Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: mb0504.d
Lab Smp Id: MB0504
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-

Calibration Date: 04-MAY-2011
Calibration Time: 10:45
Client Smp ID: MB0504
Level: LOW
Sample Type: WATER

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	363407	181704	726814	288519	-20.61
7 1,4-Difluorobenze	667797	333898	1335594	540873	-19.01

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.33	4.83	5.83	5.32	-0.02
7 1,4-Difluorobenze	5.75	5.25	6.25	5.76	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 04MAY2011
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: MB0504 Client Smp ID: MB0504
Level: LOW Operator: PC
Data Type: MS DATA SampleType: BLANK
SpikeList File: special.spk Quant Type: ISTD
Sublist File: sim12dca.sub
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-

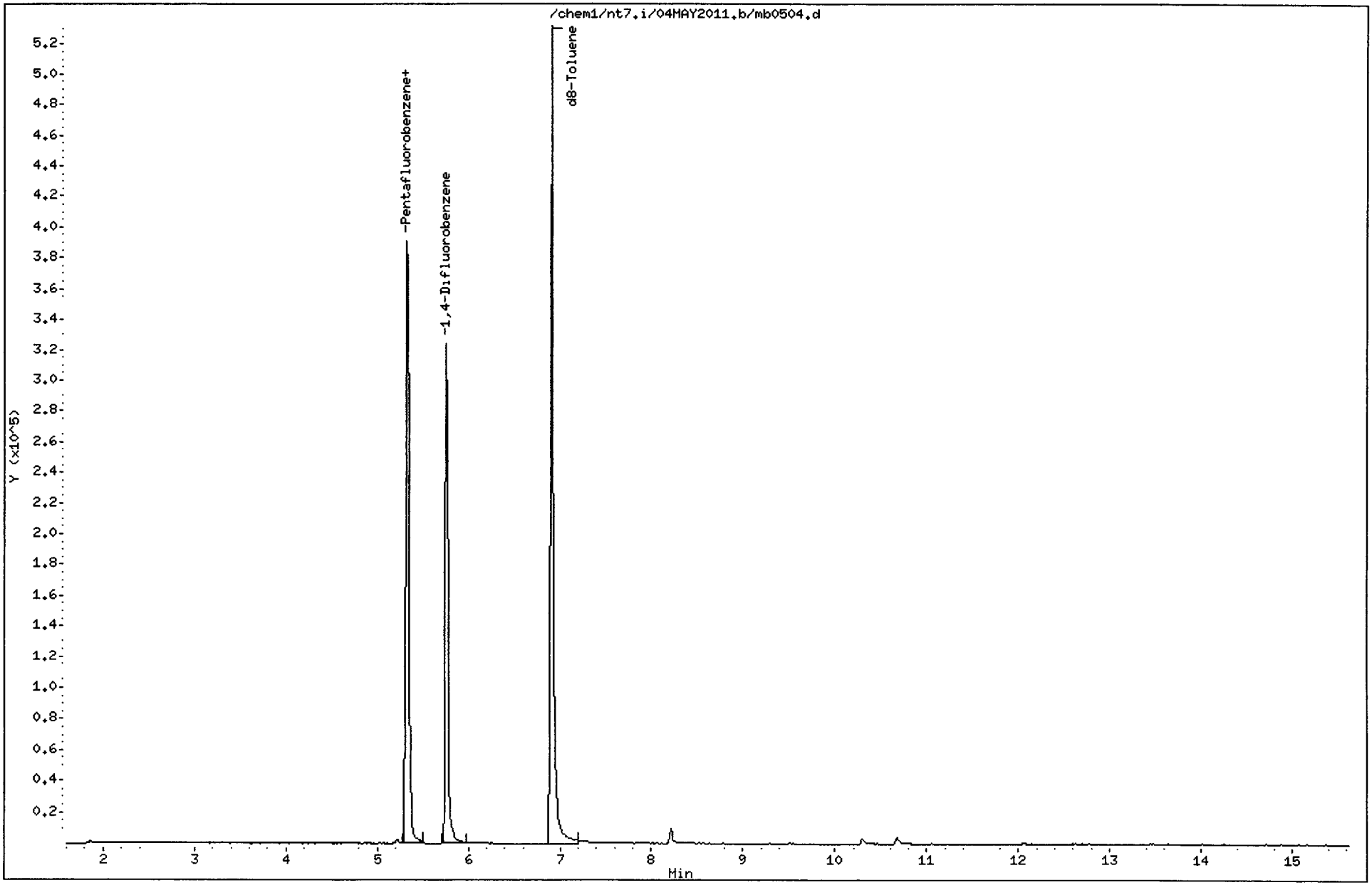
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	1038.7	103.87	80-126
$ 9 d8-Toluene	1000.0	974.08	97.41	80-120

Data File: /chem1/nt7.i/04MAY2011.b/mb0504.d
Date : 04-MAY-2011 12:13
Client ID: MB0504
Sample Info: MB0504,10,10,0,,

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS



CO-ELUTION SUMMARY FOR FILE - mb0504.d

Lab ID: MB0504, Method: sim042611.m, Instrument: nt7.i, Date: 04-MAY-2011

RT	CO-ELUTION COMPOUNDS

PC 5/5/11

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/04MAY2011.b/su73c.d
Lab Smp Id: SU73C Client Smp ID: TB-042911
Inj Date : 04-MAY-2011 13:12
Operator : PC Inst ID: nt7.i
Smp Info : SU73C,10,10,0,,
Misc Info : 11-9764
Comment :
Method : /chem1/nt7.i/04MAY2011.b/sim042611.m
Meth Date : 05-May-2011 11:15 paul Quant Type: ISTD
Cal Date : 26-APR-2011 15:00 Cal File: 0426019.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim12dca.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/L)	FINAL (ug/L)
	1 Vinyl Chloride	62	Compound Not Detected.					
	2 1,1-Dichloroethene	96	Compound Not Detected.					
	175 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	3 cis-1,2-dichloroethene	96	Compound Not Detected.					
	6 Benzene	78	Compound Not Detected.					
*	4 Pentafluorobenzene	168	5.324	5.326	(1.000)	318932	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.333	5.335	(1.002)	280493	975.944	975.94
	176 1,2-Dichloroethane	62	Compound Not Detected.					
	8 Trichloroethene	130	Compound Not Detected.					
*	7 1,4-Difluorobenzene	114	5.755	5.754	(1.000)	579037	1000.00	
$	9 d8-Toluene	98	6.913	6.913	(1.201)	731399	991.534	991.53
	10 Tetrachloroethene	166	Compound Not Detected.					
	11 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: su73c.d
Lab Smp Id: SU73C
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9764

Calibration Date: 04-MAY-2011
Calibration Time: 10:45
Client Smp ID: TB-042911
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	363407	181704	726814	318932	-12.24
7 1,4-Difluorobenze	667797	333898	1335594	579037	-13.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.33	4.83	5.83	5.32	-0.04
7 1,4-Difluorobenze	5.75	5.25	6.25	5.75	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Client SDG: SU73
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id: SU73C
Client Smp ID: TB-042911
Level: LOW
Operator: PC
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: special.spk
Quant Type: ISTD
Sublist File: sim12dca.sub
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9764

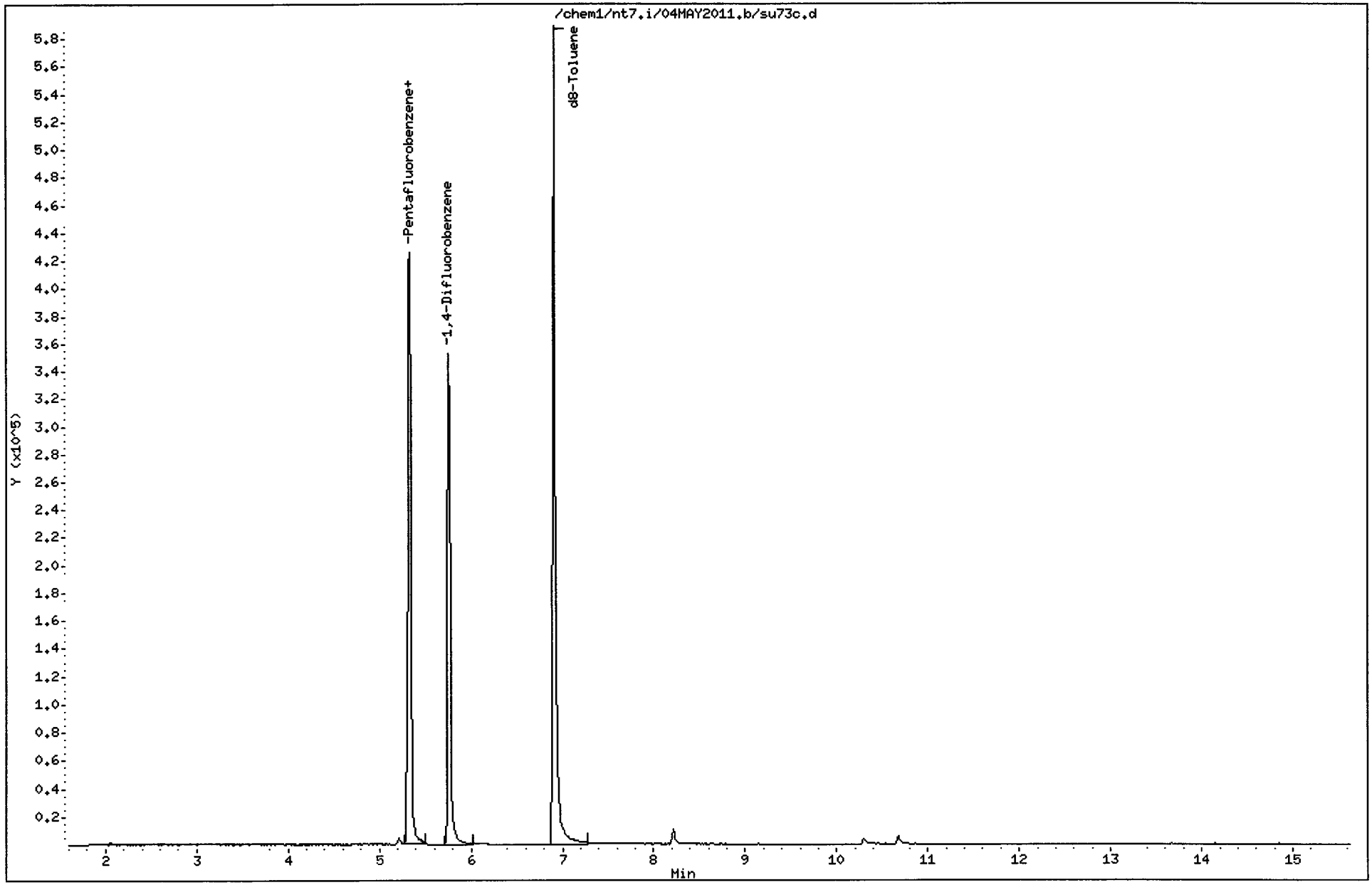
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	975.94	97.59	80-126
$ 9 d8-Toluene	1000.0	991.53	99.15	80-120

Data File: /chem1/nt7.i/04MAY2011.b/su73c.d
Date : 04-MAY-2011 13:12
Client ID: TB-042911
Sample Info: SU73C,10,10,0,,

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS



CO-ELUTION SUMMARY FOR FILE - su73c.d

Lab ID: SU73C, Method: sim042611.m, Instrument: nt7.i, Date: 04-MAY-2011

RT	CO-ELUTION COMPOUNDS

PC 5/5/11

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/04MAY2011.b/su53a2.d
Lab Smp Id: SU53A Client Smp ID: MW5042811
Inj Date : 04-MAY-2011 14:55
Operator : PC Inst ID: nt7.i
Smp Info : SU53A,10,10,0,,
Misc Info : 11-9621
Comment :
Method : /chem1/nt7.i/04MAY2011.b/sim042611.m
Meth Date : 05-May-2011 11:15 paul Quant Type: ISTD
Cal Date : 26-APR-2011 15:00 Cal File: 0426019.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim12dca.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

		QUANT SIG					CONCENTRATIONS	
	Compounds	MASS	RT	EXP RT REL RT	RESPONSE	ON-COLUMN (ng/L)	FINAL (ug/L)
	1 Vinyl Chloride	62	Compound Not Detected.				
	2 1,1-Dichloroethene	96	Compound Not Detected.				
	175 Trans-1,2-Dichloroethene	96	Compound Not Detected.				
	3 cis-1,2-dichloroethene	96	Compound Not Detected.				
	6 Benzene	78	Compound Not Detected.				
*	4 Pentafluorobenzene	168	5.325	5.326 (1.000)	284721	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.334	5.335 (1.002)	269195	1049.18	1049.2
	176 1,2-Dichloroethane	62	Compound Not Detected.				
	8 Trichloroethene	130	Compound Not Detected.				
*	7 1,4-Difluorobenzene	114	5.765	5.754 (1.000)	537725	1000.00	
$	9 d8-Toluene	98	6.914	6.913 (1.199)	670459	978.748	978.75
	10 Tetrachloroethene	166	Compound Not Detected.				
	11 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.				

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: su53a2.d
Lab Smp Id: SU53A
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9621

Calibration Date: 04-MAY-2011
Calibration Time: 10:45
Client Smp ID: MW5042811
Level: LOW
Sample Type: Groundwater

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	363407	181704	726814	284721	-21.65
7 1,4-Difluorobenze	667797	333898	1335594	537725	-19.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.33	4.83	5.83	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.77	0.19

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Client SDG: SU53
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id: SU53A
Client Smp ID: MW5042811
Level: LOW
Operator: PC
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: special.spk
Quant Type: ISTD
Sublist File: sim12dca.sub
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9621

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	1049.2	104.92	80-126
$ 9 d8-Toluene	1000.0	978.75	97.87	80-120

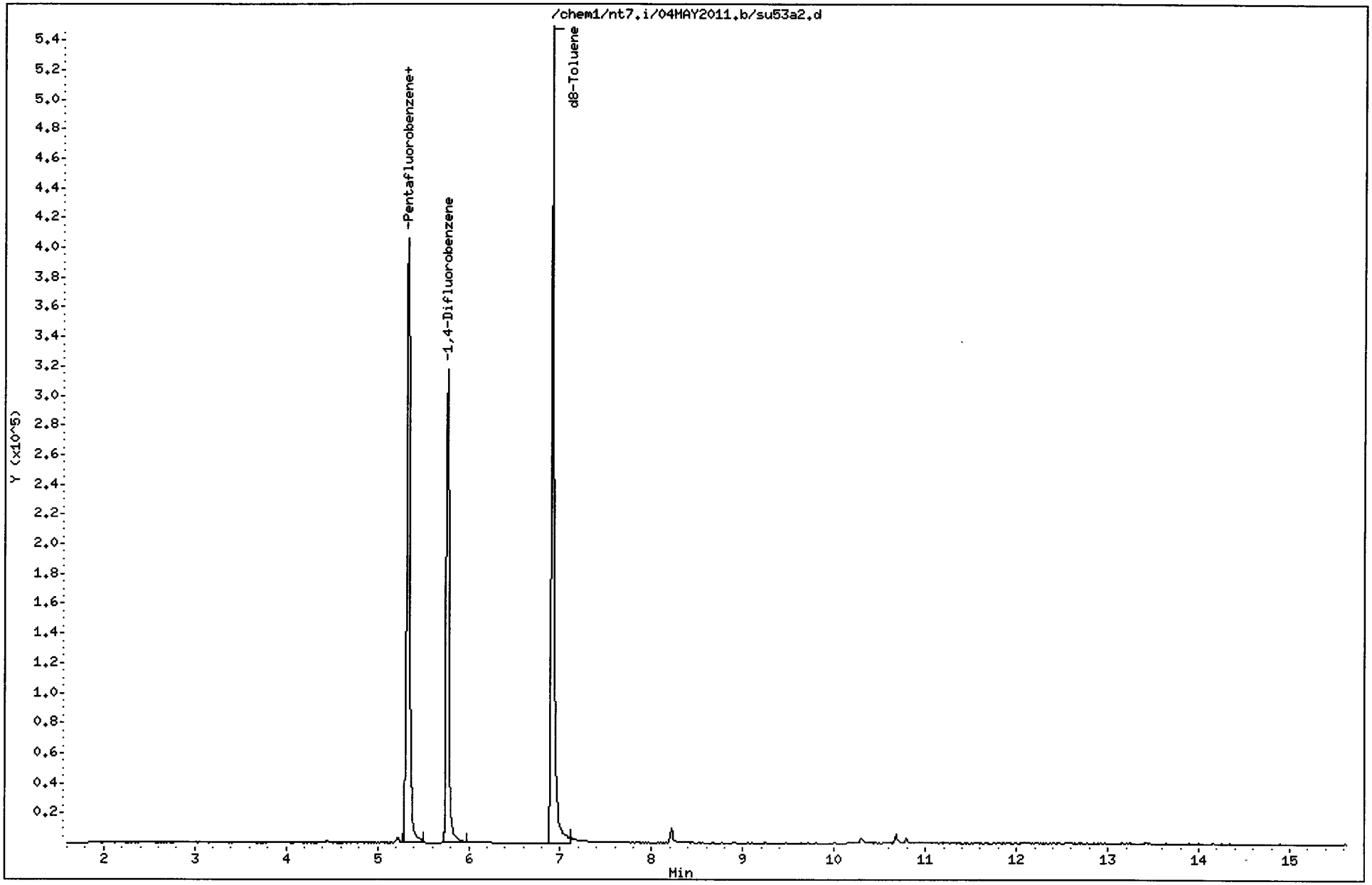
Data File: /chem1/nt7.i/04MAY2011.b/su53a2.d
Date : 04-MAY-2011 14:55
Client ID: MW5042811
Sample Info: SU53A,10,10,0,,

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS

3005 SU53:601811



CO-ELUTION SUMMARY FOR FILE - su53a2.d

Lab ID: SU53A, Method: sim042611.m, Instrument: nt7.i, Date: 04-MAY-2011

RT	CO-ELUTION COMPOUNDS

PC 5/5/11

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/04MAY2011.b/su53f3.d
Lab Smp Id: SU53F Client Smp ID: MW16042811
Inj Date : 04-MAY-2011 16:09
Operator : PC Inst ID: nt7.i
Smp Info : SU53F,10,10,0,,
Misc Info : 11-9626
Comment :
Method : /chem1/nt7.i/04MAY2011.b/sim042611.m
Meth Date : 05-May-2011 11:15 paul Quant Type: ISTD
Cal Date : 26-APR-2011 15:00 Cal File: 0426019.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim12dca.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/L)	FINAL (ug/L)
	1 Vinyl Chloride	62	Compound Not Detected.					
	2 1,1-Dichloroethene	96	Compound Not Detected.					
	175 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	3 cis-1,2-dichloroethene	96	Compound Not Detected.					
	6 Benzene	78	Compound Not Detected.					
*	4 Pentafluorobenzene	168	5.324	5.326	(1.000)	329558	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.334	5.335	(1.002)	281268	947.087	947.09
	176 1,2-Dichloroethane	62	Compound Not Detected.					
	8 Trichloroethene	130	Compound Not Detected.					
*	7 1,4-Difluorobenzene	114	5.768	5.754	(1.000)	559059	1000.00	
$	9 d8-Toluene	98	6.914	6.913	(1.199)	689254	967.788	967.79
	10 Tetrachloroethene	166	Compound Not Detected.					
	11 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: su53f3.d
Lab Smp Id: SU53F
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9626

Calibration Date: 04-MAY-2011
Calibration Time: 10:45
Client Smp ID: MW16042811
Level: LOW
Sample Type: Groundwater

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	363407	181704	726814	329558	-9.31
7 1,4-Difluorobenze	667797	333898	1335594	559059	-16.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.33	4.83	5.83	5.32	-0.02
7 1,4-Difluorobenze	5.75	5.25	6.25	5.77	0.24

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Client SDG: SU53
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id: SU53F
Client Smp ID: MW16042811
Level: LOW
Operator: PC
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: special.spk
Quant Type: ISTD
Sublist File: sim12dca.sub
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9626

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	947.09	94.71	80-126
$ 9 d8-Toluene	1000.0	967.79	96.78	80-120

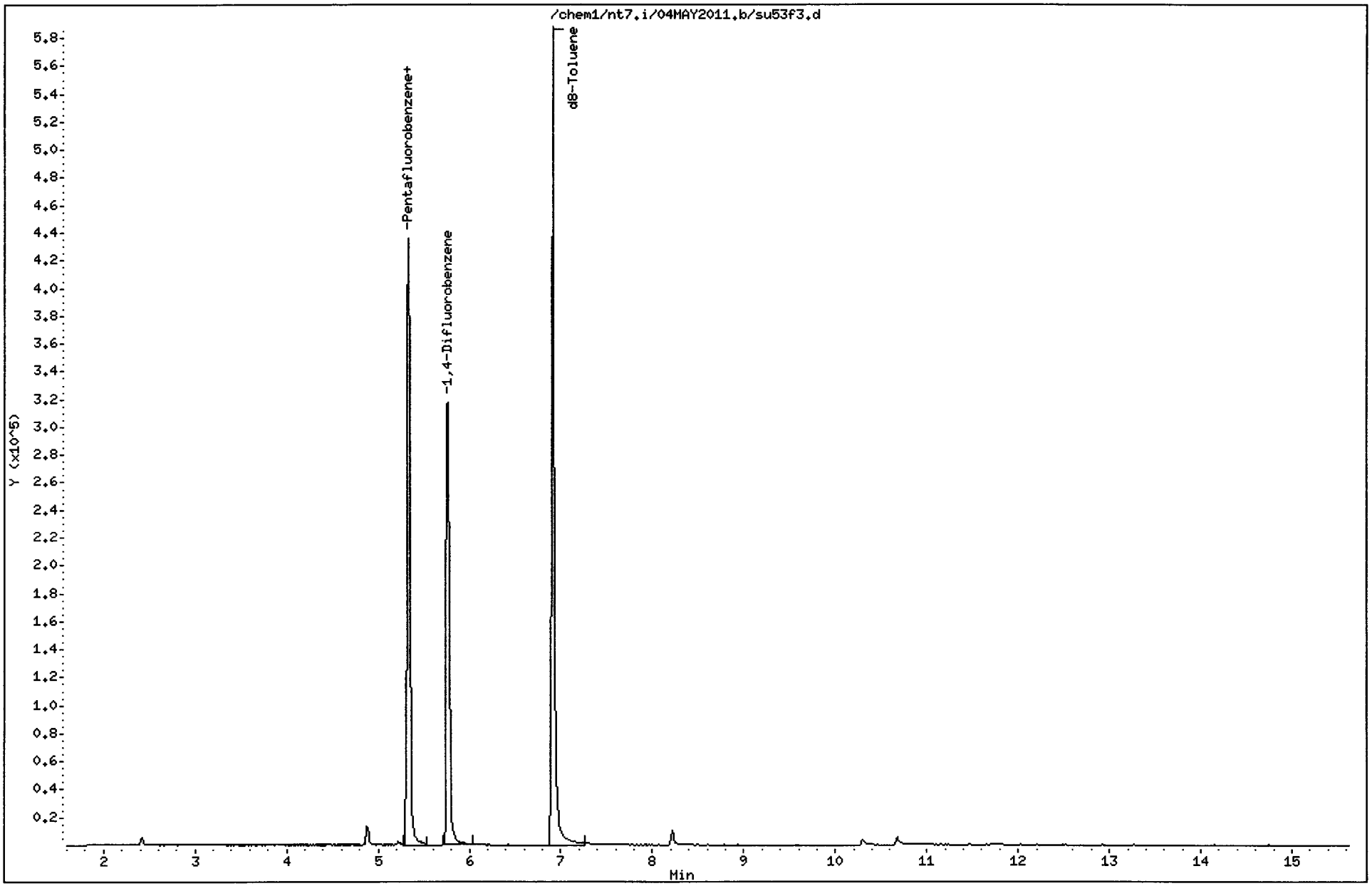
Data File: /chem1/nt7.i/04MAY2011.b/su53f3.d
Date : 04-MAY-2011 16:09
Client ID: MW16042811
Sample Info: SU53F,10,10,0,,

