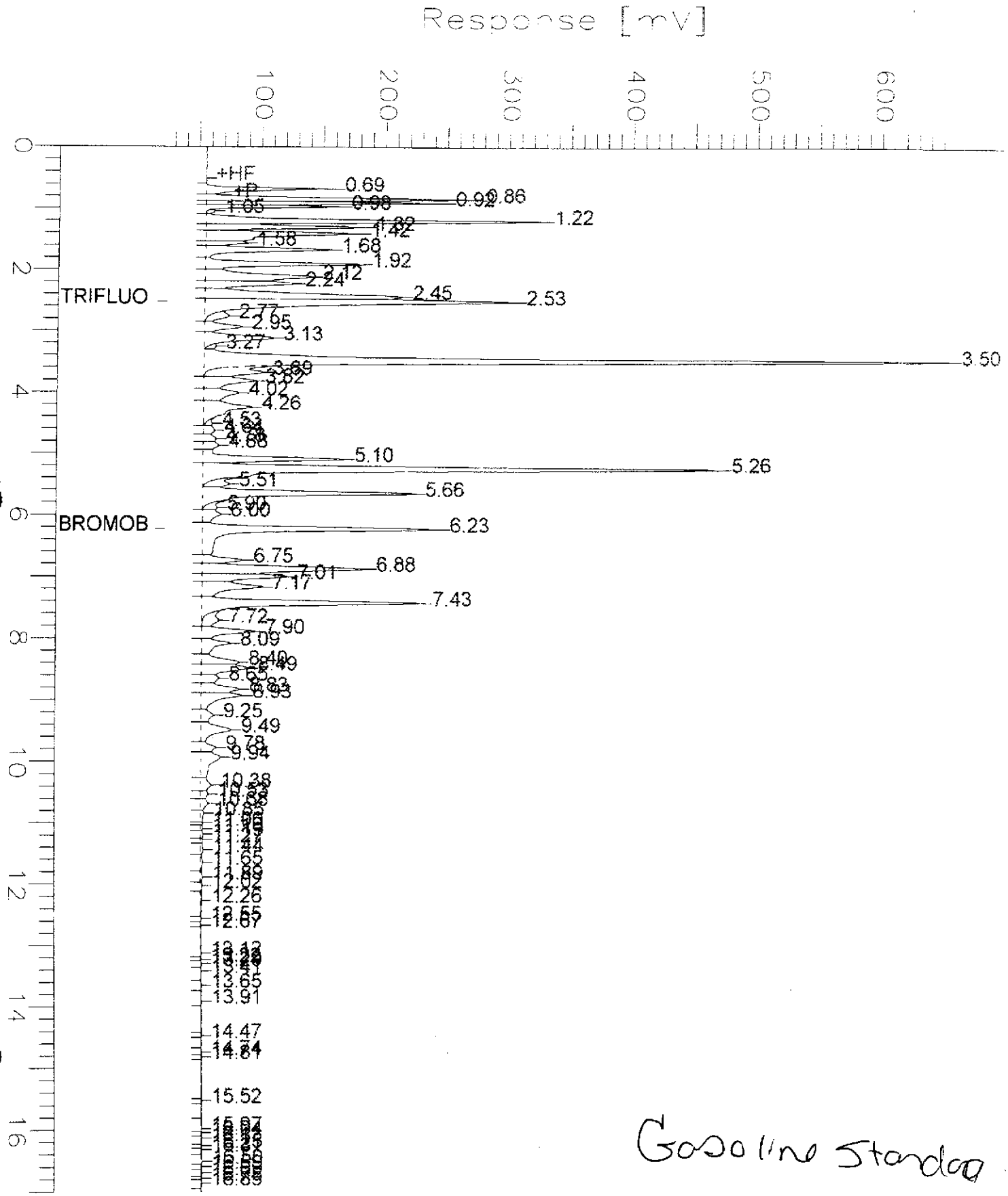
ScITP-33 @ 4.6

129135-006

GC04 TVH 'J' Data File Rtx1FID

Sample Name : LCS/CCV,QC45679,33854
FileName : G:\GC04\DATA\128J002.raw
Method : TVMAR14
Start Time : 0.00 min End Time : 17.00 min
Scale Factor: 1.0 Plot Offset: 25 mV

Sample #: 97WS4007 Page 1 of 1
Date : 5/8/97 12:37 PM
Time of Injection: 5/8/97 12:20 PM
Low Point : 24.96 mV High Point : 658.45 mV
Plot Scale: 633.5 mV



Gasoline Standard

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129135-007	TP-32	33812	04/30/97	05/06/97	05/06/97	
129135-008	TP-31	33812	04/30/97	05/07/97	05/07/97	

Matrix: Water

Analyte	Units	129135-007	129135-008
Diln Fac:		1	1
Gasoline	ug/L	<50	<50
Surrogate			
Trifluorotoluene	%REC	84	82
Bromobenzene	%REC	87	83

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Soil	Prep Date:	05/08/97
Batch#:	33854	Analysis Date:	05/08/97
Units:	mg/Kg		
Diln Fac:	1		

MB Lab ID: QC45681

Analyte	Result	
Gasoline	<1.0	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	52	52-127
Bromobenzene	84	45-140

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33854
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

LCS Lab ID: QC45679

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	9.91	10	99	80-120
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	84	52-127		
Bromobenzene	118	45-140		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129080-004
Matrix: Soil
Batch#: 33854
Units: mg/Kg
Diln Fac: 1

Sample Date: 04/26/97
Received Date: 04/28/97
Prep Date: 05/10/97
Analysis Date: 05/10/97

MS Lab ID: QC45682

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	10	<1	9.11	91	65-135
Surrogate	**%Rec**	**Limits**			
Trifluorotoluene	88	52-127			
Bromobenzene	117	45-140			

MSD Lab ID: QC45683

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	10	8.82	88	65-135	3	30
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	85	52-127				
Bromobenzene	115	45-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33812
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

MB Lab ID: QC45452

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	78	65-135
Bromobenzene	83	65-135

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33812
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

LCS Lab ID: QC45450

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	1814	2000	91	75-125
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	83	65-135		
Bromobenzene	95	65-135		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129141-002
Matrix: Water
Batch#: 33812
Units: ug/L
Diln Fac: 1

Sample Date: 05/01/97
Received Date: 05/02/97
Prep Date: 05/06/97
Analysis Date: 05/06/97

MS Lab ID: QC45453

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	2000	<50	1778	89	75-125
Surrogate	**%Rec**	**Limits**			
Trifluorotoluene	84	65-135			
Bromobenzene	100	65-135			

MSD Lab ID: QC45454

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	2000	1890	95	75-125	6	35
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	82	65-135				
Bromobenzene	99	65-135				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129135-001	SCIMW-26@3.5	33831	04/30/97	05/06/97	05/10/97	
129135-002	SCIMW-27@3.5	33831	04/30/97	05/06/97	05/10/97	
129135-003	SCIMW-28@3.5	33831	04/30/97	05/06/97	05/10/97	
129135-004	SCITP-31@1.2	33831	04/30/97	05/06/97	05/14/97	

Matrix: Soil

Analyte	Units	129135-001	129135-002	129135-003	129135-004
Diln Fac:		1	1	1	10
Diesel C12-C22	mg/Kg	<1	11 YH	6.9YH	170 YH
Motor Oil C22-C50	mg/Kg	7.5YH	190 YH	47 YLH	1300
Surrogate					
Hexacosane	%REC	104	125	118	DO

DO: Surrogate diluted out
Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

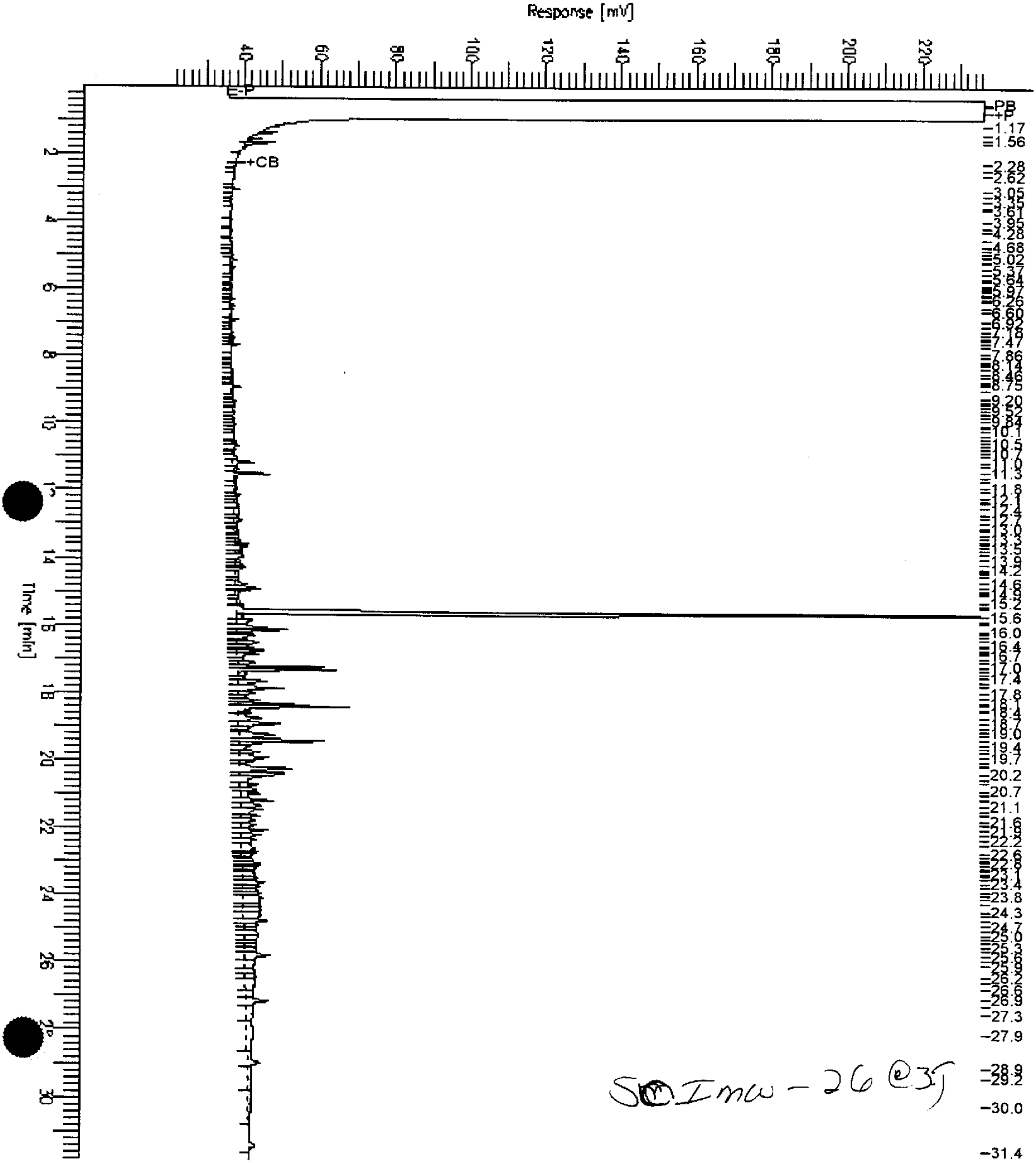
Chromatogram

Sample Name : 129135-001,33831
FileName : G:\GC11\CHB\129B022.RAW
Method : BTEH128.MTH
Start Time : 0.01 min
Scale Factor: 0.0

End Time : 31.85 min
Plot Offset: 22 mV

Sample #: 33831
Date : 5/14/97 10:30 AM
Time of Injection: 5/10/97 08:56 AM
Low Point : 21.55 mV
Plot Scale: 214.8 mV

High Point : 236.33 mV

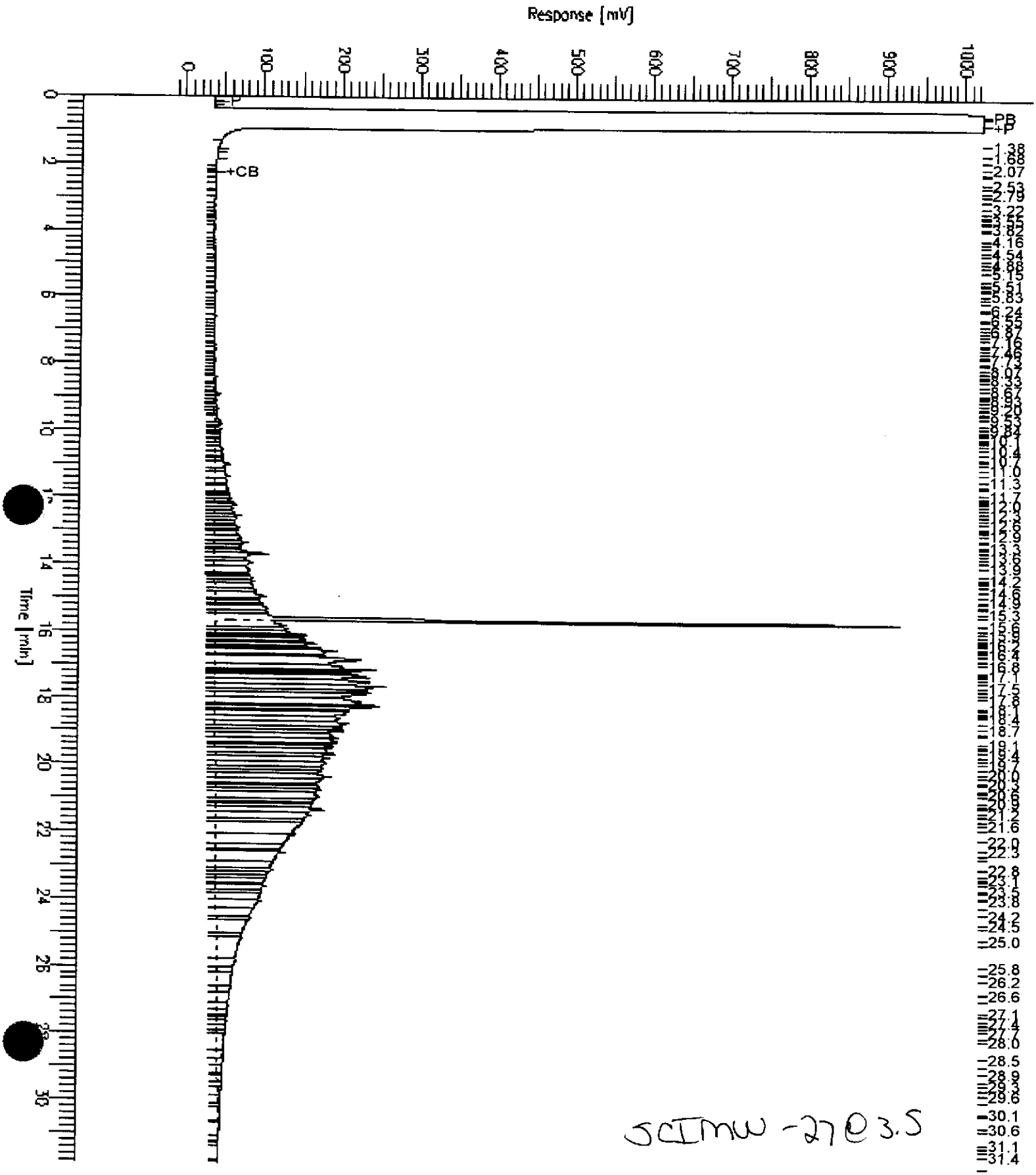


SM IMW - 26 @ 35

Chromatogram

Sample Name : 129135-002,33831
FileName : G:\GC11\CHB\129B023.RAW
Method : BTEH128.MTH
Start Time : 0.00 min End Time : 31.90 min
Slope Factor: 0.0 Plot Offset: -16 mV

Sample #: 33831 Page 1 of 1
Date : 5/14/97 10:31 AM
Time of Injection: 5/10/97 09:39 AM
Low Point : -16.39 mV High Point : 1024.00 mV
Plot Scale: 1040.4 mV

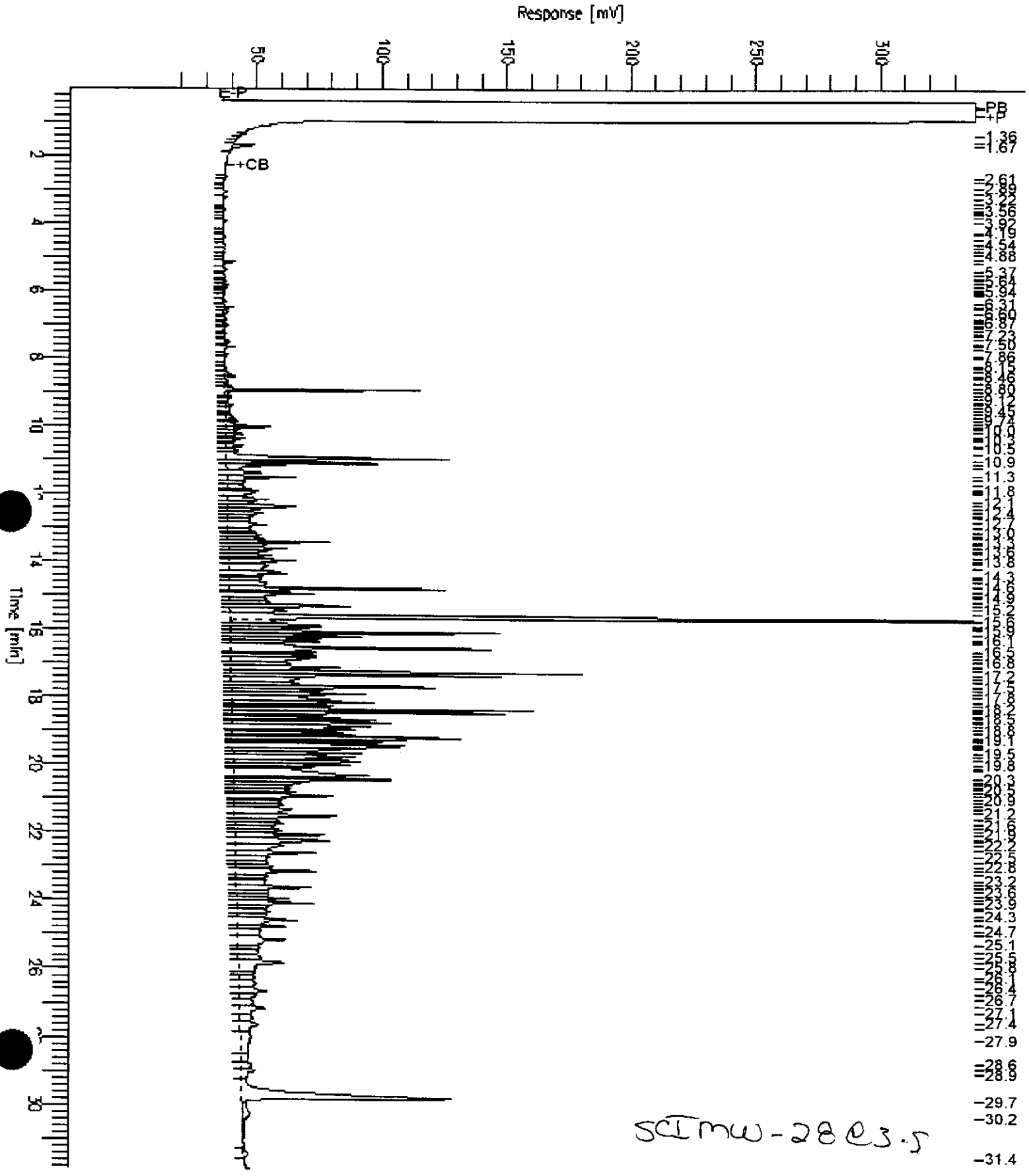


SCIMW -2703.5

Chromatogram

Sample Name : 129135-003,33831
FileName : G:\GC11\CHB\129B024.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: 12 mV

Sample #: 33831 Page 1 of 1
Date : 5/14/97 10:32 AM
Time of Injection: 5/10/97 10:22 AM
Low Point : 12.20 mV High Point : 338.36 mV
Plot Scale: 326.2 mV

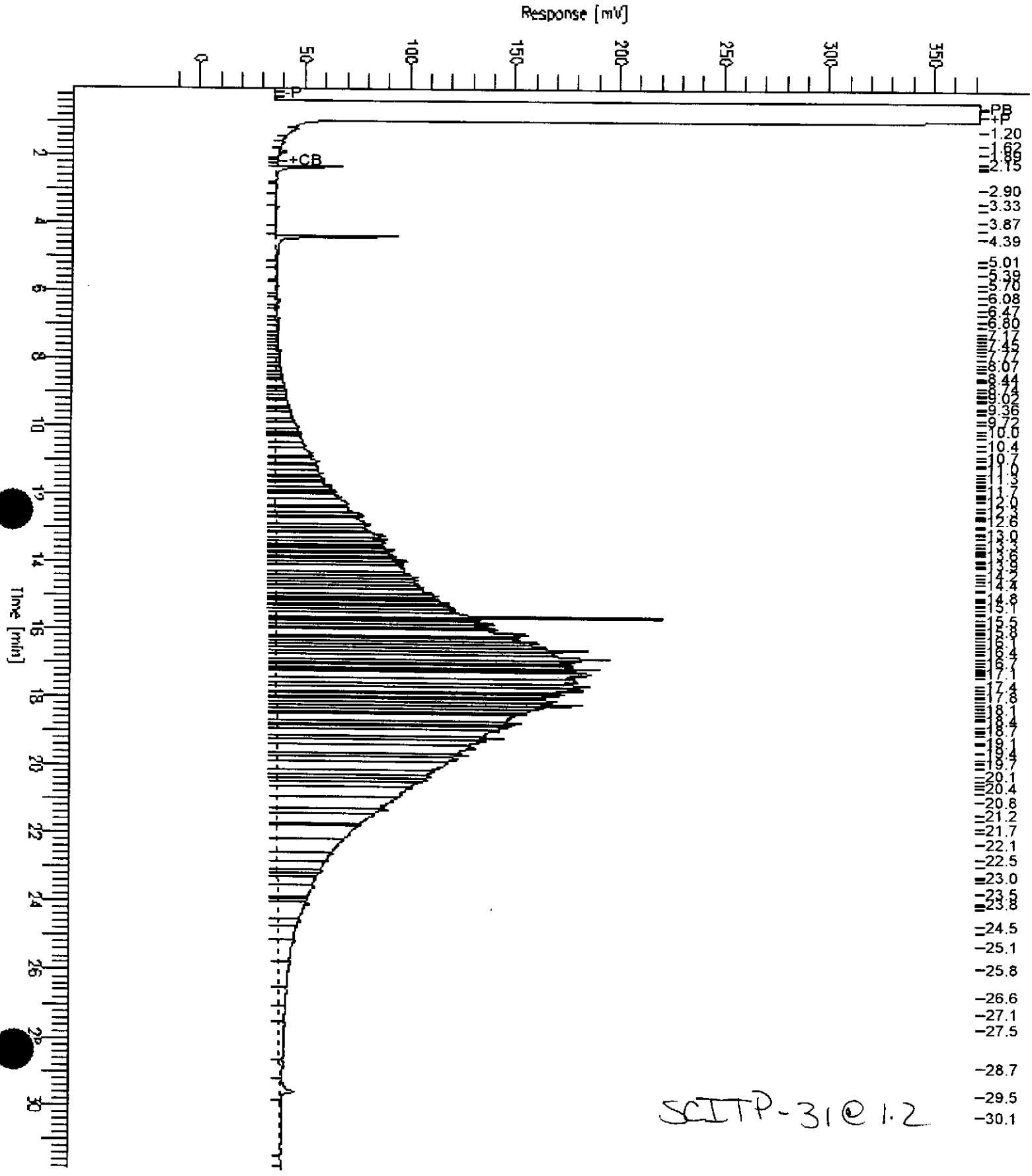


SCIMW-2803.5

Chromatogram

Sample Name : 129135-004,33831
FileName : G:\GC11\CHB\133B033.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Multiplier Factor: 0.0 Plot Offset: -16 mV

Sample #: 33831 Page 1 of 1
Date : 5/14/97 02:58 PM
Time of Injection: 5/14/97 11:29 AM
Low Point : -16.46 mV High Point : 371.93 mV
Plot Scale: 388.4 mV



SCITP-31@1.2

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129135-005	SCITP-32@2.5	33831	04/30/97	05/06/97	05/10/97	
129135-006	SCITP-33@4.0	33831	04/30/97	05/06/97	05/10/97	

Matrix: Soil

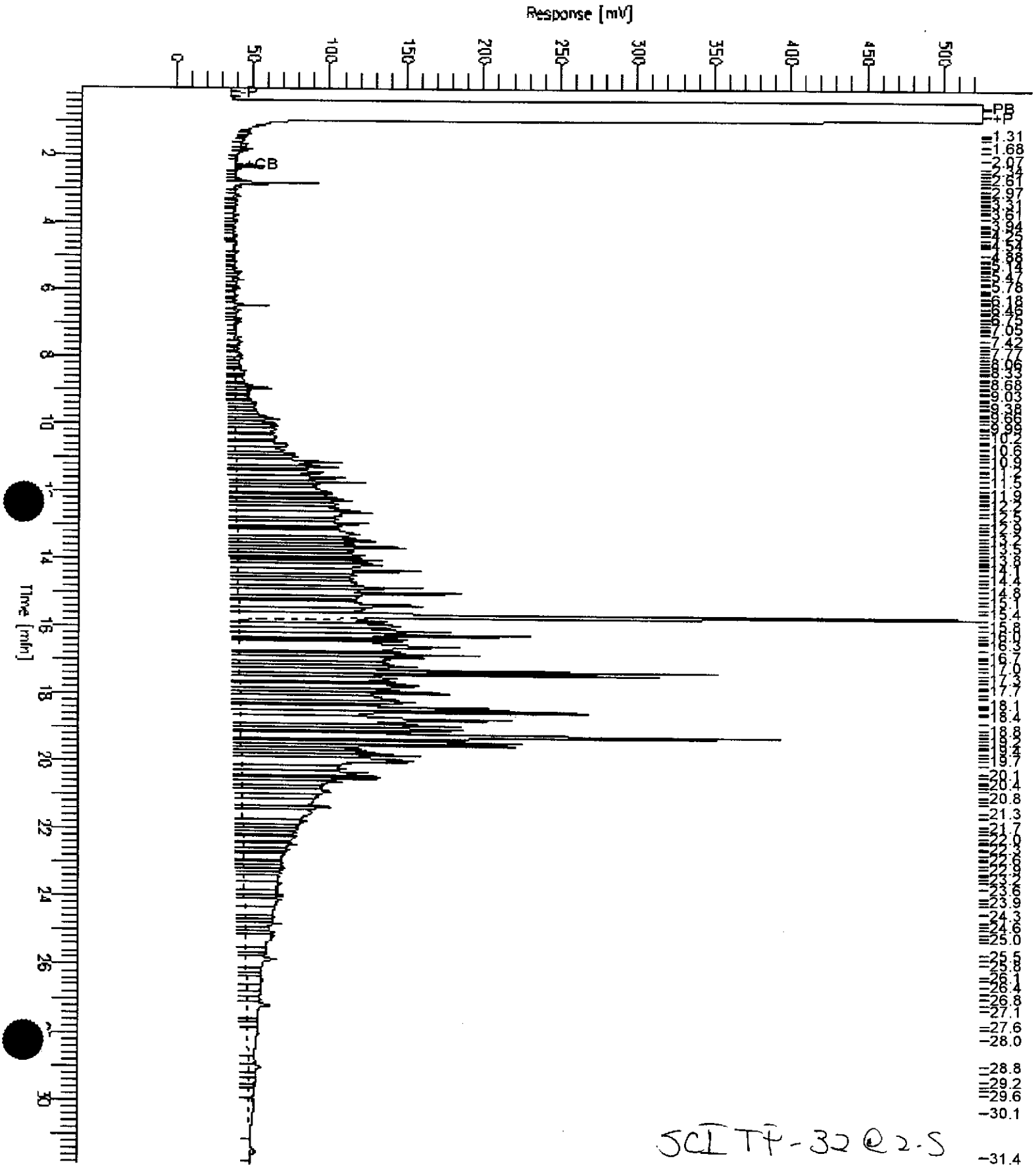
Analyte	Units	129135-005		129135-006	
Diln Fac:		1		20	
Diesel C12-C22	mg/Kg	30	YH	1100	YLH
Motor Oil C22-C50	mg/Kg	130	LH	5900	L
Surrogate					
Hexacosane	%REC	127			DO

DO: Surrogate diluted out
Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

Chromatogram

Sample Name : 129135-005,33831
FileName : G:\GC11\CHB\129B026.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: -2 mV

Sample #: 33831 Page 1 of 1
Date : 5/14/97 10:40 AM
Time of Injection: 5/10/97 11:49 AM
Low Point : -1.98 mV High Point : 525.46 mV
Plot Scale: 527.4 mV

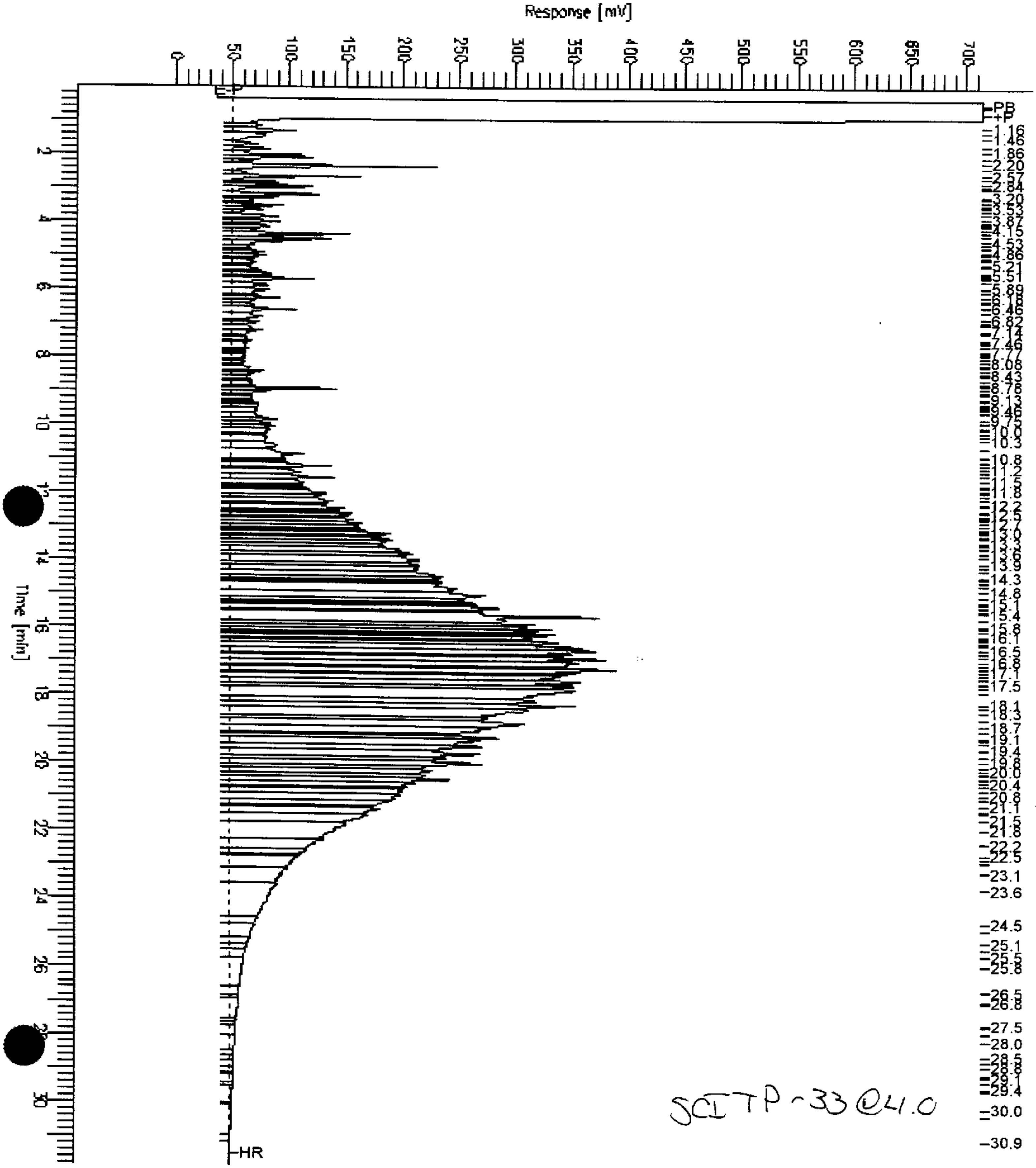


SCITT-32 @ 2.5

Chromatogram

Sample Name : 129135-006,33831
FileName : G:\GC11\CHB\129B027.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -6 mV

Sample #: 33831 Page 1 of 1
Date : 5/14/97 10:42 AM
Time of Injection: 5/10/97 12:32 PM
Low Point : -6.15 mV High Point : 714.47 mV
Plot Scale: 720.6 mV



TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129135-007	TP-32	33838	04/30/97	05/06/97	05/09/97	
129135-008	TP-31	33838	04/30/97	05/06/97	05/09/97	

Matrix: Water

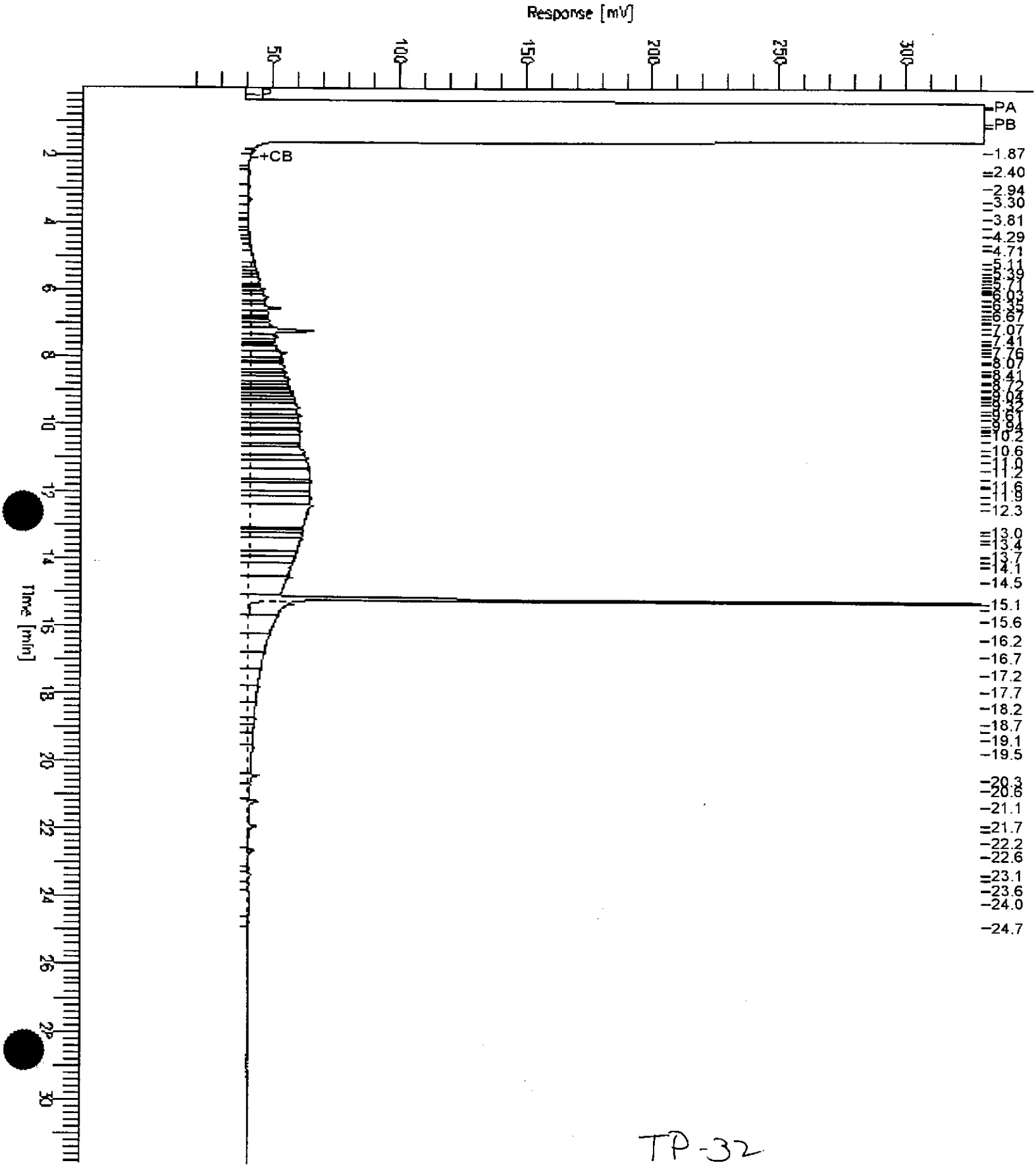
Analyte	Units	129135-007		129135-008	
Diln Fac:		1		1	
Diesel C12-C22	ug/L	1100		510	YH
Motor Oil C22-C50	ug/L	710	YL	2200	
Surrogate					
Hexacosane	%REC	87		69	

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

GC15 Channel B TEH

Sample Name : 129135-007,33838
FileName : G:\GC15\CHB\127B053.RAW
Method : B125TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: 11 mV

Sample #: 33838 Page 1 of 1
Date : 5/14/97 12:53 PM
Time of Injection: 5/9/97 04:10 AM
Low Point : 11.18 mV High Point : 331.32 mV
Plot Scale: 320.1 mV

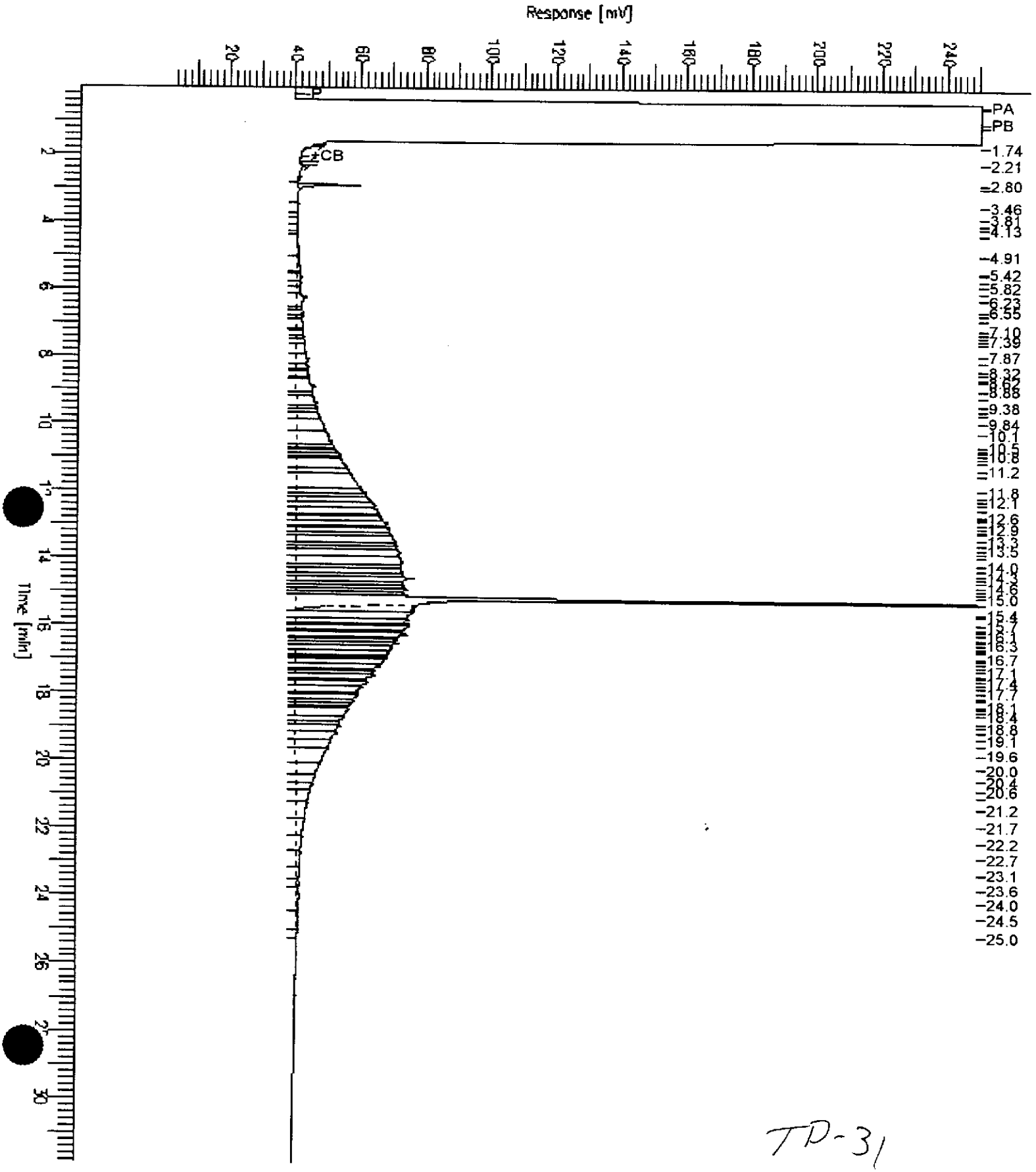


TP-32

GC15 Channel B TEH

Sample Name : 129135-008,33838
FileName : G:\GC15\CHB\127B054.RAW
Method : B125TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: 2 mV

Sample #: 33838 Page 1 of 1
Date : 5/14/97 12:54 PM
Time of Injection: 5/9/97 04:53 AM
Low Point : 2.39 mV High Point : 250.53 mV
Plot Scale: 248.1 mV

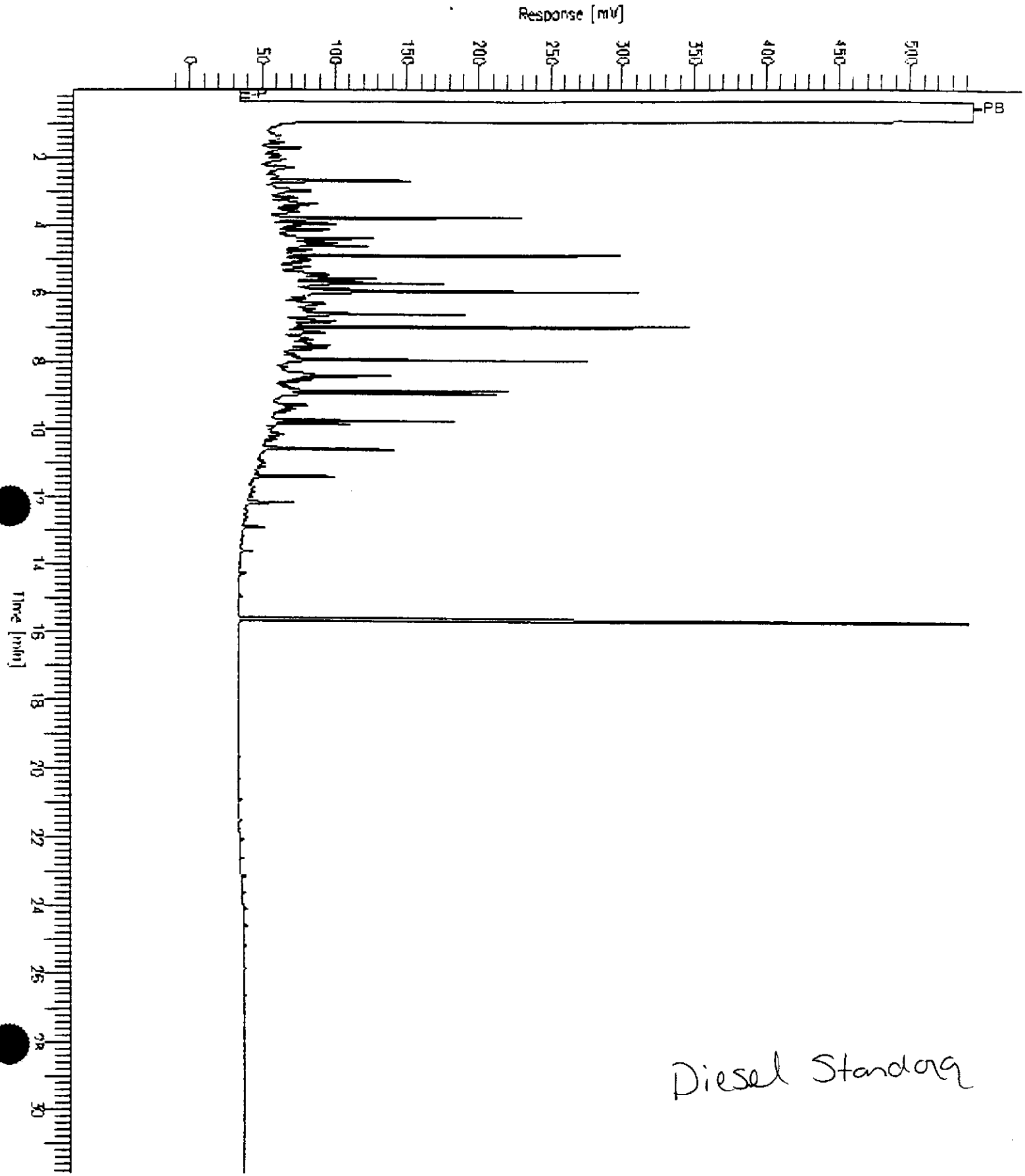


TP-31

Chromatogram

Sample Name : CCV,97WG4141,DS
FileName : G:\GC11\CHB\129B050.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: -17 mV

Sample #: 33852 Page 1 of 1
Date : 5/12/97 11:42 AM
Time of Injection: 5/11/97 05:09 AM
Low Point : -16.76 mV High Point : 544.35 mV
Plot Scale: 561.1 mV

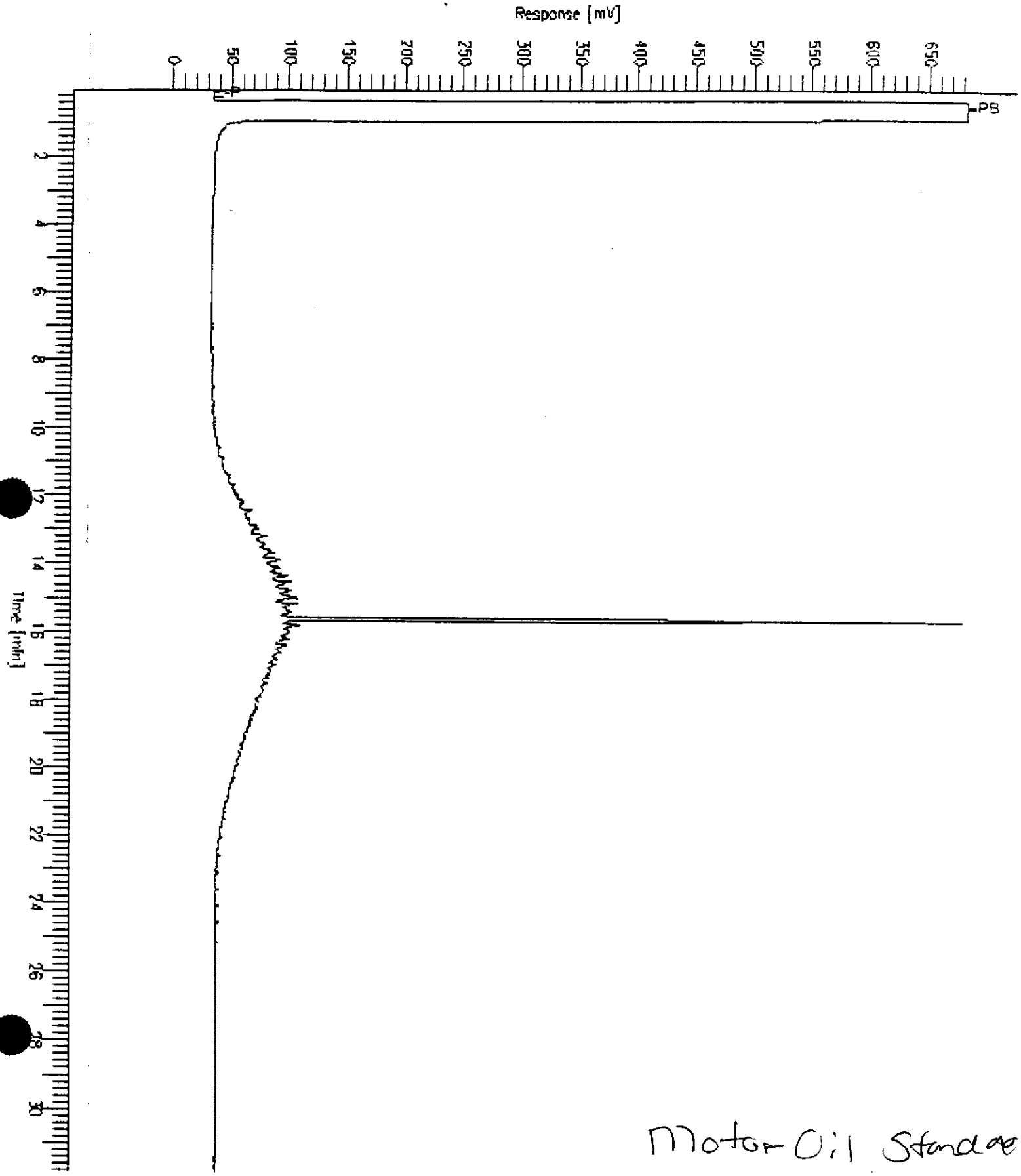


Diesel Standard

Chromatogram

Sample Name : CCV,97WG4154,MO
FileName : G:\GC11\CHB\129B047.RAW
Method : BTEH128.MTH
Start Time : 0.07 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: -7 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/12/97 11:42 AM
Time of Injection: 5/11/97 02:59 AM
Low Point : -7.21 mV High Point : 683.47 mV
Plot Scale: 690.7 mV

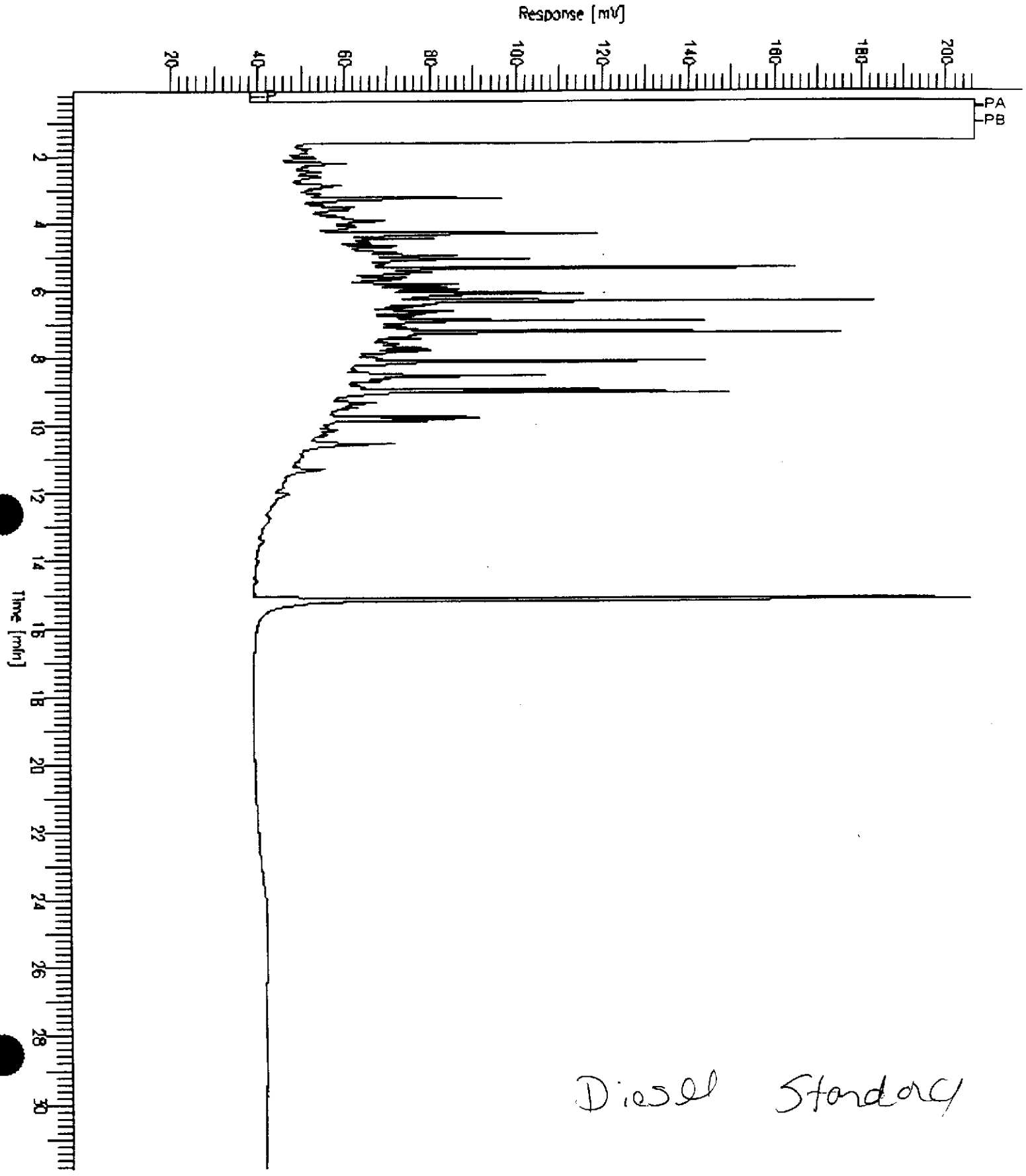


Motor Oil Standard

GC15 Channel B TEH

Sample Name : CCV,97WS4141,DS
FileName : G:\GC15\CHB\127B058.RAW
Method : B125TEH.MTH
Start Time : 0.07 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 19 mV

Sample #: 500MG/L
Date : 5/9/97 11:03 AM
Time of Injection: 5/9/97 07:45 AM
Low Point : 18.69 mV High Point : 206.92 mV
Plot Scale: 188.2 mV

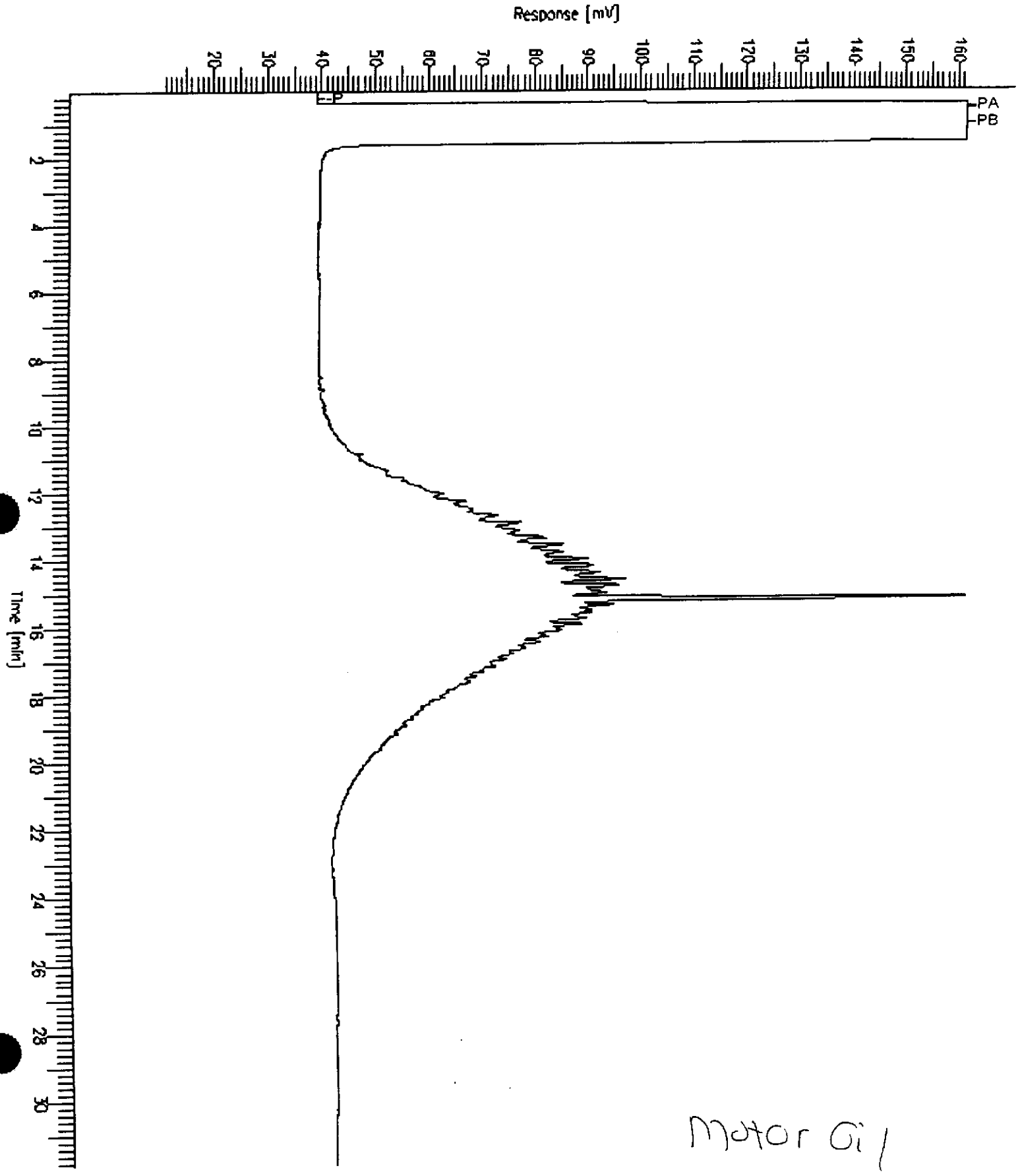


Diesel Standard

GC15 Channel B TEH

Sample Name : CCV,97WS4082,MO
FileName : G:\GC15\CHB\127B060.RAW
Method : B125TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 10 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/9/97 11:03 AM
Time of Injection: 5/9/97 09:12 AM
Low Point : 10.13 mV High Point : 161.64 mV
Plot Scale: 151.5 mV



Motor Oil

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	CA LUFT
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Soil	Prep Date:	05/06/97
Batch#:	33831	Analysis Date:	05/09/97
Units:	mg/Kg		
Diln Fac:	1		

MB Lab ID: QC45530

Analyte	Result
Diesel C12-C22	<1.0
Motor Oil C22-C50	<5.0

Surrogate	%Rec	Recovery Limits
Hexacosane	105	60-140

Curtis & Tompkins, Ltd.

Lab #: 129135

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Water	Prep Date:	05/07/97
Batch#:	33838	Analysis Date:	05/09/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC45556

Analyte	Result	
Diesel C12-C22	<50	
Motor Oil C22-C50	<300	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	95	60-140

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33838
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/09/97

BS Lab ID: QC45557

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C12-C22	2475	1645	66	60-140

Surrogate	%Rec	Limits
Hexacosane	89	60-140

BSD Lab ID: QC45558

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	1552	63	60-140	6	35

Surrogate	%Rec	Limits
Hexacosane	86	60-140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33831
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

LCS Lab ID: QC45531

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C12-C22	33.3	49.5	67	60-140
Surrogate	%Rec	Limits		
Hexacosane	94	60-140		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129116-001
Matrix: Soil
Batch#: 33831
Units: mg/Kg
Diln Fac: 1

Sample Date: 04/28/97
Received Date: 04/30/97
Prep Date: 05/06/97
Analysis Date: 05/09/97

MS Lab ID: QC45532

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Diesel C12-C22	49.5	6.62	42.9	73	60-140
Surrogate	%Rec	Limits			
Hexacosane	114	60-140			

MSD Lab ID: QC45533

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	49.5	46.3	80	60-140	9	30
Surrogate	%Rec	Limits				
Hexacosane	123	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129135-001	SCIMW-26@3.5	33854	04/30/97	05/08/97	05/08/97	
129135-002	SCIMW-27@3.5	33854	04/30/97	05/09/97	05/09/97	
129135-003	SCIMW-28@3.5	33854	04/30/97	05/09/97	05/09/97	
129135-004	SCITP-31@1.2	33854	04/30/97	05/09/97	05/09/97	

Matrix: Soil

Analyte Diln Fac:	Units	129135-001 1	129135-002 1	129135-003 1	129135-004 1
Benzene	ug/Kg	<5	<5	<5	<5
Toluene	ug/Kg	<5	<5	<5	<5
Ethylbenzene	ug/Kg	<5	<5	<5	<5
m,p-Xylenes	ug/Kg	<5	<5	<5	<5
o-Xylene	ug/Kg	<5	<5	<5	<5
Surrogate					
Trifluorotoluene	%REC	84	83	83	81
Bromobenzene	%REC	106	101	99	95

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129135-005	SCITP-32@2.5	33854	04/30/97	05/09/97	05/09/97	
129135-006	SCITP-33@4.0	33928	04/30/97	05/13/97	05/13/97	

Matrix: Soil

Analyte	Units	129135-005	129135-006	
Diln Fac:		1	50	
Benzene	ug/Kg	<5	<250	
Toluene	ug/Kg	<5	1800	
Ethylbenzene	ug/Kg	<5	5300	
m,p-Xylenes	ug/Kg	<5	2900	
o-Xylene	ug/Kg	<5	970	
Surrogate				
Trifluorotoluene	%REC	83	148	*
Bromobenzene	%REC	101	147	*

* Values outside of QC limits

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129135-007	TP-32	33812	04/30/97	05/06/97	05/06/97	
129135-008	TP-31	33812	04/30/97	05/07/97	05/07/97	

Matrix: Water

Analyte	Units	129135-007	129135-008
Diln Fac:		1	1
Benzene	ug/L	<0.5	<0.5
Toluene	ug/L	<0.5	<0.5
Ethylbenzene	ug/L	<0.5	<0.5
m,p-Xylenes	ug/L	<0.5	<0.5
o-Xylene	ug/L	<0.5	<0.5
Surrogate			
Trifluorotoluene	%REC	75	74
Bromobenzene	%REC	85	81

Curtis & Tompkins, Ltd.

Lab #: 129135

BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33854
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

MB Lab ID: QC45681

Analyte	Result
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	82	52-127
Bromobenzene	97	45-140

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client:	Subsurface Consultants	Analysis Method:	EPA 8020
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Soil	Prep Date:	05/13/97
Batch#:	33928	Analysis Date:	05/13/97
Units:	ug/Kg		
Diln Fac:	1		

MB Lab ID: QC45931

Analyte	Result
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	81	52-127
Bromobenzene	96	45-140

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33854
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

LCS Lab ID: QC45680

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	98.6	100	99	80-120
Toluene	93.84	100	94	80-120
Ethylbenzene	96.66	100	97	80-120
m,p-Xylenes	172.8	200	86	80-120
o-Xylene	103.8	100	104	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	87	52-127
Bromobenzene	108	45-140

" 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

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33928
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/13/97

LCS Lab ID: QC45930

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	103.2	100	103	80-120
Toluene	98.78	100	99	80-120
Ethylbenzene	102	100	102	80-120
m,p-Xylenes	179.2	200	90	80-120
o-Xylene	108.3	100	108	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	86	52-127
Bromobenzene	108	45-140

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

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: TP-32
Lab ID: 129135-007
Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Sampled: 04/30/97
Received: 05/01/97
Extracted: 05/08/97
Analyzed: 05/08/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	99	79-122

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: TP-31
Lab ID: 129135-008
Matrix: Water
Batch#: 33843
Units: ug/L
Diln Fac: 1

Sampled: 04/30/97
Received: 05/01/97
Extracted: 05/07/97
Analyzed: 05/07/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	108	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	92	79-122

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/05/97

MB Lab ID: QC45406

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	102	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	103	79-122

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/05/97

MB Lab ID: QC45417

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	102	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	102	79-122

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33816
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

MB Lab ID: QC45464

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	90	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	98	79-122

Curtis & Tompkins, Ltd.

Lab #: 129135

BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33816
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

MB Lab ID: QC45584

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	91	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	97	79-122

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33816
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

MB Lab ID: QC45587

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	94	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	99	79-122

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33843
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

MB Lab ID: QC45582

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	103	68-126
Toluene-d8	97	87-125
Bromofluorobenzene	94	79-122

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33843
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

MB Lab ID: QC45611

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	105	68-126
Toluene-d8	97	87-125
Bromofluorobenzene	93	79-122

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

MB Lab ID: QC45678

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	90	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	98	79-122

Curtis & Tompkins, Ltd.

Lab #: 129135

BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/05/97

LCS Lab ID: QC45405

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	55.76	50	112	51-180
Trichloroethene	51.56	50	103	73-141
Benzene	51.2	50	102	78-142
Toluene	53.92	50	108	76-150
Chlorobenzene	50.15	50	100	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	101	79-122

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

Curtis & Tompkins, Ltd.

Lab #: 129135

BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33816
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

LCS Lab ID: QC45463

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	49.3	50	99	51-180
Trichloroethene	49.46	50	99	73-141
Benzene	48.66	50	97	78-142
Toluene	53.06	50	106	76-150
Chlorobenzene	50.12	50	100	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	86	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	96	79-122

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

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33843
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

LCS Lab ID: QC45581

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	50.62	50	101	51-180
Trichloroethene	50.89	50	102	73-141
Benzene	51.09	50	102	78-142
Toluene	52.38	50	105	76-150
Chlorobenzene	51.69	50	103	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	100	68-126
Toluene-d8	97	87-125
Bromofluorobenzene	93	79-122

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

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

LCS Lab ID: QC45677

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	48.18	50	96	51-180
Trichloroethene	48.54	50	97	73-141
Benzene	47.68	50	95	78-142
Toluene	51.14	50	102	76-150
Chlorobenzene	48.37	50	97	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	89	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	98	79-122

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 #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129094-002
Matrix: TCLP Leachate
Batch#: 33816
Units: ug/L
Diln Fac: 1

Sample Date: 04/28/97
Received Date: 04/29/97
Prep Date: 05/06/97
Analysis Date: 05/06/97

MS Lab ID: QC45514

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	49.13	98	51-180
Trichloroethene	50	<5	47.92	96	73-141
Benzene	50	<5	48.15	96	78-142
Toluene	50	<5	51.66	101	76-150
Chlorobenzene	50	<5	49.01	98	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	91	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	97	79-122

MSD Lab ID: QC45515

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	49.09	98	51-180	0	14
Trichloroethene	50	48.2	96	73-141	1	14
Benzene	50	48.57	97	78-142	1	11
Toluene	50	53.04	104	76-150	3	13
Chlorobenzene	50	49.23	98	83-129	0	13

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	91	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	97	79-122

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.

Lab #: 129135 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129111-001
Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Sample Date: 04/28/97
Received Date: 04/30/97
Prep Date: 05/05/97
Analysis Date: 05/05/97

MS Lab ID: QC45414

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	52.15	104	51-180
Trichloroethene	50	<5	50.5	101	73-141
Benzene	50	<5	48.39	97	78-142
Toluene	50	<5	50.25	100	76-150
Chlorobenzene	50	<5	46.88	94	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	95	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	100	79-122

MSD Lab ID: QC45415

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	50.73	101	51-180	3	22
Trichloroethene	50	50.52	101	73-141	0	24
Benzene	50	48.25	97	78-142	0	21
Toluene	50	50.71	101	76-150	1	21
Chlorobenzene	50	47.63	95	83-129	2	21

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	94	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	99	79-122

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.

Lab #: 129135 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129136-003
Matrix: Water
Batch#: 33843
Units: ug/L
Diln Fac: 1

Sample Date: 05/01/97
Received Date: 05/01/97
Prep Date: 05/07/97
Analysis Date: 05/07/97

MS Lab ID: QC45608

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	46.07	92	51-180
Trichloroethene	50	<5	47.19	94	73-141
Benzene	50	<5	48.13	96	78-142
Toluene	50	<5	49.08	98	76-150
Chlorobenzene	50	<5	48.53	97	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	110	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	92	79-122

MSD Lab ID: QC45609

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	47.34	95	51-180	3	14
Trichloroethene	50	47.68	95	73-141	1	14
Benzene	50	49.03	98	78-142	2	11
Toluene	50	49.99	100	76-150	2	13
Chlorobenzene	50	49.42	99	83-129	2	13

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	109	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	93	79-122

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.

Lab #: 129135 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129118-002
Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Sample Date: 04/30/97
Received Date: 05/01/97
Prep Date: 05/08/97
Analysis Date: 05/08/97

MS Lab ID: QC45707

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	45.47	91	51-180
Trichloroethene	50	<5	46.37	93	73-141
Benzene	50	<5	46.25	93	78-142
Toluene	50	<5	48.87	98	76-150
Chlorobenzene	50	<5	46.5	93	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	94	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	96	79-122

MSD Lab ID: QC45708

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	46.48	93	51-180	2	14
Trichloroethene	50	47.21	94	73-141	2	14
Benzene	50	47.28	95	78-142	2	11
Toluene	50	50.81	102	76-150	4	13
Chlorobenzene	50	47.62	95	83-129	2	13

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	93	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	97	79-122

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.

LABORATORY NUMBER: 129135
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 04/30/97
DATE RECEIVED: 05/01/97
DATE ANALYZED: 05/14/97
BATCH#: 33991

ANALYSIS: CYANIDE
ANALYSIS METHOD: EPA 335.2

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129135-001	SCIMW-26@3.5'	ND	mg/Kg	1.0
129135-002	SCIMW-27@3.5'	ND	mg/Kg	1.0
129135-003	SCIMW-28@3.5'	ND	mg/Kg	1.0
METHOD BLANK	N/A	ND	mg/Kg	1.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/MSD OF SAMPLE NO:129135-001

RPD, %	<1
RECOVERY, %	92

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129135
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 04/30/97
DATE RECEIVED: 05/01/97
DATE ANALYZED: 05/08/97
BATCH#: 33880

ANALYSIS: CYANIDE
ANALYSIS METHOD: EPA 9010A

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129135-008	TP-31	ND	ug/L	10
METHOD BLANK	N/A	ND	ug/L	10

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: BS/BSD

RPD, %	6
RECOVERY, %	94

Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		
Field ID:	SCIMW-28@3.5	Sampled:	04/30/97
Lab ID:	129135-003	Received:	05/01/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/15/97
Units:	ug/Kg		
Diln Fac:	1		

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

Semivolatile Organics by GC/MS

Field ID:	SCIMW-28@3.5	Sampled:	04/30/97
Lab ID:	129135-003	Received:	05/01/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/15/97
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1700
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
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)fluoranthene	ND	330
Benzo(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	%Recovery	Recovery Limits
2-Fluorophenol	62	25-121
Phenol-d5	63	24-113
2,4,6-Tribromophenol	47	19-122
Nitrobenzene-d5	63	23-120
2-Fluorobiphenyl	68	30-115
Terphenyl-d14	78	18-137

Semivolatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

Field ID: SCITP-32@2.5
Lab ID: 129135-005
Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Sampled: 04/30/97
Received: 05/01/97
Extracted: 05/06/97
Analyzed: 05/15/97

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

Semivolatile Organics by GC/MS

Field ID:	SCITP-32@2.5	Sampled:	04/30/97
Lab ID:	129135-005	Received:	05/01/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/15/97
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1700
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
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)fluoranthene	ND	330
Benzo(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	%Recovery	Recovery Limits
2-Fluorophenol	73	25-121
Phenol-d5	75	24-113
2,4,6-Tribromophenol	55	19-122
Nitrobenzene-d5	78	23-120
2-Fluorobiphenyl	82	30-115
Terphenyl-d14	94	18-137

Semivolatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

Field ID: SCITP-33@4.0
Lab ID: 129135-006
Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 5

Sampled: 04/30/97
Received: 05/01/97
Extracted: 05/06/97
Analyzed: 05/15/97

Analyte	Result	Reporting Limit
Phenol	ND	1700
2-Chlorophenol	ND	1700
Benzyl alcohol	ND	1700
2-Methylphenol	ND	1700
4-Methylphenol	ND	1700
2-Nitrophenol	ND	8300
2,4-Dimethylphenol	ND	1700
Benzoic acid	ND	8300
2,4-Dichlorophenol	ND	1700
4-Chloro-3-methylphenol	ND	1700
2,4,6-Trichlorophenol	ND	1700
2,4,5-Trichlorophenol	ND	8300
2,4-Dinitrophenol	ND	8300
4-Nitrophenol	ND	8300
4,6-Dinitro-2-methylphenol	ND	8300
Pentachlorophenol	ND	8300
N-Nitrosodimethylamine	ND	1700
Aniline	ND	1700
bis(2-Chloroethyl)ether	ND	1700
1,3-Dichlorobenzene	ND	1700
1,4-Dichlorobenzene	ND	1700
1,2-Dichlorobenzene	ND	1700
bis(2-Chloroisopropyl) ether	ND	1700
N-Nitroso-di-n-propylamine	ND	1700
Hexachloroethane	ND	1700
Nitrobenzene	ND	1700
Isophorone	ND	1700
bis(2-Chloroethoxy)methane	ND	1700
1,2,4-Trichlorobenzene	ND	1700
Naphthalene	7600	1700
4-Chloroaniline	ND	1700
Hexachlorobutadiene	ND	1700
2-Methylnaphthalene	8700	1700
Hexachlorocyclopentadiene	ND	1700
2-Chloronaphthalene	ND	1700
2-Nitroaniline	ND	8300
Dimethylphthalate	ND	1700
Acenaphthylene	ND	1700

Semivolatile Organics by GC/MS

Field ID:	SCITP-33@4.0	Sampled:	04/30/97
Lab ID:	129135-006	Received:	05/01/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/15/97
Units:	ug/Kg		
Diln Fac:	5		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	1700
3-Nitroaniline	ND	8300
Acenaphthene	1900	1700
Dibenzofuran	1100 J	1700
2,4-Dinitrotoluene	ND	1700
Diethylphthalate	ND	1700
4-Chlorophenyl-phenylether	ND	1700
Fluorene	1900	1700
4-Nitroaniline	ND	8300
N-Nitrosodiphenylamine	ND	1700
Azobenzene	ND	1700
4-Bromophenyl-phenylether	ND	1700
Hexachlorobenzene	ND	1700
Phenanthrene	5200	1700
Anthracene	1500 J	1700
Di-n-butylphthalate	ND	1700
Fluoranthene	2800	1700
Benzidine	ND	1700
Pyrene	3300	1700
Butylbenzylphthalate	ND	1700
3,3'-Dichlorobenzidine	ND	8300
Benzo(a)anthracene	1200 J	1700
Chrysene	1300 J	1700
bis(2-Ethylhexyl)phthalate	ND	1700
Di-n-octylphthalate	ND	1700
Benzo(b)fluoranthene	ND	1700
Benzo(k)fluoranthene	1400 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

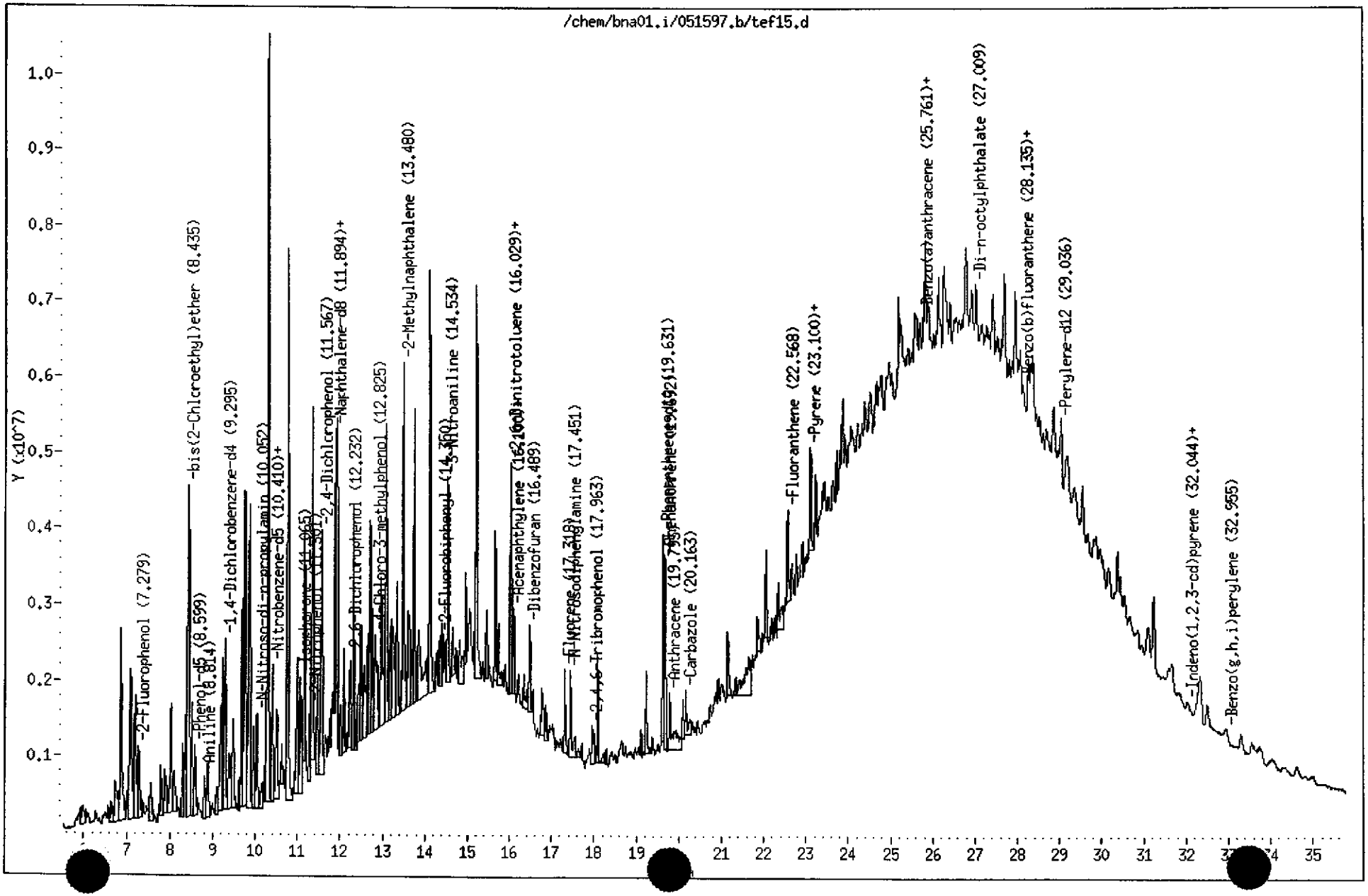
Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	79	25-121
Phenol-d5	84	24-113
2,4,6-Tribromophenol	67	19-122
Nitrobenzene-d5	83	23-120
2-Fluorobiphenyl	85	30-115
Terphenyl-d14	105	18-137

J: Estimated Value

Data File: /chem/bna01.i/051597.b/tef15.d
Date : 15-MAY-97 23:45
Client ID: CURTIS&TOMPKINS
Sample Info: 8270,,33817,30,1000,5,
Volume Injected (uL): 1.0
Column phase: Xti 5 x .5 u

Instrument: bna01.i

Operator: dsh
Column diameter: 0.25



Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		
Field ID:	TP-32	Sampled:	04/30/97
Lab ID:	129135-007	Received:	05/01/97
Matrix:	Water	Extracted:	05/05/97
Batch#:	33805	Analyzed:	05/14/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Phenol	ND	9.4
2-Chlorophenol	ND	9.4
Benzyl alcohol	ND	9.4
2-Methylphenol	ND	9.4
4-Methylphenol	ND	9.4
2-Nitrophenol	ND	47
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
2,4-Dichlorophenol	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	47
2,4-Dinitrophenol	ND	47
4-Nitrophenol	ND	47
4,6-Dinitro-2-methylphenol	ND	47
Pentachlorophenol	ND	47
N-Nitrosodimethylamine	ND	9.4
Aniline	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
1,2-Dichlorobenzene	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
bis(2-Chloroethoxy)methane	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	47
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4

Semivolatile Organics by GC/MS

Field ID:	TP-32	Sampled:	04/30/97
Lab ID:	129135-007	Received:	05/01/97
Matrix:	Water	Extracted:	05/05/97
Batch#:	33805	Analyzed:	05/14/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	47
Acenaphthene	ND	9.4
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
Fluorene	ND	9.4
4-Nitroaniline	ND	47
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	47
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	67	21-110
Phenol-d5	73	10-110
2,4,6-Tribromophenol	75	10-123
Nitrobenzene-d5	79	35-114
2-Fluorobiphenyl	80	43-116
Terphenyl-d14	37	33-141

Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	TP-31	Sampled:	04/30/97
Lab ID:	129135-008	Received:	05/01/97
Matrix:	Water	Extracted:	05/05/97
Batch#:	33805	Analyzed:	05/14/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Phenol	ND	9.4
2-Chlorophenol	ND	9.4
Benzyl alcohol	ND	9.4
2-Methylphenol	ND	9.4
4-Methylphenol	ND	9.4
2-Nitrophenol	ND	47
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
2,4-Dichlorophenol	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	47
2,4-Dinitrophenol	ND	47
4-Nitrophenol	ND	47
4,6-Dinitro-2-methylphenol	ND	47
Pentachlorophenol	ND	47
N-Nitrosodimethylamine	ND	9.4
Aniline	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
1,2-Dichlorobenzene	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
bis(2-Chloroethoxy)methane	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	47
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4

Semivolatile Organics by GC/MS

Field ID:	TP-31	Sampled:	04/30/97
Lab ID:	129135-008	Received:	05/01/97
Matrix:	Water	Extracted:	05/05/97
Batch#:	33805	Analyzed:	05/14/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	47
Acenaphthene	ND	9.4
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
Fluorene	ND	9.4
4-Nitroaniline	ND	47
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	47
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	52	21-110
Phenol-d5	59	10-110
2,4,6-Tribromophenol	59	10-123
Nitrobenzene-d5	69	35-114
2-Fluorobiphenyl	58	43-116
Terphenyl-d14	19*	33-141

* Values outside of QC limits

Curtis & Tompkins, Ltd.