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS

SU53:00489 3010



CO-ELUTION SUMMARY FOR FILE - su53f3.d

Lab ID: SU53F, Method: sim042611.m, Instrument: nt7.i, Date: 04-MAY-2011

RT	CO-ELUTION COMPOUNDS

PC 5/5/11

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/04MAY2011.b/su73a.d
Lab Smp Id: SU73A Client Smp ID: MW-01-042911
Inj Date : 04-MAY-2011 16:35
Operator : PC Inst ID: nt7.i
Smp Info : SU73A,10,10,0,,
Misc Info : 11-9762
Comment :
Method : /chem1/nt7.i/04MAY2011.b/sim042611.m
Meth Date : 05-May-2011 11:15 paul Quant Type: ISTD
Cal Date : 26-APR-2011 15:00 Cal File: 0426019.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim12dca.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/L)	FINAL (ug/L)
	1 Vinyl Chloride	62	1.553	1.551	(0.292)	12151	33.7319	33.732
	2 1,1-Dichloroethene	96	Compound Not Detected.					
	175 Trans-1,2-Dichloroethene	96	3.294	3.290	(0.619)	11939	41.0034	41.003
	3 cis-1,2-dichloroethene	96	4.444	4.439	(0.834)	48940	157.431	157.43
	6 Benzene	78	5.221	5.212	(0.906)	497329	352.357	352.36
*	4 Pentafluorobenzene	168	5.325	5.326	(1.000)	327319	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.334	5.335	(1.002)	287397	974.345	974.34
	176 1,2-Dichloroethane	62	5.391	5.383	(1.012)	12996	27.8765	27.876
	8 Trichloroethene	130	5.719	5.720	(0.992)	29385	121.570	121.57(Q)
*	7 1,4-Difluorobenzene	114	5.765	5.754	(1.000)	616507	1000.00	
$	9 d8-Toluene	98	6.914	6.913	(1.199)	776294	988.432	988.43
	10 Tetrachloroethene	166	7.283	7.270	(1.263)	2746	14.7273	14.727
	11 1,1,2,2-Tetrachloroethane	83	9.423	9.457	(1.635)	3314	14.8415	14.841(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: su73a.d
Lab Smp Id: SU73A
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9762

Calibration Date: 04-MAY-2011
Calibration Time: 10:45
Client Smp ID: MW-01-042911
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	363407	181704	726814	327319	-9.93
7 1,4-Difluorobenze	667797	333898	1335594	616507	-7.68

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.33	4.83	5.83	5.32	-0.01
7 1,4-Difluorobenze	5.75	5.25	6.25	5.77	0.19

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Client SDG: SU73
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id: SU73A
Client Smp ID: MW-01-042911
Level: LOW
Operator: PC
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: special.spk
Quant Type: ISTD
Sublist File: sim12dca.sub
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9762

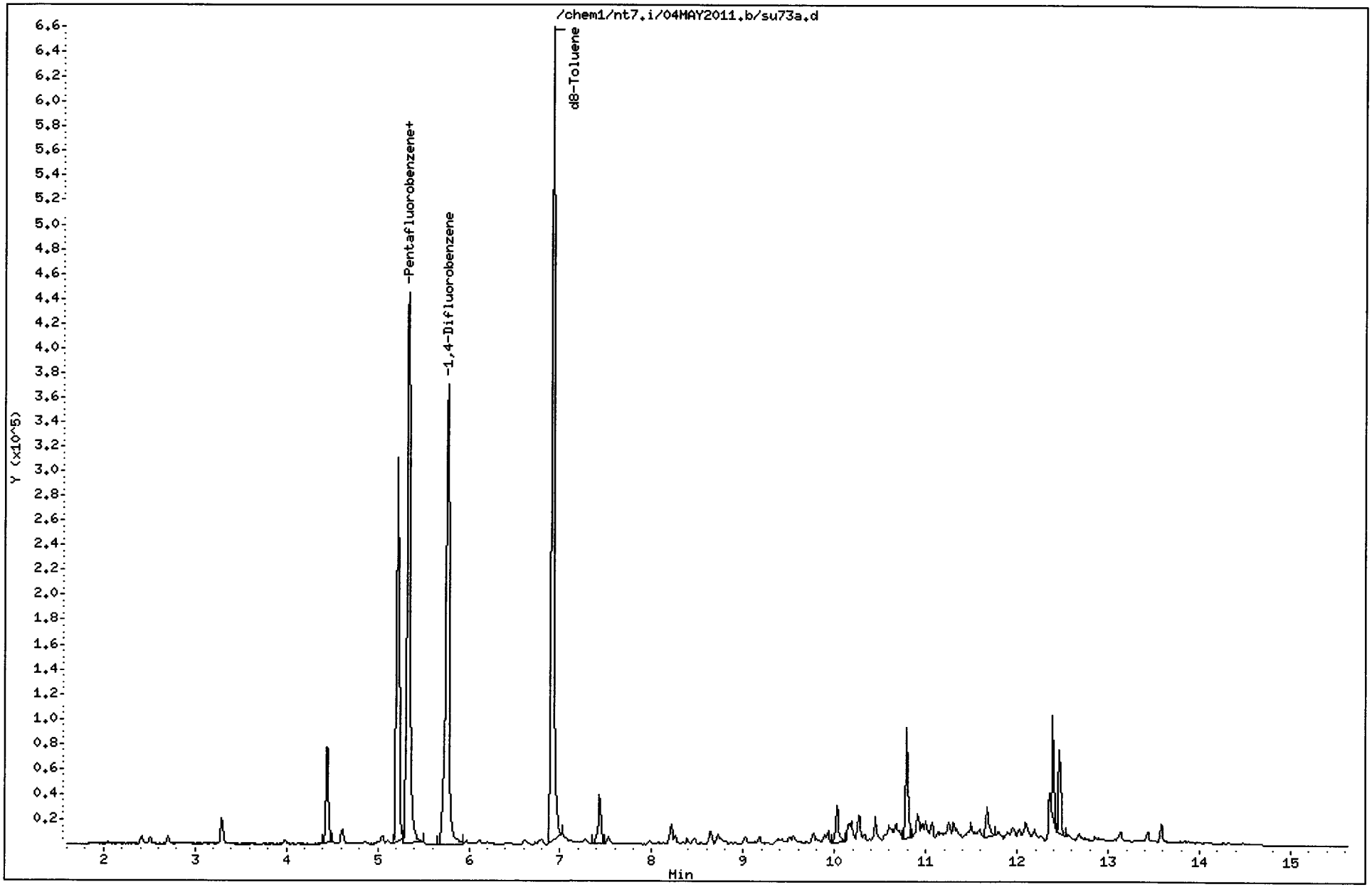
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	974.34	97.43	80-126
$ 9 d8-Toluene	1000.0	988.43	98.84	80-120

Data File: /chem1/nt7.i/04MAY2011.b/su73a.d
Date : 04-MAY-2011 16:35
Client ID: MW-01-042911
Sample Info: SU73A,10,10,0,,

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS



Data File: /chem1/nt7.i/04MAY2011.b/su73a.d

Date : 04-MAY-2011 16:35

Client ID: MW-01-042911

Instrument: nt7.i

Sample Info: SU73A,10,10,0,,

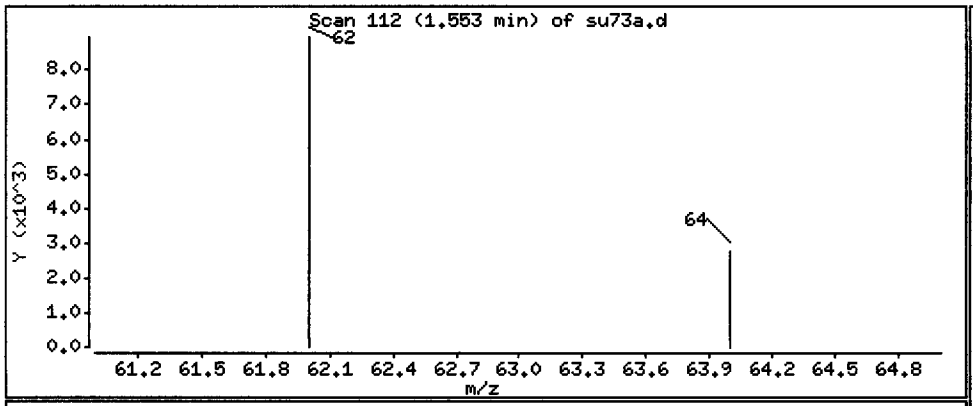
Operator: PC

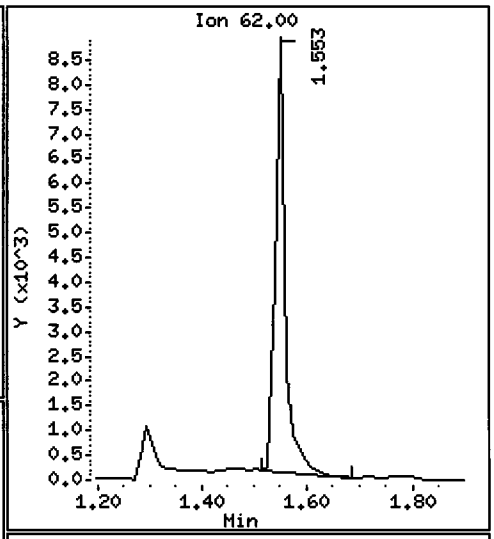
Column phase: RTXVMS

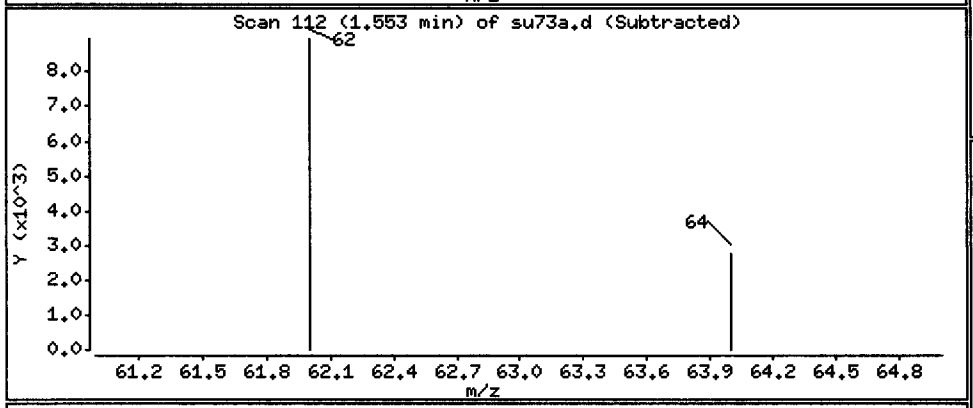
Column diameter: 0.18

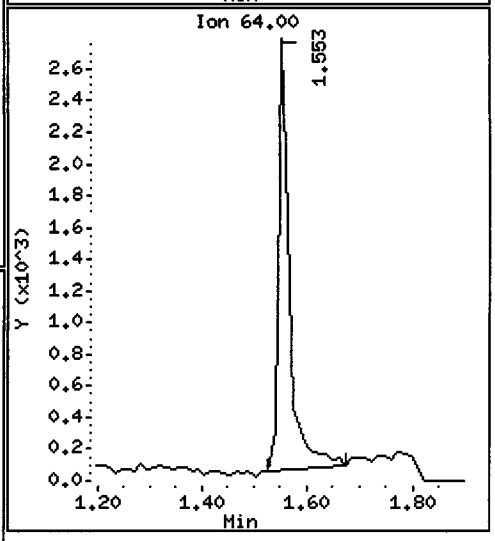
1 Vinyl Chloride

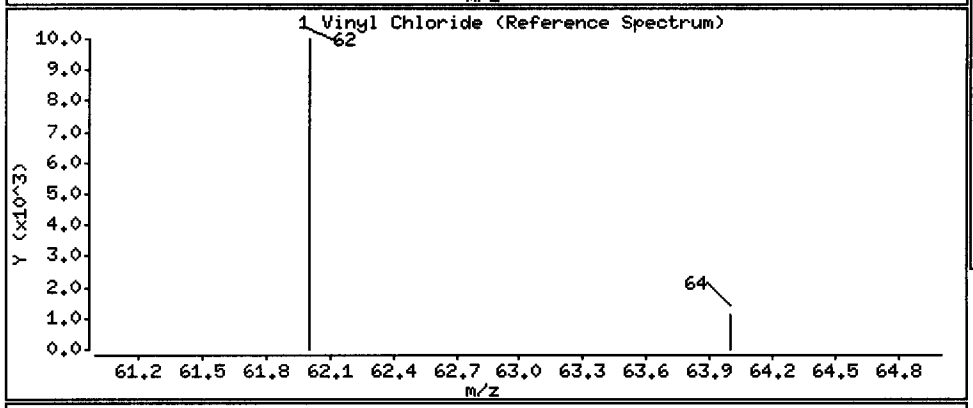
Concentration: 33.732 ug/L

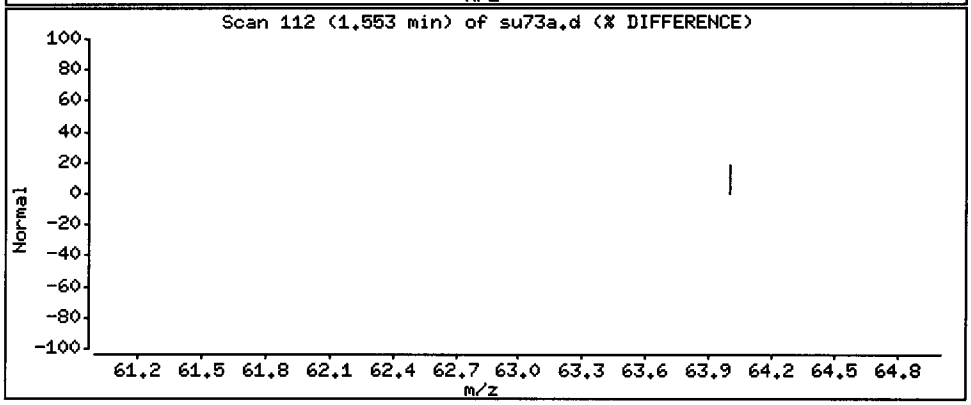












Data File: /chem1/nt7.i/04MAY2011.b/su73a.d

Date : 04-MAY-2011 16:35

Client ID: MW-01-042911

Instrument: nt7.i

Sample Info: SU73A,10,10,0,,

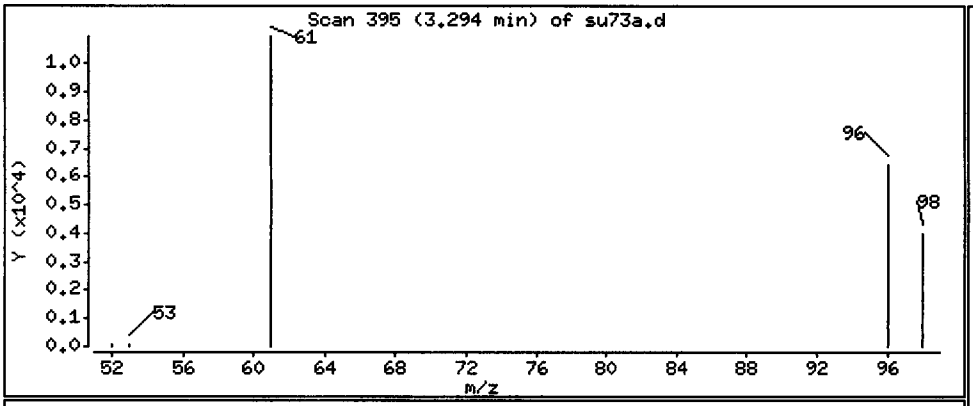
Operator: PC

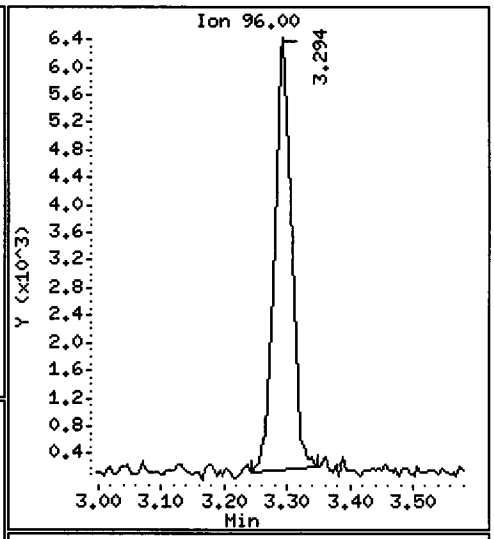
Column phase: RTXVMS

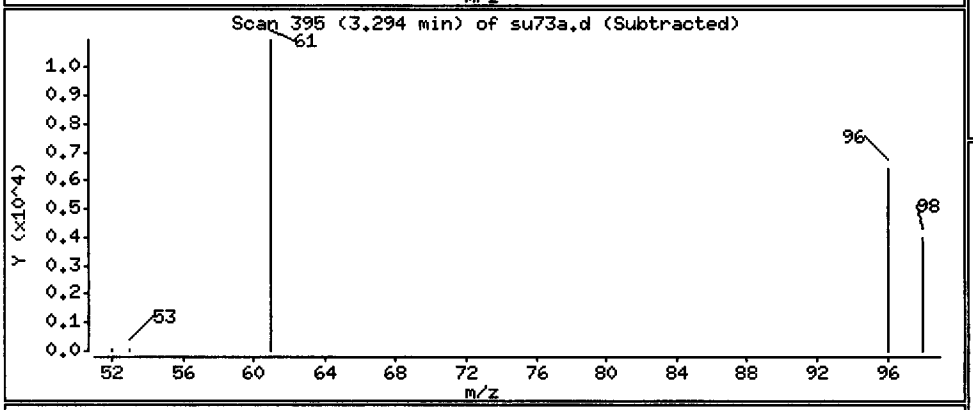
Column diameter: 0.18

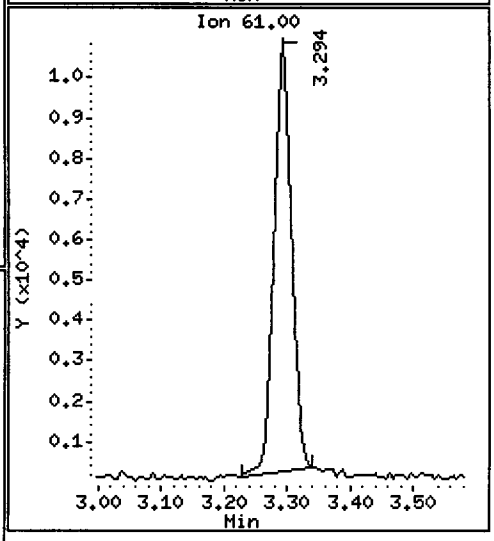
175 Trans-1,2-Dichloroethene

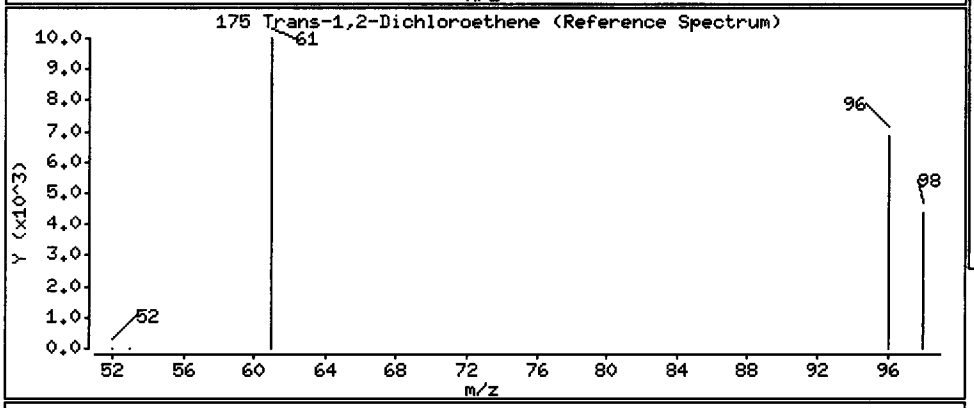
Concentration: 41.003 ug/L

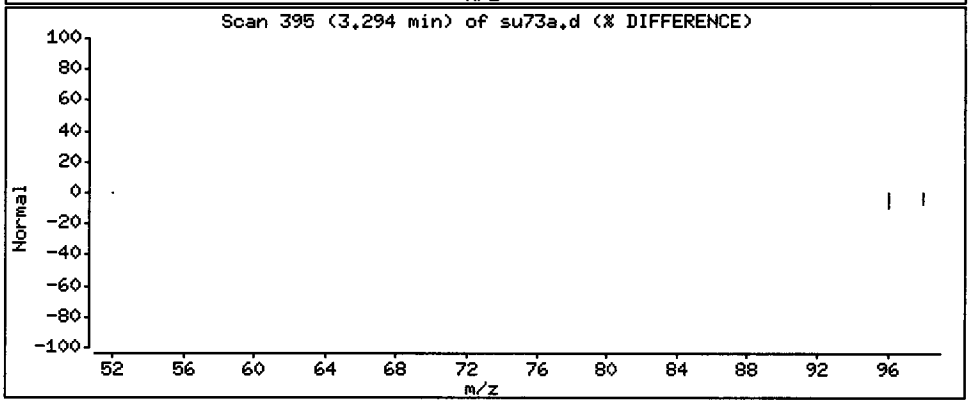












Data File: /chem1/nt7.i/04MAY2011.b/su73a.d

Date : 04-MAY-2011 16:35

Client ID: MW-01-042911

Instrument: nt7.i

Sample Info: SU73A,10,10,0,,

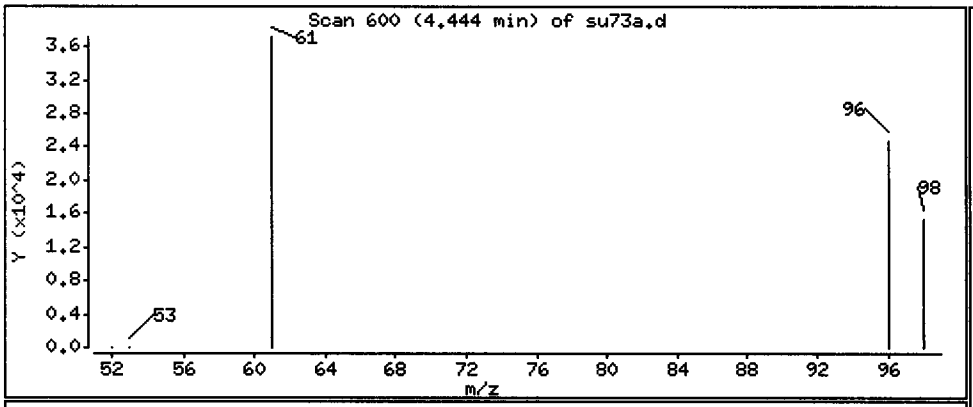
Operator: PC

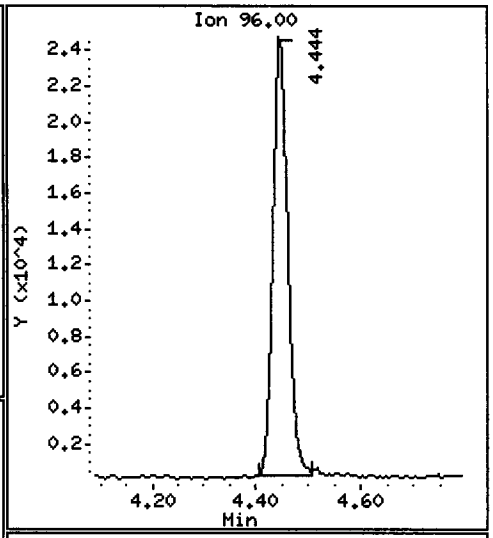
Column phase: RTXVMS

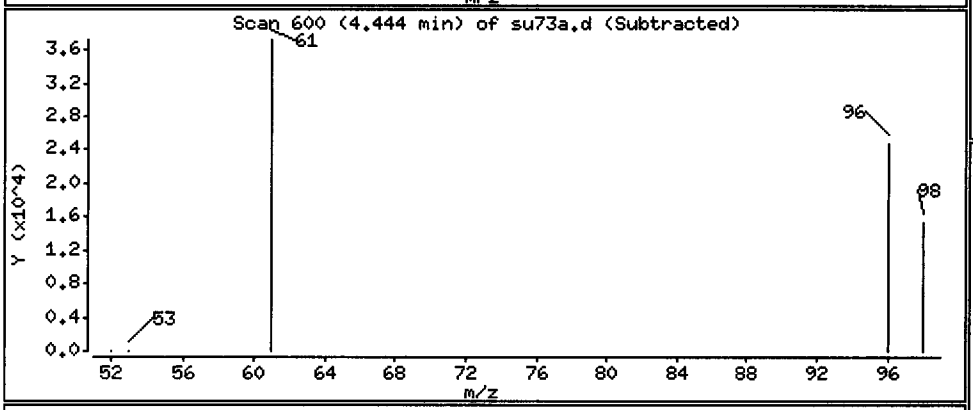
Column diameter: 0.18

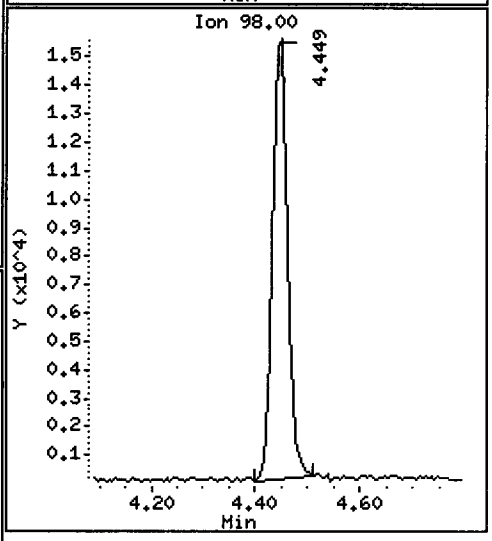
3 cis-1,2-dichloroethene

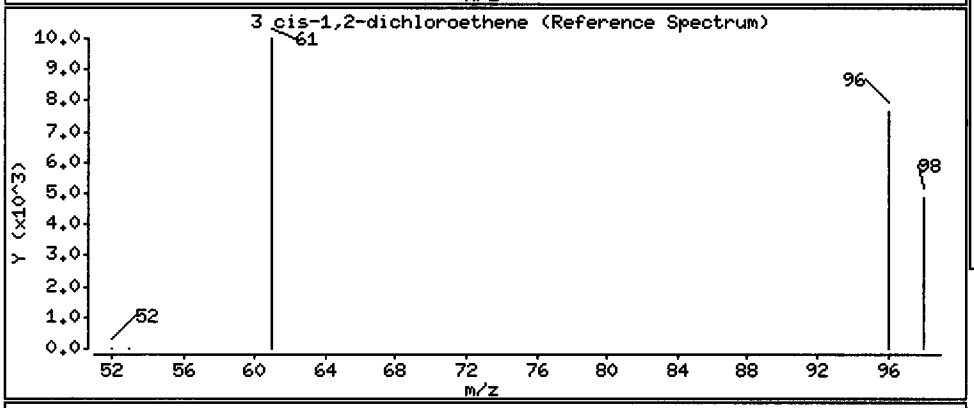
Concentration: 157.43 ug/L

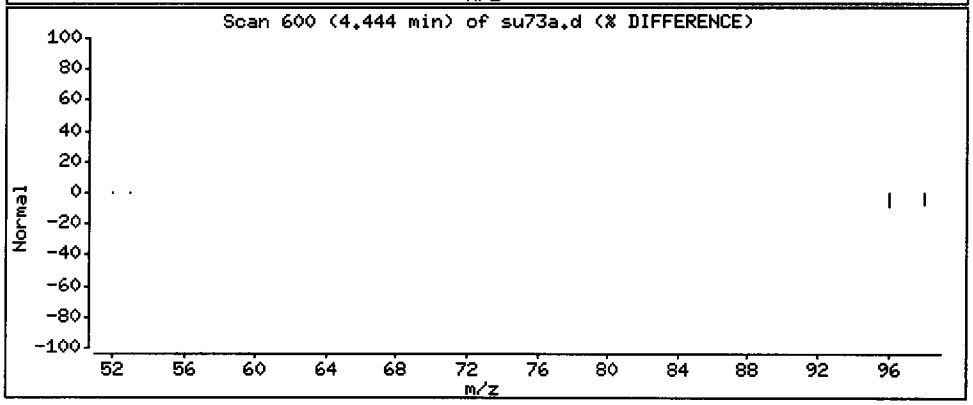












Data File: /chem1/nt7.i/04MAY2011.b/su73a.d

Date : 04-MAY-2011 16:35

Client ID: MW-01-042911

Instrument: nt7.i

Sample Info: SU73A,10,10,0,,

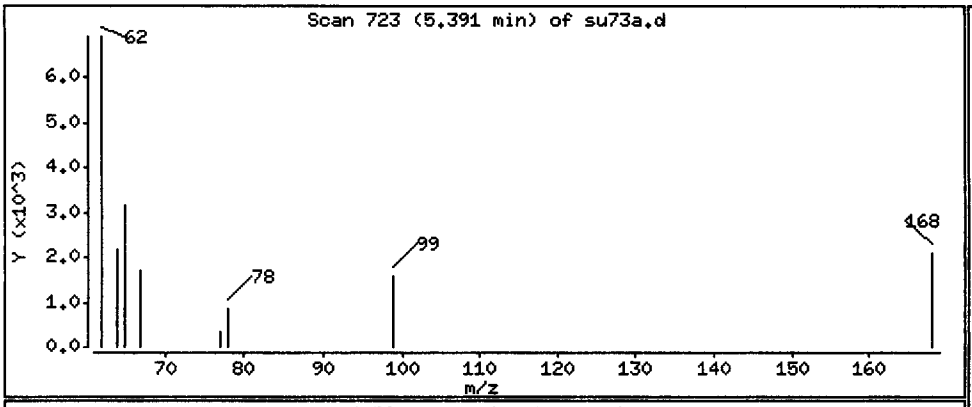
Operator: PC

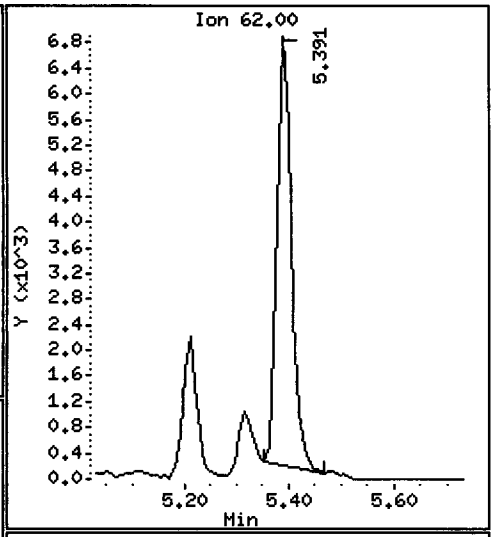
Column phase: RTXVMS

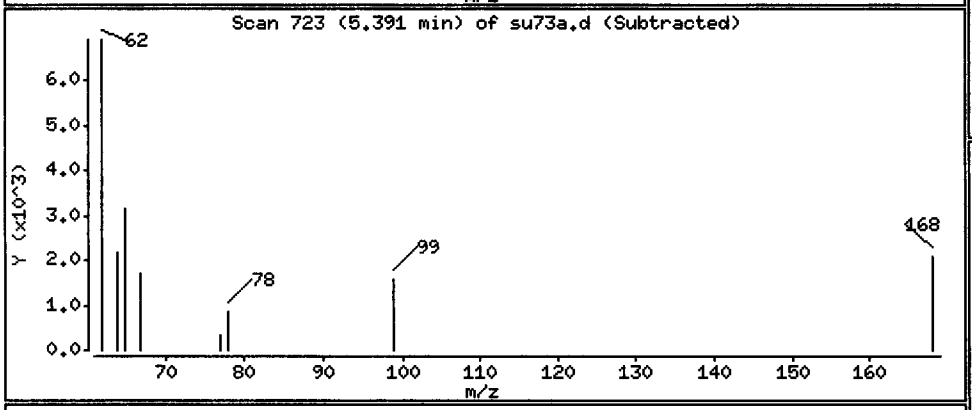
Column diameter: 0.18

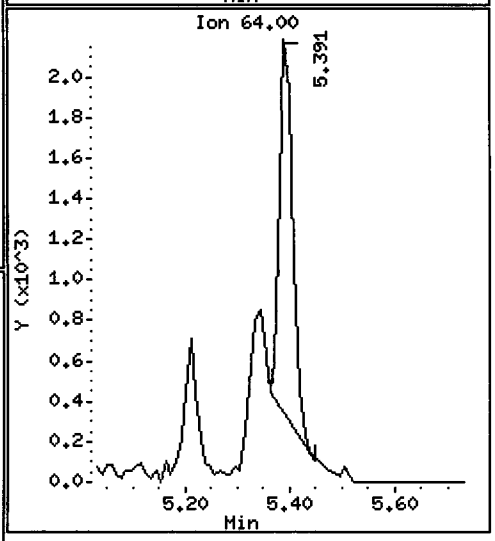
176 1,2-Dichloroethane

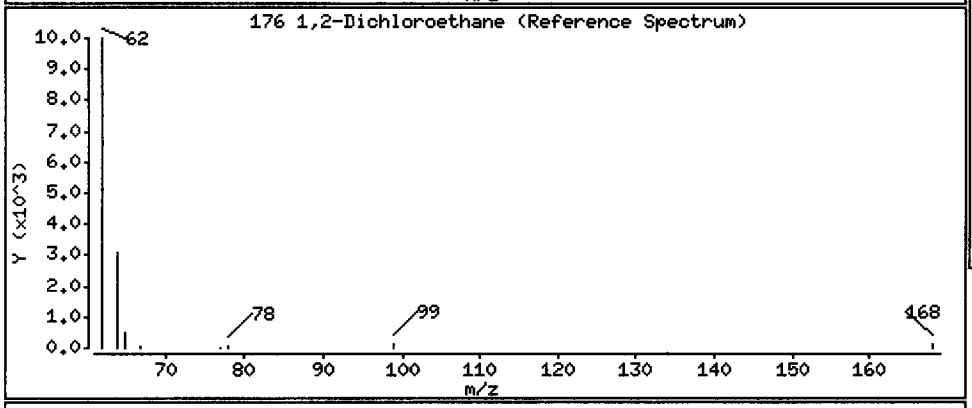
Concentration: 27.876 ug/L

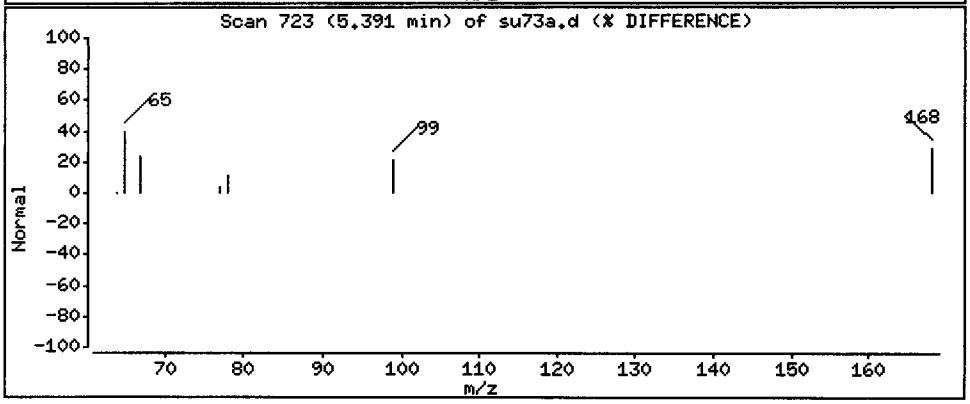












Data File: /chem1/nt7.i/04MAY2011.b/su73a.d

Date : 04-MAY-2011 16:35

Client ID: MW-01-042911

Instrument: nt7.i

Sample Info: SU73A,10,10,0,,

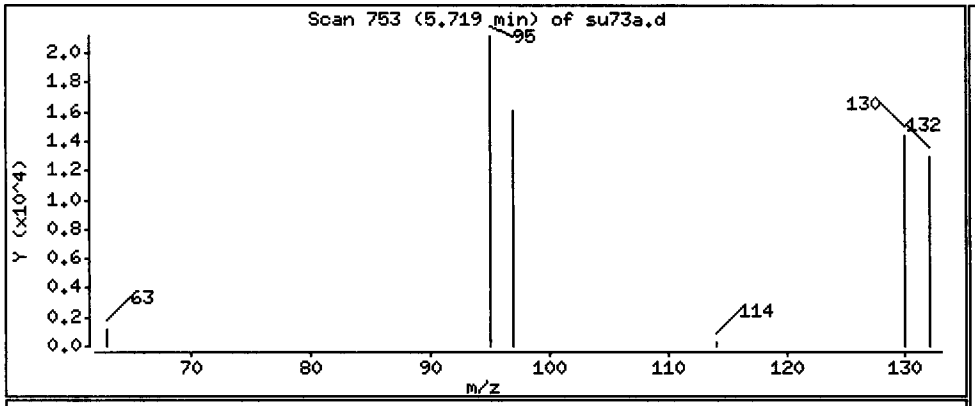
Operator: PC

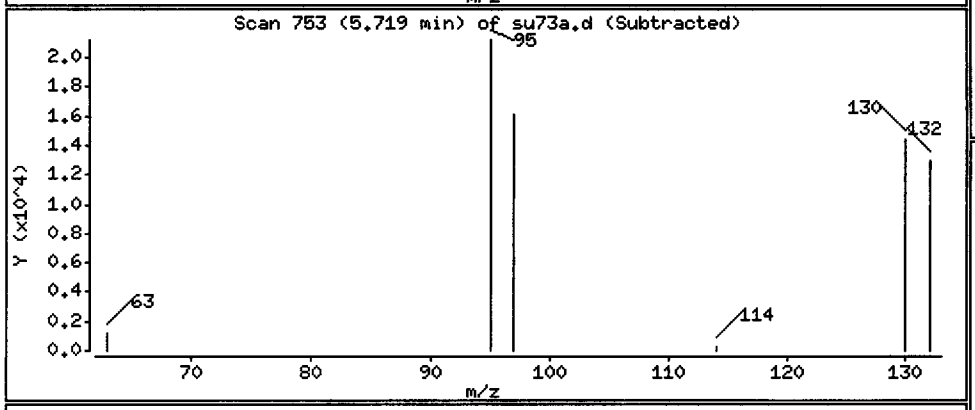
Column phase: RTXVMS

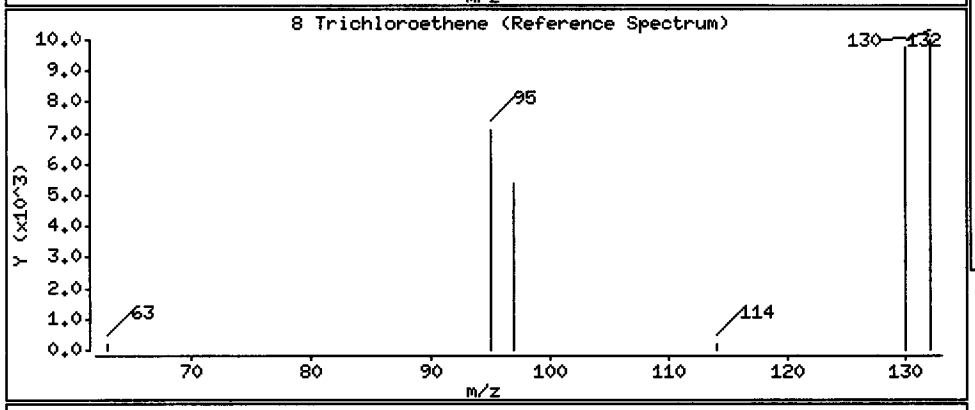
Column diameter: 0.18

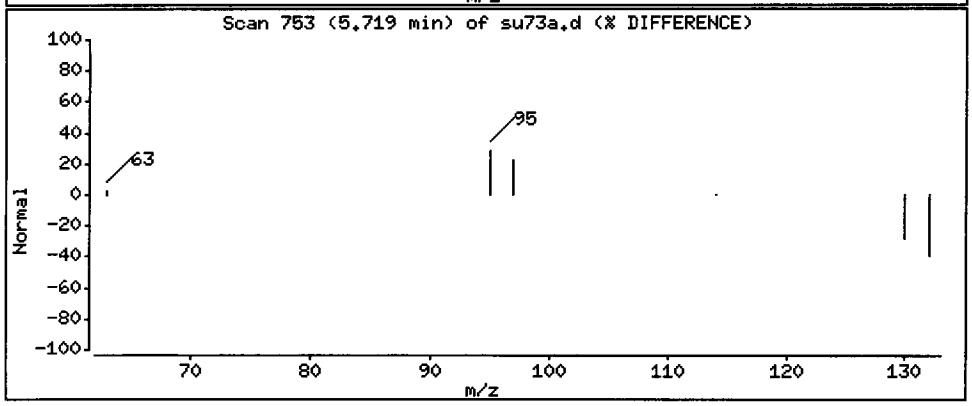
8 Trichloroethene

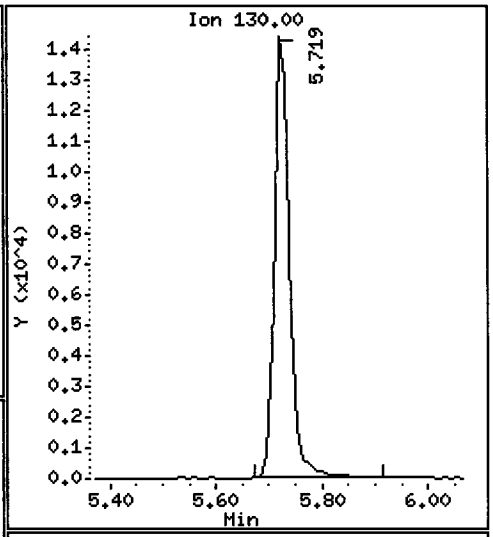
Concentration: 121.57 ug/L

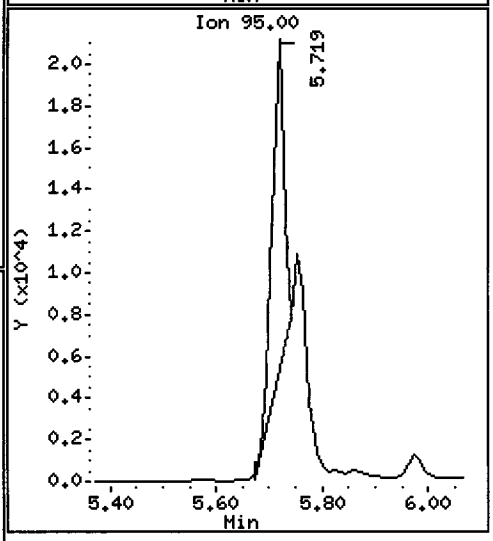












Data File: /chem1/nt7.i/04MAY2011.b/su73a.d

Date : 04-MAY-2011 16:35

Client ID: MW-01-042911

Instrument: nt7.i

Sample Info: SU73A,10,10,0,,

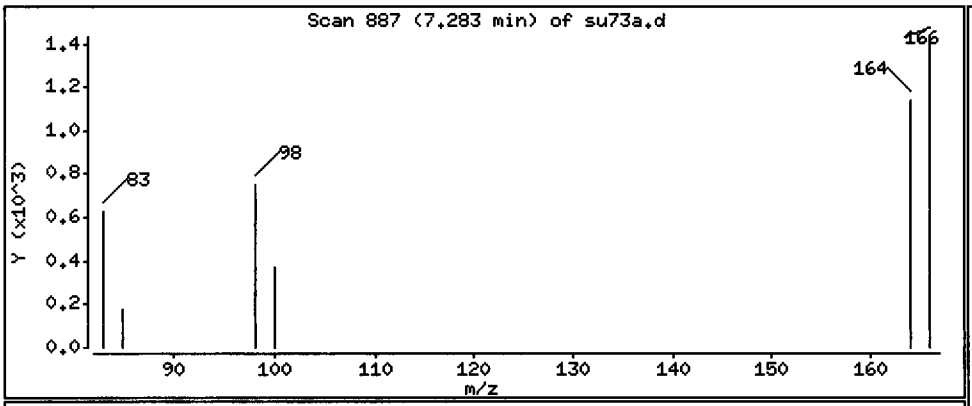
Operator: PC

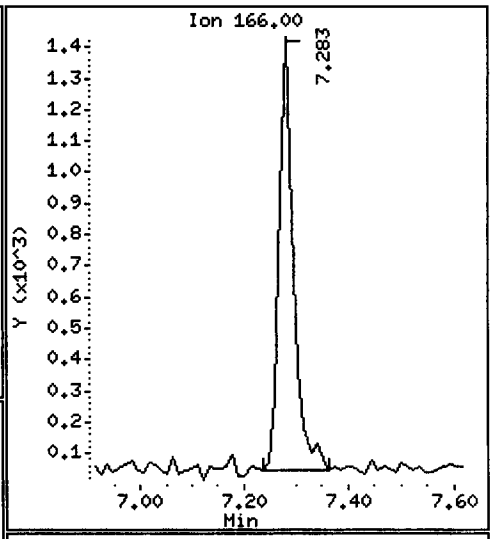
Column phase: RTXVMS