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33805
Units: ug/L
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/12/97

MB Lab ID: QC45431

Analyte	Result	Reporting Limit
Phenol	ND	10
2-Chlorophenol	ND	10
Benzyl alcohol	ND	10
2-Methylphenol	ND	10
4-Methylphenol	ND	10
2-Nitrophenol	ND	50
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
2,4-Dichlorophenol	ND	10
4-Chloro-3-methylphenol	ND	10
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	50
2,4-Dinitrophenol	ND	50
4-Nitrophenol	ND	50
4,6-Dinitro-2-methylphenol	ND	50
Pentachlorophenol	ND	10
N-Nitrosodimethylamine	ND	10
Aniline	ND	10
bis(2-Chloroethyl)ether	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
1,2-Dichlorobenzene	ND	10
bis(2-Chloroisopropyl) ether	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
bis(2-Chloroethoxy)methane	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	50
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	50

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33805
Units: ug/L
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/12/97

MB Lab ID: QC45431

Analyte	Result	Reporting Limit
Acenaphthene	ND	10
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
4-Chlorophenyl-phenylether	ND	10
Fluorene	ND	10
4-Nitroaniline	ND	50
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	50
Benzo(a)anthracene	ND	10
Chrysene	ND	10
bis(2-Ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%Rec	Recovery Limits
2-Fluorophenol	63	21-110
Phenol-d5	66	10-110
2,4,6-Tribromophenol	63	10-123
Nitrobenzene-d5	70	35-114
2-Fluorobiphenyl	73	43-116
Terphenyl-d14	78	33-141

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33805
Units: ug/L
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/12/97

BS Lab ID: QC45432

Analyte	Spike Added	BS	%Rec #	Limits
Phenol	100	70.24	70	12-110
2-Chlorophenol	100	74.7	75	27-123
4-Chloro-3-methylphenol	100	68.06	68	23-97
4-Nitrophenol	100	59.07	59	10-80
Pentachlorophenol	100	50	50	9-103
1,4-Dichlorobenzene	50	31.69	63	36-97
N-Nitroso-di-n-propylamine	50	28.99	58	41-116
1,2,4-Trichlorobenzene	50	33.32	67	39-98
Acenaphthene	50	37.69	75	46-118
2,4-Dinitrotoluene	50	29.82	60	24-96
Pyrene	50	38.05	76	26-127

Surrogate	%Rec	Limits
2-Fluorophenol	67	21-110
Phenol-d5	69	10-110
2,4,6-Tribromophenol	69	10-123
Nitrobenzene-d5	76	35-114
2-Fluorobiphenyl	81	43-116
Terphenyl-d14	83	33-141

BSD Lab ID: QC45433

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Phenol	100	70.21	70	12-110	0	42
2-Chlorophenol	100	73.55	74	27-123	1	40
4-Chloro-3-methylphenol	100	69.2	69	23-97	1	42
4-Nitrophenol	100	59.97	60	10-80	2	50
Pentachlorophenol	100	45.57	46	9-103	8	50
1,4-Dichlorobenzene	50	30.59	61	36-97	3	28
N-Nitroso-di-n-propylamine	50	31.11	62	41-116	7	38
1,2,4-Trichlorobenzene	50	32.48	65	39-98	3	28
Acenaphthene	50	38.02	76	46-118	1	31
2,4-Dinitrotoluene	50	30.46	61	24-96	2	38
Pyrene	50	40.76	82	26-127	8	31

Surrogate	%Rec	Limits
2-Fluorophenol	63	21-110
Phenol-d5	68	10-110
2,4,6-Tribromophenol	71	10-123
Nitrobenzene-d5	75	35-114
2-Fluorobiphenyl	80	43-116
Terphenyl-d14	89	33-141

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

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

MB Lab ID: QC45465

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

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

MB Lab ID: QC45465

Analyte	Result	Reporting Limit
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
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)fluoranthene	ND	330
Benzo(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	69	25-121
Phenol-d5	69	24-113
2,4,6-Tribromophenol	52	19-122
Nitrobenzene-d5	73	23-120
2-Fluorobiphenyl	79	30-115
Terphenyl-d14	84	18-137

Curtis & Tompkins, Ltd.

Lab #: 129135 BATCH QC REPORT

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129111-003
Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Sample Date: 04/28/97
Received Date: 04/30/97
Prep Date: 05/06/97
Analysis Date: 05/09/97

MS Lab ID: QC45467

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Phenol	3333	<333.3	2384	72	26-90
2-Chlorophenol	3333	<333.3	2435	73	25-102
4-Chloro-3-methylphenol	3333	<333.3	2481	74	26-103
4-Nitrophenol	3333	<1667	2046	61	11-114
Pentachlorophenol	3333	<1667	1488	45	17-109
1,4-Dichlorobenzene	1667	<333.3	977.1	59	28-104
N-Nitroso-di-n-propylamine	1667	<333.3	1043	63	41-126
1,2,4-Trichlorobenzene	1667	<333.3	1080	65	38-107
Acenaphthene	1667	<333.3	1235	74	31-137
2,4-Dinitrotoluene	1667	<333.3	1004	60	28-89
Pyrene	1667	<333.3	1390	83	35-142

Surrogate	%Rec	Limits
2-Fluorophenol	68	25-121
Phenol-d5	69	24-113
2,4,6-Tribromophenol	65	19-122
Nitrobenzene-d5	70	23-120
2-Fluorobiphenyl	79	30-115
Terphenyl-d14	89	18-137

MSD Lab ID: QC45468

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Phenol	3333	2730	82	26-90	13	35
2-Chlorophenol	3333	2819	85	25-102	15	50
4-Chloro-3-methylphenol	3333	2651	80	26-103	8	33
4-Nitrophenol	3333	2239	67	11-114	9	50
Pentachlorophenol	3333	1563	47	17-109	4	47
1,4-Dichlorobenzene	1667	1209	73	28-104	21	27
N-Nitroso-di-n-propylamine	1667	1234	74	41-126	16	38
1,2,4-Trichlorobenzene	1667	1284	77	38-107	17	23
Acenaphthene	1667	1371	82	31-137	10	19
2,4-Dinitrotoluene	1667	1109	67	28-89	11	47
Pyrene	1667	1470	88	35-142	6	36

Surrogate	%Rec	Limits
2-Fluorophenol	80	25-121
Phenol-d5	80	24-113
2,4,6-Tribromophenol	70	19-122
Nitrobenzene-d5	84	23-120
2-Fluorobiphenyl	90	30-115
Terphenyl-d14	94	18-137

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

Lab #: 129135

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

LCS Lab ID: QC45466

Analyte	Result	Spike Added	%Rec #	Limits
Phenol	2788	3333	84	26-90
2-Chlorophenol	2943	3333	88	25-102
4-Chloro-3-methylphenol	2700	3333	81	26-103
4-Nitrophenol	2161	3333	65	11-114
Pentachlorophenol	1631	3333	49	17-109
1,4-Dichlorobenzene	1351	1667	81	28-104
N-Nitroso-di-n-propylamine	1257	1667	75	41-126
1,2,4-Trichlorobenzene	1367	1667	82	38-107
Acenaphthene	1413	1667	85	31-137
2,4-Dinitrotoluene	1119	1667	67	28-89
Pyrene	1512	1667	91	35-142

Surrogate	%Rec	Limits
2-Fluorophenol	82	25-121
Phenol-d5	82	24-113
2,4,6-Tribromophenol	68	19-122
Nitrobenzene-d5	87	23-120
2-Fluorobiphenyl	92	30-115
Terphenyl-d14	96	18-137

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
DO: Surrogate diluted out

Curtis & Tompkins, Ltd.

SAMPLE ID: SCITP-33@4.0
LAB ID: 129135-006
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Soil

DATE SAMPLED: 04/30/97
DATE RECEIVED: 05/01/97
DATE REPORTED: 05/15/97

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	2.9	1	33861	EPA 6010A	05/09/97
Arsenic	26	0.24	1	33861	EPA 6010A	05/09/97
Barium	82	0.48	1	33861	EPA 6010A	05/09/97
Beryllium	0.34	0.097	1	33861	EPA 6010A	05/09/97
Cadmium	1.9	0.097	1	33861	EPA 6010A	05/09/97
Chromium (total)	89	0.48	1	33861	EPA 6010A	05/09/97
Cobalt	8.6	0.97	1	33861	EPA 6010A	05/09/97
Copper	90	0.48	1	33861	EPA 6010A	05/09/97
Lead	170	0.14	1	33861	EPA 6010A	05/09/97
Mercury	0.15	0.095	1	33845	EPA 7471	05/07/97
Molybdenum	1.2	0.97	1	33861	EPA 6010A	05/09/97
Nickel	45	0.97	1	33861	EPA 6010A	05/09/97
Selenium	ND	0.24	1	33861	EPA 6010A	05/09/97
Silver	ND	0.48	1	33861	EPA 6010A	05/09/97
Thallium	ND	0.24	1	33861	EPA 6010A	05/09/97
Vanadium	82	0.48	1	33861	EPA 6010A	05/09/97
Zinc	240	0.97	1	33861	EPA 6010A	05/09/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129135
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 04/30/97
DATE RECEIVED: 05/01/97
DATE ANALYZED: 05/13/97
BATCH#: 33953

ANALYSIS: HEXAVALENT CHROMIUM
ANALYSIS METHOD: EPA 7196A

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129135-001	SCIMW-26@3.5'	ND	mg/Kg	0.05
129135-002	SCIMW-27@3.5'	ND	mg/Kg	0.05
129135-003	SCIMW-28@3.5'	ND	mg/Kg	0.05
METHOD BLANK	N/A	ND	mg/Kg	0.05

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/SAMPLE DUPLICATE OF 129135-001

RPD, %	<1
RECOVERY, %	101

CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Soil

DATE REPORTED: 05/15/97

Metals Analytical Report

				Lead					
Sample ID	Lab ID	Sample Date	Receive Date	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
SCIMW-28@3.5	129135-003	04/30/97	05/01/97	0.14	0.0015	1	33861	EPA 6010A	05/09/97
SCITP-32@2.5	129135-005	04/30/97	05/01/97	8.2	0.15	1	33861	EPA 6010A	05/09/97

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Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129135

DATE REPORTED: 05/15/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Antimony	ND	3	mg/Kg	1	33861	EPA 6010A	05/08/97
Arsenic	ND	0.25	mg/Kg	1	33861	EPA 6010A	05/08/97
Barium	ND	0.5	mg/Kg	1	33861	EPA 6010A	05/08/97
Beryllium	ND	0.1	mg/Kg	1	33861	EPA 6010A	05/08/97
Cadmium	ND	0.1	mg/Kg	1	33861	EPA 6010A	05/08/97
Chromium (total)	ND	0.5	mg/Kg	1	33861	EPA 6010A	05/08/97
Cobalt	ND	1	mg/Kg	1	33861	EPA 6010A	05/08/97
Copper	ND	0.5	mg/Kg	1	33861	EPA 6010A	05/08/97
Lead	ND	0.15	mg/Kg	1	33861	EPA 6010A	05/08/97
Mercury	ND	0.1	mg/Kg	1	33845	EPA 7471	05/07/97
Molybdenum	ND	1	mg/Kg	1	33861	EPA 6010A	05/08/97
Nickel	ND	1	mg/Kg	1	33861	EPA 6010A	05/08/97
Selenium	ND	0.25	mg/Kg	1	33861	EPA 6010A	05/08/97
Silver	ND	0.5	mg/Kg	1	33861	EPA 6010A	05/08/97
Thallium	ND	0.25	mg/Kg	1	33861	EPA 6010A	05/08/97
Vanadium	ND	0.5	mg/Kg	1	33861	EPA 6010A	05/08/97
Zinc	ND	1	mg/Kg	1	33861	EPA 6010A	05/08/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129135

DATE REPORTED: 05/15/97

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	24.1	23.5	mg/Kg	96	94	80-120	3	35	33861	EPA 6010A	05/08/97
Arsenic	100	91.5	94	mg/Kg	92	94	80-120	3	35	33861	EPA 6010A	05/08/97
Barium	100	92	94	mg/Kg	92	94	80-120	2	35	33861	EPA 6010A	05/08/97
Beryllium	2.5	2.385	2.46	mg/Kg	95	98	80-120	3	35	33861	EPA 6010A	05/08/97
Cadmium	2.5	2.385	2.485	mg/Kg	95	99	80-120	4	35	33861	EPA 6010A	05/08/97
Chromium (total)	10	9	9.15	mg/Kg	90	92	80-120	2	35	33861	EPA 6010A	05/08/97
Cobalt	25	23.25	23.75	mg/Kg	93	95	80-120	2	35	33861	EPA 6010A	05/08/97
Copper	12.5	12.5	12.75	mg/Kg	100	102	80-120	2	35	33861	EPA 6010A	05/08/97
Lead	25	23	23.55	mg/Kg	92	94	80-120	2	35	33861	EPA 6010A	05/08/97
Mercury	5	4.729	4.815	ug/L	95	96	80-120	2	35	33845	EPA 7470	05/07/97
Molybdenum	20	18.35	18.8	mg/Kg	92	94	80-120	2	35	33861	EPA 6010A	05/08/97
Nickel	25	23	23.4	mg/Kg	92	94	80-120	2	35	33861	EPA 6010A	05/08/97
Selenium	100	88.5	89.5	mg/Kg	89	90	80-120	1	35	33861	EPA 6010A	05/08/97
Silver	5	4.995	5	mg/Kg	100	100	80-120	0	35	33861	EPA 6010A	05/08/97
Thallium	100	88.5	91	mg/Kg	89	91	80-120	3	35	33861	EPA 6010A	05/08/97
Vanadium	25	23.25	23.65	mg/Kg	93	95	80-120	2	35	33861	EPA 6010A	05/08/97
Zinc	25	21.25	21.75	mg/Kg	85	87	80-120	2	35	33861	EPA 6010A	05/08/97

CHAIN OF CUSTODY FORM

(29135

PAGE ___ OF ___

PROJECT NAME: ___

JOB NUMBER: 133.00

LAB: Curtis & Tompkins

PROJECT CONTACT: J. Alexander / J. deVries

TURNAROUND: Normal

SAMPLED BY: JW / CS

REQUESTED BY: M Mendoza

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	CONTAINERS: VOA	LITER	PINT	TUBE	METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE NaOH	SAMPLING DATE: MONTH	DAY	YEAR	NOTES	ANALYSIS REQUESTED: TVH/BTEX 8015	TEH Extended Range 8015	VOC 8240	SVOC 8270	Chl Pest + PCBs 8080	Lead	O+G SM 5520	Cyanide
7	TP-32	X					3	3					X		04	30	97			X		X	X			
7	TP 32						1			X			X		04	30	97								X	
7	TP 32						1						X	X	04	30	97									
7	TP 32					6				X			X		04	30	97		X		X					
8	TP-31	X					3	3					X		04	30	97			X		X	X			
8	TP 31						1			X			X		04	30	97								X	
8	TP 31						1						X	X	04	30	97									X
8	TP 31					6				X			X		04	30	97		X		X					

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
[signature]	5/1/97 1730	[signature]	5/1/97 1730

COMMENTS & NOTES:

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

CHAIN OF COUSTODY FORM

129135

PAGE ___ OF ___

PROJECT NAME: KOT

JOB NUMBER: 133 CC+

PROJECT CONTACT: Jerome de Verrier

SAMPLED BY: Jerome de Verrier

LAB: C&T

TURNAROUND: std.

REQUESTED BY: SD

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	NOTES	ANALYSIS REQUESTED: O&G	TVH/BTEX	TEH	8240	Chromium 6+	CN-	8080	Lead	8270	pH	nitrate/nitrite	K	phosphate	Heavy metals
-1	SCIMW-26@35		X								X						X		04	30	97		X	X	X	X	X	X								
-2	SCIMW-27@3½		↓								↓						↓			↓			X	X	X	X	X	X								
-3	SCIMW-28@3½		↓								↓						↓			↓			X	X	X	X	X	X	X	X	X					
-4	SCITP-31@1.2		↓								↓						↓			↓			X	X	X	X			X							
-5	SCITP-32@2.5		↓								↓						↓			↓			X	X	X	X			X	X	X					
-6	SCITP-33@4.0		↓								↓						↓			↓			SD	X	X	X	SD	SD		SD	X	SD	SD	SD	SD	X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Jerome [signature]	5/1/97 1130	[signature]	5/1/97 1730
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 19-MAY-97
Lab Job Number: 129142
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: Tracy Babyak

Reviewed by: _____

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129142

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD: SMWW 17:5520BF**

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129142-001	SCITP 33B	Water	01-MAY-97	02-MAY-97	12-MAY-97	8.6	mg/L	5	DLP	33926

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129142

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD:** SMWW 17:5520EF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129142-002	SCITP-33B@6.5	Soil	02-MAY-97	02-MAY-97	14-MAY-97	430	mg/Kg	50	DLP	33972
129142-003	SCITP-33C@4.5	Soil	01-MAY-97	02-MAY-97	14-MAY-97	450	mg/Kg	50	DLP	33972
129142-004	SCITP-33D@4.0	Soil	02-MAY-97	02-MAY-97	14-MAY-97	64.	mg/Kg	50	DLP	33972
129142-005	SCITP-34@6.0	Soil	01-MAY-97	02-MAY-97	14-MAY-97	74.	mg/Kg	50	DLP	33972
129142-006	SCITP-34@9.0	Soil	01-MAY-97	02-MAY-97	14-MAY-97	ND	mg/Kg	50	DLP	33972

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129142
Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 33926**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	5	mg/L	SMWW 17:5520BF	12-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	94%	SMWW 17:5520BF	12-MAY-97
BSD	89%	SMWW 17:5520BF	12-MAY-97

		Control Limits
Average Spike Recovery	91%	80% - 120%
Relative Percent Difference	5.8%	< 20%

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129142
Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 33972**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	50	mg/Kg	SMWW 17:5520EF	14-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	85%	SMWW 17:5520EF	14-MAY-97
BSD	82%	SMWW 17:5520EF	14-MAY-97

		Control Limits
Average Spike Recovery	84%	80% - 120%
Relative Percent Difference	3.4%	< 20%

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129142-001	SCITP 33B	33846	05/01/97	05/08/97	05/08/97	

Matrix: Water

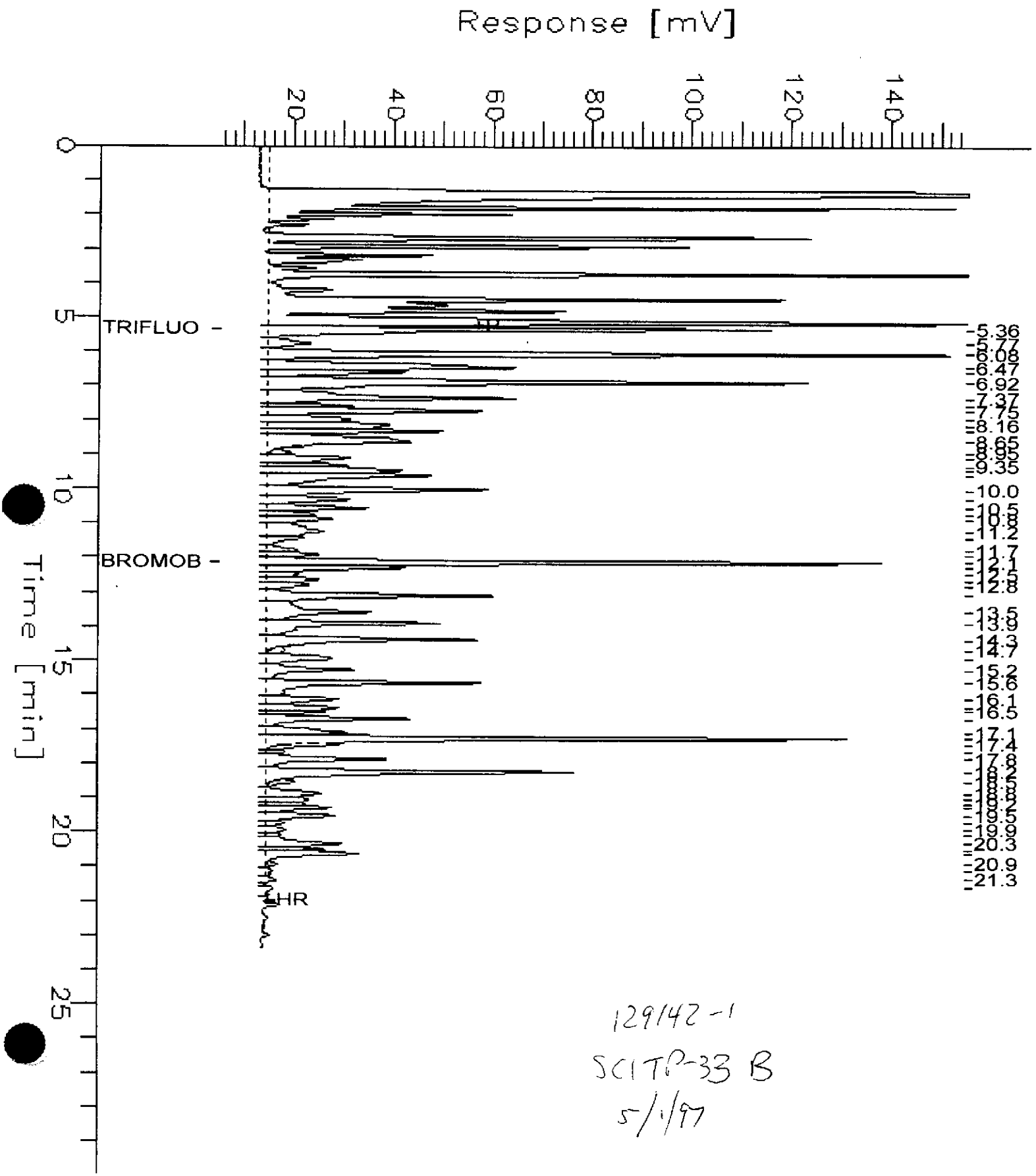
Analyte	Units	129142-001	
Diln Fac:		1	
Gasoline	ug/L	4400	
Surrogate			
Trifluorotoluene	%REC	112	
Bromobenzene	%REC	195	*

* Values outside of QC limits

GC05 RTX1 TVH Chromatogram

Sample Name : S,129142-001,RERUN,33846,
FileName : G:\GC05\DATA\127H040.RAW
Method :
Start Time : 0.00 min End Time : 30.00 min
Scale Factor: -1.0 Plot Offset: 5 mV

Sample #: Page 1 of 1
Date : 5/8/97 05:32 PM
Time of Injection: 5/8/97 11:53 AM
Low Point : 5.46 mV High Point : 155.46 mV
Plot Scale: 150.0 mV

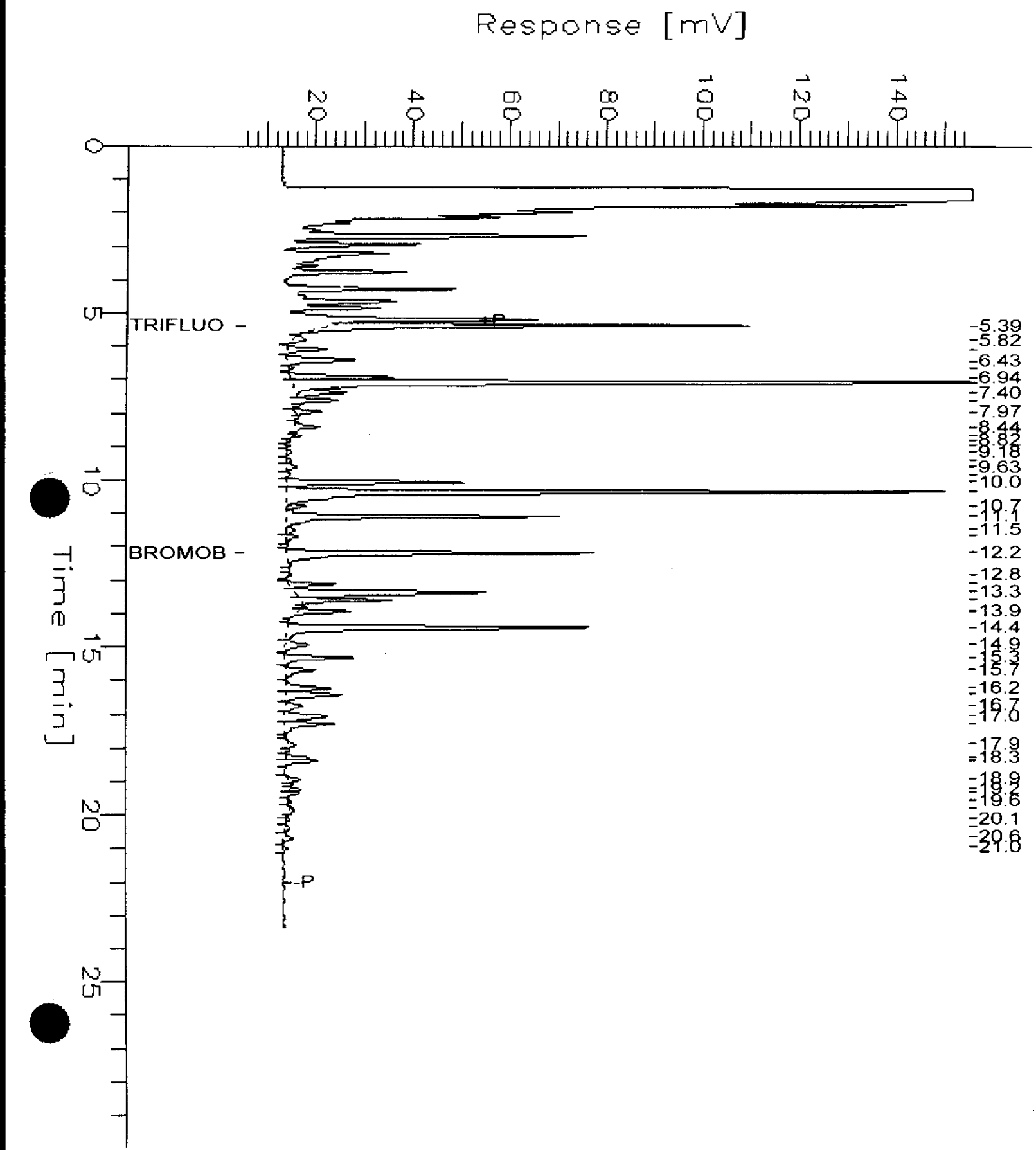


129142-1
SCITP-33 B
5/1/97

GC05 RTX1 TVH Chromatogram

Sample Name : CCV/LCS,QC45450,97WS4007,33812,
FileName : G:\GC05\DATA\126H002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 30.00 min
Scale Factor: -1.0 Plot Offset: 6 mV

Sample #: GAS Page 1 of 1
Date : 5/6/97 11:32 AM
Time of Injection: 5/6/97 11:08 AM
Low Point : 5.61 mV High Point : 155.61 mV
Plot Scale: 150.0 mV



TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129142-002	SCITP-33B@6.5	33928	05/02/97	05/13/97	05/13/97	
129142-003	SCITP-33C@4.5	33928	05/01/97	05/13/97	05/13/97	
129142-004	SCITP-33D@4.0	33889	05/02/97	05/09/97	05/09/97	
129142-005	SCITP-34@6.0	33889	05/01/97	05/09/97	05/09/97	

Matrix: Soil

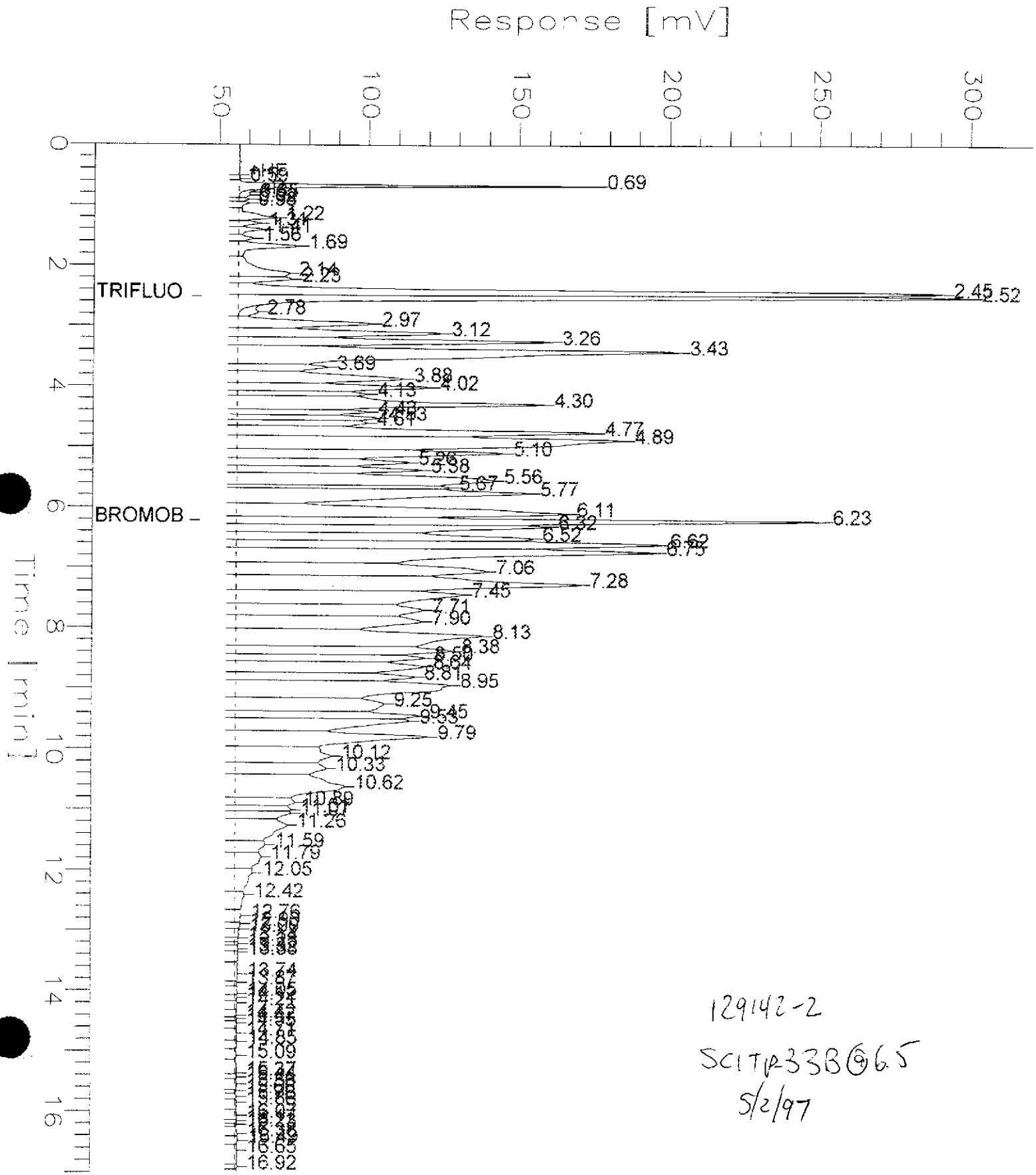
Analyte Diln Fac:	Units	129142-002 500	129142-003 250	129142-004 1	129142-005 1
Gasoline	mg/Kg	1900 Y	1900	<1	<1
Surrogate					
Trifluorotoluene	%REC	59	112	54	54
Bromobenzene	%REC	110	151 *	87	91

* Values outside of QC limits
Y: Sample exhibits fuel pattern which does not resemble standard

GC04 TVH 'J' Data File Rtx1FID

Sample Name : D,129142-002,33928,RERUN,
FileName : G:\GC04\DATA\133J013.raw
Method : TVMAR14
Start Time : 0.00 min End Time : 17.00 min
Scale Factor: 1.0 Plot Offset: 44 mV

Sample #: Page 1 of 1
Date : 5/13/97 07:58 AM
Time of Injection: 5/13/97 07:41 AM
Low Point : 44.16 mV High Point : 301.14 mV
Plot Scale: 257.0 mV

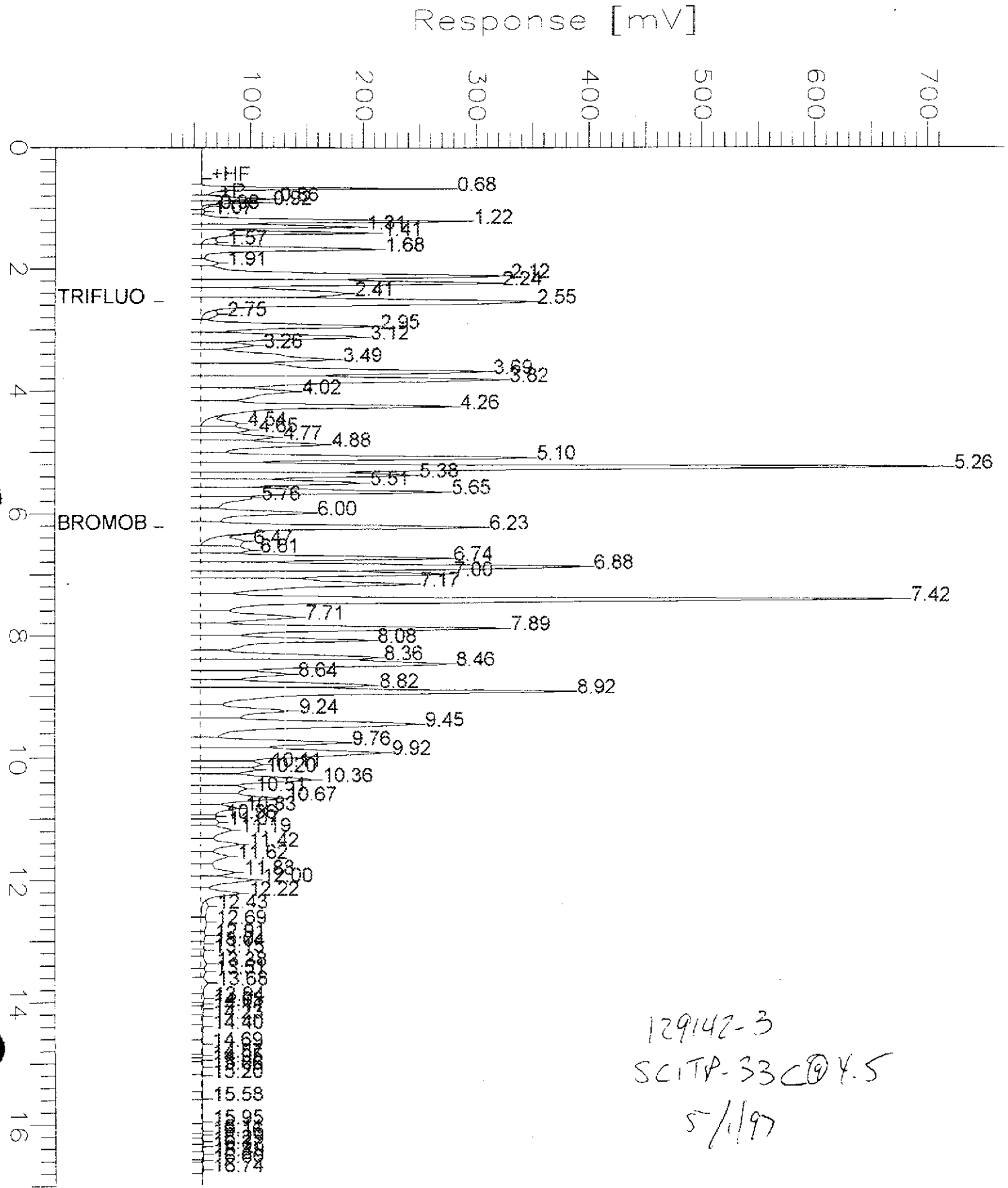


129142-2
SCITP33B@65
5/2/97

GC04 TVH 'J' Data File Rtx1FID

Sample Name : D,129142-003,33928,RERUN,
FileName : G:\GC04\DATA\133J011.raw
Method : TVMAR14
Start Time : 0.00 min End Time : 17.00 min
Scale Factor: 1.0 Plot Offset: 23 mV

Sample #: Page 1 of 1
Date : 5/13/97 07:02 AM
Time of Injection: 5/13/97 06:45 AM
Low Point : 23.44 mV High Point : 715.66 mV
Plot Scale: 692.2 mV

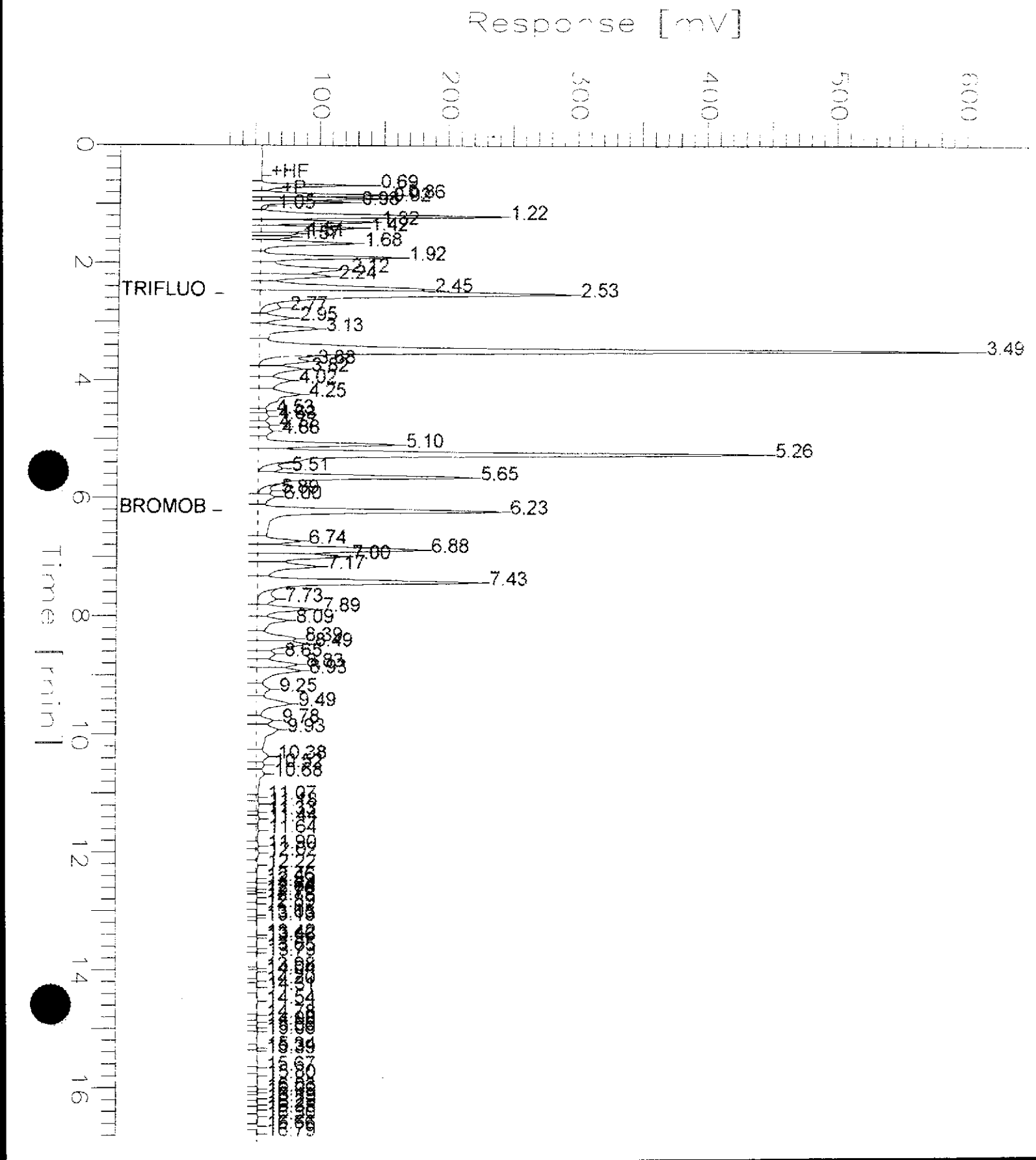


129142-3
SCITP-33C@4.5
5/1/97

GC04 TVH 'J' Data File Rtx1FID

Sample Name : LCS/CCV,QC45758,33889,
FileName : G:\GC04\DATA\129J002.raw
Method : TVMAR14
Start Time : 0.00 min End Time : 17.00 min
Scale Factor: 1.0 Plot Offset: 27 mV

Sample #: 97WS4007 G Page 1 of 1
Date : 5/9/97 10:39 AM
Time of Injection: 5/9/97 10:22 AM
Low Point : 27.20 mV High Point : 610.37 mV
Plot Scale: 583.2 mV



TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129142-006	SCITP-34@9.0	33889	05/01/97	05/09/97	05/09/97	

Matrix: Soil

Analyte	Units	129142-006
Diln Fac:		1
Gasoline	mg/Kg	<1
Surrogate		
Trifluorotoluene	%REC	53
Bromobenzene	%REC	87

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Water	Prep Date:	05/07/97
Batch#:	33846	Analysis Date:	05/07/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC45596

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	79	65-135
Bromobenzene	84	65-135

Lab #: 129142

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33846
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

LCS Lab ID: QC45594

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	2147	2000	107	75-125

Surrogate	%Rec	Limits
Trifluorotoluene	107	65-135
Bromobenzene	101	65-135

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 129142

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129182-002
Matrix: Water
Batch#: 33846
Units: ug/L
Diln Fac: 1

Sample Date: 05/06/97
Received Date: 05/06/97
Prep Date: 05/08/97
Analysis Date: 05/08/97

MS Lab ID: QC45597

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Benzene	20	2.44	20.11	88	75-125
Toluene	20	0.51	18.53	90	75-125
Ethylbenzene	20	<0.5	19.32	97	75-125
m,p-Xylenes	40	0.61	37.42	92	75-125
o-Xylene	20	<0.5	19.11	96	75-125

Surrogate	%Rec	Limits
Trifluorotoluene	79	58-130
Bromobenzene	90	62-131

MSD Lab ID: QC45598

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Benzene	20	19.72	86	75-125	2	20
Toluene	20	18.38	89	75-125	1	20
Ethylbenzene	20	18.91	95	75-125	2	20
m,p-Xylenes	40	36.29	89	75-125	3	20
o-Xylene	20	19.02	95	75-125	0	20

Surrogate	%Rec	Limits
Trifluorotoluene	77	58-130
Bromobenzene	90	62-131

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

Lab #: 129142

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33889
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/09/97
Analysis Date: 05/09/97

MB Lab ID: QC45760

Analyte	Result	
Gasoline	<1.0	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	52	52-127
Bromobenzene	88	45-140

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Soil	Prep Date:	05/13/97
Batch#:	33928	Analysis Date:	05/13/97
Units:	mg/Kg		
Diln Fac:	1		

MB Lab ID: QC45931

Analyte	Result	
Gasoline	<1.0	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	53	52-127
Bromobenzene	84	45-140

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

LABORATORY CONTROL SAMPLE

Matrix:	Soil	Prep Date:	05/09/97
Batch#:	33889	Analysis Date:	05/09/97
Units:	mg/Kg		
Diln Fac:	1		

LCS Lab ID: QC45758

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	9.16	10	92	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	79	52-127
Bromobenzene	115	45-140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 129142

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	05/07/97
Lab ID:	129217-001	Received Date:	05/08/97
Matrix:	Soil	Prep Date:	05/09/97
Batch#:	33889	Analysis Date:	05/09/97
Units:	mg/Kg		
Diln Fac:	1		

MS Lab ID: QC45761

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	10	2.24	9.21	70	65-135

Surrogate	%Rec	Limits
Trifluorotoluene	104	52-127
Bromobenzene	113	45-140

MSD Lab ID: QC45762

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	10	16.75	145 *	65-135	70 *	30

Surrogate	%Rec	Limits
Trifluorotoluene	95	52-127
Bromobenzene	108	45-140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 1 out of 1 outside limits
Spike Recovery: 1 out of 2 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Soil
Batch#: 33928
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/13/97

BS Lab ID: QC45932

Analyte	Spike Added	BS	%Rec #	Limits
Gasoline	10	9.49	95	80-120
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	86	52-127		
Bromobenzene	116	45-140		

BSD Lab ID: QC45933

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Gasoline	10	9.42	94	80-120	1	30
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	83	52-127				
Bromobenzene	117	45-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129142-001	SCITP 33B	33838	05/01/97	05/06/97	05/16/97	

Matrix: Water

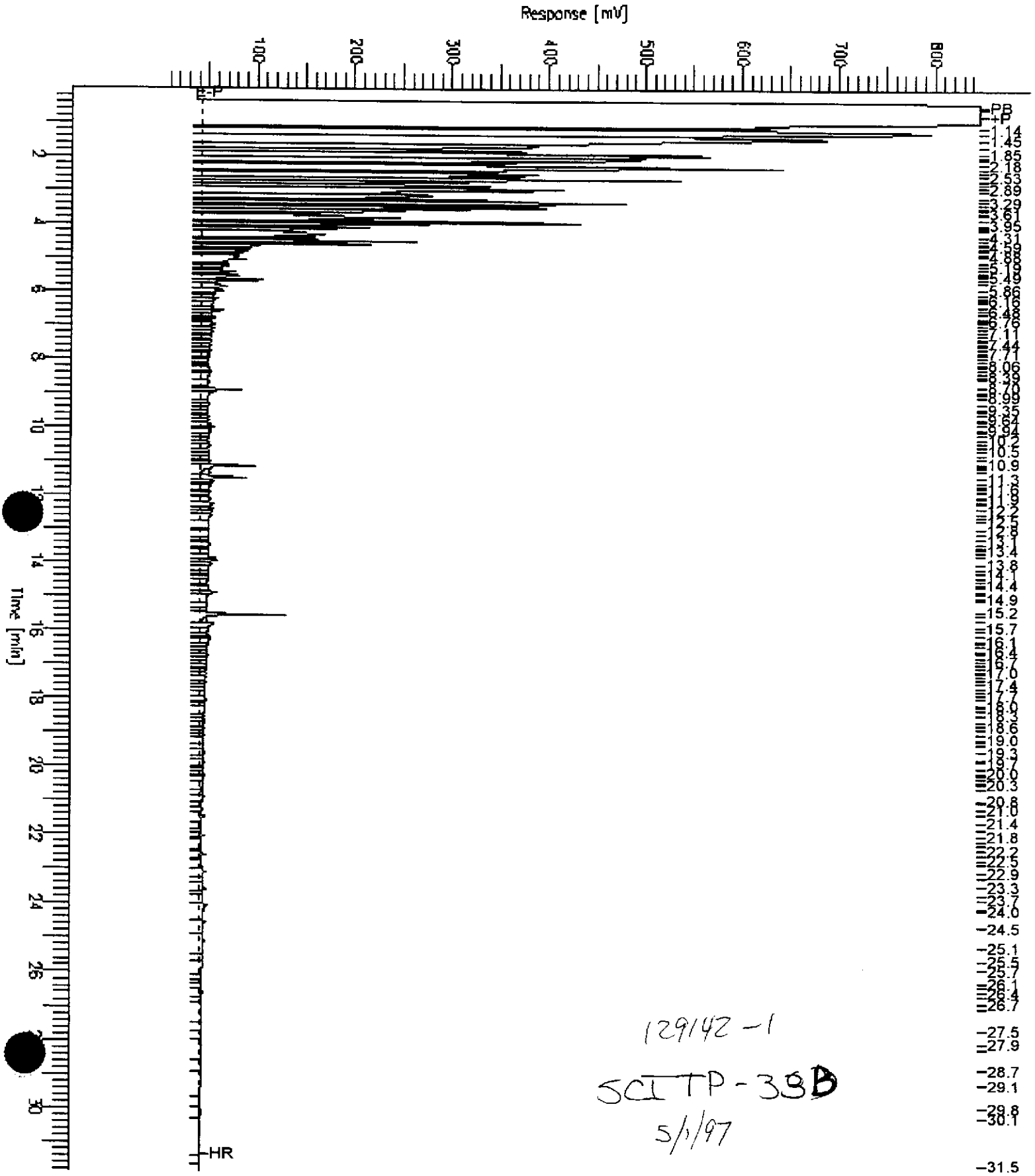
Analyte	Units	129142-001	
Diln Fac:		10	
Diesel C12-C22	ug/L	14000	YL
Motor Oil C22-C50	ug/L	5100	YL
Surrogate			
Hexacosane	%REC		DO

DO: Surrogate diluted out
Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

Chromatogram

Sample Name : 129142-001,33838
FileName : G:\GC11\CHB\135B020.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: 4 mV

Sample #: 33838 Page 1 of 1
Date : 5/19/97 09:28 AM
Time of Injection: 5/16/97 02:22 PM
Low Point : 3.62 mV High Point : 846.70 mV
Plot Scale: 843.1 mV



129142-1

SCITP-38B

5/1/97

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129142-002	SCITP-33B@6.5	33950	05/02/97	05/13/97	05/14/97	
129142-003	SCITP-33C@4.5	33950	05/01/97	05/13/97	05/14/97	
129142-004	SCITP-33D@4.0	33950	05/02/97	05/13/97	05/14/97	
129142-005	SCITP-34@6.0	33950	05/01/97	05/13/97	05/15/97	

Matrix: Soil

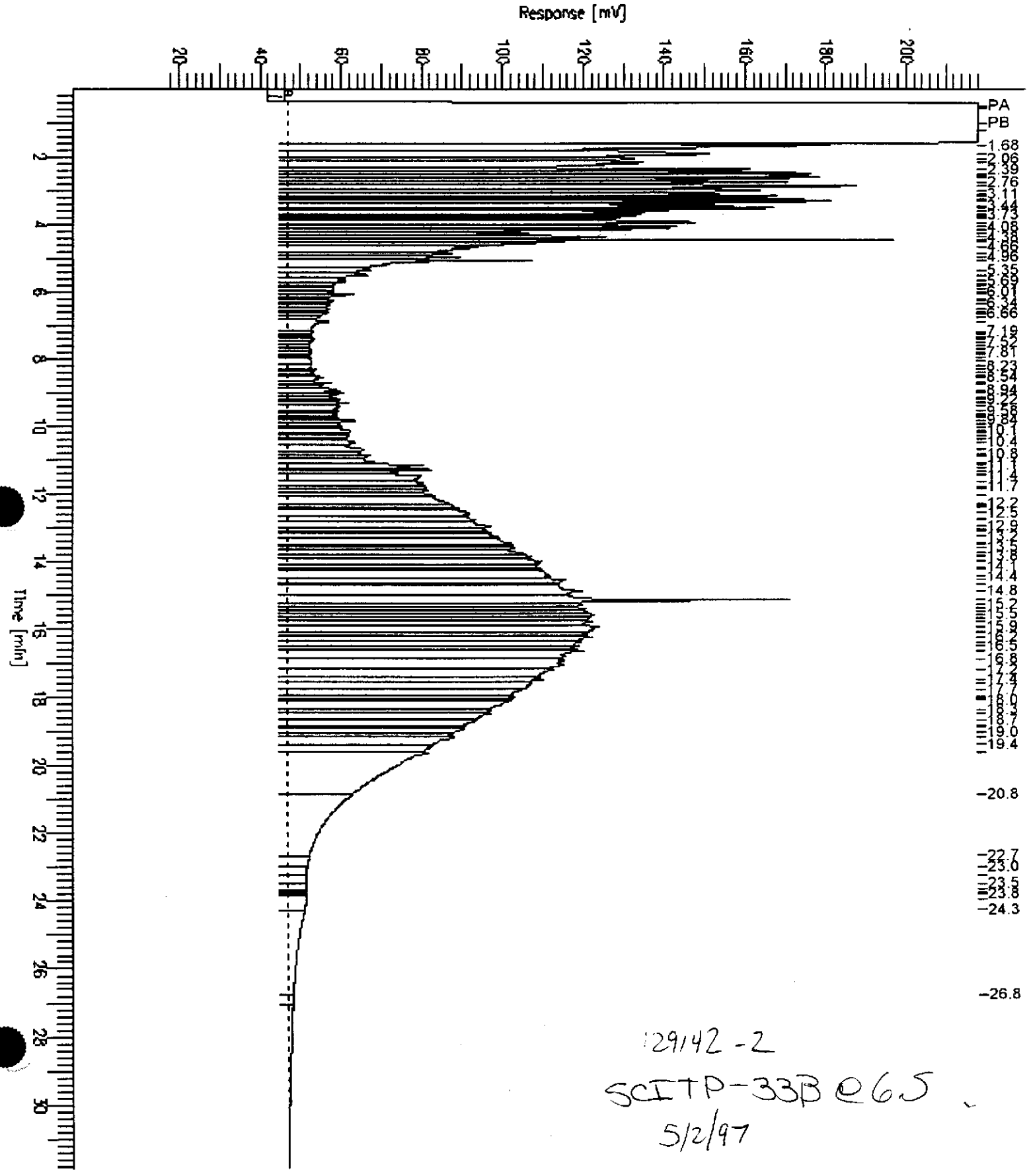
Analyte	Units	129142-002		129142-003		129142-004		129142-005	
Diln Fac:		10		1		1		1	
Diesel C12-C22	mg/Kg	330	YHL	200	LH	7.7	YH	100	YH
Motor Oil C22-C50	mg/Kg	1100	L	200	L	50	HL	310	LH
Surrogate									
Hexacosane	%REC		DO	82		69		79	

DO: Surrogate diluted out
Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

GC15 Channel B TEH

Sample Name : 129142-002,33950
FileName : G:\GC15\CHB\134B010.RAW
Method : B132TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 17 mV

Sample #: 33950 Page 1 of 1
Date : 5/15/97 10:35 AM
Time of Injection: 5/14/97 10:22 PM
Low Point : 16.53 mV High Point : 218.16 mV
Plot Scale: 201.6 mV

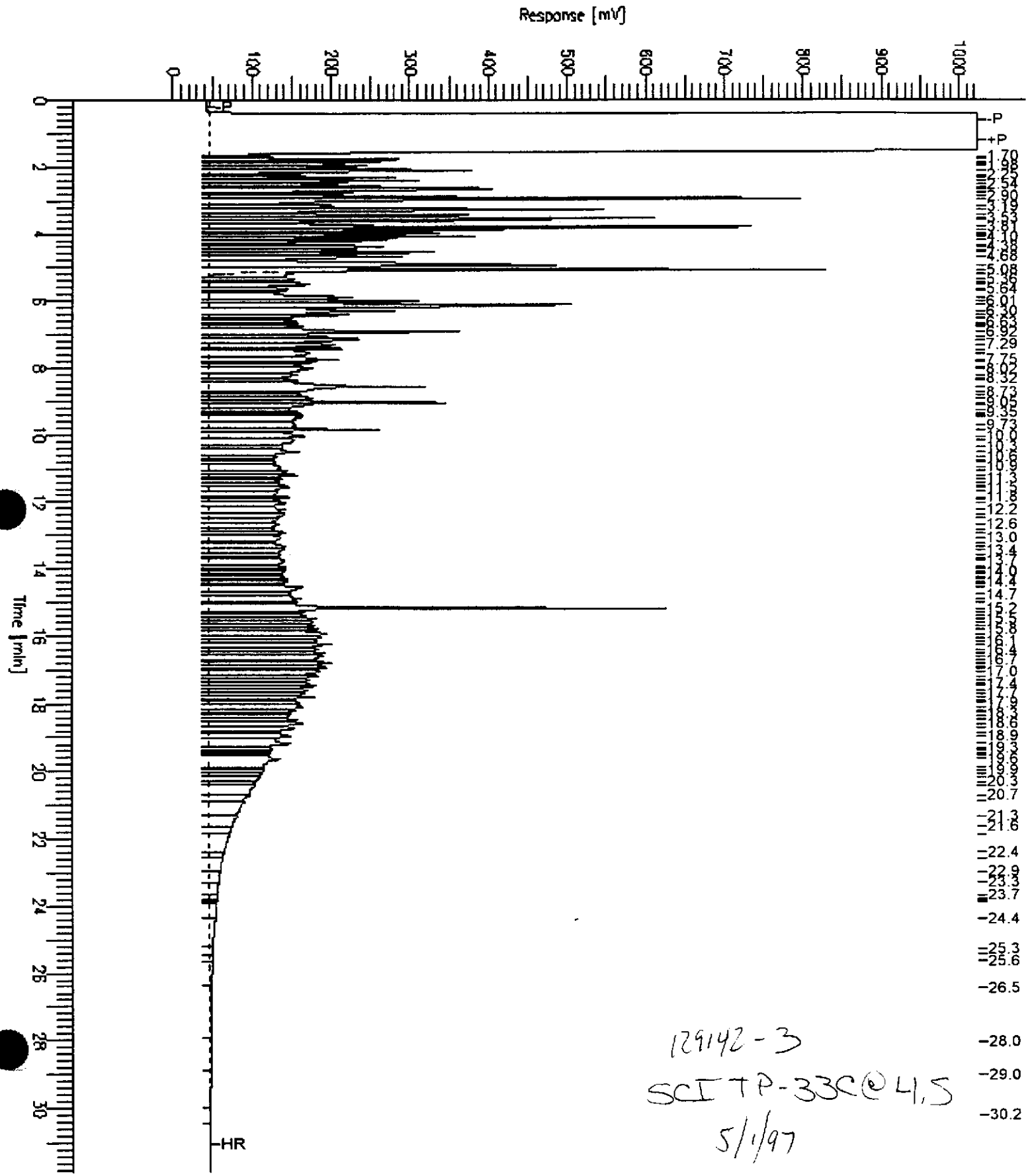


129142-2
SCITP-33B @65
5/2/97

GC15 Channel B TEH

Sample Name : 129142-003,33950
FileName : G:\GC15\CHB\134B011.RAW
Method : B132TEH.MTH
Start Time : 0.00 min End Time : 31.90 min
Slope Factor: 0.0 Plot Offset: -10 mV

Sample #: 33950 Page 1 of 1
Date : 5/15/97 11:22 AM
Time of Injection: 5/14/97 11:05 PM
Low Point : -9.84 mV High Point : 1024.00 mV
Plot Scale: 1033.8 mV

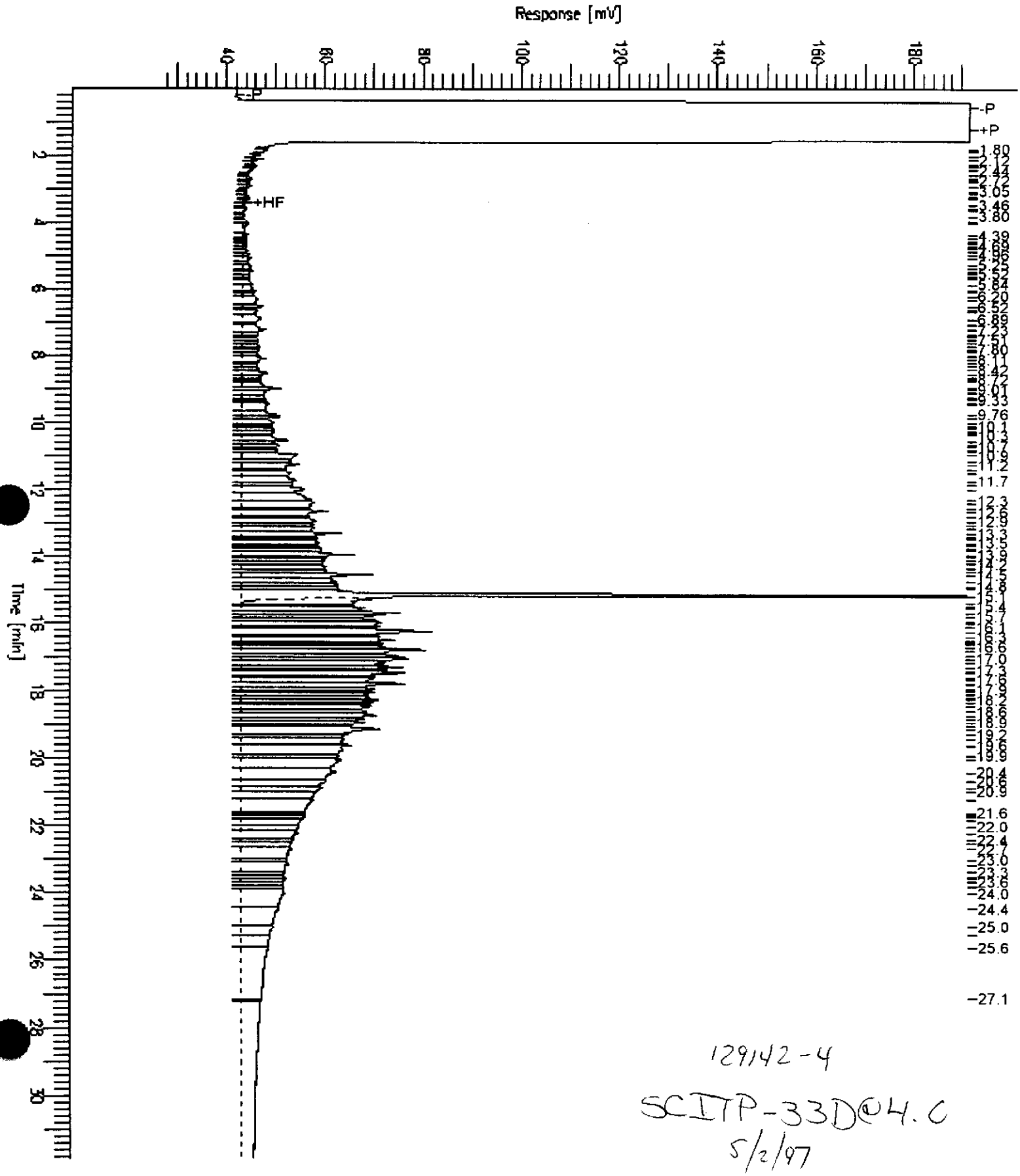


129142-3
SCI TP-33C @ 4,5
5/1/97

GC15 Channel B TEH

Sample Name : 129142-004,33950
FileName : G:\GC15\CHB\134B012.RAW
Method : B132TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 27 mV

Sample #: 33950 Page 1 of 1
Date : 5/15/97 11:24 AM
Time of Injection: 5/14/97 11:48 PM
Low Point : 27.28 mV High Point : 191.69 mV
Plot Scale: 164.4 mV



129142-4

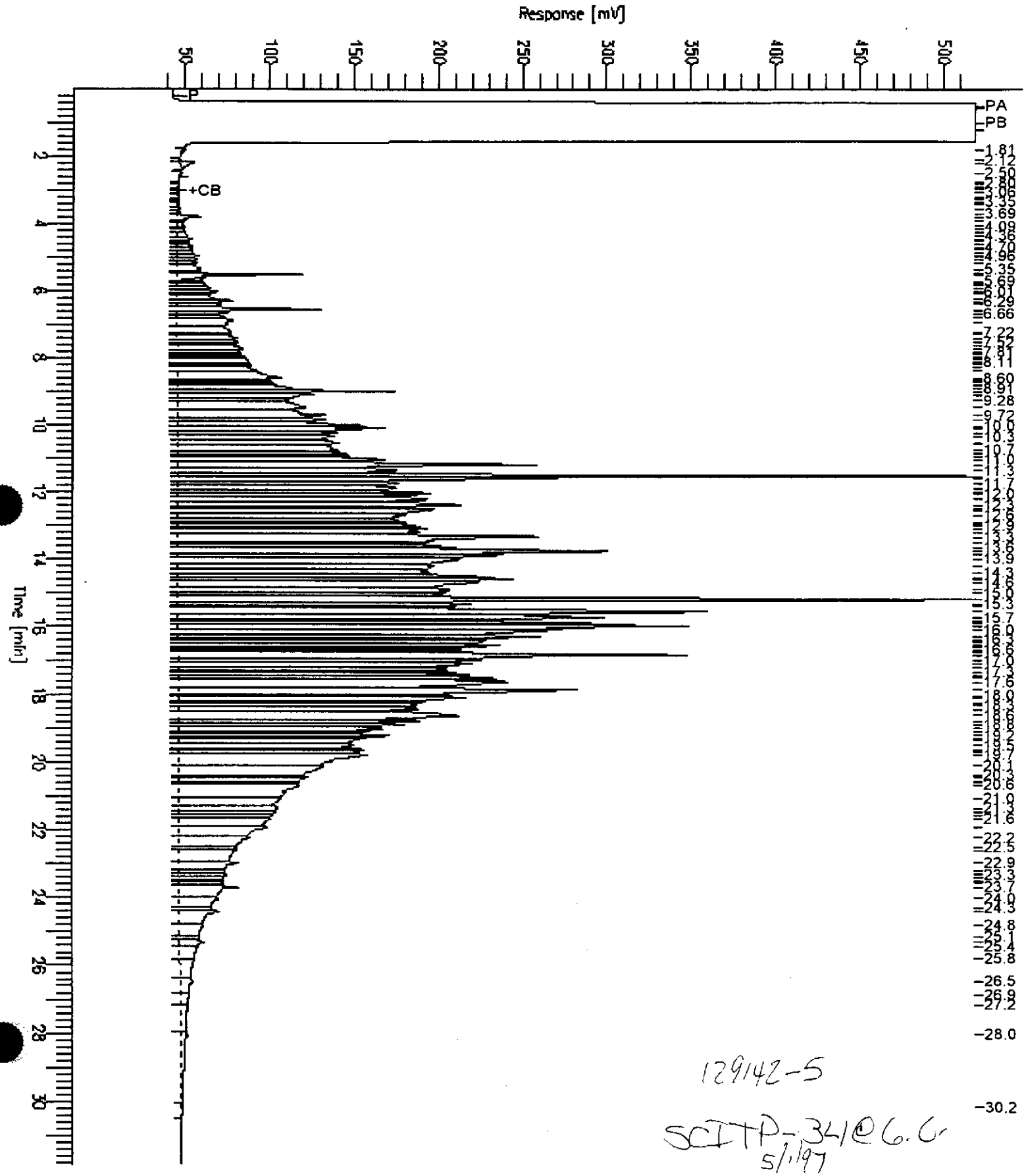
SCITP-33D@4.C

5/2/97

GC15 Channel B TEH

Sample Name : 129142-005,33950
FileName : G:\GC15\CHB\134B013.RAW
Method : B132TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Tile Factor: 0.0 Plot Offset: 39 mV

Sample #: 33950 Page 1 of 1
Date : 5/15/97 11:28 AM
Time of Injection: 5/15/97 12:31 AM
Low Point : 38.57 mV High Point : 519.37 mV
Plot Scale: 480.8 mV



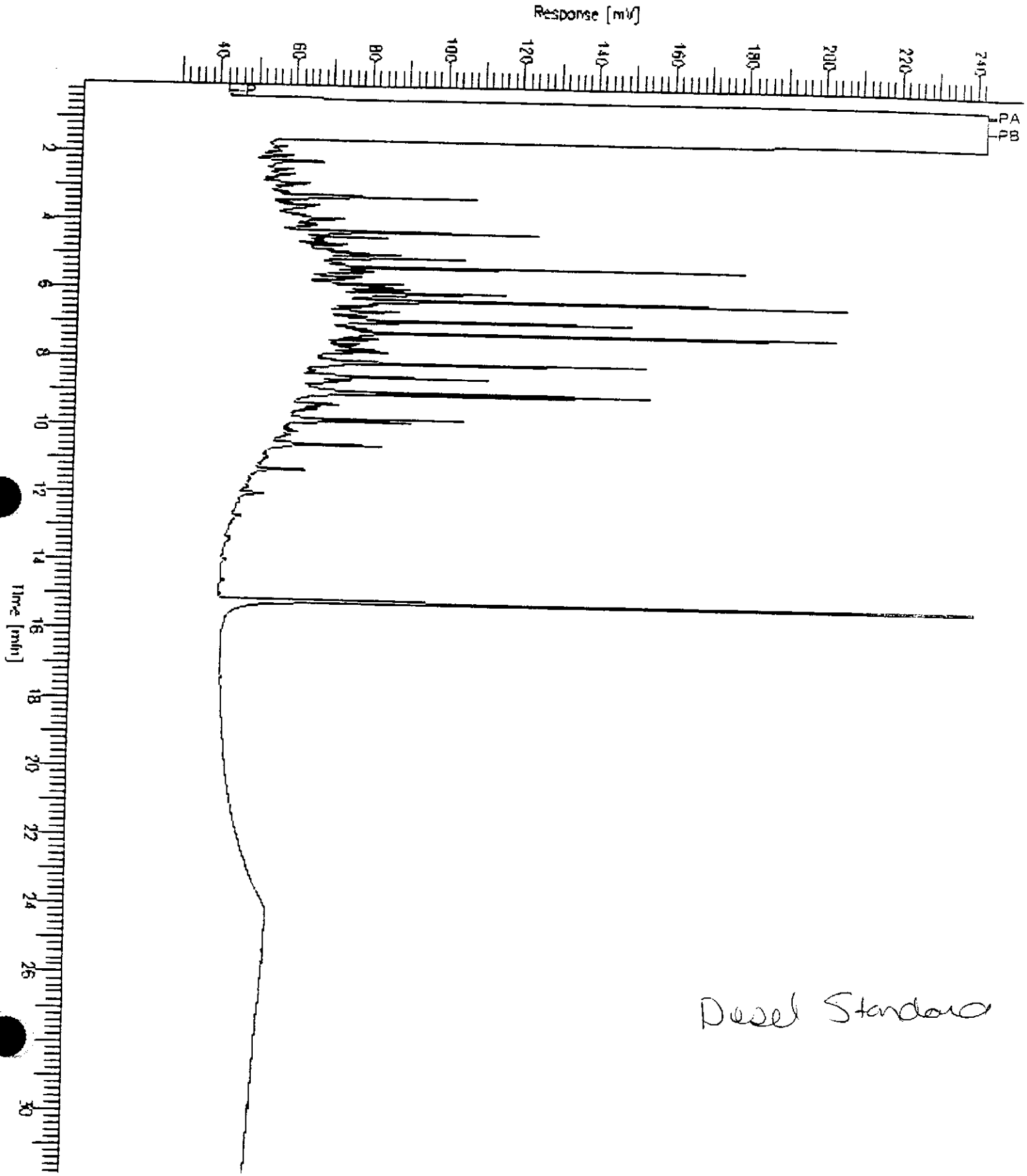
129142-5

SCITP-3416 6.6
5/1/97

GC15 Channel B TEH

Sample Name : CCV,97WS4141,DS
FileName : G:\GC15\CHB\134B016.RAW
Method : B132TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 29 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/15/97 10:18 AM
Time of Injection: 5/15/97 02:40 AM
Low Point : 28.58 mV High Point : 242.95 mV
Plot Scale: 214.4 mV

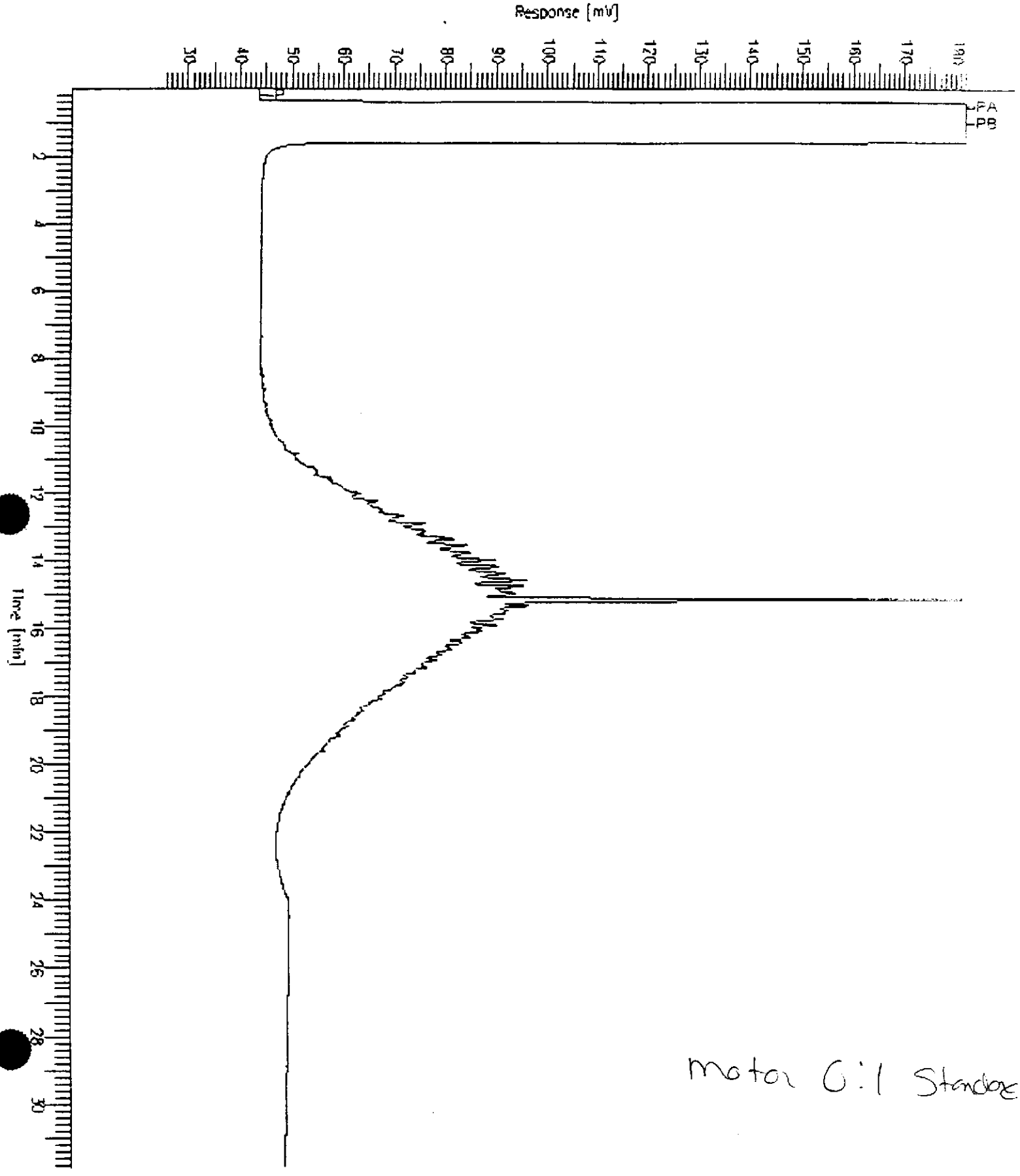


Diesel Standard

GC15 Channel B TEH

Sample Name : CCV,97WS4154,MO
FileName : G:\GC15\CHB\134B018.RAW
Method : B132TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 25 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/15/97 10:17 AM
Time of Injection: 5/15/97 04:06 AM
Low Point : 25.22 mV High Point : 182.10 mV
Plot Scale: 156.9 mV

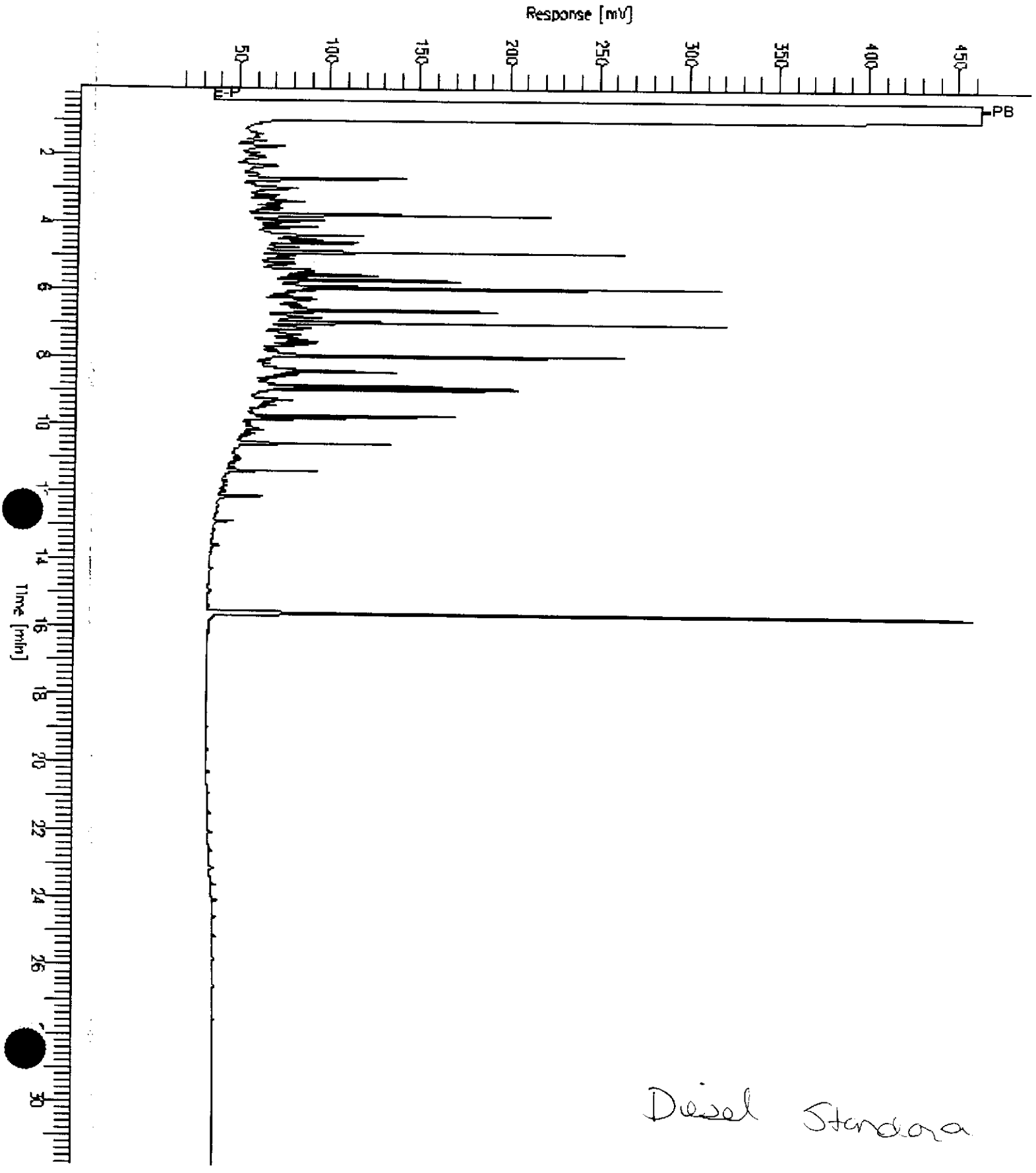


Motor 6:1 Standoff

Chromatogram

Sample Name : CCV,97WS4141,DS
FileName : G:\GC11\CHB\135B024.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: 12 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/19/97 09:03 AM
Time of Injection: 5/16/97 05:16 PM
Low Point : 12.14 mV High Point : 462.89 mV
Plot Scale: 450.7 mV

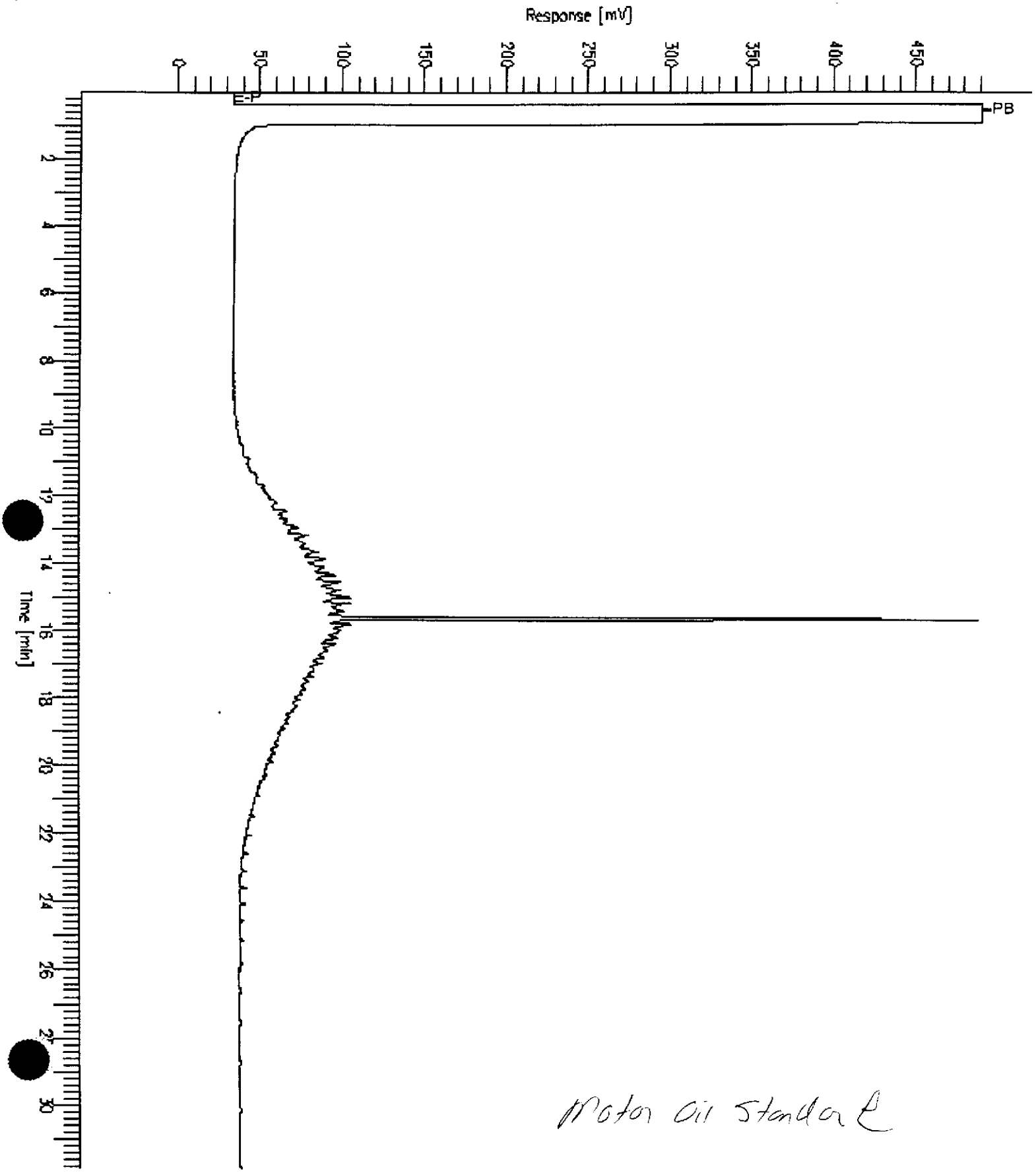


Diesel Standard

Chromatogram

Sample Name : CCV,97WS4154,MO
FileName : G:\GC11\CHB\135B027.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
'e Factor: 0.0 Plot Offset: -3 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/19/97 09:04 AM
Time of Injection: 5/16/97 07:26 PM
Low Point : -3.19 mV High Point : 491.14 mV
Plot Scale: 494.3 mV



Motor oil Standard

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129142-006	SCITP-34@9.0	33950	05/01/97	05/13/97	05/15/97	

Matrix: Soil

Analyte	Units	129142-006
Diln Fac:		1
Diesel C12-C22	mg/Kg	<1
Motor Oil C22-C50	mg/Kg	<5
Surrogate		
Hexacosane	%REC	63

Lab #: 129142

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33838
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/09/97

MB Lab ID: QC45556

Analyte	Result	
Diesel C12-C22	<50	
Motor Oil C22-C50	<300	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	95	60-140

Curtis & Tompkins, Ltd.