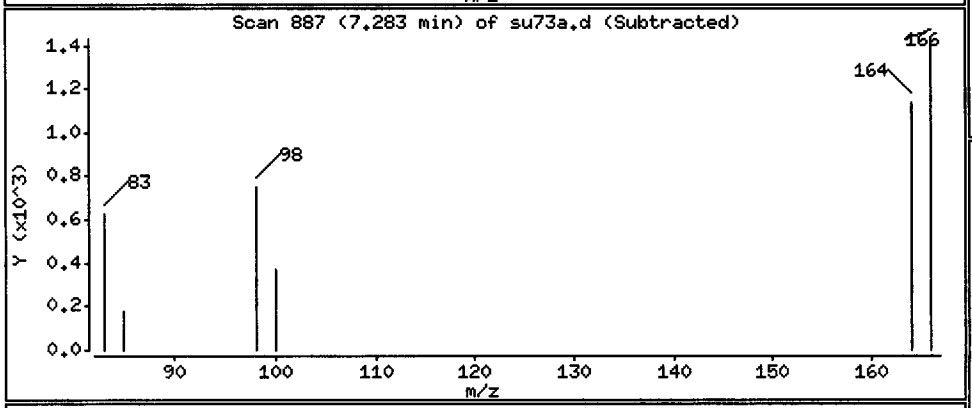
Column diameter: 0.18

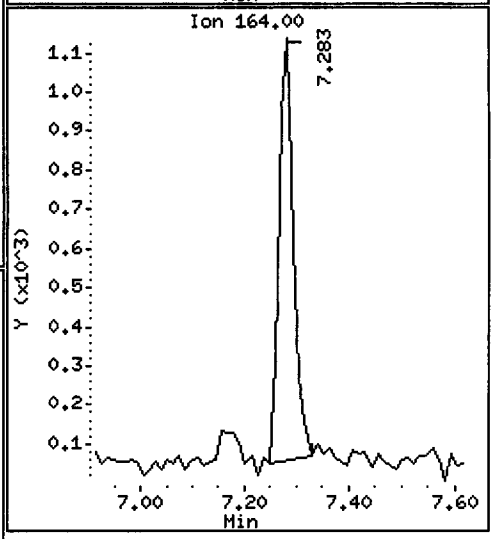
10 Tetrachloroethene

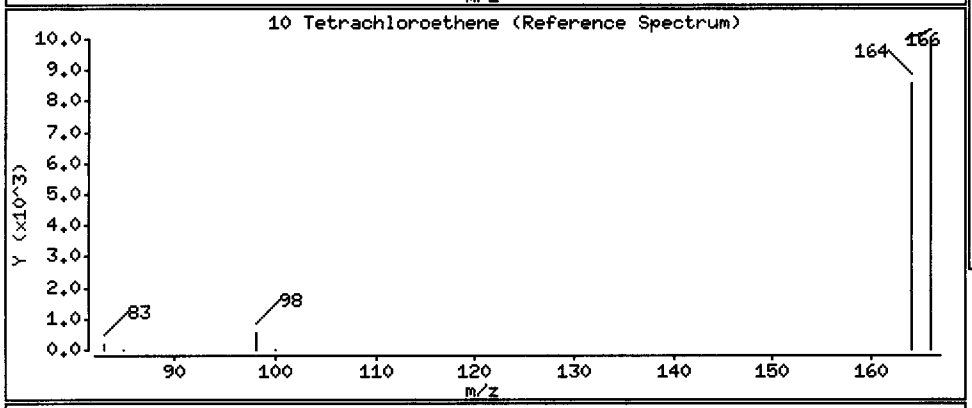
Concentration: 14.727 ug/L

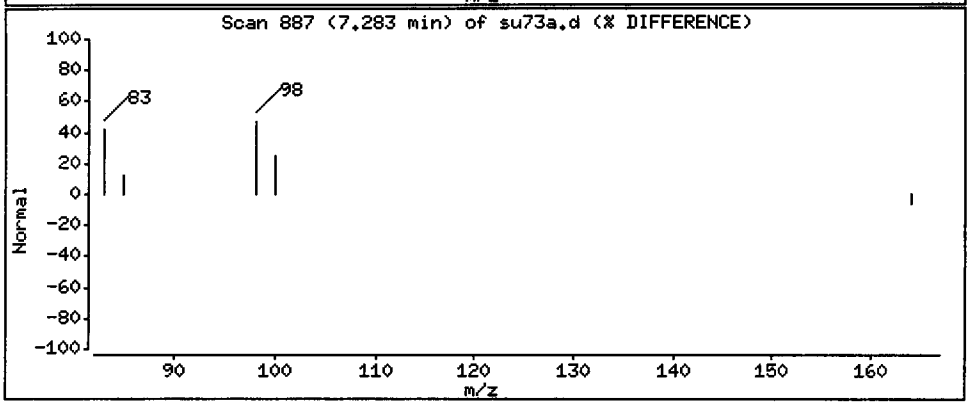












CO-ELUTION SUMMARY FOR FILE - su73a.d

Lab ID: SU73A, Method: sim042611.m, Instrument: nt7.i, Date: 04-MAY-2011

RT	CO-ELUTION COMPOUNDS

5/5/11

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/04MAY2011.b/su73b.d
Lab Smp Id: SU73B Client Smp ID: MW-01-042911-D
Inj Date : 04-MAY-2011 17:01
Operator : PC Inst ID: nt7.i
Smp Info : SU73B,10,10,0,,
Misc Info : 11-9763
Comment :
Method : /chem1/nt7.i/04MAY2011.b/sim042611.m
Meth Date : 05-May-2011 11:15 paul Quant Type: ISTD
Cal Date : 26-APR-2011 15:00 Cal File: 0426019.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim12dca.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/L)	FINAL (ug/L)
	1	Vinyl Chloride	62	1.551	1.551	(0.291)	13060	33.0740	33.074
	2	1,1-Dichloroethene	96	Compound Not Detected.					
	175	Trans-1,2-Dichloroethene	96	3.295	3.290	(0.619)	13436	42.0942	42.094
	3	cis-1,2-dichloroethene	96	4.445	4.439	(0.835)	54155	158.916	158.92
	6	Benzene	78	5.219	5.212	(0.905)	541826	352.276	352.28
*	4	Pentafluorobenzene	168	5.324	5.326	(1.000)	358815	1000.00	
$	5	d4-1,2-Dichloroethane	65	5.333	5.335	(1.002)	320886	992.388	992.39
	176	1,2-Dichloroethane	62	5.390	5.383	(1.012)	13456	26.3294	26.329
	8	Trichloroethene	130	5.721	5.720	(0.992)	30920	117.387	117.39(Q)
*	7	1,4-Difluorobenzene	114	5.767	5.754	(1.000)	671821	1000.00	
$	9	d8-Toluene	98	6.913	6.913	(1.199)	811975	948.742	948.74
	10	Tetrachloroethene	166	7.281	7.270	(1.263)	2953	14.5325	14.532
	11	1,1,2,2-Tetrachloroethane	83	9.422	9.457	(1.634)	3242	13.3248	13.325(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: su73b.d
Lab Smp Id: SU73B
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9763

Calibration Date: 04-MAY-2011
Calibration Time: 10:45
Client Smp ID: MW-01-042911-D
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	363407	181704	726814	358815	-1.26
7 1,4-Difluorobenze	667797	333898	1335594	671821	0.60

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.33	4.83	5.83	5.32	-0.04
7 1,4-Difluorobenze	5.75	5.25	6.25	5.77	0.21

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Client SDG: SU73
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id: SU73B
Client Smp ID: MW-01-042911-D
Level: LOW
Operator: PC
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: special.spk
Quant Type: ISTD
Sublist File: sim12dca.sub
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9763

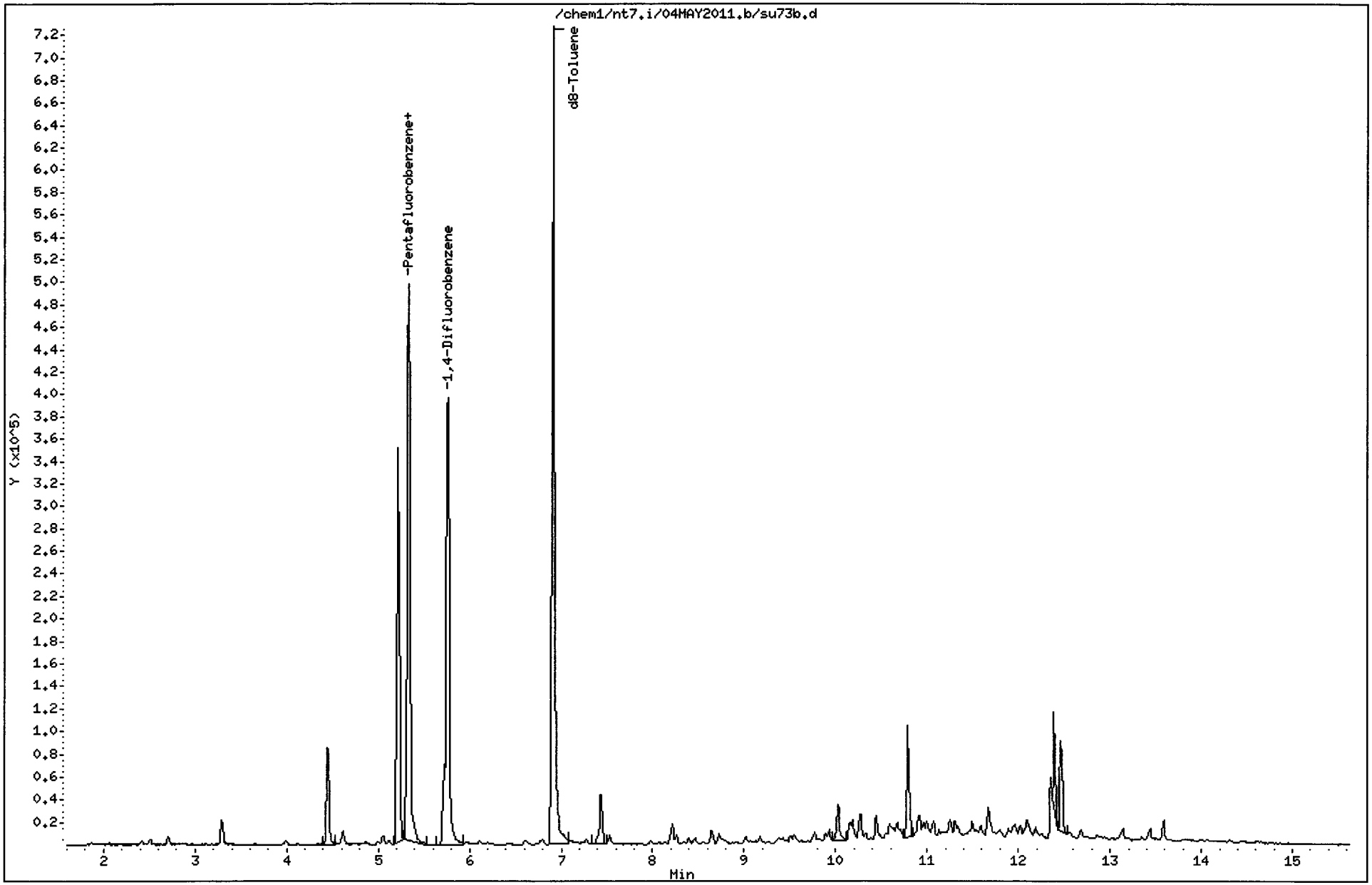
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	992.39	99.24	80-126
$ 9 d8-Toluene	1000.0	948.74	94.87	80-120

Data File: /chem1/nt7.i/04MAY2011.b/su73b.d
Date : 04-MAY-2011 17:01
Client ID: MW-01-042911-D
Sample Info: SU73B,10,10,0,,