Lab #: 129142

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

METHOD BLANK

Matrix: Soil
Batch#: 33950
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/14/97

MB Lab ID: QC46014

Analyte	Result	
Diesel C12-C22	<1.0	
Motor Oil C22-C50	<5.0	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	85	60-140

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33838
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/09/97

BS Lab ID: QC45557

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C12-C22	2475	1645	66	60-140
Surrogate	%Rec	Limits		
Hexacosane	89	60-140		

BSD Lab ID: QC45558

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	1552	63	60-140	6	35
Surrogate	%Rec	Limits				
Hexacosane	86	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33950
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/14/97

LCS Lab ID: QC46015

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C12-C22	29.7	49.5	60	60-140
Surrogate	**%Rec**	**Limits**		
Hexacosane	77	60-140		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129142

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: SCITP-33B@6.5
Lab ID: 129142-002
Matrix: Soil
Batch#: 33950
Units: mg/Kg
Diln Fac: 1

Sample Date: 05/02/97
Received Date: 05/02/97
Prep Date: 05/13/97
Analysis Date: 05/14/97

MS Lab ID: QC46016

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Diesel C12-C22	49.5	333.3	376.9	88	60-140
Surrogate	%Rec	Limits			
Hexacosane	68	60-140			

MSD Lab ID: QC46017

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	49.5	341	16 *	60-140	10	30
Surrogate	%Rec	Limits				
Hexacosane	65	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 1 out of 2 outside limits

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129142-001	SCITP 33B	33846	05/01/97	05/08/97	05/08/97	

Matrix: Water

Analyte	Units	129142-001
Diln Fac:		1
Benzene	ug/L	<0.5
Toluene	ug/L	<0.5
Ethylbenzene	ug/L	43
m,p-Xylenes	ug/L	15
o-Xylene	ug/L	<0.5
Surrogate		
Trifluorotoluene	%REC	110
Bromobenzene	%REC	141 *

* Values outside of QC limits

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129142-002	SCITP-33B@6.5	33928	05/02/97	05/13/97	05/13/97	
129142-003	SCITP-33C@4.5	33928	05/01/97	05/13/97	05/13/97	
129142-004	SCITP-33D@4.0	33889	05/02/97	05/09/97	05/09/97	
129142-005	SCITP-34@6.0	33889	05/01/97	05/09/97	05/09/97	

Matrix: Soil

Analyte	Units	129142-002	129142-003	129142-004	129142-005
Diln Fac:		500	250	1	1
Benzene	ug/Kg	<2500	<1300	<5	<5
Toluene	ug/Kg	<2500	8100	<5	<5
Ethylbenzene	ug/Kg	<2500	24000	<5	<5
m,p-Xylenes	ug/Kg	<2500	40000	<5	<5
o-Xylene	ug/Kg	<2500	16000	<5	<5
Surrogate					
Trifluorotoluene	%REC	95	102	84	85
Bromobenzene	%REC	123	144 *	103	106

* Values outside of QC limits

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129142-006	SCITP-34@9.0	33889	05/01/97	05/09/97	05/09/97	

Matrix: Soil

Analyte	Units	129142-006
Diln Fac:		1
Benzene	ug/Kg	<5
Toluene	ug/Kg	<5
Ethylbenzene	ug/Kg	<5
m,p-Xylenes	ug/Kg	<5
o-Xylene	ug/Kg	<5
Surrogate		
Trifluorotoluene	%REC	82
Bromobenzene	%REC	100

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33846
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

MB Lab ID: QC45596

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	73	58-130
Bromobenzene	82	62-131

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

BTXE	
Client: Subsurface Consultants	Analysis Method: EPA 8020
Project#: 133.004	Prep Method: EPA 5030
Location: 9th Ave. Terminal/KOT	
LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 05/07/97
Batch#: 33846	Analysis Date: 05/07/97
Units: ug/Kg	
Diln Fac: 1	

LCS Lab ID: QC45595

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	17.71	20	89	80-120
Toluene	19.23	20	96	80-120
Ethylbenzene	17.88	20	89	80-120
m,p-Xylenes	38.04	40	95	80-120
o-Xylene	20.54	20	103	80-120
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	78	58-130		
Bromobenzene	90	62-131		

, 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 #: 129142

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33889
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/09/97
Analysis Date: 05/09/97

MB Lab ID: QC45760

Analyte	Result
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	83	52-127
Bromobenzene	100	45-140

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33928
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/13/97

MB Lab ID: QC45931

Analyte	Result
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	81	52-127
Bromobenzene	96	45-140

Lab #: 129142

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33889
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/09/97
Analysis Date: 05/09/97

LCS Lab ID: QC45759

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	101	100	101	80-120
Toluene	96.71	100	97	80-120
Ethylbenzene	100.9	100	101	80-120
m,p-Xylenes	179.7	200	90	80-120
o-Xylene	106.5	100	107	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	86	52-127
Bromobenzene	109	45-140

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 #: 129142

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33928
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/13/97

LCS Lab ID: QC45930

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	103.2	100	103	80-120
Toluene	98.78	100	99	80-120
Ethylbenzene	102	100	102	80-120
m,p-Xylenes	179.2	200	90	80-120
o-Xylene	108.3	100	108	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	86	52-127
Bromobenzene	108	45-140

* 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

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	SCITP 33B	Sampled:	05/01/97
Lab ID:	129142-001	Received:	05/02/97
Matrix:	Water	Extracted:	05/06/97
Batch#:	33837	Analyzed:	05/14/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.047
beta-BHC	ND	0.047
gamma-BHC	ND	0.047
delta-BHC	ND	0.047
Heptachlor	ND	0.047
Aldrin	ND	0.047
Heptachlor epoxide B	ND	0.047
Heptachlor epoxide A	ND	0.047
Endosulfan I	ND	0.047
Dieldrin	ND	0.094
4,4'-DDE	ND	0.094
Endrin	ND	0.094
Endosulfan II	ND	0.094
Endosulfan sulfate	ND	0.094
4,4'-DDD	ND	0.094
Endrin aldehyde	ND	0.094
4,4'-DDT	ND	0.094
Chlordane	ND	0.47
Methoxychlor	ND	0.47
Toxaphene	ND	0.94
Aroclor-1016	ND	0.47
Aroclor-1221	ND	0.94
Aroclor-1232	ND	0.47
Aroclor-1242	ND	0.47
Aroclor-1248	ND	0.47
Aroclor-1254	ND	0.47
Aroclor-1260	ND	0.47

Surrogate	%Recovery	Recovery Limits
TCMX	69	34-128
Decachlorobiphenyl	40*	50-150

* Values outside of QC limits

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		

Field ID:	SCITP-33B@6.5	Sampled:	05/02/97
Lab ID:	129142-002	Received:	05/02/97
Matrix:	Soil	Extracted:	05/08/97
Batch#:	33870	Analyzed:	05/14/97
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	3.0
beta-BHC	ND	3.0
gamma-BHC	ND	3.0
delta-BHC	ND	3.0
Heptachlor	ND	3.0
Aldrin	ND	3.0
Heptachlor epoxide B	ND	3.0
Heptachlor epoxide A	ND	3.0
Endosulfan I	ND	3.0
Dieldrin	ND	6.0
4,4'-DDE	ND	6.0
Endrin	ND	6.0
Endosulfan II	ND	6.0
Endosulfan sulfate	ND	6.0
4,4'-DDD	ND	6.0
Endrin aldehyde	ND	6.0
4,4'-DDT	ND	6.0
Chlordane	ND	30
Methoxychlor	ND	30
Toxaphene	ND	60
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%Recovery	Recovery Limits
TCMX	92	29-108
Decachlorobiphenyl	84	30-125

Organochlorine Pesticides and PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

Field ID: SCITP-33C@4.5
Lab ID: 129142-003
Matrix: Soil
Batch#: 33870
Units: ug/Kg
Diln Fac: 1

Sampled: 05/01/97
Received: 05/02/97
Extracted: 05/08/97
Analyzed: 05/14/97

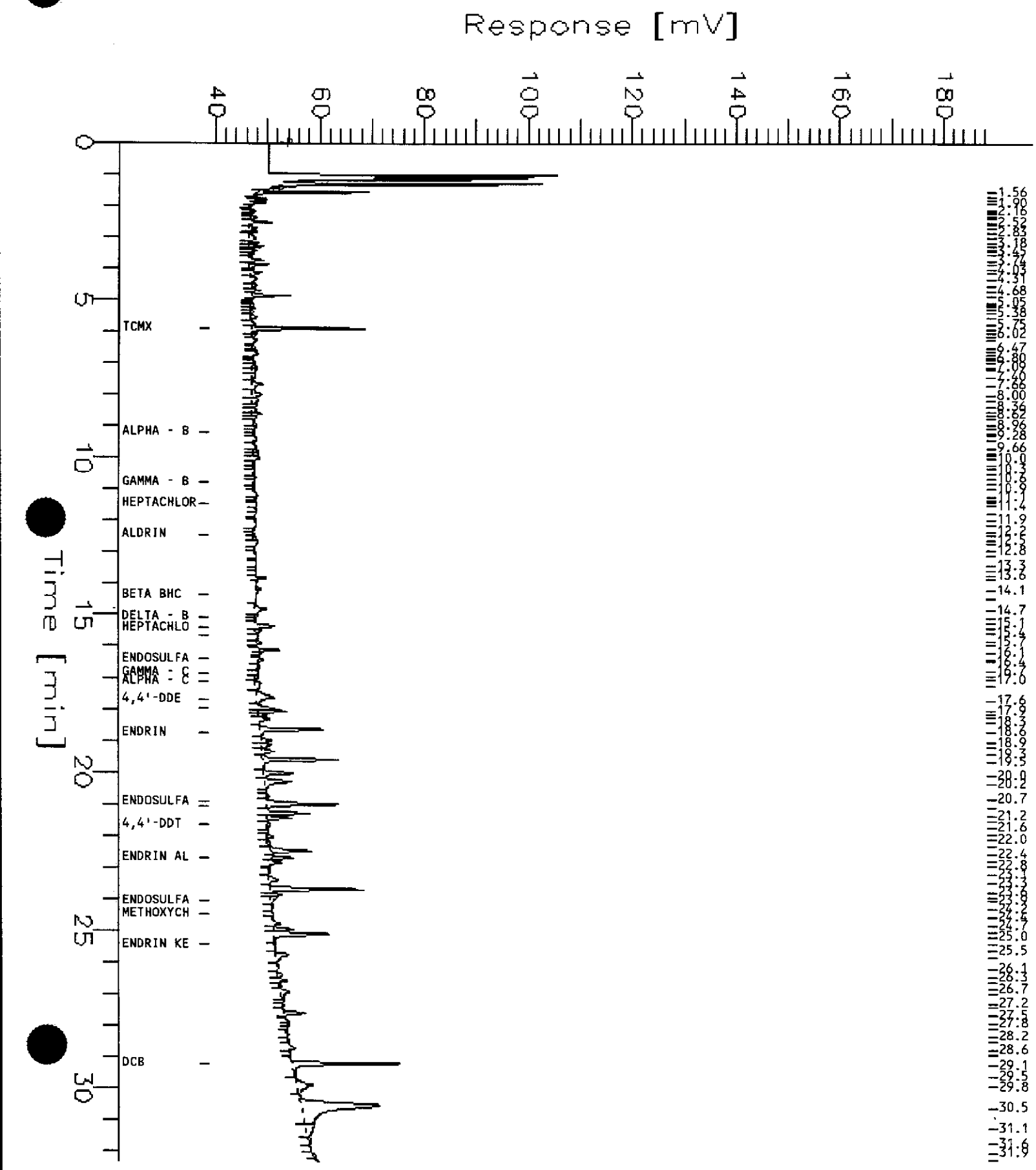
Analyte	Result	Reporting Limit
alpha-BHC	ND	3.0
beta-BHC	ND	3.0
gamma-BHC	ND	3.0
delta-BHC	ND	3.0
Heptachlor	ND	3.0
Aldrin	ND	3.0
Heptachlor epoxide B	ND	3.0
Heptachlor epoxide A	ND	3.0
Endosulfan I	ND	3.0
Dieldrin	ND	6.0
4,4'-DDE	ND	6.0
Endrin	ND	6.0
Endosulfan II	ND	6.0
Endosulfan sulfate	ND	6.0
4,4'-DDD	ND	6.0
Endrin aldehyde	ND	6.0
4,4'-DDT	ND	6.0
Chlordane	ND	30
Methoxychlor	ND	30
Toxaphene	ND	60
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	100	12

Surrogate	%Recovery	Recovery Limits
TCMX	107	29-108
Decachlorobiphenyl	77	30-125

GC14 RTx1701.32mm vol in: 3ul

Sample Name : 129142-003
FileName : g:\gc14\cha\132A052.raw
Method : PEST-CNT.ins
Start Time : 0.00 min End Time : 32.35 min
Scale Factor: -1.0 Plot Offset: 39 mV

Sample #: 33870 Page 1 of 1
Date : 5/14/97 05:04 AM
Time of Injection: 5/14/97 04:31 AM
Low Point : 38.78 mV High Point : 188.78 mV
Plot Scale: 150.0 mV



Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		

Field ID:	SCITP-33D@4.0	Sampled:	05/02/97
Lab ID:	129142-004	Received:	05/02/97
Matrix:	Soil	Extracted:	05/08/97
Batch#:	33870	Analyzed:	05/14/97
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	3.0
beta-BHC	ND	3.0
gamma-BHC	ND	3.0
delta-BHC	ND	3.0
Heptachlor	ND	3.0
Aldrin	ND	3.0
Heptachlor epoxide B	ND	3.0
Heptachlor epoxide A	ND	3.0
Endosulfan I	ND	3.0
Dieldrin	ND	6.0
4,4'-DDE	ND	6.0
Endrin	ND	6.0
Endosulfan II	ND	6.0
Endosulfan sulfate	ND	6.0
4,4'-DDD	ND	6.0
Endrin aldehyde	ND	6.0
4,4'-DDT	ND	6.0
Chlordane	ND	30
Methoxychlor	ND	30
Toxaphene	ND	60
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%Recovery	Recovery Limits
TCMX	89	29-108
Decachlorobiphenyl	81	30-125

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		

Field ID:	SCITP-34@6.0	Sampled:	05/01/97
Lab ID:	129142-005	Received:	05/02/97
Matrix:	Soil	Extracted:	05/08/97
Batch#:	33870	Analyzed:	05/15/97
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	3.0
beta-BHC	ND	3.0
gamma-BHC	ND	3.0
delta-BHC	ND	3.0
Heptachlor	ND	3.0
Aldrin	ND	3.0
Heptachlor epoxide B	ND	3.0
Heptachlor epoxide A	ND	3.0
Endosulfan I	ND	3.0
Dieldrin	ND	6.0
4,4'-DDE	ND	6.0
Endrin	ND	6.0
Endosulfan II	ND	6.0
Endosulfan sulfate	ND	6.0
4,4'-DDD	ND	6.0
Endrin aldehyde	ND	6.0
4,4'-DDT	ND	6.0
Chlordane	ND	30
Methoxychlor	ND	30
Toxaphene	ND	60
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%Recovery	Recovery Limits
TCMX	91	29-108
Decachlorobiphenyl	107	30-125

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33837
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

MB Lab ID: QC45553

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.05
beta-BHC	ND	0.05
gamma-BHC	ND	0.05
delta-BHC	ND	0.05
Heptachlor	ND	0.05
Aldrin	ND	0.05
Heptachlor epoxide B	ND	0.05
Heptachlor epoxide A	ND	0.05
Endosulfan I	ND	0.05
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
Endosulfan sulfate	ND	0.1
4,4'-DDD	ND	0.1
Endrin aldehyde	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	0.5
Methoxychlor	ND	0.5
Toxaphene	ND	1.0
Aroclor-1016	ND	0.5
Aroclor-1221	ND	1.0
Aroclor-1232	ND	0.5
Aroclor-1242	ND	0.5
Aroclor-1248	ND	0.5
Aroclor-1254	ND	0.5
Aroclor-1260	ND	0.5

Surrogate	%Rec	Recovery Limits
TCMX	75	34-128
Decachlorobiphenyl	93	50-150

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 33870
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/13/97

MB Lab ID: QC45684

Analyte	Result	Reporting Limit
alpha-BHC	ND	3.0
beta-BHC	ND	3.0
gamma-BHC	ND	3.0
delta-BHC	ND	3.0
Heptachlor	ND	3.0
Aldrin	ND	3.0
Heptachlor epoxide B	ND	3.0
Heptachlor epoxide A	ND	3.0
Endosulfan I	ND	3.0
Dieldrin	ND	6.0
4,4'-DDE	ND	6.0
Endrin	ND	6.0
Endosulfan II	ND	6.0
Endosulfan sulfate	ND	6.0
4,4'-DDD	ND	6.0
Endrin aldehyde	ND	6.0
4,4'-DDT	ND	6.0
Chlordane	ND	30
Methoxychlor	ND	30
Toxaphene	ND	60
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%Rec	Recovery Limits
TCMX	88	29-108
Decachlorobiphenyl	90	30-125

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33870
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/13/97

LCS Lab ID: QC45685

Analyte	Result	Spike Added	%Rec #	Limits
gamma-BHC	16.38	17	98	49-115
Heptachlor	16.33	17	98	51-119
Aldrin	17.45	17	105	55-112
Dieldrin	16.99	17	102	54-123
Endrin	17.78	17	107	63-128
4,4'-DDT	16.66	17	100	57-131

Surrogate	%Rec	Limits
TCMX	93	29-108
Decachlorobiphenyl	95	30-125

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33837
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/13/97

BS Lab ID: QC45554

Analyte	Spike Added	BS	%Rec #	Limits
gamma-BHC	0.5	0.51	102	57-120
Heptachlor	0.5	0.49	98	51-109
Aldrin	0.5	0.52	104	57-105
Dieldrin	0.5	0.5	100	62-122
Endrin	0.5	0.54	108	70-128
4,4'-DDT	0.5	0.51	102	67-128

Surrogate	%Rec	Limits
TCMX	78	34-128
Decachlorobiphenyl	96	50-150

BSD Lab ID: QC45555

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
gamma-BHC	0.5	0.53	106	57-120	4	20
Heptachlor	0.5	0.47	94	51-109	4	20
Aldrin	0.5	0.5	100	57-105	4	20
Dieldrin	0.5	0.49	98	62-122	2	20
Endrin	0.5	0.53	106	70-128	2	20
4,4'-DDT	0.5	0.49	98	67-128	4	20

Surrogate	%Rec	Limits
TCMX	72	34-128
Decachlorobiphenyl	94	50-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCITP 33B
Lab ID: 129142-001
Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Sampled: 05/01/97
Received: 05/02/97
Extracted: 05/09/97
Analyzed: 05/09/97

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	21	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	9.6 J	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	26	5.0
Styrene	ND	5.0
m,p-Xylenes	6.9	5.0
o-Xylene	ND	5.0

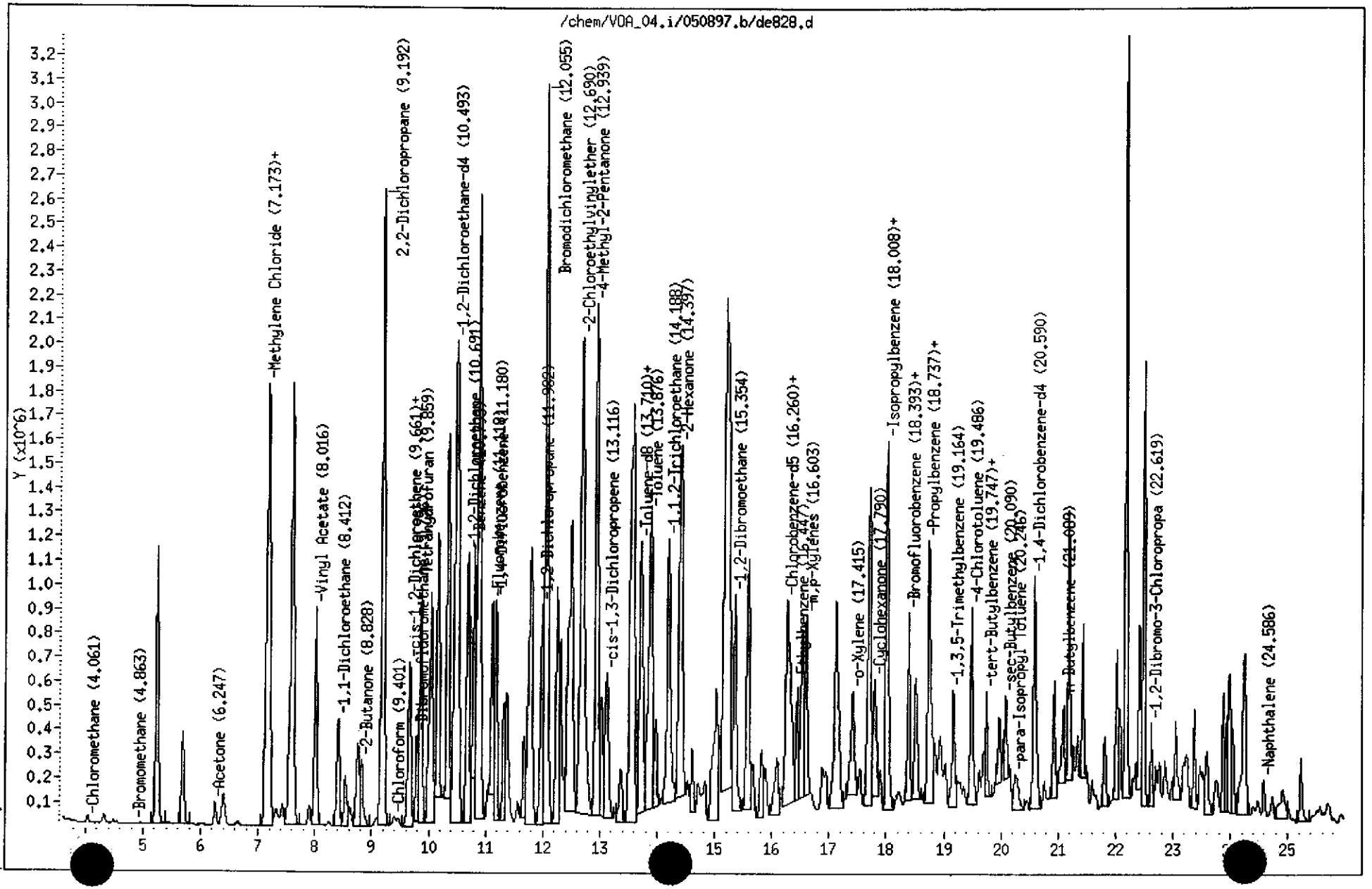
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	102	87-125
Bromofluorobenzene	101	79-122

J: Estimated Value

Data File: /chem/VOA_04.i/050897.b/de828.d
Date : 09-MAY-97 01:07
Client ID: DYNA P&T
Sample Info: S,129142-001
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_04.i

Operator: DM
Column diameter: 0.32



Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCITP-33B@6.5
Lab ID: 129142-002
Matrix: Soil
Batch#: 33816
Units: ug/Kg
Diln Fac: 25

Sampled: 05/02/97
Received: 05/02/97
Extracted: 05/08/97
Analyzed: 05/08/97

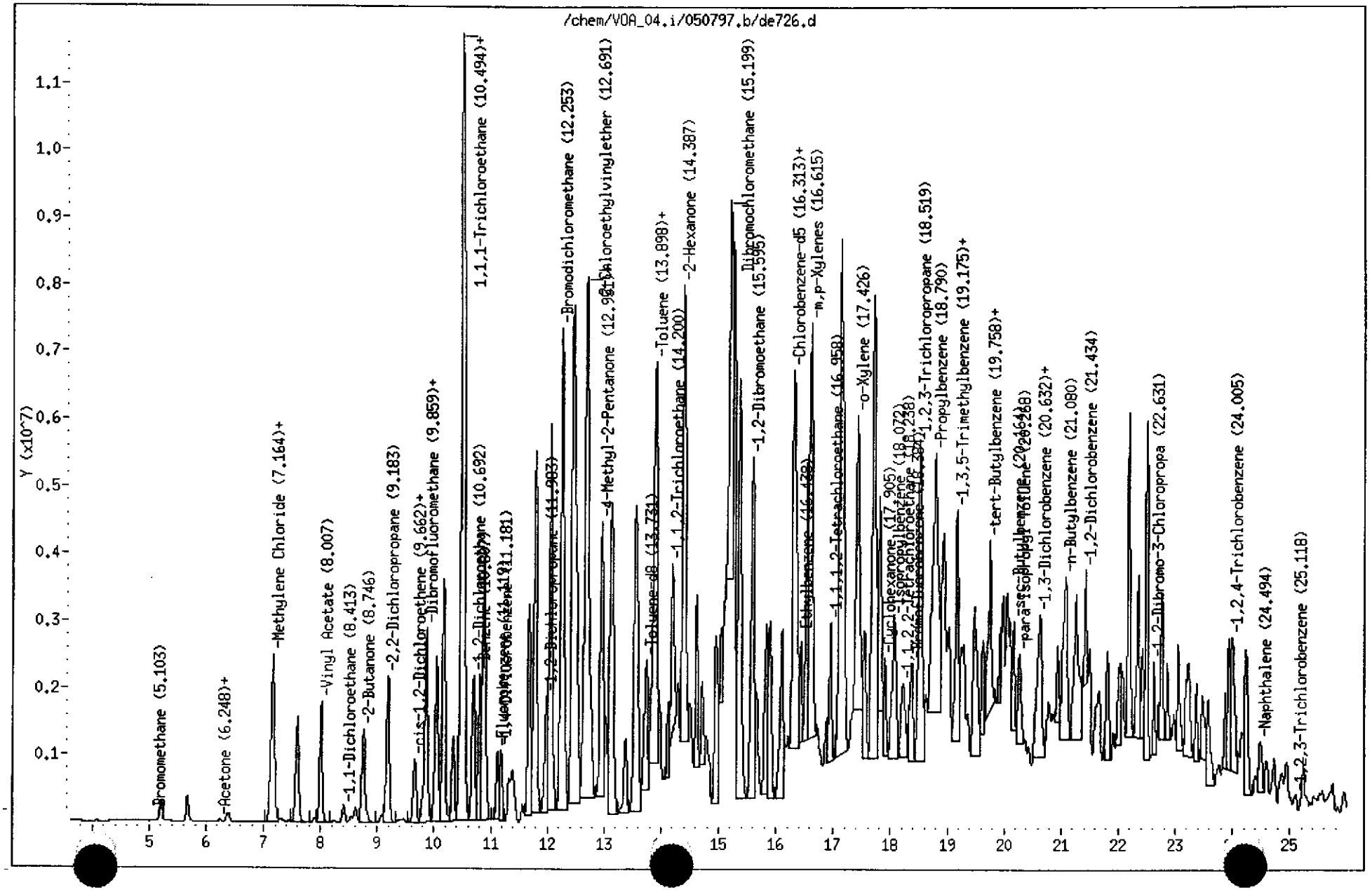
Analyte	Result	Reporting Limit
Chloromethane	ND	250
Bromomethane	ND	250
Vinyl Chloride	ND	250
Chloroethane	ND	250
Methylene Chloride	ND	500
Acetone	ND	500
Carbon Disulfide	ND	130
Trichlorofluoromethane	ND	130
1,1-Dichloroethene	ND	130
1,1-Dichloroethane	ND	130
trans-1,2-Dichloroethene	ND	130
cis-1,2-Dichloroethene	ND	130
Chloroform	ND	130
Freon 113	ND	130
1,2-Dichloroethane	ND	130
2-Butanone	ND	250
1,1,1-Trichloroethane	ND	130
Carbon Tetrachloride	ND	130
Vinyl Acetate	ND	1300
Bromodichloromethane	ND	130
1,2-Dichloropropane	ND	130
cis-1,3-Dichloropropene	ND	130
Trichloroethene	ND	130
Dibromochloromethane	ND	130
1,1,2-Trichloroethane	ND	130
Benzene	ND	130
trans-1,3-Dichloropropene	ND	130
Bromoform	ND	130
2-Hexanone	ND	250
4-Methyl-2-Pentanone	ND	250
1,1,2,2-Tetrachloroethane	ND	130
Tetrachloroethene	ND	130
Toluene	ND	130
Chlorobenzene	ND	130
Ethylbenzene	1100	130
Styrene	ND	130
m,p-Xylenes	ND	130
o-Xylene	ND	130

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	97	68-126
Toluene-d8	94	87-125
Bromofluorobenzene	113	79-122

Data File: /chem/VOA_04.i/050797.b/de726.d
Date : 08-MAY-97 01:18
Client ID: DYNA P&T
Sample Info: S,129142-002
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_04.i

Operator: DM
Column diameter: 0.32



Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCITP-33C@4.5
Lab ID: 129142-003
Matrix: Soil
Batch#: 33869
Units: ug/Kg
Diln Fac: 100

Sampled: 05/01/97
Received: 05/02/97
Extracted: 05/09/97
Analyzed: 05/09/97

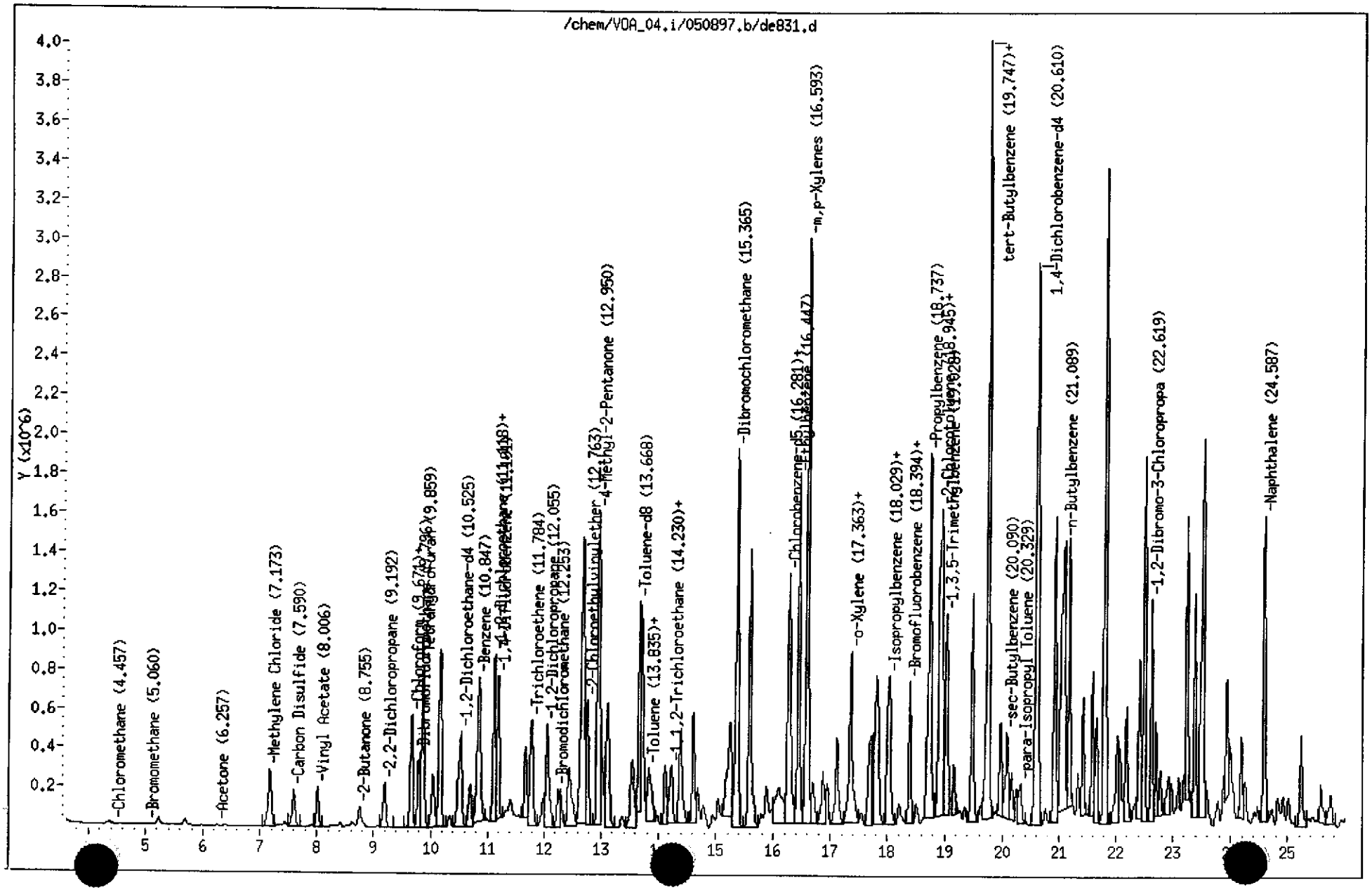
Analyte	Result	Reporting Limit
Chloromethane	ND	1000
Bromomethane	ND	1000
Vinyl Chloride	ND	1000
Chloroethane	ND	1000
Methylene Chloride	ND	2000
Acetone	ND	2000
Carbon Disulfide	ND	500
Trichlorofluoromethane	ND	500
1,1-Dichloroethene	ND	500
1,1-Dichloroethane	ND	500
trans-1,2-Dichloroethene	ND	500
cis-1,2-Dichloroethene	ND	500
Chloroform	ND	500
Freon 113	ND	500
1,2-Dichloroethane	ND	500
2-Butanone	ND	1000
1,1,1-Trichloroethane	ND	500
Carbon Tetrachloride	ND	500
Vinyl Acetate	ND	5000
Bromodichloromethane	ND	500
1,2-Dichloropropane	ND	500
cis-1,3-Dichloropropene	ND	500
Trichloroethene	ND	500
Dibromochloromethane	ND	500
1,1,2-Trichloroethane	ND	500
Benzene	ND	500
trans-1,3-Dichloropropene	ND	500
Bromoform	ND	500
2-Hexanone	ND	1000
4-Methyl-2-Pentanone	ND	1000
1,1,2,2-Tetrachloroethane	ND	500
Tetrachloroethene	ND	500
Toluene	1100	500
Chlorobenzene	ND	500
Ethylbenzene	11000	500
Styrene	ND	500
m,p-Xylenes	19000	500
o-Xylene	5500	500

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	90	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	99	79-122

Data File: /chem/VOA_04.i/050897.b/de831.d
Date : 09-MAY-97 02:43
Client ID: DYNA P&T
Sample Info: S,129142-003
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_04.i

Operator: DM
Column diameter: 0.32



Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCITP-33D@4.0
Lab ID: 129142-004
Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Sampled: 05/02/97
Received: 05/02/97
Extracted: 05/06/97
Analyzed: 05/06/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	79	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	100	79-122

Lab #: 129142

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/05/97

MB Lab ID: QC45406

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	102	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	103	79-122

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/05/97

MB Lab ID: QC45417

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	102	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	102	79-122

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33816
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

MB Lab ID: QC45464

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	90	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	98	79-122

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33816
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

MB Lab ID: QC45584

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	91	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	97	79-122

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33816
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

MB Lab ID: QC45587

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	94	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	99	79-122

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

MB Lab ID: QC45678

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	90	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	98	79-122

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

MB Lab ID: QC45710

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	91	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	99	79-122

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129111-001
Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Sample Date: 04/28/97
Received Date: 04/30/97
Prep Date: 05/05/97
Analysis Date: 05/05/97

MS Lab ID: QC45414

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	52.15	104	51-180
Trichloroethene	50	<5	50.5	101	73-141
Benzene	50	<5	48.39	97	78-142
Toluene	50	<5	50.25	100	76-150
Chlorobenzene	50	<5	46.88	94	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	95	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	100	79-122

MSD Lab ID: QC45415

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	50.73	101	51-180	3	22
Trichloroethene	50	50.52	101	73-141	0	24
Benzene	50	48.25	97	78-142	0	21
Toluene	50	50.71	101	76-150	1	21
Chlorobenzene	50	47.63	95	83-129	2	21

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	94	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	99	79-122

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.

Lab #: 129142 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129094-002
Matrix: TCLP Leachate
Batch#: 33816
Units: ug/L
Diln Fac: 1

Sample Date: 04/28/97
Received Date: 04/29/97
Prep Date: 05/06/97
Analysis Date: 05/06/97

MS Lab ID: QC45514

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	49.13	98	51-180
Trichloroethene	50	<5	47.92	96	73-141
Benzene	50	<5	48.15	96	78-142
Toluene	50	<5	51.66	101	76-150
Chlorobenzene	50	<5	49.01	98	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	91	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	97	79-122

MSD Lab ID: QC45515

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	49.09	98	51-180	0	14
Trichloroethene	50	48.2	96	73-141	1	14
Benzene	50	48.57	97	78-142	1	11
Toluene	50	53.04	104	76-150	3	13
Chlorobenzene	50	49.23	98	83-129	0	13

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	91	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	97	79-122

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.

Lab #: 129142 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129118-002
Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Sample Date: 04/30/97
Received Date: 05/01/97
Prep Date: 05/08/97
Analysis Date: 05/08/97

MS Lab ID: QC45707

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	45.47	91	51-180
Trichloroethene	50	<5	46.37	93	73-141
Benzene	50	<5	46.25	93	78-142
Toluene	50	<5	48.87	98	76-150
Chlorobenzene	50	<5	46.5	93	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	94	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	96	79-122

MSD Lab ID: QC45708

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	46.48	93	51-180	2	14
Trichloroethene	50	47.21	94	73-141	2	14
Benzene	50	47.28	95	78-142	2	11
Toluene	50	50.81	102	76-150	4	13
Chlorobenzene	50	47.62	95	83-129	2	13

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	93	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	97	79-122

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.

Lab #: 129142 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33800
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/05/97

LCS Lab ID: QC45405

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	55.76	50	112	51-180
Trichloroethene	51.56	50	103	73-141
Benzene	51.2	50	102	78-142
Toluene	53.92	50	108	76-150
Chlorobenzene	50.15	50	100	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	101	79-122

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

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33816
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

LCS Lab ID: QC45463

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	49.3	50	99	51-180
Trichloroethene	49.46	50	99	73-141
Benzene	48.66	50	97	78-142
Toluene	53.06	50	106	76-150
Chlorobenzene	50.12	50	100	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	86	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	96	79-122

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

Curtis & Tompkins, Ltd.

Lab #: 129142 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

LCS Lab ID: QC45677

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	48.18	50	96	51-180
Trichloroethene	48.54	50	97	73-141
Benzene	47.68	50	95	78-142
Toluene	51.14	50	102	76-150
Chlorobenzene	48.37	50	97	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	89	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	98	79-122

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

Semivolatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

Field ID: SCITP 33B
Lab ID: 129142-001
Matrix: Water
Batch#: 33805
Units: ug/L
Diln Fac: 5

Sampled: 05/01/97
Received: 05/02/97
Extracted: 05/05/97
Analyzed: 05/20/97

Analyte	Result	Reporting Limit
Phenol	ND	47
2-Chlorophenol	ND	47
Benzyl alcohol	ND	47
2-Methylphenol	ND	47
4-Methylphenol	ND	47
2-Nitrophenol	ND	240
2,4-Dimethylphenol	ND	47
Benzoic acid	ND	240
2,4-Dichlorophenol	ND	47
4-Chloro-3-methylphenol	ND	47
2,4,6-Trichlorophenol	ND	47
2,4,5-Trichlorophenol	ND	240
2,4-Dinitrophenol	ND	240
4-Nitrophenol	ND	240
4,6-Dinitro-2-methylphenol	ND	240
Pentachlorophenol	ND	240
N-Nitrosodimethylamine	ND	47
Aniline	ND	47
bis(2-Chloroethyl)ether	ND	47
1,3-Dichlorobenzene	ND	47
1,4-Dichlorobenzene	ND	47
1,2-Dichlorobenzene	ND	47
bis(2-Chloroisopropyl) ether	ND	47
N-Nitroso-di-n-propylamine	ND	47
Hexachloroethane	ND	47
Nitrobenzene	ND	47
Isophorone	ND	47
bis(2-Chloroethoxy)methane	ND	47
1,2,4-Trichlorobenzene	ND	47
Naphthalene	ND	47
4-Chloroaniline	ND	47
Hexachlorobutadiene	ND	47
2-Methylnaphthalene	ND	47
Hexachlorocyclopentadiene	ND	47
2-Chloronaphthalene	ND	47
2-Nitroaniline	ND	240
Dimethylphthalate	ND	47
Acenaphthylene	ND	47

Semivolatile Organics by GC/MS

Field ID:	SCITP 33B	Sampled:	05/01/97
Lab ID:	129142-001	Received:	05/02/97
Matrix:	Water	Extracted:	05/05/97
Batch#:	33805	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	5		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	47
3-Nitroaniline	ND	240
Acenaphthene	ND	47
Dibenzofuran	ND	47
2,4-Dinitrotoluene	ND	47
Diethylphthalate	ND	47
4-Chlorophenyl-phenylether	ND	47
Fluorene	ND	47
4-Nitroaniline	ND	240
N-Nitrosodiphenylamine	ND	47
Azobenzene	ND	47
4-Bromophenyl-phenylether	ND	47
Hexachlorobenzene	ND	47
Phenanthrene	65	47
Anthracene	ND	47
Di-n-butylphthalate	ND	47
Fluoranthene	94	47
Pyrene	74	47
Butylbenzylphthalate	ND	47
3,3'-Dichlorobenzidine	ND	240
Benzo(a)anthracene	30 J	47
Chrysene	29 J	47
bis(2-Ethylhexyl)phthalate	ND	47
Di-n-octylphthalate	ND	47
Benzo(b)fluoranthene	ND	47
Benzo(k)fluoranthene	24 J	47
Benzo(a)pyrene	ND	47
Indeno(1,2,3-cd)pyrene	ND	47
Dibenz(a,h)anthracene	ND	47
Benzo(g,h,i)perylene	ND	47

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	65	21-110
Phenol-d5	100	10-110
2,4,6-Tribromophenol	65	10-123
Nitrobenzene-d5	55	35-114
2-Fluorobiphenyl	54	43-116
Terphenyl-d14	26*	33-141

J: Estimated Value

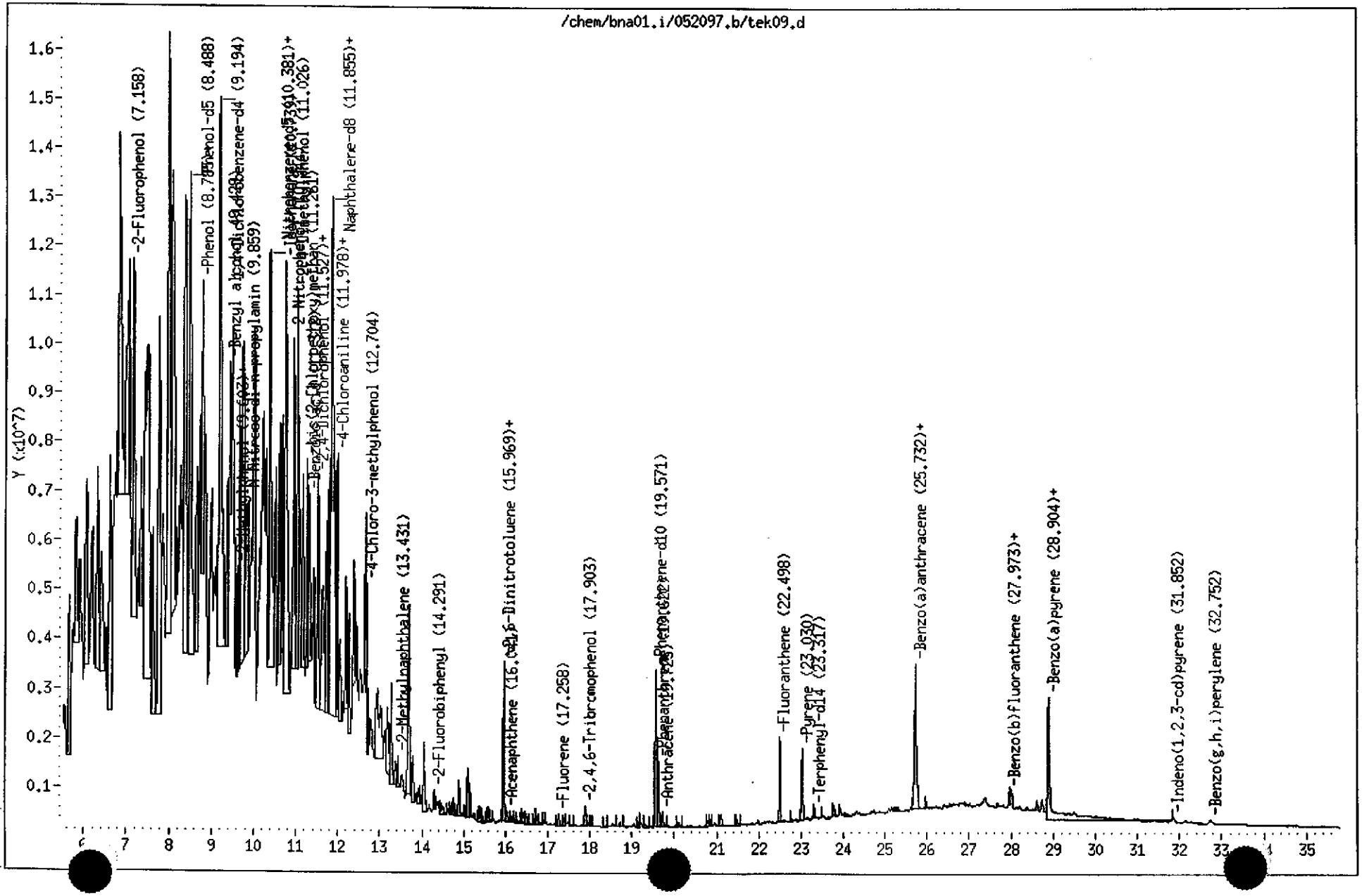
* Values outside of QC limits

Data File: /chem/bna01.i/052097.b/tek09.d
Date : 20-MAY-97 17:38
Client ID: CURTIS&TOMPKINS
Sample Info: s,129142-001
Volume Injected (uL): 1.0
Column phase: Xti 5 x .5 u

Instrument: bna01.i

Operator: dsh
Column diameter: 0.25

129142-1
SC17P-33B
5/1/97



Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		

Field ID:	SCITP-33B@6.5	Sampled:	05/02/97
Lab ID:	129142-002	Received:	05/02/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/16/97
Units:	ug/Kg		
Diln Fac:	1		

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

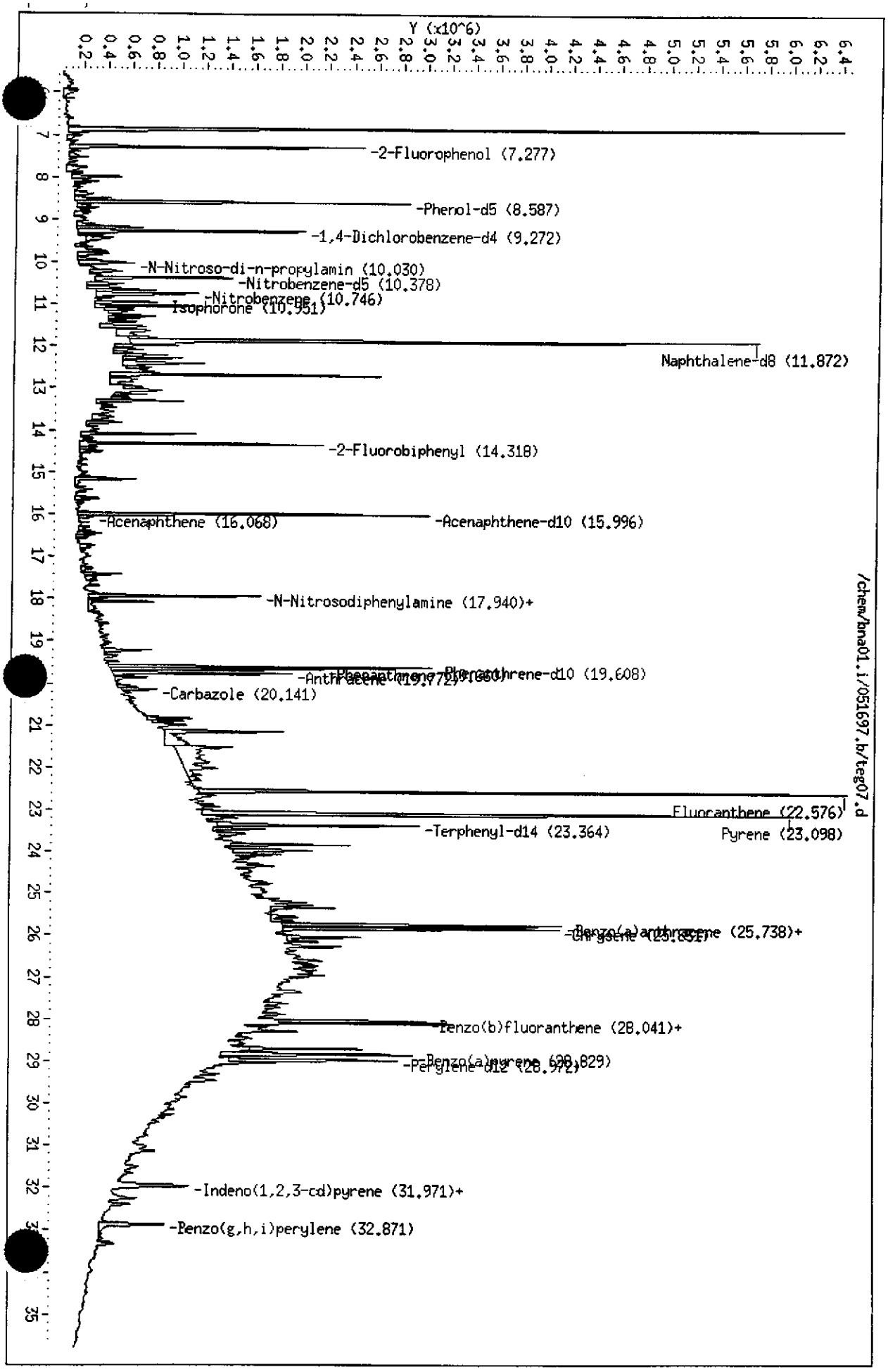
Semivolatile Organics by GC/MS

Field ID:	SCITP-33B@6.5	Sampled:	05/02/97
Lab ID:	129142-002	Received:	05/02/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/16/97
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1700
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Phenanthrene	770	330
Anthracene	650	330
Di-n-butylphthalate	ND	330
Fluoranthene	2900	330
Benzidine	ND	330
Pyrene	3200	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1700
Benzo(a)anthracene	1500	330
Chrysene	1500	330
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	1100	330
Benzo(k)fluoranthene	1200	330
Benzo(a)pyrene	1300	330
Indeno(1,2,3-cd)pyrene	580	330
Dibenz(a,h)anthracene	260 J	330
Benzo(g,h,i)perylene	620	330

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	54	25-121
Phenol-d5	57	24-113
2,4,6-Tribromophenol	49	19-122
Nitrobenzene-d5	64	23-120
2-Fluorobiphenyl	63	30-115
Terphenyl-d14	71	18-137

J: Estimated Value



Data File: /chem/bna01.i/051697.b/teg07.d
Date : 16-MAY-97 19:36
Client ID: CURTIS&TOMPKINS
Sample Info: 8270,,33817,30,1000.1,
Volume Injected (uL): 1.0
Column phase: Xtl 5 x .5 u

Instrument: bna01.i
Operator: dsh
Column diameter: 0.25

5/2/97
129142-002
SCITP-33 B@65

Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		

Field ID:	SCITP-33C@4.5	Sampled:	05/01/97
Lab ID:	129142-003	Received:	05/02/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/16/97
Units:	ug/Kg		
Diln Fac:	2		

Analyte	Result	Reporting Limit
Phenol	ND	670
2-Chlorophenol	ND	670
Benzyl alcohol	ND	670
2-Methylphenol	ND	670
4-Methylphenol	ND	670
2-Nitrophenol	ND	3300
2,4-Dimethylphenol	ND	670
Benzoic acid	ND	3300
2,4-Dichlorophenol	ND	670
4-Chloro-3-methylphenol	ND	670
2,4,6-Trichlorophenol	ND	670
2,4,5-Trichlorophenol	ND	3300
2,4-Dinitrophenol	ND	3300
4-Nitrophenol	ND	3300
4,6-Dinitro-2-methylphenol	ND	3300
Pentachlorophenol	ND	3300
N-Nitrosodimethylamine	ND	670
Aniline	ND	670
bis(2-Chloroethyl)ether	ND	670
1,3-Dichlorobenzene	ND	670
1,4-Dichlorobenzene	ND	670
1,2-Dichlorobenzene	ND	670
bis(2-Chloroisopropyl) ether	ND	670
N-Nitroso-di-n-propylamine	ND	670
Hexachloroethane	ND	670
Nitrobenzene	ND	670
Isophorone	ND	670
bis(2-Chloroethoxy)methane	ND	670
1,2,4-Trichlorobenzene	ND	670
Naphthalene	8600	670
4-Chloroaniline	ND	670
Hexachlorobutadiene	ND	670
2-Methylnaphthalene	10000	670
Hexachlorocyclopentadiene	ND	670
2-Chloronaphthalene	ND	670
2-Nitroaniline	ND	3300
Dimethylphthalate	ND	670
Acenaphthylene	ND	670

Semivolatile Organics by GC/MS

Field ID:	SCITP-33C@4.5	Sampled:	05/01/97
Lab ID:	129142-003	Received:	05/02/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/16/97
Units:	ug/Kg		
Diln Fac:	2		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	670
3-Nitroaniline	ND	3300
Acenaphthene	ND	670
Dibenzofuran	ND	670
2,4-Dinitrotoluene	ND	670
Diethylphthalate	ND	670
4-Chlorophenyl-phenylether	ND	670
Fluorene	ND	670
4-Nitroaniline	ND	3300
N-Nitrosodiphenylamine	ND	670
Azobenzene	ND	670
4-Bromophenyl-phenylether	ND	670
Hexachlorobenzene	ND	670
Phenanthrene	520 J	670
Anthracene	ND	670
Di-n-butylphthalate	ND	670
Fluoranthene	ND	670
Benzidine	ND	670
Pyrene	ND	670
Butylbenzylphthalate	ND	670
3,3'-Dichlorobenzidine	ND	3300
Benzo(a)anthracene	ND	670
Chrysene	ND	670
bis(2-Ethylhexyl)phthalate	ND	670
Di-n-octylphthalate	ND	670
Benzo(b)fluoranthene	ND	670
Benzo(k)fluoranthene	ND	670
Benzo(a)pyrene	ND	670
Indeno(1,2,3-cd)pyrene	ND	670
Dibenz(a,h)anthracene	ND	670
Benzo(g,h,i)perylene	ND	670

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	79	25-121
Phenol-d5	82	24-113
2,4,6-Tribromophenol	68	19-122
Nitrobenzene-d5	94	23-120
2-Fluorobiphenyl	91	30-115
Terphenyl-d14	95	18-137

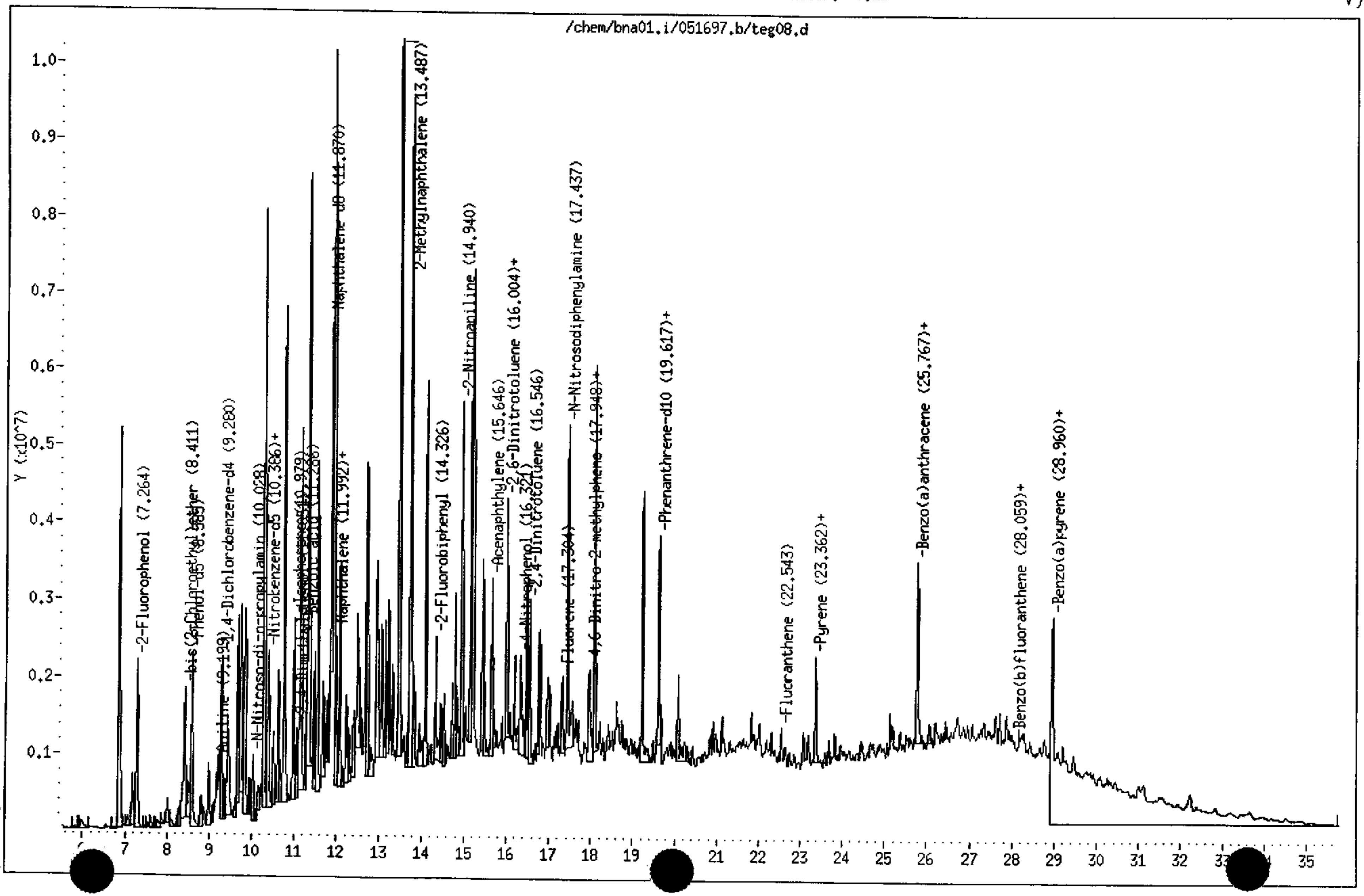
J: Estimated Value

Data File: /chem/bna01.i/051697.b/teg08.d
Date : 16-MAY-97 20:23
Client ID: CURTIS&TOMPKINS
Sample Info: 8270,,33817,30,1000,2,
Volume Injected (uL): 1.0
Column phase: Xti 5 x .5 u

Instrument: bna01.i

Operator: dsh
Column diameter: 0.25

5/1/97
129142003
SCI TP-33C (@4')



Semivolatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

Field ID: SCITP-33D@4.0
Lab ID: 129142-004
Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Sampled: 05/02/97
Received: 05/02/97
Extracted: 05/06/97
Analyzed: 05/20/97

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

Semivolatile Organics by GC/MS

Field ID:	SCITP-33D@4.0	Sampled:	05/02/97
Lab ID:	129142-004	Received:	05/02/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/20/97
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1700
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
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)fluoranthene	ND	330
Benzo(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	%Recovery	Recovery Limits
2-Fluorophenol	73	25-121
Phenol-d5	76	24-113
2,4,6-Tribromophenol	63	19-122
Nitrobenzene-d5	74	23-120
2-Fluorobiphenyl	80	30-115
Terphenyl-d14	81	18-137

Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		

Field ID:	SCITP-34@6.0	Sampled:	05/01/97
Lab ID:	129142-005	Received:	05/02/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/20/97
Units:	ug/Kg		
Diln Fac:	1		

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

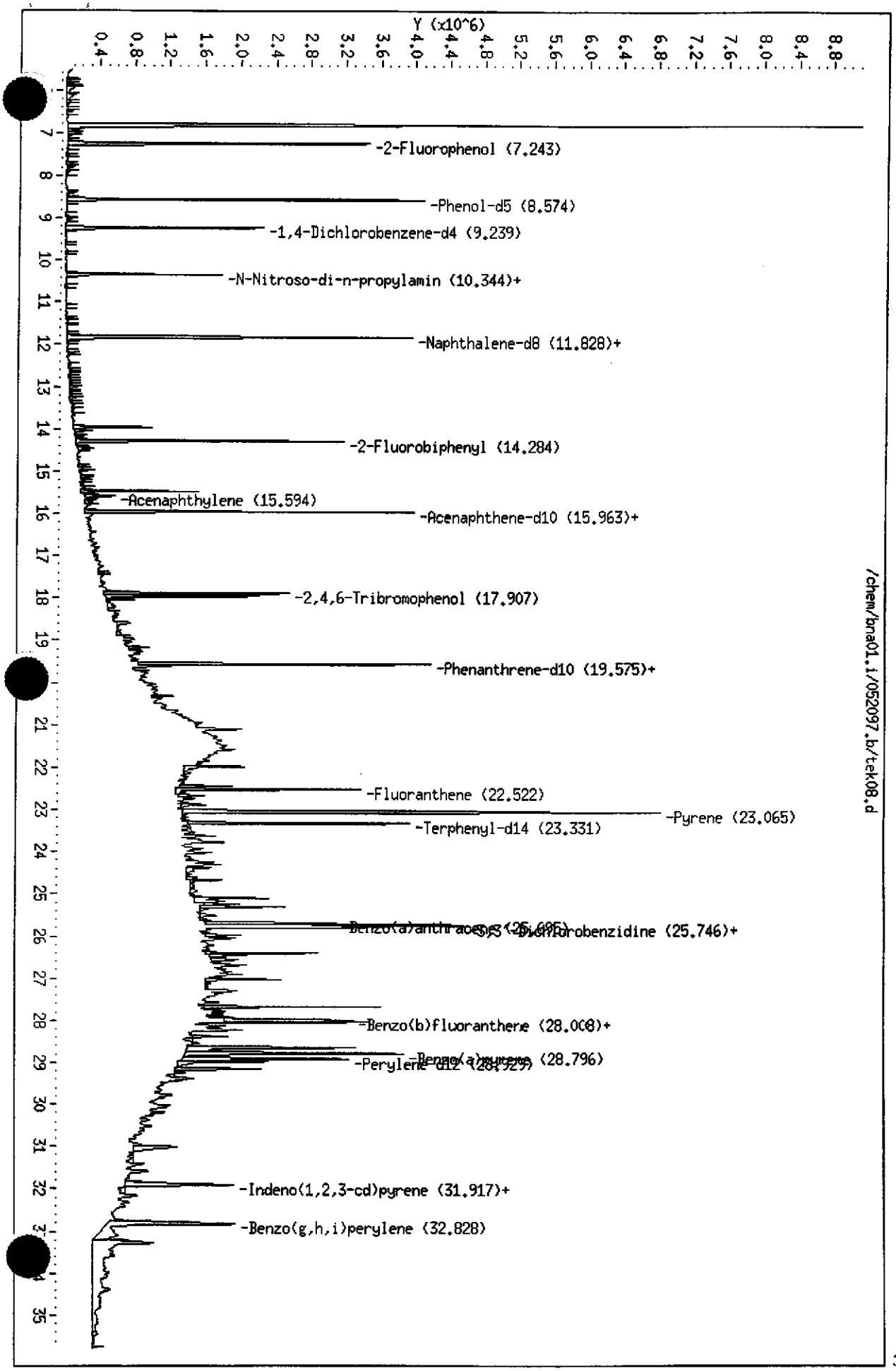
Semivolatile Organics by GC/MS

Field ID:	SCITP-34@6.0	Sampled:	05/01/97
Lab ID:	129142-005	Received:	05/02/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/20/97
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1700
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Phenanthrene	ND	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	710	330
Benzidine	ND	330
Pyrene	2700	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1700
Benzo(a)anthracene	660	330
Chrysene	930	330
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	990	330
Benzo(k)fluoranthene	1100	330
Benzo(a)pyrene	1600	330
Indeno(1,2,3-cd)pyrene	950	330
Dibenz(a,h)anthracene	190 J	330
Benzo(g,h,i)perylene	1300	330

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	72	25-121
Phenol-d5	74	24-113
2,4,6-Tribromophenol	63	19-122
Nitrobenzene-d5	72	23-120
2-Fluorobiphenyl	75	30-115
Terphenyl-d14	79	18-137

J: Estimated Value



5/1/97
129142-005
SCITP-34 @ 6.0

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

MB Lab ID: QC45465

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

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

MB Lab ID: QC45465

Analyte	Result	Reporting Limit
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
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)fluoranthene	ND	330
Benzo(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	69	25-121
Phenol-d5	69	24-113
2,4,6-Tribromophenol	52	19-122
Nitrobenzene-d5	73	23-120
2-Fluorobiphenyl	79	30-115
Terphenyl-d14	84	18-137

Lab #: 129142

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

LCS Lab ID: QC45466

Analyte	Result	Spike Added	%Rec #	Limits
Phenol	2788	3333	84	26-90
2-Chlorophenol	2943	3333	88	25-102
4-Chloro-3-methylphenol	2700	3333	81	26-103
4-Nitrophenol	2161	3333	65	11-114
Pentachlorophenol	1631	3333	49	17-109
1,4-Dichlorobenzene	1351	1667	81	28-104
N-Nitroso-di-n-propylamine	1257	1667	75	41-126
1,2,4-Trichlorobenzene	1367	1667	82	38-107
Acenaphthene	1413	1667	85	31-137
2,4-Dinitrotoluene	1119	1667	67	28-89
Pyrene	1512	1667	91	35-142

Surrogate	%Rec	Limits
2-Fluorophenol	82	25-121
Phenol-d5	82	24-113
2,4,6-Tribromophenol	68	19-122
Nitrobenzene-d5	87	23-120
2-Fluorobiphenyl	92	30-115
Terphenyl-d14	96	18-137

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
DO: Surrogate diluted out

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129111-003
Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Sample Date: 04/28/97
Received Date: 04/30/97
Prep Date: 05/06/97
Analysis Date: 05/09/97

MS Lab ID: QC45467

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Phenol	3333	<333.3	2384	72	26-90
2-Chlorophenol	3333	<333.3	2435	73	25-102
4-Chloro-3-methylphenol	3333	<333.3	2481	74	26-103
4-Nitrophenol	3333	<1667	2046	61	11-114
Pentachlorophenol	3333	<1667	1488	45	17-109
1,4-Dichlorobenzene	1667	<333.3	977.1	59	28-104
N-Nitroso-di-n-propylamine	1667	<333.3	1043	63	41-126
1,2,4-Trichlorobenzene	1667	<333.3	1080	65	38-107
Acenaphthene	1667	<333.3	1235	74	31-137
2,4-Dinitrotoluene	1667	<333.3	1004	60	28-89
Pyrene	1667	<333.3	1390	83	35-142

Surrogate	%Rec	Limits
2-Fluorophenol	68	25-121
Phenol-d5	69	24-113
2,4,6-Tribromophenol	65	19-122
Nitrobenzene-d5	70	23-120
2-Fluorobiphenyl	79	30-115
Terphenyl-d14	89	18-137

MSD Lab ID: QC45468

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Phenol	3333	2730	82	26-90	13	35
2-Chlorophenol	3333	2819	85	25-102	15	50
4-Chloro-3-methylphenol	3333	2651	80	26-103	8	33
4-Nitrophenol	3333	2239	67	11-114	9	50
Pentachlorophenol	3333	1563	47	17-109	4	47
1,4-Dichlorobenzene	1667	1209	73	28-104	21	27
N-Nitroso-di-n-propylamine	1667	1234	74	41-126	16	38
1,2,4-Trichlorobenzene	1667	1284	77	38-107	17	23
Acenaphthene	1667	1371	82	31-137	10	19
2,4-Dinitrotoluene	1667	1109	67	28-89	11	47
Pyrene	1667	1470	88	35-142	6	36

Surrogate	%Rec	Limits
2-Fluorophenol	80	25-121
Phenol-d5	80	24-113
2,4,6-Tribromophenol	70	19-122
Nitrobenzene-d5	84	23-120
2-Fluorobiphenyl	90	30-115
Terphenyl-d14	94	18-137

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

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33805
Units: ug/L
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/12/97

MB Lab ID: QC45431

Analyte	Result	Reporting Limit
Phenol	ND	10
2-Chlorophenol	ND	10
Benzyl alcohol	ND	10
2-Methylphenol	ND	10
4-Methylphenol	ND	10
2-Nitrophenol	ND	50
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
2,4-Dichlorophenol	ND	10
4-Chloro-3-methylphenol	ND	10
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	50
2,4-Dinitrophenol	ND	50
4-Nitrophenol	ND	50
4,6-Dinitro-2-methylphenol	ND	50
Pentachlorophenol	ND	10
N-Nitrosodimethylamine	ND	10
Aniline	ND	10
bis(2-Chloroethyl)ether	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
1,2-Dichlorobenzene	ND	10
bis(2-Chloroisopropyl) ether	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
bis(2-Chloroethoxy)methane	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	50
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	50

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33805
Units: ug/L
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/12/97

MB Lab ID: QC45431

Analyte	Result	Reporting Limit
Acenaphthene	ND	10
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
4-Chlorophenyl-phenylether	ND	10
Fluorene	ND	10
4-Nitroaniline	ND	50
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	50
Benzo(a)anthracene	ND	10
Chrysene	ND	10
bis(2-Ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%Rec	Recovery Limits
2-Fluorophenol	63	21-110
Phenol-d5	66	10-110
2,4,6-Tribromophenol	63	10-123
Nitrobenzene-d5	70	35-114
2-Fluorobiphenyl	73	43-116
Terphenyl-d14	78	33-141

Lab #: 129142

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33805
Units: ug/L
Diln Fac: 1

Prep Date: 05/05/97
Analysis Date: 05/12/97

BS Lab ID: QC45432

Analyte	Spike Added	BS	%Rec #	Limits
Phenol	100	70.24	70	12-110
2-Chlorophenol	100	74.7	75	27-123
4-Chloro-3-methylphenol	100	68.06	68	23-97
4-Nitrophenol	100	59.07	59	10-80
Pentachlorophenol	100	50	50	9-103
1,4-Dichlorobenzene	50	31.69	63	36-97
N-Nitroso-di-n-propylamine	50	28.99	58	41-116
1,2,4-Trichlorobenzene	50	33.32	67	39-98
Acenaphthene	50	37.69	75	46-118
2,4-Dinitrotoluene	50	29.82	60	24-96
Pyrene	50	38.05	76	26-127

Surrogate	%Rec	Limits
2-Fluorophenol	67	21-110
Phenol-d5	69	10-110
2,4,6-Tribromophenol	69	10-123
Nitrobenzene-d5	76	35-114
2-Fluorobiphenyl	81	43-116
Terphenyl-d14	83	33-141

BSD Lab ID: QC45433

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Phenol	100	70.21	70	12-110	0	42
2-Chlorophenol	100	73.55	74	27-123	1	40
4-Chloro-3-methylphenol	100	69.2	69	23-97	1	42
4-Nitrophenol	100	59.97	60	10-80	2	50
Pentachlorophenol	100	45.57	46	9-103	8	50
1,4-Dichlorobenzene	50	30.59	61	36-97	3	28
N-Nitroso-di-n-propylamine	50	31.11	62	41-116	7	38
1,2,4-Trichlorobenzene	50	32.48	65	39-98	3	28
Acenaphthene	50	38.02	76	46-118	1	31
2,4-Dinitrotoluene	50	30.46	61	24-96	2	38
Pyrene	50	40.76	82	26-127	8	31

Surrogate	%Rec	Limits
2-Fluorophenol	63	21-110
Phenol-d5	68	10-110
2,4,6-Tribromophenol	71	10-123
Nitrobenzene-d5	75	35-114
2-Fluorobiphenyl	80	43-116
Terphenyl-d14	89	33-141

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

Curtis & Tompkins, Ltd.

SAMPLE ID: SCITP 33B
LAB ID: 129142-001
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Filtrate

DATE SAMPLED: 05/01/97
DATE RECEIVED: 05/02/97
DATE REPORTED: 05/19/97

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	1	33917	EPA 6010A	05/14/97
Arsenic	ND	5.0	1	33917	EPA 6010A	05/14/97
Barium	340	10	1	33917	EPA 6010A	05/14/97
Beryllium	ND	2.0	1	33917	EPA 6010A	05/14/97
Cadmium	ND	5.0	1	33917	EPA 6010A	05/14/97
Chromium (total)	ND	10	1	33917	EPA 6010A	05/14/97
Cobalt	ND	20	1	33917	EPA 6010A	05/14/97
Copper	ND	10	1	33917	EPA 6010A	05/14/97
Lead	18	3.0	1	33917	EPA 6010A	05/14/97
Mercury	ND	0.20	1	33961	EPA 7470	05/14/97
Molybdenum	ND	20	1	33917	EPA 6010A	05/14/97
Nickel	ND	20	1	33917	EPA 6010A	05/14/97
Selenium	11	5.0	1	33917	EPA 6010A	05/14/97
Silver	ND	5.0	1	33917	EPA 6010A	05/14/97
Thallium	ND	5.0	1	33917	EPA 6010A	05/14/97
Vanadium	ND	10	1	33917	EPA 6010A	05/14/97
Zinc	ND	20	1	33917	EPA 6010A	05/14/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: SCITP-33B@6.5
LAB ID: 129142-002
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Soil

DATE SAMPLED: 05/02/97
DATE RECEIVED: 05/02/97
DATE REPORTED: 05/19/97

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	2.9	1	33922	EPA 6010A	05/13/97
Arsenic	2.6	0.24	1	33922	EPA 6010A	05/13/97
Barium	8.0	0.48	1	33922	EPA 6010A	05/13/97
Beryllium	ND	0.096	1	33922	EPA 6010A	05/13/97
Cadmium	0.36	0.096	1	33922	EPA 6010A	05/13/97
Chromium (total)	20	0.48	1	33922	EPA 6010A	05/13/97
Cobalt	4.3	0.96	1	33922	EPA 6010A	05/13/97
Copper	89	0.48	1	33922	EPA 6010A	05/13/97
Lead	6.4	0.14	1	33922	EPA 6010A	05/13/97
Mercury	0.097	0.095	1	33845	EPA 7471	05/07/97
Molybdenum	ND	0.96	1	33922	EPA 6010A	05/13/97
Nickel	19	0.96	1	33922	EPA 6010A	05/13/97
Selenium	0.78	0.24	1	33922	EPA 6010A	05/13/97
Silver	ND	0.48	1	33922	EPA 6010A	05/13/97
Thallium	ND	0.24	1	33922	EPA 6010A	05/13/97
Vanadium	16	0.48	1	33922	EPA 6010A	05/13/97
Zinc	53	0.96	1	33922	EPA 6010A	05/13/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: SCITP-33C@4.5
LAB ID: 129142-003
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Soil

DATE SAMPLED: 05/01/97
DATE RECEIVED: 05/02/97
DATE REPORTED: 05/19/97

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	2.9	1	33922	EPA 6010A	05/13/97
Arsenic	4.0	0.25	1	33922	EPA 6010A	05/13/97
Barium	100	0.49	1	33922	EPA 6010A	05/13/97
Beryllium	0.18	0.098	1	33922	EPA 6010A	05/13/97
Cadmium	0.63	0.098	1	33922	EPA 6010A	05/13/97
Chromium (total)	34	0.49	1	33922	EPA 6010A	05/13/97
Cobalt	6.0	0.98	1	33922	EPA 6010A	05/13/97
Copper	49	0.49	1	33922	EPA 6010A	05/13/97
Lead	180	0.15	1	33922	EPA 6010A	05/13/97
Mercury	0.19	0.095	1	33845	EPA 7471	05/07/97
Molybdenum	ND	0.98	1	33922	EPA 6010A	05/13/97
Nickel	39	0.98	1	33922	EPA 6010A	05/13/97
Selenium	0.79	0.25	1	33922	EPA 6010A	05/13/97
Silver	ND	0.49	1	33922	EPA 6010A	05/13/97
Thallium	ND	0.25	1	33922	EPA 6010A	05/13/97
Vanadium	28	0.49	1	33922	EPA 6010A	05/13/97
Zinc	96	0.98	1	33922	EPA 6010A	05/13/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: SCITP-33D@4.0
LAB ID: 129142-004
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Soil

DATE SAMPLED: 05/02/97
DATE RECEIVED: 05/02/97
DATE REPORTED: 05/19/97

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	2.9	1	33922	EPA 6010A	05/13/97
Arsenic	7.1	0.24	1	33922	EPA 6010A	05/13/97
Barium	130	0.49	1	33922	EPA 6010A	05/13/97
Beryllium	0.22	0.097	1	33922	EPA 6010A	05/13/97
Cadmium	1.1	0.097	1	33922	EPA 6010A	05/13/97
Chromium (total)	46	0.49	1	33922	EPA 6010A	05/13/97
Cobalt	7.1	0.97	1	33922	EPA 6010A	05/13/97
Copper	55	0.49	1	33922	EPA 6010A	05/13/97
Lead	190	0.15	1	33922	EPA 6010A	05/13/97
Mercury	0.83	0.091	1	33845	EPA 7471	05/07/97
Molybdenum	ND	0.97	1	33922	EPA 6010A	05/13/97
Nickel	37	0.97	1	33922	EPA 6010A	05/13/97
Selenium	0.93	0.24	1	33922	EPA 6010A	05/13/97
Silver	0.84	0.49	1	33922	EPA 6010A	05/13/97
Thallium	ND	0.24	1	33922	EPA 6010A	05/13/97
Vanadium	31	0.49	1	33922	EPA 6010A	05/13/97
Zinc	300	9.7	10	33922	EPA 6010A	05/13/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: SCITP-34@6.0
LAB ID: 129142-005
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Soil

DATE SAMPLED: 05/01/97
DATE RECEIVED: 05/02/97
DATE REPORTED: 05/19/97

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	3.0	1	33922	EPA 6010A	05/13/97
Arsenic	4.7	0.25	1	33922	EPA 6010A	05/13/97
Barium	52	0.50	1	33922	EPA 6010A	05/13/97
Beryllium	0.45	0.10	1	33922	EPA 6010A	05/13/97
Cadmium	1.1	0.10	1	33922	EPA 6010A	05/13/97
Chromium (total)	47	0.50	1	33922	EPA 6010A	05/13/97
Cobalt	9.3	1.0	1	33922	EPA 6010A	05/13/97
Copper	39	0.50	1	33922	EPA 6010A	05/13/97
Lead	28	0.15	1	33922	EPA 6010A	05/13/97
Mercury	0.39	0.091	1	33845	EPA 7471	05/07/97
Molybdenum	ND	1.0	1	33922	EPA 6010A	05/13/97
Nickel	53	1.0	1	33922	EPA 6010A	05/13/97
Selenium	1.6	0.25	1	33922	EPA 6010A	05/13/97
Silver	ND	0.50	1	33922	EPA 6010A	05/13/97
Thallium	ND	0.25	1	33922	EPA 6010A	05/13/97
Vanadium	37	0.50	1	33922	EPA 6010A	05/13/97
Zinc	75	1.0	1	33922	EPA 6010A	05/13/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: SCITP-34@9.0
LAB ID: 129142-006
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Soil

DATE SAMPLED: 05/01/97
DATE RECEIVED: 05/02/97
DATE REPORTED: 05/19/97

Metals Analytical Report

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Lead	2.8	0.15	1	33922	EPA 6010A	05/13/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129142

DATE REPORTED: 05/19/97

BATCH QC REPORT
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Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	ug/L	1	33917	EPA 6010A	05/12/97
Antimony	ND	3	mg/Kg	1	33922	EPA 6010A	05/13/97
Arsenic	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Arsenic	ND	0.25	mg/Kg	1	33922	EPA 6010A	05/13/97
Barium	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Barium	ND	0.5	mg/Kg	1	33922	EPA 6010A	05/13/97
Beryllium	ND	2	ug/L	1	33917	EPA 6010A	05/12/97
Beryllium	ND	0.1	mg/Kg	1	33922	EPA 6010A	05/13/97
Cadmium	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Cadmium	ND	0.1	mg/Kg	1	33922	EPA 6010A	05/13/97
Chromium (total)	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Chromium (total)	ND	0.5	mg/Kg	1	33922	EPA 6010A	05/13/97
Cobalt	ND	20	ug/L	1	33917	EPA 6010A	05/12/97
Cobalt	ND	1	mg/Kg	1	33922	EPA 6010A	05/13/97
Copper	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Copper	ND	0.5	mg/Kg	1	33922	EPA 6010A	05/13/97
Lead	ND	3	ug/L	1	33917	EPA 6010A	05/12/97
Lead	ND	0.15	mg/Kg	1	33922	EPA 6010A	05/13/97
Mercury	ND	0.1	mg/Kg	1	33845	EPA 7471	05/07/97
Mercury	ND	0.2	ug/L	1	33961	EPA 7470	05/14/97
Molybdenum	ND	20	ug/L	1	33917	EPA 6010A	05/12/97
Molybdenum	ND	1	mg/Kg	1	33922	EPA 6010A	05/13/97
Nickel	ND	20	ug/L	1	33917	EPA 6010A	05/12/97
Nickel	ND	1	mg/Kg	1	33922	EPA 6010A	05/13/97
Selenium	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Selenium	ND	0.25	mg/Kg	1	33922	EPA 6010A	05/13/97
Silver	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Silver	ND	0.5	mg/Kg	1	33922	EPA 6010A	05/13/97
Thallium	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Thallium	ND	0.25	mg/Kg	1	33922	EPA 6010A	05/13/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129142

DATE REPORTED: 05/19/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Vanadium	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Vanadium	ND	0.5	mg/Kg	1	33922	EPA 6010A	05/13/97
Zinc	ND	20	ug/L	1	33917	EPA 6010A	05/12/97
Zinc	ND	1	mg/Kg	1	33922	EPA 6010A	05/13/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129142

DATE REPORTED: 05/19/97

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	500	443	473	ug/L	89	95	80-120	7	35	33917	EPA 6010A	05/12/97
Antimony	25	20.7	21.1	mg/Kg	83	84	80-120	2	35	33922	EPA 6010A	05/13/97
Arsenic	2000	2100	2080	ug/L	105	104	80-120	1	35	33917	EPA 6010A	05/12/97
Arsenic	100	89.5	92.5	mg/Kg	90	93	80-120	3	35	33922	EPA 6010A	05/13/97
Barium	2000	2080	2090	ug/L	104	105	80-120	1	35	33917	EPA 6010A	05/12/97
Barium	100	88.5	92	mg/Kg	89	92	80-120	4	35	33922	EPA 6010A	05/13/97
Beryllium	50	52.7	52.4	ug/L	105	105	80-120	1	35	33917	EPA 6010A	05/12/97
Beryllium	2.5	2.345	2.435	mg/Kg	94	97	80-120	4	35	33922	EPA 6010A	05/13/97
Cadmium	50	50.9	50.4	ug/L	102	101	80-120	1	35	33917	EPA 6010A	05/12/97
Cadmium	2.5	2.35	2.435	mg/Kg	94	97	80-120	4	35	33922	EPA 6010A	05/13/97
Chromium (total)	200	201	199	ug/L	101	100	80-120	1	35	33917	EPA 6010A	05/12/97
Chromium (total)	10	8.65	9	mg/Kg	87	90	80-120	4	35	33922	EPA 6010A	05/13/97
Cobalt	500	520	512	ug/L	104	102	80-120	2	35	33917	EPA 6010A	05/12/97
Cobalt	25	22.85	23.8	mg/Kg	91	95	80-120	4	35	33922	EPA 6010A	05/13/97
Copper	250	269	270	ug/L	108	108	80-120	0	35	33917	EPA 6010A	05/12/97
Copper	12.5	11.7	12.1	mg/Kg	94	97	80-120	3	35	33922	EPA 6010A	05/13/97
Lead	500	506	502	ug/L	101	100	80-120	1	35	33917	EPA 6010A	05/12/97
Lead	25	22.45	23.25	mg/Kg	90	93	80-120	4	35	33922	EPA 6010A	05/13/97
Mercury	5	4.729	4.815	ug/L	95	96	80-120	2	35	33845	EPA 7470	05/07/97
Mercury	5	4.908	4.857	ug/L	98	97	80-120	1	35	33961	EPA 7470	05/14/97
Molybdenum	400	428	425	ug/L	107	106	80-120	1	35	33917	EPA 6010A	05/12/97
Molybdenum	20	18.1	18.6	mg/Kg	91	93	80-120	3	35	33922	EPA 6010A	05/13/97
Nickel	500	506	500	ug/L	101	100	80-120	1	35	33917	EPA 6010A	05/12/97
Nickel	25	22.35	23.25	mg/Kg	89	93	80-120	4	35	33922	EPA 6010A	05/13/97
Selenium	2000	2040	2010	ug/L	102	101	80-120	2	35	33917	EPA 6010A	05/12/97
Selenium	100	84	87	mg/Kg	84	87	80-120	4	35	33922	EPA 6010A	05/13/97
Silver	100	110	112	ug/L	110	112	80-120	2	35	33917	EPA 6010A	05/12/97
Silver	5	4.715	4.805	mg/Kg	94	96	80-120	2	35	33922	EPA 6010A	05/13/97
Thallium	2000	2010	2010	ug/L	101	101	80-120	0	35	33917	EPA 6010A	05/12/97
Thallium	100	87	90.5	mg/Kg	87	91	80-120	4	35	33922	EPA 6010A	05/13/97
Vanadium	500	523	520	ug/L	105	104	80-120	1	35	33917	EPA 6010A	05/12/97
Vanadium	25	22.45	23.4	mg/Kg	90	94	80-120	4	35	33922	EPA 6010A	05/13/97
Zinc	500	511	507	ug/L	102	101	80-120	1	35	33917	EPA 6010A	05/12/97
Zinc	25	22	23	mg/Kg	88	92	80-120	4	35	33922	EPA 6010A	05/13/97

129142

CHAIN OF CUSTODY FORM

PROJECT NAME: 9th Ave. Terminal

JOB NUMBER: 133.004

PROJECT CONTACT: Jerome deVenies

SAMPLED BY: John Wolfe/Chris O'Dea

LAB: C&T

TURNAROUND: std.

REQUESTED BY: JD

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	CONTAINERS: VOA	LITER	PINT	TUBE	1L/Poly	Steel poly	METHOD PRESERVED: HCL	H_2SO_4	HNO3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TEH (d+m)	TVH/BTEX	8240	8270	8080	Metals ([illegible])	Lead	O&G
	SCITR33B	X				6	1					X			X		05	01	97		*	X	X	X	X	X	X		X
										X				X							*								
							3				3				X	X					*								

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME		RECEIVED BY: (Signature)	DATE / TIME
[signature]	5/2/97	1223	Dumasa Moore	5/2 12:20
RELEASED BY: (Signature)	DATE / TIME		RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME		RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME		RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

* Note - samples mislabelled as 4/30/97 was sampled 5/1/97

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

CHAIN OF CUSTODY FORM

129142

PROJECT NAME: 9th Ave Terminal

JOB NUMBER: 133 004 LAB: C&T

PROJECT CONTACT: Jerome de Vernier TURNAROUND: std.

SAMPLED BY: John Wolfe / Chris O'Dea REQUESTED BY: JD

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	MATRIX: SOIL	MATRIX: WASTE	MATRIX: AIR	CONTAINERS: VOA	CONTAINERS: LITER	CONTAINERS: PINT	CONTAINERS: TUBE	METHOD PRESERVED: HCL	METHOD PRESERVED: H_2SO_4	METHOD PRESERVED: HNO_3	METHOD PRESERVED: ICE	METHOD PRESERVED: NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	TEH (d+mo)	TVH/BTEX	8240	8270	8080	Metals	Lead	O&G
-2	SCI TP-33B@6.5		X						X				X		05	02	97			X	X	X	X	X	X	[illegible]	X
-3	SCI TP 33C@4.5		↓						↓				↓		05	01	97			X	X	X	X	X	X		X
-4	SCI TP-33D@4.0		↓						↓				↓		05	02	97			X	X	X	X	X	X		X
-5	SCI TP-34@6.0		↓						↓				↓		05	01	97			X	X		X	X	X		X
-6	SCI TP-34@9.0														05	01	97			X	X					X	X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
[signature]	5/2/97 1223	Damara Moore	5/2 12:20 AM

COMMENTS & NOTES:

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 19-MAY-97
Lab Job Number: 129144
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129144

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD: SMWW 17:5520EF**

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129144-001	SCI-33E@5.0	Soil	02-MAY-97	02-MAY-97	14-MAY-97	970	mg/Kg	50	DLP	33972

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129144
Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 33972**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	50	mg/Kg	SMWW 17:5520EF	14-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	85%	SMWW 17:5520EF	14-MAY-97
BSD	82%	SMWW 17:5520EF	14-MAY-97

		Control Limits
Average Spike Recovery	84%	80% - 120%
Relative Percent Difference	3.4%	< 20%

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129144-001	SCI-33E@5.0	33889	05/02/97	05/10/97	05/10/97	

Matrix: Soil

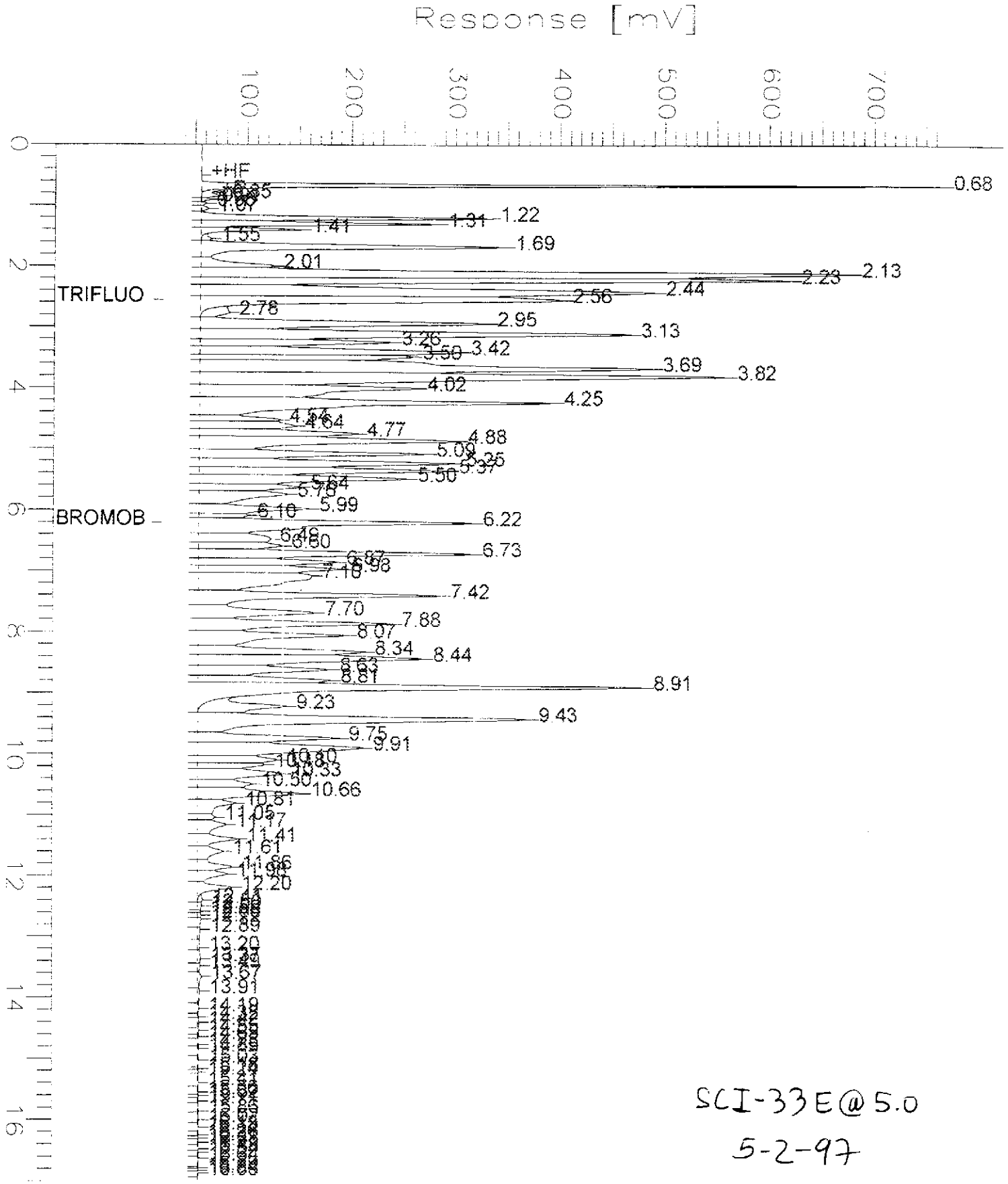
Analyte	Units	129144-001	
Diln Fac:		100	
Gasoline	mg/Kg	760	
Surrogate			
Trifluorotoluene	%REC	125	
Bromobenzene	%REC	194	*

* Values outside of QC limits

GC04 TVH 'J' Data File Rtx1FID

Sample Name : D,129144-001,33889,100X
FileName : G:\GC04\DATA\129J038.raw
Method : TVMAR14
Start Time : 0.00 min End Time : 17.00 min
Scale Factor: 1.0 Plot Offset: 20 mV

Sample #: Page 1 of 1
Date : 5/10/97 07:26 AM
Time of Injection: 5/10/97 07:08 AM
Low Point : 19.95 mV High Point : 767.24 mV
Plot Scale: 747.3 mV

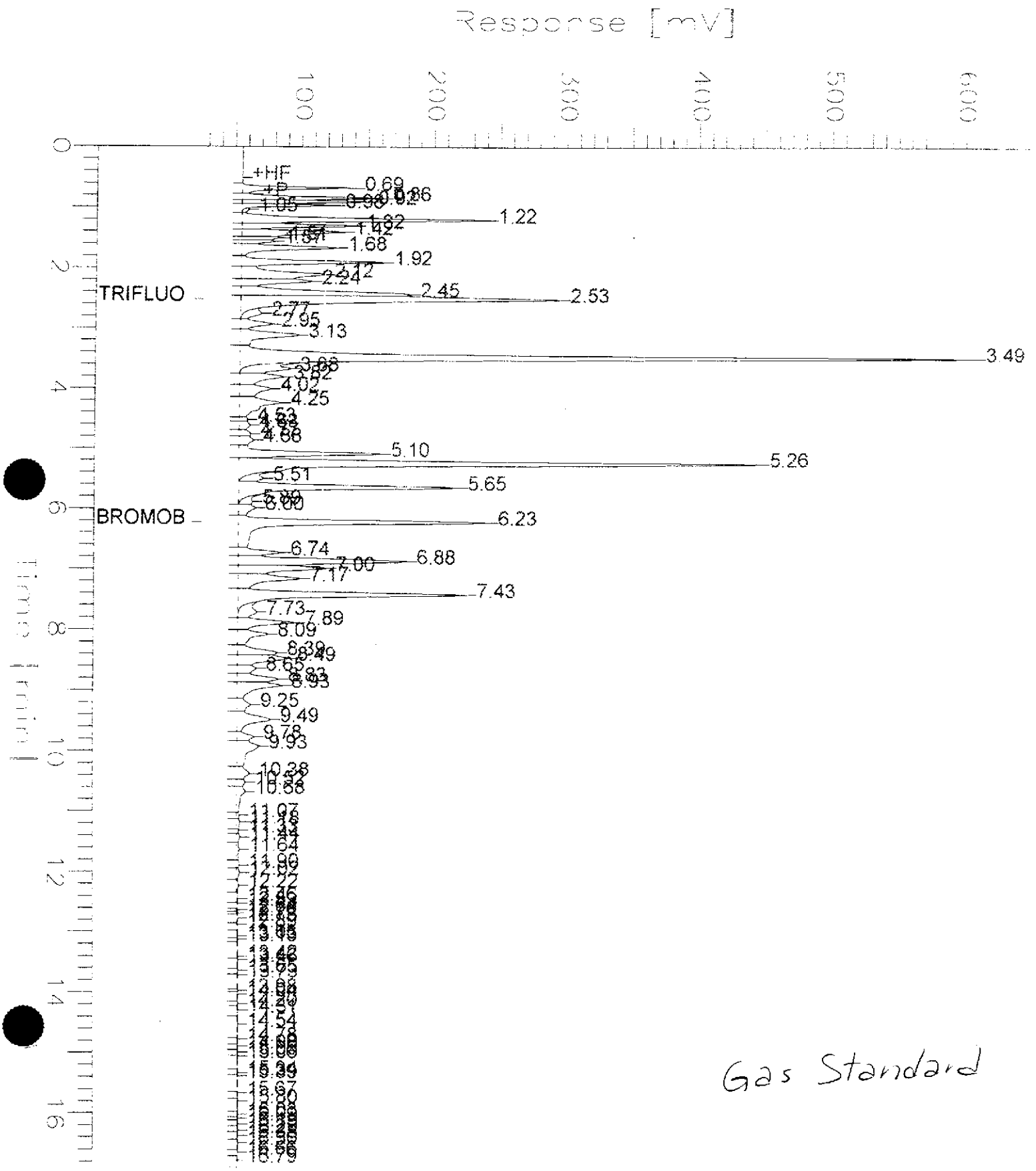


SCI-33E@5.0
5-2-97

GC04 TVH 'J' Data File Rtx1FID

Sample Name : LCS/CCV,QC45758,33889,
FileName : G:\GC04\DATA\129J002.raw
Method : TVMAR14
Start Time : 0.00 min End Time : 17.00 min
Scale Factor: 1.0 Plot Offset: 27 mV

Sample #: 97WS4007 G Page 1 of 1
Date : 5/9/97 10:39 AM
Time of Injection: 5/9/97 10:22 AM
Low Point : 27.20 mV High Point : 610.37 mV
Plot Scale: 583.2 mV



Gas Standard

Lab #: 129144

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33889
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/09/97
Analysis Date: 05/09/97

MB Lab ID: QC45760

Analyte	Result	
Gasoline	<1.0	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	52	52-127
Bromobenzene	88	45-140

Lab #: 129144

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33889
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/09/97
Analysis Date: 05/09/97

LCS Lab ID: QC45758

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	9.16	10	92	80-120
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	79	52-127		
Bromobenzene	115	45-140		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 129144

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129217-001
Matrix: Soil
Batch#: 33889
Units: mg/Kg
Diln Fac: 1

Sample Date: 05/07/97
Received Date: 05/08/97
Prep Date: 05/09/97
Analysis Date: 05/09/97

MS Lab ID: QC45761

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	10	2.24	9.21	70	65-135
Surrogate	**%Rec**	**Limits**			
Trifluorotoluene	104	52-127			
Bromobenzene	113	45-140			

MSD Lab ID: QC45762

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	10	16.75	145 *	65-135	70 *	30
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	95	52-127				
Bromobenzene	108	45-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 1 out of 1 outside limits
Spike Recovery: 1 out of 2 outside limits

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129144-001	SCI-33E@5.0	33831	05/02/97	05/06/97	05/16/97	

Matrix: Soil

Analyte	Units	129144-001	
Diln Fac:		5	
Diesel C12-C22	mg/Kg	530	YLH
Motor Oil C22-C50	mg/Kg	1200	LH
Surrogate			
Hexacosane	%REC	116	

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

Chromatogram

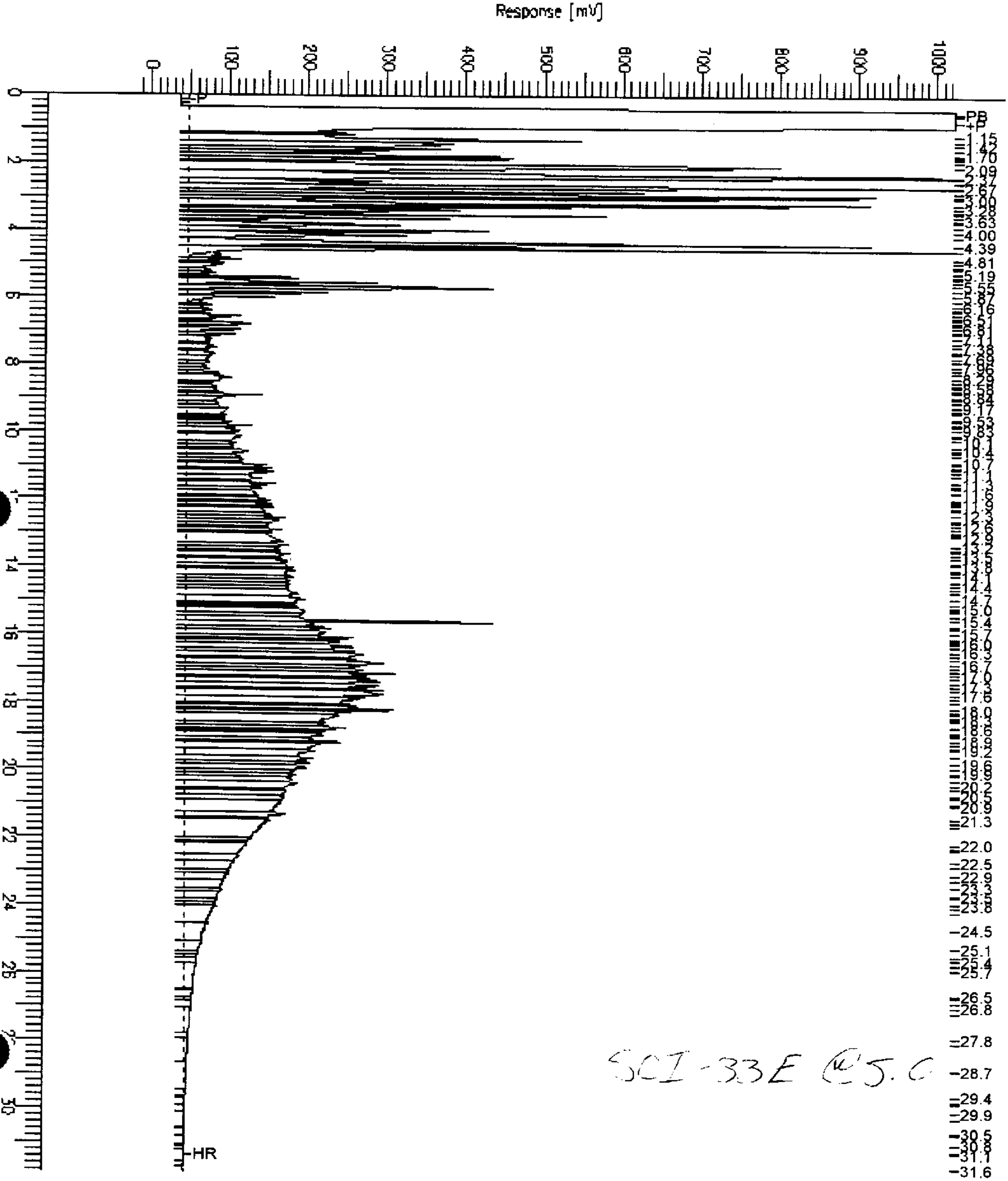
Sample Name : 129144-001,33831
FileName : G:\GC11\CHB\135B019.RAW
Method : BTEH128.MTH
Start Time : 0.00 min
Scale Factor: 0.0

End Time : 31.90 min
Plot Offset: -16 mV

Sample #: 33831
Date : 5/19/97 09:27 AM
Time of Injection: 5/16/97 01:38 PM
Low Point : -15.56 mV
Plot Scale: 1039.6 mV

Page 1 of 1

High Point : 1024.00 mV

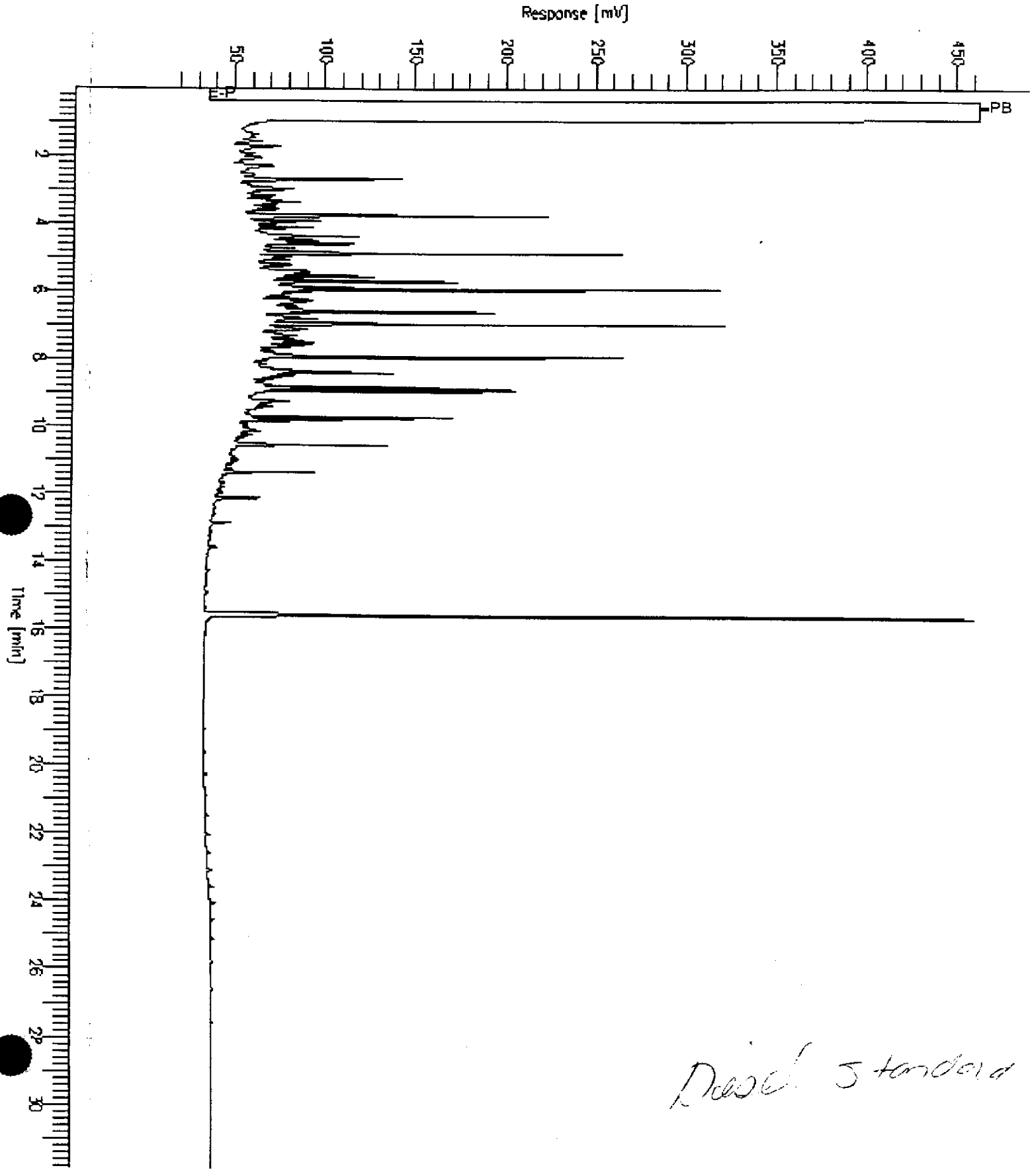


SCI-33E @ 5.0

Chromatogram

Sample Name : CCV,97WS4141,DS
FileName : G:\GC11\CHB\135B024.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 12 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/19/97 09:03 AM
Time of Injection: 5/16/97 05:16 PM
Low Point : 12.14 mV High Point : 462.88 mV
Plot Scale: 450.7 mV

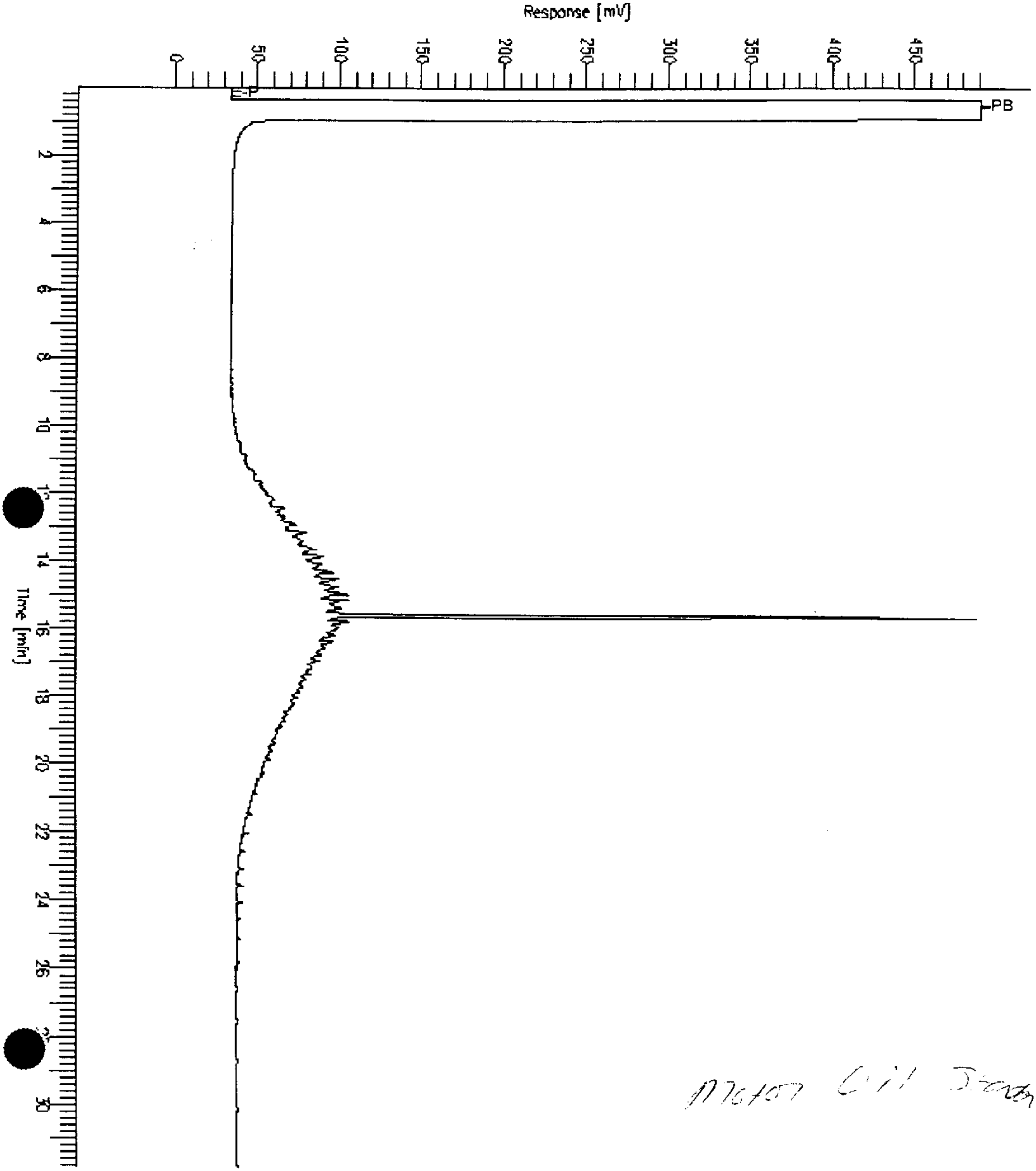


Daily standard

Chromatogram

Sample Name : CCV,97WS4154,MO
FileName : G:\GC11\CHB\135B027.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -3 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/19/97 09:04 AM
Time of Injection: 5/16/97 07:26 PM
Low Point : -3.19 mV High Point : 491.14 mV
Plot Scale: 494.3 mV



Motor Oil Std

Curtis & Tompkins, Ltd.

Lab #: 129144 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

METHOD BLANK

Matrix: Soil
Batch#: 33831
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

MB Lab ID: QC45530

Analyte	Result	
Diesel C12-C22	<1.0	
Motor Oil C22-C50	<5.0	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	105	60-140

Curtis & Tompkins, Ltd.

Lab #: 129144 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33831
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

LCS Lab ID: QC45531

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C12-C22	33.3	49.5	67	60-140
Surrogate	%Rec	Limits		
Hexacosane	94	60-140		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129144 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129116-001
Matrix: Soil
Batch#: 33831
Units: mg/Kg
Diln Fac: 1

Sample Date: 04/28/97
Received Date: 04/30/97
Prep Date: 05/06/97
Analysis Date: 05/09/97

MS Lab ID: QC45532

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Diesel C12-C22	49.5	6.62	42.9	73	60-140
Surrogate	%Rec	Limits			
Hexacosane	114	60-140			

MSD Lab ID: QC45533

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	49.5	46.3	80	60-140	9	30
Surrogate	%Rec	Limits				
Hexacosane	123	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129144-001	SCI-33E@5.0	33889	05/02/97	05/10/97	05/10/97	

Matrix: Soil

Analyte	Units	129144-001	
Diln Fac:		100	
Benzene	ug/Kg	<500	
Toluene	ug/Kg	2600	
Ethylbenzene	ug/Kg	7600	
m,p-Xylenes	ug/Kg	6000	
o-Xylene	ug/Kg	2700	
Surrogate			
Trifluorotoluene	%REC	109	
Bromobenzene	%REC	148	*

* Values outside of QC limits

Lab #: 129144

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33889
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/09/97
Analysis Date: 05/09/97

MB Lab ID: QC45760

Analyte	Result
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	83	52-127
Bromobenzene	100	45-140

Lab #: 129144

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33889
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/09/97
Analysis Date: 05/09/97

LCS Lab ID: QC45759

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	101	100	101	80-120
Toluene	96.71	100	97	80-120
Ethylbenzene	100.9	100	101	80-120
m,p-Xylenes	179.7	200	90	80-120
o-Xylene	106.5	100	107	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	86	52-127
Bromobenzene	109	45-140

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

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCI-33E@5.0
Lab ID: 129144-001
Matrix: Soil
Batch#: 33869
Units: ug/Kg
Diln Fac: 50

Sampled: 05/02/97
Received: 05/02/97
Extracted: 05/09/97
Analyzed: 05/09/97

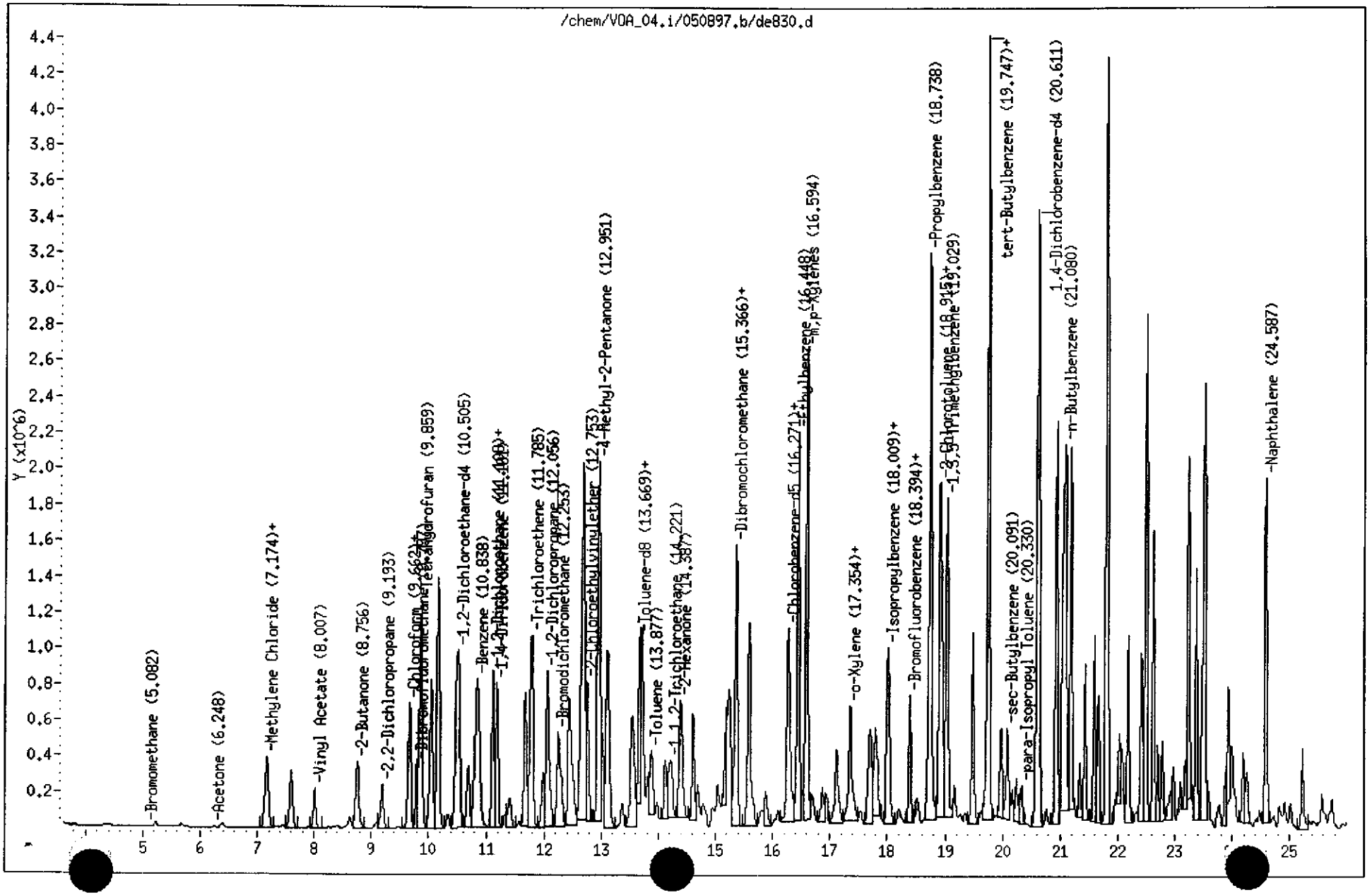
Analyte	Result	Reporting Limit
Chloromethane	ND	500
Bromomethane	ND	500
Vinyl Chloride	ND	500
Chloroethane	ND	500
Methylene Chloride	ND	1000
Acetone	ND	1000
Carbon Disulfide	ND	250
Trichlorofluoromethane	ND	250
1,1-Dichloroethene	ND	250
1,1-Dichloroethane	ND	250
trans-1,2-Dichloroethene	ND	250
cis-1,2-Dichloroethene	ND	250
Chloroform	ND	250
Freon 113	ND	250
1,2-Dichloroethane	ND	250
2-Butanone	ND	500
1,1,1-Trichloroethane	ND	250
Carbon Tetrachloride	ND	250
Vinyl Acetate	ND	2500
Bromodichloromethane	ND	250
1,2-Dichloropropane	ND	250
cis-1,3-Dichloropropene	ND	250
Trichloroethene	ND	250
Dibromochloromethane	ND	250
1,1,2-Trichloroethane	ND	250
Benzene	ND	250
trans-1,3-Dichloropropene	ND	250
Bromoform	ND	250
2-Hexanone	ND	500
4-Methyl-2-Pentanone	ND	500
1,1,2,2-Tetrachloroethane	ND	250
Tetrachloroethene	ND	250
Toluene	ND	250
Chlorobenzene	ND	250
Ethylbenzene	6500	250
Styrene	ND	250
m,p-Xylenes	8100	250
o-Xylene	2000	250

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	90	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	101	79-122

Data File: /chem/VOA_04.i/050897.b/de830.d
Date : 09-MAY-97 02:11
Client ID: DYNA P&T
Sample Info: S,129144-001
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_04.i

Operator: DM
Column diameter: 0.32



EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

MB Lab ID: QC45678

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	90	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	98	79-122

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

MB Lab ID: QC45710

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	91	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	99	79-122

Curtis & Tompkins, Ltd.

Lab #: 129144 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

LCS Lab ID: QC45677

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	48.18	50	96	51-180
Trichloroethene	48.54	50	97	73-141
Benzene	47.68	50	95	78-142
Toluene	51.14	50	102	76-150
Chlorobenzene	48.37	50	97	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	89	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	98	79-122

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

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129118-002
Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Sample Date: 04/30/97
Received Date: 05/01/97
Prep Date: 05/08/97
Analysis Date: 05/08/97

MS Lab ID: QC45707

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	45.47	91	51-180
Trichloroethene	50	<5	46.37	93	73-141
Benzene	50	0	46.25	93	78-142
Toluene	50	0	48.87	98	76-150
Chlorobenzene	50	<5	46.5	93	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	94	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	96	79-122

MSD Lab ID: QC45708

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	46.48	93	51-180	2	22
Trichloroethene	50	47.21	94	73-141	2	24
Benzene	50	47.28	95	78-142	2	21
Toluene	50	50.81	102	76-150	4	21
Chlorobenzene	50	47.62	95	83-129	2	21

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	93	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	97	79-122

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

Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		

Field ID:	SCI-33E@5.0	Sampled:	05/02/97
Lab ID:	129144-001	Received:	05/02/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/17/97
Units:	ug/Kg		
Diln Fac:	5		

Analyte	Result	Reporting Limit
Phenol	ND	1700
2-Chlorophenol	ND	1700
Benzyl alcohol	ND	1700
2-Methylphenol	ND	1700
4-Methylphenol	ND	1700
2-Nitrophenol	ND	8300
2,4-Dimethylphenol	ND	1700
Benzoic acid	ND	8300
2,4-Dichlorophenol	ND	1700
4-Chloro-3-methylphenol	ND	1700
2,4,6-Trichlorophenol	ND	1700
2,4,5-Trichlorophenol	ND	8300
2,4-Dinitrophenol	ND	8300
4-Nitrophenol	ND	8300
4,6-Dinitro-2-methylphenol	ND	8300
Pentachlorophenol	ND	8300
N-Nitrosodimethylamine	ND	1700
Aniline	ND	1700
bis(2-Chloroethyl)ether	ND	1700
1,3-Dichlorobenzene	ND	1700
1,4-Dichlorobenzene	ND	1700
1,2-Dichlorobenzene	ND	1700
bis(2-Chloroisopropyl) ether	ND	1700
N-Nitroso-di-n-propylamine	ND	1700
Hexachloroethane	ND	1700
Nitrobenzene	ND	1700
Isophorone	ND	1700
bis(2-Chloroethoxy)methane	ND	1700
1,2,4-Trichlorobenzene	ND	1700
Naphthalene	8400	1700
4-Chloroaniline	ND	1700
Hexachlorobutadiene	ND	1700
2-Methylnaphthalene	12000	1700
Hexachlorocyclopentadiene	ND	1700
2-Chloronaphthalene	ND	1700
2-Nitroaniline	ND	8300
Dimethylphthalate	ND	1700
Acenaphthylene	ND	1700

Semivolatile Organics by GC/MS

Field ID:	SCI-33E@5.0	Sampled:	05/02/97
Lab ID:	129144-001	Received:	05/02/97
Matrix:	Soil	Extracted:	05/06/97
Batch#:	33817	Analyzed:	05/17/97
Units:	ug/Kg		
Diln Fac:	5		

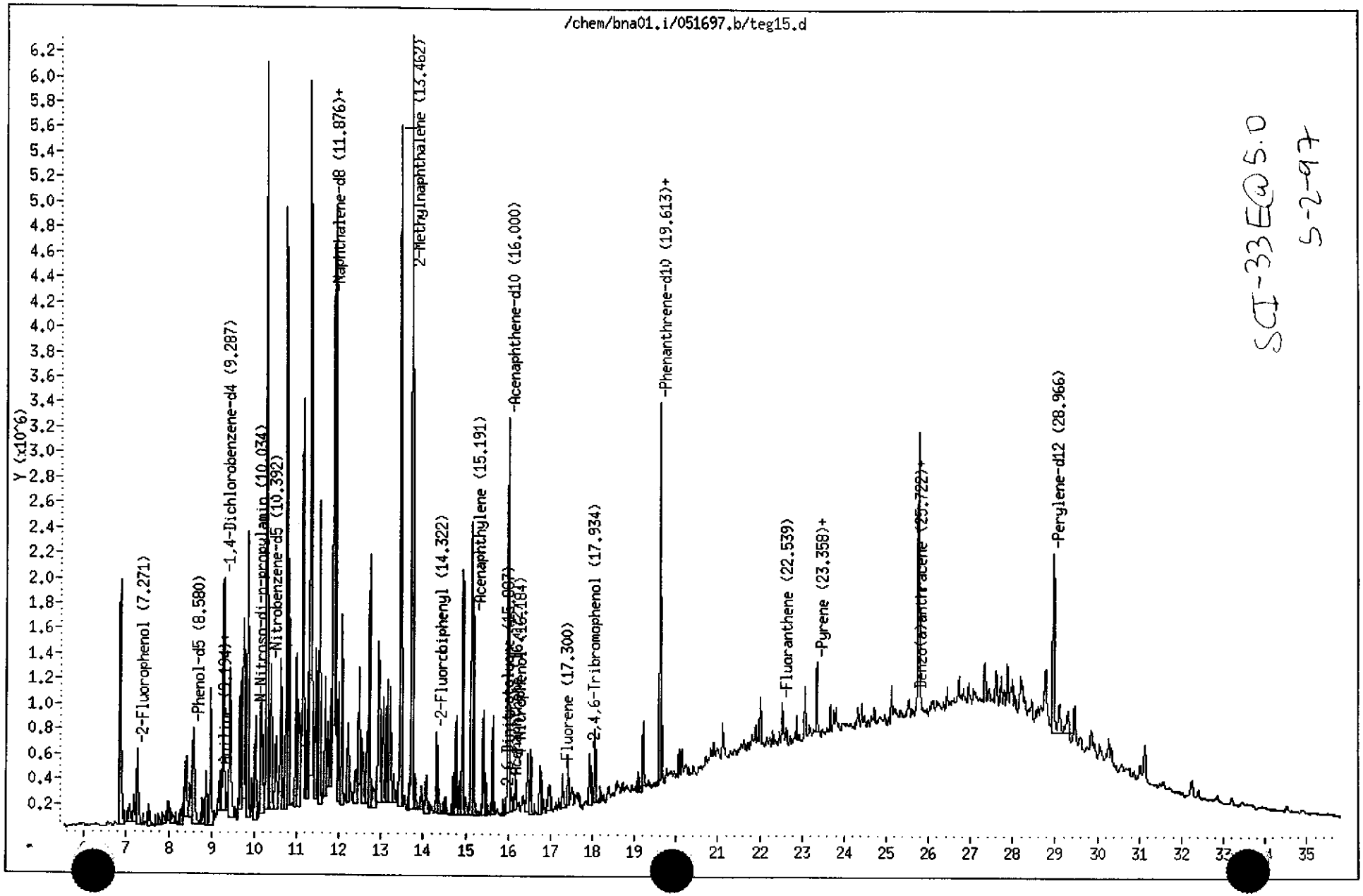
Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	1700
3-Nitroaniline	ND	8300
Acenaphthene	ND	1700
Dibenzofuran	ND	1700
2,4-Dinitrotoluene	ND	1700
Diethylphthalate	ND	1700
4-Chlorophenyl-phenylether	ND	1700
Fluorene	ND	1700
4-Nitroaniline	ND	8300
N-Nitrosodiphenylamine	ND	1700
Azobenzene	ND	1700
4-Bromophenyl-phenylether	ND	1700
Hexachlorobenzene	ND	1700
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)fluoranthene	ND	1700
Benzo(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	77	25-121
Phenol-d5	81	24-113
2,4,6-Tribromophenol	61	19-122
Nitrobenzene-d5	84	23-120
2-Fluorobiphenyl	87	30-115
Terphenyl-d14	99	18-137

Data File: /chem/bna01.i/051697.b/teg15.d
Date : 17-MAY-97 01:50
Client ID: CURTIS&TOMPKINS
Sample Info: 8270,,33817,30,1000,5,
Volume Injected (uL): 1.0
Column phase: Xti 5 x .5 u

Instrument: bna01.i

Operator: dsh
Column diameter: 0.25



Lab #: 129144

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

MB Lab ID: QC45465

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

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

MB Lab ID: QC45465

Analyte	Result	Reporting Limit
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
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)fluoranthene	ND	330
Benzo(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	69	25-121
Phenol-d5	69	24-113
2,4,6-Tribromophenol	52	19-122
Nitrobenzene-d5	73	23-120
2-Fluorobiphenyl	79	30-115
Terphenyl-d14	84	18-137

Curtis & Tompkins, Ltd.

Lab #: 129144 BATCH QC REPORT

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129111-003
Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Sample Date: 04/28/97
Received Date: 04/30/97
Prep Date: 05/06/97
Analysis Date: 05/09/97

MS Lab ID: QC45467

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Phenol	3333	<333.3	2384	72	26-90
2-Chlorophenol	3333	<333.3	2435	73	25-102
4-Chloro-3-methylphenol	3333	<333.3	2481	74	26-103
4-Nitrophenol	3333	<1667	2046	61	11-114
Pentachlorophenol	3333	<1667	1488	45	17-109
1,4-Dichlorobenzene	1667	<333.3	977.1	59	28-104
N-Nitroso-di-n-propylamine	1667	<333.3	1043	63	41-126
1,2,4-Trichlorobenzene	1667	<333.3	1080	65	38-107
Acenaphthene	1667	<333.3	1235	74	31-137
2,4-Dinitrotoluene	1667	<333.3	1004	60	28-89
Pyrene	1667	<333.3	1390	83	35-142

Surrogate	%Rec	Limits
2-Fluorophenol	68	25-121
Phenol-d5	69	24-113
2,4,6-Tribromophenol	65	19-122
Nitrobenzene-d5	70	23-120
2-Fluorobiphenyl	79	30-115
Terphenyl-d14	89	18-137

MSD Lab ID: QC45468

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Phenol	3333	2730	82	26-90	13	35
2-Chlorophenol	3333	2819	85	25-102	15	50
4-Chloro-3-methylphenol	3333	2651	80	26-103	8	33
4-Nitrophenol	3333	2239	67	11-114	9	50
Pentachlorophenol	3333	1563	47	17-109	4	47
1,4-Dichlorobenzene	1667	1209	73	28-104	21	27
N-Nitroso-di-n-propylamine	1667	1234	74	41-126	16	38
1,2,4-Trichlorobenzene	1667	1284	77	38-107	17	23
Acenaphthene	1667	1371	82	31-137	10	19
2,4-Dinitrotoluene	1667	1109	67	28-89	11	47
Pyrene	1667	1470	88	35-142	6	36

Surrogate	%Rec	Limits
2-Fluorophenol	80	25-121
Phenol-d5	80	24-113
2,4,6-Tribromophenol	70	19-122
Nitrobenzene-d5	84	23-120
2-Fluorobiphenyl	90	30-115
Terphenyl-d14	94	18-137

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

Curtis & Tompkins, Ltd.

Lab #: 129144 BATCH QC REPORT

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33817
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

LCS Lab ID: QC45466

Analyte	Result	Spike Added	%Rec #	Limits
Phenol	2788	3333	84	26-90
2-Chlorophenol	2943	3333	88	25-102
4-Chloro-3-methylphenol	2700	3333	81	26-103
4-Nitrophenol	2161	3333	65	11-114
Pentachlorophenol	1631	3333	49	17-109
1,4-Dichlorobenzene	1351	1667	81	28-104
N-Nitroso-di-n-propylamine	1257	1667	75	41-126
1,2,4-Trichlorobenzene	1367	1667	82	38-107
Acenaphthene	1413	1667	85	31-137
2,4-Dinitrotoluene	1119	1667	67	28-89
Pyrene	1512	1667	91	35-142

Surrogate	%Rec	Limits
2-Fluorophenol	82	25-121
Phenol-d5	82	24-113
2,4,6-Tribromophenol	68	19-122
Nitrobenzene-d5	87	23-120
2-Fluorobiphenyl	92	30-115
Terphenyl-d14	96	18-137

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
DO: Surrogate diluted out

Curtis & Tompkins, Ltd.

SAMPLE ID: SCI-33E@5.0
LAB ID: 129144-001
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Soil

DATE SAMPLED: 05/02/97
DATE RECEIVED: 05/02/97
DATE REPORTED: 05/19/97

Metals Analytical Report

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Lead	74	0.15	1	33922	EPA 6010A	05/13/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129144

DATE REPORTED: 05/19/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Lead	ND	0.15	mg/Kg	1	33922	EPA 6010A	05/13/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129144

DATE REPORTED: 05/19/97

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
Lead	25	22.45	23.25	mg/Kg	90	93	80-120	4	35	33922	EPA 6010A	05/13/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129144

DATE REPORTED: 05/19/97

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Lead	24.39	129142-002	6.411	24.83	mg/Kg	76	65-135	33922	EPA 6010A	05/13/97

CHAIN OF CUSTODY FORM

12914

PAGE 1 OF 1

PROJECT NAME: 9th Avenue Terminal

JOB NUMBER: 133.004 LAB: CET

PROJECT CONTACT: Jerome de Verniè TURNAROUND: std

SAMPLED BY: Jim Wolfe REQUESTED BY: JD

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	NOTES	ANALYSIS REQUESTED: TVH/BTEX	TEA (drums)	O&G	8240	Lead	8270
	SCI-33E@5.0																											
1	NEXT TO VAULT		X								X						X		05	02	97		X	X	X	X	X	X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
[signature]	5/2/97 1623		
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
		[signature]	5/2/97 1610

COMMENTS & NOTES:

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 • FAX: 510-268-0137

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 16-MAY-97
Lab Job Number: 129166
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129166

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 16 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD: SMWW 17:5520EF**

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129166-001	SCI-74@2	Soil	24-APR-97	05-MAY-97	14-MAY-97	680	mg/Kg	50	DLP	33972
129166-002	SCITP-22@1.5	Soil	25-APR-97	05-MAY-97	14-MAY-97	64.	mg/Kg	50	DLP	33972

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129166
Report Date: 16 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 33972**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	50	mg/Kg	SMWW 17:5520EF	14-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	85%	SMWW 17:5520EF	14-MAY-97
BSD	82%	SMWW 17:5520EF	14-MAY-97

		Control Limits
Average Spike Recovery	84%	80% - 120%
Relative Percent Difference	3.4%	< 20%

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129166

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 16 May 97

ANALYSIS: pH

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	Method	Analyst	QC Batch
129166-002	SCITP-22@1.5	Soil	25-APR-97	05-MAY-97	12-MAY-97	7.3	SU #	EPA 9045	DRH	33973

Soil pH measured in 0.01 M CaCl2

CURTIS & TOMPKINS, LTD. BERKELEY LOGIN CHANGE FORM

Reason for change: ___X___ Client Request: By: Jerome Date/Time:_____ Initials:_____
_____ Login Review

Current Lab ID	Previous Lab ID	Client ID	Matrix	Add/Cancel	Analysis	Duedate
		SCTP-22@1.0	Soil			

Curtis & Tompkins, Ltd.

CHAIN OF CUSTODY FORM

12916

PAGE 1 OF 1

PROJECT NAME: ~~[redacted]~~ 9th Avenue Terminal

JOB NUMBER: 133.004 LAB: CAT

PROJECT CONTACT: Jerome deVeniz TURNAROUND: std.

SAMPLED BY: JD/John Wolfe REQUESTED BY: Jerome deVeniz

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX						CONTAINERS						METHOD PRESERVED					SAMPLING DATE				ANALYSIS REQUESTED	NOTES
		WATER	SOIL	WASTE	AIR			VOA	LITER	PINT	TUBE			HCL	H_2SO_4	HNO_3	ICE	NONE	MONTH	DAY	YEAR	TIME	8260	
-1	SCI-T4@2		X								X						X		04	24	97		X	
-2	SCITP-22@1½		X								X						X		04	25	97		X	

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Jerome	05/97 1405		5/5/97 1405
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 19-MAY-97
Lab Job Number: 129167
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129166
Report Date: 16 May 97

ANALYSIS: pH

QC Batch Number: 33973

Calibration Verification Results

Sample	Result	TV	Difference	Limit	Analyzed
ICV	7.00	7.00	.00	< 0.10	12-MAY-97
CCV	6.99	7.00	.01	< 0.10	12-MAY-97

Sample Duplicate Results

Sample	Duplicate	RPD	Analyzed
6.67	6.67	0%	12-MAY-97

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129167

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD: SMWW 17:5520EF**

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129167-001	SCITP-35@5.0	Soil	03-MAY-97	05-MAY-97	14-MAY-97	120	mg/Kg	50	DLP	33972
129167-002	SCITP-36@4.0	Soil	03-MAY-97	05-MAY-97	14-MAY-97	510	mg/Kg	50	DLP	33972
129167-003	SCITP-37@7.0	Soil	03-MAY-97	05-MAY-97	14-MAY-97	2800	mg/Kg	50	DLP	33972

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129167

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD: SMWW 17:5520BF**

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129167-004	SCITP-35	Water	03-MAY-97	05-MAY-97	15-MAY-97	ND	mg/L	5	DLP	33992
129167-005	SCITP-36	Water	03-MAY-97	05-MAY-97	15-MAY-97	260	mg/L	5	DLP	33992

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129167
Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 33972**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	50	mg/Kg	SMWW 17:5520EF	14-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	85%	SMWW 17:5520EF	14-MAY-97
BSD	82%	SMWW 17:5520EF	14-MAY-97

		Control Limits
Average Spike Recovery	84%	80% - 120%
Relative Percent Difference	3.4%	< 20%

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129167
Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 33992**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	5	mg/L	SMWW 17:5520BF	15-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	95%	SMWW 17:5520BF	15-MAY-97
BSD	98%	SMWW 17:5520BF	15-MAY-97

		Control Limits
Average Spike Recovery	97%	80% - 120%
Relative Percent Difference	2.8%	< 20%

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129167-001	SCITP-35@5.0	33928	05/03/97	05/13/97	05/13/97	
129167-002	SCITP-36@4.0	33889	05/03/97	05/09/97	05/09/97	
129167-003	SCITP-37@7.0	33889	05/03/97	05/09/97	05/09/97	

Matrix: Soil

Analyte	Units	129167-001	129167-002	129167-003
Diln Fac:		1	1	1
Gasoline	mg/Kg	<1	<1	<1
Surrogate				
Trifluorotoluene	%REC	54	55	54
Bromobenzene	%REC	88	88	89

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129167-004	SCITP-35	33812	05/03/97	05/07/97	05/07/97	
129167-005	SCITP-36	33812	05/03/97	05/07/97	05/07/97	

Matrix: Water

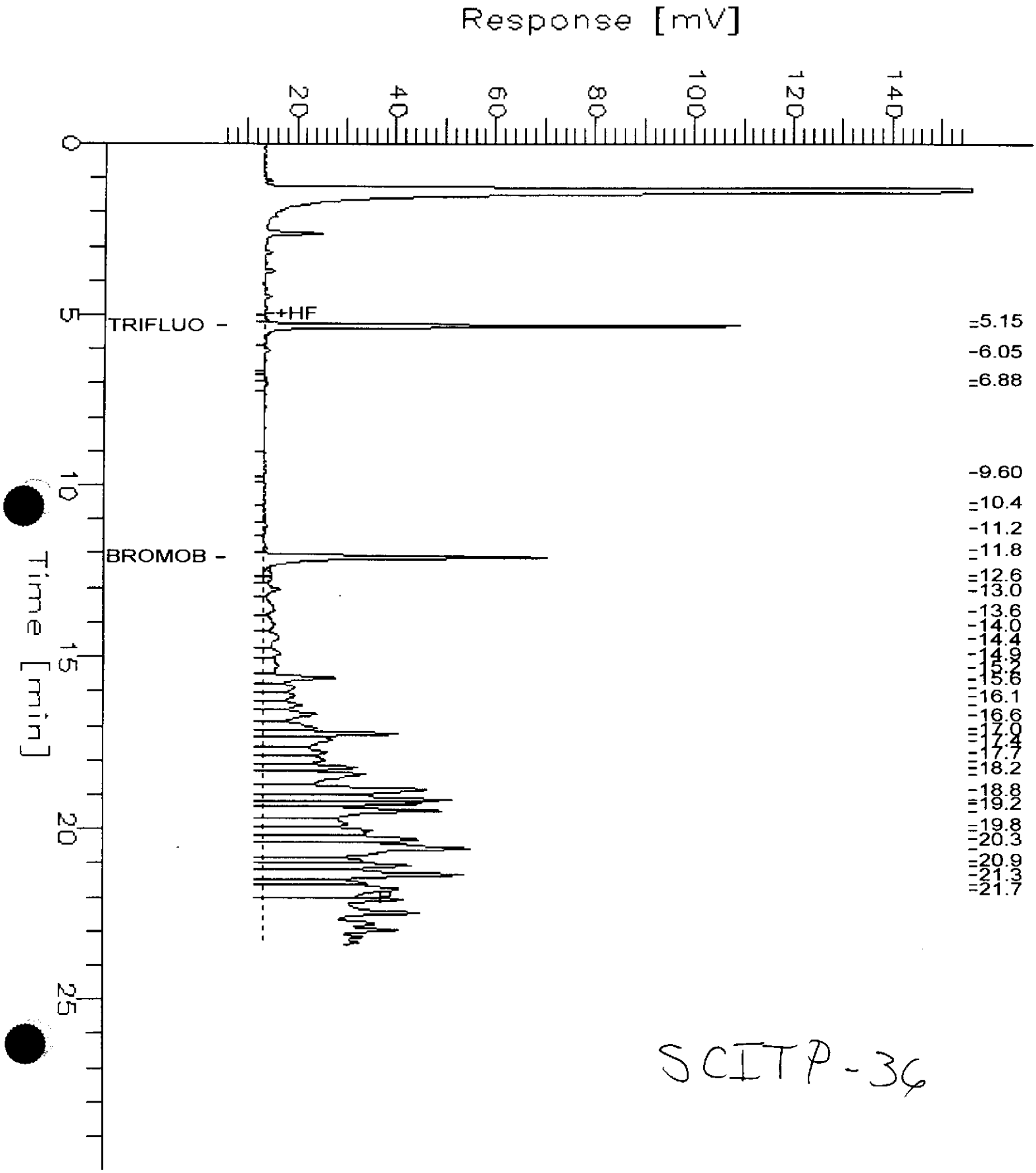
Analyte	Units	129167-004	129167-005
Diln Fac:		1	1
Gasoline	ug/L	<50	2300 YH
Surrogate			
Trifluorotoluene	%REC	84	86
Bromobenzene	%REC	84	93

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard

GC05 RTX1 TVH Chromatogram

Sample Name : S,129167-005,33812,
FileName : G:\GC05\DATA\126H031.RAW
Method :
Start Time : 0.00 min End Time : 30.00 min
Scale Factor: -1.0 Plot Offset: 6 mV

Sample #: Page 1 of 1
Date : 5/7/97 01:48 PM
Time of Injection: 5/7/97 04:29 AM
Low Point : 5.89 mV High Point : 155.89 mV
Plot Scale: 150.0 mV

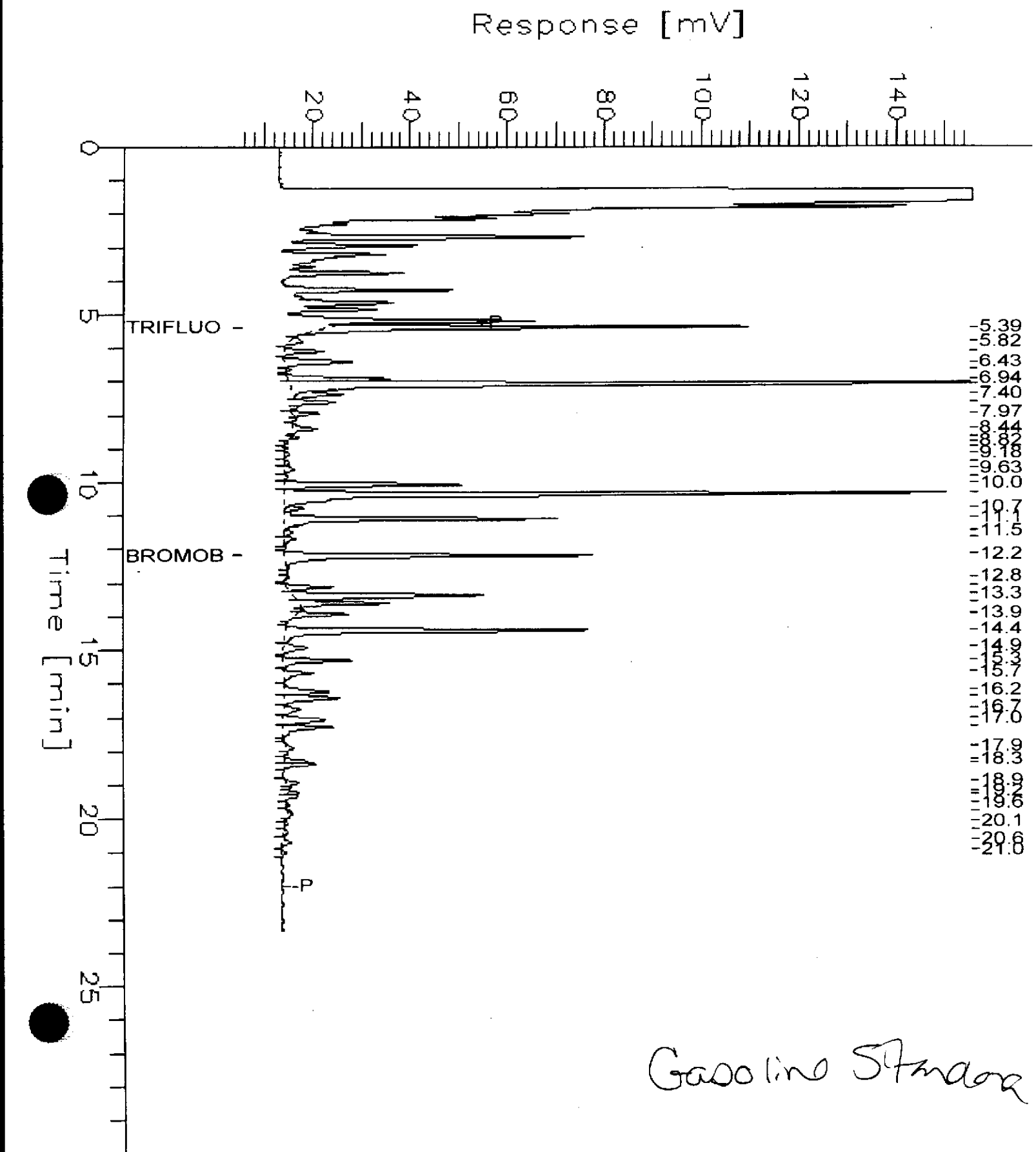


SCITP-36

GC05 RTX1 TVH Chromatogram

Sample Name : CCV/LCS,QC4545C,97WS4007,33812,
FileName : G:\GC05\DATA\126H002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 30.00 min
Scale Factor: -1.0 Plot Offset: 6 mV

Sample #: GAS Page 1 of 1
Date : 5/6/97 11:32 AM
Time of Injection: 5/6/97 11:08 AM
Low Point : 5.61 mV High Point : 155.61 mV
Plot Scale: 150.0 mV



Gasoline Standard

Curtis & Tompkins, Ltd.

Lab #: 129167

BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33889
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/09/97
Analysis Date: 05/09/97

MB Lab ID: QC45760

Analyte	Result	
Gasoline	<1.0	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	52	52-127
Bromobenzene	88	45-140

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Soil	Prep Date:	05/13/97
Batch#:	33928	Analysis Date:	05/13/97
Units:	mg/Kg		
Diln Fac:	1		

MB Lab ID: QC45931

Analyte	Result	
Gasoline	<1.0	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	53	52-127
Bromobenzene	84	45-140

Curtis & Tompkins, Ltd.