Instrument: nt7.i

Operator: PC
Column phase: RTXVMS
Column diameter: 0.18

3028 SU53:00507



Data File: /chem1/nt7.i/04MAY2011.b/su73b.d

Date : 04-MAY-2011 17:01

Client ID: MW-01-042911-D

Instrument: nt7.i

Sample Info: SU73B,10,10,0,,

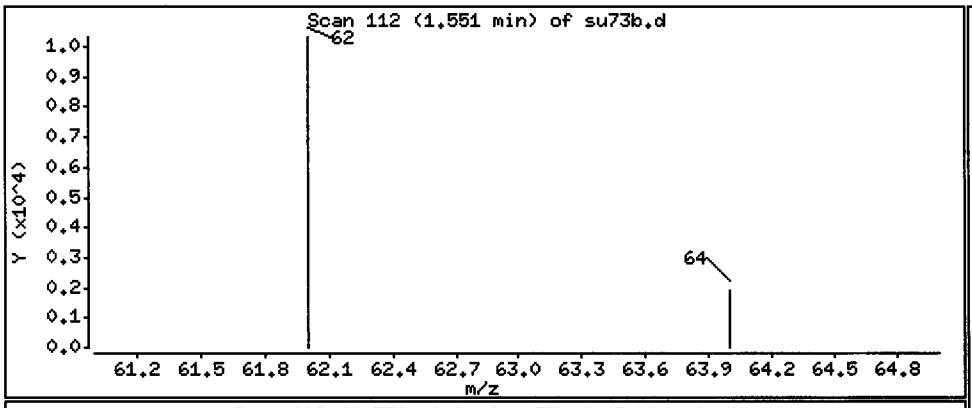
Operator: PC

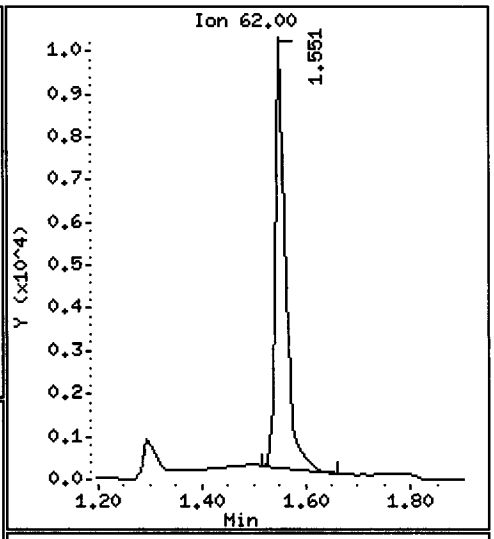
Column phase: RTXVMS

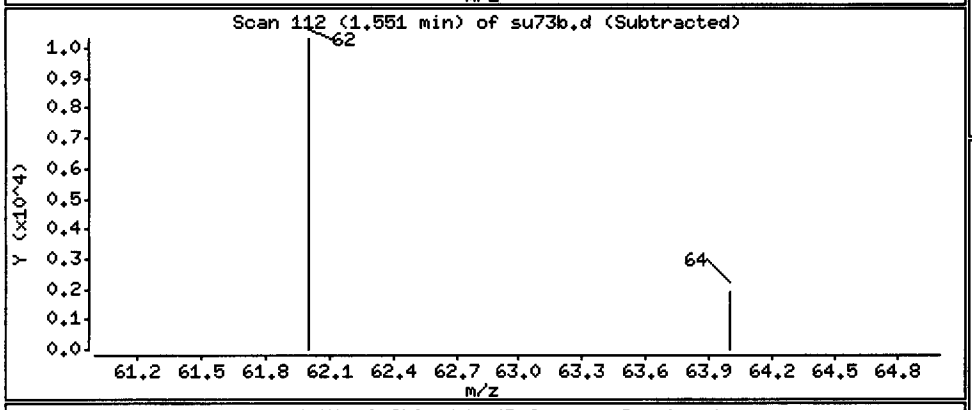
Column diameter: 0.18

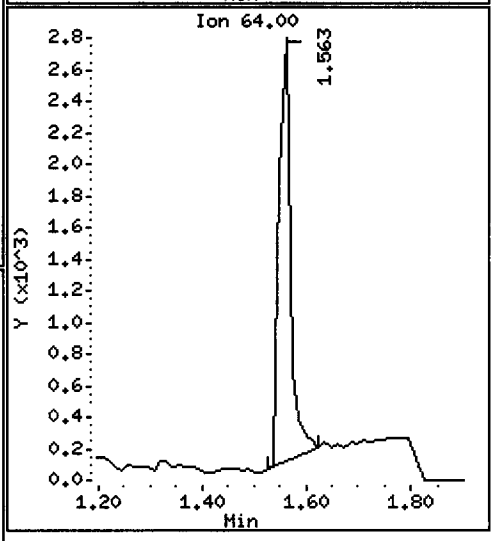
1 Vinyl Chloride

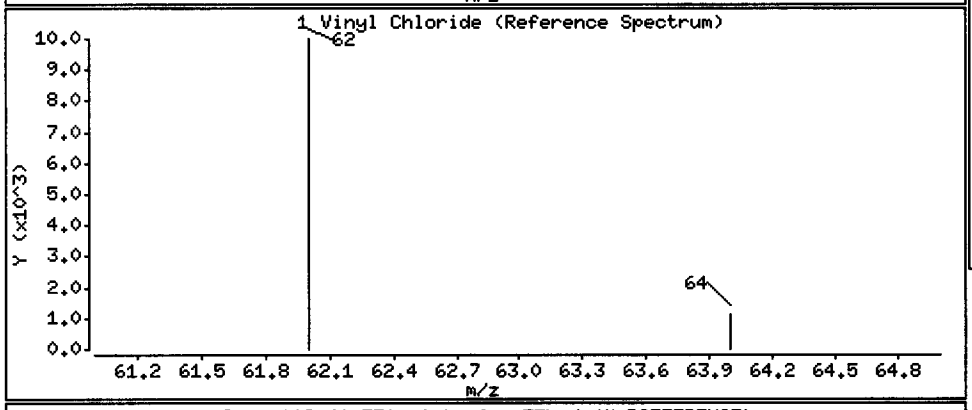
Concentration: 33.074 ug/L

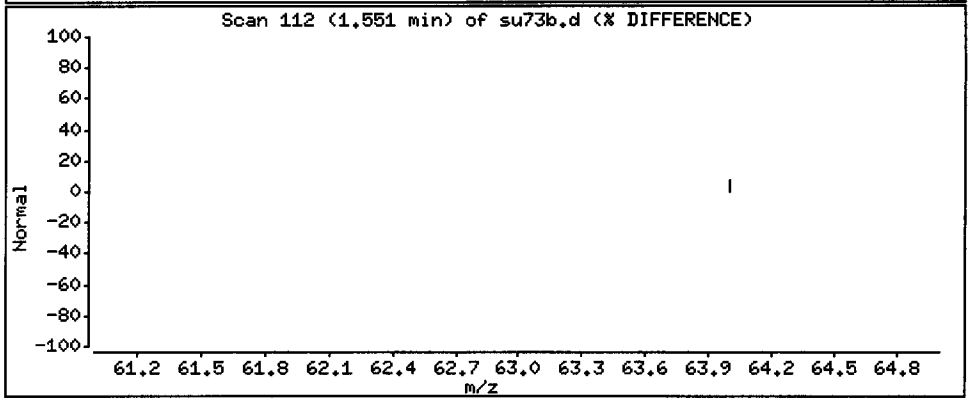












Data File: /chem1/nt7.i/04MAY2011.b/su73b.d

Date : 04-MAY-2011 17:01

Client ID: MW-01-042911-D

Instrument: nt7.i

Sample Info: SU73B,10,10,0,,

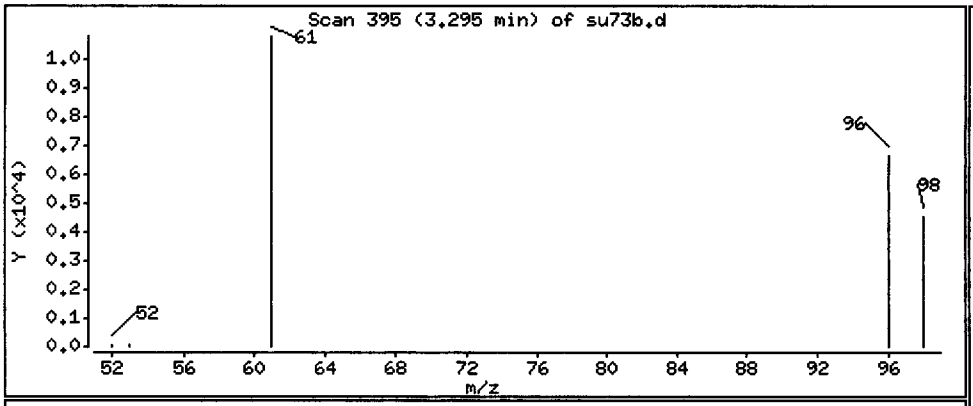
Operator: PC

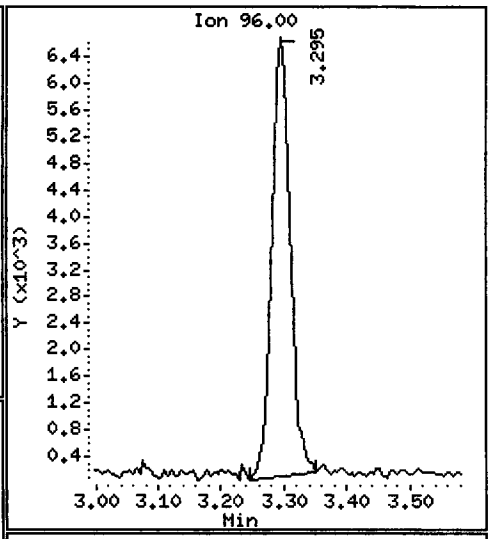
Column phase: RTXVMS

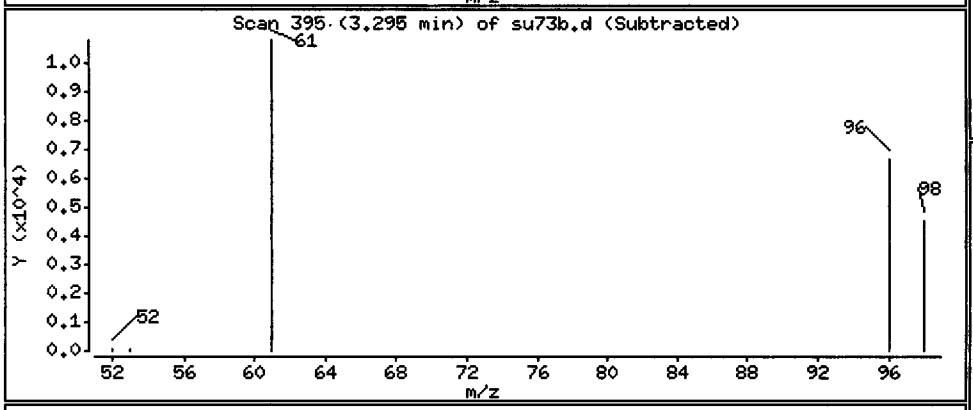
Column diameter: 0.18

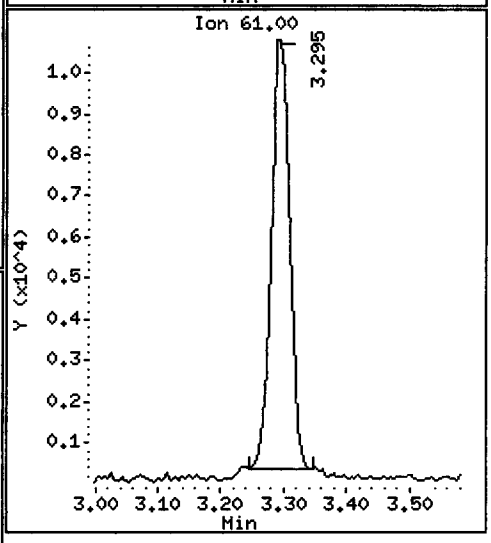
175 Trans-1,2-Dichloroethene

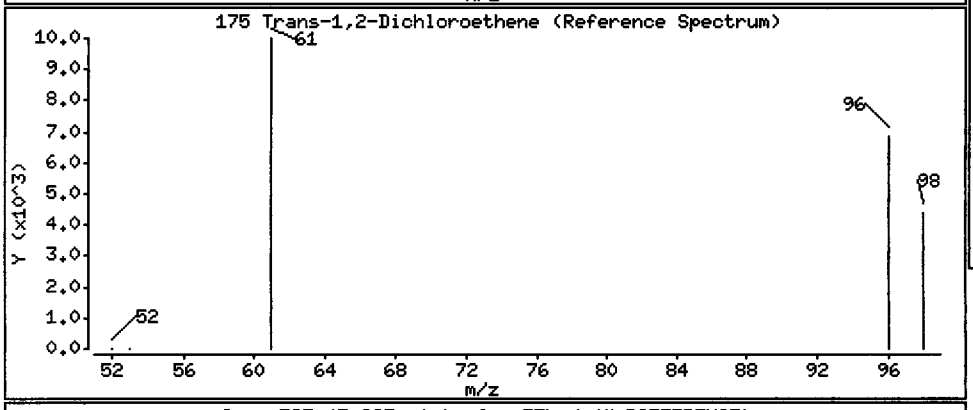
Concentration: 42.094 ug/L

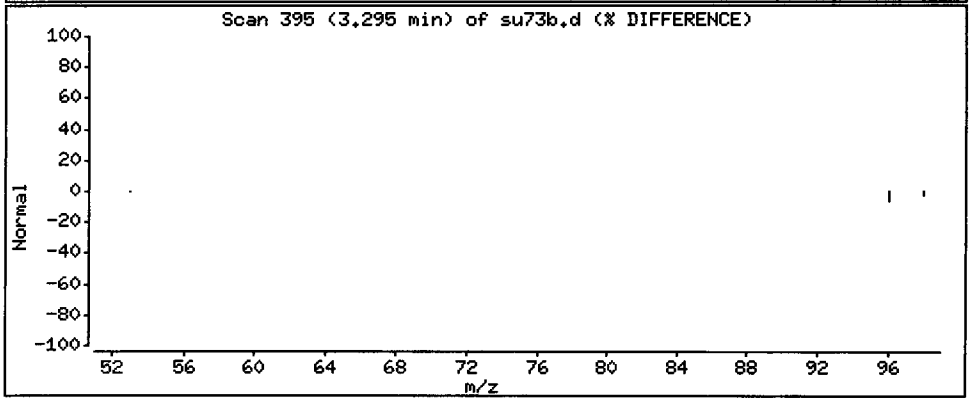












Data File: /chem1/nt7.i/04MAY2011.b/su73b.d

Date : 04-MAY-2011 17:01

Client ID: MW-01-042911-D

Instrument: nt7.i

Sample Info: SU73B,10,10,0,,

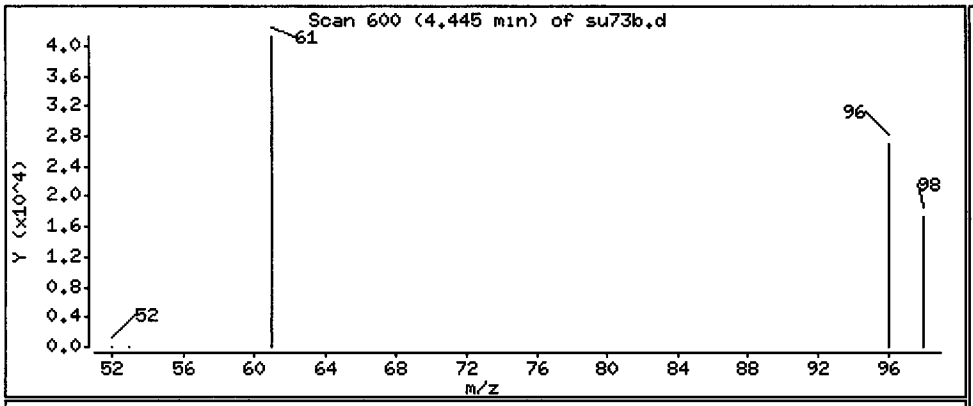
Operator: PC

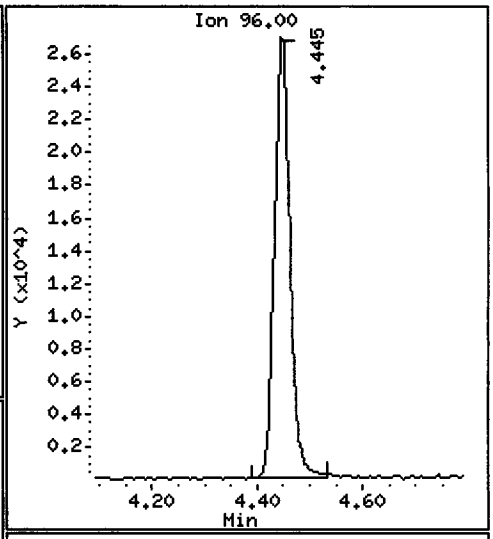
Column phase: RTXVMS

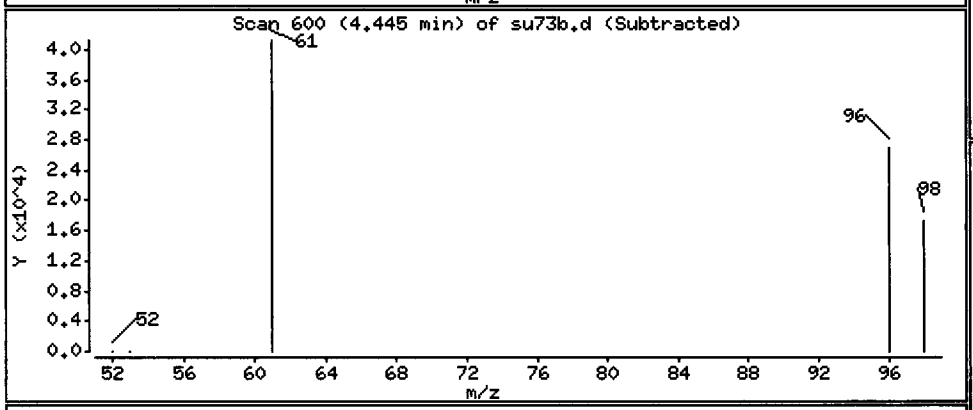
Column diameter: 0.18

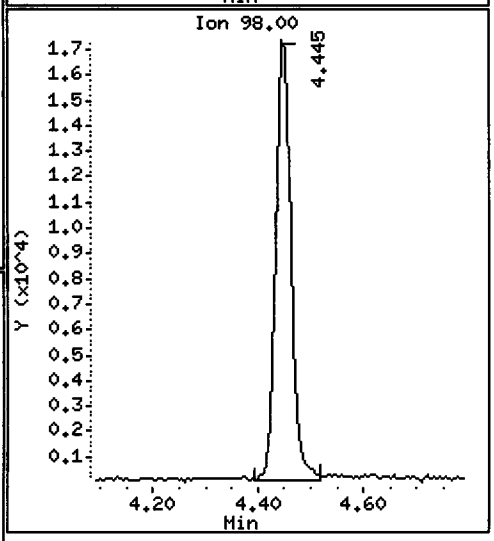
3 cis-1,2-dichloroethene

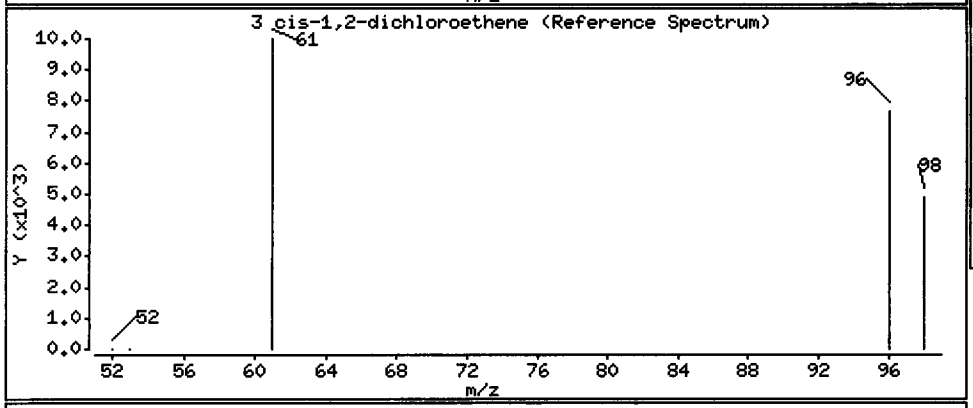
Concentration: 158.92 ug/L

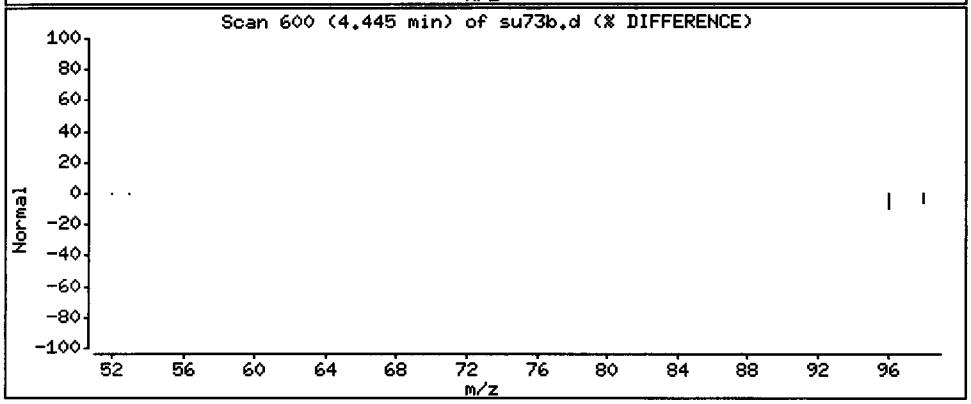












Data File: /chem1/nt7.i/04MAY2011.b/su73b.d

Date : 04-MAY-2011 17:01

Client ID: MW-01-042911-D

Instrument: nt7.i

Sample Info: SU73B,10,10,0,,

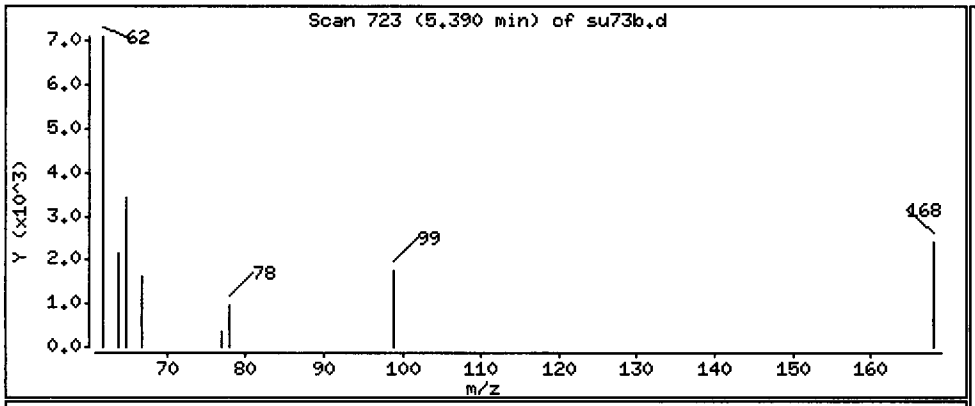
Operator: PC

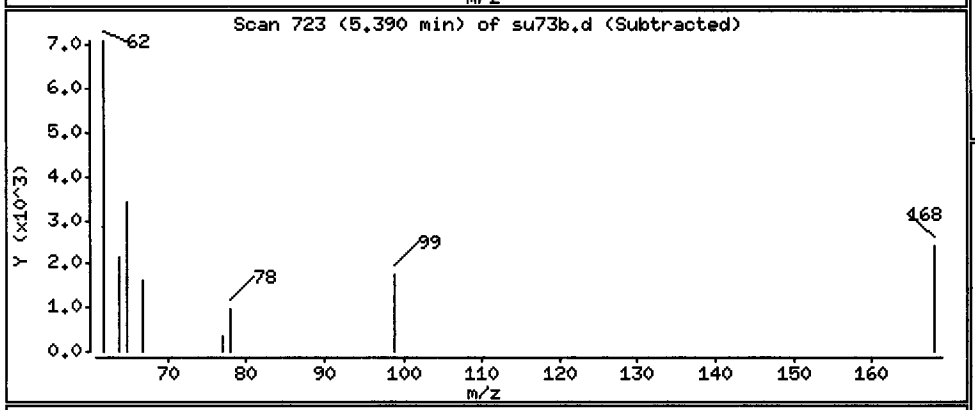
Column phase: RTXVMS

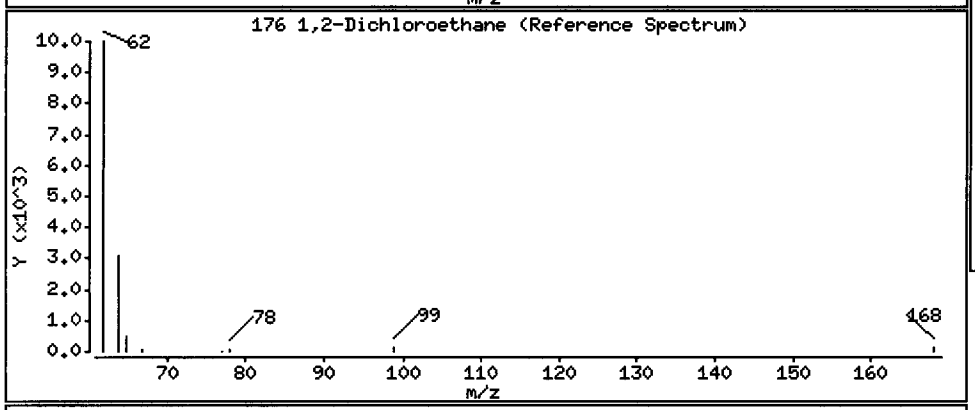
Column diameter: 0.18

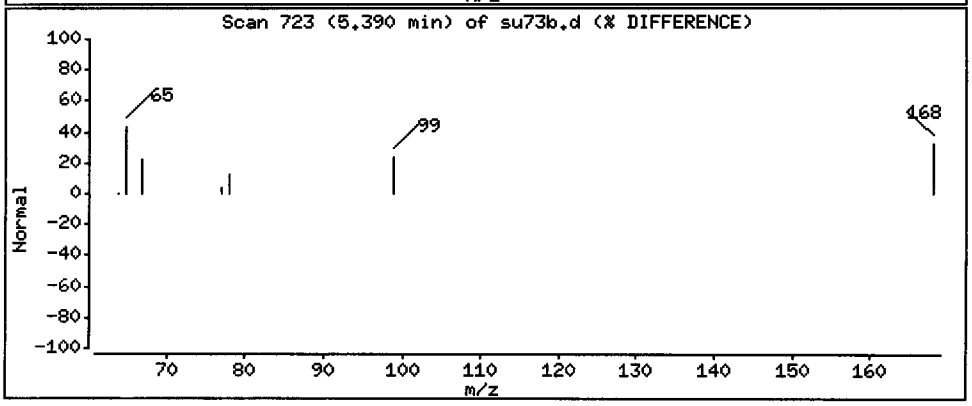
176 1,2-Dichloroethane

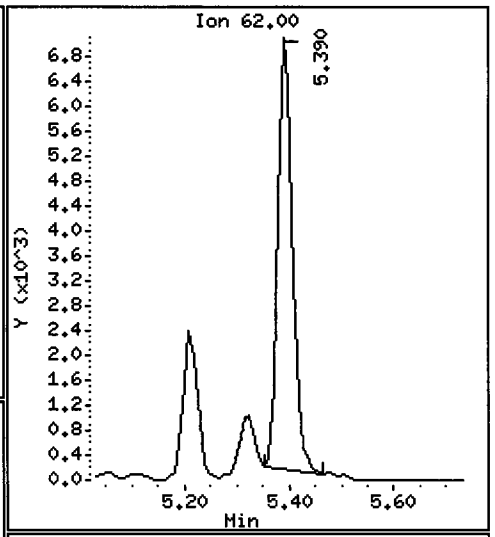
Concentration: 26.329 ug/L

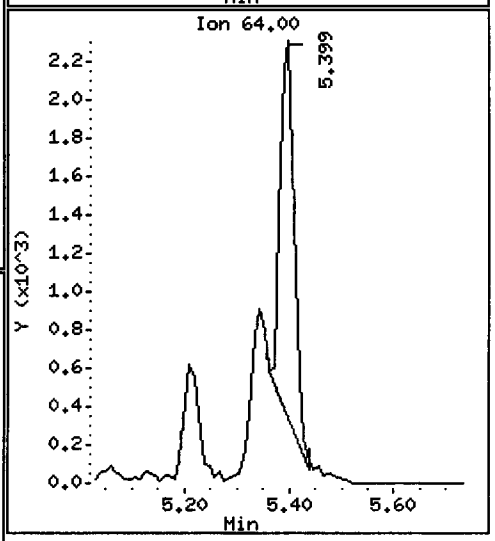












Data File: /chem1/nt7.i/04MAY2011.b/su73b.d

Date : 04-MAY-2011 17:01

Client ID: MW-01-042911-D

Instrument: nt7.i

Sample Info: SU73B,10,10,0,,

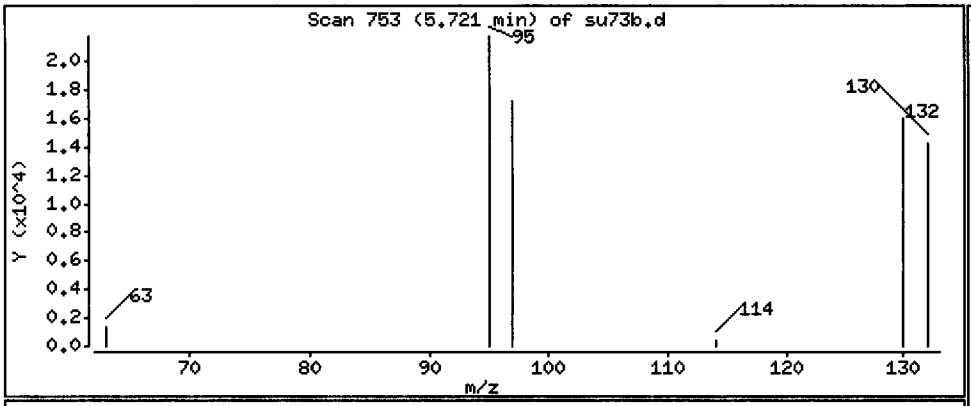
Operator: PC

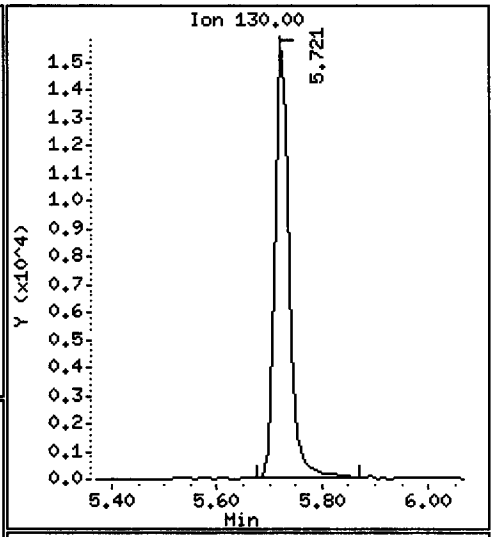
Column phase: RTXVMS

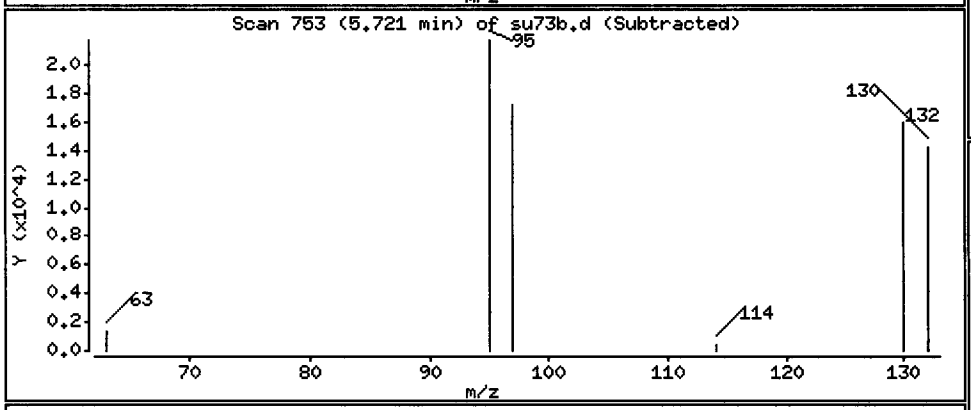
Column diameter: 0.18

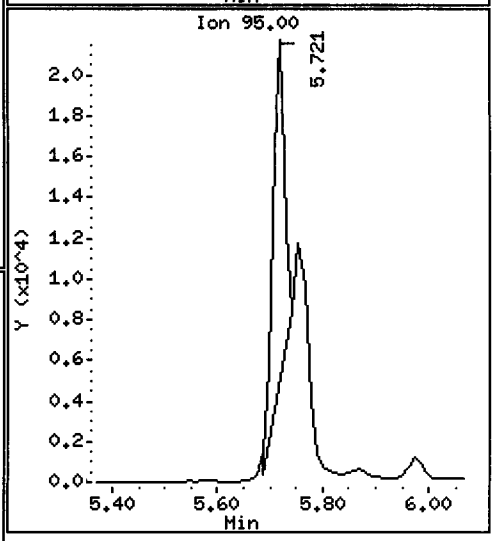
8 Trichloroethene

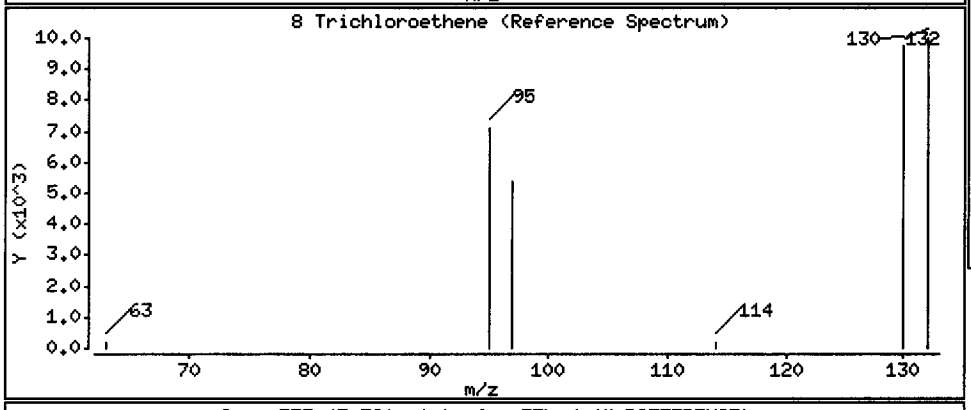
Concentration: 117.39 ug/L

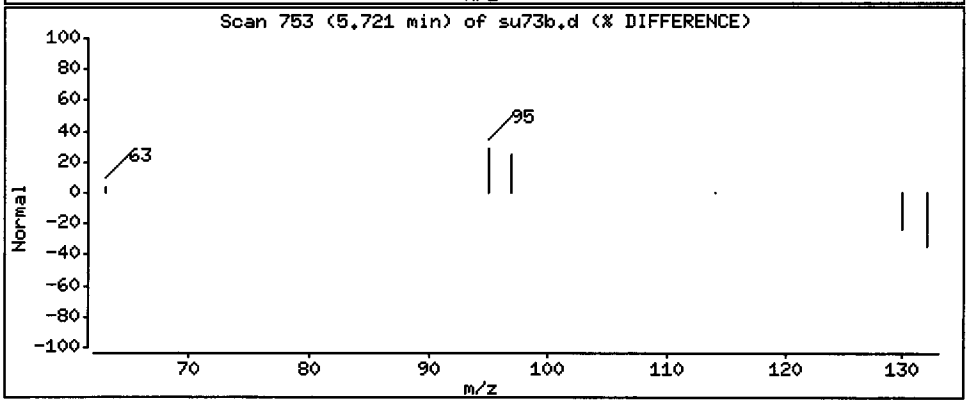












Data File: /chem1/nt7.i/04MAY2011.b/su73b.d

Date : 04-MAY-2011 17:01

Client ID: MW-01-042911-D

Instrument: nt7.i

Sample Info: SU73B,10,10,0,,

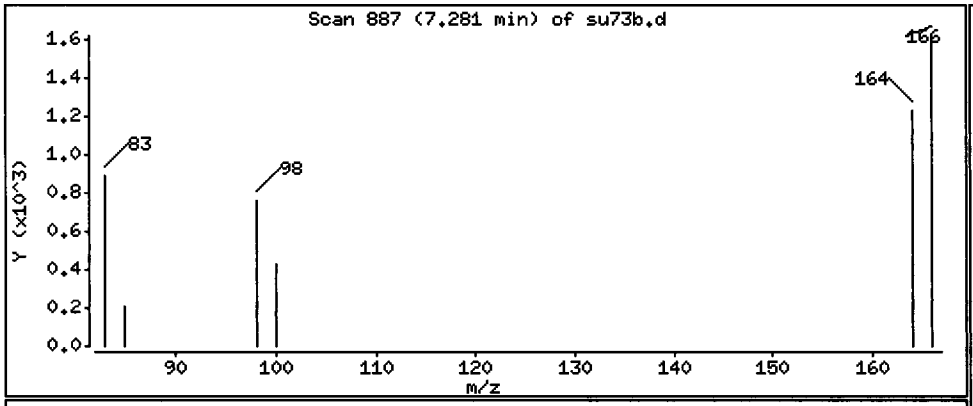
Operator: PC

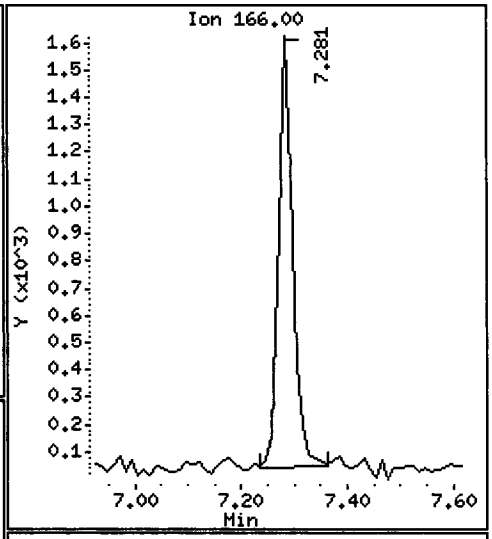
Column phase: RTXVMS

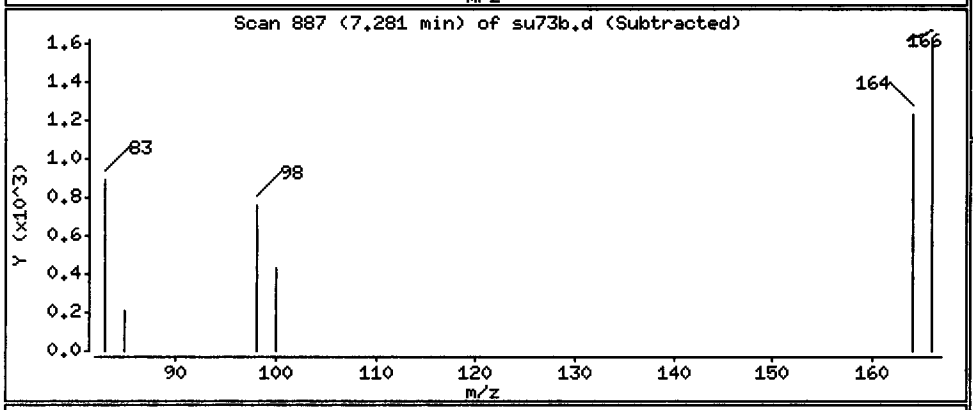
Column diameter: 0.18

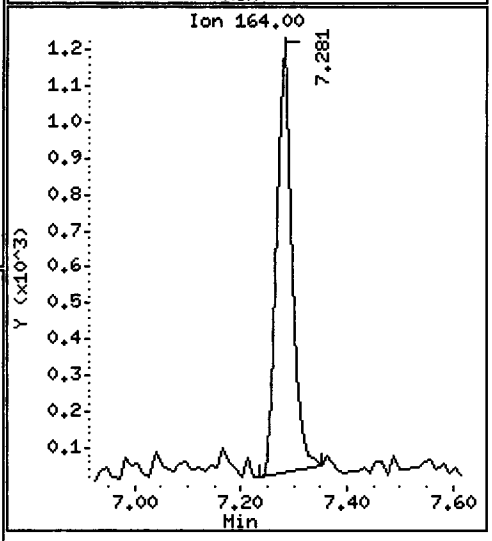
10 Tetrachloroethene

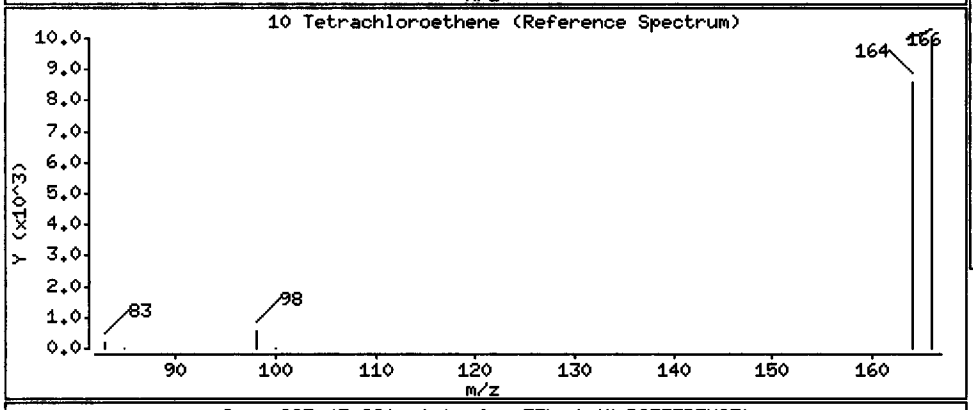
Concentration: 14.532 ug/L

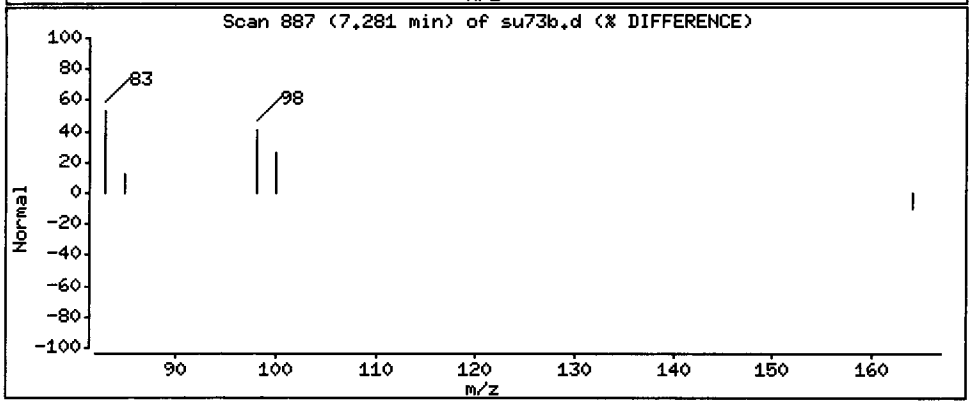












CO-ELUTION SUMMARY FOR FILE - su73b.d

Lab ID: SU73B, Method: sim042611.m, Instrument: nt7.i, Date: 04-MAY-2011

RT	CO-ELUTION COMPOUNDS

PC 5/5/11

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/04MAY2011.b/su74a.d
Lab Smp Id: SU74A Client Smp ID: B312-042911
Inj Date : 04-MAY-2011 17:26
Operator : PC Inst ID: nt7.i
Smp Info : SU74A,10,10,0,,
Misc Info : 11-9772
Comment :
Method : /chem1/nt7.i/04MAY2011.b/sim042611.m
Meth Date : 05-May-2011 11:15 paul Quant Type: ISTD
Cal Date : 26-APR-2011 15:00 Cal File: 0426019.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim12dca.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/L)	CONCENTRATIONS FINAL (ug/L)
1	Vinyl Chloride	62	Compound Not Detected.					
2	1,1-Dichloroethene	96	Compound Not Detected.					
175	Trans-1,2-Dichloroethene	96	Compound Not Detected.					