Lab #: 129167

BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33889
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/09/97
Analysis Date: 05/09/97

LCS Lab ID: QC45758

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	9.16	10	92	80-120
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	79	52-127		
Bromobenzene	115	45-140		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	05/07/97
Lab ID:	129217-001	Received Date:	05/08/97
Matrix:	Soil	Prep Date:	05/09/97
Batch#:	33889	Analysis Date:	05/09/97
Units:	mg/Kg		
Diln Fac:	1		

MS Lab ID: QC45761

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	10	2.24	9.21	70	65-135

Surrogate	%Rec	Limits
Trifluorotoluene	104	52-127
Bromobenzene	113	45-140

MSD Lab ID: QC45762

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	10	16.75	145 *	65-135	70 *	30

Surrogate	%Rec	Limits
Trifluorotoluene	95	52-127
Bromobenzene	108	45-140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 1 out of 1 outside limits
Spike Recovery: 1 out of 2 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129167

BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Soil
Batch#: 33928
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/13/97

BS Lab ID: QC45932

Analyte	Spike Added	BS	%Rec #	Limits
Gasoline	10	9.49	95	80-120
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	86	52-127		
Bromobenzene	116	45-140		

BSD Lab ID: QC45933

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Gasoline	10	9.42	94	80-120	1	30
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	83	52-127				
Bromobenzene	117	45-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Lab #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Water	Prep Date:	05/06/97
Batch#:	33812	Analysis Date:	05/06/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC45452

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	78	65-135
Bromobenzene	83	65-135

Lab #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33812
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

LCS Lab ID: QC45450

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	1814	2000	91	75-125

Surrogate	%Rec	Limits
Trifluorotoluene	83	65-135
Bromobenzene	95	65-135

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129141-002
Matrix: Water
Batch#: 33812
Units: ug/L
Diln Fac: 1

Sample Date: 05/01/97
Received Date: 05/02/97
Prep Date: 05/06/97
Analysis Date: 05/06/97

MS Lab ID: QC45453

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	2000	<50	1778	89	75-125
Surrogate	**%Rec**	**Limits**			
Trifluorotoluene	84	65-135			
Bromobenzene	100	65-135			

MSD Lab ID: QC45454

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	2000	1890	95	75-125	6	35
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	82	65-135				
Bromobenzene	99	65-135				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129167-001	SCITP-35@5.0	33831	05/03/97	05/06/97	05/10/97	
129167-002	SCITP-36@4.0	33831	05/03/97	05/06/97	05/16/97	
129167-003	SCITP-37@7.0	33831	05/03/97	05/06/97	05/10/97	

Matrix: Soil

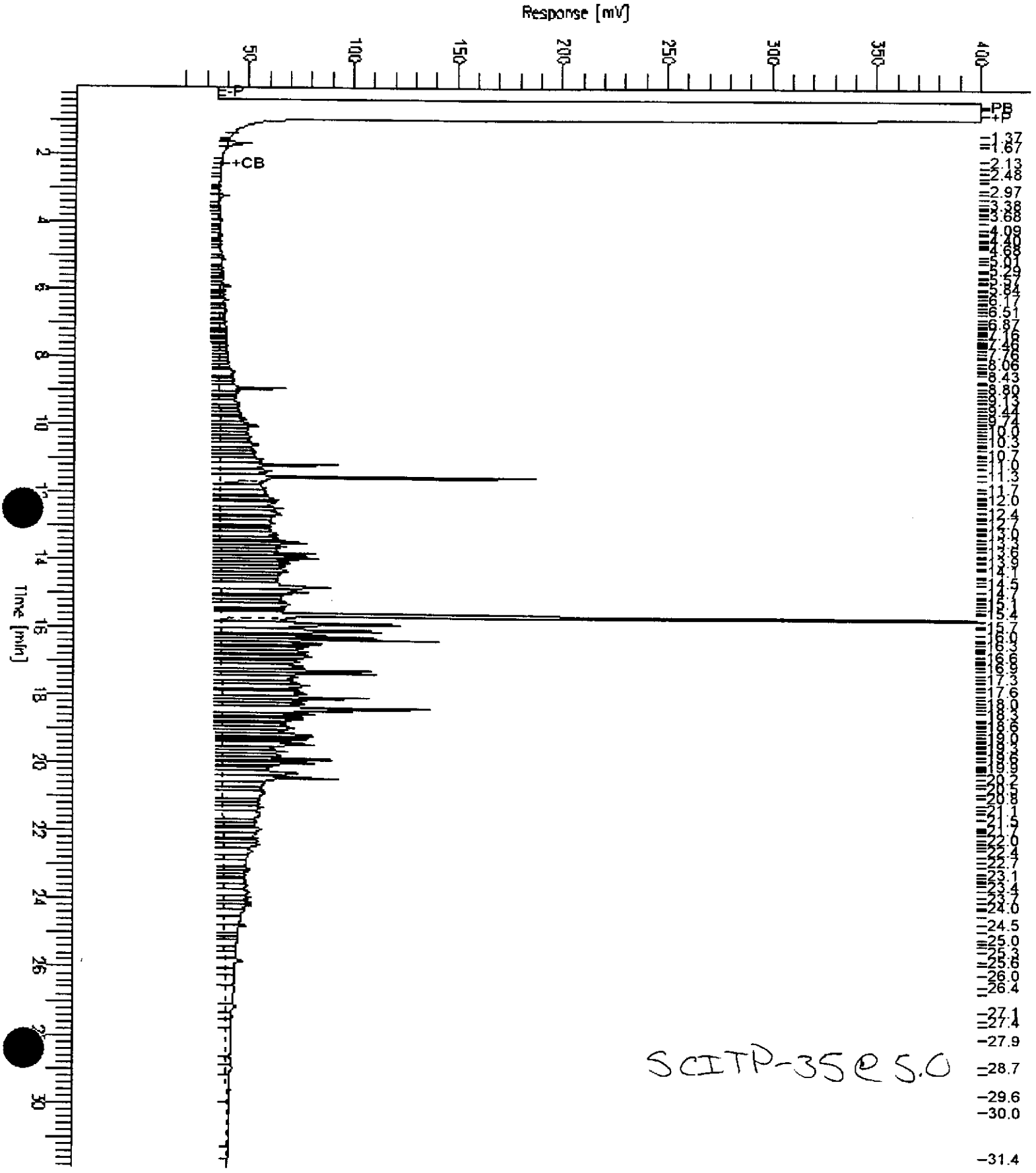
Analyte	Units	129167-001	129167-002	129167-003
Diln Fac:		1	3	1
Diesel C12-C22	mg/Kg	15 YH	83 YH	8.1YH
Motor Oil C22-C50	mg/Kg	48 LH	780	51 YLH
Surrogate				
Hexacosane	%REC	108	109	106

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

Chromatogram

Sample Name : 129167-001,33831
FileName : G:\GC11\CHB\129B032.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: 11 mV

Sample #: 33831 Page 1 of 1
Date : 5/16/97 08:55 AM
Time of Injection: 5/10/97 04:09 PM
Low Point : 11.47 mV High Point : 400.19 mV
Plot Scale: 388.7 mV

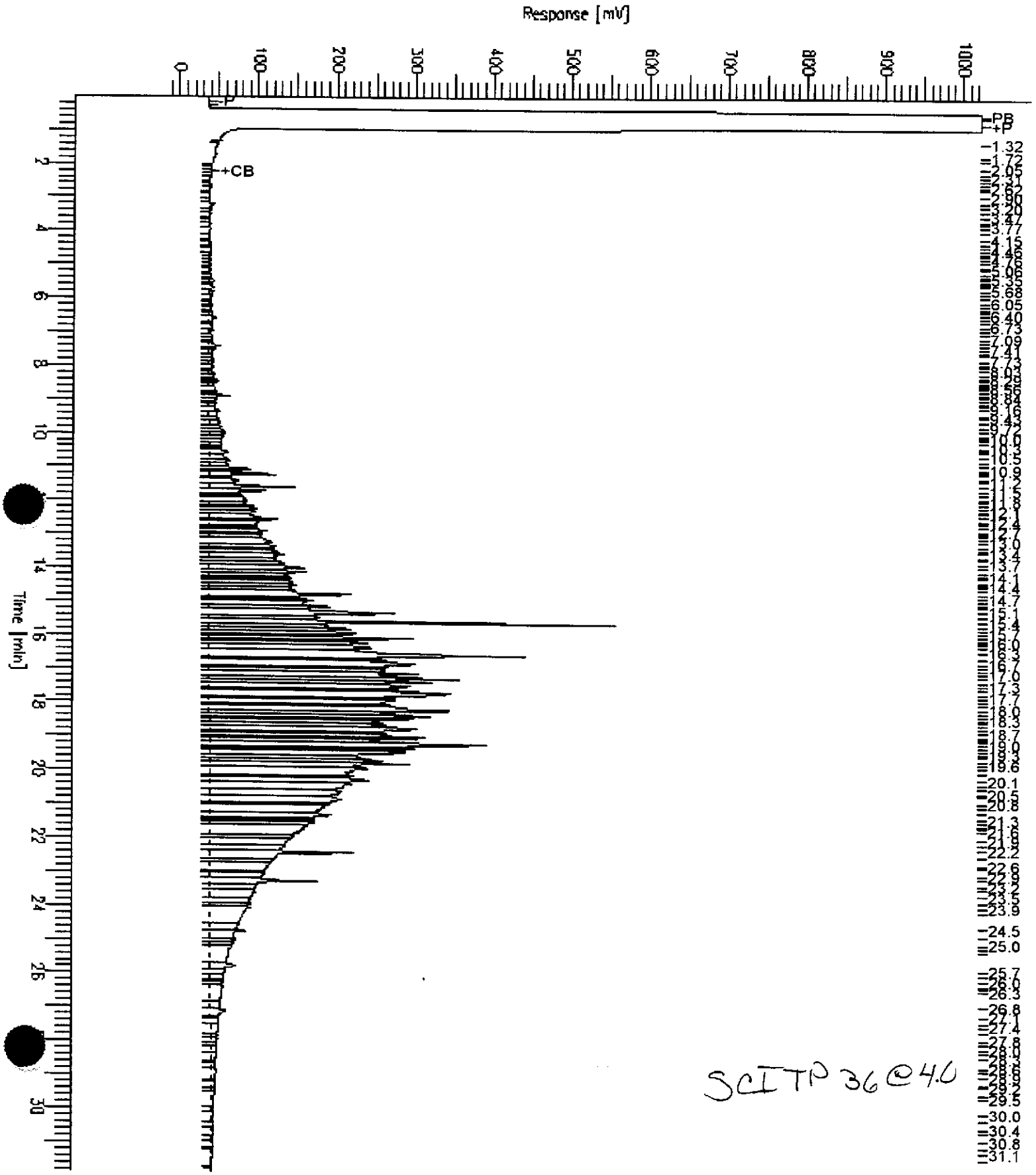


SCITP-35 @ 5.0

Chromatogram

Sample Name : 129167-002,33831
FileName : G:\GC11\CHB\135B032.RAW
Method : BTEH128.MTH
[redacted]t Time : 0.01 min End Time : 31.91 min
[redacted] Factor: 0.0 Plot Offset: -16 mV

Sample #: 33831 Page 1 of 1
Date : 5/19/97 09:37 AM
Time of Injection: 5/16/97 11:01 PM
Low Point : -16.35 mV High Point : 1024.00 mV
Plot Scale: 1040.3 mV

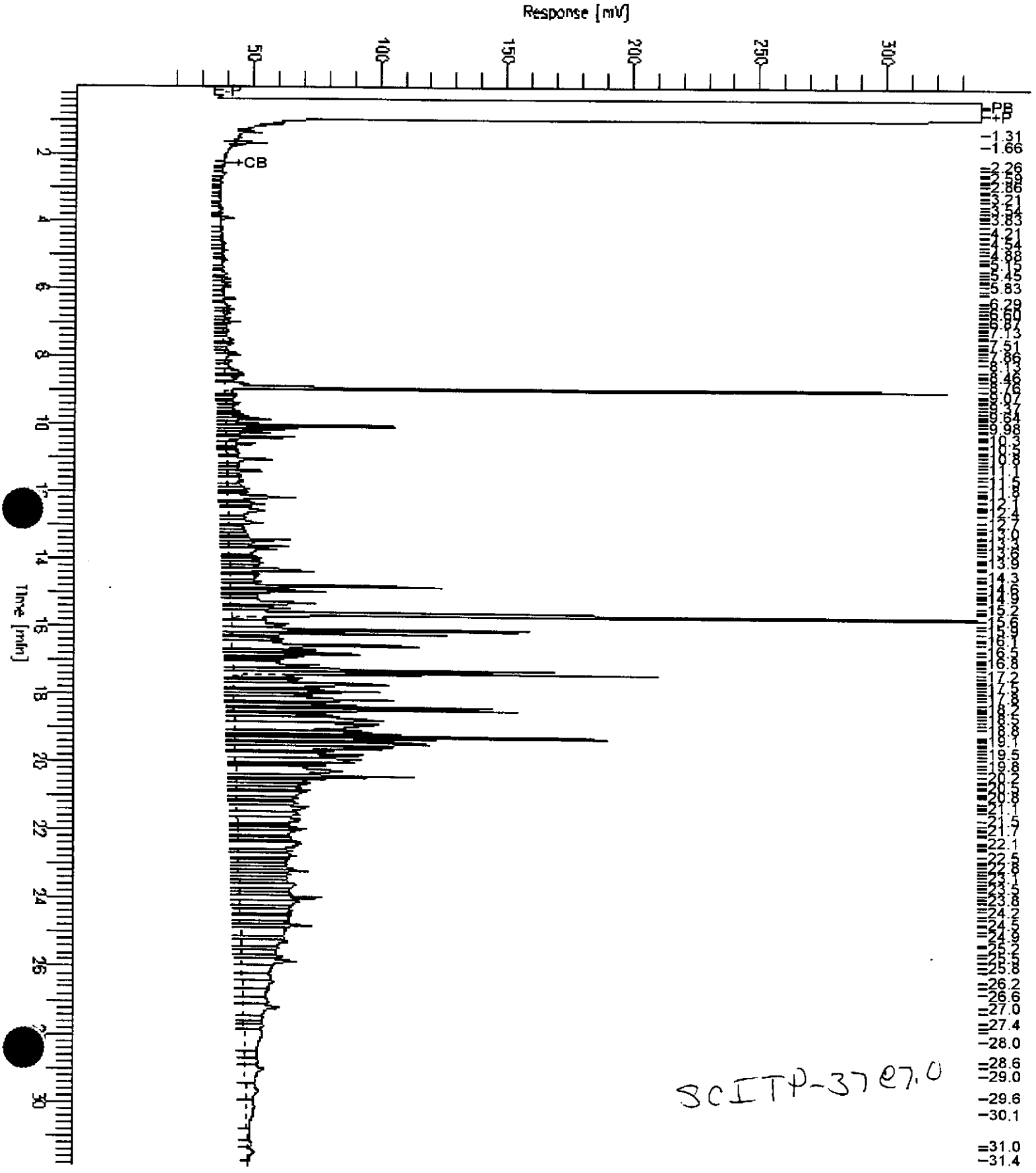


SCITP 36 @ 4.0

Chromatogram

Sample Name : 129167-003,33831
FileName : G:\GC11\CHB\129B034.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Skew Factor: 0.0 Plot Offset: 16 mV

Sample #: 33831 Page 1 of 1
Date : 5/16/97 08:57 AM
Time of Injection: 5/10/97 05:36 PM
Low Point : 16.27 mV High Point : 337.70 mV
Plot Scale: 321.4 mV

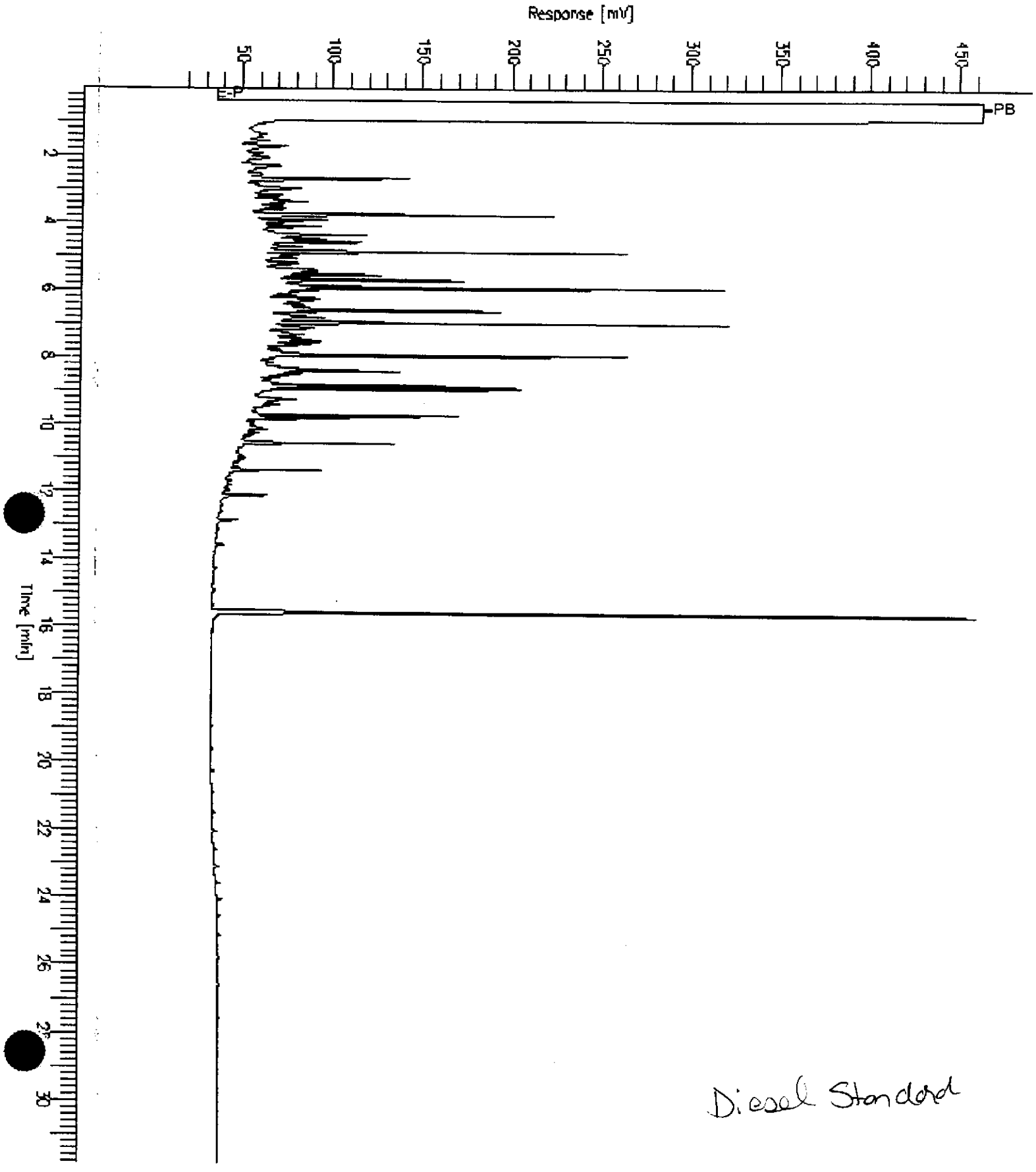


SCITP-37 e7.0

Chromatogram

Sample Name : CCV,97WS4141,DS
FileName : G:\GC11\CHB\135B024.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: 12 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/19/97 09:03 AM
Time of Injection: 5/16/97 05:16 PM
Low Point : 12.14 mV High Point : 462.89 mV
Plot Scale: 450.7 mV

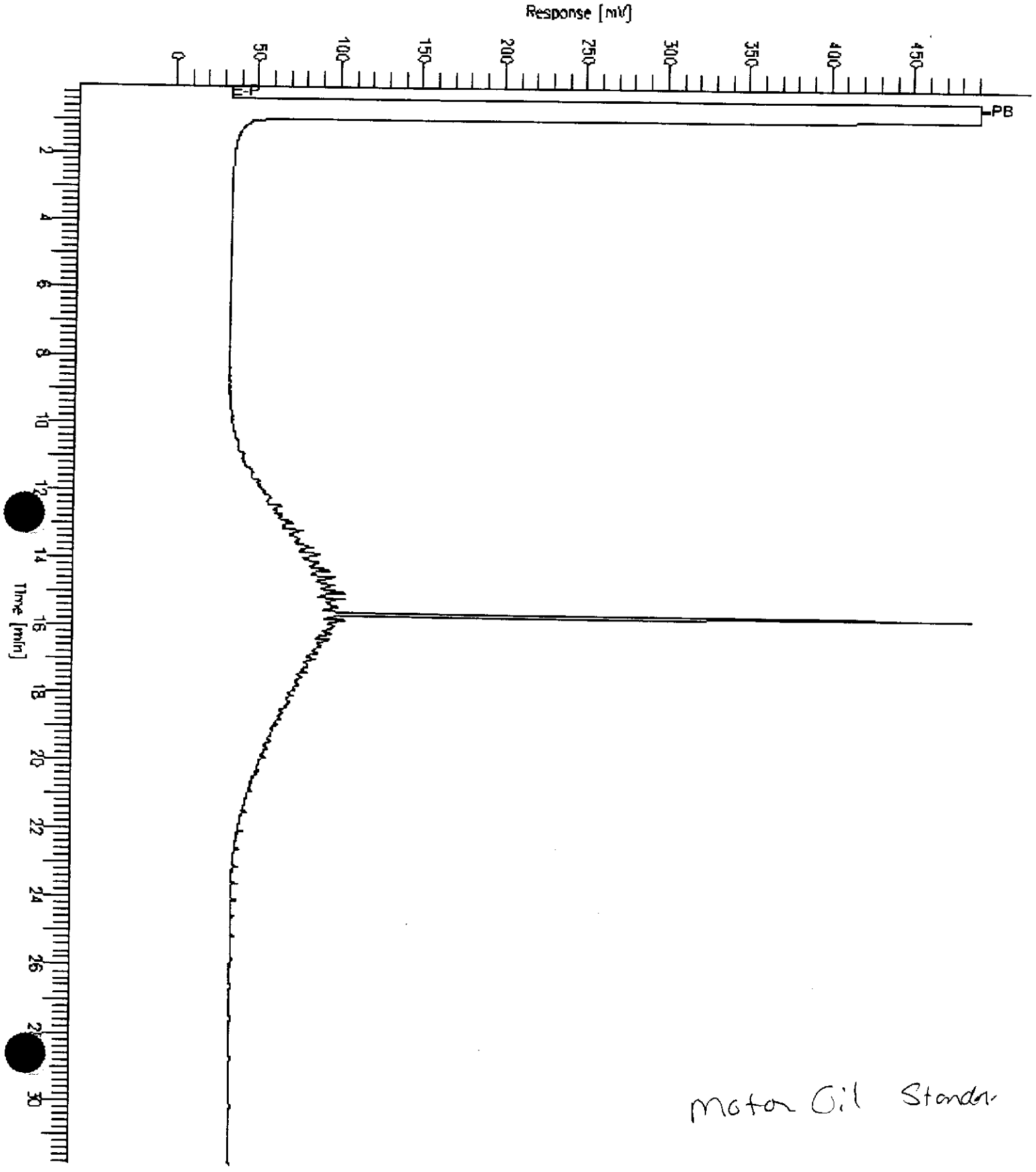


Diesel Standard

Chromatogram

Sample Name : CCV,97WB4154,MO
FileName : G:\GC11\CHB\135B027.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: -3 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/19/97 09:04 AM
Time of Injection: 5/16/97 07:26 PM
Low Point : -3.19 mV High Point : 491.14 mV
Plot Scale: 494.3 mV



Motor Oil Standard

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129167-004	SCITP-35	33838	05/03/97	05/06/97	05/09/97	
129167-005	SCITP-36	34034	05/03/97	05/19/97	05/21/97	

Matrix: Water

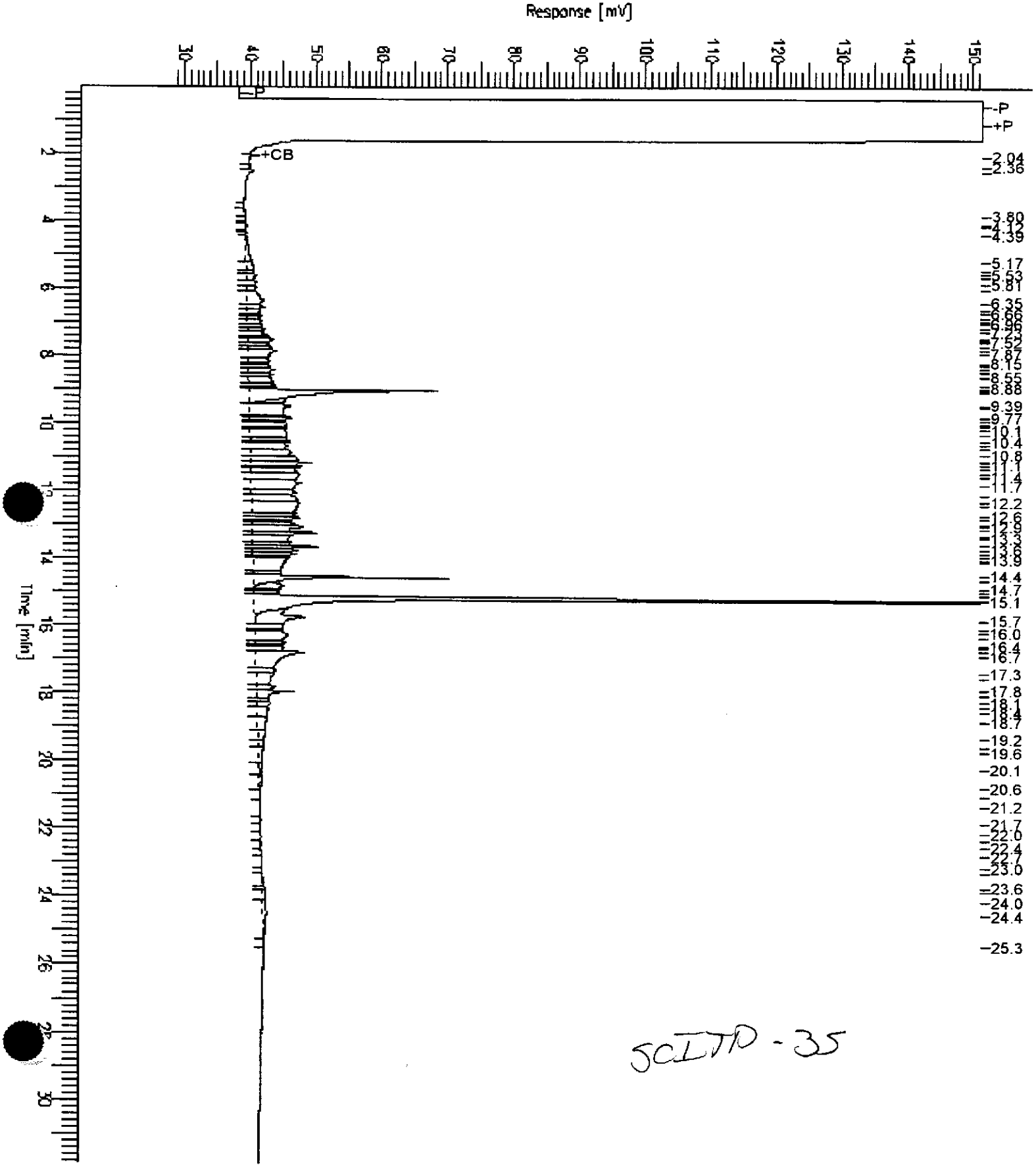
Analyte	Units	129167-004		129167-005	
Diln Fac:		1		1	
Diesel C12-C22	ug/L	320	YH	18000	
Motor Oil C22-C50	ug/L	320	YL	1800	YL
Surrogate					
Hexacosane	%REC	64		21	*

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

GC15 Channel B TEH

Sample Name : 129167-004,33838
FileName : G:\GC15\CHB\127B056.RAW
Method : B125TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: 28 mV

Sample #: 33838 Page 1 of 1
Date : 5/19/97 11:52 AM
Time of Injection: 5/9/97 06:19 AM
Low Point : 28.21 mV High Point : 151.46 mV
Plot Scale: 123.2 mV

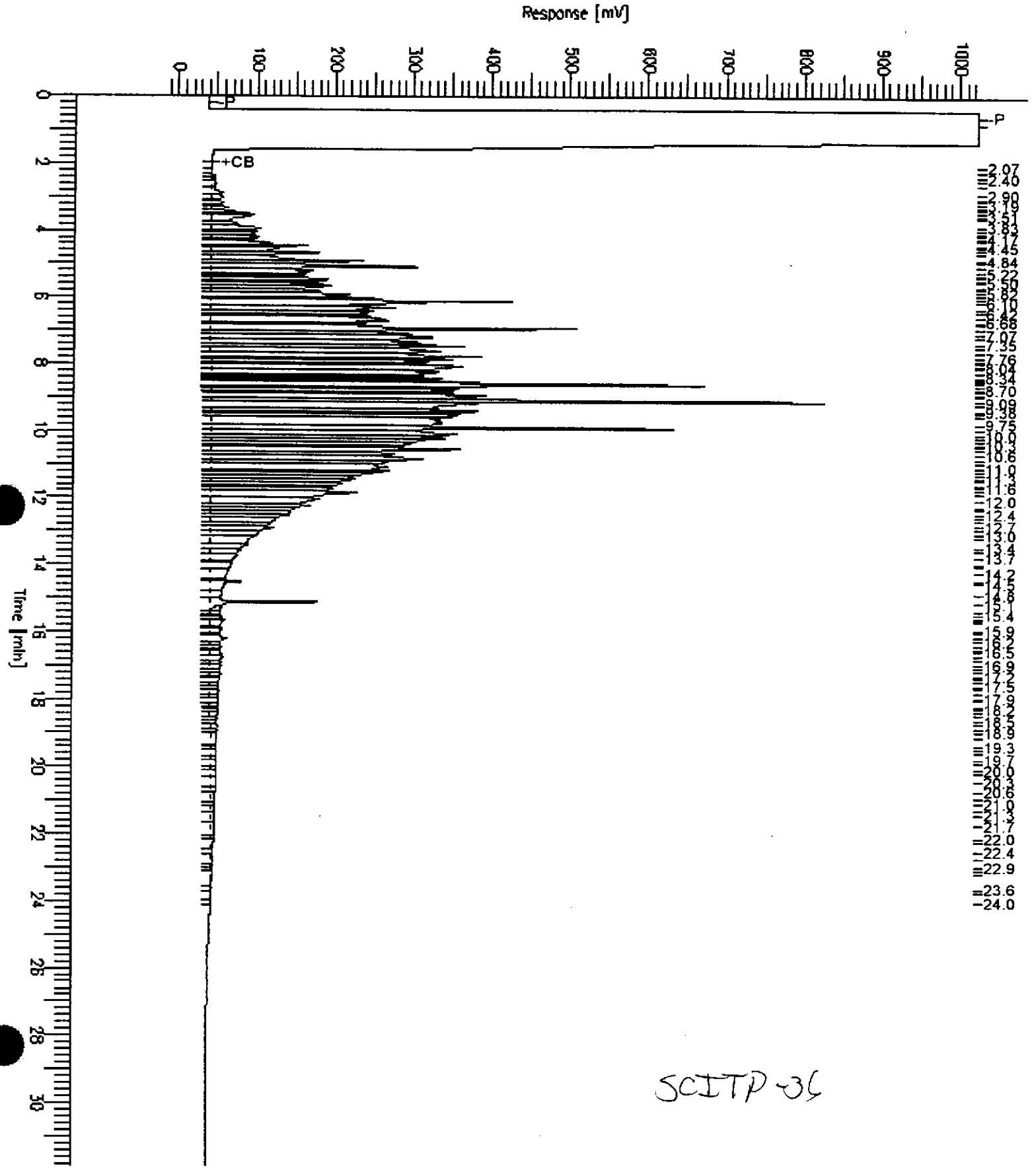


SCITP - 35

GC15 Channel B TEH

Sample Name : 129167-005,34034
FileName : G:\GC15\CHB\140B012.RAW
Method : B140TEH.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -14 mV

Sample #: 34034 Page 1 of 1
Date : 5/21/97 12:17 PM
Time of Injection: 5/21/97 01:58 AM
Low Point : -14.15 mV High Point : 1024.00 mV
Plot Scale: 1038.2 mV

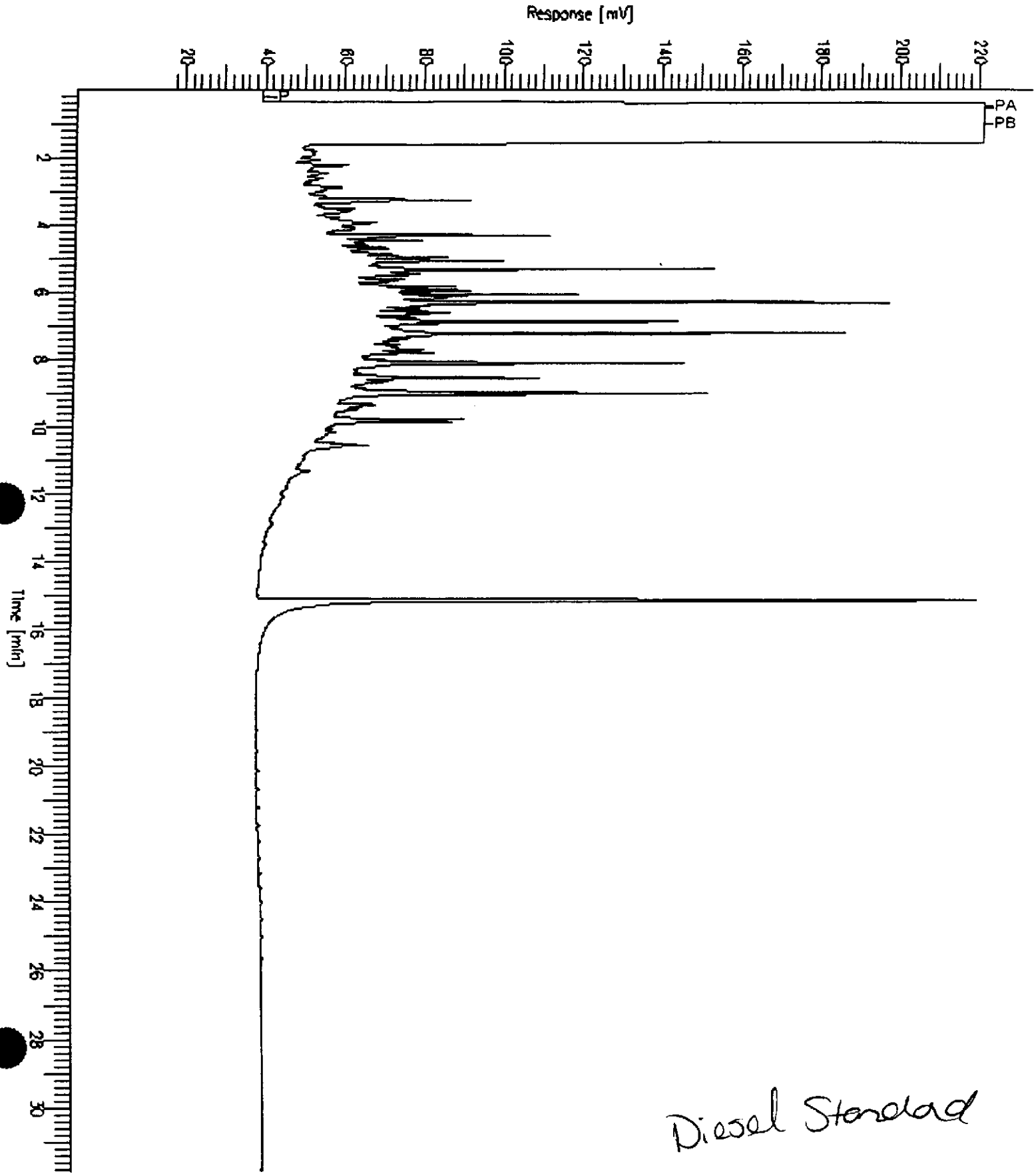


SCITP-36

GC15 Channel B TEH

Sample Name : CCV,97WS4141,DS
FileName : G:\GC15\CHB\140B018.RAW
Method : B140TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 16 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/21/97 11:03 AM
Time of Injection: 5/21/97 06:15 AM
Low Point : 16.06 mV High Point : 221.44 mV
Plot Scale: 205.4 mV

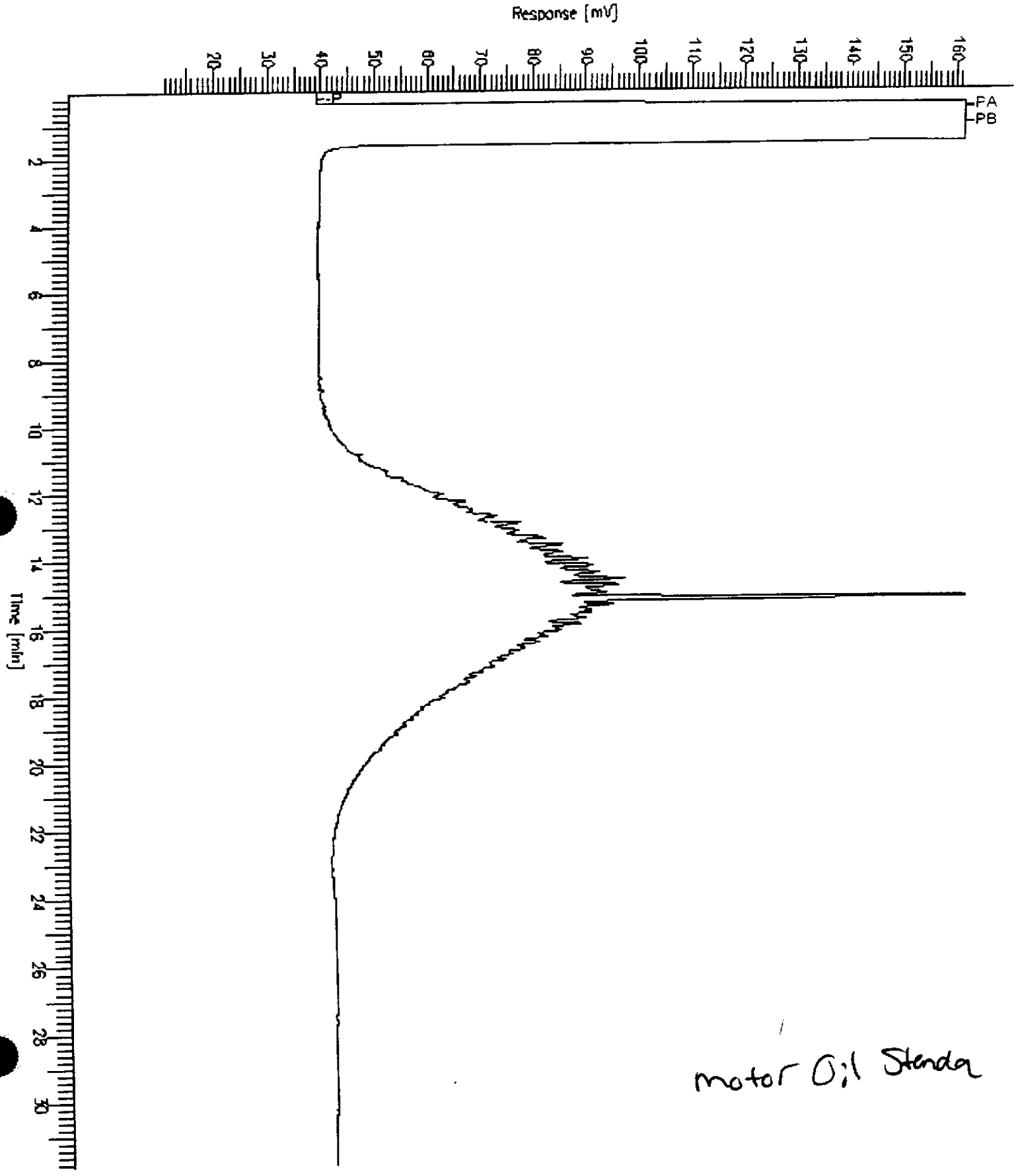


Diesel Standard

GC15 Channel B TEH

Sample Name : CCV,97WS4082,MO
FileName : G:\GC15\CHB\127B060.RAW
Method : B125TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 10 mV

Sample #: 500MG/L
Date : 5/9/97 11:03 AM
Time of Injection: 5/9/97 09:12 AM
Low Point : 10.13 mV High Point : 161.64 mV
Plot Scale: 151.5 mV



motor Oil Standa

Curtis & Tompkins, Ltd.

Lab #: 129167

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

METHOD BLANK

Matrix: Soil
Batch#: 33831
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

MB Lab ID: QC45530

Analyte	Result
Diesel C12-C22	<1.0
Motor Oil C22-C50	<5.0

Surrogate	%Rec	Recovery Limits
Hexacosane	105	60-140

Curtis & Tompkins, Ltd.

Lab #: 129167

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33831
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/09/97

LCS Lab ID: QC45531

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C12-C22	33.3	49.5	67	60-140
Surrogate	%Rec	Limits		
Hexacosane	94	60-140		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Curtis & Tompkins, Ltd.

Lab #: 129167 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129116-001
Matrix: Soil
Batch#: 33831
Units: mg/Kg
Diln Fac: 1

Sample Date: 04/28/97
Received Date: 04/30/97
Prep Date: 05/06/97
Analysis Date: 05/09/97

MS Lab ID: QC45532

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Diesel C12-C22	49.5	6.62	42.9	73	60-140
Surrogate	%Rec	Limits			
Hexacosane	114	60-140			

MSD Lab ID: QC45533

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	49.5	46.3	80	60-140	9	30
Surrogate	%Rec	Limits				
Hexacosane	123	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Lab #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33838
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/09/97

MB Lab ID: QC45556

Analyte	Result
Diesel C12-C22	<50
Motor Oil C22-C50	<300

Surrogate	%Rec	Recovery Limits
Hexacosane	95	60-140

Lab #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 34034
Units: ug/L
Diln Fac: 1

Prep Date: 05/19/97
Analysis Date: 05/20/97

MB Lab ID: QC46342

Analyte	Result	
Diesel C12-C22	<50	
Motor Oil C22-C50	<300	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	84	60-140

Lab #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33838
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/09/97

BS Lab ID: QC45557

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C12-C22	2475	1645	66	60-140
Surrogate	%Rec	Limits		
Hexacosane	89	60-140		

BSD Lab ID: QC45558

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	1552	63	60-140	6	35
Surrogate	%Rec	Limits				
Hexacosane	86	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Lab #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 34034
Units: ug/L
Diln Fac: 1

Prep Date: 05/19/97
Analysis Date: 05/20/97

LCS Lab ID: QC46343

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C12-C22	1647	2475	67	60-140
Surrogate	**%Rec**	**Limits**		
Hexacosane	79	60-140		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129267-007
Matrix: Water
Batch#: 34034
Units: ug/L
Diln Fac: 1

Sample Date: 05/13/97
Received Date: 05/13/97
Prep Date: 05/19/97
Analysis Date: 05/21/97

MS Lab ID: QC46344

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Diesel C12-C22	2475	1320	3239	78	60-140
Surrogate	%Rec	Limits			
Hexacosane	90	60-140			

MSD Lab ID: QC46345

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	2497	48 *	60-140	26 *	25
Surrogate	%Rec	Limits				
Hexacosane	79	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 1 out of 1 outside limits
Spike Recovery: 1 out of 2 outside limits

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129167-001	SCITP-35@5.0	33928	05/03/97	05/13/97	05/13/97	
129167-002	SCITP-36@4.0	33889	05/03/97	05/09/97	05/09/97	
129167-003	SCITP-37@7.0	33889	05/03/97	05/09/97	05/09/97	

Matrix: Soil

Analyte	Units	129167-001	129167-002	129167-003
Diln Fac:		1	1	1
Benzene	ug/Kg	<5	<5	<5
Toluene	ug/Kg	<5	14	<5
Ethylbenzene	ug/Kg	<5	<5	<5
m,p-Xylenes	ug/Kg	<5	7.2	<5
o-Xylene	ug/Kg	<5	<5	<5
Surrogate				
Trifluorotoluene	%REC	83	84	84
Bromobenzene	%REC	100	104	101

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129167-004	SCITP-35	33812	05/03/97	05/07/97	05/07/97	
129167-005	SCITP-36	33812	05/03/97	05/07/97	05/07/97	

Matrix: Water

Analyte	Units	129167-004	129167-005
Diln Fac:		1	1
Benzene	ug/L	<0.5	<0.5
Toluene	ug/L	<0.5	<0.5
Ethylbenzene	ug/L	<0.5	<0.5
m,p-Xylenes	ug/L	<0.5	<0.5
o-Xylene	ug/L	<0.5	<0.5
Surrogate			
Trifluorotoluene	%REC	74	74
Bromobenzene	%REC	79	82

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33889
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/09/97
Analysis Date: 05/09/97

MB Lab ID: QC45760

Analyte	Result
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	83	52-127
Bromobenzene	100	45-140

Curtis & Tompkins, Ltd.

Lab #: 129167 BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33928
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/13/97

MB Lab ID: QC45931

Analyte	Result
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	81	52-127
Bromobenzene	96	45-140

Curtis & Tompkins, Ltd.

Lab #: 129167

BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33889
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/09/97
Analysis Date: 05/09/97

LCS Lab ID: QC45759

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	101	100	101	80-120
Toluene	96.71	100	97	80-120
Ethylbenzene	100.9	100	101	80-120
m,p-Xylenes	179.7	200	90	80-120
o-Xylene	106.5	100	107	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	86	52-127
Bromobenzene	109	45-140

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

Curtis & Tompkins, Ltd.

Lab #: 129167

BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33928
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/13/97

LCS Lab ID: QC45930

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	103.2	100	103	80-120
Toluene	98.78	100	99	80-120
Ethylbenzene	102	100	102	80-120
m,p-Xylenes	179.2	200	90	80-120
o-Xylene	108.3	100	108	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	86	52-127
Bromobenzene	108	45-140

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 #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33812
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

MB Lab ID: QC45452

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	72	58-130
Bromobenzene	82	62-131

Lab #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33812
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

LCS Lab ID: QC45451

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	17.04	20	85	80-120
Toluene	18.68	20	93	80-120
Ethylbenzene	17.4	20	87	80-120
m,p-Xylenes	37.02	40	93	80-120
o-Xylene	19.98	20	100	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	78	58-130
Bromobenzene	90	62-131

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

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		
Field ID:	SCITP-37@7.0	Sampled:	05/03/97
Lab ID:	129167-003	Received:	05/05/97
Matrix:	Soil	Extracted:	05/08/97
Batch#:	33870	Analyzed:	05/14/97
Units:	ug/Kg		
Diln Fac:	3		

Analyte	Result	Reporting Limit
alpha-BHC	ND	9.0
beta-BHC	ND	9.0
gamma-BHC	ND	9.0
delta-BHC	ND	9.0
Heptachlor	ND	9.0
Aldrin	ND	9.0
Heptachlor epoxide B	ND	9.0
Heptachlor epoxide A	ND	9.0
Endosulfan I	ND	9.0
Dieldrin	ND	18
4,4'-DDE	ND	18
Endrin	ND	18
Endosulfan II	ND	18
Endosulfan sulfate	ND	18
4,4'-DDD	ND	18
Endrin aldehyde	ND	18
4,4'-DDT	ND	18
Chlordane	ND	90
Methoxychlor	ND	90
Toxaphene	ND	180
Aroclor-1016	ND	36
Aroclor-1221	ND	72
Aroclor-1232	ND	36
Aroclor-1242	ND	36
Aroclor-1248	ND	36
Aroclor-1254	ND	36
Aroclor-1260	ND	36

Surrogate	%Recovery	Recovery Limits
TCMX	95	29-108
Decachlorobiphenyl	89	30-125

Organochlorine Pesticides and PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

Field ID: SCITP-35
Lab ID: 129167-004
Matrix: Water
Batch#: 33837
Units: ug/L
Diln Fac: 1

Sampled: 05/03/97
Received: 05/05/97
Extracted: 05/06/97
Analyzed: 05/14/97

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.047
beta-BHC	ND	0.047
gamma-BHC	ND	0.047
delta-BHC	ND	0.047
Heptachlor	ND	0.047
Aldrin	ND	0.047
Heptachlor epoxide B	ND	0.047
Heptachlor epoxide A	ND	0.047
Endosulfan I	ND	0.047
Dieldrin	ND	0.094
4,4'-DDE	ND	0.094
Endrin	ND	0.094
Endosulfan II	ND	0.094
Endosulfan sulfate	ND	0.094
4,4'-DDD	ND	0.094
Endrin aldehyde	ND	0.094
4,4'-DDT	ND	0.094
Chlordane	ND	0.47
Methoxychlor	ND	0.47
Toxaphene	ND	0.94
Aroclor-1016	ND	0.47
Aroclor-1221	ND	0.94
Aroclor-1232	ND	0.47
Aroclor-1242	ND	0.47
Aroclor-1248	ND	0.47
Aroclor-1254	ND	0.47
Aroclor-1260	ND	0.47

Surrogate	%Recovery	Recovery Limits
TCMX	48	34-128
Decachlorobiphenyl	27*	50-150

* Values outside of QC limits

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	SCITP-36	Sampled:	05/03/97
Lab ID:	129167-005	Received:	05/05/97
Matrix:	Water	Extracted:	05/06/97
Batch#:	33837	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.047
beta-BHC	ND	0.047
gamma-BHC	ND	0.047
delta-BHC	ND	0.047
Heptachlor	ND	0.047
Aldrin	ND	0.047
Heptachlor epoxide B	ND	0.047
Heptachlor epoxide A	ND	0.047
Endosulfan I	ND	0.047
Dieldrin	ND	0.094
4,4'-DDE	ND	0.094
Endrin	ND	0.094
Endosulfan II	ND	0.094
Endosulfan sulfate	ND	0.094
4,4'-DDD	ND	0.094
Endrin aldehyde	ND	0.094
4,4'-DDT	ND	0.094
Chlordane	ND	0.47
Methoxychlor	ND	0.47
Toxaphene	ND	0.94
Aroclor-1016	ND	0.47
Aroclor-1221	ND	0.94
Aroclor-1232	ND	0.47
Aroclor-1242	ND	0.47
Aroclor-1248	ND	0.47
Aroclor-1254	ND	0.47
Aroclor-1260	ND	0.47

Surrogate	%Recovery	Recovery Limits
TCMX	301*	34-128
Decachlorobiphenyl	39*	50-150

* Values outside of QC limits

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33837
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/06/97

MB Lab ID: QC45553

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.05
beta-BHC	ND	0.05
gamma-BHC	ND	0.05
delta-BHC	ND	0.05
Heptachlor	ND	0.05
Aldrin	ND	0.05
Heptachlor epoxide B	ND	0.05
Heptachlor epoxide A	ND	0.05
Endosulfan I	ND	0.05
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
Endosulfan sulfate	ND	0.1
4,4'-DDD	ND	0.1
Endrin aldehyde	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	0.5
Methoxychlor	ND	0.5
Toxaphene	ND	1.0
Aroclor-1016	ND	0.5
Aroclor-1221	ND	1.0
Aroclor-1232	ND	0.5
Aroclor-1242	ND	0.5
Aroclor-1248	ND	0.5
Aroclor-1254	ND	0.5
Aroclor-1260	ND	0.5

Surrogate	%Rec	Recovery Limits
TCMX	75	34-128
Decachlorobiphenyl	93	50-150

Lab #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 33870
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/13/97

MB Lab ID: QC45684

Analyte	Result	Reporting Limit
alpha-BHC	ND	3.0
beta-BHC	ND	3.0
gamma-BHC	ND	3.0
delta-BHC	ND	3.0
Heptachlor	ND	3.0
Aldrin	ND	3.0
Heptachlor epoxide B	ND	3.0
Heptachlor epoxide A	ND	3.0
Endosulfan I	ND	3.0
Dieldrin	ND	6.0
4,4'-DDE	ND	6.0
Endrin	ND	6.0
Endosulfan II	ND	6.0
Endosulfan sulfate	ND	6.0
4,4'-DDD	ND	6.0
Endrin aldehyde	ND	6.0
4,4'-DDT	ND	6.0
Chlordane	ND	30
Methoxychlor	ND	30
Toxaphene	ND	60
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%Rec	Recovery Limits
TCMX	88	29-108
Decachlorobiphenyl	90	30-125

Lab #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33870
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/13/97

LCS Lab ID: QC45685

Analyte	Result	Spike Added	%Rec #	Limits
gamma-BHC	16.38	17	98	49-115
Heptachlor	16.33	17	98	51-119
Aldrin	17.45	17	105	55-112
Dieldrin	16.99	17	102	54-123
Endrin	17.78	17	107	63-128
4,4'-DDT	16.66	17	100	57-131

Surrogate	%Rec	Limits
TCMX	93	29-108
Decachlorobiphenyl	95	30-125

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33837
Units: ug/L
Diln Fac: 1

Prep Date: 05/06/97
Analysis Date: 05/13/97

BS Lab ID: QC45554

Analyte	Spike Added	BS	%Rec #	Limits
gamma-BHC	0.5	0.51	102	57-120
Heptachlor	0.5	0.49	98	51-109
Aldrin	0.5	0.52	104	57-105
Dieldrin	0.5	0.5	100	62-122
Endrin	0.5	0.54	108	70-128
4,4'-DDT	0.5	0.51	102	67-128

Surrogate	%Rec	Limits
TCMX	78	34-128
Decachlorobiphenyl	96	50-150

BSD Lab ID: QC45555

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
gamma-BHC	0.5	0.53	106	57-120	4	20
Heptachlor	0.5	0.47	94	51-109	4	20
Aldrin	0.5	0.5	100	57-105	4	20
Dieldrin	0.5	0.49	98	62-122	2	20
Endrin	0.5	0.53	106	70-128	2	20
4,4'-DDT	0.5	0.49	98	67-128	4	20

Surrogate	%Rec	Limits
TCMX	72	34-128
Decachlorobiphenyl	94	50-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129167

Project Name: 9th Ave. Terminal/KOT

Project Number: 133.004

Report Date: 19 May 97

ANALYSIS: pH

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	Method	Analyst	QC Batch
129167-001	SCITP-35@5.0	Soil	03-MAY-97	05-MAY-97	07-MAY-97	9.1	SU *	EPA 9045	DRH	33859
129167-002	SCITP-36@4.0	Soil	03-MAY-97	05-MAY-97	07-MAY-97	7.9	SU *	EPA 9045	DRH	33859
129167-003	SCITP-37@7.0	Soil	03-MAY-97	05-MAY-97	07-MAY-97	7.9	SU *	EPA 9045	DRH	33859

* Soil pH measured as water

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129167
Report Date: 19 May 97

ANALYSIS: pH

QC Batch Number: 33859

Calibration Verification Results

Sample	Result	TV	Difference	Limit	Analyzed
ICV	7.00	7.00	.00	< 0.10	07-MAY-97
CCV	7.00	7.00	.00	< 0.10	07-MAY-97

Sample Duplicate Results

Sample	Duplicate	RPD	Analyzed
7.17	7.17	0%	07-MAY-97

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCITP-35@5.0
Lab ID: 129167-001
Matrix: Soil
Batch#: 33905
Units: ug/Kg
Diln Fac: 1

Sampled: 05/03/97
Received: 05/05/97
Extracted: 05/10/97
Analyzed: 05/10/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	99	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	87	79-122

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCITP-36@4.0
Lab ID: 129167-002
Matrix: Soil
Batch#: 33905
Units: ug/Kg
Diln Fac: 1

Sampled: 05/03/97
Received: 05/05/97
Extracted: 05/10/97
Analyzed: 05/10/97

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	180	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	43	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	5.5	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	4.1 J	5.0
o-Xylene	ND	5.0

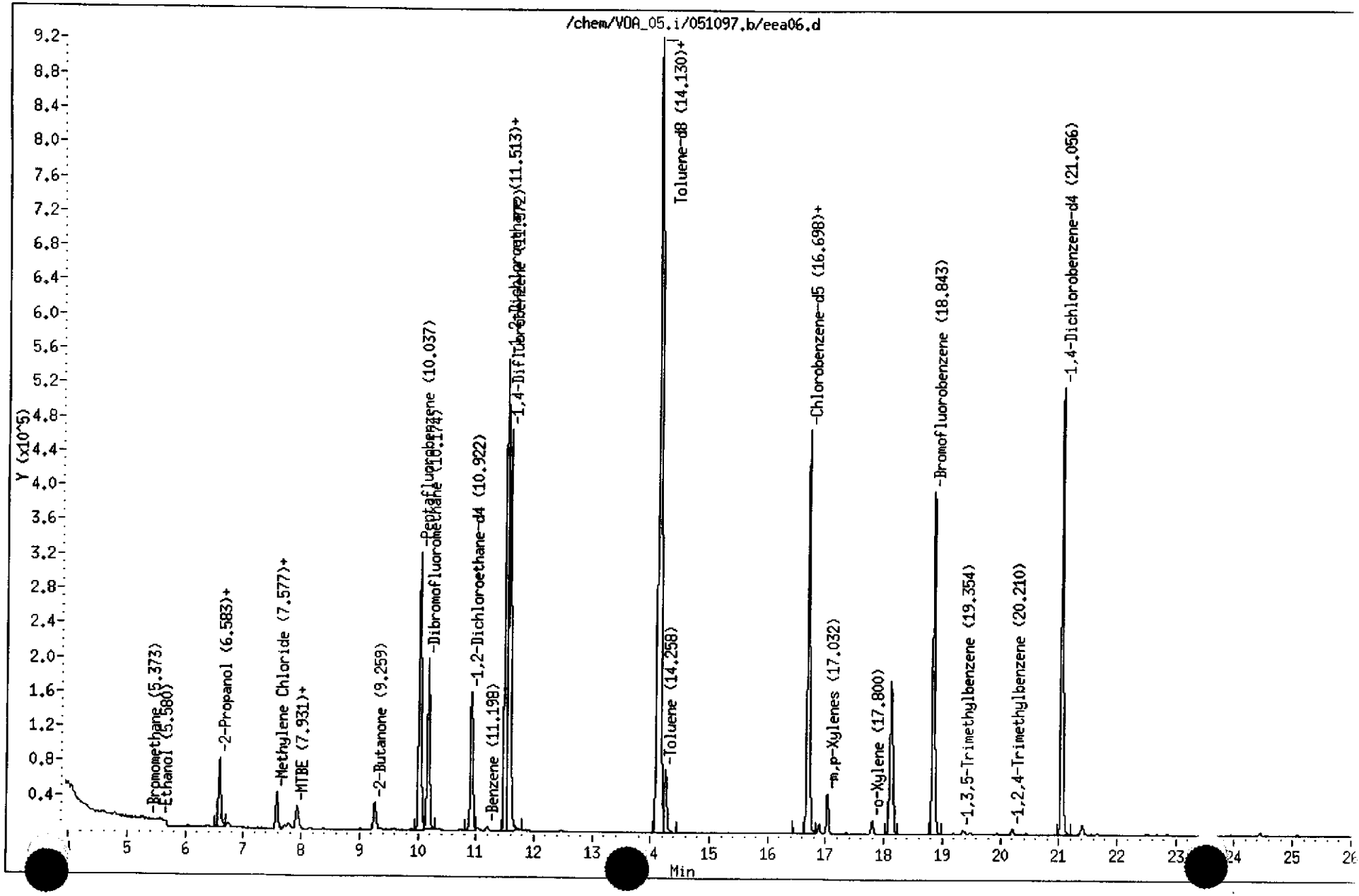
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	102	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	89	79-122

J: Estimated Value

Data File: /chem/VOA_05.i/051097.b/eea06.d
Date : 10-MAY-97 16:23
Client ID: DYNA P&T
Sample Info: MSS,129167-002
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_05.i

Operator: LLH
Column diameter: 0.32



Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCITP-37@7.0
Lab ID: 129167-003
Matrix: Soil
Batch#: 33905
Units: ug/Kg
Diln Fac: 1

Sampled: 05/03/97
Received: 05/05/97
Extracted: 05/11/97
Analyzed: 05/11/97

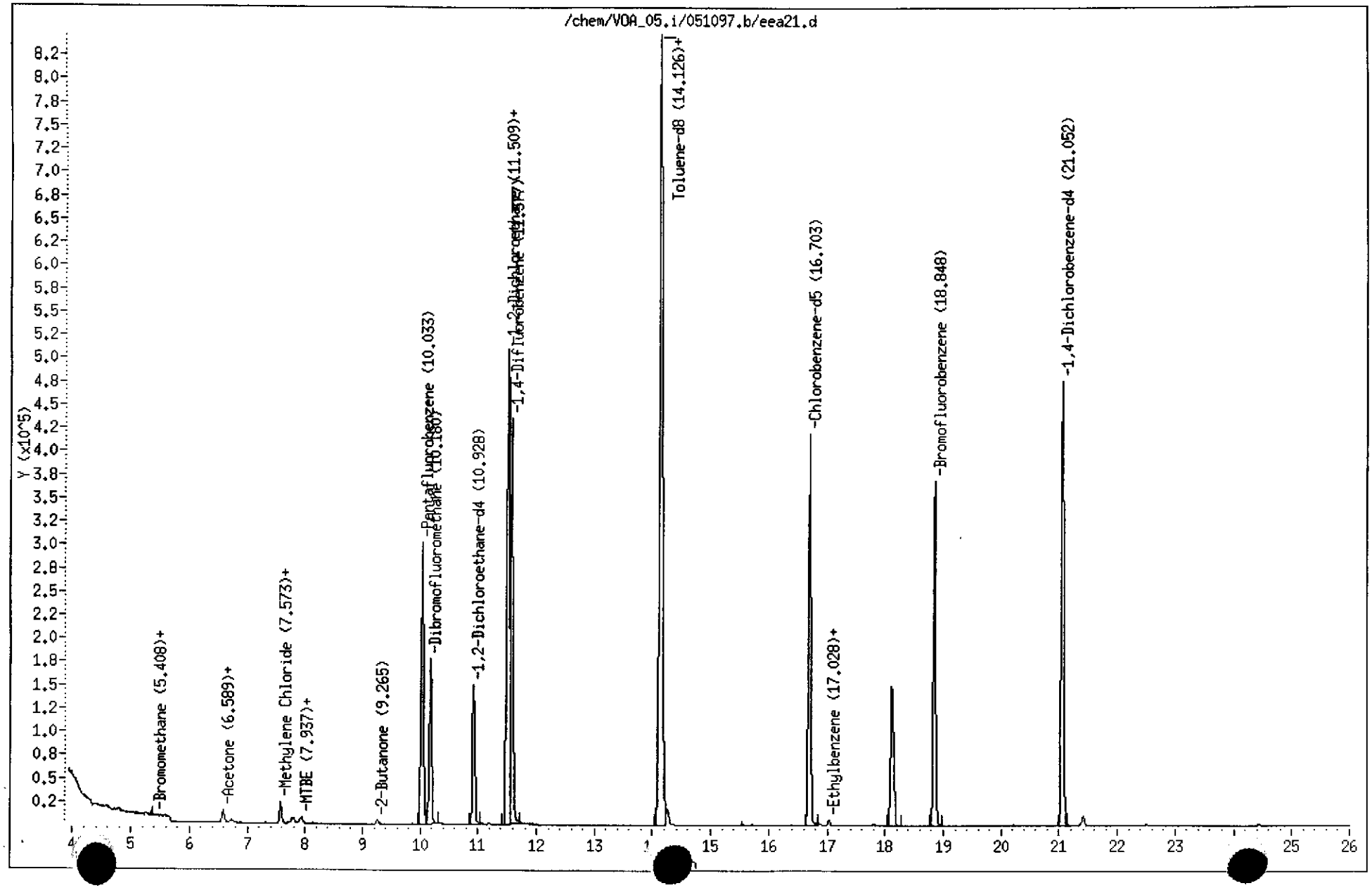
Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	34	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	103	68-126
Toluene-d8	97	87-125
Bromofluorobenzene	87	79-122

Data File: /chem/VOA_05.i/051097.b/eea21.d
Date : 11-MAY-97 00:18
Client ID: DYNA P&T
Sample Info: S,129167-003
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_05.i

Operator: LLH
Column diameter: 0.32



Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCITP-36
Lab ID: 129167-005
Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Sampled: 05/03/97
Received: 05/05/97
Extracted: 05/09/97
Analyzed: 05/09/97

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	4.1 J	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

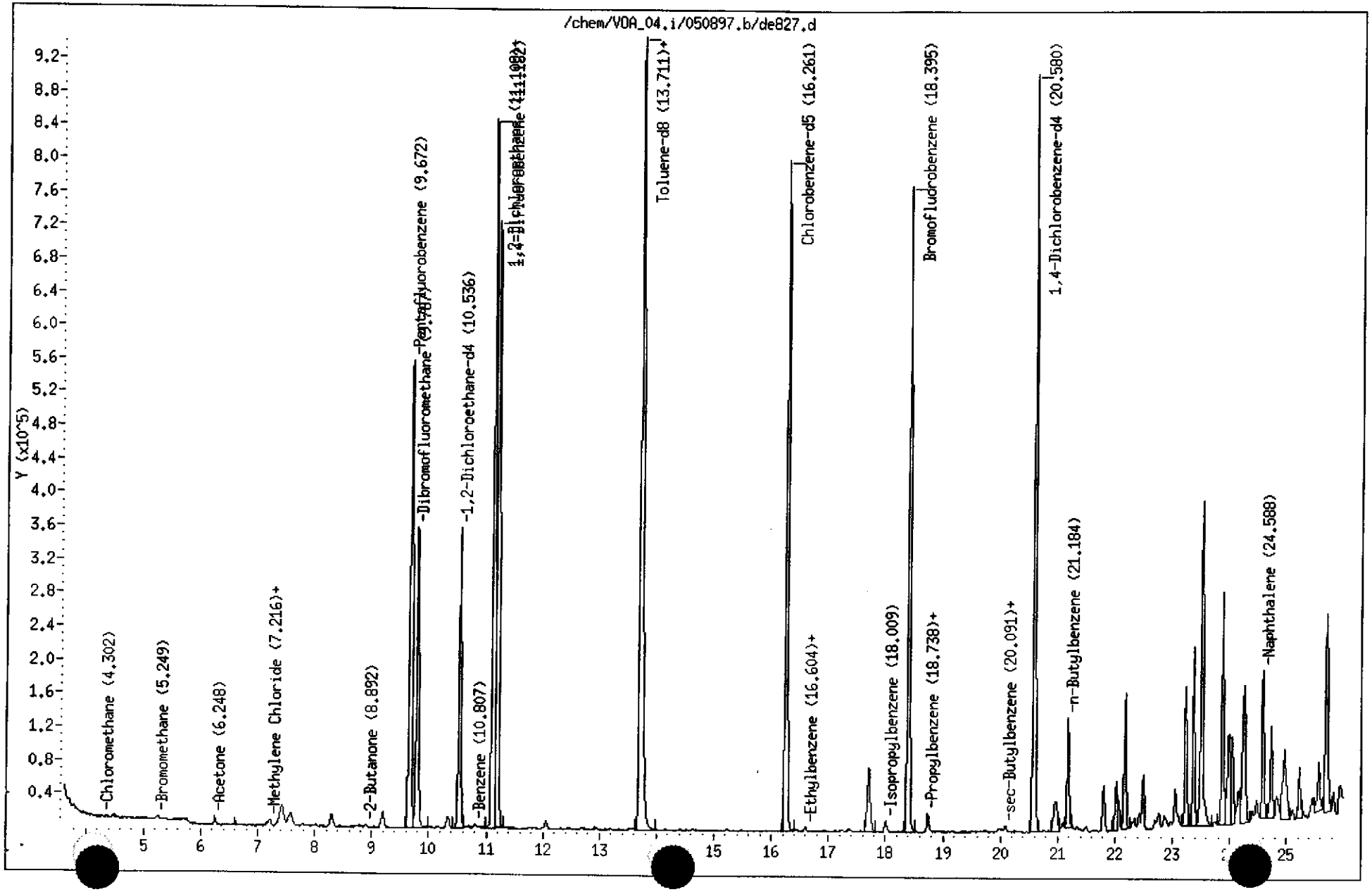
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	99	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	95	79-122

J: Estimated Value

Data File: /chem/VOA_04.i/050897.b/de827.d
Date : 09-MAY-97 00:35
Client ID: DYNA P&T
Sample Info: S,129167-005
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_04.i

Operator: DM
Column diameter: 0.32



EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

MB Lab ID: QC45678

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	90	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	98	79-122

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

MB Lab ID: QC45710

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	91	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	99	79-122

Curtis & Tompkins, Ltd.

Lab #: 129167 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 33905
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/10/97
Analysis Date: 05/10/97

MB Lab ID: QC45830

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	106	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	88	79-122

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

LCS Lab ID: QC45677

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	48.18	50	96	51-180
Trichloroethene	48.54	50	97	73-141
Benzene	47.68	50	95	78-142
Toluene	51.14	50	102	76-150
Chlorobenzene	48.37	50	97	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	89	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	98	79-122

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 #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33905
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/10/97
Analysis Date: 05/10/97

LCS Lab ID: QC45829

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	55.2	50	110	51-180
Trichloroethene	52.31	50	105	73-141
Benzene	51.43	50	103	78-142
Toluene	53.96	50	108	76-150
Chlorobenzene	53.3	50	107	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	104	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	89	79-122

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 #: 129167

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129118-002
Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Sample Date: 04/30/97
Received Date: 05/01/97
Prep Date: 05/08/97
Analysis Date: 05/08/97

MS Lab ID: QC45707

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	45.47	91	51-180
Trichloroethene	50	<5	46.37	93	73-141
Benzene	50	<5	46.25	93	78-142
Toluene	50	<5	48.87	98	76-150
Chlorobenzene	50	<5	46.5	93	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	94	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	96	79-122

MSD Lab ID: QC45708

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	46.48	93	51-180	2	14
Trichloroethene	50	47.21	94	73-141	2	14
Benzene	50	47.28	95	78-142	2	11
Toluene	50	50.81	102	76-150	4	13
Chlorobenzene	50	47.62	95	83-129	2	13

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	93	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	97	79-122

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

Lab #: 129167 BATCH QC REPORT Curtis & Tompkins, Ltd. Page 1 of 1

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: SCITP-36@4.0
Lab ID: 129167-002
Matrix: Soil
Batch#: 33905
Units: ug/Kg
Diln Fac: 1

Sample Date: 05/03/97
Received Date: 05/05/97
Prep Date: 05/12/97
Analysis Date: 05/12/97

MS Lab ID: QC45831

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	41.89	84	51-180
Trichloroethene	50	<5	39.35	79	73-141
Benzene	50	<5	40.93	81	78-142
Toluene	50	5.527	43.73	76	76-150
Chlorobenzene	50	<5	37.24	74 *	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	97	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	88	79-122

MSD Lab ID: QC45832

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	40.38	81	51-180	4	22
Trichloroethene	50	37.96	76	73-141	4	24
Benzene	50	41.03	81	78-142	0	21
Toluene	50	42.85	75 *	76-150	2	21
Chlorobenzene	50	35.75	72 *	83-129	4	21

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	85	79-122

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: 3 out of 10 outside limits

Forensic Analytical
Analytical Report

San Francisco • 3777 Depot Road, Suite 409. Hayward, CA 94545 • Phone 510/887-8828 • Fax 510/887-4218
Los Angeles • 2959 Pacific Commerce Dr.. Rancho Dominguez, CA 90221 • Phone 310/763-2374 • Fax 310/763-8684

Bulk Material Analysis

Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Curtis & Tompkins, Ltd.

2323 Fifth Street
Berkeley, CA 94710

Client ID: 1137
Report Number: 267809
Date Received: 05/07/97
Date Analyzed: 05/08/97

P.O. Num: 129167
Job ID: 129167
Site:

Sample Number / Gross Description/Comments	Lab Number	Total Asbestos	Total Fibrous Non-Asbestos	(Breakdown by type)
SCIPT-3604.0 Brown soil.	19733515	Non-Det.%	1-5%	Cellulose (1-5%)

David Kabane, C.I.H., Laboratory Director, Hayward Laboratory

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

Project Number: 129167

Subcontract Lab:

Forensic Analytical
3777 Depot Road Suite 409
Hayward, CA 94545
(510) 887-8828

Please send report to: Tracy Babjar

Turnaround Time: Normal

Sample ID	Date Sampled	Matrix	Analysis	C&T Lab #
SCITP-36@4.0	03-MAY-97	Soil	ASBESTOS-PLM	129167-002

Please report using Sample ID instead of C&T Lab #.

Notes:

RELINQUISHED BY:	RECEIVED BY:
Date/Time: 5/7/97	Date/Time: 5/7/97 4:50pm
Date/Time:	Date/Time:

Signature on this form constitutes a firm Purchase Order for the services requested above.

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129167
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 05/03/97
DATE RECEIVED: 05/05/97
DATE ANALYZED: 05/14/97
BATCH#: 33991

ANALYSIS: CYANIDE
ANALYSIS METHOD: EPA 335.2

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129167-003	SCITP-37@7.0'	ND	mg/Kg	1.0
METHOD BLANK	N/A	ND	mg/Kg	1.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/MSD OF SAMPLE NO:129135-001

RPD, %	<1
RECOVERY, %	92

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129167
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 05/03/97
DATE RECEIVED: 05/05/97
DATE ANALYZED: 05/14/97
BATCH#: 34000

ANALYSIS: CYANIDE
ANALYSIS METHOD: EPA 9010A

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129167-004	SCITP-35	ND	ug/L	10
129167-005	SCITP-36	14	ug/L	10
METHOD BLANK	N/A	ND	ug/L	10

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/MSD OF SAMPLE NO:129173-007

RPD, %	2
RECOVERY, %	86

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

May 8, 1997

Ms. Tracy Babjar
CURTIS & TOMPKINS, LTD.
2323 Fifth Street
Berkeley, CA 94710

Client Ref.: 129167
Clayton Project No.: 97050.71

Dear Ms. Babjar:

Attached is our analytical laboratory report for the samples received on May 6, 1997. Also enclosed is a copy of the Chain-of-Custody record acknowledging receipt of these samples.

Please note that any unused portion of the samples will be discarded after June 7, 1997, unless you have requested otherwise.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact Suzanne Haus, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Harriotte A. Hurley, CIH
Director, Laboratory Services
San Francisco Regional Office

HAH/las

Attachments

Analytical Results
for
Curtis & Tompkins, Ltd.
Client Reference: 129167
Clayton Project No. 97050.71

Sample Identification: See Below
Lab Number: 9705071
Sample Matrix/Media: SOIL
Method Reference: EPA 353.2

Date Received: 05/06/97
Date Analyzed: 05/07/97

Lab Number	Sample Identification	Date Sampled	Nitrate-N (mg/kg)	Method Detection Limit (mg/kg)
-01	SCITP-35@5.0	05/03/97	<1	1
-02	SCITP-36@4.0	05/03/97	<1	1
-03	SCITP-37@7.0	05/03/97	<1	1
-04	METHOD BLANK	--	<1	1

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Results are reported on a wet-weight basis, as received.

Analytical Results
for
Curtis & Tompkins, Ltd.
Client Reference: 129167
Clayton Project No. 97050.71

Sample Identification: See Below
Lab Number: 9705071
Sample Matrix/Media: SOIL
Method Reference: EPA 353.2

Date Received: 05/06/97
Date Analyzed: 05/07/97

Lab Number	Sample Identification	Date Sampled	Nitrite-N (mg/kg)	Method Detection Limit (mg/kg)
-01	SCITP-35@5.0	05/03/97	<1	1
-02	SCITP-36@4.0	05/03/97	<1	1
-03	SCITP-37@7.0	05/03/97	<1	1
-04	METHOD BLANK	--	<1	1

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Results are reported on a wet-weight basis, as received.

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

9705071

Project Number: 129167

Subcontract Lab:

Clayton Environmental
1252 Quarry Lane
Pleasanton, CA 94566
(510) 426-2600

Please send report to: Tracy Babjar

Turnaround Time: Normal (5 day)

Sample ID	Date Sampled	Matrix	Analysis	Containers: One:	C&T Lab #	
SCITP-35@5.0	03-MAY-97	Soil	NITRATE/NITRITE	of 60ml jar cool	129167-001	-01A
SCITP-36@4.0	03-MAY-97	Soil	NITRATE/NITRITE	↓ ↓	129167-002	-02A
SCITP-37@7.0	03-MAY-97	Soil	NITRATE/NITRITE		129167-003	-03A

***Please report using Sample ID instead of C&T Lab #.

Notes:

RELINQUISHED BY:	Date/Time	RECEIVED BY:	Date/Time
[signature]	5/6/97	[signature]	5/6/97 7:12
[signature]	5/6/97 13:9K	Carol Hammerberg Reid in good condition	5/6/97 1334

Signature on this form constitutes a firm Purchase Order for the services requested above.

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129167
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 05/03/97
DATE RECEIVED: 05/05/97
DATE ANALYZED: 05/15/97
BATCH#: 33989

ANALYSIS: TOTAL PHOSPHORUS
ANALYSIS METHOD: EPA 365.2

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129167-001	SCITP-35@5.0'	81	mg/Kg	15
129167-002	SCITP-36@4.0'	62	mg/Kg	15
129167-003	SCITP-37@7.0'	72	mg/Kg	15
METHOD BLANK	N/A	ND	mg/Kg	0.30

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: LCS/MS/MSD OF SAMPLE NO:129167-003

RECOVERY, %	95
MS/MSD, RECOVERY, %	19
RPD , %	4

Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		

Field ID:	SCITP-36@4.0	Sampled:	05/03/97
Lab ID:	129167-002	Received:	05/05/97
Matrix:	Soil	Extracted:	05/08/97
Batch#:	33877	Analyzed:	05/16/97
Units:	ug/Kg		
Diln Fac:	2		

Analyte	Result	Reporting Limit
Phenol	ND	670
2-Chlorophenol	ND	670
Benzyl alcohol	ND	670
2-Methylphenol	ND	670
4-Methylphenol	ND	670
2-Nitrophenol	ND	3300
2,4-Dimethylphenol	ND	670
Benzoic acid	ND	3300
2,4-Dichlorophenol	ND	670
4-Chloro-3-methylphenol	ND	670
2,4,6-Trichlorophenol	ND	670
2,4,5-Trichlorophenol	ND	3300
2,4-Dinitrophenol	ND	3300
4-Nitrophenol	ND	3300
4,6-Dinitro-2-methylphenol	ND	3300
Pentachlorophenol	ND	3300
N-Nitrosodimethylamine	ND	670
Aniline	ND	670
bis(2-Chloroethyl)ether	ND	670
1,3-Dichlorobenzene	ND	670
1,4-Dichlorobenzene	ND	670
1,2-Dichlorobenzene	ND	670
bis(2-Chloroisopropyl) ether	ND	670
N-Nitroso-di-n-propylamine	ND	670
Hexachloroethane	ND	670
Nitrobenzene	ND	670
Isophorone	ND	670
bis(2-Chloroethoxy)methane	ND	670
1,2,4-Trichlorobenzene	ND	670
Naphthalene	ND	670
4-Chloroaniline	ND	670
Hexachlorobutadiene	ND	670
2-Methylnaphthalene	ND	670
Hexachlorocyclopentadiene	ND	670
2-Chloronaphthalene	ND	670
2-Nitroaniline	ND	3300
Dimethylphthalate	ND	670
Acenaphthylene	ND	670

Semivolatile Organics by GC/MS

Field ID:	SCITP-36@4.0	Sampled:	05/03/97
Lab ID:	129167-002	Received:	05/05/97
Matrix:	Soil	Extracted:	05/08/97
Batch#:	33877	Analyzed:	05/16/97
Units:	ug/Kg		
Diln Fac:	2		

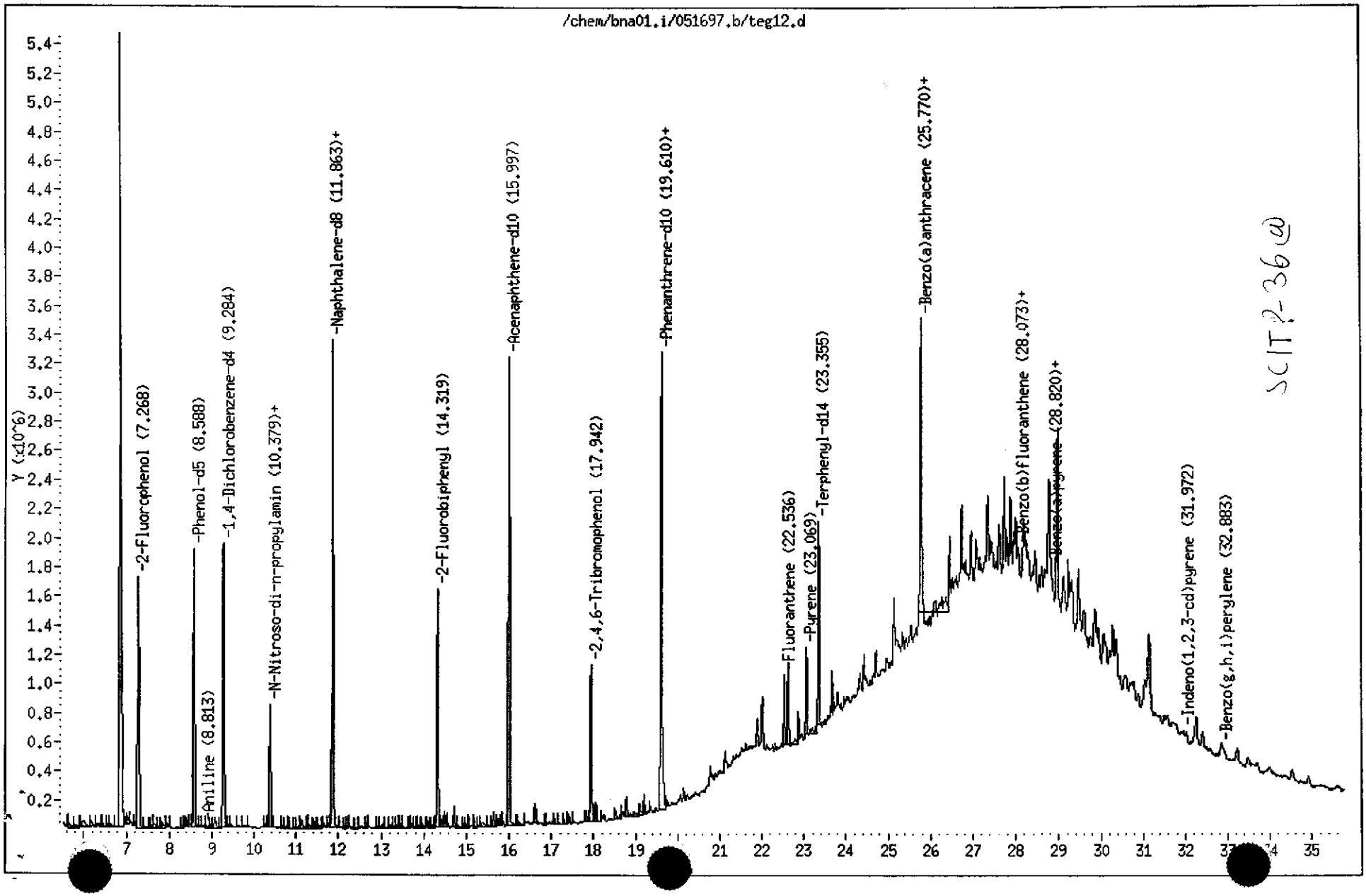
Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	670
3-Nitroaniline	ND	3300
Acenaphthene	ND	670
Dibenzofuran	ND	670
2,4-Dinitrotoluene	ND	670
Diethylphthalate	ND	670
4-Chlorophenyl-phenylether	ND	670
Fluorene	ND	670
4-Nitroaniline	ND	3300
N-Nitrosodiphenylamine	ND	670
Azobenzene	ND	670
4-Bromophenyl-phenylether	ND	670
Hexachlorobenzene	ND	670
Phenanthrene	ND	670
Anthracene	ND	670
Di-n-butylphthalate	ND	670
Fluoranthene	360 J	670
Benzidine	ND	670
Pyrene	510 J	670
Butylbenzylphthalate	ND	670
3,3'-Dichlorobenzidine	ND	3300
Benzo(a)anthracene	ND	670
Chrysene	ND	670
bis(2-Ethylhexyl)phthalate	ND	670
Di-n-octylphthalate	ND	670
Benzo(b)fluoranthene	ND	670
Benzo(k)fluoranthene	ND	670
Benzo(a)pyrene	ND	670
Indeno(1,2,3-cd)pyrene	ND	670
Dibenz(a,h)anthracene	ND	670
Benzo(g,h,i)perylene	ND	670

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	79	25-121
Phenol-d5	82	24-113
2,4,6-Tribromophenol	65	19-122
Nitrobenzene-d5	84	23-120
2-Fluorobiphenyl	87	30-115
Terphenyl-d14	100	18-137

J: Estimated Value

Data File: /chem/bna01.i/051697.b/teg12.d
Date : 16-MAY-97 23:30
Client ID: CURTIS&TOMPKINS
Sample Info: 8270,,33877,30,1000,2,
Volume Injected (uL): 1.0
Column phase: Xti 5 x .5 u

Instrument: bna01.i
Operator: dsh
Column diameter: 0.25



Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	133.004	Prep Method:	EPA 3550
Location:	9th Ave. Terminal/KOT		
Field ID:	SCITP-37@7.0	Sampled:	05/03/97
Lab ID:	129167-003	Received:	05/05/97
Matrix:	Soil	Extracted:	05/08/97
Batch#:	33877	Analyzed:	05/16/97
Units:	ug/Kg		
Diln Fac:	1		

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

Semivolatile Organics by GC/MS

Field ID:	SCITP-37@7.0	Sampled:	05/03/97
Lab ID:	129167-003	Received:	05/05/97
Matrix:	Soil	Extracted:	05/08/97
Batch#:	33877	Analyzed:	05/16/97
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1700
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
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)fluoranthene	ND	330
Benzo(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	%Recovery	Recovery Limits
2-Fluorophenol	73	25-121
Phenol-d5	74	24-113
2,4,6-Tribromophenol	46	19-122
Nitrobenzene-d5	75	23-120
2-Fluorobiphenyl	77	30-115
Terphenyl-d14	83	18-137

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 33877
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/13/97

MB Lab ID: QC45711

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

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

METHOD BLANK

Matrix: Soil
Batch#: 33877
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/13/97

MB Lab ID: QC45711

Analyte	Result	Reporting Limit
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
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)fluoranthene	ND	330
Benzo(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	77	25-121
Phenol-d5	79	24-113
2,4,6-Tribromophenol	56	19-122
Nitrobenzene-d5	79	23-120
2-Fluorobiphenyl	87	30-115
Terphenyl-d14	88	18-137

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129187-006
Matrix: Soil
Batch#: 33877
Units: ug/Kg
Diln Fac: 1

Sample Date: 04/24/97
Received Date: 04/25/97
Prep Date: 05/08/97
Analysis Date: 05/13/97

MS Lab ID: QC45713

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Phenol	3333	<333.3	2575	77	26-90
2-Chlorophenol	3333	<333.3	2673	80	25-102
4-Chloro-3-methylphenol	3333	<333.3	2501	75	26-103
4-Nitrophenol	3333	<1667	1794	54	11-114
Pentachlorophenol	3333	<1667	454.4	14 *	17-109
1,4-Dichlorobenzene	1667	<333.3	1181	71	28-104
N-Nitroso-di-n-propylamine	1667	<333.3	1145	69	41-126
1,2,4-Trichlorobenzene	1667	<333.3	1224	73	38-107
Acenaphthene	1667	<333.3	1267	76	31-137
2,4-Dinitrotoluene	1667	<333.3	631.6	38	28-89
Pyrene	1667	2183	3806	97	35-142

Surrogate	%Rec	Limits
2-Fluorophenol	73	25-121
Phenol-d5	74	24-113
2,4,6-Tribromophenol	44	19-122
Nitrobenzene-d5	76	23-120
2-Fluorobiphenyl	79	30-115
Terphenyl-d14	93	18-137

MSD Lab ID: QC45714

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Phenol	3333	2698	81	26-90	5	35
2-Chlorophenol	3333	2760	83	25-102	4	50
4-Chloro-3-methylphenol	3333	2528	76	26-103	1	33
4-Nitrophenol	3333	1881	56	11-114	4	50
Pentachlorophenol	3333	649.8	19	17-109	30	47
1,4-Dichlorobenzene	1667	1213	73	28-104	3	27
N-Nitroso-di-n-propylamine	1667	1173	70	41-126	1	38
1,2,4-Trichlorobenzene	1667	1284	77	38-107	5	23
Acenaphthene	1667	1483	89	31-137	16	19
2,4-Dinitrotoluene	1667	580.7	35	28-89	8	47
Pyrene	1667	5254	184 *	35-142	62 *	36

Surrogate	%Rec	Limits
2-Fluorophenol	76	25-121
Phenol-d5	76	24-113
2,4,6-Tribromophenol	53	19-122
Nitrobenzene-d5	78	23-120
2-Fluorobiphenyl	87	30-115
Terphenyl-d14	102	18-137

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 1 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits
DO: Surrogate diluted out

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33877
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/13/97

LCS Lab ID: QC45712

Analyte	Result	Spike Added	%Rec #	Limits
Phenol	2690	3333	81	26-90
2-Chlorophenol	2758	3333	83	25-102
4-Chloro-3-methylphenol	2558	3333	77	26-103
4-Nitrophenol	1843	3333	55	11-114
Pentachlorophenol	947.6	3333	28	17-109
1,4-Dichlorobenzene	1247	1667	75	28-104
N-Nitroso-di-n-propylamine	1169	1667	70	41-126
1,2,4-Trichlorobenzene	1264	1667	76	38-107
Acenaphthene	1317	1667	79	31-137
2,4-Dinitrotoluene	1048	1667	63	28-89
Pyrene	1381	1667	83	35-142

Surrogate	%Rec	Limits
2-Fluorophenol	78	25-121
Phenol-d5	78	24-113
2,4,6-Tribromophenol	58	19-122
Nitrobenzene-d5	81	23-120
2-Fluorobiphenyl	85	30-115
Terphenyl-d14	87	18-137

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
DO: Surrogate diluted out

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129167
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 05/03/97
DATE RECEIVED: 05/05/97
DATE ANALYZED: 05/15/97
BATCH#: 33998

ANALYSIS: HEXAVALENT CHROMIUM
ANALYSIS METHOD: EPA 7196A

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129167-001	SCITP-35@5.0'	ND	mg/Kg	0.05
129167-002	SCITP-36@4.0'	ND	mg/Kg	0.05
129167-003	SCITP-37@7.0'	ND	mg/Kg	0.05
METHOD BLANK	N/A	ND	mg/Kg	0.05

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/SAMPLE DUPLICATE OF 129167-001

RPD, %	<1
RECOVERY, %	101

CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Soil

DATE REPORTED: 05/19/97

Metals Analytical Report

				Lead					
Sample ID	Lab ID	Sample Date	Receive Date	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
SCITP-35@5.0	129167-001	05/03/97	05/05/97	4.4	0.14	1	33949	EPA 6010A	05/14/97
SCITP-36@4.0	129167-002	05/03/97	05/05/97	88	0.15	1	33949	EPA 6010A	05/14/97
SCITP-37@7.0	129167-003	05/03/97	05/05/97	4.2	0.15	1	33949	EPA 6010A	05/14/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Filtrate

DATE REPORTED: 05/19/97

Metals Analytical Report

				Lead					
Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
SCITP-35	129167-004	05/03/97	05/05/97	ND	3.0	1	33917	EPA 6010A	05/13/97
SCITP-36	129167-005	05/03/97	05/05/97	ND	3.0	1	33917	EPA 6010A	05/14/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Soil

DATE REPORTED: 05/19/97

Metals Analytical Report

				Potassium					
Sample ID	Lab ID	Sample Date	Receive Date	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
SCITP-35@5.0	129167-001	05/03/97	05/05/97	400	24	1	33949	EPA 6010A	05/14/97
SCITP-36@4.0	129167-002	05/03/97	05/05/97	1300	25	1	33949	EPA 6010A	05/14/97
SCITP-37@7.0	129167-003	05/03/97	05/05/97	1500	25	1	33949	EPA 6010A	05/14/97

Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129167

DATE REPORTED: 05/19/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Lead	ND	3	ug/L	1	33917	EPA 6010A	05/12/97
Lead	ND	0.15	mg/Kg	1	33949	EPA 6010A	05/14/97
Potassium	ND	25	mg/Kg	1	33949	EPA 6010A	05/14/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129167

DATE REPORTED: 05/19/97

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
Lead	500	506	502	ug/L	101	100	80-120	1	35	33917	EPA 6010A	05/12/97
Lead	25	24.5	24.05	mg/Kg	98	96	80-120	2	35	33949	EPA 6010A	05/14/97
Potassium	1000	897	921	mg/Kg	90	92	80-120	3	35	33949	EPA 6010A	05/14/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129167

DATE REPORTED: 05/19/97

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Lead	129182-005	<3	<3	ug/L	NC	20	33917	EPA 6010A	05/12/97
Lead	129187-001	33.5	38.12	mg/Kg	13	20	33949	EPA 6010A	05/14/97
Potassium	129187-001	1537	1660	mg/Kg	8	20	33949	EPA 6010A	05/14/97

NC = Not Calculable

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129167

DATE REPORTED: 05/19/97

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Lead	500	129182-005	<3.000	502	ug/L	100	65-135	33917	EPA 6010A	05/12/97
Lead	25	129187-001	33.5	53.5	mg/Kg	80	65-135	33949	EPA 6010A	05/14/97
Potassium	1000	129187-001	1537	2770	mg/Kg	123	65-135	33949	EPA 6010A	05/14/97

CHAIN OF CUSTODY FORM

129167

PAGE 2 OF 2

PROJECT NAME: 9th Ave Terminal

JOB NUMBER: 133.004 LAB: CET

PROJECT CONTACT: Jerome de Vernier TURNAROUND: Std

SAMPLED BY: Eden Wolfe/Dennis Alexander REQUESTED BY: JD

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	CONTAINERS: VOA	LITER	PINT	TUBE	1L poly	500mL poly	METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	NOTES	ANALYSIS REQUESTED: TVH/BTEX	TEN (dt+mo)	O&G	8240	8270	Lead	[redacted]	CN-	8080
	SCITP-35	X				6	1					X			X		05	03	97		X	X	X	X		X		X	X
	"									1				X															
	"						3				3					X													
	SCITP-36					6	1	1				X									X	X	X	X		X		X	X
	"									1				X															
	"						3				3				✓	X													

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
[signature]	5/5/97 1405	[signature]	5/5/97 14:05
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 • FAX: 510-268-0137

CHAIN OF CUSTODY FORM

129167

PAGE 1 OF 2

PROJECT NAME: KOT - 9th Avenue Terminal

JOB NUMBER: 133.004 LAB: C&T

PROJECT CONTACT: Jerome de Vernier TURNAROUND: std.