3	cis-1,2-dichloroethene	96	Compound Not Detected.					
6	Benzene	78	Compound Not Detected.					
* 4	Pentafluorobenzene	168	5.325	5.326	(1.000)	376103	1000.00	
$ 5	d4-1,2-Dichloroethane	65	5.334	5.335	(1.002)	306110	903.176	903.18
176	1,2-Dichloroethane	62	Compound Not Detected.					
8	Trichloroethene	130	Compound Not Detected.					
* 7	1,4-Difluorobenzene	114	5.767	5.754	(1.000)	682816	1000.00	
$ 9	d8-Toluene	98	6.914	6.913	(1.199)	834720	959.612	959.61
10	Tetrachloroethene	166	Compound Not Detected.					
11	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: su74a.d
Lab Smp Id: SU74A
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9772

Calibration Date: 04-MAY-2011
Calibration Time: 10:45
Client Smp ID: B312-042911
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	363407	181704	726814	376103	3.49
7 1,4-Difluorobenze	667797	333898	1335594	682816	2.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.33	4.83	5.83	5.32	-0.02
7 1,4-Difluorobenze	5.75	5.25	6.25	5.77	0.23

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Client SDG: SU74
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id: SU74A
Client Smp ID: B312-042911
Level: LOW
Operator: PC
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: special.spk
Quant Type: ISTD
Sublist File: sim12dca.sub
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9772

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	903.18	90.32	80-126
$ 9 d8-Toluene	1000.0	959.61	95.96	80-120

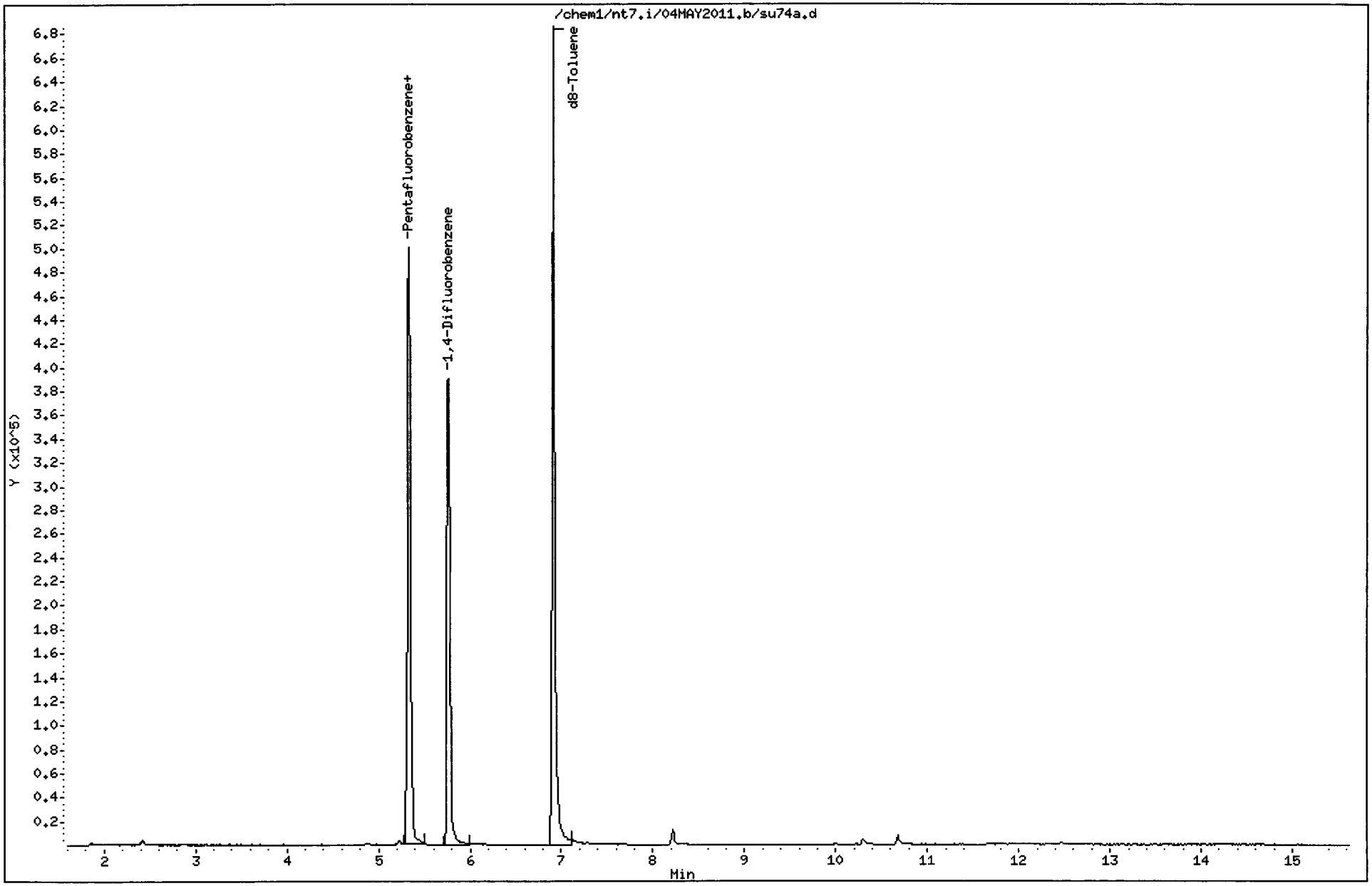
Data File: /chem1/nt7.i/04MAY2011.b/su74a.d
Date : 04-MAY-2011 17:26
Client ID: B312-042911
Sample Info: SU74A,10,10,0,,

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS

3039
SU53-00518



CO-ELUTION SUMMARY FOR FILE - su74a.d

Lab ID: SU74A, Method: sim042611.m, Instrument: nt7.i, Date: 04-MAY-2011

RT	CO-ELUTION COMPOUNDS

PC 5/5/11

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/04MAY2011.b/su74b.d
Lab Smp Id: SU74B Client Smp ID: B310-042911
Inj Date : 04-MAY-2011 17:52
Operator : PC Inst ID: nt7.i
Smp Info : SU74B,10,10,0,,
Misc Info : 11-9773
Comment :
Method : /chem1/nt7.i/04MAY2011.b/sim042611.m
Meth Date : 05-May-2011 11:15 paul Quant Type: ISTD
Cal Date : 26-APR-2011 15:00 Cal File: 0426019.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim12dca.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/L)	FINAL (ug/L)
	1 Vinyl Chloride	62	Compound Not Detected.					
	2 1,1-Dichloroethene	96	Compound Not Detected.					
	175 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	3 cis-1,2-dichloroethene	96	Compound Not Detected.					
	6 Benzene	78	Compound Not Detected.					
*	4 Pentafluorobenzene	168	5.325	5.326	(1.000)	361270	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.334	5.335	(1.002)	302077	927.870	927.87
	176 1,2-Dichloroethane	62	Compound Not Detected.					
	8 Trichloroethene	130	Compound Not Detected.					
*	7 1,4-Difluorobenzene	114	5.766	5.754	(1.000)	654245	1000.00	
$	9 d8-Toluene	98	6.915	6.913	(1.199)	810203	972.103	972.10
	10 Tetrachloroethene	166	Compound Not Detected.					
	11 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: su74b.d
Lab Smp Id: SU74B
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9773

Calibration Date: 04-MAY-2011
Calibration Time: 10:45
Client Smp ID: B310-042911
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	363407	181704	726814	361270	-0.59
7 1,4-Difluorobenze	667797	333898	1335594	654245	-2.03

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.33	4.83	5.83	5.32	-0.02
7 1,4-Difluorobenze	5.75	5.25	6.25	5.77	0.20

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Client SDG: SU74
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id: SU74B
Client Smp ID: B310-042911
Level: LOW
Operator: PC
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: special.spk
Quant Type: ISTD
Sublist File: sim12dca.sub
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9773

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	927.87	92.79	80-126
$ 9 d8-Toluene	1000.0	972.10	97.21	80-120

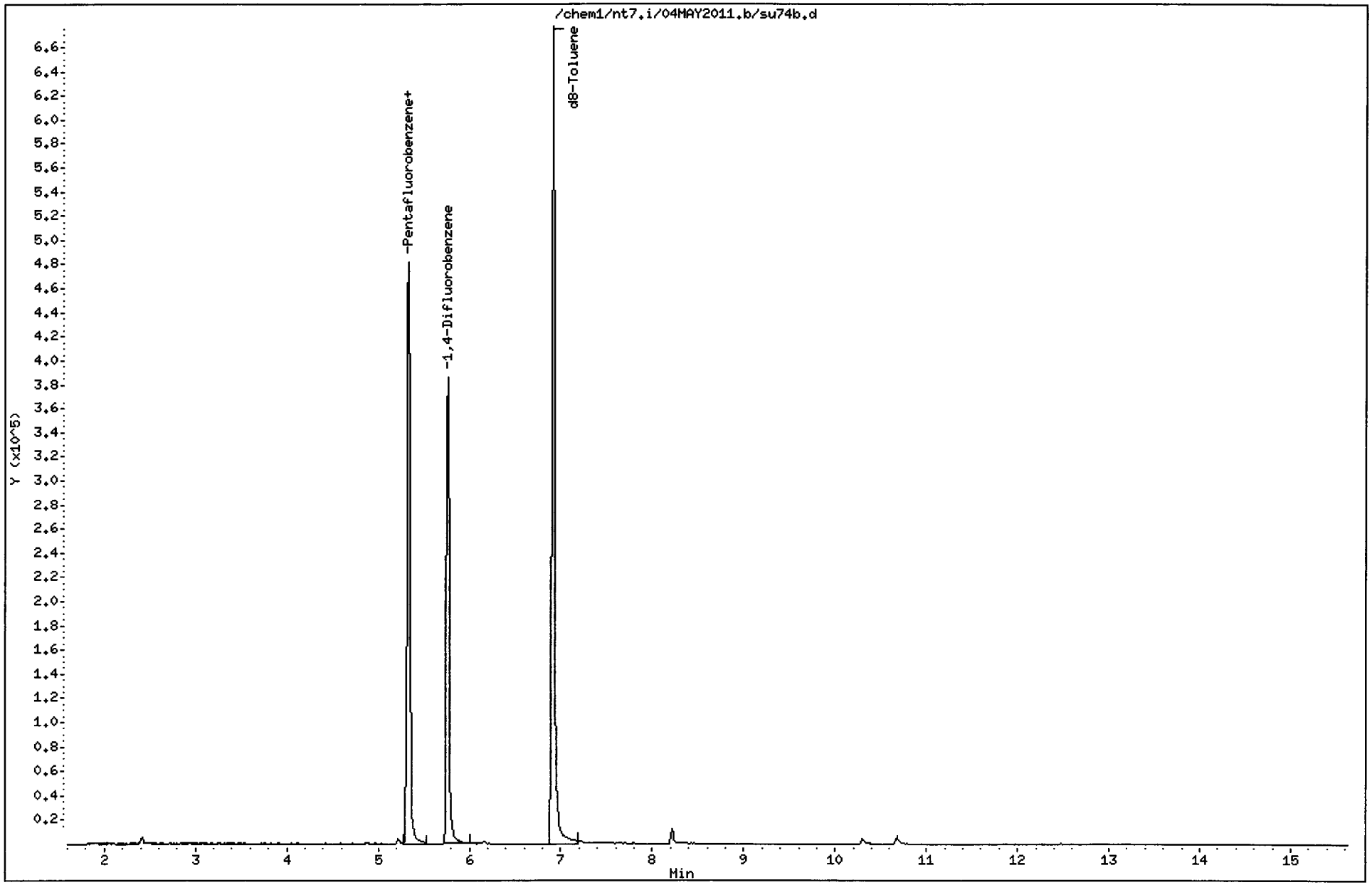
Data File: /chem1/nt7.i/04MAY2011.b/su74b.d
Date : 04-MAY-2011 17:52
Client ID: B310-042911
Sample Info: SU74B,10,10,0,,

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS

3044
SU53:00523



CO-ELUTION SUMMARY FOR FILE - su74b.d

Lab ID: SU74B, Method: sim042611.m, Instrument: nt7.i, Date: 04-MAY-2011

RT	CO-ELUTION COMPOUNDS

PC 5/5/11

Analytical Resources, Inc.

SW8260C SIM

Data file : /chem1/nt7.i/04MAY2011.b/su74c.d
Lab Smp Id: SU74C Client Smp ID: B311-042911
Inj Date : 04-MAY-2011 18:18
Operator : PC Inst ID: nt7.i
Smp Info : SU74C,10,10,0,,
Misc Info : 11-9774
Comment :
Method : /chem1/nt7.i/04MAY2011.b/sim042611.m
Meth Date : 05-May-2011 11:15 paul Quant Type: ISTD
Cal Date : 26-APR-2011 15:00 Cal File: 0426019.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: sim12dca.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Pv / Sa * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	10.00000	Purge Volume (mL)
Sa	10.00000	Sample Amount (mL)

Cpnd Variable Local Compound Variable

		QUANT SIG					CONCENTRATIONS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/L)	FINAL (ug/L)
	1 Vinyl Chloride	62	Compound Not Detected.					
	2 1,1-Dichloroethene	96	Compound Not Detected.					
	175 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	3 cis-1,2-dichloroethene	96	Compound Not Detected.					
	6 Benzene	78	Compound Not Detected.					
*	4 Pentafluorobenzene	168	5.326	5.326	(1.000)	341470	1000.00	
$	5 d4-1,2-Dichloroethane	65	5.335	5.335	(1.002)	299783	974.217	974.22
	176 1,2-Dichloroethane	62	Compound Not Detected.					
	8 Trichloroethene	130	Compound Not Detected.					
*	7 1,4-Difluorobenzene	114	5.766	5.754	(1.000)	625591	1000.00	
$	9 d8-Toluene	98	6.913	6.913	(1.199)	773241	970.249	970.25
	10 Tetrachloroethene	166	Compound Not Detected.					
	11 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt7.i
Lab File ID: su74c.d
Lab Smp Id: SU74C
Analysis Type: VOA
Quant Type: ISTD
Operator: PC
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9774

Calibration Date: 04-MAY-2011
Calibration Time: 10:45
Client Smp ID: B311-042911
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 5.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	363407	181704	726814	341470	-6.04
7 1,4-Difluorobenze	667797	333898	1335594	625591	-6.32

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Pentafluorobenzen	5.33	4.83	5.83	5.33	0.00
7 1,4-Difluorobenze	5.75	5.25	6.25	5.77	0.21

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Client SDG: SU74
Sample Matrix: LIQUID
Fraction: VOA
Lab Smp Id: SU74C
Client Smp ID: B311-042911
Level: LOW
Operator: PC
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: special.spk
Quant Type: ISTD
Sublist File: sim12dca.sub
Method File: /chem1/nt7.i/04MAY2011.b/sim042611.m
Misc Info: 11-9774

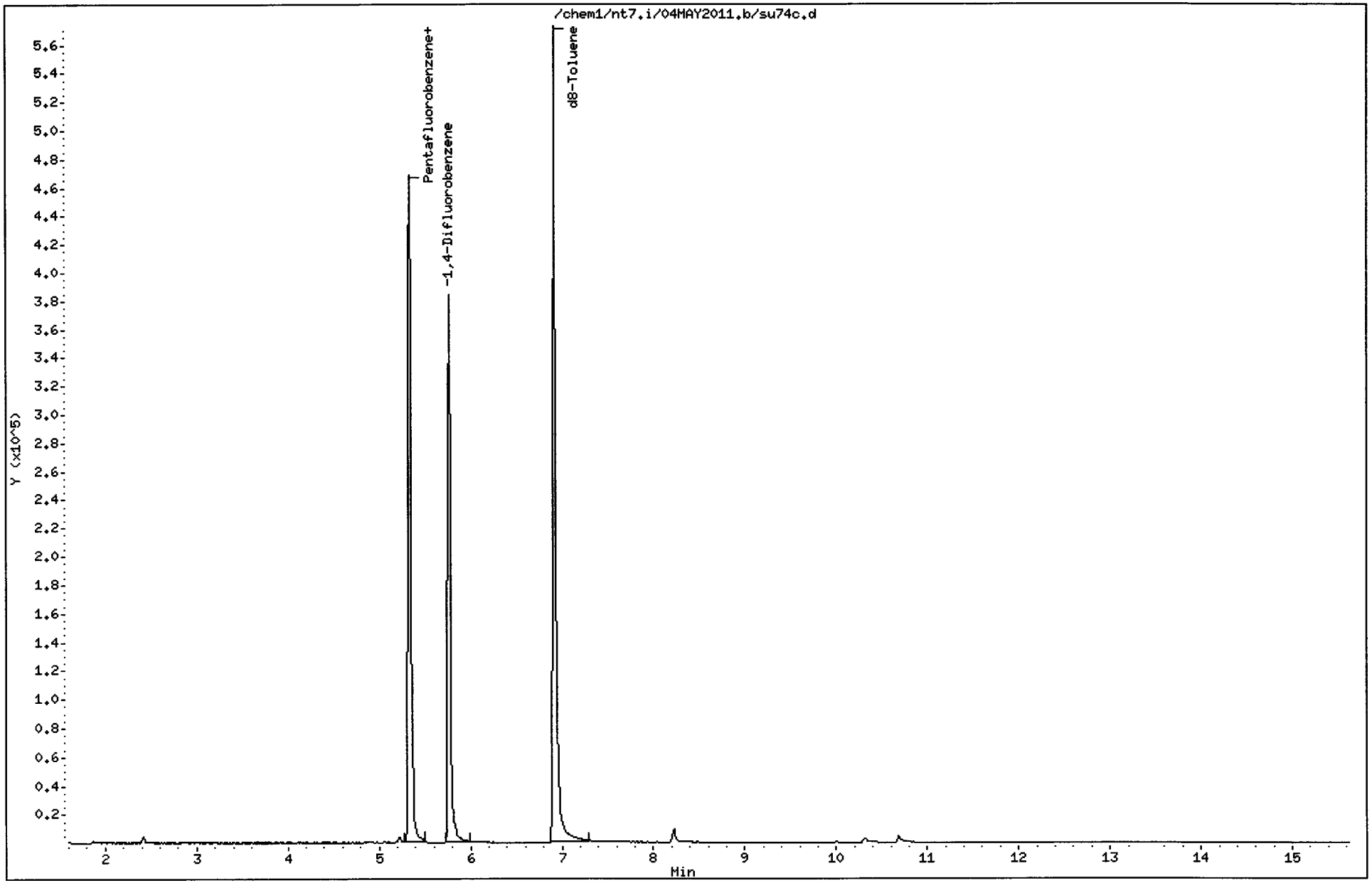
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 5 d4-1,2-Dichloroeth	1000.0	974.22	97.42	80-126
$ 9 d8-Toluene	1000.0	970.25	97.02	80-120

Data File: /chem1/nt7.i/04MAY2011.b/su74c.d
Date : 04-MAY-2011 18:18
Client ID: B311-042911
Sample Info: SU74C,10,10,0,,

Instrument: nt7.i

Operator: PC
Column diameter: 0.18

Column phase: RTXVMS



CO-ELUTION SUMMARY FOR FILE - su74c.d

Lab ID: SU74C, Method: sim042611.m, Instrument: nt7.i, Date: 04-MAY-2011

RT	CO-ELUTION COMPOUNDS

SIM PAH Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: SU53, SU73, SU74

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

SIM PNA-Water
Separatory Funnel (3510C) (SOP # 3311S)
Low Level (0.01ppb)

Preparation Test SIM PNA # 6
ARI Job No(s) 5u45, 5u47, 5u53

Batch set up by: JA

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD Exchange to Hexane (X2)	Turbo Vap 1 (2) 3	(REQ) Silica Gel Clean (1:1) (Y) N	Turbo Vap 1 (2) 3	Final Effective Volume	Volume to Lab	Comments
	5u45 MBW	Date 5-4-11	500mL					0.5mL	0.5mL	
	SBW	↓	↓					↓	↓	
	SBW Dup.		↓					↓	↓	
	QLS		↓					↓	↓	
10	A	Verified	500mL							
10	B									
14	C									
12	5u47 A									
10	B									
4	5u53 A									
4	B									
13,14,14,	C									
	Cms									
	Cmsd									
16	D									
10	E									
3	F									
Analyst/Date:		PD 5-4-11		YL 5/9/11	CJZ 5/13/11					

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	**I**	**100µL**	10/05/11	NL	PD
Spike	**18**	**100µL**	1/04/12	NL	PD
QLS Spike	**2**	**50µL**	1/04/12	NL	PD

Extraction Time: 11:24

SPECIAL INSTRUCTIONS: 1. Rinse all glassware with Low Level DCM. 2. Extract 3X with 30mL Low Level DCM.

3. KD (no drying column) to ~8mL at 80°. 4. Exchange (2 X with 10mL) to Low Level Hexane at 100°. 5. TurboVap.

6. Silica Clean-up=REQUIRED. 6. TurboVap. 7. Vial in Low Level DCM. 8. Post screen extracts with any color.
A. Archive Y (N)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: SU53 Client ID: Floyd Snider

Parameter: SIM PNA low level Client Project: Lora Lake Apts RI

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	
☐ No Anomalies (standard soil/sediment)	
☐ Wet sediment/sludge=	
☐ Standing Water Decanted=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay (Difficult to homogenize/Mixed with Kitchen Aid)=	
☐ Rocks/Organics=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☑ No Anomalies B-F.	PD 5-4-11
☑ Turbid/Color= A is light tan and not turbid.	PD 5-4-11
☐ Particulates=	
☐ Emulsions=	
☐ Other (Details)=	
☑ Other Notes/Comments=	
K D Stations Recycled K D flask and Teflon Tubes for Job# SU53.	VL 5/9/11

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

SIM PNA-Water
Separatory Funnel (3510C) (SOP # 3311S)
Low Level (0.01ppb)

Preparation Test SIM PNA # 6
ARI Job No(s) SU73, SU74

Batch set up by: JH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD **Exchange to Hexane (X2)**	Turbo Vap (1) 2 3	(REQ) Silica Gel Clean (1:1) (Y) N	Turbo Vap (1) 2 3	Final Effective Volume	Volume to Lab	Comments
	SU73 MBW	Date 5-5-11	500mL					0.5mL	0.5mL	
	SBW									
	~~SBW Dup.~~									
	SU73 QLS									
14	A	Verified								
14	B									
11,13,14	SU74 A									
	Ams									
	Amsd									
13	B									
11	C									
Analyst/Date:	AC 5-5-11			RK 5/16/11	SP 5/17/11	SP 5/17/11				

11-9762 9772

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	**I**	**100µL**	10/05/11	AC	TH
Spike	**18**	**100µL**	11/04/12	AC	TH
QLS Spike	**2**	**50µL**	11/04/12	AC	TH
Extraction Time:	17:53				

SPECIAL INSTRUCTIONS: 1. Rinse all glassware with Low Level DCM. 2. Extract 3X with 30mL Low Level DCM.

3. KD (no drying column) to ~8mL at 80°. 4. Exchange (2 X with 10mL) to Low Level Hexane at 100°. 5. TurboVap.

6. Silica Clean-up=REQUIRED. 6. TurboVap. 7. Vial in Low Level DCM. 8. Post screen extracts with any color.

A. Archive Y N
Both jobs

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: SU73 Client ID: Floyd Snider

Parameter: SIM PNA low level Client Project: Lora Lake Apts RI

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	
☐ No Anomalies (standard soil/sediment)	
☐ Wet sediment/sludge=	
☐ Standing Water Decanted=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay (Difficult to homogenize/Mixed with Kitchen Aid)=	
☐ Rocks/Organics=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☒ Turbid/Color= 'A' and 'B' are light-yellow	AC 5-5-11
☐ Particulates=	
☐ Emulsions=	
☐ Other (Details)=	
☐ Other Notes/Comments=	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: SU74 Client ID: Floyd Snider

Parameter: SIM PNA low level Client Project: Lora lake Parcel

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	
☐ No Anomalies (standard soil/sediment)	
☐ Wet sediment/sludge=	
☐ Standing Water Decanted=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay (Difficult to homogenize/Mixed with Kitchen Aid)=	
☐ Rocks/Organics=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☒ No Anomalies A-C	AC 5-5-11
☐ Turbid/Color=	
☐ Particulates=	
☐ Emulsions=	
☐ Other (Details)=	
☐ Other Notes/Comments=	

SIM PAH Raw Data
Initial Calibration

ARI Job ID: SU53, SU73, SU74

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: CurvE Client ID: _____

ARI SOP: (Low **801S**(SIM-PNA)) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): Low Sim PNA's

Instrument: NT-4 NT-6 NT-8 NT-10 (NT11) NT12

Curve Date: 4.30.11 Analysis Start Date: _____

DFTPP Tune Meets Criteria?	(YES) / NO	Internal Standard Meets Criteria?	YES / NO
DDT Breakdown <20%?	(YES) / NO / NA	Method Blank In Control?	YES / NO
Peak Tailing Factor ≤2?	(YES) / NO / NA	LCS / LCSD Recovery In Control?	YES / NO
ICal acceptable?	(YES) / NO	CCal acceptable?	YES / NO
Q flag applied?	YES / (NO)	Q flag applied?	YES / NO
Surrogate Recovery in Control?	YES / NO	Special Analysis Criteria Met?	YES / NO / NA
Manual Integrations for ICal?	(YES) / NO	Manual Integrations for Samples?	Yes /NO

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

- 6 point curve, All targets <20% RSD
- fluorene at 123% in ICV, Rest within ±20%

Additional Details on Reverse: Yes / No

Analyst: VB **Date:** 4.30.11

Reviewer: _____ **Date:** 5/2/11

Analytical Resources Inc.: Organics Instrument Log

NT-11 Serial No.:GC=US10140004, MS=US10481502

Date: 4.30.11 Analysis: LOW Sim pnA Analyst: VB

GC Program: LOWsim Column No: 195516 Column Type: ZB-5ms

Instrument Tune (.U or .CT.): 110430.U EM Voltage: 1494

Calibration File: df0430 Curve Date: 4.30.11

IS/SS	Ical/Ccal	LCS/ICV
1754-1	1818-2	1831-1

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt11.i/20110430.b

	Time	Filename	LabID	ClientId	DF								
1	0952	df0430.d	DF0430		1	NO ISTDS FOUND							
2	1012	ic0430a.d	SIM250		1	6.27	129326	8.47	70573	10.30	113741	13.63	70763	15.61	54896
3	1037	ic0430b.d	SIM1000		1	6.27	133908	8.47	72587	10 30	114760	13 63	78082	15.61	58430
4	1102	ic0430c.d	SIM10		1	6.27	126410	8.47	67004	10.30	107827	13.63	60309	15.61	50334
5	1126	ic0430d.d	SIM500		1	6.27	127404	8 47	72156	10.30	112214	13 63	73029	15 61	55910
6	1151	ic0430e.d	SIM50		1	6.27	128015	8.47	70175	10.30	110629	13.63	63954	15.61	50988
7	1215	ic0430f.d	SIM100		1	6.27	126437	8.47	68901	10.30	107249	13.63	64366	15.61	52142
8	1239	icv0430.d	ICV-250		1	6.27	124975	8.45	70122	10.30	110829	13 63	69995	15.61	54585
9	1303	st19mb.d	ST19MBW1	ST19MBW1	1	6.27	124744	8.47	68608	10.30	113177	13.63	68248	15 61	52447
10	1327	st19sb.d	ST19LCSW1	ST19LCSW1	1	6.27	128882	8.47	75574	10.30	126815	13.63	79459	15.61	60316
11	1351	st19sbd.d	ST19LCSDW1	ST19LCSDW1	1	6.27	131281	8.47	77069	10.30	122701	13.63	75764	15.61	57945
12	1416	st19qls1.d	ST19QLS1		1	6.27	125046	8 47	71997	10 30	122271	13.63	75655	15 61	57284
13	1440	st19a.d	ST19A	NBF-MH178-04	1	6.27	116769	8.47	64407	10.30	103429	13.63	59777	15.61	54631
14	1506	st39a.d	ST39A	KC2062-04211	1	6 27	121438	8.47	67979	10.30	109728	13.63	59371	15.61	50325
15	1531	st39b.d	ST39B	PS2220-04211	1	6.27	121641	8.45	66659	10.30	108292	13 63	60212	15.61	49837
16	1555	st39c.d	ST39C	NF2095-04211	1	6.27	117392	8 47	66158	10.30	106052	13.63	61143	15.61	49446
17	1619	st39d.d	ST39D	SQ1-042111-W	1	6 27	119539	8.45	65648	10.30	105834	13.63	61228	15 61	49006
18	1643	st39e.d	ST39E	SQ3-042111-W	1	6.27	120708	8 47	66746	10.30	109122	13.63	64030	15.61	52334
19	1707	st39f.d	ST39F	SQ4-042111-W	1	6.27	113784	8.47	62955	10.30	102566	13.63	60497	15.61	49543

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control): ICal 0430A

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

VB 5.3.11

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/nt11.i/20110430.b

ARI Job No.: DF04 Method: DF8270.m Instrument: nt11.i Date: 30-APR-2011

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0952	df0430.d	DF0430		1	NO MANUAL INTEGRATION
1012	ic0430a.d	SIM250		1	NO MANUAL INTEGRATION
1037	ic0430b.d	SIM1000		1	NO MANUAL INTEGRATION
1102	ic0430c.d	SIM10		1	Total Benzofluoranthenes,
1126	ic0430d.d	SIM500		1	NO MANUAL INTEGRATION
1151	ic0430e.d	SIM50		1	NO MANUAL INTEGRATION
1215	ic0430f.d	SIM100		1	NO MANUAL INTEGRATION
1239	icv0430.d	ICV-250		1	NO MANUAL INTEGRATION

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2011 10:12
End Cal Date : 30-APR-2011 12:15
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt11.i/20110430.b/lowsim.m
Cal Date : 30-Apr-2011 13:04 van
Curve Type : Average

Calibration File Names:
Level 1: /chem3/nt11.i/20110430.b/ic0430c.d
Level 2: /chem3/nt11.i/20110430.b/ic0430e.d
Level 3: /chem3/nt11.i/20110430.b/ic0430f.d
Level 4: /chem3/nt11.i/20110430.b/ic0430a.d
Level 5: /chem3/nt11.i/20110430.b/ic0430d.d
Level 6: /chem3/nt11.i/20110430.b/ic0430b.d