SAMPLED BY: John Wolfe REQUESTED BY: JO

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	MATRIX: SOIL	MATRIX: WASTE	MATRIX: AIR	CONTAINERS: VOA	CONTAINERS: LITER	CONTAINERS: PINT	CONTAINERS: TUBE	METHOD PRESERVED: HCL	METHOD PRESERVED: H_2SO_4	METHOD PRESERVED: HNO_3	METHOD PRESERVED: ICE	METHOD PRESERVED: NONE	SAMPLING DATE: MONTH	SAMPLING DATE: DAY	SAMPLING DATE: YEAR	NOTES	TVH/BTEX	TEH (d + mo)	O&G	8240	8270	Lead	Cr^{6+}	[illegible]	Zn	nitrate/nitrite & phosphate	K	[illegible]	CN^-	8080	Asbestos
-1	SCITP-35@5.0		X						X				X		05	03	97		X	X	X	X		X	X		X	X	X				
-2	SCITP-36@4.0		↓						↓				↓		→				X	X	X	X	X	X	X		X	X	X				X
-3	SCITP-37@7.0		↓						↓				↓				→		X	X	X	X	X	X	X		X	X	X		X	X	

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
[signature]	5/5/97 1405	[signature]	5/5/97 14:05

COMMENTS & NOTES:

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 19-MAY-97
Lab Job Number: 129182
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129182

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD: SMWW 17:5520BF**

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129182-001	MW-5	Water	06-MAY-97	06-MAY-97	15-MAY-97	ND	mg/L	5	DLP	33992
129182-002	MW-6	Water	06-MAY-97	06-MAY-97	15-MAY-97	330	mg/L	5	DLP	33992
129182-003	SCIMW-21	Water	06-MAY-97	06-MAY-97	15-MAY-97	ND	mg/L	5	DLP	33992
129182-004	SCIMW-22	Water	06-MAY-97	06-MAY-97	15-MAY-97	ND	mg/L	5	DLP	33992
129182-005	SCIMW-23	Water	06-MAY-97	06-MAY-97	15-MAY-97	10.	mg/L	5	DLP	33992
129182-006	SCIMW-24	Water	06-MAY-97	06-MAY-97	15-MAY-97	ND	mg/L	5	DLP	33992
129182-007	SCIMW-26	Water	06-MAY-97	06-MAY-97	15-MAY-97	ND	mg/L	5	DLP	33992
129182-008	SCIMW-27	Water	06-MAY-97	06-MAY-97	15-MAY-97	ND	mg/L	5	DLP	33992

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129182
Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 33992**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	5	mg/L	SMWW 17:5520BF	15-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	95%	SMWW 17:5520BF	15-MAY-97
BSD	98%	SMWW 17:5520BF	15-MAY-97

		Control Limits
Average Spike Recovery	97%	80% - 120%
Relative Percent Difference	2.8%	< 20%

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129182-001	MW-5	33846	05/06/97	05/07/97	05/07/97	
129182-002	MW-6	33846	05/06/97	05/07/97	05/07/97	
129182-003	SCIMW-21	33846	05/06/97	05/07/97	05/07/97	
129182-004	SCIMW-22	33846	05/06/97	05/08/97	05/08/97	

Matrix: Water

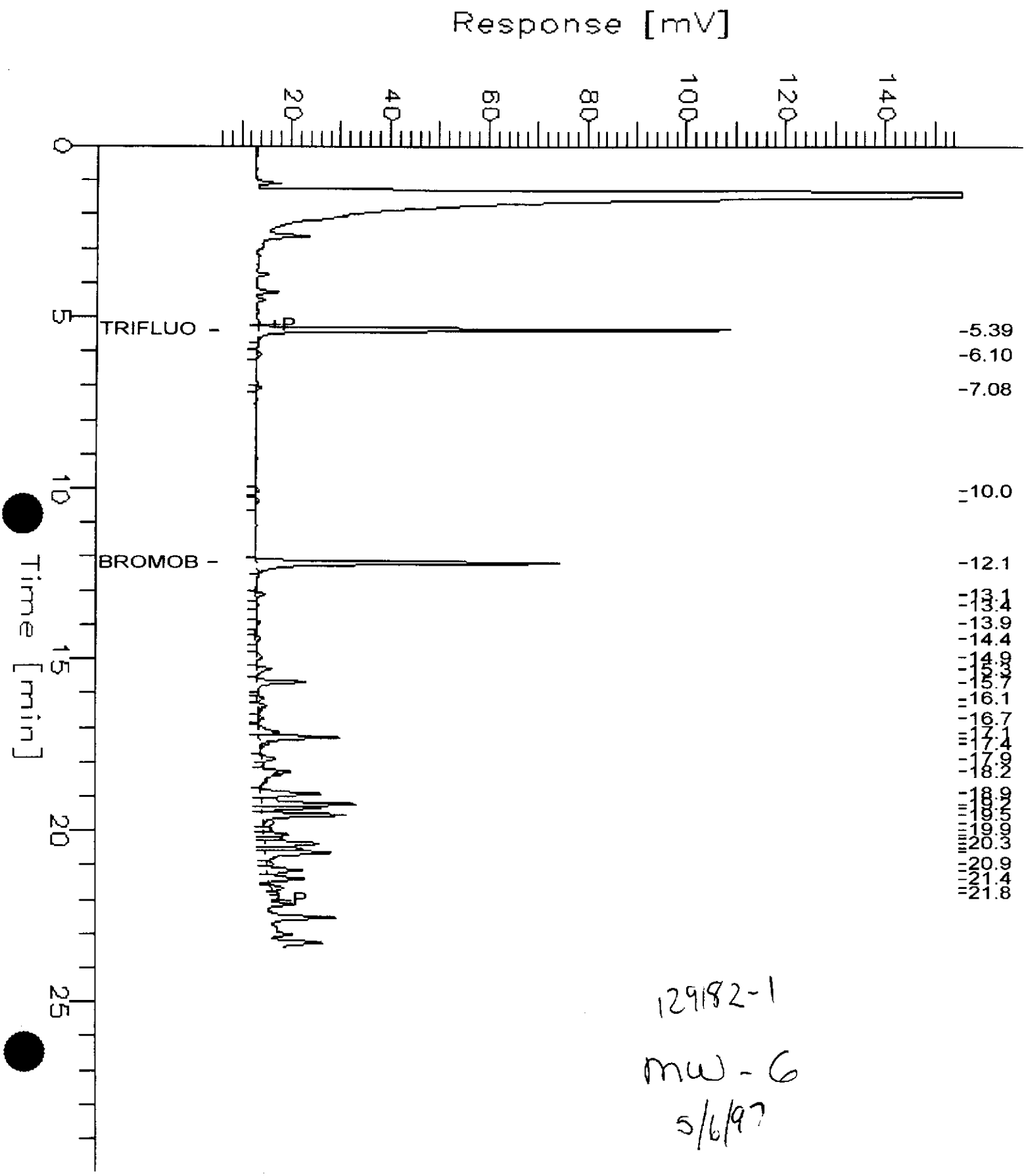
Analyte	Units	129182-001	129182-002	129182-003	129182-004
Diln Fac:		1	1	1	1
Gasoline	ug/L	<50	440 YH	<50	<50
Surrogate					
Trifluorotoluene	%REC	83	84	83	84
Bromobenzene	%REC	90	93	87	85

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard

GC05 RTX1 TVH Chromatogram

Sample Name : MSS,129182-002,33846,
FileName : G:\GC05\DATA\127H011.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 30.00 min
Scale Factor: -1.0 Plot Offset: 5 mV

Sample #: Page 1 of 1
Date : 5/7/97 07:06 PM
Time of Injection: 5/7/97 06:42 PM
Low Point : 5.41 mV High Point : 155.41 mV
Plot Scale: 150.0 mV



129182-1

MW-6

5/6/97

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129182-006	SCIMW-24	33908	05/06/97	05/12/97	05/12/97	
129182-007	SCIMW-26	33908	05/06/97	05/12/97	05/12/97	
129182-008	SCIMW-27	33846	05/06/97	05/08/97	05/08/97	

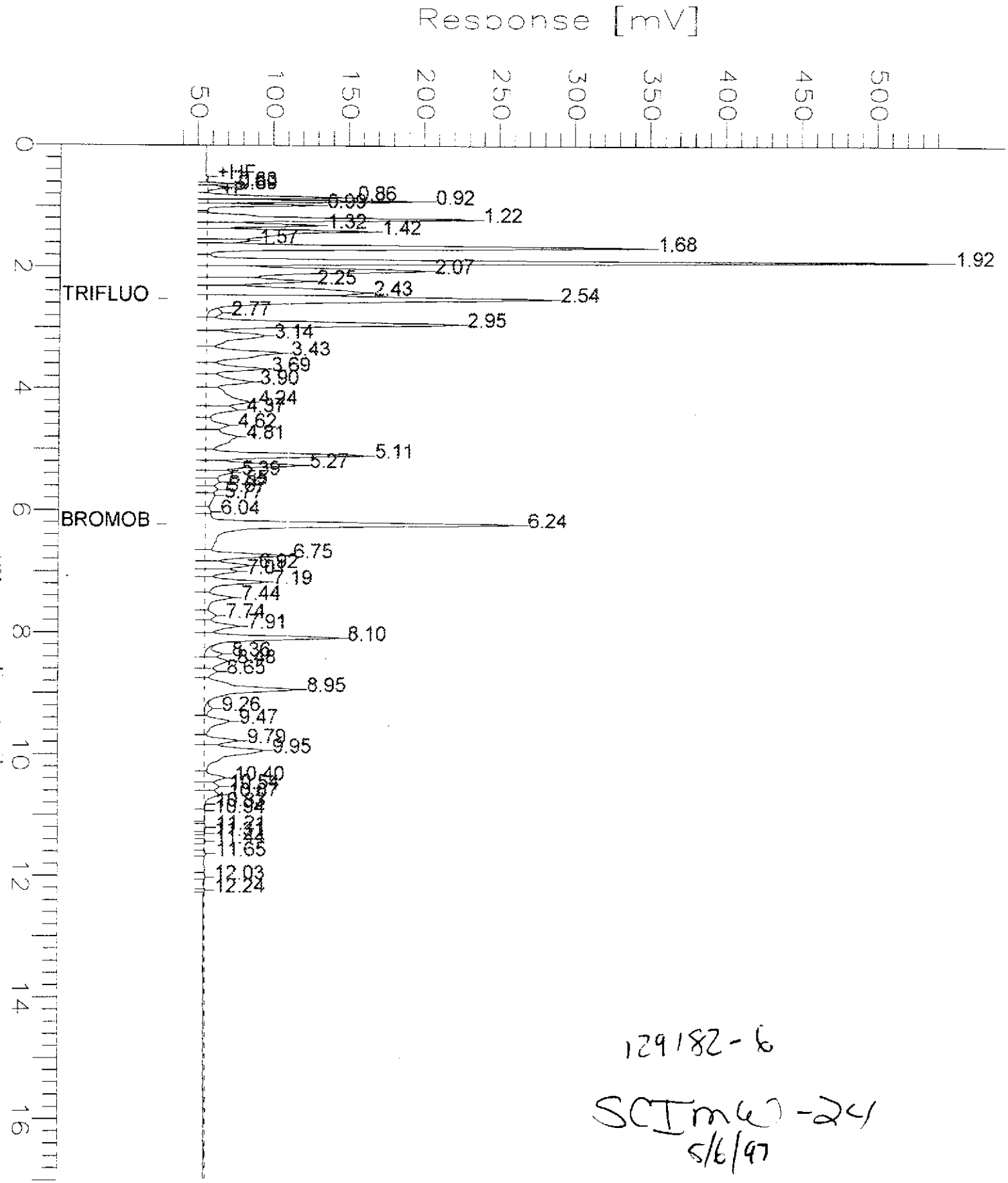
Matrix: Water

Analyte Diln Fac:	Units	129182-006 5	129182-007 1	129182-008 1
Gasoline	ug/L	5000	<50	<50
Surrogate				
Trifluorotoluene	%REC	114	77	83
Bromobenzene	%REC	124	79	83

GC04 TVH 'J' Data File Rtx1FID

Sample Name : D,129182-006,33908
FileName : G:\GC04\DATA\132J036.raw
Method : TVMAR14
Start Time : 0.00 min End Time : 17.00 min
Scale Factor: 1.0 Plot Offset: 31 mV

Sample #: Page 1 of 1
Date : 5/12/97 05:36 PM
Time of Injection: 5/12/97 05:19 PM
Low Point : 30.66 mV High Point : 545.41 mV
Plot Scale: 514.8 mV



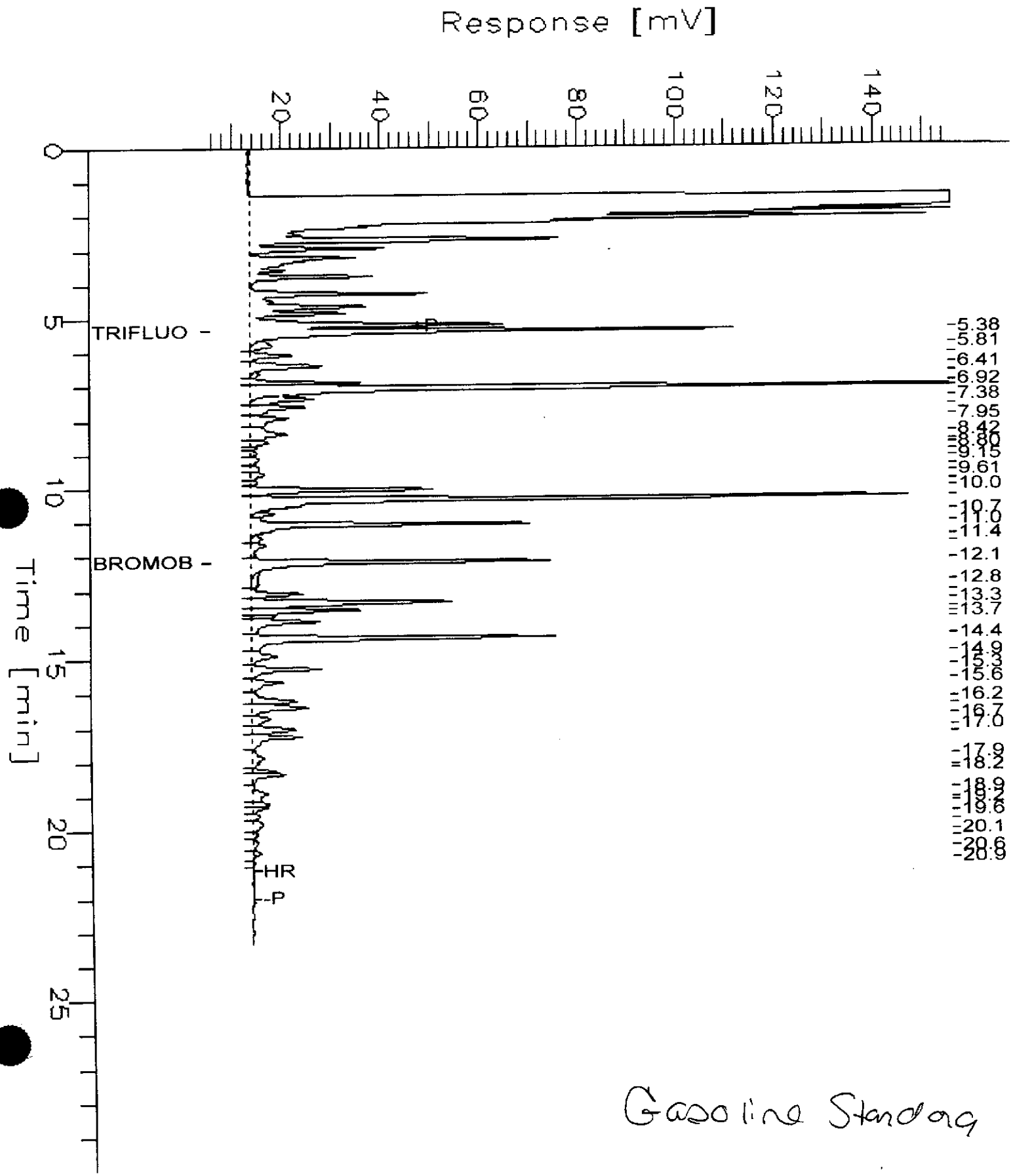
129182-6

SCIm(J)-24
5/6/97

GC05 RTX1 TVH Chromatogram

Sample Name : CCV/LCS,QC45594,97WS4007,33846,
FileName : G:\GC05\DATA\127H002.RAW
Method :
t Time : 0.00 min End Time : 30.00 min
e Factor: -1.0 Plot Offset: 6 mV

Sample #: GAS Page 1 of 1
Date : 5/7/97 12:47 PM
Time of Injection: 5/7/97 11:17 AM
Low Point : 5.61 mV High Point : 155.61 mV
Plot Scale: 150.0 mV



Gasoline Standard

Lab #: 129182

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Water	Prep Date:	05/07/97
Batch#:	33846	Analysis Date:	05/07/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC45596

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	79	65-135
Bromobenzene	84	65-135

Lab #: 129182

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33908
Units: ug/L
Diln Fac: 1

Prep Date: 05/12/97
Analysis Date: 05/12/97

MB Lab ID: QC45845

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	83	65-135
Bromobenzene	83	65-135

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33846
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

LCS Lab ID: QC45594

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	2147	2000	107	75-125
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	107	65-135		
Bromobenzene	101	65-135		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 129182

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33908
Units: ug/L
Diln Fac: 1

Prep Date: 05/12/97
Analysis Date: 05/12/97

LCS Lab ID: QC45843

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	1908	2000	95	75-125
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	85	65-135		
Bromobenzene	118	65-135		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129182-001	MW-5	33881	05/06/97	05/08/97	05/10/97	
129182-002	MW-6	33881	05/06/97	05/08/97	05/16/97	
129182-003	SCIMW-21	33881	05/06/97	05/08/97	05/10/97	
129182-004	SCIMW-22	33881	05/06/97	05/08/97	05/10/97	

Matrix: Water

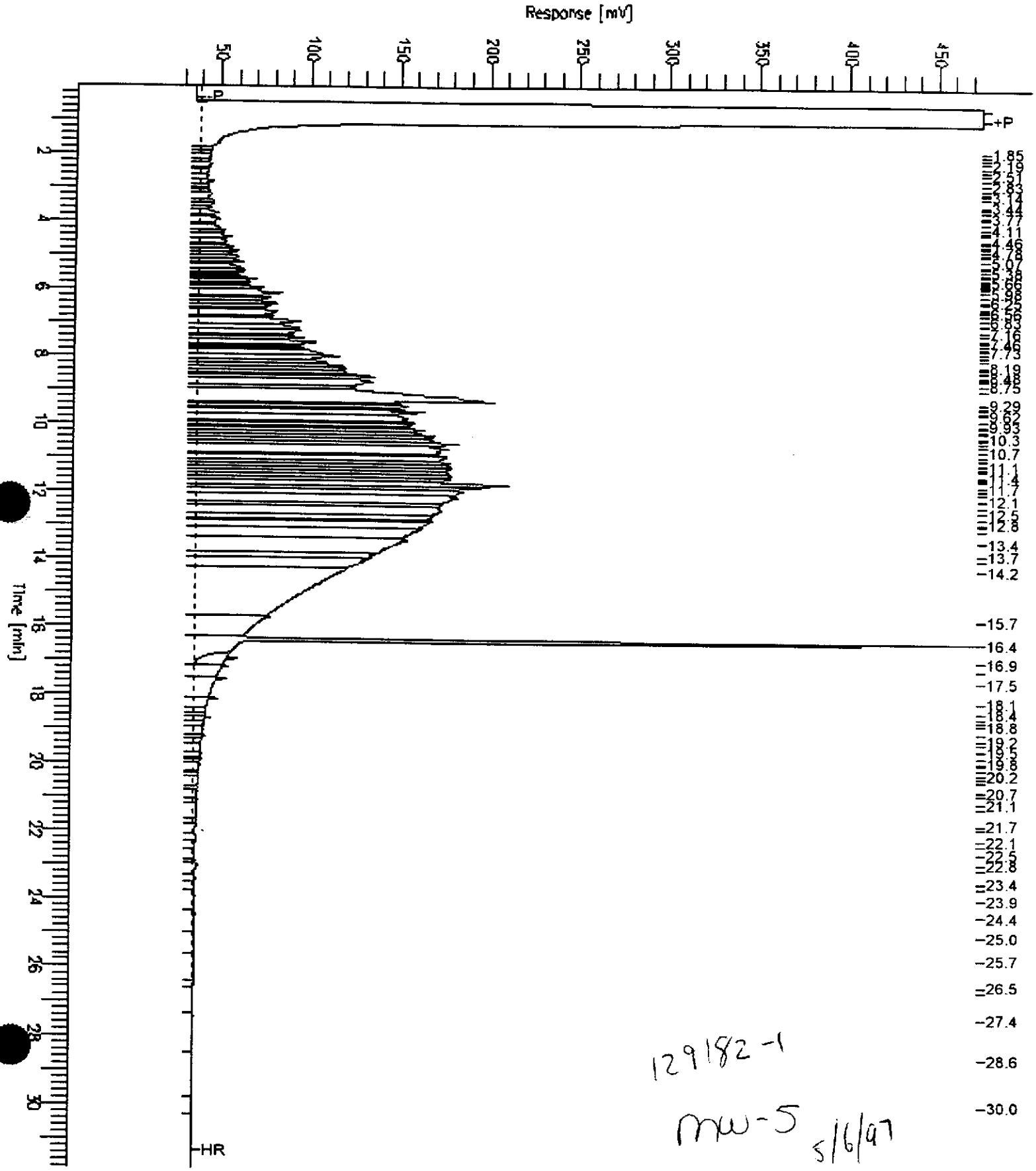
Analyte	Units	129182-001	129182-002	129182-003	129182-004
Diln Fac:		1	40	1	1
Diesel C12-C22	ug/L	8800	620000	670 H	1400 YH
Motor Oil C22-C50	ug/L	2500 YL	24000 YL	860 YLH	2300 LH
Surrogate					
Hexacosane	%REC	85	DO	83	83

DO: Surrogate diluted out
Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

Chromatogram

Sample Name : 129182-001,33881
FileName : G:\GC13\CHA\129A019.RAW
Method : ATEH132.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 22 mV

Sample #: 33881 Page 1 of 1
Date : 5/13/97 12:15 PM
Time of Injection: 5/10/97 06:30 AM
Low Point : 21.55 mV High Point : 474.77 mV
Plot Scale: 453.2 mV



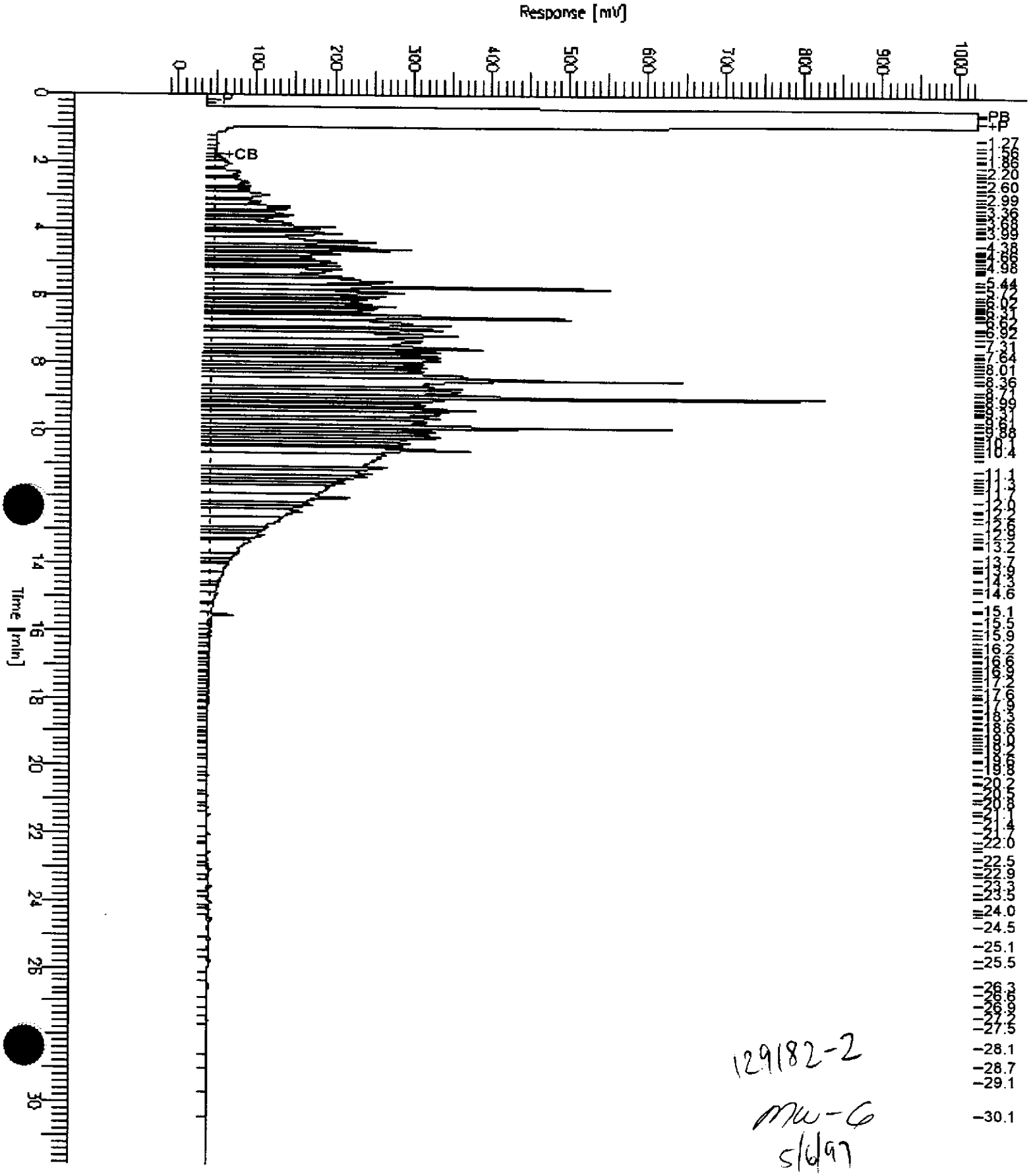
129182-1

MW-5 5/16/97

Chromatogram

Sample Name : 129182-002,33881
FileName : G:\GC11\CHB\135B033.RAW
Method : BTEH128.MTH
Start Time : 0.00 min End Time : 31.90 min
Tailing Factor: 0.0 Plot Offset: -16 mV

Sample #: 33831 Page 1 of 1
Date : 5/19/97 09:38 AM
Time of Injection: 5/16/97 11:44 PM
Low Point : -16.35 mV High Point : 1024.00 mV
Plot Scale: 1040.4 mV

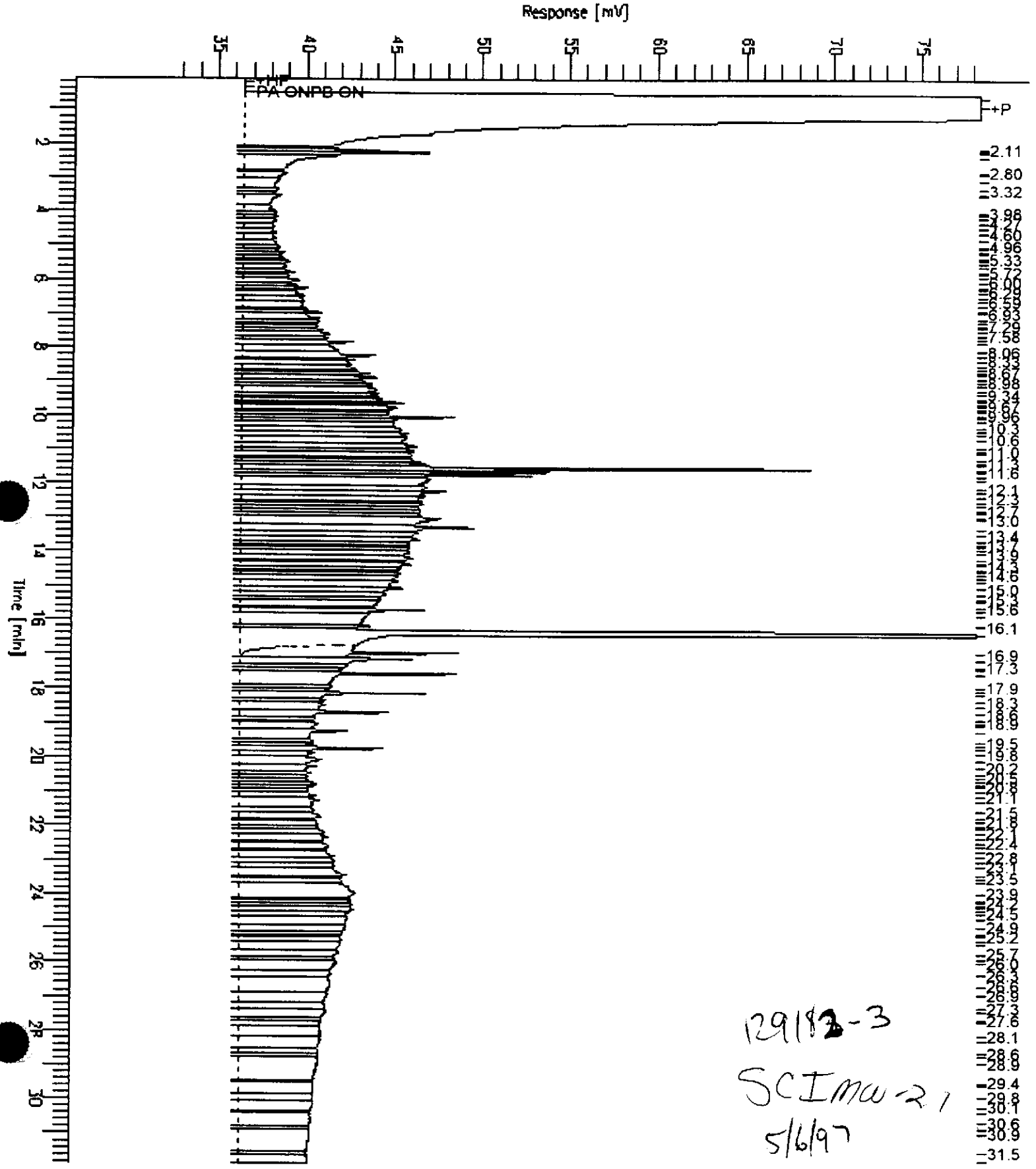


129182-2
MW-6
5/6/97

Chromatogram

Sample Name : 129182-003,33881
FileName : G:\GC13\CHA\129A021.RAW
Method : ATEH132.MTH
Start Time : 0.07 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 32 mV

Sample #: 33881 Page 1 of 1
Date : 5/13/97 12:19 PM
Time of Injection: 5/10/97 07:55 AM
Low Point : 32.09 mV High Point : 78.38 mV
Plot Scale: 46.3 mV

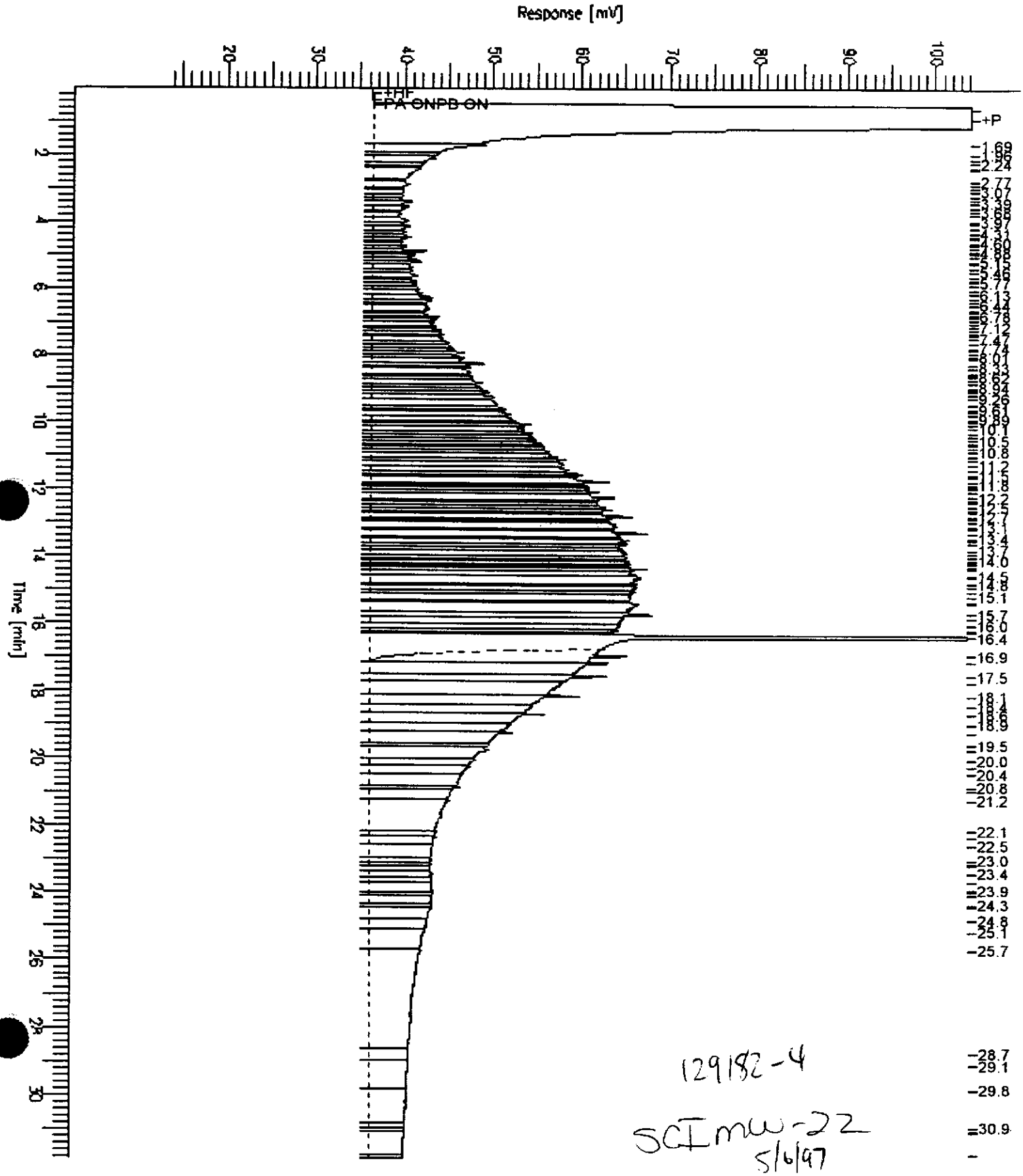


129182-3
SCIMA-21
5/6/97

Chromatogram

Sample Name : 129182-004,33881
FileName : G:\GC13\CHA\129A022.RAW
Method : ATEH132.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 13 mV

Sample #: 33881 Page 1 of 1
Date : 5/13/97 12:20 PM
Time of Injection: 5/10/97 08:37 AM
Low Point : 13.02 mV High Point : 104.11 mV
Plot Scale: 91.1 mV



129182-4

SCImw-22
5/6/97

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129182-005	SCIMW-23	33881	05/06/97	05/08/97	05/10/97	
129182-006	SCIMW-24	33881	05/06/97	05/08/97	05/10/97	
129182-007	SCIMW-26	33881	05/06/97	05/08/97	05/10/97	
129182-008	SCIMW-27	33881	05/06/97	05/08/97	05/10/97	

Matrix: Water

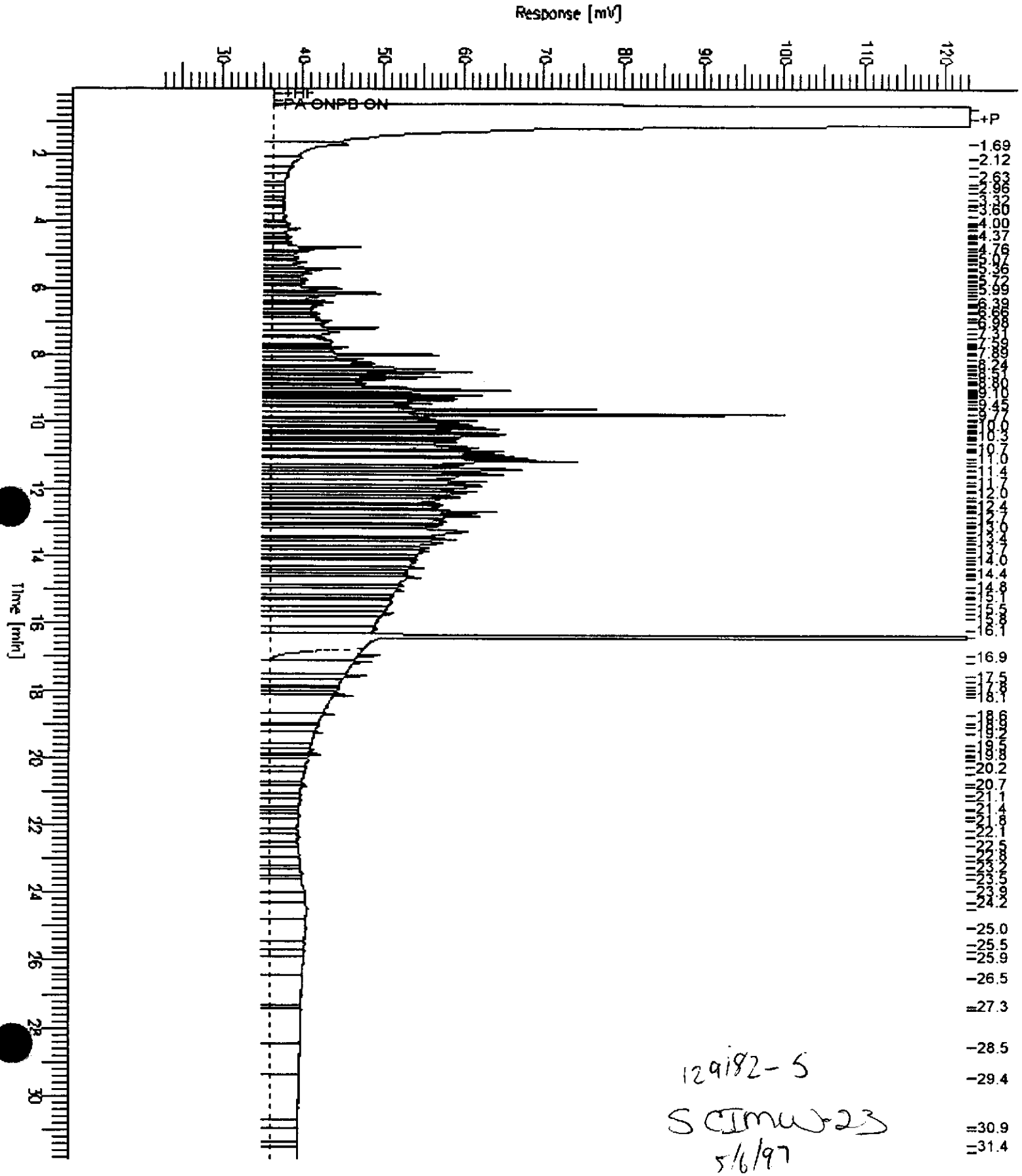
Analyte Diln Fac:	Units	129182-005 1	129182-006 1	129182-007 1	129182-008 1
Diesel C12-C22	ug/L	1400	2700 LH	140	3400
Motor Oil C22-C50	ug/L	1200 YL	2100 L	<300	1800 YL
Surrogate					
Hexacosane	%REC	81	89	89	90

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

Chromatogram

Sample Name : 129182-005,33881
FileName : G:\GC13\CHA\129A023.RAW
Method : ATEH132.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 23 mV

Sample #: 33881 Page 1 of 1
Date : 5/13/97 12:20 PM
Time of Injection: 5/10/97 09:20 AM
Low Point : 22.67 mV High Point : 123.22 mV
Plot Scale: 100.6 mV

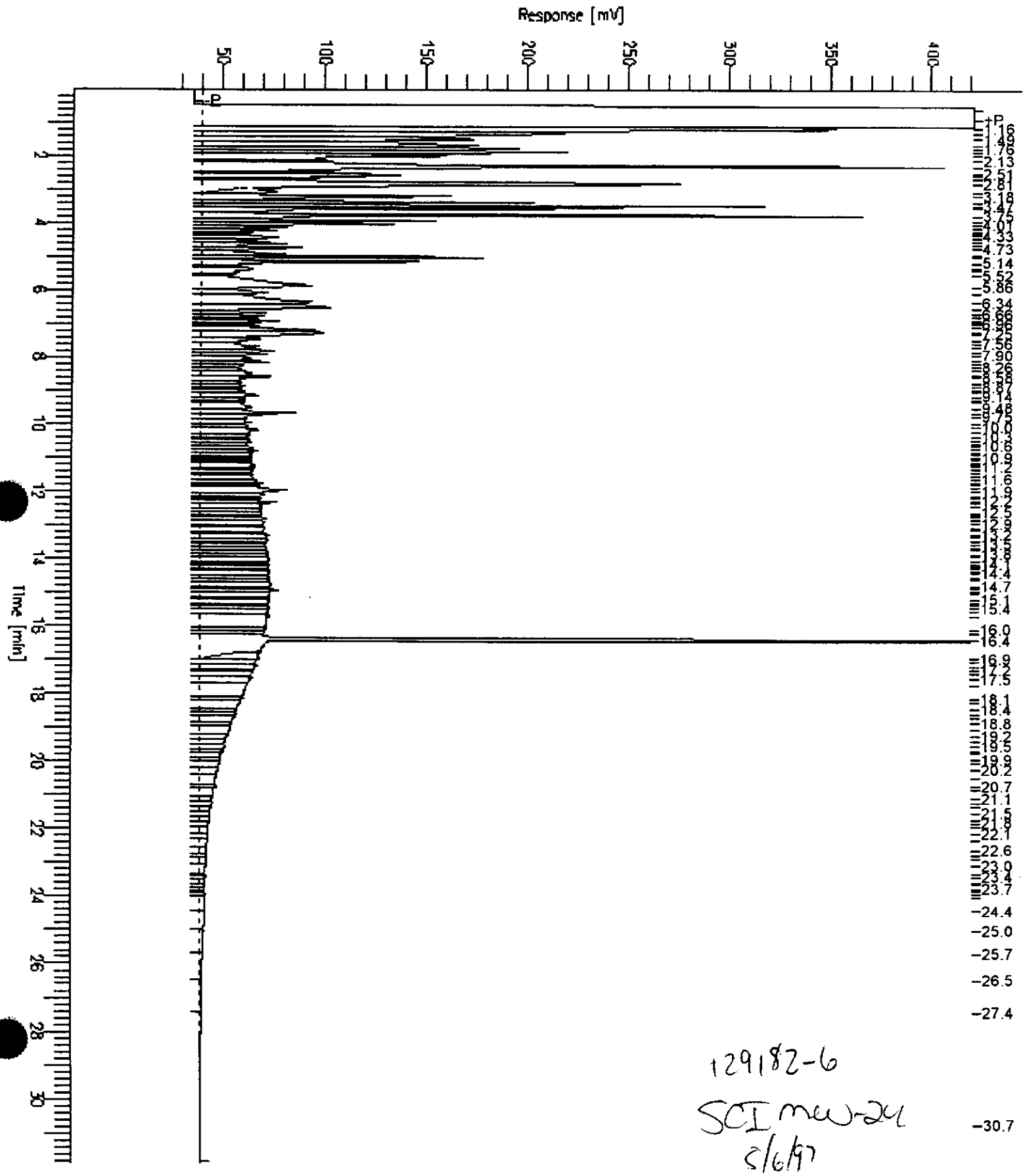


129182-5
SCIMU23
5/6/97

Chromatogram

Sample Name : 129182-006,33881
FileName : G:\GC13\CHA\129A024.RAW
Method : ATEH132.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 21 mV

Sample #: 33881 Page 1 of 1
Date : 5/13/97 12:22 PM
Time of Injection: 5/10/97 10:02 AM
Low Point : 21.39 mV High Point : 421.39 mV
Plot Scale: 400.0 mV

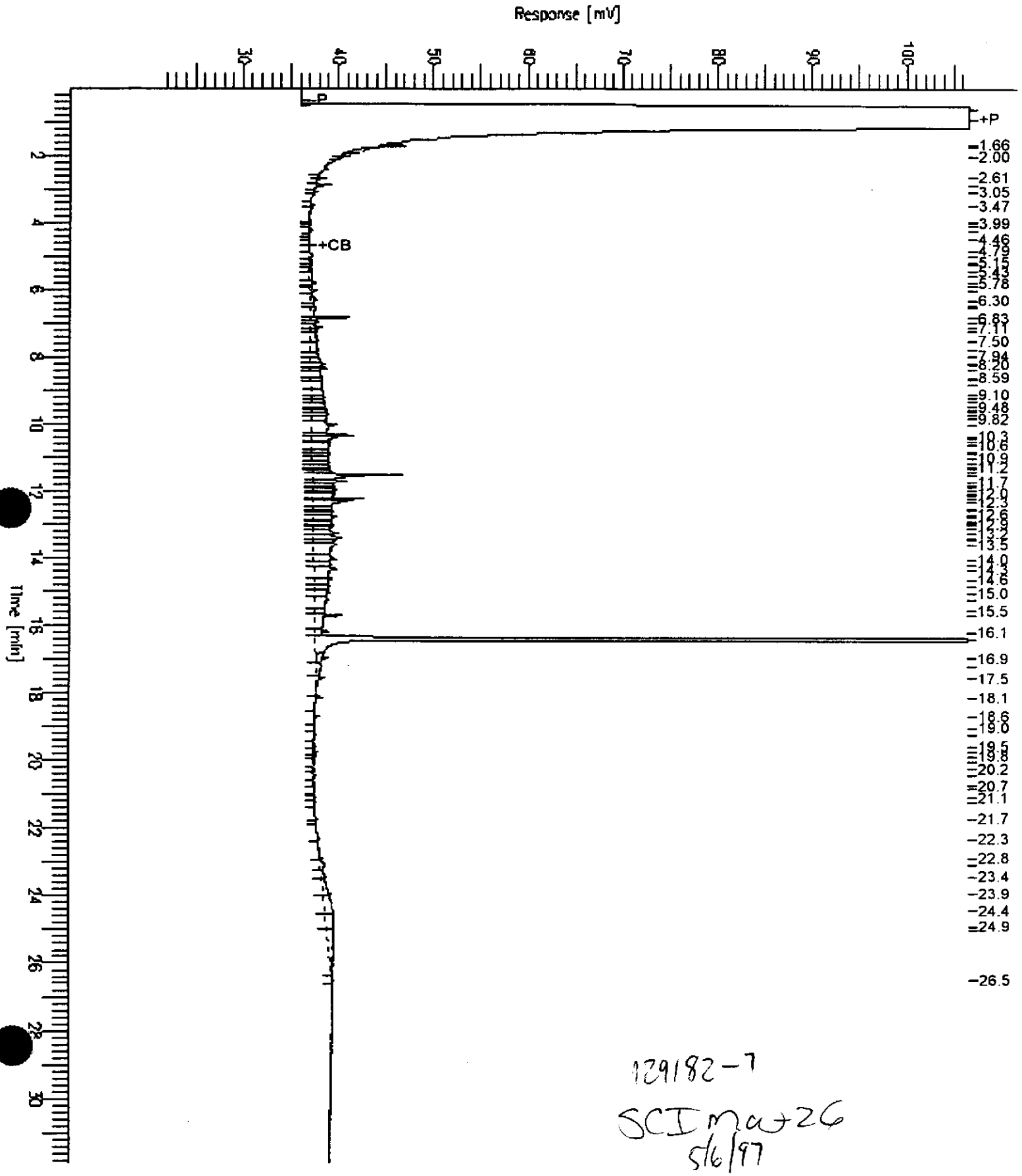


129182-6
SCI mcw-24
5/6/97

Chromatogram

Sample Name : 129182-007,33881
FileName : G:\GC13\CHA\129A025.RAW
Method : ATEH132.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 21 mV

Sample #: 33881 Page 1 of 1
Date : 5/13/97 12:23 PM
Time of Injection: 5/10/97 10:44 AM
Low Point : 21.46 mV High Point : 106.66 mV
Plot Scale: 85.2 mV

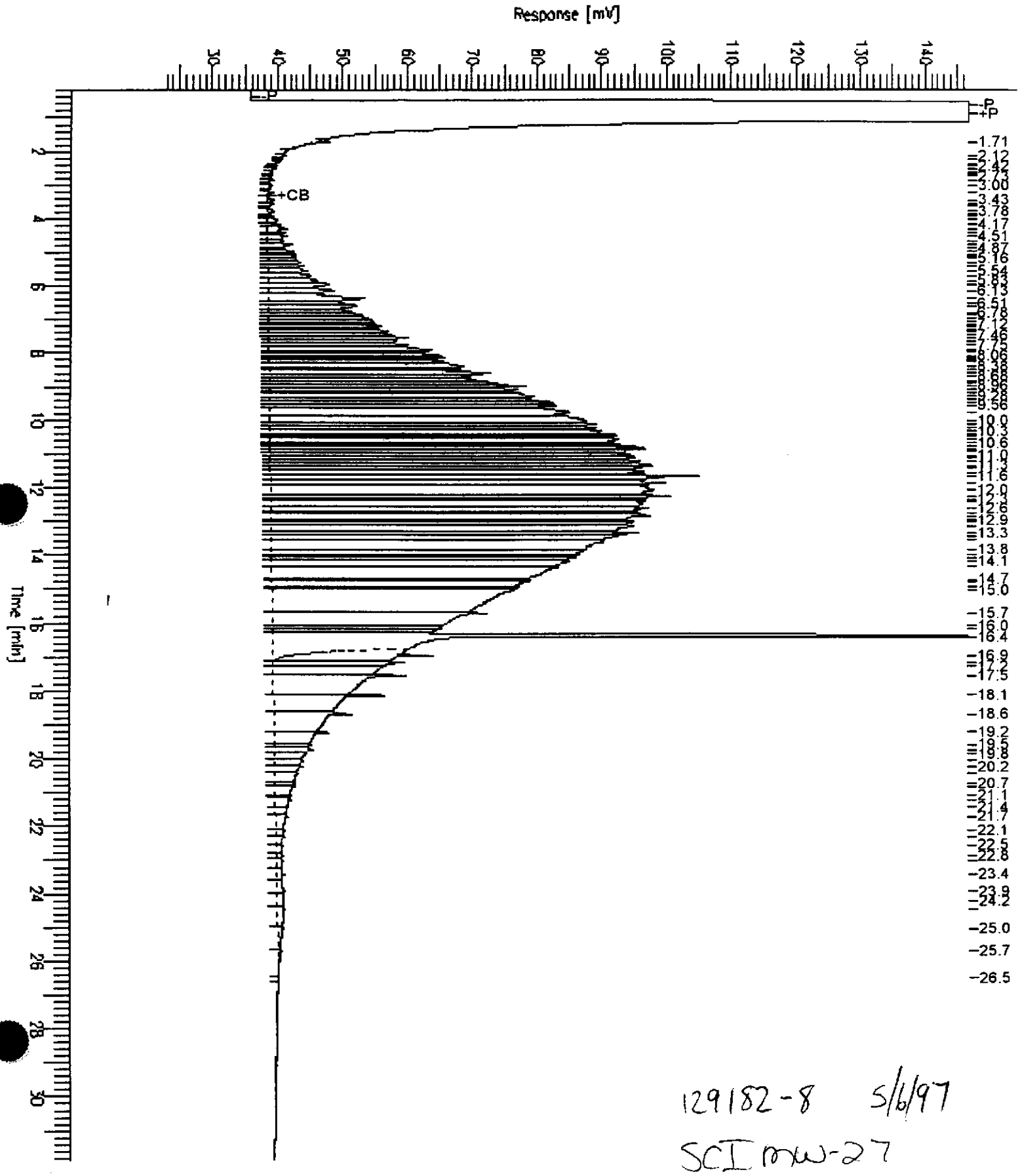


129182-7
SCIma+26
5/6/97

Chromatogram

Sample Name : 129182-008,33881
FileName : G:\GC13\CHA\129A026.RAW
Method : ATEH132.MTH
Start Time : 0.17 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 22 mV

Sample #: 33881 Page 1 of 1
Date : 5/13/97 12:25 PM
Time of Injection: 5/10/97 11:27 AM
Low Point : 22.30 mV High Point : 146.86 mV
Plot Scale: 124.6 mV

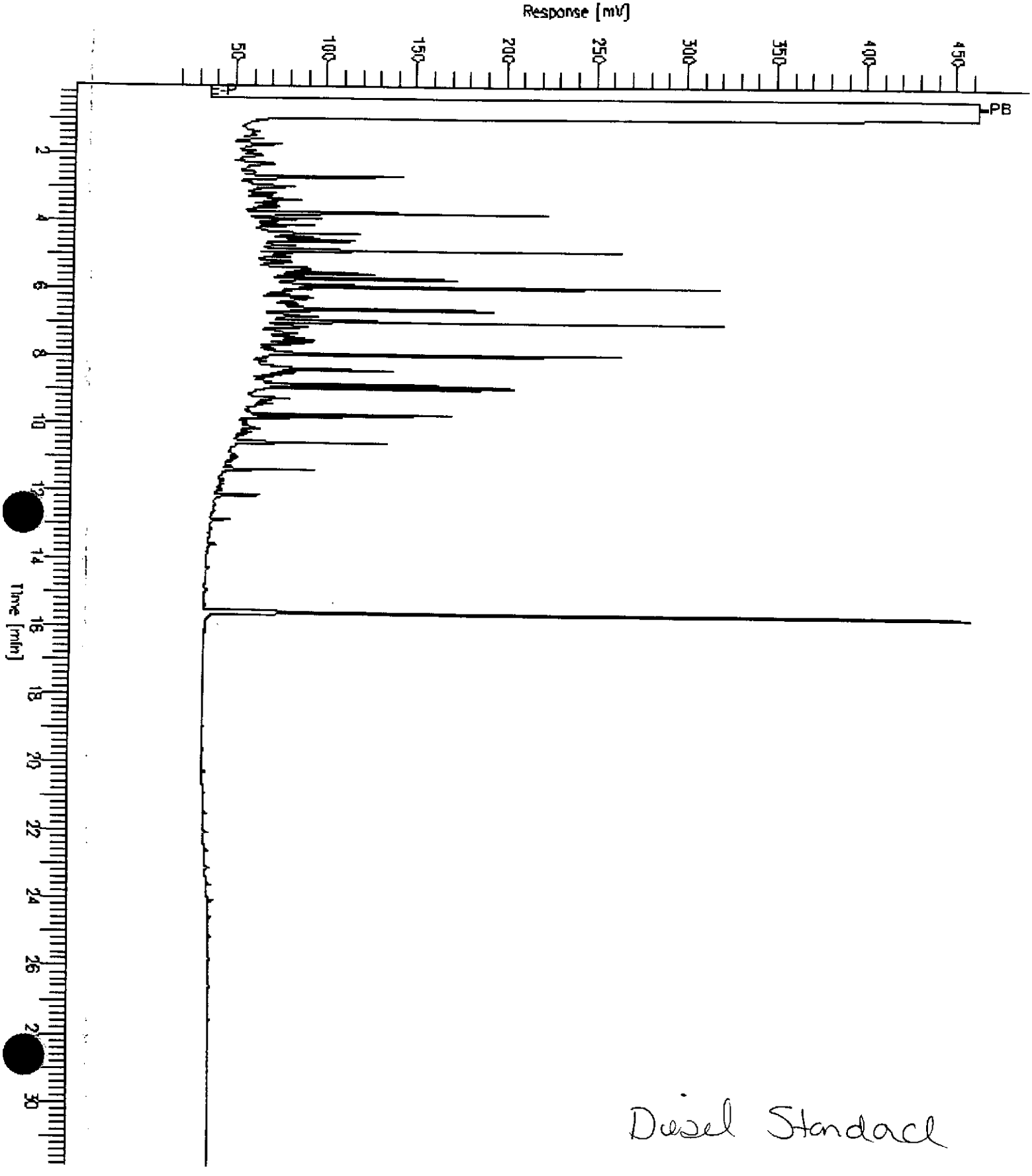


129182-8 5/6/97
SCI MW-27

Chromatogram

Sample Name : CCV,97WS4141,DS
FileName : G:\GC11\CHB\135B024.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Factor: 0.0 Plot Offset: 12 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/19/97 09:03 AM
Time of Injection: 5/16/97 05:16 PM
Low Point : 12.14 mV High Point : 462.89 mV
Plot Scale: 450.7 mV

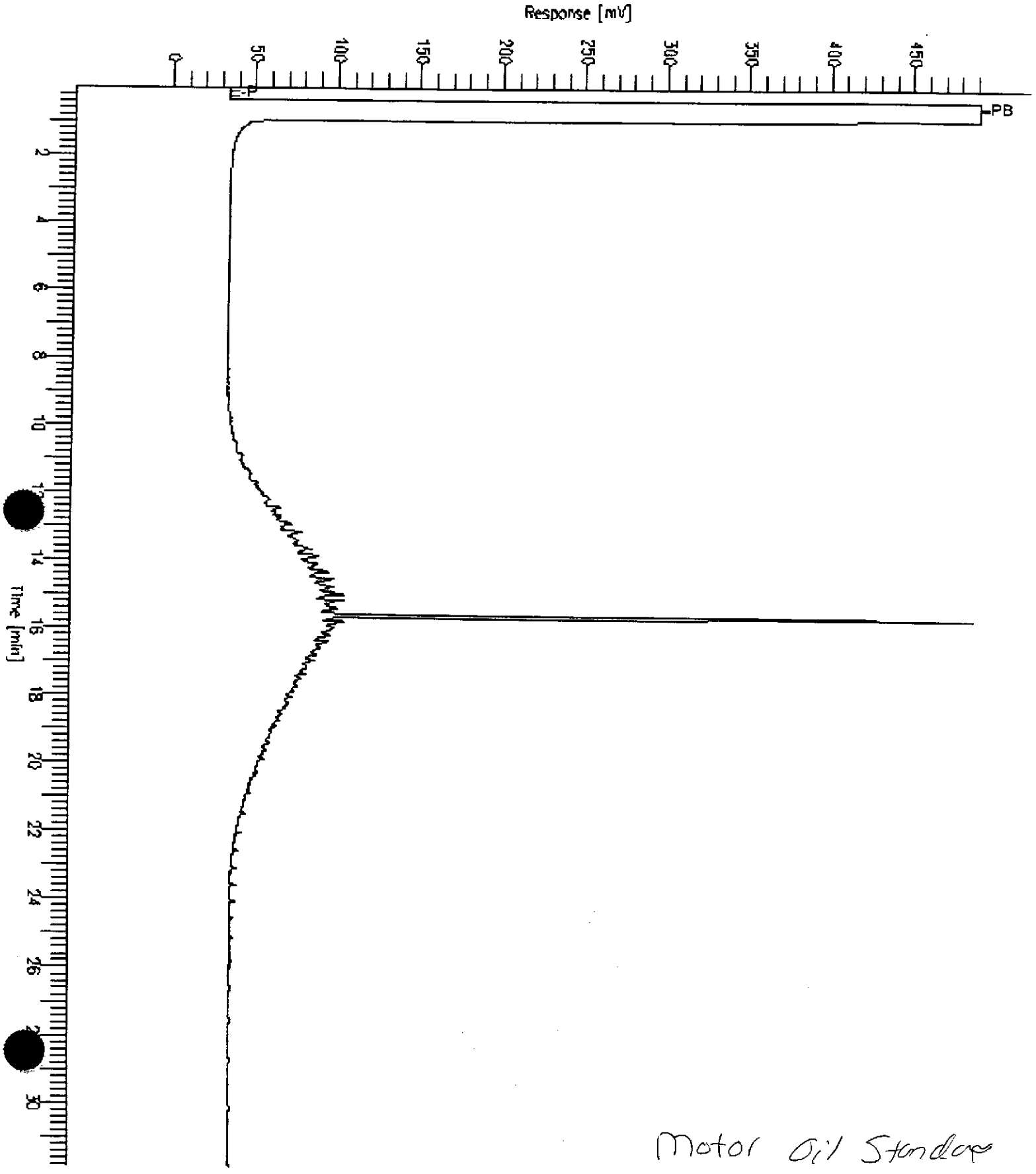


Diesel Standard

Chromatogram

Sample Name : CCV,97WS4154,MO
FileName : G:\GC11\CHB\135B027.RAW
Method : BTEH128.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: -3 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/19/97 09:04 AM
Time of Injection: 5/16/97 07:26 PM
Low Point : -3.19 mV High Point : 491.14 mV
Plot Scale: 494.3 mV



Motor Oil Standard

Curtis & Tompkins, Ltd.

Lab #: 129182 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33881
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/09/97

MB Lab ID: QC45726

Analyte	Result	
Diesel C12-C22	<50	
Motor Oil C22-C50	<300	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	81	60-140

Curtis & Tompkins, Ltd.

Lab #: 129182 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33881
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/09/97

BS Lab ID: QC45727

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C12-C22	2475	1789	72	60-140
Surrogate	%Rec	Limits		
Hexacosane	78	60-140		

BSD Lab ID: QC45728

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	1989	80	60-140	11	35
Surrogate	%Rec	Limits				
Hexacosane	89	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129182-001	MW-5	33846	05/06/97	05/07/97	05/07/97	
129182-002	MW-6	33846	05/06/97	05/07/97	05/07/97	
129182-003	SCIMW-21	33846	05/06/97	05/07/97	05/07/97	
129182-004	SCIMW-22	33846	05/06/97	05/08/97	05/08/97	

Matrix: Water

Analyte Diln Fac:	Units	129182-001 1	129182-002 1	129182-003 1	129182-004 1
Benzene	ug/L	<0.5	2.4	<0.5	<0.5
Toluene	ug/L	<0.5	0.51	<0.5	<0.5
Ethylbenzene	ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	ug/L	<0.5	0.61	<0.5	<0.5
o-Xylene	ug/L	<0.5	<0.5	<0.5	<0.5
Surrogate					
Trifluorotoluene	%REC	75	77	74	73
Bromobenzene	%REC	84	89	82	79

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129182-006	SCIMW-24	33908	05/06/97	05/12/97	05/12/97	
129182-007	SCIMW-26	33908	05/06/97	05/12/97	05/12/97	
129182-008	SCIMW-27	33846	05/06/97	05/08/97	05/08/97	

Matrix: Water

Analyte	Units	129182-006		129182-007	129182-008
Diln Fac:		5		1	1
Benzene	ug/L	550		<0.5	<0.5
Toluene	ug/L	30		<0.5	<0.5
Ethylbenzene	ug/L	180		<0.5	<0.5
m,p-Xylenes	ug/L	85		<0.5	<0.5
o-Xylene	ug/L	3.8		<0.5	<0.5
Surrogate					
Trifluorotoluene	%REC	97		83	73
Bromobenzene	%REC	144	*	101	78

* Values outside of QC limits

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33846
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

MB Lab ID: QC45596

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	73	58-130
Bromobenzene	82	62-131

Lab #: 129182

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE	
Client: Subsurface Consultants	Analysis Method: EPA 8020
Project#: 133.004	Prep Method: EPA 5030
Location: 9th Ave. Terminal/KOT	

METHOD BLANK	
Matrix: Water	Prep Date: 05/12/97
Batch#: 33908	Analysis Date: 05/12/97
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC45845

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	80	58-130
Bromobenzene	88	62-131

Lab #: 129182

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33846
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

LCS Lab ID: QC45595

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	17.71	20	89	80-120
Toluene	19.23	20	96	80-120
Ethylbenzene	17.88	20	89	80-120
m,p-Xylenes	38.04	40	95	80-120
o-Xylene	20.54	20	103	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	78	58-130
Bromobenzene	90	62-131

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 #: 129182

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33908
Units: ug/L
Diln Fac: 1

Prep Date: 05/12/97
Analysis Date: 05/12/97

LCS Lab ID: QC45844

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	19.82	20	99	80-120
Toluene	18.72	20	94	80-120
Ethylbenzene	19.03	20	95	80-120
m,p-Xylenes	34.67	40	87	80-120
o-Xylene	21.15	20	106	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	85	58-130
Bromobenzene	102	62-131

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

Curtis & Tompkins, Ltd.

Lab #: 129182

BATCH QC REPORT

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: MW-6
Lab ID: 129182-002
Matrix: Water
Batch#: 33846
Units: ug/L
Diln Fac: 1

Sample Date: 05/06/97
Received Date: 05/06/97
Prep Date: 05/08/97
Analysis Date: 05/08/97

MS Lab ID: QC45597

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Benzene	20	2.44	20.11	88	75-125
Toluene	20	0.51	18.53	90	75-125
Ethylbenzene	20	<0.5	19.32	97	75-125
m,p-Xylenes	40	0.61	37.42	92	75-125
o-Xylene	20	<0.5	19.11	96	75-125

Surrogate	%Rec	Limits
Trifluorotoluene	79	58-130
Bromobenzene	90	62-131

MSD Lab ID: QC45598

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Benzene	20	19.72	86	75-125	2	20
Toluene	20	18.38	89	75-125	1	20
Ethylbenzene	20	18.91	95	75-125	2	20
m,p-Xylenes	40	36.29	89	75-125	3	20
o-Xylene	20	19.02	95	75-125	0	20

Surrogate	%Rec	Limits
Trifluorotoluene	77	58-130
Bromobenzene	90	62-131

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

Lab #: 129182

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client:	Subsurface Consultants	Analysis Method:	EPA 8020
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	SCIMW-26	Sample Date:	05/06/97
Lab ID:	129182-007	Received Date:	05/06/97
Matrix:	Water	Prep Date:	05/12/97
Batch#:	33908	Analysis Date:	05/12/97
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC45846

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Benzene	20	<0.5	18.6	93	75-125
Toluene	20	<0.5	17.51	88	75-125
Ethylbenzene	20	<0.5	18.1	91	75-125
m,p-Xylenes	40	<0.5	32.18	80	75-125
o-Xylene	20	<0.5	19.84	99	75-125

Surrogate	%Rec	Limits
Trifluorotoluene	86	58-130
Bromobenzene	110	62-131

MSD Lab ID: QC45847

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Benzene	20	19.24	96	75-125	3	20
Toluene	20	18.58	93	75-125	6	20
Ethylbenzene	20	18.69	93	75-125	3	20
m,p-Xylenes	40	33.46	84	75-125	4	20
o-Xylene	20	20.58	103	75-125	4	20

Surrogate	%Rec	Limits
Trifluorotoluene	86	58-130
Bromobenzene	110	62-131

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

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	SCIMW-21	Sampled:	05/06/97
Lab ID:	129182-003	Received:	05/06/97
Matrix:	Water	Extracted:	05/13/97
Batch#:	33942	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.047
beta-BHC	ND	0.047
gamma-BHC	ND	0.047
delta-BHC	ND	0.047
Heptachlor	ND	0.047
Aldrin	ND	0.047
Heptachlor epoxide B	ND	0.047
Heptachlor epoxide A	ND	0.047
Endosulfan I	ND	0.047
Dieldrin	ND	0.094
4,4'-DDE	ND	0.094
Endrin	ND	0.094
Endosulfan II	ND	0.094
Endosulfan sulfate	ND	0.094
4,4'-DDD	ND	0.094
Endrin aldehyde	ND	0.094
4,4'-DDT	ND	0.094
Chlordane	ND	0.47
Methoxychlor	ND	0.47
Toxaphene	ND	0.94
Aroclor-1016	ND	0.47
Aroclor-1221	ND	0.94
Aroclor-1232	ND	0.47
Aroclor-1242	ND	0.47
Aroclor-1248	ND	0.47
Aroclor-1254	ND	0.47
Aroclor-1260	ND	0.47

Surrogate	%Recovery	Recovery Limits
TCMX	60	34-128
Decachlorobiphenyl	30*	50-150

* Values outside of QC limits

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	SCIMW-22	Sampled:	05/06/97
Lab ID:	129182-004	Received:	05/06/97
Matrix:	Water	Extracted:	05/13/97
Batch#:	33942	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.047
beta-BHC	ND	0.047
gamma-BHC	ND	0.047
delta-BHC	ND	0.047
Heptachlor	ND	0.047
Aldrin	ND	0.047
Heptachlor epoxide B	ND	0.047
Heptachlor epoxide A	ND	0.047
Endosulfan I	ND	0.047
Dieldrin	ND	0.094
4,4'-DDE	ND	0.094
Endrin	ND	0.094
Endosulfan II	ND	0.094
Endosulfan sulfate	ND	0.094
4,4'-DDD	0.12	0.094
Endrin aldehyde	ND	0.094
4,4'-DDT	ND	0.094
Chlordane	ND	0.47
Methoxychlor	ND	0.47
Toxaphene	ND	0.94
Aroclor-1016	ND	0.47
Aroclor-1221	ND	0.94
Aroclor-1232	ND	0.47
Aroclor-1242	ND	0.47
Aroclor-1248	ND	0.47
Aroclor-1254	ND	0.47
Aroclor-1260	ND	0.47

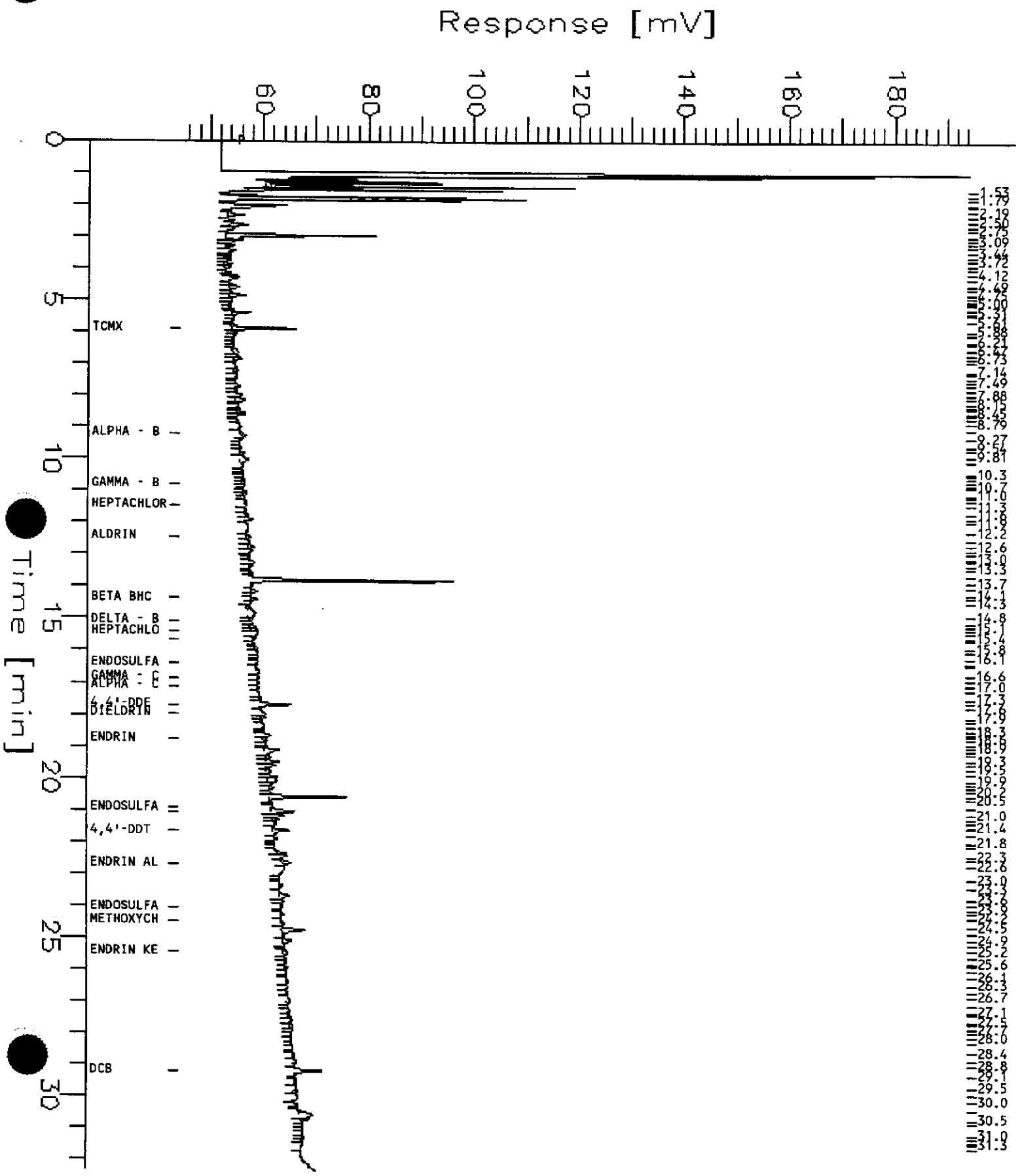
Surrogate	%Recovery	Recovery Limits
TCMX	67	34-128
Decachlorobiphenyl	22*	50-150

* Values outside of QC limits

GC14 RTx1701.32mm vol in: 3ul

Sample Name: 129182-004
FileName : g:\gc14\cha\139A042.raw
Method : PEST-CNT.ins
Start Time : 0.00 min End Time : 32.35 min
Scale Factor: -1.0 Plot Offset: 44 mV

Sample #: 33942 Page 1 of 1
Date : 5/20/97 05:52 PM
Time of Injection: 5/20/97 05:19 PM
Low Point : 44.30 mV High Point : 194.30 mV
Plot Scale: 150.0 mV



Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	SCIMW-23	Sampled:	05/06/97
Lab ID:	129182-005	Received:	05/06/97
Matrix:	Water	Extracted:	05/13/97
Batch#:	33942	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.047
beta-BHC	ND	0.047
gamma-BHC	ND	0.047
delta-BHC	ND	0.047
Heptachlor	ND	0.047
Aldrin	ND	0.047
Heptachlor epoxide B	0.05	0.047
Heptachlor epoxide A	ND	0.047
Endosulfan I	ND	0.047
Dieldrin	ND	0.094
4,4'-DDE	ND	0.094
Endrin	ND	0.094
Endosulfan II	ND	0.094
Endosulfan sulfate	ND	0.094
4,4'-DDD	ND	0.094
Endrin aldehyde	ND	0.094
4,4'-DDT	ND	0.094
Chlordane	ND	0.47
Methoxychlor	ND	0.47
Toxaphene	ND	0.94
Aroclor-1016	ND	0.47
Aroclor-1221	ND	0.94
Aroclor-1232	ND	0.47
Aroclor-1242	ND	0.47
Aroclor-1248	ND	0.47
Aroclor-1254	ND	0.47
Aroclor-1260	ND	0.47

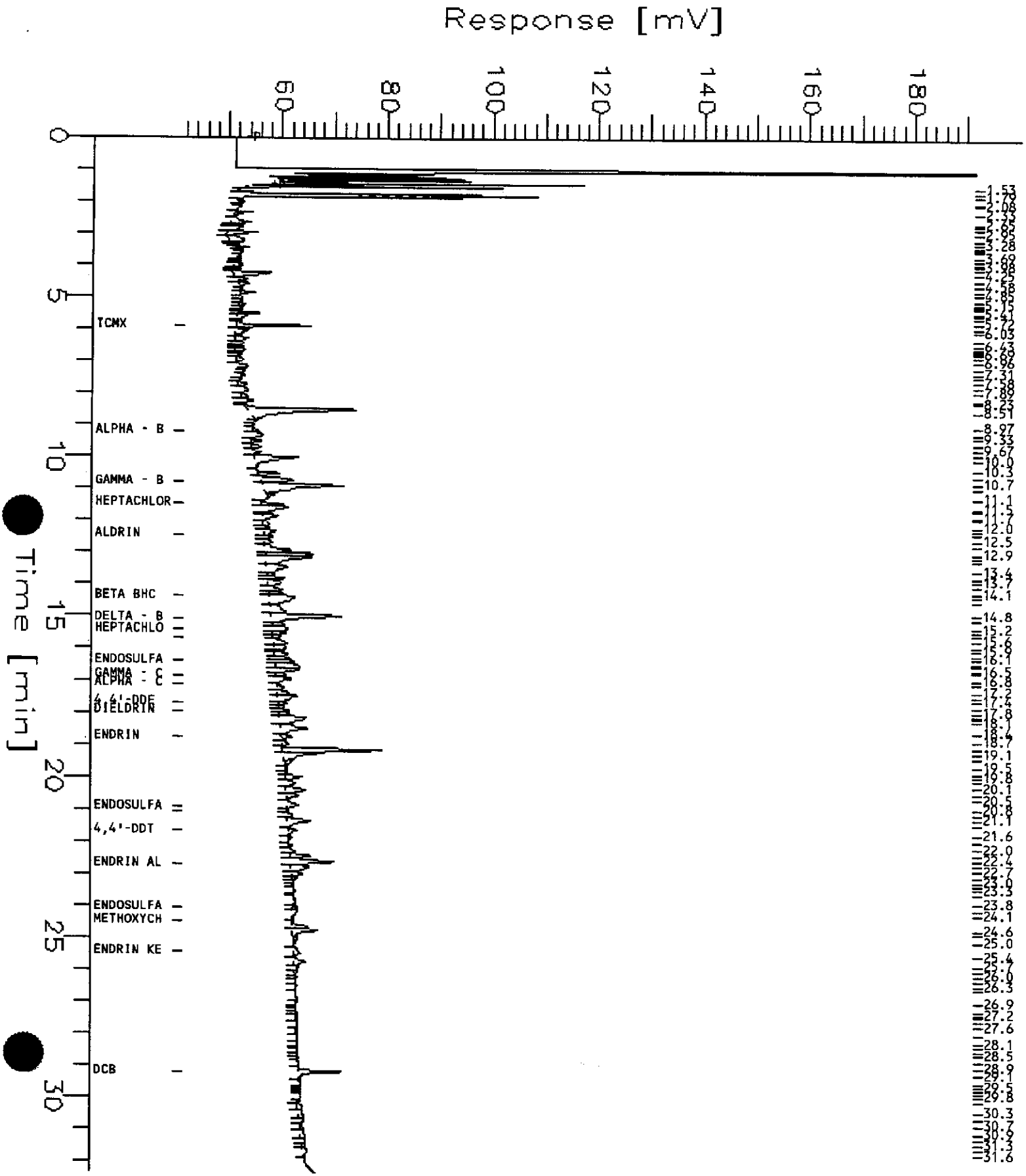
Surrogate	%Recovery	Recovery Limits
TCMX	83	34-128
Decachlorobiphenyl	37*	50-150

* Values outside of QC limits

GC14 RTx1701.32mm vol in: 3ul

Sample Name : 129182-005
FileName : g:\gc14\cha\139A039.raw
Method : PEST-CNT.ins
Start Time : 0.00 min End Time : 32.35 min
Scale Factor: -1.0 Plot Offset: 42 mV

Sample #: 33942 Page 1 of 1
Date : 5/20/97 03:57 PM
Time of Injection: 5/20/97 03:24 PM
Low Point : 41.66 mV High Point : 191.66 mV
Plot Scale: 150.0 mV



Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	SCIMW-24	Sampled:	05/06/97
Lab ID:	129182-006	Received:	05/06/97
Matrix:	Water	Extracted:	05/13/97
Batch#:	33942	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.047
beta-BHC	ND	0.047
gamma-BHC	ND	0.047
delta-BHC	ND	0.047
Heptachlor	ND	0.047
Aldrin	ND	0.047
Heptachlor epoxide B	ND	0.047
Heptachlor epoxide A	ND	0.047
Endosulfan I	ND	0.047
Dieldrin	ND	0.094
4,4'-DDE	ND	0.094
Endrin	ND	0.094
Endosulfan II	ND	0.094
Endosulfan sulfate	ND	0.094
4,4'-DDD	ND	0.094
Endrin aldehyde	ND	0.094
4,4'-DDT	ND	0.094
Chlordane	ND	0.47
Methoxychlor	ND	0.47
Toxaphene	ND	0.94
Aroclor-1016	ND	0.47
Aroclor-1221	ND	0.94
Aroclor-1232	ND	0.47
Aroclor-1242	ND	0.47
Aroclor-1248	ND	0.47
Aroclor-1254	ND	0.47
Aroclor-1260	ND	0.47

Surrogate	%Recovery	Recovery Limits
TCMX	49	34-128
Decachlorobiphenyl	22*	50-150

* Values outside of QC limits

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33942
Units: ug/L
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/20/97

MB Lab ID: QC45988

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.05
beta-BHC	ND	0.05
gamma-BHC	ND	0.05
delta-BHC	ND	0.05
Heptachlor	ND	0.05
Aldrin	ND	0.05
Heptachlor epoxide B	ND	0.05
Heptachlor epoxide A	ND	0.05
Endosulfan I	ND	0.05
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
Endosulfan sulfate	ND	0.1
4,4'-DDD	ND	0.1
Endrin aldehyde	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	0.5
Methoxychlor	ND	0.5
Toxaphene	ND	1.0
Aroclor-1016	ND	0.5
Aroclor-1221	ND	1.0
Aroclor-1232	ND	0.5
Aroclor-1242	ND	0.5
Aroclor-1248	ND	0.5
Aroclor-1254	ND	0.5
Aroclor-1260	ND	0.5

Surrogate	%Rec	Recovery Limits
TCMX	63	34-128
Decachlorobiphenyl	87	50-150

Lab #: 129182

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33942
Units: ug/L
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/20/97

BS Lab ID: QC45989

Analyte	Spike Added	BS	%Rec #	Limits
gamma-BHC	0.5	0.49	98	57-120
Heptachlor	0.5	0.45	90	51-109
Aldrin	0.5	0.46	92	57-105
Dieldrin	0.5	0.49	98	62-122
Endrin	0.5	0.51	102	70-128
4,4'-DDT	0.5	0.48	96	67-128

Surrogate	%Rec	Limits
TCMX	78	34-128
Decachlorobiphenyl	95	50-150

BSD Lab ID: QC45990

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
gamma-BHC	0.5	0.47	94	57-120	4	20
Heptachlor	0.5	0.42	84	51-109	7	20
Aldrin	0.5	0.45	90	57-105	2	20
Dieldrin	0.5	0.47	94	62-122	4	20
Endrin	0.5	0.5	100	70-128	2	20
4,4'-DDT	0.5	0.48	96	67-128	0	20

Surrogate	%Rec	Limits
TCMX	71	34-128
Decachlorobiphenyl	97	50-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129182

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 19 May 97

ANALYSIS: pH

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	Method	Analyst	QC Batch
129182-003	SCIMW-21	Water	06-MAY-97	06-MAY-97	06-MAY-97	6.9	SU	EPA 9040	DRH	33858
129182-004	SCIMW-22	Water	06-MAY-97	06-MAY-97	06-MAY-97	6.8	SU	EPA 9040	DRH	33858
129182-005	SCIMW-23	Water	06-MAY-97	06-MAY-97	06-MAY-97	6.8	SU	EPA 9040	DRH	33858

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129182
Report Date: 19 May 97

ANALYSIS: pH

QC Batch Number: 33858

Calibration Verification Results

Sample	Result	TV	Difference	Limit	Analyzed
ICV	6.98	7.00	.02	< 0.10	06-MAY-97
CCV	6.97	7.00	.03	< 0.10	06-MAY-97

Sample Duplicate Results

Sample	Duplicate	RPD	Analyzed
6.94	6.96	.3%	06-MAY-97

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: MW-5
Lab ID: 129182-001
Matrix: Water
Batch#: 34001
Units: ug/L
Diln Fac: 1

Sampled: 05/06/97
Received: 05/06/97
Extracted: 05/17/97
Analyzed: 05/17/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	104	68-126
Toluene-d8	105	87-125
Bromofluorobenzene	99	79-122

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: MW-6
Lab ID: 129182-002
Matrix: Water
Batch#: 34001
Units: ug/L
Diln Fac: 1

Sampled: 05/06/97
Received: 05/06/97
Extracted: 05/17/97
Analyzed: 05/17/97

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	2.7 J	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

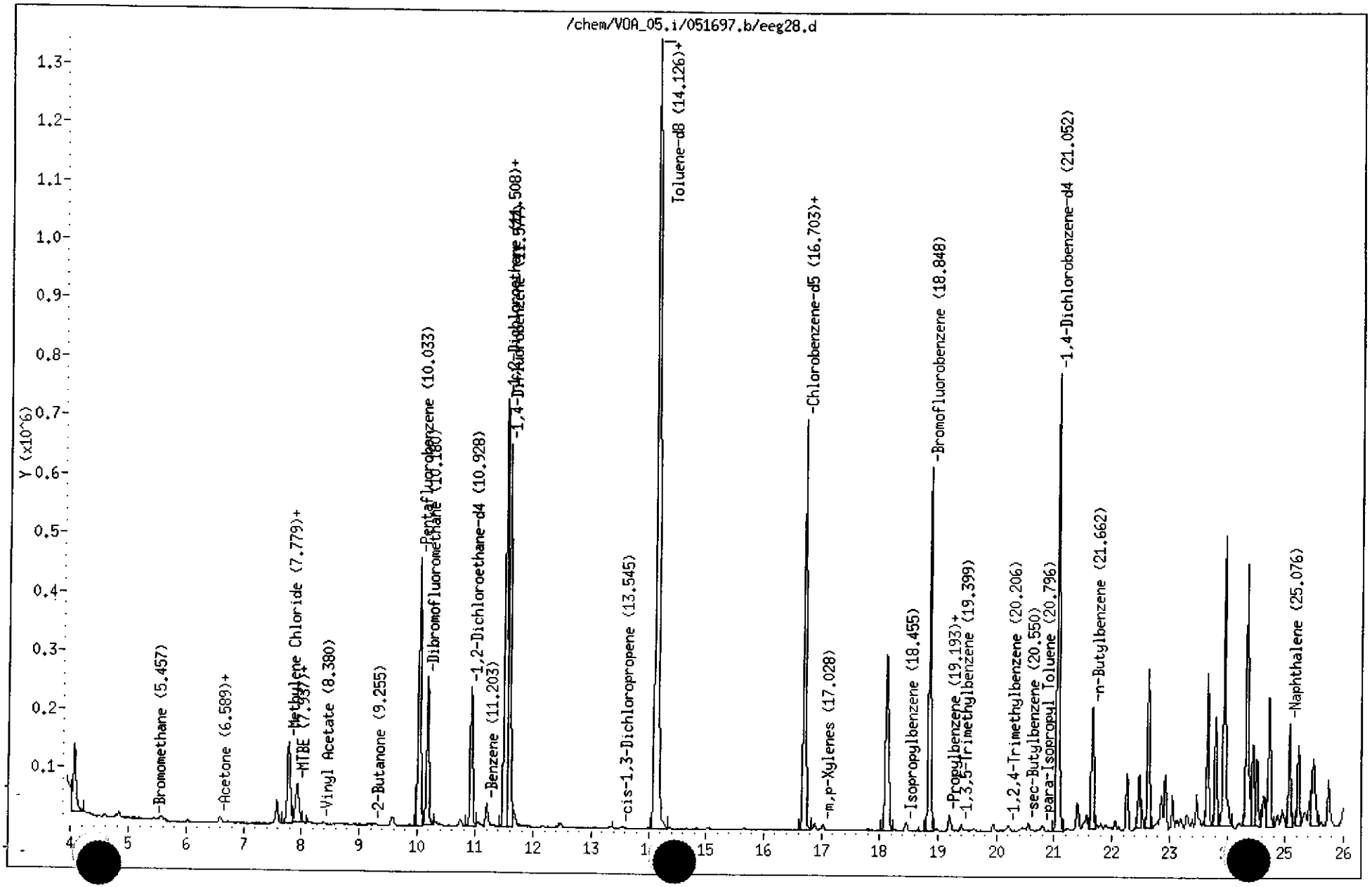
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	106	68-126
Toluene-d8	105	87-125
Bromofluorobenzene	97	79-122

J: Estimated Value

Data File: /chem/VOA_05.i/051697.b/eeg28.d
Date : 17-MAY-97 01:30
Client ID: DYNA P&T
Sample Info: S,129182-002
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_05.i

Operator: DM
Column diameter: 0.32



Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCIMW-22
Lab ID: 129182-004
Matrix: Water
Batch#: 34001
Units: ug/L
Diln Fac: 5

Sampled: 05/06/97
Received: 05/06/97
Extracted: 05/17/97
Analyzed: 05/17/97

Analyte	Result	Reporting Limit
Chloromethane	ND	50
Bromomethane	ND	50
Vinyl Chloride	ND	50
Chloroethane	ND	50
Methylene Chloride	ND	100
Acetone	ND	100
Carbon Disulfide	ND	25
Trichlorofluoromethane	ND	25
1,1-Dichloroethene	ND	25
1,1-Dichloroethane	ND	25
trans-1,2-Dichloroethene	ND	25
cis-1,2-Dichloroethene	ND	25
Chloroform	ND	25
Freon 113	ND	25
1,2-Dichloroethane	ND	25
2-Butanone	ND	50
1,1,1-Trichloroethane	ND	25
Carbon Tetrachloride	ND	25
Vinyl Acetate	ND	250
Bromodichloromethane	ND	25
1,2-Dichloropropane	ND	25
cis-1,3-Dichloropropene	ND	25
Trichloroethene	ND	25
Dibromochloromethane	ND	25
1,1,2-Trichloroethane	ND	25
Benzene	ND	25
trans-1,3-Dichloropropene	ND	25
Bromoform	ND	25
2-Hexanone	ND	50
4-Methyl-2-Pentanone	ND	50
1,1,2,2-Tetrachloroethane	ND	25
Tetrachloroethene	ND	25
Toluene	ND	25
Chlorobenzene	ND	25
Ethylbenzene	ND	25
Styrene	ND	25
m,p-Xylenes	ND	25
o-Xylene	ND	25

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	99	68-126
Toluene-d8	105	87-125
Bromofluorobenzene	100	79-122

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCIMW-24
Lab ID: 129182-006
Matrix: Water
Batch#: 34031
Units: ug/L
Diln Fac: 5

Sampled: 05/06/97
Received: 05/06/97
Extracted: 05/19/97
Analyzed: 05/19/97

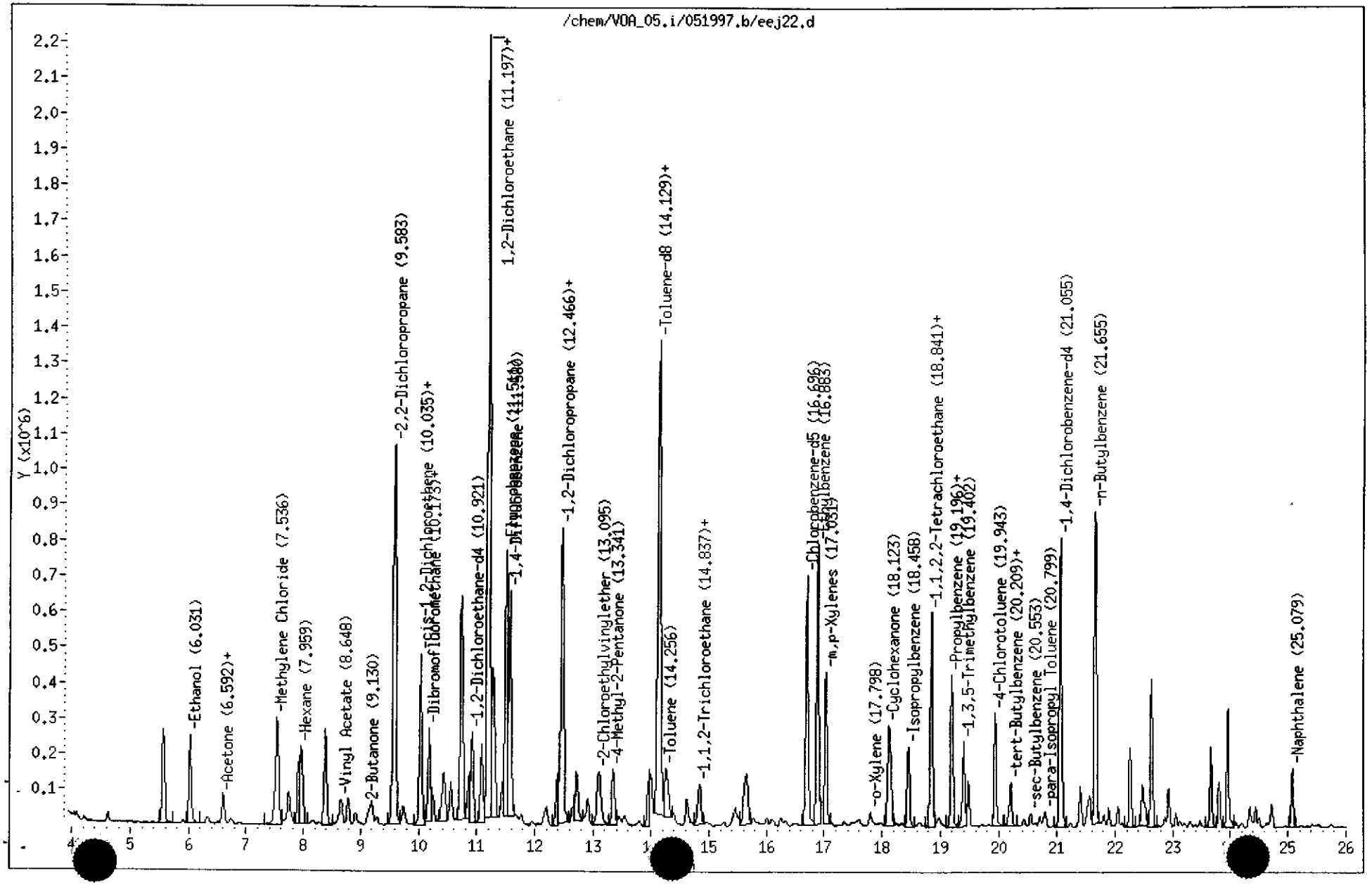
Analyte	Result	Reporting Limit
Chloromethane	ND	50
Bromomethane	ND	50
Vinyl Chloride	ND	50
Chloroethane	ND	50
Methylene Chloride	ND	100
Acetone	ND	100
Carbon Disulfide	ND	25
Trichlorofluoromethane	ND	25
1,1-Dichloroethene	ND	25
1,1-Dichloroethane	ND	25
trans-1,2-Dichloroethene	ND	25
cis-1,2-Dichloroethene	ND	25
Chloroform	ND	25
Freon 113	ND	25
1,2-Dichloroethane	ND	25
2-Butanone	ND	50
1,1,1-Trichloroethane	ND	25
Carbon Tetrachloride	ND	25
Vinyl Acetate	ND	250
Bromodichloromethane	ND	25
1,2-Dichloropropane	ND	25
cis-1,3-Dichloropropene	ND	25
Trichloroethene	ND	25
Dibromochloromethane	ND	25
1,1,2-Trichloroethane	ND	25
Benzene	720	25
trans-1,3-Dichloropropene	ND	25
Bromoform	ND	25
2-Hexanone	ND	50
4-Methyl-2-Pentanone	ND	50
1,1,2,2-Tetrachloroethane	ND	25
Tetrachloroethene	ND	25
Toluene	37	25
Chlorobenzene	ND	25
Ethylbenzene	220	25
Styrene	ND	25
m,p-Xylenes	120	25
o-Xylene	ND	25

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	105	68-126
Toluene-d8	105	87-125
Bromofluorobenzene	99	79-122

Data File: /chem/VOA_05.i/051997.b/eej22.d
Date : 19-MAY-97 21:27
Client ID: DYNA P&T
Sample Info: MSS,129182-006
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_05.i

Operator: DM
Column diameter: 0.32



Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCIMW-26
Lab ID: 129182-007
Matrix: Water
Batch#: 34001
Units: ug/L
Diln Fac: 1

Sampled: 05/06/97
Received: 05/06/97
Extracted: 05/17/97
Analyzed: 05/17/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	102	68-126
Toluene-d8	106	87-125
Bromofluorobenzene	101	79-122

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCIMW-27
Lab ID: 129182-008
Matrix: Water
Batch#: 34001
Units: ug/L
Diln Fac: 1

Sampled: 05/06/97
Received: 05/06/97
Extracted: 05/17/97
Analyzed: 05/17/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	100	68-126
Toluene-d8	106	87-125
Bromofluorobenzene	102	79-122

Lab #: 129182

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 34001
Units: ug/L
Diln Fac: 1

Prep Date: 05/16/97
Analysis Date: 05/16/97

MB Lab ID: QC46198

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	101	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	101	79-122

Lab #: 129182

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 34001
Units: ug/L
Diln Fac: 1

Prep Date: 05/16/97
Analysis Date: 05/16/97

MB Lab ID: QC46233

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	102	87-125
Bromofluorobenzene	99	79-122

Curtis & Tompkins, Ltd.

Lab #: 129182 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 34031
Units: ug/L
Diln Fac: 1

Prep Date: 05/19/97
Analysis Date: 05/19/97

MB Lab ID: QC46330

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	100	68-126
Toluene-d8	103	87-125
Bromofluorobenzene	99	79-122

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 34031
Units: ug/L
Diln Fac: 1

Prep Date: 05/19/97
Analysis Date: 05/19/97

MB Lab ID: QC46330

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	100	68-126
Toluene-d8	103	87-125
Bromofluorobenzene	99	79-122

Lab #: 129182

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 34001
Units: ug/L
Diln Fac: 1

Prep Date: 05/16/97
Analysis Date: 05/16/97

LCS Lab ID: QC46197

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	51.08	50	102	51-180
Trichloroethene	50.4	50	101	73-141
Benzene	52.68	50	105	78-142
Toluene	53.25	50	106	76-150
Chlorobenzene	50.01	50	100	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	97	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	99	79-122

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

Curtis & Tompkins, Ltd.

Lab #: 129182 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 34031
Units: ug/L
Diln Fac: 1

Prep Date: 05/19/97
Analysis Date: 05/19/97

LCS Lab ID: QC46329

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	43.2	50	86	51-180
Trichloroethene	45.78	50	92	73-141
Benzene	48.35	50	97	78-142
Toluene	51.39	50	103	76-150
Chlorobenzene	47.25	50	94	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	99	68-126
Toluene-d8	103	87-125
Bromofluorobenzene	97	79-122

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

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: SCIMW-24
Lab ID: 129182-006
Matrix: Water
Batch#: 34031
Units: ug/L
Diln Fac: 5

Sample Date: 05/06/97
Received Date: 05/06/97
Prep Date: 05/19/97
Analysis Date: 05/19/97

MS Lab ID: QC46331

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	250	<25	207.2	83	51-180
Trichloroethene	250	<25	225.8	90	73-141
Benzene	250	724.2	922.8	79	78-142
Toluene	250	37.43	287.5	100	76-150
Chlorobenzene	250	<25	230.5	92	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	99	68-126
Toluene-d8	104	87-125
Bromofluorobenzene	98	79-122

MSD Lab ID: QC46332

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	250	210.7	84	51-180	2	14
Trichloroethene	250	221.8	89	73-141	2	14
Benzene	250	921.4	79	78-142	0	11
Toluene	250	291.9	102	76-150	2	13
Chlorobenzene	250	228.8	92	83-129	1	13

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	105	87-125
Bromofluorobenzene	99	79-122

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.

LABORATORY NUMBER: 129182
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 05/06/97
DATE RECEIVED: 05/06/97
DATE ANALYZED: 05/16/97
BATCH#: 34004

ANALYSIS: CYANIDE
ANALYSIS METHOD: EPA 9010A

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129182-001	MW-5	ND	ug/L	10
129182-002	MW-6	ND	ug/L	10
129182-004	SCIMW-22	ND	ug/L	10
129182-005	SCIMW-23	ND	ug/L	10
129182-006	SCIMW-24	20	ug/L	10
129182-007	SCIMW-26	ND	ug/L	10
129182-008	SCIMW-27	ND	ug/L	10
METHOD BLANK	N/A	ND	ug/L	10

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: BS/BSD

RPD, %	4
RECOVERY, %	91

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129182
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 05/06/97
DATE RECEIVED: 05/06/97
DATE ANALYZED: 05/19/97
BATCH#: 34029

ANALYSIS: TOTAL PHOSPHORUS
ANALYSIS METHOD: EPA 365.2

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129182-003	SCIMW-21	1.1	mg/L	0.15
129182-004	SCIMW-22	4.0	mg/L	0.30
129182-005	SCIMW-23	9.3	mg/L	0.75
METHOD BLANK	N/A	ND	mg/L	0.03

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: LCS

RECOVERY, %	102

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

May 14, 1997

Ms. Tracy Babjar
CURTIS & TOMPKINS, LTD.
2323 Fifth Street
Berkeley, CA 94710

Client Ref.: 129182
Clayton Project No.: 97050.93

Dear Ms. Babjar:

Attached is our analytical laboratory report for the samples received on May 7, 1997. Also enclosed is a copy of the Chain-of-Custody record acknowledging receipt of these samples.

Please note that any unused portion of the samples will be discarded after June 13, 1997, unless you have requested otherwise.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact Suzanne Haus, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Andrew Bradley for
Harriotte A. Hurley, CIH
Director, Laboratory Services
San Francisco Regional Office

HAH/seh

Attachments

Analytical Results
for
Curtis & Tompkins, Ltd.
Client Reference: 129182
Clayton Project No. 97050.93

Sample Identification: See Below
Lab Number: 9705093
Sample Matrix/Media: WATER
Method Reference: EPA 353.2

Date Received: 05/07/97
Date Analyzed: 05/07/97

Lab Number	Sample Identification	Date Sampled	Nitrate-N (mg/L)	Method Detection Limit (mg/L)
-01	SCIMW-21	05/06/97	<0.05	0.05
-02	SCIMW-22	05/06/97	<0.05	0.05
-03	SCIMW-23	05/06/97	<0.05	0.05
-04	METHOD BLANK	--	<0.05	0.05

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Curtis & Tompkins, Ltd.
Client Reference: 129182
Clayton Project No. 97050.93

Sample Identification: See Below
Lab Number: 9705093
Sample Matrix/Media: WATER
Method Reference: EPA 353.2

Date Received: 05/07/97
Date Analyzed: 05/07/97

Lab Number	Sample Identification	Date Sampled	Nitrite-N (mg/L)	Method Detection Limit (mg/L)
-01	SCIMW-21	05/06/97	<0.05	0.05
-02	SCIMW-22	05/06/97	<0.05	0.05
-03	SCIMW-23	05/06/97	<0.05	0.05
-04	METHOD BLANK	--	<0.05	0.05

ND: Not detected at or above limit of detection
--: Information not available or not applicable

9705093

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

Project Number: 129182

Subcontract Lab:

Clayton Environmental
1252 Quarry Lane
Pleasanton, CA 94566
(510) 426-2600

Please send report to: Tracy Babjar

Turnaround Time: Normal (5 day)

Sample ID	Date Sampled	Matrix	Analysis	Container	Pres	C&T Lab #
SCIMW-21	06-MAY-97	Water	NITRATE/NITRITE	1-125 mL PL	NP	129182-003
SCIMW-22	06-MAY-97	Water	NITRATE/NITRITE	1-125 mL PL	NP	129182-004
SCIMW-23	06-May-97	Water	Nitrate/Nitrite	1-125mL PL	NP	129182-005

-03

Please report using Sample ID instead of C&T Lab #.

Notes:

RELINQUISHED BY:		RECEIVED BY:	
	5/7/97 Date/Time		Date/Time
	5/7/97 Date/Time		3/7/97 14:40 Date/Time

Signature on this form constitutes a firm Purchase Order for the services requested above.

Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	SCIMW-22	Sampled:	05/06/97
Lab ID:	129182-004	Received:	05/06/97
Matrix:	Water	Extracted:	05/13/97
Batch#:	33943	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Phenol	ND	9.4
2-Chlorophenol	ND	9.4
Benzyl alcohol	ND	9.4
2-Methylphenol	ND	9.4
4-Methylphenol	ND	9.4
2-Nitrophenol	ND	47
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
2,4-Dichlorophenol	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	47
2,4-Dinitrophenol	ND	47
4-Nitrophenol	ND	47
4,6-Dinitro-2-methylphenol	ND	47
Pentachlorophenol	ND	47
N-Nitrosodimethylamine	ND	9.4
Aniline	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
1,2-Dichlorobenzene	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
bis(2-Chloroethoxy)methane	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	ND	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
2-Methylnaphthalene	ND	9.4
Hexachlorocyclopentadiene	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	47
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4

Semivolatile Organics by GC/MS

Field ID:	SCIMW-22	Sampled:	05/06/97
Lab ID:	129182-004	Received:	05/06/97
Matrix:	Water	Extracted:	05/13/97
Batch#:	33943	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	47
Acenaphthene	ND	9.4
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
Fluorene	ND	9.4
4-Nitroaniline	ND	47
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	47
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	68	21-110
Phenol-d5	74	10-110
2,4,6-Tribromophenol	68	10-123
Nitrobenzene-d5	76	35-114
2-Fluorobiphenyl	68	43-116
Terphenyl-d14	39	33-141

Semivolatile Organics by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	SCIMW-24	Sampled:	05/06/97
Lab ID:	129182-006	Received:	05/06/97
Matrix:	Water	Extracted:	05/13/97
Batch#:	33943	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Phenol	14	9.4
2-Chlorophenol	ND	9.4
Benzyl alcohol	ND	9.4
2-Methylphenol	ND	9.4
4-Methylphenol	ND	9.4
2-Nitrophenol	ND	47
2,4-Dimethylphenol	ND	9.4
Benzoic acid	ND	47
2,4-Dichlorophenol	ND	9.4
4-Chloro-3-methylphenol	ND	9.4
2,4,6-Trichlorophenol	ND	9.4
2,4,5-Trichlorophenol	ND	47
2,4-Dinitrophenol	ND	47
4-Nitrophenol	ND	47
4,6-Dinitro-2-methylphenol	ND	47
Pentachlorophenol	ND	47
N-Nitrosodimethylamine	ND	9.4
Aniline	ND	9.4
bis(2-Chloroethyl)ether	ND	9.4
1,3-Dichlorobenzene	ND	9.4
1,4-Dichlorobenzene	ND	9.4
1,2-Dichlorobenzene	ND	9.4
bis(2-Chloroisopropyl) ether	ND	9.4
N-Nitroso-di-n-propylamine	ND	9.4
Hexachloroethane	ND	9.4
Nitrobenzene	ND	9.4
Isophorone	ND	9.4
bis(2-Chloroethoxy)methane	ND	9.4
1,2,4-Trichlorobenzene	ND	9.4
Naphthalene	70	9.4
4-Chloroaniline	ND	9.4
Hexachlorobutadiene	ND	9.4
2-Methylnaphthalene	24	9.4
Hexachlorocyclopentadiene	ND	9.4
2-Chloronaphthalene	ND	9.4
2-Nitroaniline	ND	47
Dimethylphthalate	ND	9.4
Acenaphthylene	ND	9.4

Semivolatile Organics by GC/MS

Field ID:	SCIMW-24	Sampled:	05/06/97
Lab ID:	129182-006	Received:	05/06/97
Matrix:	Water	Extracted:	05/13/97
Batch#:	33943	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	1		

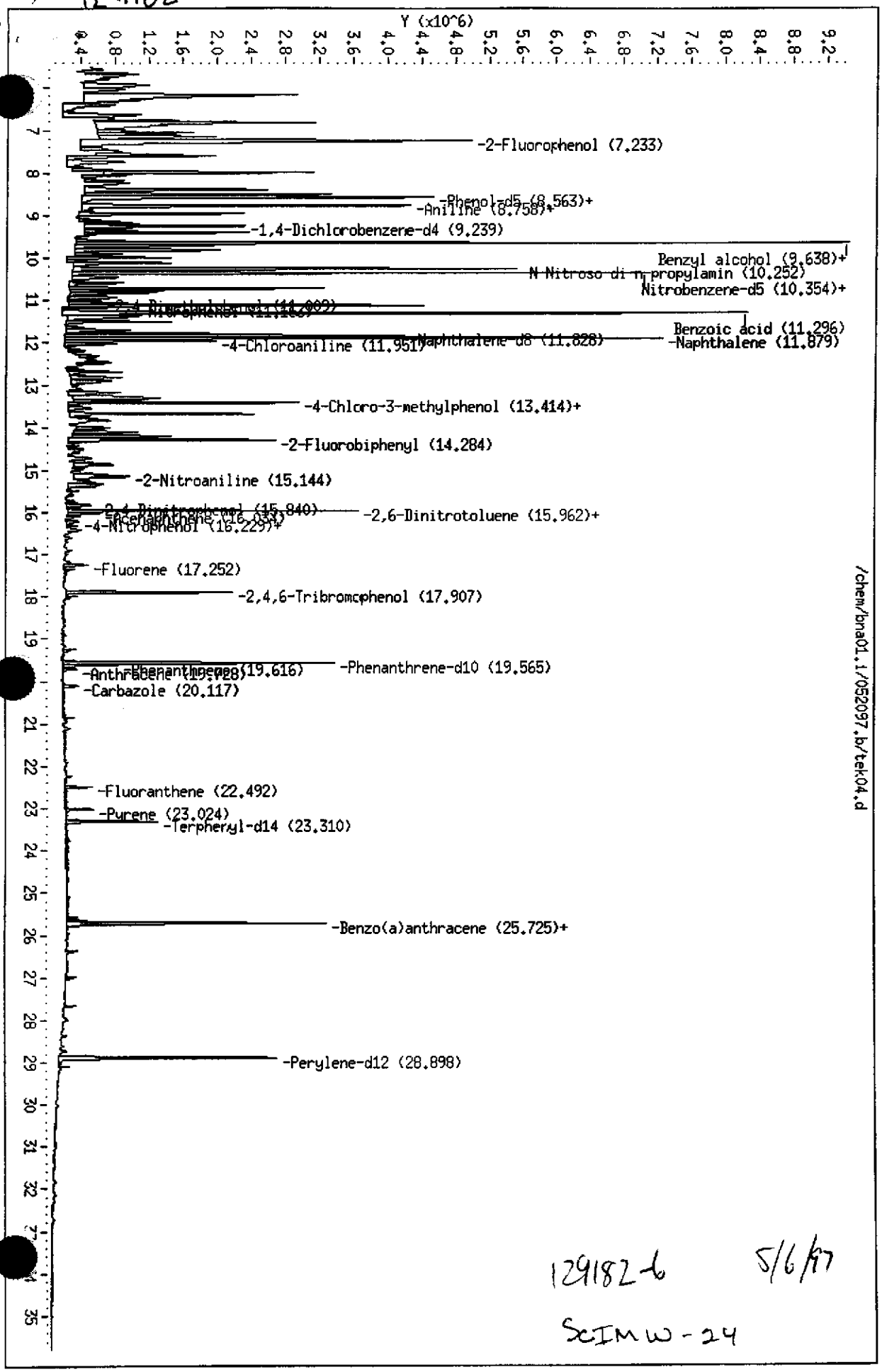
Analyte	Result	Reporting Limit
2,6-Dinitrotoluene	ND	9.4
3-Nitroaniline	ND	47
Acenaphthene	ND	9.4
Dibenzofuran	ND	9.4
2,4-Dinitrotoluene	ND	9.4
Diethylphthalate	ND	9.4
4-Chlorophenyl-phenylether	ND	9.4
Fluorene	ND	9.4
4-Nitroaniline	ND	47
N-Nitrosodiphenylamine	ND	9.4
Azobenzene	ND	9.4
4-Bromophenyl-phenylether	ND	9.4
Hexachlorobenzene	ND	9.4
Phenanthrene	5.9 J	9.4
Anthracene	ND	9.4
Di-n-butylphthalate	ND	9.4
Fluoranthene	ND	9.4
Pyrene	ND	9.4
Butylbenzylphthalate	ND	9.4
3,3'-Dichlorobenzidine	ND	47
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
bis(2-Ethylhexyl)phthalate	ND	9.4
Di-n-octylphthalate	ND	9.4
Benzo(b)fluoranthene	ND	9.4
Benzo(k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%Recovery	Recovery Limits
2-Fluorophenol	60	21-110
Phenol-d5	68	10-110
2,4,6-Tribromophenol	65	10-123
Nitrobenzene-d5	67	35-114
2-Fluorobiphenyl	62	43-116
Terphenyl-d14	28*	33-141

J: Estimated Value

* Values outside of QC limits

129182-6



Data File: /chem/bna01.i/052097.b/tek04.d
Date : 20-MAY-97 13:45
Client ID: CURTIS&TOMPKINS
Sample Info: s,129182-006
Volume Injected (uL): 1.0
Column phase: Xti 5 x .5 u

Instrument: bna01.i
Operator: dsh
Column diameter: 0.25

/chem/bna01.i/052097.b/tek04.d

129182-6 5/6/97

SCIM W-24

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33943
Units: ug/L
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/16/97

MB Lab ID: QC45991

Analyte	Result	Reporting Limit
Phenol	ND	10
2-Chlorophenol	ND	10
Benzyl alcohol	ND	10
2-Methylphenol	ND	10
4-Methylphenol	ND	10
2-Nitrophenol	ND	50
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
2,4-Dichlorophenol	ND	10
4-Chloro-3-methylphenol	ND	10
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	50
2,4-Dinitrophenol	ND	50
4-Nitrophenol	ND	50
4,6-Dinitro-2-methylphenol	ND	50
Pentachlorophenol	ND	10
N-Nitrosodimethylamine	ND	10
Aniline	ND	10
bis(2-Chloroethyl)ether	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
1,2-Dichlorobenzene	ND	10
bis(2-Chloroisopropyl) ether	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
bis(2-Chloroethoxy)methane	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	50
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	50

Curtis & Tompkins, Ltd.

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33943
Units: ug/L
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/16/97

MB Lab ID: QC45991

Analyte	Result	Reporting Limit
Acenaphthene	ND	10
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
4-Chlorophenyl-phenylether	ND	10
Fluorene	ND	10
4-Nitroaniline	ND	50
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Phenanthrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	50
Benzo(a)anthracene	ND	10
Chrysene	ND	10
bis(2-Ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%Rec	Recovery Limits
2-Fluorophenol	58	21-110
Phenol-d5	63	10-110
2,4,6-Tribromophenol	57	10-123
Nitrobenzene-d5	70	35-114
2-Fluorobiphenyl	70	43-116
Terphenyl-d14	82	33-141

EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33943
Units: ug/L
Dilu Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/16/97

BS Lab ID: QC45992

Analyte	Spike Added	BS	%Rec #	Limits
Phenol	100	75.59	76	12-110
2-Chlorophenol	100	78.9	79	27-123
4-Chloro-3-methylphenol	100	73.95	74	23-97
4-Nitrophenol	100	61.86	62	10-80
Pentachlorophenol	100	52.17	52	9-103
1,4-Dichlorobenzene	50	31.62	63	36-97
N-Nitroso-di-n-propylamine	50	35.76	72	41-116
1,2,4-Trichlorobenzene	50	32.19	64	39-98
Acenaphthene	50	37.76	76	46-118
2,4-Dinitrotoluene	50	33.49	67	24-96
Pyrene	50	42.96	86	26-127

Surrogate	%Rec	Limits
2-Fluorophenol	68	21-110
Phenol-d5	71	10-110
2,4,6-Tribromophenol	62	10-123
Nitrobenzene-d5	81	35-114
2-Fluorobiphenyl	75	43-116
Terphenyl-d14	87	33-141

BSD Lab ID: QC45993

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Phenol	100	68.35	68	12-110	11	42
2-Chlorophenol	100	70.64	71	27-123	11	40
4-Chloro-3-methylphenol	100	67.81	68	23-97	8	42
4-Nitrophenol	100	56.06	56	10-80	10	50
Pentachlorophenol	100	43.83	44	9-103	17	50
1,4-Dichlorobenzene	50	29.45	59	36-97	7	28
N-Nitroso-di-n-propylamine	50	32.4	65	41-116	10	38
1,2,4-Trichlorobenzene	50	30.01	60	39-98	6	28
Acenaphthene	50	35.96	72	46-118	5	31
2,4-Dinitrotoluene	50	30.39	61	24-96	9	38
Pyrene	50	38.88	78	26-127	10	31

Surrogate	%Rec	Limits
2-Fluorophenol	60	21-110
Phenol-d5	63	10-110
2,4,6-Tribromophenol	57	10-123
Nitrobenzene-d5	72	35-114
2-Fluorobiphenyl	71	43-116
Terphenyl-d14	78	33-141

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

Curtis & Tompkins, Ltd.

SAMPLE ID: SCIMW-23
LAB ID: 129182-005
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Filtrate

DATE SAMPLED: 05/06/97
DATE RECEIVED: 05/06/97
DATE REPORTED: 05/19/97

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	1	33917	EPA 6010A	05/12/97
Arsenic	22	5.0	1	33917	EPA 6010A	05/12/97
Barium	56	10	1	33917	EPA 6010A	05/12/97
Beryllium	ND	2.0	1	33917	EPA 6010A	05/12/97
Cadmium	ND	5.0	1	33917	EPA 6010A	05/12/97
Chromium (total)	ND	10	1	33917	EPA 6010A	05/12/97
Cobalt	ND	20	1	33917	EPA 6010A	05/12/97
Copper	ND	10	1	33917	EPA 6010A	05/12/97
Lead	ND	3.0	1	33917	EPA 6010A	05/12/97
Mercury	ND	0.20	1	33961	EPA 7470	05/14/97
Molybdenum	ND	20	1	33917	EPA 6010A	05/12/97
Nickel	ND	20	1	33917	EPA 6010A	05/12/97
Selenium	20	5.0	1	33917	EPA 6010A	05/12/97
Silver	ND	5.0	1	33917	EPA 6010A	05/12/97
Thallium	ND	5.0	1	33917	EPA 6010A	05/12/97
Vanadium	ND	10	1	33917	EPA 6010A	05/12/97
Zinc	25	20	1	33917	EPA 6010A	05/12/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: SCIMW-26
LAB ID: 129182-007
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Filtrate

DATE SAMPLED: 05/06/97
DATE RECEIVED: 05/06/97
DATE REPORTED: 05/19/97

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	1	33917	EPA 6010A	05/14/97
Arsenic	20	5.0	1	33917	EPA 6010A	05/15/97
Barium	2900	10	1	33917	EPA 6010A	05/14/97
Beryllium	ND	2.0	1	33917	EPA 6010A	05/14/97
Cadmium	ND	5.0	1	33917	EPA 6010A	05/14/97
Chromium (total)	ND	10	1	33917	EPA 6010A	05/14/97
Cobalt	ND	20	1	33917	EPA 6010A	05/14/97
Copper	ND	10	1	33917	EPA 6010A	05/14/97
Lead	ND	3.0	1	33917	EPA 6010A	05/14/97
Mercury	ND	0.20	1	33961	EPA 7470	05/14/97
Molybdenum	ND	20	1	33917	EPA 6010A	05/14/97
Nickel	ND	20	1	33917	EPA 6010A	05/14/97
Selenium	15	5.0	1	33917	EPA 6010A	05/15/97
Silver	ND	5.0	1	33917	EPA 6010A	05/14/97
Thallium	ND	5.0	1	33917	EPA 6010A	05/14/97
Vanadium	ND	10	1	33917	EPA 6010A	05/14/97
Zinc	ND	20	1	33917	EPA 6010A	05/14/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: SCIMW-27
LAB ID: 129182-008
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Filtrate

DATE SAMPLED: 05/06/97
DATE RECEIVED: 05/06/97
DATE REPORTED: 05/19/97

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	1	33917	EPA 6010A	05/14/97
Arsenic	10	5.0	1	33917	EPA 6010A	05/15/97
Barium	480	10	1	33917	EPA 6010A	05/14/97
Beryllium	ND	2.0	1	33917	EPA 6010A	05/14/97
Cadmium	ND	5.0	1	33917	EPA 6010A	05/14/97
Chromium (total)	ND	10	1	33917	EPA 6010A	05/14/97
Cobalt	ND	20	1	33917	EPA 6010A	05/14/97
Copper	ND	10	1	33917	EPA 6010A	05/14/97
Lead	ND	3.0	1	33917	EPA 6010A	05/14/97
Mercury	ND	0.20	1	33961	EPA 7470	05/14/97
Molybdenum	ND	20	1	33917	EPA 6010A	05/14/97
Nickel	ND	20	1	33917	EPA 6010A	05/14/97
Selenium	21	5.0	1	33917	EPA 6010A	05/14/97
Silver	ND	5.0	1	33917	EPA 6010A	05/14/97
Thallium	ND	5.0	1	33917	EPA 6010A	05/14/97
Vanadium	ND	10	1	33917	EPA 6010A	05/14/97
Zinc	ND	20	1	33917	EPA 6010A	05/14/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129182
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 05/06/97
DATE RECEIVED: 05/06/97
DATE ANALYZED: 05/06/97
BATCH#: 33839

ANALYSIS: HEXAVALENT CHROMIUM
ANALYSIS METHOD: EPA 7196

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129182-001	MW-5	0.05	mg/L	0.01
129182-002	MW-6	0.02	mg/L	0.01
129182-004	SCIMW-22	0.07	mg/L	0.01
129182-005	SCIMW-23	0.08	mg/L	0.01
129182-006	SCIMW-24	0.16	mg/L	0.01
129182-007	SCIMW-26	0.14	mg/L	0.01
129182-008	SCIMW-27	0.06	mg/L	0.01
METHOD BLANK	N/A	ND	mg/L	0.01

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/SAMPLE DUPLICATE OF 129082-001

RPD, %	<1
RECOVERY, %	82

CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Filtrate

DATE REPORTED: 05/19/97

Metals Analytical Report

				Lead					
Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
SCIMW-21	129182-003	05/06/97	05/06/97	7.2	3.0	1	33917	EPA 6010A	05/14/97
SCIMW-24	129182-006	05/06/97	05/06/97	6.3	3.0	1	33917	EPA 6010A	05/14/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Water

DATE REPORTED: 05/23/97

Metals Analytical Report

				Potassium					
Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
SCIMW-21	129182-003	05/06/97	05/06/97	110000	500	1	33862	EPA 6010A	05/08/97
SCIMW-22	129182-004	05/06/97	05/06/97	170000	500	1	33862	EPA 6010A	05/08/97
SCIMW-23	129182-005	05/06/97	05/06/97	16000	5000	10	33862	EPA 6010A	05/08/97

Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129182

DATE REPORTED: 05/19/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	ug/L	1	33917	EPA 6010A	05/12/97
Arsenic	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Barium	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Beryllium	ND	2	ug/L	1	33917	EPA 6010A	05/12/97
Cadmium	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Chromium (total)	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Cobalt	ND	20	ug/L	1	33917	EPA 6010A	05/12/97
Copper	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Lead	ND	3	ug/L	1	33917	EPA 6010A	05/12/97
Mercury	ND	0.2	ug/L	1	33961	EPA 7470	05/14/97
Molybdenum	ND	20	ug/L	1	33917	EPA 6010A	05/12/97
Nickel	ND	20	ug/L	1	33917	EPA 6010A	05/12/97
Potassium	ND	500	ug/L	1	33862	EPA 6010A	05/08/97
Selenium	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Silver	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Thallium	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Vanadium	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Zinc	ND	20	ug/L	1	33917	EPA 6010A	05/12/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129182

DATE REPORTED: 05/19/97

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	500	443	473	ug/L	89	95	80-120	7	35	33917	EPA 6010A	05/12/97
Arsenic	2000	2100	2080	ug/L	105	104	80-120	1	35	33917	EPA 6010A	05/12/97
Barium	2000	2080	2090	ug/L	104	105	80-120	1	35	33917	EPA 6010A	05/12/97
Beryllium	50	52.7	52.4	ug/L	105	105	80-120	1	35	33917	EPA 6010A	05/12/97
Cadmium	50	50.9	50.4	ug/L	102	101	80-120	1	35	33917	EPA 6010A	05/12/97
Chromium (total)	200	201	199	ug/L	101	100	80-120	1	35	33917	EPA 6010A	05/12/97
Cobalt	500	520	512	ug/L	104	102	80-120	2	35	33917	EPA 6010A	05/12/97
Copper	250	269	270	ug/L	108	108	80-120	0	35	33917	EPA 6010A	05/12/97
Lead	500	506	502	ug/L	101	100	80-120	1	35	33917	EPA 6010A	05/12/97
Mercury	5	4.908	4.857	ug/L	98	97	80-120	1	35	33961	EPA 7470	05/14/97
Molybdenum	400	428	425	ug/L	107	106	80-120	1	35	33917	EPA 6010A	05/12/97
Nickel	500	506	500	ug/L	101	100	80-120	1	35	33917	EPA 6010A	05/12/97
Potassium	20000	18720	18720	ug/L	94	94	80-120	0	35	33862	EPA 6010A	05/08/97
Selenium	2000	2040	2010	ug/L	102	101	80-120	2	35	33917	EPA 6010A	05/12/97
Silver	100	110	112	ug/L	110	112	80-120	2	35	33917	EPA 6010A	05/12/97
Thallium	2000	2010	2010	ug/L	101	101	80-120	0	35	33917	EPA 6010A	05/12/97
Vanadium	500	523	520	ug/L	105	104	80-120	1	35	33917	EPA 6010A	05/12/97
Zinc	500	511	507	ug/L	102	101	80-120	1	35	33917	EPA 6010A	05/12/97

CHAIN OF CUSTODY FORM

129182

PAGE 1 OF 1

PROJECT NAME: 9th Ave. Terminal

JOB NUMBER: 133.004 LAB: Curtis & Tompkins

PROJECT CONTACT: Jerome DeVerrier / Jeri Alexander TURNAROUND: STANDARD

SAMPLED BY: Dennis Alexander REQUESTED BY:

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE / NaOH	SAMPLING DATE: MONTH	DAY	YEAR	NOTES	ANALYSIS REQUESTED: TVH/BTXE	TEH (diesel + motor oil)	O+G	8240	8270	8080	Heavy Metals	LEAD	Hexachromium	Cyanide	PH	Nitrate/Nitrite	Phosphorus	Potassium
-1	MW-5	X						7	4					X			X	X	05	06	97	*	X	X	X	X					X	X				
-2	MW-6	X						7	4					X			X	X				*	X	X	X	X					X	X				
-3	SCI MW-21	X						3	6					X			X					*	X	X	X		X		X			X	X	X	X
-4	SCI MW-22	X						7	7					X			X	X				*	X	X	X	X	X			X	X	X	X	X	X
-5	SCI MW-23	X							7					X			X	X				*		X	X		X	X		X	X	X	X	X	X
-6	SCI MW-24	X						7	7					X			X	X				*	X	X	X	X	X		X	X	X				
-7	SCI MW-26	X						7	5					X			X	X				*	X	X	X	X		X		X	X				
-8	SCI MW-27	X						7	5					X			X	X	05	06	97	*	X	X	X	X		X		X	X				

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	5/6/97 4:15 p.m.		5/6/97 16:15
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES: * Filter & Fix where appropriate
Do PH and Hexachromium analysis immediately.

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 19-MAY-97
Lab Job Number: 129183
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: _____

Reviewed by: Tracy Bobich

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129183

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD: SMWW 17:5520BF**

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129183-001	SCI MW-25	Water	07-MAY-97	07-MAY-97	15-MAY-97	ND	mg/L	5	DLP	33992
129183-002	SCI MW-28	Water	07-MAY-97	07-MAY-97	15-MAY-97	ND	mg/L	5	DLP	33992

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129183
Report Date: 19 May 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 33992**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	5	mg/L	SMWW 17:5520BF	15-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	95%	SMWW 17:5520BF	15-MAY-97
BSD	98%	SMWW 17:5520BF	15-MAY-97

		Control Limits
Average Spike Recovery	97%	80% - 120%
Relative Percent Difference	2.8%	< 20%

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129183-001	SCI MW-25	33846	05/07/97	05/08/97	05/08/97	
129183-002	SCI MW-28	33846	05/07/97	05/08/97	05/08/97	

Matrix: Water

Analyte	Units	129183-001	129183-002
Diln Fac:		1	1
Gasoline	ug/L	<50	<50
Surrogate			
Trifluorotoluene	%REC	84	84
Bromobenzene	%REC	82	82

Curtis & Tompkins, Ltd.

Lab #: 129183 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Water	Prep Date:	05/07/97
Batch#:	33846	Analysis Date:	05/07/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC45596

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	79	65-135
Bromobenzene	84	65-135

Lab #: 129183

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33846
Units: ug/L
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

LCS Lab ID: QC45594

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	2147	2000	107	75-125
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	107	65-135		
Bromobenzene	101	65-135		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129183-001	SCI MW-25	33881	05/07/97	05/08/97	05/10/97	
129183-002	SCI MW-28	33881	05/07/97	05/08/97	05/10/97	

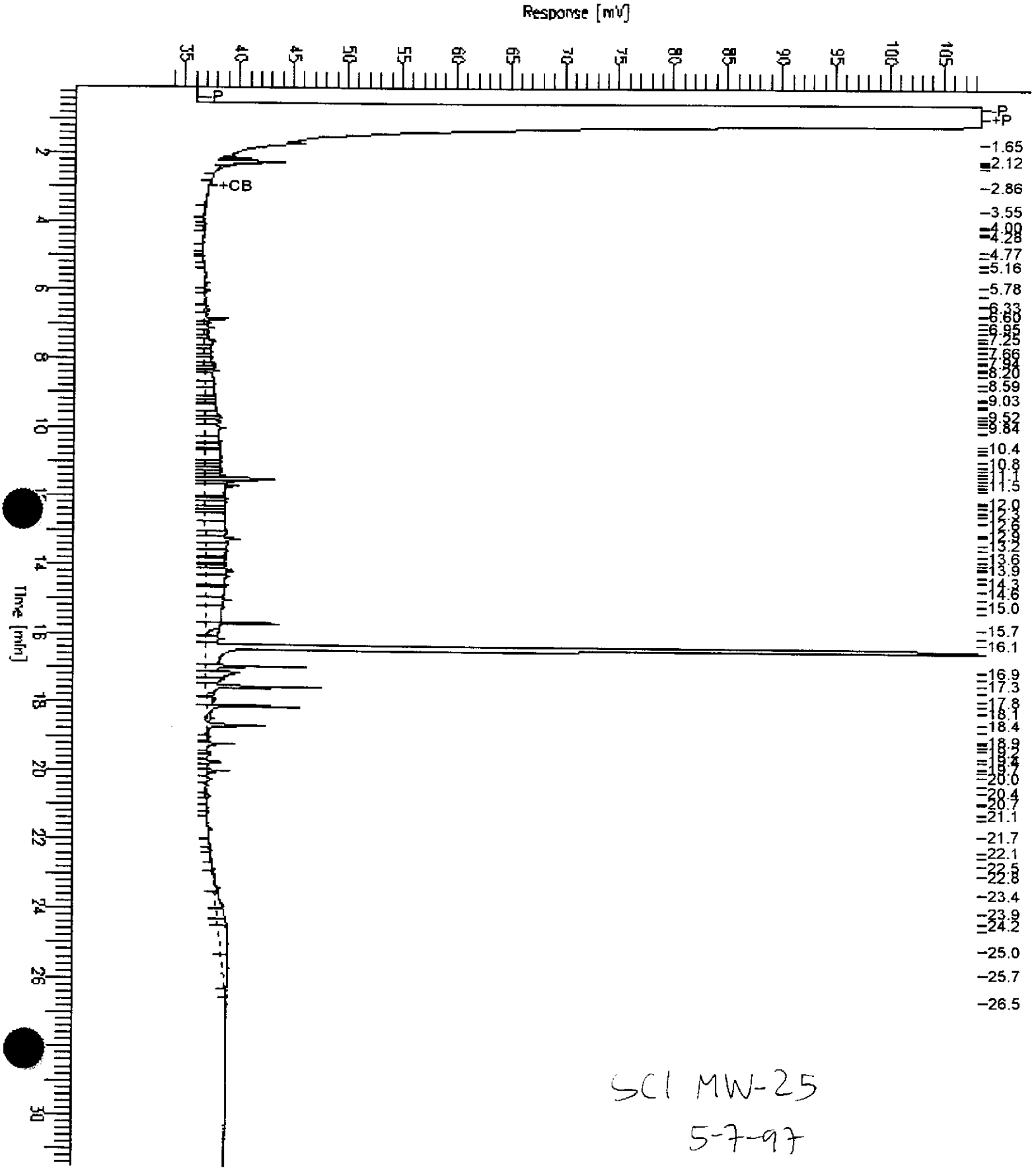
Matrix: Water

Analyte	Units	129183-001	129183-002
Diln Fac:		1	1
Diesel C12-C22	ug/L	100	180
Motor Oil C22-C50	ug/L	<300	<300
Surrogate			
Hexacosane	%REC	88	68

Chromatogram

Sample Name : 129083-001,33881
FileName : G:\GC13\CHA\129A027.RAW
Method : ATEH132.MTH
Start Time : 0.07 min End Time : 31.52 min
Slope Factor: 0.0 Plot Offset: 33 mV

Sample #: 33881 Page 1 of 1
Date : 5/16/97 09:19 AM
Time of Injection: 5/10/97 12:09 PM
Low Point : 33.37 mV High Point : 108.49 mV
Plot Scale: 75.1 mV

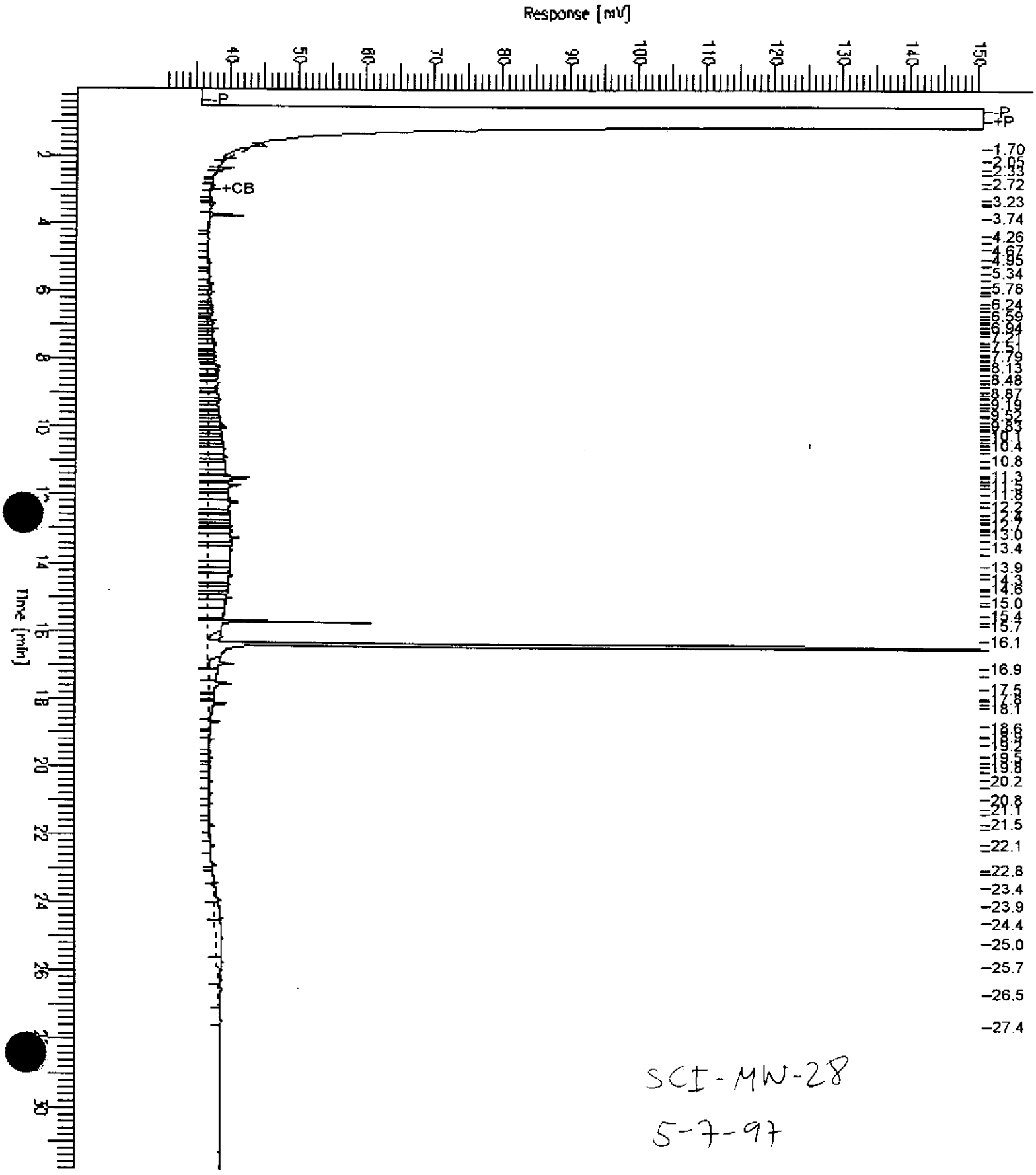


SCI MW-25
5-7-97

Chromatogram

Sample Name : 129083-002,33881
FileName : G:\GC13\CHA\129A028.RAW
Method : ATEH132.MTH
Start Time : 0.01 min End Time : 31.85 min
Factor: 0.0 Plot Offset: 31 mV

Sample #: 33881 Page 1 of 1
Date : 5/16/97 09:20 AM
Time of Injection: 5/10/97 12:51 PM
Low Point : 30.89 mV High Point : 150.73 mV
Plot Scale: 119.8 mV

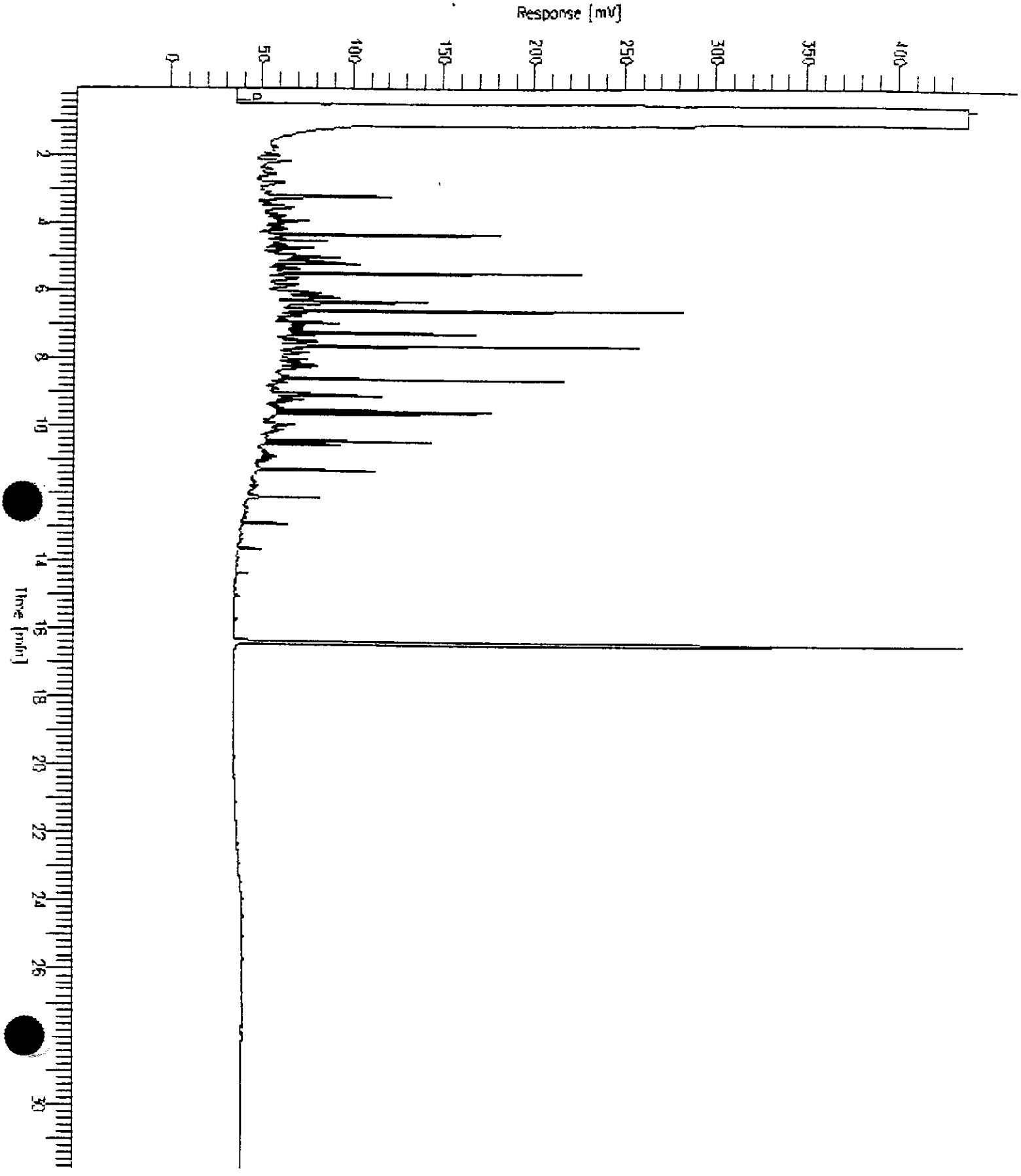


SCI-MW-28
5-7-97

Chromatogram

Sample Name : CCV,97WS4141,DS
FileName : G:\GC13\CHA\129A055.RAW
Method : ATEH132.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: -2 mV

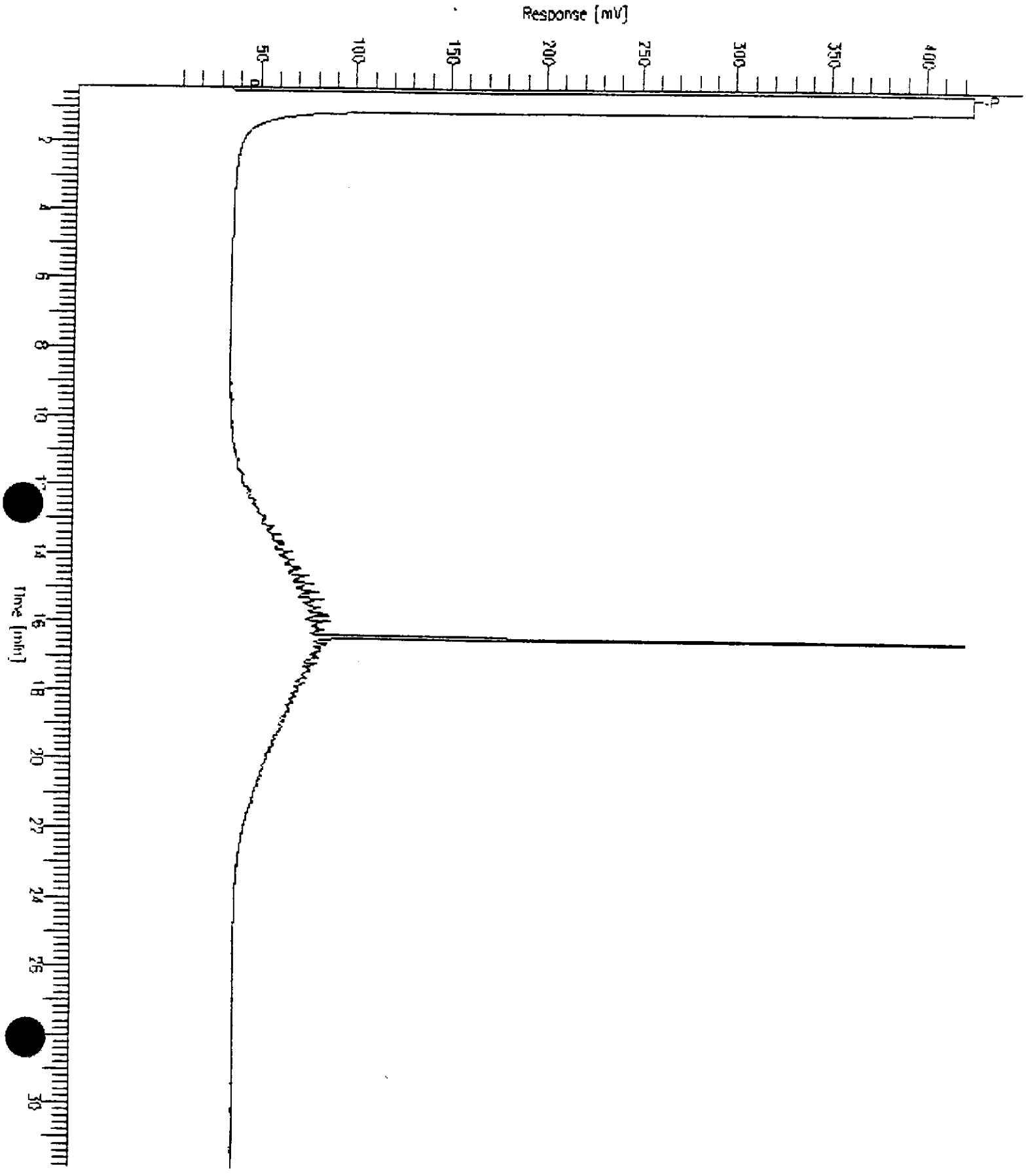
Sample #: 500MG/L
Date : 5/12/97 11:10 AM
Time of Injection: 5/11/97 07:56 AM
Low Point : -2.08 mV High Point : 439.05 mV
Plot Scale: 441.1 mV



Chromatogram

Sample Name : CCV,97WS4154,MO
FileName : G:\GC13\CHA\129A057.RAW
Method : ATEH132.MTH
Start Time : 0.40 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 3 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/12/97 11:11 AM
Time of Injection: 5/11/97 09:20 AM
Low Point : 2.74 mV High Point : 424.73 mV
Plot Scale: 422.0 mV



Curtis & Tompkins, Ltd.

Lab #: 129183 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33881
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/09/97

MB Lab ID: QC45726

Analyte	Result	
Diesel C12-C22	<50	
Motor Oil C22-C50	<300	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	81	60-140

Curtis & Tompkins, Ltd.

Lab #: 129183

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33881
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/09/97

BS Lab ID: QC45727

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C12-C22	2475	1789	72	60-140
Surrogate	%Rec	Limits		
Hexacosane	78	60-140		

BSD Lab ID: QC45728

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	1989	80	60-140	11	35
Surrogate	%Rec	Limits				
Hexacosane	89	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129183-001	SCI MW-25	33846	05/07/97	05/08/97	05/08/97	
129183-002	SCI MW-28	33846	05/07/97	05/08/97	05/08/97	

Matrix: Water

Analyte	Units	129183-001	129183-002
Diln Fac:		1	1
Benzene	ug/L	<0.5	<0.5
Toluene	ug/L	<0.5	<0.5
Ethylbenzene	ug/L	<0.5	<0.5
m,p-Xylenes	ug/L	<0.5	<0.5
o-Xylene	ug/L	<0.5	<0.5
Surrogate			
Trifluorotoluene	%REC	73	74
Bromobenzene	%REC	77	77

Lab #: 129183

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client:	Subsurface Consultants	Analysis Method:	EPA 8020
Project#:	133.004	Prep Method:	EPA 5030
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Water	Prep Date:	05/07/97
Batch#:	33846	Analysis Date:	05/07/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC45596

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	73	58-130
Bromobenzene	82	62-131

Lab #: 129183

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33846
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/07/97
Analysis Date: 05/07/97

LCS Lab ID: QC45595

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	17.71	20	89	80-120
Toluene	19.23	20	96	80-120
Ethylbenzene	17.88	20	89	80-120
m,p-Xylenes	38.04	40	95	80-120
o-Xylene	20.54	20	103	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	78	58-130
Bromobenzene	90	62-131

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 #: 129183

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129182-002
Matrix: Water
Batch#: 33846
Units: ug/L
Diln Fac: 1

Sample Date: 05/06/97
Received Date: 05/06/97
Prep Date: 05/08/97
Analysis Date: 05/08/97

MS Lab ID: QC45597

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Benzene	20	2.44	20.11	88	75-125
Toluene	20	0.51	18.53	90	75-125
Ethylbenzene	20	<0.5	19.32	97	75-125
m,p-Xylenes	40	0.61	37.42	92	75-125
o-Xylene	20	<0.5	19.11	96	75-125

Surrogate	%Rec	Limits
Trifluorotoluene	79	58-130
Bromobenzene	90	62-131

MSD Lab ID: QC45598

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Benzene	20	19.72	86	75-125	2	20
Toluene	20	18.38	89	75-125	1	20
Ethylbenzene	20	18.91	95	75-125	2	20
m,p-Xylenes	40	36.29	89	75-125	3	20
o-Xylene	20	19.02	95	75-125	0	20

Surrogate	%Rec	Limits
Trifluorotoluene	77	58-130
Bromobenzene	90	62-131

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

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

Field ID:	SCI MW-28	Sampled:	05/07/97
Lab ID:	129183-002	Received:	05/07/97
Matrix:	Water	Extracted:	05/13/97
Batch#:	33942	Analyzed:	05/20/97
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.047
beta-BHC	ND	0.047
gamma-BHC	ND	0.047
delta-BHC	ND	0.047
Heptachlor	ND	0.047
Aldrin	ND	0.047
Heptachlor epoxide B	ND	0.047
Heptachlor epoxide A	ND	0.047
Endosulfan I	ND	0.047
Dieldrin	ND	0.094
4,4'-DDE	ND	0.094
Endrin	ND	0.094
Endosulfan II	ND	0.094
Endosulfan sulfate	ND	0.094
4,4'-DDD	ND	0.094
Endrin aldehyde	ND	0.094
4,4'-DDT	ND	0.094
Chlordane	ND	0.47
Methoxychlor	ND	0.47
Toxaphene	ND	0.94
Aroclor-1016	ND	0.47
Aroclor-1221	ND	0.94
Aroclor-1232	ND	0.47
Aroclor-1242	ND	0.47
Aroclor-1248	ND	0.47
Aroclor-1254	ND	0.47
Aroclor-1260	ND	0.47

Surrogate	%Recovery	Recovery Limits
TCMX	57	34-128
Decachlorobiphenyl	17*	50-150

* Values outside of QC limits

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 33942
Units: ug/L
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/20/97

MB Lab ID: QC45988

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.05
beta-BHC	ND	0.05
gamma-BHC	ND	0.05
delta-BHC	ND	0.05
Heptachlor	ND	0.05
Aldrin	ND	0.05
Heptachlor epoxide B	ND	0.05
Heptachlor epoxide A	ND	0.05
Endosulfan I	ND	0.05
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
Endosulfan sulfate	ND	0.1
4,4'-DDD	ND	0.1
Endrin aldehyde	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	0.5
Methoxychlor	ND	0.5
Toxaphene	ND	1.0
Aroclor-1016	ND	0.5
Aroclor-1221	ND	1.0
Aroclor-1232	ND	0.5
Aroclor-1242	ND	0.5
Aroclor-1248	ND	0.5
Aroclor-1254	ND	0.5
Aroclor-1260	ND	0.5

Surrogate	%Rec	Recovery Limits
TCMX	63	34-128
Decachlorobiphenyl	87	50-150

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 33942
Units: ug/L
Diln Fac: 1

Prep Date: 05/13/97
Analysis Date: 05/20/97

BS Lab ID: QC45989

Analyte	Spike Added	BS	%Rec #	Limits
gamma-BHC	0.5	0.49	98	57-120
Heptachlor	0.5	0.45	90	51-109
Aldrin	0.5	0.46	92	57-105
Dieldrin	0.5	0.49	98	62-122
Endrin	0.5	0.51	102	70-128
4,4'-DDT	0.5	0.48	96	67-128

Surrogate	%Rec	Limits
TCMX	78	34-128
Decachlorobiphenyl	95	50-150

BSD Lab ID: QC45990

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
gamma-BHC	0.5	0.47	94	57-120	4	20
Heptachlor	0.5	0.42	84	51-109	7	20
Aldrin	0.5	0.45	90	57-105	2	20
Dieldrin	0.5	0.47	94	62-122	4	20
Endrin	0.5	0.5	100	70-128	2	20
4,4'-DDT	0.5	0.48	96	67-128	0	20

Surrogate	%Rec	Limits
TCMX	71	34-128
Decachlorobiphenyl	97	50-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCI MW-25
Lab ID: 129183-001
Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Sampled: 05/07/97
Received: 05/07/97
Extracted: 05/08/97
Analyzed: 05/08/97

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	3.5 J	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

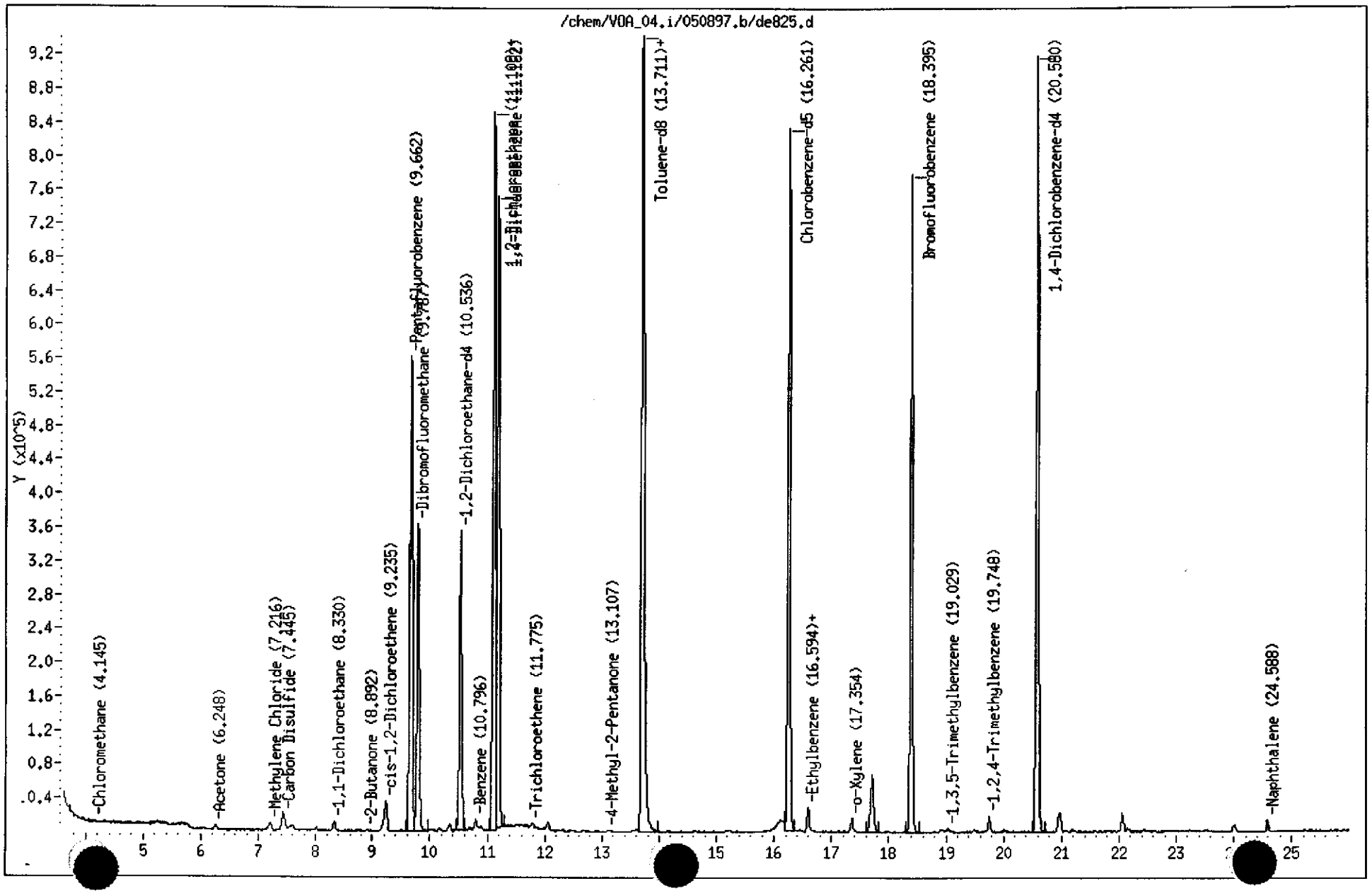
Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	95	79-122

J: Estimated Value

Data File: /chem/VOA_04.i/050897.b/de825.d
Date : 08-MAY-97 23:30
Client ID: DYNA P&T
Sample Info: S,129183-001
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_04.i

Operator: DM
Column diameter: 0.32



Lab #: 129183

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

MB Lab ID: QC45678

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	90	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	98	79-122

Curtis & Tompkins, Ltd.

Lab #: 129183 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

MB Lab ID: QC45710

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	91	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	99	79-122

Lab #: 129183

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129118-002
Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Sample Date: 04/30/97
Received Date: 05/01/97
Prep Date: 05/08/97
Analysis Date: 05/08/97

MS Lab ID: QC45707

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	45.47	91	51-180
Trichloroethene	50	<5	46.37	93	73-141
Benzene	50	<5	46.25	93	78-142
Toluene	50	<5	48.87	98	76-150
Chlorobenzene	50	<5	46.5	93	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	94	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	96	79-122

MSD Lab ID: QC45708

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	46.48	93	51-180	2	14
Trichloroethene	50	47.21	94	73-141	2	14
Benzene	50	47.28	95	78-142	2	11
Toluene	50	50.81	102	76-150	4	13
Chlorobenzene	50	47.62	95	83-129	2	13

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	93	68-126
Toluene-d8	101	87-125
Bromofluorobenzene	97	79-122

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.

Lab #: 129183 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 33869
Units: ug/L
Diln Fac: 1

Prep Date: 05/08/97
Analysis Date: 05/08/97

LCS Lab ID: QC45677

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	48.18	50	96	51-180
Trichloroethene	48.54	50	97	73-141
Benzene	47.68	50	95	78-142
Toluene	51.14	50	102	76-150
Chlorobenzene	48.37	50	97	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	89	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	98	79-122

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

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129183
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 05/07/97
DATE RECEIVED: 05/07/97
DATE ANALYZED: 05/16/97
QC BATCH#: 34004

ANALYSIS: CYANIDE
METHOD REFERENCE: EPA 335.2

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129183-001	SCI MW-25	ND	ug/L	10
129183-002	SCI MW-28	ND	ug/L	10
METHOD BLANK	N/A	ND	ug/L	10

ND = Not detected at or above the reporting limit.

QA/QC SUMMARY:BS/BSD

RPD, %	4
RECOVERY,%	91

Curtis & Tompkins, Ltd.

SAMPLE ID: SCI MW-25
LAB ID: 129183-001
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Filtrate

DATE SAMPLED: 05/07/97
DATE RECEIVED: 05/07/97
DATE REPORTED: 05/19/97

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	1	33917	EPA 6010A	05/14/97
Arsenic	9.2	5.0	1	33917	EPA 6010A	05/15/97
Barium	56	10	1	33917	EPA 6010A	05/14/97
Beryllium	ND	2.0	1	33917	EPA 6010A	05/14/97
Cadmium	ND	5.0	1	33917	EPA 6010A	05/14/97
Chromium (total)	ND	10	1	33917	EPA 6010A	05/14/97
Cobalt	ND	20	1	33917	EPA 6010A	05/14/97
Copper	ND	10	1	33917	EPA 6010A	05/14/97
Lead	ND	3.0	1	33917	EPA 6010A	05/14/97
Mercury	0.26	0.20	1	34021	EPA 7470	05/19/97
Molybdenum	ND	20	1	33917	EPA 6010A	05/14/97
Nickel	28	20	1	33917	EPA 6010A	05/14/97
Selenium	14	5.0	1	33917	EPA 6010A	05/14/97
Silver	ND	5.0	1	33917	EPA 6010A	05/14/97
Thallium	ND	5.0	1	33917	EPA 6010A	05/14/97
Vanadium	ND	10	1	33917	EPA 6010A	05/14/97
Zinc	ND	20	1	33917	EPA 6010A	05/14/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129183
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 05/07/97
DATE RECEIVED: 05/07/97
DATE ANALYZED: 05/07/97
QC BATCH#: 34004

ANALYSIS: HEXAVALENT CHROMIUM
METHOD REFERENCE: EPA 7196

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129183-001	SCI MW-25	0.06	mg/L	0.01
129183-002	SCI MW-28	0.09	mg/L	0.01
METHOD BLANK	N/A	ND	mg/L	0.01

ND = Not detected at or above the reporting limit.

QA/QC SUMMARY: MS/SAMPLE DUPLICATE OF 129183-001

RPD, %	<1
RECOVERY,%	100

Curtis & Tompkins, Ltd.

SAMPLE ID: SCI MW-28
LAB ID: 129183-002
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Filtrate

DATE SAMPLED: 05/07/97
DATE RECEIVED: 05/07/97
DATE REPORTED: 05/19/97

Metals Analytical Report

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Lead	6.9	3.0	1	33917	EPA 6010A	05/14/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129183

DATE REPORTED: 05/19/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	ug/L	1	33917	EPA 6010A	05/12/97
Arsenic	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Barium	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Beryllium	ND	2	ug/L	1	33917	EPA 6010A	05/12/97
Cadmium	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Chromium (total)	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Cobalt	ND	20	ug/L	1	33917	EPA 6010A	05/12/97
Copper	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Lead	ND	3	ug/L	1	33917	EPA 6010A	05/12/97
Mercury	ND	0.2	ug/L	1	34021	EPA 7470	05/19/97
Molybdenum	ND	20	ug/L	1	33917	EPA 6010A	05/12/97
Nickel	ND	20	ug/L	1	33917	EPA 6010A	05/12/97
Selenium	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Silver	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Thallium	ND	5	ug/L	1	33917	EPA 6010A	05/12/97
Vanadium	ND	10	ug/L	1	33917	EPA 6010A	05/12/97
Zinc	ND	20	ug/L	1	33917	EPA 6010A	05/12/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129183

DATE REPORTED: 05/19/97

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	500	443	473	ug/L	89	95	80-120	7	35	33917	EPA 6010A	05/12/97
Arsenic	2000	2100	2080	ug/L	105	104	80-120	1	35	33917	EPA 6010A	05/12/97
Barium	2000	2080	2090	ug/L	104	105	80-120	1	35	33917	EPA 6010A	05/12/97
Beryllium	50	52.7	52.4	ug/L	105	105	80-120	1	35	33917	EPA 6010A	05/12/97
Cadmium	50	50.9	50.4	ug/L	102	101	80-120	1	35	33917	EPA 6010A	05/12/97
Chromium (total)	200	201	199	ug/L	101	100	80-120	1	35	33917	EPA 6010A	05/12/97
Cobalt	500	520	512	ug/L	104	102	80-120	2	35	33917	EPA 6010A	05/12/97
Copper	250	269	270	ug/L	108	108	80-120	0	35	33917	EPA 6010A	05/12/97
Lead	500	506	502	ug/L	101	100	80-120	1	35	33917	EPA 6010A	05/12/97
Mercury	5	4.694	4.833	ug/L	94	97	80-120	3	35	34021	EPA 7470	05/19/97
Molybdenum	400	428	425	ug/L	107	106	80-120	1	35	33917	EPA 6010A	05/12/97
Nickel	500	506	500	ug/L	101	100	80-120	1	35	33917	EPA 6010A	05/12/97
Selenium	2000	2040	2010	ug/L	102	101	80-120	2	35	33917	EPA 6010A	05/12/97
Silver	100	110	112	ug/L	110	112	80-120	2	35	33917	EPA 6010A	05/12/97
Thallium	2000	2010	2010	ug/L	101	101	80-120	0	35	33917	EPA 6010A	05/12/97
Vanadium	500	523	520	ug/L	105	104	80-120	1	35	33917	EPA 6010A	05/12/97
Zinc	500	511	507	ug/L	102	101	80-120	1	35	33917	EPA 6010A	05/12/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129183

DATE REPORTED: 05/19/97

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Antimony	500	129182-005	<60.000	470	ug/L	94	65-135	33917	EPA 6010A	05/12/97
Arsenic	2000	129182-005	22	2160	ug/L	107	65-135	33917	EPA 6010A	05/12/97
Barium	2000	129182-005	55.6	2250	ug/L	110	65-135	33917	EPA 6010A	05/12/97
Beryllium	50	129182-005	<2.000	51.3	ug/L	103	65-135	33917	EPA 6010A	05/12/97
Cadmium	50	129182-005	<5.000	50.1	ug/L	100	65-135	33917	EPA 6010A	05/12/97
Chromium (total)	200	129182-005	<10.000	201	ug/L	101	65-135	33917	EPA 6010A	05/12/97
Cobalt	500	129182-005	<20.000	513	ug/L	103	65-135	33917	EPA 6010A	05/12/97
Copper	250	129182-005	<10.000	311	ug/L	124	65-135	33917	EPA 6010A	05/12/97
Lead	500	129182-005	<3.000	502	ug/L	100	65-135	33917	EPA 6010A	05/12/97
Mercury	5	129221-002	0.266	4.394	ug/L	83	65-135	34021	EPA 7470	05/19/97
Molybdenum	400	129182-005	<20.000	417	ug/L	104	65-135	33917	EPA 6010A	05/12/97
Nickel	500	129182-005	<20.000	510	ug/L	102	65-135	33917	EPA 6010A	05/12/97
Selenium	2000	129182-005	19.7	2280	ug/L	113	65-135	33917	EPA 6010A	05/12/97
Silver	100	129182-005	<5.000	108	ug/L	108	65-135	33917	EPA 6010A	05/12/97
Thallium	2000	129182-005	<5.000	1900	ug/L	95	65-135	33917	EPA 6010A	05/12/97
Vanadium	500	129182-005	<10.000	534	ug/L	107	65-135	33917	EPA 6010A	05/12/97
Zinc	500	129182-005	24.8	597	ug/L	114	65-135	33917	EPA 6010A	05/12/97

CHAIN OF CUSTODY FORM

129183

PAGE ____ OF ____

PROJECT NAME: 7th Ave. Terminal

JOB NUMBER: 133.004 LAB: Curtis & Tompkins

PROJECT CONTACT: Jerome DeVernier / Deli Alexander TURNAROUND: STANDARD

SAMPLED BY: Dennis Alexander REQUESTED BY: Jerome DeVernier

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	MATRIX: SOIL	MATRIX: WASTE	MATRIX: AIR	CONTAINERS: VOA	CONTAINERS: LITER	CONTAINERS: PINT	CONTAINERS: TUBE	METHOD PRESERVED: HCL	METHOD PRESERVED: H_2SO_4	METHOD PRESERVED: HNO_3	METHOD PRESERVED: ICE	METHOD PRESERVED: NONE NAOH	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TPH/BTXE	TEH (diesel + motor oil)	O&G	LEAD	8010	Hexachromium	Cyanide	8240	Heavy Metals
-1	SCI MW-25	X				7	5			X			X	X	05	07	97	0715	*	X	X	X			X	X	X	X
-2	SCI MW-28	X				3	6			X			X	X	05	07	97	0800	*	X	X	X	X	X	X	X		

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	5/7/97 0930		5/7/97 09:30
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES: * Filter and Fix where appropriate
Perform Hexachromium analysis immediately

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 22-MAY-97
Lab Job Number: 129222
Project ID: 133.004
Location: 9th Ave. Terminal

Reviewed by: _____

Reviewed by: _____

CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal
MATRIX: WET Leachate

DATE REPORTED: 05/22/97

Metals Analytical Report

				Lead					
Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
SCI 68@1.5	129222-001	04/23/97	04/24/97	26000	150	10	34032	EPA 6010A	05/21/97
SCI 69@1.5	129222-002	04/23/97	04/24/97	92000	150	10	34032	EPA 6010A	05/21/97
SCI TP 16@1.0'	129222-003	04/23/97	04/24/97	760	150	10	34032	EPA 6010A	05/21/97
SCI TP 18@6.5'	129222-004	04/23/97	04/24/97	5200	150	10	34032	EPA 6010A	05/21/97

Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129222

DATE REPORTED: 05/22/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Lead	ND	150	ug/L	10	34032	EPA 6010A	05/20/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129222

DATE REPORTED: 05/22/97

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
Lead	500	502	497	ug/L	100	99	80-120	1	35	34032	EPA 6010A	05/20/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129222

DATE REPORTED: 05/22/97

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Lead	129252-001	<150	<150	ug/L	NC	20	34032	EPA 6010A	05/20/97

NC = Not Calculable

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129222

DATE REPORTED: 05/22/97

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Lead	2500	129252-001	<150.000	2595	ug/L	104	65-135	34032	EPA 6010A	05/20/97

CURTIS & TOMPKINS, LTD. BERKELEY LOGIN CHANGE FORM

Reason for change: X Client Request: By: Jerome Date/Time: 5/8/97 Initials: S

_____ Login Review

Current Lab ID	Previous Lab ID	Client ID	Matrix	Add/Cancel	Analysis	Duedate
129222-001	129057-005		Soil	Add	STLC Pb	5
-002	-007				↓	
-003	-014				↓	
-004	-016			Add	STLC Pb	21

Curtis & Tompkins, Ltd.

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 03-JUN-97
Lab Job Number: 129271
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129271

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 03 June 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD:** SMWW 17:5520EF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129271-001	SCIMW-2@4.6	Soil	14-MAY-97	14-MAY-97	03-JUN-97	170	mg/Kg	50	DLP	34293

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129271
Report Date: 03 June 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 34293**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	50	mg/Kg	SMWW 17:5520EF	03-JUN-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	84%	SMWW 17:5520EF	03-JUN-97
BSD	82%	SMWW 17:5520EF	03-JUN-97

		Control Limits
Average Spike Recovery	83%	80% - 120%
Relative Percent Difference	2.2%	< 20%

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129271-001	SCIMW-29@4.6	34018	05/14/97	05/20/97	05/20/97	

Matrix: Soil

Analyte	Units	129271-001
Diln Fac:		1
Gasoline	mg/Kg	<1
Surrogate		
Trifluorotoluene	%REC	82
Bromobenzene	%REC	88

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 34018
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/19/97
Analysis Date: 05/19/97

MB Lab ID: QC46275

Analyte	Result	
Gasoline	<1.0	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	85	52-127
Bromobenzene	90	45-140

Lab #: 129271

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 34018
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/19/97
Analysis Date: 05/19/97

LCS Lab ID: QC46273

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	9.14	10	91	80-120
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	91	52-127		
Bromobenzene	97	45-140		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129271-001	SCIMW-29@4.6	33993	05/14/97	05/15/97	05/18/97	

Matrix: Soil

Analyte	Units	129271-001
Diln Fac:		1
Diesel C12-C22	mg/Kg	2.6YH
Motor Oil C22-C50	mg/Kg	23 YH
Surrogate		
Hexacosane	%REC	97

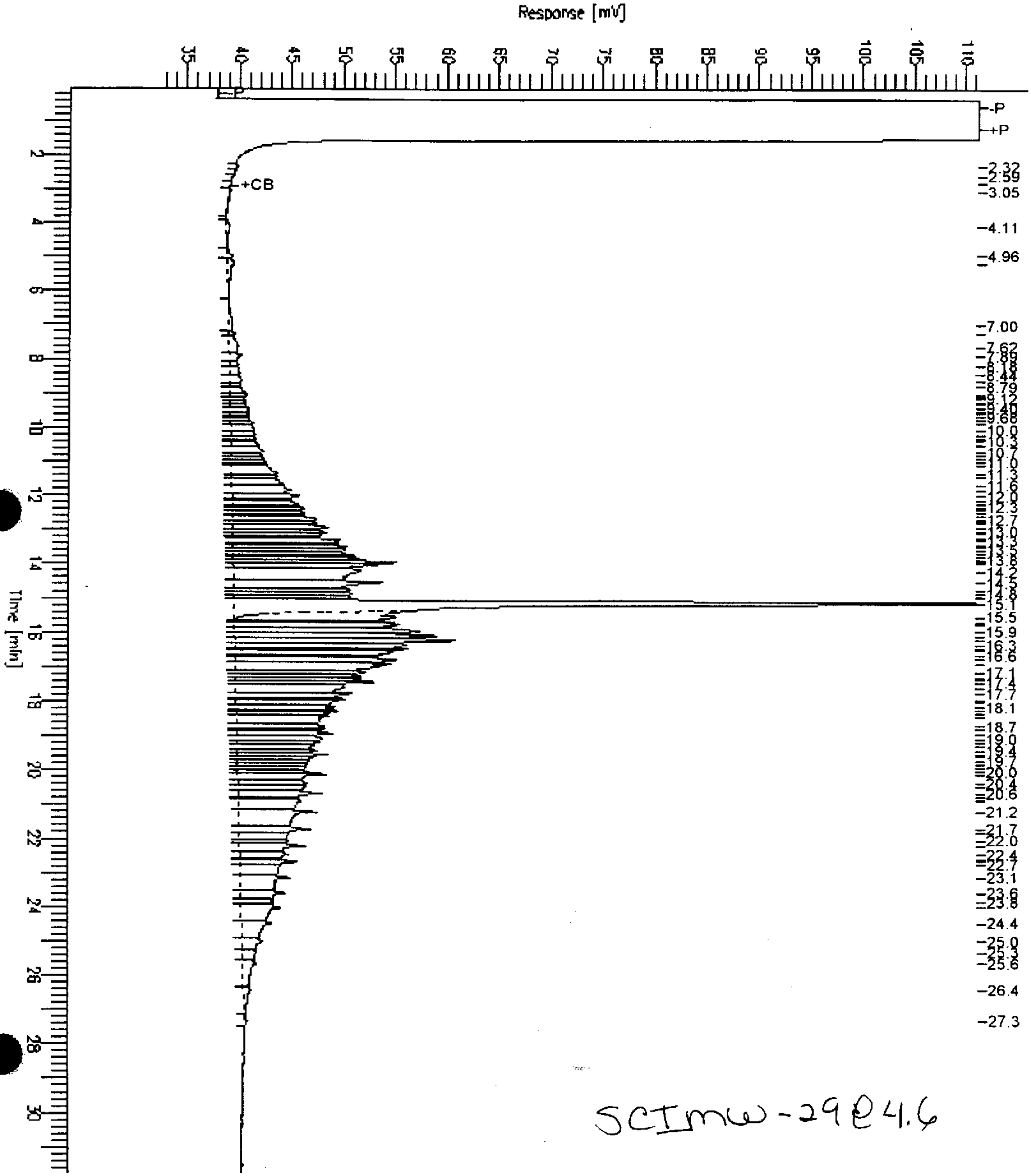
Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard

GC15 Channel B TEH

Sample Name : 129271-001,33993
FileName : G:\GC15\CHB\136B047.RAW
Method : B132TEH.MTH
Start Time : 0.07 min
Scale Factor: 0.0
End Time : 31.80 min
Plot Offset: 33 mV

Sample #: 33993
Date : 5/19/97 10:15 AM
Time of Injection: 5/18/97 01:08 AM
Low Point : 32.62 mV
Plot Scale: 78.6 mV

High Point : 111.27 mV

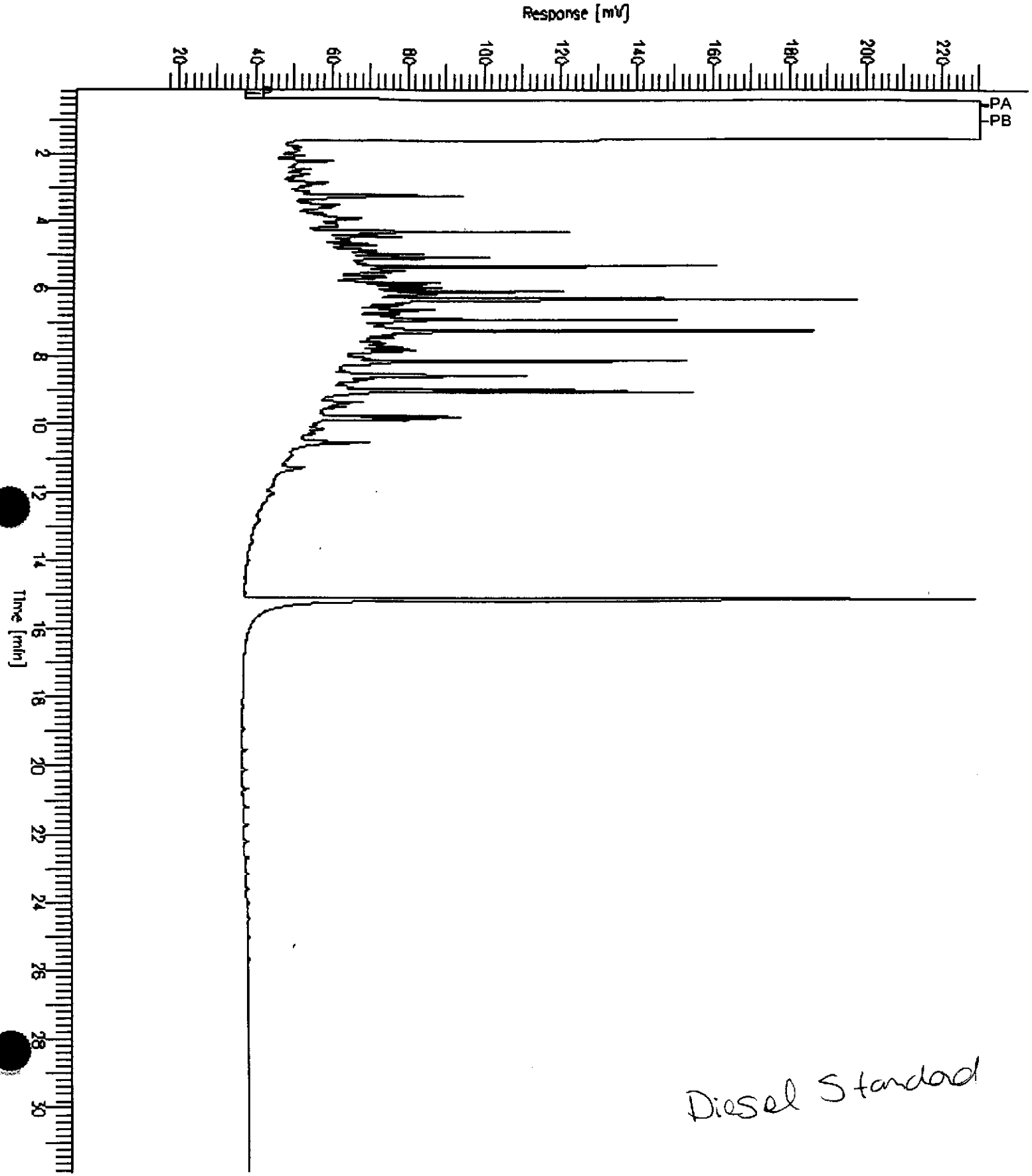


SCIMW-29Ø4.6

GC15 Channel B TEH

Sample Name : CCV,97WS4141,DS
FileName : G:\GC15\CHB\139B010.RAW
Method : B139TEH.MTH
Start Time : 0.12 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 17 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/20/97 01:21 PM
Time of Injection: 5/19/97 06:46 PM
Low Point : 17.31 mV High Point : 230.37 mV
Plot Scale: 213.1 mV

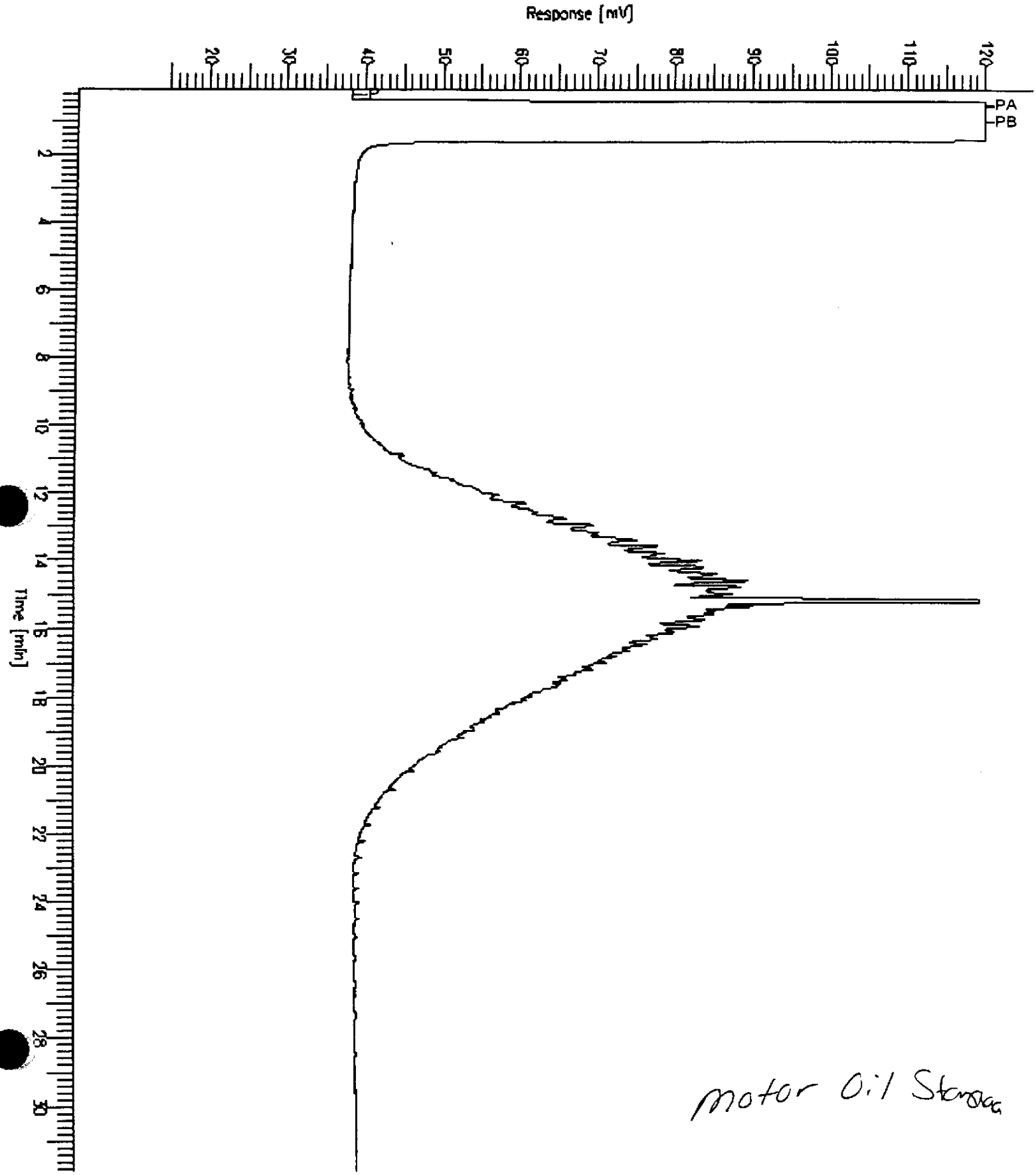


Diesel Standard

GC15 Channel B TEH

Sample Name : CCV,97WS4154,MO
FileName : G:\GC15\CHB\139B012.RAW
Method : B139TEH.MTH
Start Time : 0.07 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 15 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/20/97 01:21 PM
Time of Injection: 5/19/97 08:13 PM
Low Point : 14.96 mV High Point : 120.09 mV
Plot Scale: 105.1 mV



motor Oil Storage

Lab #: 129271

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	CA LUFT
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Soil	Prep Date:	05/15/97
Batch#:	33993	Analysis Date:	05/16/97
Units:	mg/Kg		
Diln Fac:	1		

MB Lab ID: QC46160

Analyte	Result	
Diesel C12-C22	<1.0	
Motor Oil C22-C50	<5.0	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	91	60-140

Lab #: 129271

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: CA LUFT

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 33993
Units: mg/Kg
Diln Fac: 1

Prep Date: 05/15/97
Analysis Date: 05/17/97

LCS Lab ID: QC46161

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C12-C22	34.7	49.5	70	60-140
Surrogate	**%Rec**	**Limits**		
Hexacosane	90	60-140		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129271-001	SCIMW-29@4.6	34018	05/14/97	05/20/97	05/20/97	

Matrix: Soil

Analyte	Units	129271-001
Diln Fac:		1
Benzene	ug/Kg	<5
Toluene	ug/Kg	<5
Ethylbenzene	ug/Kg	<5
m,p-Xylenes	ug/Kg	<5
o-Xylene	ug/Kg	<5
Surrogate		
Trifluorotoluene	%REC	76
Bromobenzene	%REC	75

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 34018
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/19/97
Analysis Date: 05/19/97

MB Lab ID: QC46275

Analyte	Result
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	78	52-127
Bromobenzene	85	45-140

Lab #: 129271

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 34018
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/19/97
Analysis Date: 05/19/97

LCS Lab ID: QC46274

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	82.54	100	83	80-120
Toluene	92.93	100	93	80-120
Ethylbenzene	86.52	100	87	80-120
m,p-Xylenes	176	200	88	80-120
o-Xylene	95.32	100	95	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	82	52-127
Bromobenzene	89	45-140

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 #: 129271

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129266-007
Matrix: Soil
Batch#: 34018
Units: ug/Kg
Diln Fac: 1

Sample Date: 05/06/97
Received Date: 05/13/97
Prep Date: 05/19/97
Analysis Date: 05/19/97

MS Lab ID: QC46276

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Benzene	100	<5	74.32	74 *	75-125
Toluene	100	<5	85.97	86	75-125
Ethylbenzene	100	<5	83.71	84	75-125
m,p-Xylenes	200	<5	165.2	83	75-125
o-Xylene	100	<5	92.56	93	75-125

Surrogate	%Rec	Limits
Trifluorotoluene	72	52-127
Bromobenzene	86	45-140

MSD Lab ID: QC46277

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Benzene	100	72.62	73 *	75-125	2	20
Toluene	100	85.33	85	75-125	1	20
Ethylbenzene	100	82.02	82	75-125	2	20
m,p-Xylenes	200	161.5	81	75-125	2	20
o-Xylene	100	90.59	91	75-125	2	20

Surrogate	%Rec	Limits
Trifluorotoluene	72	52-127
Bromobenzene	87	45-140

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: 2 out of 10 outside limits

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129271

Project Name: 9th Ave. Terminal/KOT

Project Number: 133.004

Report Date: 28 May 97

ANALYSIS: pH

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	Method	Analyst	QC Batch
129271-001	SCIMW-2@4.6	Soil	14-MAY-97	14-MAY-97	27-MAY-97	9.2	SU #	EPA 9045	TKM	34169

Soil pH measured in 0.01 M CaCl2

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129271
Report Date: 28 May 97

ANALYSIS: pH

QC Batch Number: 34169

Calibration Verification Results

Sample	Result	TV	Difference	Limit	Analyzed
ICV	6.99	7.00	.01	< 0.10	27-MAY-97
CCV	7.00	7.00	.00	< 0.10	27-MAY-97
CCV	7.01	7.00	.01	< 0.10	27-MAY-97

Sample Duplicate Results

Sample	Duplicate	RPD	Analyzed
8.03	8.06	.4%	27-MAY-97

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCIMW-29@4.6
Lab ID: 129271-001
Matrix: Soil
Batch#: 34090
Units: ug/Kg
Diln Fac: 1

Sampled: 05/14/97
Received: 05/14/97
Extracted: 05/22/97
Analyzed: 05/22/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	99	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	98	79-122

Lab #: 129271

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 34090
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/22/97
Analysis Date: 05/22/97

MB Lab ID: QC46585

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	109	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	97	79-122

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 34090
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/22/97
Analysis Date: 05/22/97

LCS Lab ID: QC46584

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	53.45	50	107	51-180
Trichloroethene	47.86	50	96	73-141
Benzene	48.79	50	98	78-142
Toluene	49.53	50	99	76-150
Chlorobenzene	48.01	50	96	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	109	68-126
Toluene-d8	99	87-125
Bromofluorobenzene	95	79-122

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

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129333-011
Matrix: Soil
Batch#: 34090
Units: ug/Kg
Diln Fac: 1

Sample Date: 05/20/97
Received Date: 05/20/97
Prep Date: 05/22/97
Analysis Date: 05/22/97

MS Lab ID: QC46586

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	48.95	98	51-180
Trichloroethene	50	<5	40.95	82	73-141
Benzene	50	0	42.93	86	78-142
Toluene	50	0	41.77	84	76-150
Chlorobenzene	50	<5	41.94	84	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	99	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	96	79-122

MSD Lab ID: QC46587

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	51.95	104	51-180	6	22
Trichloroethene	50	43.87	88	73-141	7	24
Benzene	50	45.32	91	78-142	5	21
Toluene	50	44.46	89	76-150	6	21
Chlorobenzene	50	41.05	82 *	83-129	2	21

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	106	68-126
Toluene-d8	100	87-125
Bromofluorobenzene	101	79-122

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: 1 out of 10 outside limits

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129271
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 133.004
LOCATION: 9TH AVE. TERMINAL/KOT

DATE SAMPLED: 05/14/97
DATE RECEIVED: 05/14/97
DATE ANALYZED: 05/28/97
QC BATCH#: 34184

ANALYSIS: CYANIDE
METHOD REFERENCE: EPA 335.2

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129271-001	SCIMW-29@4.6	ND	mg/Kg	1.0
METHOD BLANK	N/A	ND	mg/Kg	1.0

ND = Not detected at or above the reporting limit.

QA/QC SUMMARY: MS/MSD OF SAMPLE NO: 129271-001

RPD, %	3
RECOVERY,%	87

Curtis & Tompkins, Ltd.

SAMPLE ID: SCIMW-29@4.6
LAB ID: 129271-001
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Soil

DATE SAMPLED: 05/14/97
DATE RECEIVED: 05/14/97
DATE REPORTED: 05/28/97

California TITLE 26 Metals

Compound	Result (mg/Kg)	Reporting Limit (mg/Kg)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	2.9	1	34080	EPA 6010A	05/22/97
Arsenic	2.7	0.24	1	34080	EPA 6010A	05/22/97
Barium	77	0.48	1	34080	EPA 6010A	05/22/97
Beryllium	0.45	0.096	1	34080	EPA 6010A	05/22/97
Cadmium	0.16	0.096	1	34080	EPA 6010A	05/22/97
Chromium (total)	27	0.48	1	34080	EPA 6010A	05/22/97
Cobalt	12	0.96	1	34080	EPA 6010A	05/22/97
Copper	8.8	0.48	1	34080	EPA 6010A	05/22/97
Lead	8.7	0.14	1	34080	EPA 6010A	05/22/97
Mercury	0.15	0.091	1	34156	EPA 7471	05/27/97
Molybdenum	ND	0.96	1	34080	EPA 6010A	05/22/97
Nickel	31	0.96	1	34080	EPA 6010A	05/22/97
Selenium	0.85	0.24	1	34080	EPA 6010A	05/22/97
Silver	ND	0.48	1	34080	EPA 6010A	05/22/97
Thallium	ND	0.24	1	34080	EPA 6010A	05/22/97
Vanadium	24	0.48	1	34080	EPA 6010A	05/22/97
Zinc	39	0.96	1	34080	EPA 6010A	05/22/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129271
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.004
LOCATION: 9TH AVE. TERMINAL

DATE SAMPLED: 05/14/97
DATE RECEIVED: 05/14/97
DATE ANALYZED: 05/23/97
BATCH#: 34141

ANALYSIS: HEXAVALENT CHROMIUM
ANALYSIS METHOD: EPA 7196A

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129271-001	SCIMW-29@4.6'	ND	mg/Kg	0.05
METHOD BLANK	N/A	ND	mg/Kg	0.05

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/SAMPLE DUPLICATE OF 129271-001

RPD, %	<1
RECOVERY, %	97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129271

DATE REPORTED: 05/28/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Antimony	ND	3	mg/Kg	1	34080	EPA 6010A	05/22/97
Arsenic	ND	0.25	mg/Kg	1	34080	EPA 6010A	05/22/97
Barium	ND	0.5	mg/Kg	1	34080	EPA 6010A	05/22/97
Beryllium	ND	0.1	mg/Kg	1	34080	EPA 6010A	05/22/97
Cadmium	ND	0.1	mg/Kg	1	34080	EPA 6010A	05/22/97
Chromium (total)	ND	0.5	mg/Kg	1	34080	EPA 6010A	05/22/97
Cobalt	ND	1	mg/Kg	1	34080	EPA 6010A	05/22/97
Copper	ND	0.5	mg/Kg	1	34080	EPA 6010A	05/22/97
Lead	ND	0.15	mg/Kg	1	34080	EPA 6010A	05/22/97
Mercury	ND	0.1	mg/Kg	1	34156	EPA 7471	05/27/97
Molybdenum	ND	1	mg/Kg	1	34080	EPA 6010A	05/22/97
Nickel	ND	1	mg/Kg	1	34080	EPA 6010A	05/22/97
Selenium	ND	0.25	mg/Kg	1	34080	EPA 6010A	05/22/97
Silver	ND	0.5	mg/Kg	1	34080	EPA 6010A	05/22/97
Thallium	ND	0.25	mg/Kg	1	34080	EPA 6010A	05/22/97
Vanadium	ND	0.5	mg/Kg	1	34080	EPA 6010A	05/22/97
Zinc	ND	1	mg/Kg	1	34080	EPA 6010A	05/22/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129271

DATE REPORTED: 05/28/97

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	23.35	23.5	mg/Kg	93	94	80-120	1	35	34080	EPA 6010A	05/22/97
Arsenic	100	92.5	93.5	mg/Kg	93	94	80-120	1	35	34080	EPA 6010A	05/22/97
Barium	100	95.5	98	mg/Kg	96	98	80-120	3	35	34080	EPA 6010A	05/22/97
Beryllium	2.5	2.455	2.495	mg/Kg	98	100	80-120	2	35	34080	EPA 6010A	05/22/97
Cadmium	2.5	2.47	2.475	mg/Kg	99	99	80-120	0	35	34080	EPA 6010A	05/22/97
Chromium (total)	10	9.45	9.6	mg/Kg	95	96	80-120	2	35	34080	EPA 6010A	05/22/97
Cobalt	25	24.35	24.55	mg/Kg	97	98	80-120	1	35	34080	EPA 6010A	05/22/97
Copper	12.5	13	13.45	mg/Kg	104	108	80-120	3	35	34080	EPA 6010A	05/22/97
Lead	25	22.9	22.95	mg/Kg	92	92	80-120	0	35	34080	EPA 6010A	05/22/97
Mercury	5	4.591	4.737	ug/L	92	95	80-120	3	35	34156	EPA 7470	05/27/97
Molybdenum	20	19.2	19.8	mg/Kg	96	99	80-120	3	35	34080	EPA 6010A	05/22/97
Nickel	25	23.8	24.1	mg/Kg	95	96	80-120	1	35	34080	EPA 6010A	05/22/97
Selenium	100	84	85	mg/Kg	84	85	80-120	1	35	34080	EPA 6010A	05/22/97
Silver	5	4.94	5.1	mg/Kg	99	102	80-120	3	35	34080	EPA 6010A	05/22/97
Thallium	100	86.5	88.5	mg/Kg	87	89	80-120	2	35	34080	EPA 6010A	05/22/97
Vanadium	25	24.45	24.85	mg/Kg	98	99	80-120	2	35	34080	EPA 6010A	05/22/97
Zinc	25	22.85	23.15	mg/Kg	91	93	80-120	1	35	34080	EPA 6010A	05/22/97

129271

PAGE ___ OF ___

CHAIN OF CUSTODY FORM

PROJECT NAME: 9th Ave Terminal

JOB NUMBER: 133.004 LAB: CET

PROJECT CONTACT: Jerome de Vernier TURNAROUND: standard

SAMPLED BY: John Wolfe REQUESTED BY: JD

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	CONTAINERS: VOA	LITER	PINT	TUBE	METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TVH/BTEX	TEH (d+mo)	pH	8240	CN	Heavy Metals	Hexachromium	O&G
	SCIMW-2904.6		X						X				X		05	14	97	1500		X	X	X	X	X	X	X	X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dean Alexander	5/14/97 2:20 p.m.	[signature]	5/14/97 1420

COMMENTS & NOTES:

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 · FAX: 510-268-0137

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 27-MAY-97
Lab Job Number: 129286
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

SAMPLE ID: SCITP-21@6.5
LAB ID: 129286-001
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: WET Leachate

DATE SAMPLED: 04/25/97
DATE RECEIVED: 05/15/97
DATE REPORTED: 05/27/97

Metals Analytical Report

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Lead	1500	150	10	34086	EPA 6010A	05/22/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129286

DATE REPORTED: 05/27/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Lead	ND	150	ug/L	10	34086	EPA 6010A	05/22/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129286

DATE REPORTED: 05/27/97

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
Lead	500	500	517	ug/L	100	103	80-120	3	35	34086	EPA 6010A	05/22/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129286

DATE REPORTED: 05/27/97

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Lead	129282-003	378	315.5	ug/L	18	20	34086	EPA 6010A	05/22/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129286

DATE REPORTED: 05/27/97

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Lead	2500	129282-003	378	2855	ug/L	99	65-135	34086	EPA 6010A	05/22/97

CHAIN OF CUSTODY FORM

129286

PAGE 1

PROJECT NAME: 7th Avenue Terminal

JOB NUMBER: 133.004

PROJECT CONTACT: Jerome de Vernier

SAMPLED BY: John Wolfe

LAB: C&T

TURNAROUND: standard

REQUESTED BY: JD

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX						CONTAINERS						METHOD PRESERVED					SAMPLING DATE				NOTES	ANALYSIS REQUESTED
		WATER	SOIL	WASTE	AIR			VOA	LITER	PINT	TUBE	8oz jar		HCL	H_2SO_4	HNO_3	ICE	NONE	MONTH	DAY	YEAR	TIME		
	SCITP-31@6.5		X									X						X	04	25	97		4: X	Lead - WET

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Jeri Alexander	5/15/97 14:35		9/15/97 14:30
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

☆ not refrigerated

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 • FAX: 510-268-0137

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 22-MAY-97
Lab Job Number: 129310
Project ID: 133.004
Location: 9th Ave. Terminal

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

SAMPLE ID: SCITP 24 CANNERYLINE
LAB ID: 129310-001
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal
MATRIX: WET Leachate

DATE SAMPLED: 04/26/97
DATE RECEIVED: 04/28/97
DATE REPORTED: 05/22/97

Metals Analytical Report

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Lead	2600	150	10	34086	EPA 6010A	05/22/97
Zinc	96000	1000	10	34086	EPA 6010A	05/22/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129310

DATE REPORTED: 05/22/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Lead	ND	150	ug/L	10	34086	EPA 6010A	05/22/97
Zinc	ND	1000	ug/L	10	34086	EPA 6010A	05/22/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129310

DATE REPORTED: 05/22/97

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
Lead	500	500	517	ug/L	100	103	80-120	3	35	34086	EPA 6010A	05/22/97
Zinc	500	501	513	ug/L	100	103	80-120	2	35	34086	EPA 6010A	05/22/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129310

DATE REPORTED: 05/22/97

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Lead	129282-003	378	315.5	ug/L	18	20	34086	EPA 6010A	05/22/97
Zinc	129282-003	1955	1980	ug/L	1	20	34086	EPA 6010A	05/22/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129310

DATE REPORTED: 05/22/97

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Lead	2500	129282-003	378	2855	ug/L	99	65-135	34086	EPA 6010A	05/22/97
Zinc	2500	129282-003	1955	4835	ug/L	115	65-135	34086	EPA 6010A	05/22/97

CURTIS & TOMPKINS, LTD. BERKELEY   LOGIN CHANGE FORM

Reason for change: X Client Request: By: Jerome Date/Time: 5/15/97 Initials: G
____ Login Review

Current Lab ID	Previous Lab ID	Client ID	Matrix	Add/Cancel	Analysis	Duedate
129310-001	129080-006				STLC- Zn Pb	

Curtis & Tompkins, Ltd.

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 27-MAY-97
Lab Job Number: 129323
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

SAMPLE ID: SCITP-33@4.0
LAB ID: 129323-001
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: WET Leachate

DATE SAMPLED: 04/30/97
DATE RECEIVED: 05/01/97
DATE REPORTED: 05/27/97

Metals Analytical Report

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Lead	11000	1500	1	34149	EPA 6010A	05/27/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129323

DATE REPORTED: 05/27/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Lead	ND	150	ug/L	10	34149	EPA 6010A	05/27/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129323

DATE REPORTED: 05/27/97

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
Lead	500	510	510	ug/L	102	102	80-120	0	35	34149	EPA 6010A	05/27/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129323

DATE REPORTED: 05/27/97

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Lead	129331-001	<150	254.5	ug/L	NC	20	34149	EPA 6010A	05/27/97

NC = Not Calculable

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129323

DATE REPORTED: 05/27/97

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Lead	2500	129331-001	<150.000	2610	ug/L	104	65-135	34149	EPA 6010A	05/27/97

CURTIS & TOMPKINS, LTD. BERKELEY LOGIN CHANGE FORM

Reason for change: X Client Request: By: Jerome Date/Time: 5/19/97 Initials: G
_____ Login Review

Current Lab ID	Previous Lab ID	Client ID	Matrix	Add/Cancel	Analysis	Duedate
129323-001	129135-006	SCITP-33Dyc	Soil	Add	STLC Pb	5/27
/						
/						
						/
						/

Curtis & Tompkins, Ltd.

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 27-MAY-97
Lab Job Number: 129334
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: _____

Reviewed by: _____

CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: WET Leachate

DATE REPORTED: 05/27/97

Metals Analytical Report

				Lead					
Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
SCITP-33C@4.5	129334-001	05/01/97	05/02/97	17000	1500	1	34149	EPA 6010A	05/27/97
SCITP-33D@4.0	129334-002	05/02/97	05/02/97	18000	1500	1	34149	EPA 6010A	05/27/97

Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129334

DATE REPORTED: 05/27/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Lead	ND	150	ug/L	10	34149	EPA 6010A	05/27/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129334

DATE REPORTED: 05/27/97

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
Lead	500	510	510	ug/L	102	102	80-120	0	35	34149	EPA 6010A	05/27/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129334

DATE REPORTED: 05/27/97

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Lead	129331-001	<150	254.5	ug/L	NC	20	34149	EPA 6010A	05/27/97

NC = Not Calculable

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129334

DATE REPORTED: 05/27/97

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Lead	2500	129331-001	<150.000	2610	ug/L	104	65-135	34149	EPA 6010A	05/27/97

CURTIS & TOMPKINS, LTD. BERKELEY LOGIN CHANGE FORM

Reason for change: X Client Request: By: Jerome Date/Time: 5/20/97 1:40 Initials: [illegible]
_____ Login Review

Current Lab ID	Previous Lab ID	Client ID	Matrix	Add/Cancel	Analysis	Duedate
129334 -001	129142 -003	SCITP-330 45	Soil	Add	STLC Pb	5/28
129334-002	-004	SCITP-330 40	Soil	Add	STLC Pb	

Curtis & Tompkins, Ltd.

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

ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 03-JUN-97
Lab Job Number: 129337
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 129337

Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Report Date: 03 June 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD:** SMWW 17:5520BF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
129337-001	SCIMW-29	Water	20-MAY-97	20-MAY-97	22-MAY-97	ND	mg/L	5	DLP	34099

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: 9th Ave. Terminal/KOT
Project Number: 133.004

Laboratory Login Number: 129337
Report Date: 03 June 97

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 34099**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	5	mg/L	SMWW 17:5520BF	22-MAY-97

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	91%	SMWW 17:5520BF	22-MAY-97
BSD	91%	SMWW 17:5520BF	22-MAY-97

		Control Limits
Average Spike Recovery	91%	80% - 120%
Relative Percent Difference	.7%	< 20%

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129337-001	SCIMW-29	34088	05/20/97	05/22/97	05/22/97	

Matrix: Water

Analyte	Units	129337-001
Diln Fac:		1
Gasoline	ug/L	<50
Surrogate		
Trifluorotoluene	%REC	87
Bromobenzene	%REC	96

Lab #: 129337

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 34088
Units: ug/L
Diln Fac: 1

Prep Date: 05/22/97
Analysis Date: 05/22/97

MB Lab ID: QC46578

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	90	65-135
Bromobenzene	99	65-135

Lab #: 129337

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 34088
Units: ug/L
Diln Fac: 1

Prep Date: 05/22/97
Analysis Date: 05/22/97

LCS Lab ID: QC46576

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	1911	2000	96	75-125
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	86	65-135		
Bromobenzene	120	65-135		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129330-004
Matrix: Water
Batch#: 34088
Units: ug/L
Diln Fac: 1

Sample Date: 05/19/97
Received Date: 05/20/97
Prep Date: 05/22/97
Analysis Date: 05/22/97

MS Lab ID: QC46579

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	2000	<50	1886	94	75-125
Surrogate	**%Rec**	**Limits**			
Trifluorotoluene	87	65-135			
Bromobenzene	129	65-135			

MSD Lab ID: QC46580

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	2000	1909	95	75-125	1	35
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	84	65-135				
Bromobenzene	125	65-135				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129337-001	SCIMW-29	34085	05/20/97	05/21/97	05/24/97	

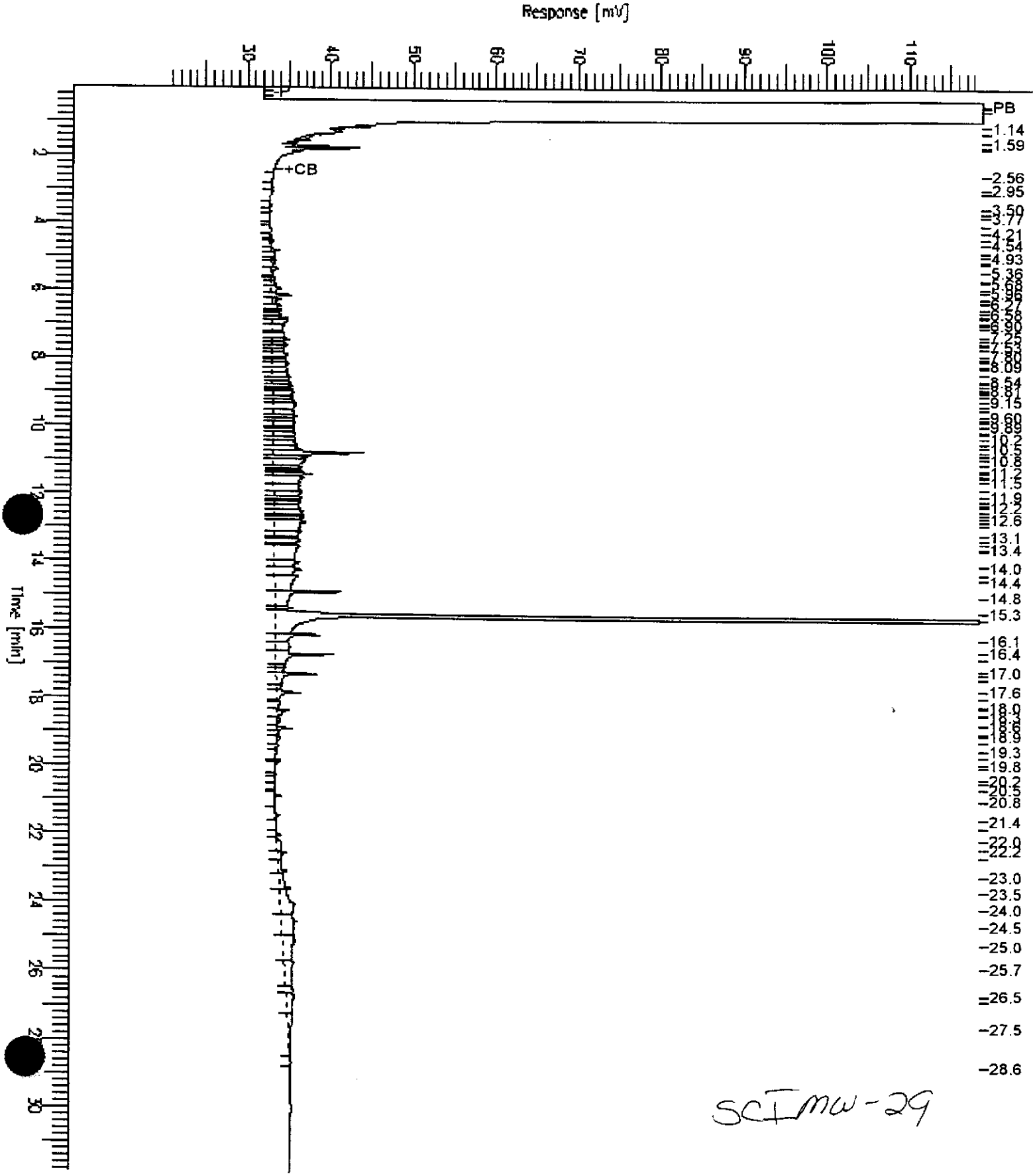
Matrix: Water

Analyte	Units	129337-001
Diln Fac:		1
Diesel C12-C22	ug/L	150
Motor Oil C22-C50	ug/L	<300
Surrogate		
Hexacosane	%REC	87

Chromatogram

Sample Name : 129337-001,34085
FileName : G:\GC11\CHB\141B058.RAW
Method : BTEH140.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: 20 mV

Sample #: 34085 Page 1 of 1
Date : 5/30/97 10:30 AM
Time of Injection: 5/24/97 11:54 AM
Low Point : 20.16 mV High Point : 118.97 mV
Plot Scale: 98.8 mV

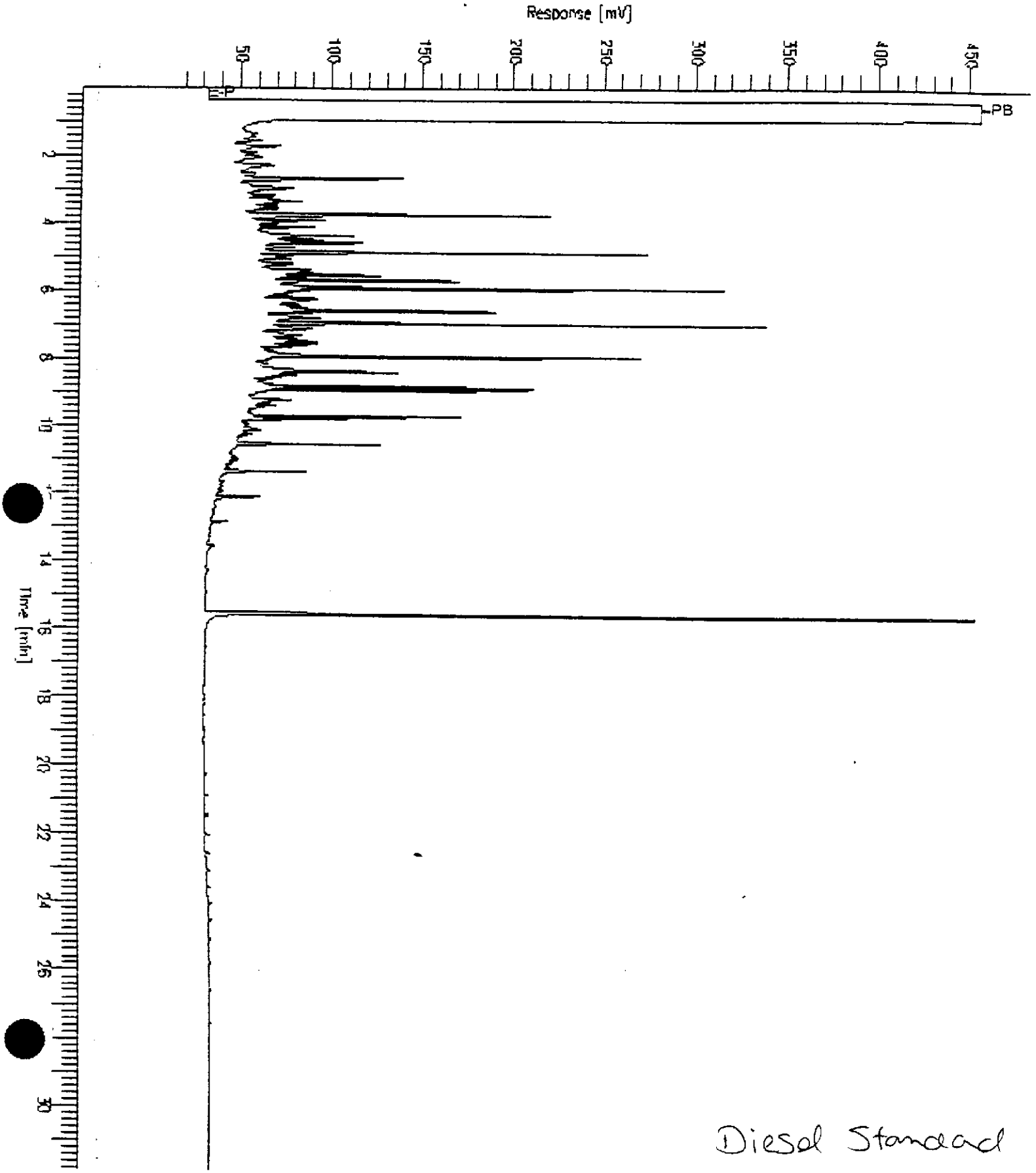


SCI mw-29

Chromatogram

Sample Name : CCV,97WS4141,DS
FileName : G:\GC11\CHB\141B016.RAW
Method : BTEH140.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: 14 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/22/97 10:36 AM
Time of Injection: 5/22/97 05:38 AM
Low Point : 13.83 mV High Point : 456.39 mV
Plot Scale: 442.6 mV

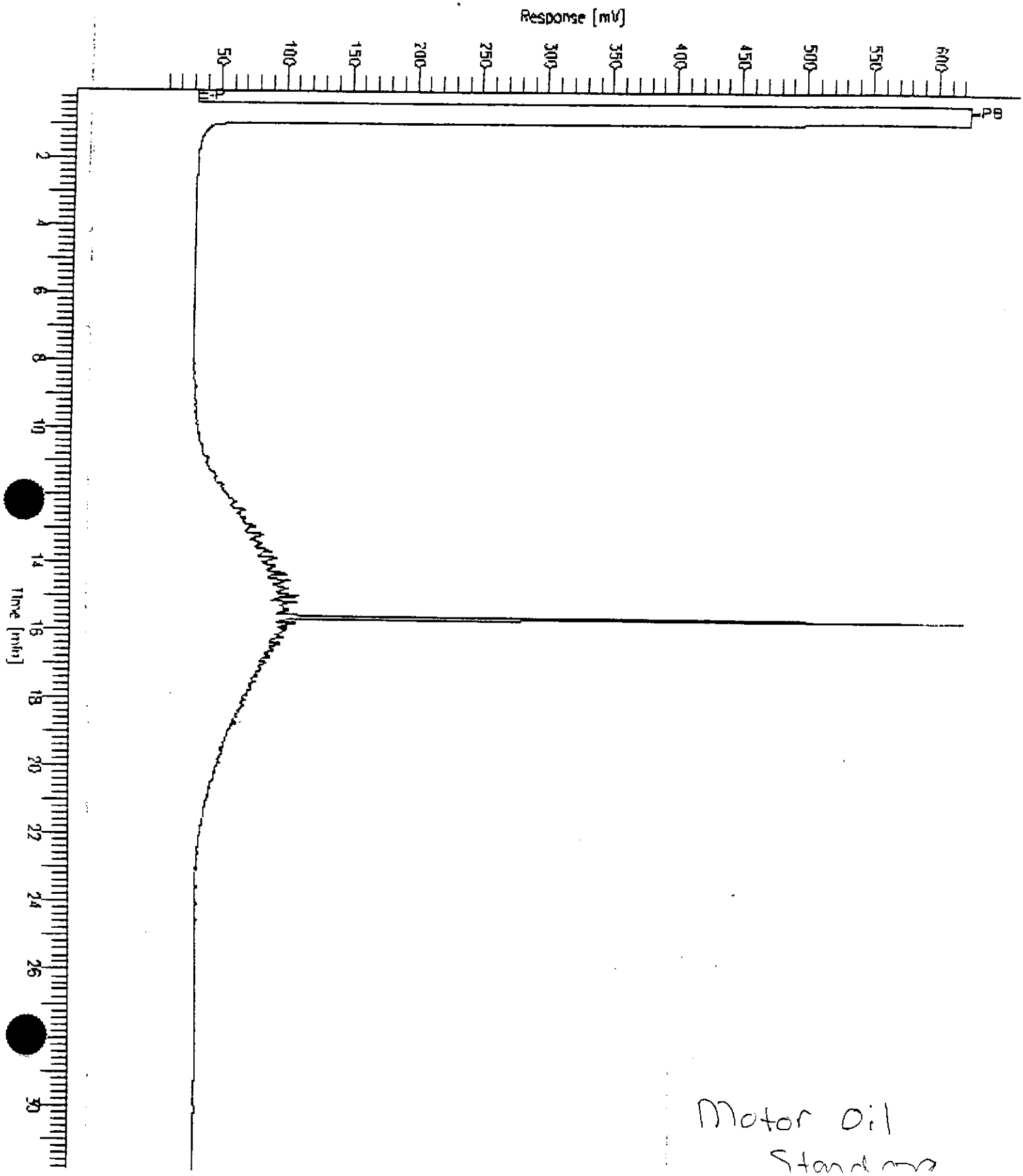


Diesel Standard

Chromatogram

Sample Name : CCV,97WS4154,MO
FileName : G:\GC11\CHB\141B018.RAW
Method : BTEH140.MTH
rt Time : 0.01 min End Time : 31.91 min
e Factor: 0.0 Plot Offset: 9 mV

Sample #: 500MG/L Page 1 of 1
Date : 5/22/97 10:36 AM
Time of Injection: 5/22/97 07:04 AM
Low Point : 9.02 mV High Point : 624.67 mV
Plot Scale: 615.7 mV



Motor Oil
Standard

Lab #: 129337

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	133.004	Prep Method:	EPA 3520
Location:	9th Ave. Terminal/KOT		

METHOD BLANK

Matrix:	Water	Prep Date:	05/21/97
Batch#:	34085	Analysis Date:	05/24/97
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC46563

Analyte	Result	
Diesel C12-C22	<50	
Motor Oil C22-C50	<300	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	112	60-140

Lab #: 129337

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 34085
Units: ug/L
Diln Fac: 1

Prep Date: 05/21/97
Analysis Date: 05/24/97

BS Lab ID: QC46564

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C12-C22	2475	2097	85	60-140
Surrogate	**%Rec**	**Limits**		
Hexacosane	106	60-140		

BSD Lab ID: QC46565

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	2190	88	60-140	4	35
Surrogate	**%Rec**	**Limits**				
Hexacosane	108	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
129337-001	SCIMW-29	34088	05/20/97	05/22/97	05/22/97	

Matrix: Water

Analyte	Units	129337-001
Diln Fac:		1
Benzene	ug/L	<0.5
Toluene	ug/L	<0.5
Ethylbenzene	ug/L	<0.5
m,p-Xylenes	ug/L	<0.5
o-Xylene	ug/L	<0.5
Surrogate		
Trifluorotoluene	%REC	87
Bromobenzene	%REC	102

Lab #: 129337

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE	
Client: Subsurface Consultants	Analysis Method: EPA 8020
Project#: 133.004	Prep Method: EPA 5030
Location: 9th Ave. Terminal/KOT	

METHOD BLANK	
Matrix: Water	Prep Date: 05/22/97
Batch#: 34088	Analysis Date: 05/22/97
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC46578

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	86	58-130
Bromobenzene	102	62-131

Lab #: 129337

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8020
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 34088
Units: ug/Kg
Diln Fac: 1

Prep Date: 05/22/97
Analysis Date: 05/22/97

LCS Lab ID: QC46577

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	18.79	20	94	80-120
Toluene	17.97	20	90	80-120
Ethylbenzene	20.19	20	101	80-120
m,p-Xylenes	33.36	40	83	80-120
o-Xylene	17.87	20	89	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	87	58-130
Bromobenzene	100	62-131

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

Curtis & Tompkins, Ltd.

Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: SCIMW-29
Lab ID: 129337-001
Matrix: Water
Batch#: 34120
Units: ug/L
Diln Fac: 1

Sampled: 05/20/97
Received: 05/20/97
Extracted: 05/23/97
Analyzed: 05/23/97

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

Surrogate	%Recovery	Recovery Limits
1,2-Dichloroethane-d4	111	68-126
Toluene-d8	97	87-125
Bromofluorobenzene	91	79-122

Lab #: 129337

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 34120
Units: ug/L
Diln Fac: 1

Prep Date: 05/23/97
Analysis Date: 05/23/97

MB Lab ID: QC46722

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

Surrogate	%Rec	Recovery Limits
1,2-Dichloroethane-d4	102	68-126
Toluene-d8	96	87-125
Bromofluorobenzene	98	79-122

Curtis & Tompkins, Ltd.

Lab #: 129337 BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 34120
Units: ug/L
Diln Fac: 1

Prep Date: 05/23/97
Analysis Date: 05/23/97

LCS Lab ID: QC46702

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	51.99	50	104	51-180
Trichloroethene	47.2	50	94	73-141
Benzene	48.62	50	97	78-142
Toluene	48.44	50	97	76-150
Chlorobenzene	49.98	50	100	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	98	68-126
Toluene-d8	96	87-125
Bromofluorobenzene	94	79-122

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 #: 129337

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.004
Location: 9th Ave. Terminal/KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 129296-003
Matrix: Water
Batch#: 34120
Units: ug/L
Diln Fac: 1

Sample Date: 05/15/97
Received Date: 05/15/97
Prep Date: 05/23/97
Analysis Date: 05/23/97

MS Lab ID: QC46719

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5	47.28	95	51-180
Trichloroethene	50	<5	42.31	85	73-141
Benzene	50	<5	45.66	91	78-142
Toluene	50	<5	43.77	88	76-150
Chlorobenzene	50	<5	46.83	94	83-129

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	107	68-126
Toluene-d8	94	87-125
Bromofluorobenzene	92	79-122

MSD Lab ID: QC46720

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	52.09	104	51-180	10	14
Trichloroethene	50	44.5	89	73-141	5	14
Benzene	50	47.8	96	78-142	5	11
Toluene	50	47.2	94	76-150	8	13
Chlorobenzene	50	47.84	96	83-129	2	13

Surrogate	%Rec	Limits
1,2-Dichloroethane-d4	104	68-126
Toluene-d8	98	87-125
Bromofluorobenzene	93	79-122

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.

LABORATORY NUMBER: 129337
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 133.004
LOCATION: 9TH AVE. TERMINAL/KOT

DATE SAMPLED: 05/20/97
DATE RECEIVED: 05/20/97
DATE ANALYZED: 06/02/97
QC BATCH#: 34253

ANALYSIS: CYANIDE
METHOD REFERENCE: EPA 9010A

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129337-001	SCIMW-29	ND	ug/L	10
METHOD BLANK	N/A	ND	ug/L	10

ND = Not detected at or above the reporting limit.

QA/QC SUMMARY: BS/BSD

RPD, %	7
RECOVERY,%	93

Curtis & Tompkins, Ltd.

SAMPLE ID: SCIMW-29
LAB ID: 129337-001
CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: Filtrate

DATE SAMPLED: 05/20/97
DATE RECEIVED: 05/20/97
DATE REPORTED: 06/03/97

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	1	34082	EPA 6010A	05/21/97
Arsenic	ND	5.0	1	34082	EPA 6010A	05/22/97
Barium	160	10	1	34082	EPA 6010A	05/21/97
Beryllium	ND	2.0	1	34082	EPA 6010A	05/21/97
Cadmium	ND	5.0	1	34082	EPA 6010A	05/21/97
Chromium (total)	ND	10	1	34082	EPA 6010A	05/21/97
Cobalt	ND	20	1	34082	EPA 6010A	05/21/97
Copper	12	10	1	34082	EPA 6010A	05/21/97
Lead	ND	3.0	1	34082	EPA 6010A	05/21/97
Mercury	ND	0.20	1	34208	EPA 7470	05/29/97
Molybdenum	ND	20	1	34082	EPA 6010A	05/21/97
Nickel	ND	20	1	34082	EPA 6010A	05/21/97
Selenium	34	5.0	1	34082	EPA 6010A	05/21/97
Silver	ND	5.0	1	34082	EPA 6010A	05/21/97
Thallium	ND	5.0	1	34082	EPA 6010A	05/21/97
Vanadium	ND	10	1	34082	EPA 6010A	05/21/97
Zinc	50	20	1	34082	EPA 6010A	05/21/97

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 129337
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 133.004
LOCATION: 9TH AVE. TERMINAL/KOT

DATE SAMPLED: 05/20/97
DATE RECEIVED: 05/20/97
DATE ANALYZED: 05/21/97
QC BATCH#: 34144

ANALYSIS: HEXAVALENT CHROMIUM
METHOD REFERENCE: EPA 7196A

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
129337-001	SCIMW-29	ND	mg/L	0.01
METHOD BLANK	N/A	ND	mg/L	0.01

ND = Not detected at or above the reporting limit.

QA/QC SUMMARY: LCS/SAMPLE DUPLICATE OF 129337-001

RPD, %	<1
RECOVERY,%	103

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129337

DATE REPORTED: 06/03/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	ug/L	1	34082	EPA 6010A	05/21/97
Arsenic	ND	5	ug/L	1	34082	EPA 6010A	05/21/97
Barium	ND	10	ug/L	1	34082	EPA 6010A	05/21/97
Beryllium	ND	2	ug/L	1	34082	EPA 6010A	05/21/97
Cadmium	ND	5	ug/L	1	34082	EPA 6010A	05/21/97
Chromium (total)	ND	10	ug/L	1	34082	EPA 6010A	05/21/97
Cobalt	ND	20	ug/L	1	34082	EPA 6010A	05/21/97
Copper	ND	10	ug/L	1	34082	EPA 6010A	05/21/97
Lead	ND	3	ug/L	1	34082	EPA 6010A	05/21/97
Mercury	ND	0.2	ug/L	1	34208	EPA 7470	05/29/97
Molybdenum	ND	20	ug/L	1	34082	EPA 6010A	05/21/97
Nickel	ND	20	ug/L	1	34082	EPA 6010A	05/21/97
Selenium	ND	5	ug/L	1	34082	EPA 6010A	05/21/97
Silver	ND	5	ug/L	1	34082	EPA 6010A	05/21/97
Thallium	ND	5	ug/L	1	34082	EPA 6010A	05/21/97
Vanadium	ND	10	ug/L	1	34082	EPA 6010A	05/21/97
Zinc	ND	20	ug/L	1	34082	EPA 6010A	05/21/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129337

DATE REPORTED: 06/03/97

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	500	433	486	ug/L	87	97	80-120	12	35	34082	EPA 6010A	05/21/97
Arsenic	2000	2040	2010	ug/L	102	101	80-120	2	35	34082	EPA 6010A	05/21/97
Barium	2000	2030	2010	ug/L	102	101	80-120	1	35	34082	EPA 6010A	05/21/97
Beryllium	50	51.8	50.8	ug/L	104	102	80-120	2	35	34082	EPA 6010A	05/21/97
Cadmium	50	49	48.1	ug/L	98	96	80-120	2	35	34082	EPA 6010A	05/21/97
Chromium (total)	200	204	198	ug/L	102	99	80-120	3	35	34082	EPA 6010A	05/21/97
Cobalt	500	514	505	ug/L	103	101	80-120	2	35	34082	EPA 6010A	05/21/97
Copper	250	264	262	ug/L	106	105	80-120	1	35	34082	EPA 6010A	05/21/97
Lead	500	490	489	ug/L	98	98	80-120	0	35	34082	EPA 6010A	05/21/97
Mercury	5	5.302	5.187	ug/L	106	104	80-120	2	35	34208	EPA 7470	05/29/97
Molybdenum	400	408	403	ug/L	102	101	80-120	1	35	34082	EPA 6010A	05/21/97
Nickel	500	499	486	ug/L	100	97	80-120	3	35	34082	EPA 6010A	05/21/97
Selenium	2000	1910	1920	ug/L	96	96	80-120	1	35	34082	EPA 6010A	05/21/97
Silver	100	113	107	ug/L	113	107	80-120	6	35	34082	EPA 6010A	05/21/97
Thallium	2000	1970	1940	ug/L	99	97	80-120	2	35	34082	EPA 6010A	05/21/97
Vanadium	500	526	517	ug/L	105	103	80-120	2	35	34082	EPA 6010A	05/21/97
Zinc	500	480	473	ug/L	96	95	80-120	2	35	34082	EPA 6010A	05/21/97

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129337

DATE REPORTED: 06/03/97

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Antimony	129337-001	<60	<60	ug/L	NC	20	34082	EPA 6010A	05/21/97
Barium	129337-001	163	164	ug/L	1	20	34082	EPA 6010A	05/21/97
Beryllium	129337-001	<2	<2	ug/L	NC	20	34082	EPA 6010A	05/21/97
Cadmium	129337-001	<5	<5	ug/L	NC	20	34082	EPA 6010A	05/21/97
Chromium (total)	129337-001	<10	<10	ug/L	NC	20	34082	EPA 6010A	05/21/97
Cobalt	129337-001	<20	<20	ug/L	NC	20	34082	EPA 6010A	05/21/97
Copper	129337-001	12.1	11.7	ug/L	3	20	34082	EPA 6010A	05/21/97
Lead	129337-001	<3	<3	ug/L	NC	20	34082	EPA 6010A	05/21/97
Mercury	129337-001	<0.2	<0.2	ug/L	NC	20	34208	EPA 7470	05/29/97
Molybdenum	129337-001	<20	<20	ug/L	NC	20	34082	EPA 6010A	05/21/97
Nickel	129337-001	<20	<20	ug/L	NC	20	34082	EPA 6010A	05/21/97
Selenium	129337-001	33.6	36.7	ug/L	9	20	34082	EPA 6010A	05/21/97
Silver	129337-001	<5	<5	ug/L	NC	20	34082	EPA 6010A	05/21/97
Thallium	129337-001	<5	<5	ug/L	NC	20	34082	EPA 6010A	05/21/97
Vanadium	129337-001	<10	<10	ug/L	NC	20	34082	EPA 6010A	05/21/97
Zinc	129337-001	49.7	48.5	ug/L	2	20	34082	EPA 6010A	05/21/97

NC = Not Calculable

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129337

DATE REPORTED: 06/03/97

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Antimony	500	129337-001	<60.000	465	ug/L	93	65-135	34082	EPA 6010A	05/21/97
Barium	2000	129337-001	163	2220	ug/L	103	65-135	34082	EPA 6010A	05/21/97
Beryllium	50	129337-001	<2.000	46.9	ug/L	94	65-135	34082	EPA 6010A	05/21/97
Cadmium	50	129337-001	<5.000	42.9	ug/L	86	65-135	34082	EPA 6010A	05/21/97
Chromium (total)	200	129337-001	<10.000	193	ug/L	97	65-135	34082	EPA 6010A	05/21/97
Cobalt	500	129337-001	<20.000	462	ug/L	92	65-135	34082	EPA 6010A	05/21/97
Copper	250	129337-001	12.1	313	ug/L	120	65-135	34082	EPA 6010A	05/21/97
Lead	500	129337-001	<3.000	445	ug/L	89	65-135	34082	EPA 6010A	05/21/97
Mercury	5	129337-001	<0.200	3.842	ug/L	77	65-135	34208	EPA 7470	05/29/97
Molybdenum	400	129337-001	<20.000	376	ug/L	94	65-135	34082	EPA 6010A	05/21/97
Nickel	500	129337-001	<20.000	459	ug/L	92	65-135	34082	EPA 6010A	05/21/97
Selenium	2000	129337-001	33.6	2310	ug/L	114	65-135	34082	EPA 6010A	05/21/97
Silver	100	129337-001	<5.000	112	ug/L	112	65-135	34082	EPA 6010A	05/21/97
Thallium	2000	129337-001	<5.000	1640	ug/L	82	65-135	34082	EPA 6010A	05/21/97
Vanadium	500	129337-001	<10.000	512	ug/L	102	65-135	34082	EPA 6010A	05/21/97
Zinc	500	129337-001	49.7	499	ug/L	90	65-135	34082	EPA 6010A	05/21/97

CHAIN OF CUSTODY FORM

129337

PAGE 1 OF

PROJECT NAME: 9th Ave. Terminal

JOB NUMBER: 133.004 LAB: Curtis & Tompkins

PROJECT CONTACT: Jerome De Vernier TURNAROUND: Normal

SAMPLED BY: Dennis Alexander REQUESTED BY: Jerome De Verneil

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	HGNEMAOH	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TVH/BTXE	TEH & diesel + motor oil	8240	O+G	Heavy Metals	Hexachromium	Cyanide
1	SCIMW-29	X						7	5					X			X	X	05	20	97	1330	*	X	X	X	X	X	X	X	

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	5/20/97 2:23 p.m.		5/20/97 14:30
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES: * filter & fix for metals analysis

Note some turnaround times are immediate. (Same day)

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 • FAX: 510-268-0137

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

A N A L Y T I C A L R E P O R T

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 02-JUN-97
Lab Job Number: 129350
Project ID: 133.004
Location: 9th Ave. Terminal/KOT

Reviewed by: _____

Reviewed by: _____

CLIENT: Subsurface Consultants
PROJECT ID: 133.004
LOCATION: 9th Ave. Terminal/KOT
MATRIX: WET Leachate

DATE REPORTED: 06/02/97

Metals Analytical Report

				Lead					
Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
SCITP-25@1.5	129350-001	04/28/97	05/21/97	15000	150	10	34149	EPA 6010A	05/28/97
SCITP-26@3.0	129350-002	04/28/97	05/21/97	16000	150	10	34149	EPA 6010A	05/28/97

Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129350

DATE REPORTED: 06/02/97

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Lead	ND	150	ug/L	10	34149	EPA 6010A	05/27/97

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 129350

DATE REPORTED: 06/02/97

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
Lead	500	510	510	ug/L	102	102	80-120	0	35	34149	EPA 6010A	05/27/97

129350

CHAIN OF CUSTODY FORM

PAGE

PROJECT NAME: 9th Avenue Terminal

JOB NUMBER: 133.004

LAB: C&T

PROJECT CONTACT: Jeanne LC Urmier

TURNAROUND: Standard

SAMPLED BY: JD

REQUESTED BY: JD

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	MATRIX: SOIL	MATRIX: WASTE	MATRIX: AIR	MATRIX:	MATRIX:	CONTAINERS: VOA	CONTAINERS: LITER	CONTAINERS: PINT	CONTAINERS: TUBE	CONTAINERS: baggy	METHOD PRESERVED: HCL	METHOD PRESERVED: H_2SO_4	METHOD PRESERVED: HNO_3	METHOD PRESERVED: ICE	METHOD PRESERVED: NONE	SAMPLING DATE: MONTH	SAMPLING DATE: DAY	SAMPLING DATE: YEAR	SAMPLING DATE: TIME	NOTES	ANALYSIS REQUESTED: STLC - Lead
-1	SCITP-25ⓐ 1.5		X									X					X	04	28	97	—	*	X
-2	SCITP-26ⓐ 3.0		X									X					X	04	28	97	→	*	X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Jeanne [signature]	5/2/97 12:28		
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
		Tracy Babjar	5/2/97 12:28

COMMENTS & NOTES:

* Samples not refrigerated.

Subsurface Consultants, Inc.
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