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	___ RRF	% RSD
2 Phenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 Naphthalene	1.08109	1.02454	1.03280	0.97197	0.89881	0.74598	0.95920	12.667
7 2-Methylnaphthalene	0.59062	0.58399	0.61060	0.60292	0.58723	0.52043	0.58263	5.508
8 1-Methylnaphthalene	0.58524	0.57834	0.61003	0.59640	0.58546	0.51405	0.57825	5.768
9 Dimethylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Acenaphthylene	1.66826	1.55725	1.66572	1.59329	1.53004	1.34692	1.56025	7.601
12 Acenaphthene	1.03009	0.96245	1.04599	1.01243	0.95111	0.89614	0.98304	5.761
13 Diethylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
14 Dibenzofuran	1.55513	1.43789	1.54529	1.50906	1.39255	1.24393	1.44731	8.146
15 Fluorene	1.07158	0.99893	1.06924	1.05521	0.99528	0.94061	1.02181	5.116
17 Pentachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
19 Phenanthrene	1.11716	1.03908	1.06574	1.01879	0.96695	0.82453	1.00537	10.108
20 Anthracene	0.99919	0.93939	1.01567	0.97270	0.94773	0.83502	0.95162	6.740
21 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
24 Fluoranthene	1.07209	0.94594	1.05030	1.00918	0.99300	0.85825	0.98812	7.843
25 Pyrene	1.94697	1.72074	1.83491	1.73390	1.55148	1.29409	1.68035	13.708
26 Butylbenzylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
27 Bis(2-Ethylhexyl)phthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
28 Benzo(a)anthracene	1.69958	1.39488	1.49874	1.37225	1.30437	1.13458	1.40073	13.541

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2011 10:12
End Cal Date : 30-APR-2011 12:15
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem3/nt11.i/20110430.b/lowsim.m
Cal Date : 30-Apr-2011 13:04 van
Curve Type : Average

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
30 Chrysene	1.67604	1.43397	1.52077	1.39083	1.29800	1.12978	1.40823	13.286
31 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
43 Total Benzofluoranthenes	1.72587	1.60324	1.70619	1.64091	1.57070	1.44648	1.61557	6.299
34 Benzo(a)pyrene	1.50395	1.38817	1.47919	1.46046	1.41911	1.35740	1.43471	3.921
37 Indeno(1,2,3-cd)pyrene	1.79600	1.69334	1.77473	1.78012	1.70598	1.64018	1.73173	3.545
38 Dibenzo(a,h)anthracene	1.41813	1.31388	1.37321	1.37195	1.32157	1.29488	1.34894	3.446
39 Benzo(g,h,i)perylene	1.63905	1.52695	1.59250	1.56849	1.49632	1.43490	1.54303	4.713
$ 1 D5-Phenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 6 2-Methylnaphthalene-d10	0.61403	0.58474	0.60576	0.59572	0.57112	0.51362	0.58083	6.242
$ 16 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 23 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 36 Dibenzo(a,h)anthracene-d14	1.35336	1.19848	1.30187	1.27571	1.19560	1.19068	1.25261	5.429

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt11.i/20110430.b/lowsim.m
Batch File: /chem3/nt11.i/20110430.b
Inst ID: nt11.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	ic0430a	ic0430b	ic0430c	ic0430d	ic0430e	ic0430f
INJ.DATE:	30-APR-2011	30-APR-2011	30-APR-2011	30-APR-2011	30-APR-2011	30-APR-2011
INJ.TIME:	10:12	10:37	11:02	11:26	11:51	12:15

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
$	1 D5-Phenol	+++++	+++++	+++++	+++++	+++++	+++++	3.150	2.900-3.400	+++++	+++++
	2 Phenol	+++++	+++++	+++++	+++++	+++++	+++++	3.160	2.910-3.410	+++++	+++++
	3 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	6.639	6.389-6.889	+++++	+++++
*	4 Naphthalene-d8	6.273	6.272	6.273	6.273	6.273	6.272	6.272	6.022-6.522	6.273	0.000
	5 Naphthalene	6.296	6.295	6.296	6.296	6.296	6.295	6.295	6.045-6.545	6.296	0.000
$	6 2-Methylnaphthalene-d1	7.101	7.101	7.101	7.101	7.101	7.101	7.101	6.851-7.351	7.101	0.000
	7 2-Methylnaphthalene	7.136	7.135	7.136	7.136	7.136	7.135	7.135	6.885-7.385	7.136	0.000
	8 1-Methylnaphthalene	7.274	7.273	7.274	7.274	7.274	7.273	7.273	7.023-7.523	7.274	0.000
	9 Dimethylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	10.433	10.183-10.683	+++++	+++++
	10 Acenaphthylene	8.265	8.265	8.265	8.265	8.265	8.265	8.265	8.015-8.515	8.265	0.000
*	11 Acenaphthene-d10	8.466	8.466	8.466	8.466	8.466	8.466	8.466	8.216-8.716	8.466	0.000
	12 Acenaphthene	8.493	8.492	8.493	8.493	8.493	8.492	8.492	8.242-8.742	8.493	0.000
	13 Diethylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	11.543	11.293-11.793	+++++	+++++
	14 Dibenzofuran	8.694	8.694	8.694	8.694	8.694	8.694	8.694	8.444-8.944	8.694	0.000
	15 Fluorene	9.123	9.123	9.123	9.123	9.123	9.123	9.123	8.873-9.373	9.123	0.000
$	16 2,4,6-Tribromophenol	+++++	+++++	+++++	+++++	+++++	+++++	12.499	12.249-12.749	+++++	+++++
	17 Pentachlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	13.381	13.131-13.631	+++++	+++++

Reviewer 1 VB Date: 4.30.11

Reviewer 2 [signature] Date: 5/2/11

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/nt11.i/20110430.b/lowsim.m
Batch File: /chem3/nt11.i/20110430.b
Inst ID: nt11.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 18 Phenanthrene-d10	10.303	10.302	10.303	10.302	10.303	10.302	10.302	10.052-10.552	10.302	0.000
19 Phenanthrene	10.329	10.329	10.329	10.329	10.329	10.329	10.329	10.079-10.579	10.329	0.000
20 Anthracene	10.383	10.383	10.383	10.383	10.383	10.383	10.383	10.133-10.633	10.383	0.000
21 Di-n-butylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	14.153	13.903-14.403	+++++	+++++
22 Carbazole	+++++	+++++	+++++	+++++	+++++	+++++	14.533	14.283-14.783	+++++	+++++
$ 23 Fluoranthene-d10	+++++	+++++	+++++	+++++	+++++	+++++	14.682	14.432-14.932	+++++	+++++
24 Fluoranthene	11.831	11.831	11.818	11.818	11.818	11.817	11.817	11.567-12.067	11.822	0.007
25 Pyrene	12.113	12.112	12.113	12.113	12.113	12.112	12.112	11.862-12.362	12.113	0.000
26 Butylbenzylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	16.528	16.278-16.778	+++++	+++++
27 Bis(2-Ethylhexyl)phtha	+++++	+++++	+++++	+++++	+++++	+++++	17.320	17.070-17.570	+++++	+++++
28 Benzo(a)anthracene	13.601	13.601	13.601	13.601	13.601	13.601	13.601	13.351-13.851	13.601	0.000
* 29 Chrysene-d12	13.628	13.628	13.628	13.628	13.628	13.628	13.628	13.378-13.878	13.628	0.000
30 Chrysene	13.655	13.655	13.655	13.655	13.655	13.655	13.655	13.405-13.905	13.655	0.000
31 Di-n-octylphthalate	+++++	+++++	+++++	+++++	+++++	+++++	18.607	18.357-18.857	+++++	+++++
43 Total Benzofluoranthen	15.042	15.041	15.042	15.042	15.042	15.041	15.041	14.791-15.291	15.042	0.000
34 Benzo(a)pyrene	15.522	15.512	15.512	15.512	15.512	15.512	15.512	15.262-15.762	15.514	0.004
* 35 Perylene-d12	15.608	15.608	15.609	15.608	15.609	15.608	15.608	15.358-15.858	15.608	0.000
$ 36 Dibenzo(a,h)anthracene	17.618	17.618	17.618	17.618	17.618	17.618	17.618	17.368-17.868	17.618	0.000
37 Indeno(1,2,3-cd)pyrene	17.685	17.685	17.672	17.672	17.672	17.672	17.672	17.422-17.922	17.676	0.007
38 Dibenzo(a,h)anthracene	17.685	17.685	17.685	17.685	17.685	17.685	17.685	17.435-17.935	17.685	0.000
39 Benzo(g,h,i)perylene	18.302	18.302	18.289	18.289	18.289	18.289	18.289	18.039-18.539	18.293	0.007

Data File: /chem3/nt11.i/20110430.b/df0430.d

Date : 30-APR-2011 09:52

Client ID:

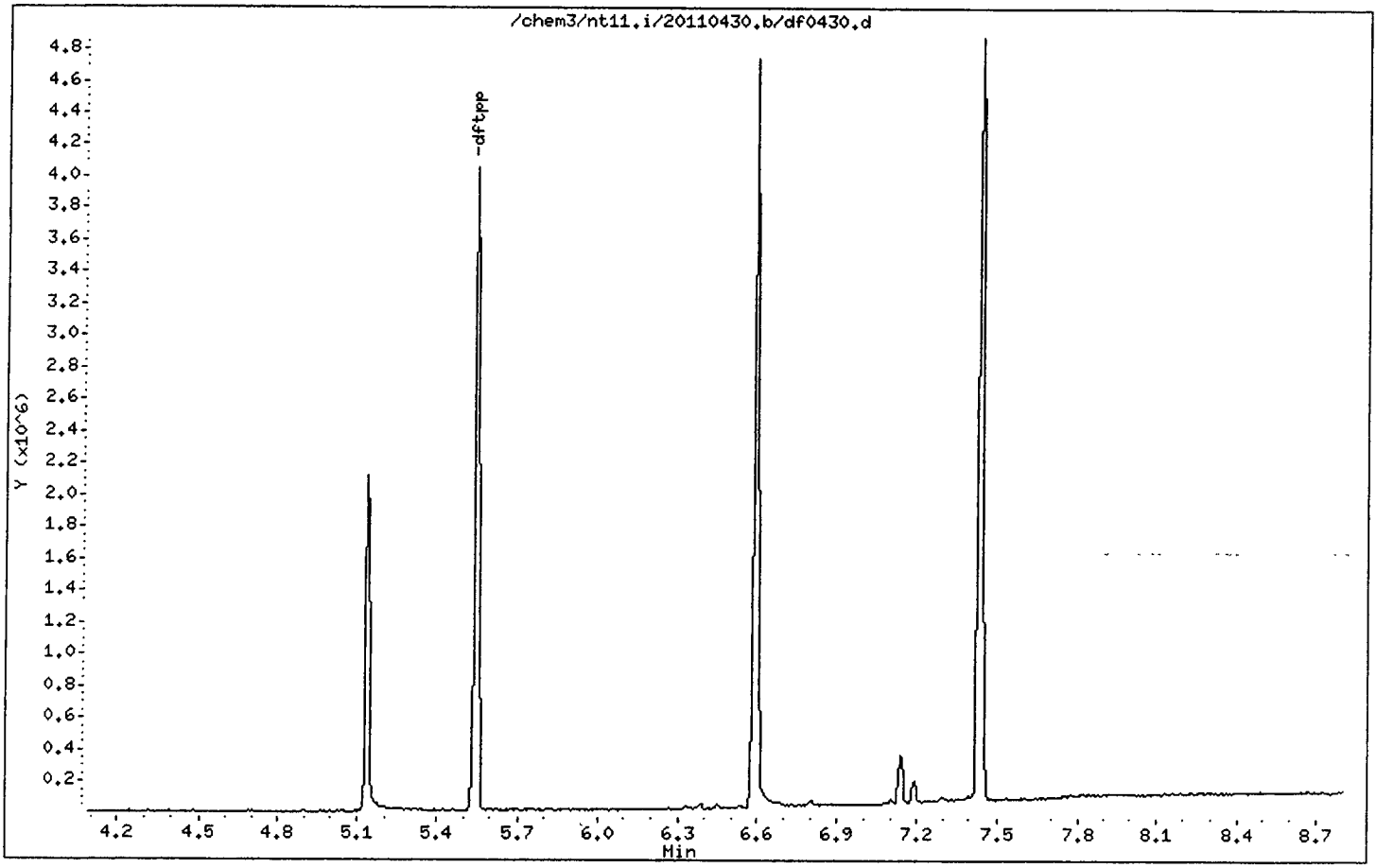
Instrument: nt11.i

Sample Info: DF0430

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem3/nt11.i/20110430.b/df0430.d

Date : 30-APR-2011 09:52

Client ID:

Instrument: nt11.i

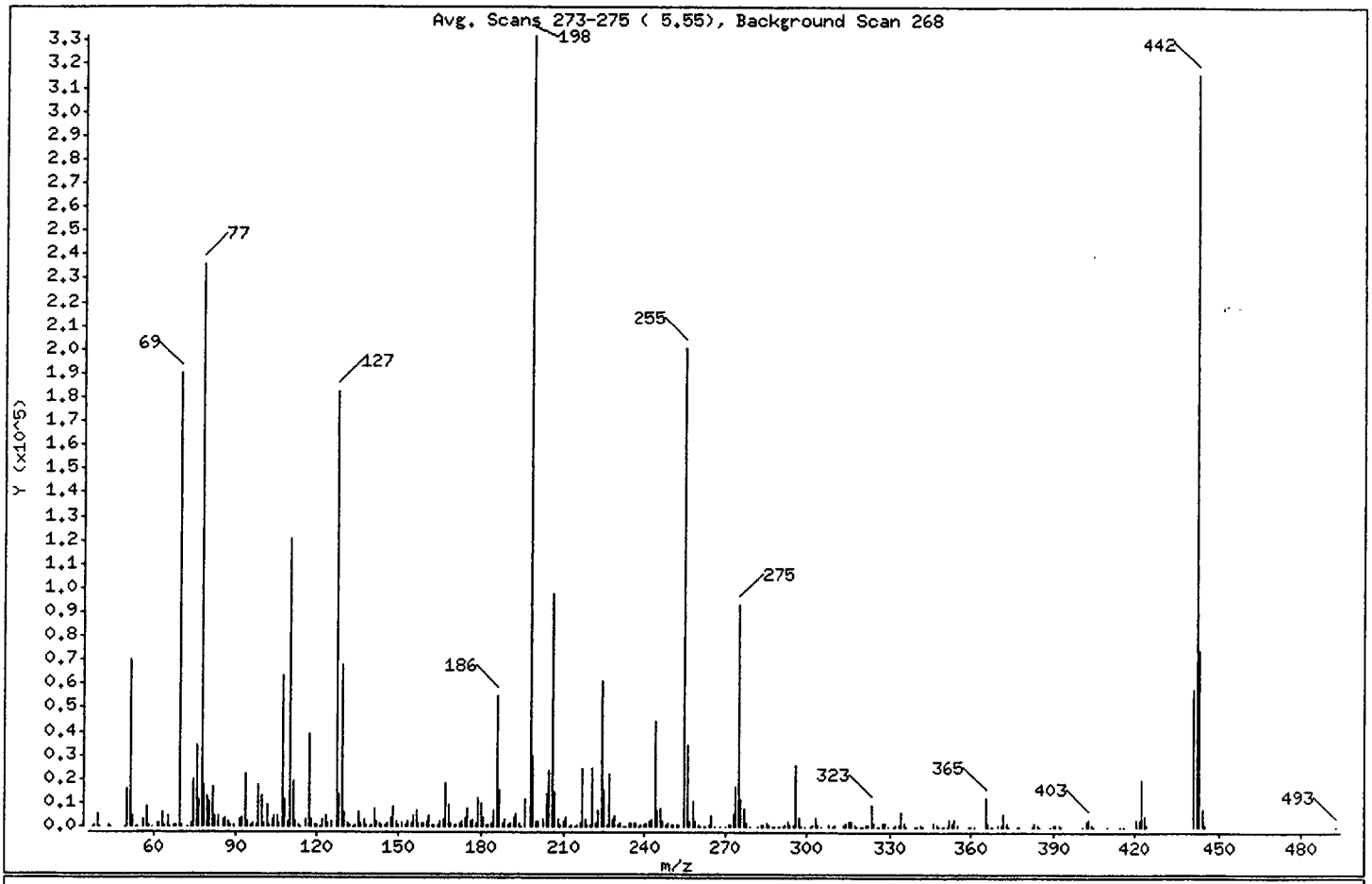
Sample Info: DF0430

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	21.25
68	Less than 2.00% of mass 69	0.25 (0.43)
69	Mass 69 relative abundance	57.16
70	Less than 2.00% of mass 69	0.27 (0.47)
127	10.00 - 80.00% of mass 198	55.04
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	8.88
275	10.00 - 60.00% of mass 198	28.11
365	Greater than 1.00% of mass 198	3.78
441	0.01 - 24.00% of mass 442	17.37 (18.26)
442	50.00 - 200.00% of mass 198	95.11
443	15.00 - 24.00% of mass 442	22.19 (23.33)

Date : 30-APR-2011 09:52

Client ID: Instrument: nt11.i

Sample Info: DF0430

Operator: VTS

Column phase: ZB-5msi Column diameter: 0.25

Data File: df0430.d
Spectrum: Avg. Scans 273-275 (5.55), Background Scan 268
Location of Maximum: 198.00
Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	226	131.00	1341	217.00	24216	309.00	280
38.00	835	132.00	698	218.00	3205	310.00	536
39.00	5046	133.00	233	219.00	417	311.00	86
40.00	189	134.00	1101	220.00	403	313.00	550
41.00	215	135.00	5774	221.00	24072	314.00	1493
43.00	451	136.00	1811	222.00	1255	315.00	2626
44.00	75	137.00	2870	223.00	6528	316.00	2216
45.00	200	138.00	633	224.00	60832	317.00	561
48.00	108	139.00	167	225.00	15547	318.00	62
49.00	153	140.00	986	226.00	1036	319.00	53
50.00	15982	141.00	7835	227.00	22208	320.00	94
51.00	70512	142.00	2667	228.00	3156	321.00	1049
52.00	4664	143.00	1773	229.00	4918	322.00	517
53.00	309	144.00	682	230.00	614	323.00	9074
54.00	58	145.00	691	231.00	1627	324.00	1671
56.00	3272	146.00	1289	232.00	267	325.00	147
57.00	8045	147.00	4037	233.00	331	326.00	137
58.00	494	148.00	8630	234.00	1274	327.00	1401
59.00	255	149.00	1938	235.00	1538	328.00	1215
61.00	1629	150.00	733	236.00	1432	329.00	136
62.00	1847	151.00	1420	237.00	1637	331.00	52
63.00	5885	152.00	781	238.00	239	332.00	778
64.00	1049	153.00	2232	239.00	552	333.00	1088
65.00	4902	154.00	1687	240.00	810	334.00	5853
66.00	247	155.00	4616	241.00	1365	335.00	1511
67.00	459	156.00	7053	242.00	2415	336.00	230
68.00	814	157.00	1607	243.00	3055	339.00	212
69.00	189632	158.00	1201	244.00	44256	340.00	127
70.00	899	159.00	1289	245.00	6601	341.00	1142
72.00	223	160.00	2097	246.00	7951	342.00	315
73.00	1624	161.00	4411	247.00	2080	346.00	1365
74.00	19680	162.00	823	248.00	469	347.00	620
75.00	34688	163.00	581	249.00	1537	348.00	83
76.00	11536	164.00	717	250.00	410	349.00	60
77.00	235968	165.00	2379	251.00	386	350.00	80

Data File: /chem3/nt11.i/20110430.b/df0430.d

Date : 30-APR-2011 09:52

Client ID:

Instrument: nt11.i

Sample Info: DF0430

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0430.d
Spectrum: Avg. Scans 273-275 (5.55), Background Scan 268
Location of Maximum: 198.00
Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	17520	166.00	2893	252.00	642	351.00	97
79.00	13267	167.00	18232	253.00	935	352.00	3275
80.00	10539	168.00	9360	255.00	200896	353.00	1748
81.00	16768	169.00	1825	256.00	33992	354.00	3285
82.00	4451	170.00	553	257.00	2234	355.00	662
83.00	4507	171.00	808	258.00	10597	359.00	264
85.00	2740	172.00	1716	259.00	2036	360.00	83
86.00	3664	173.00	1955	260.00	432	361.00	167
87.00	2218	174.00	3714	261.00	293	365.00	12545
88.00	1115	175.00	7966	262.00	114	366.00	1903
89.00	408	176.00	2145	263.00	187	367.00	78
91.00	3360	177.00	3312	264.00	569	368.00	91
92.00	3550	178.00	1277	265.00	4421	370.00	456
93.00	21816	179.00	11860	266.00	251	371.00	759
94.00	1923	180.00	9696	268.00	135	372.00	5196
95.00	496	181.00	3932	270.00	277	373.00	1228
96.00	1579	182.00	674	271.00	482	374.00	165
97.00	575	183.00	634	272.00	485	377.00	68
98.00	17304	184.00	1154	273.00	5642	378.00	80
99.00	12887	185.00	6515	274.00	17072	382.00	52
100.00	1498	186.00	54696	275.00	93264	383.00	1185
101.00	8878	187.00	15313	276.00	11769	384.00	474
102.00	418	188.00	1614	277.00	7779	385.00	121
103.00	2980	189.00	3375	278.00	1457	389.00	93
104.00	4695	190.00	471	279.00	228	390.00	842
105.00	4206	191.00	1688	282.00	357	391.00	583
106.00	1267	192.00	4056	283.00	761	392.00	599
107.00	63248	193.00	5106	284.00	564	393.00	147
108.00	11654	194.00	1327	285.00	1616	401.00	345
109.00	1933	195.00	283	286.00	442	402.00	2144
110.00	120512	196.00	11244	287.00	51	403.00	3089
111.00	18720	198.00	331776	288.00	206	404.00	1027
112.00	2253	199.00	29456	289.00	50	405.00	158
113.00	912	200.00	2249	290.00	371	409.00	67
114.00	258	201.00	2051	291.00	143	410.00	73

Data File: /chem3/nt11.i/20110430.b/df0430.d

Date : 30-APR-2011 09:52

Client ID:

Instrument: nt11.i

Sample Info: DF0430

Operator: VTS

Column phase: ZB-5msi

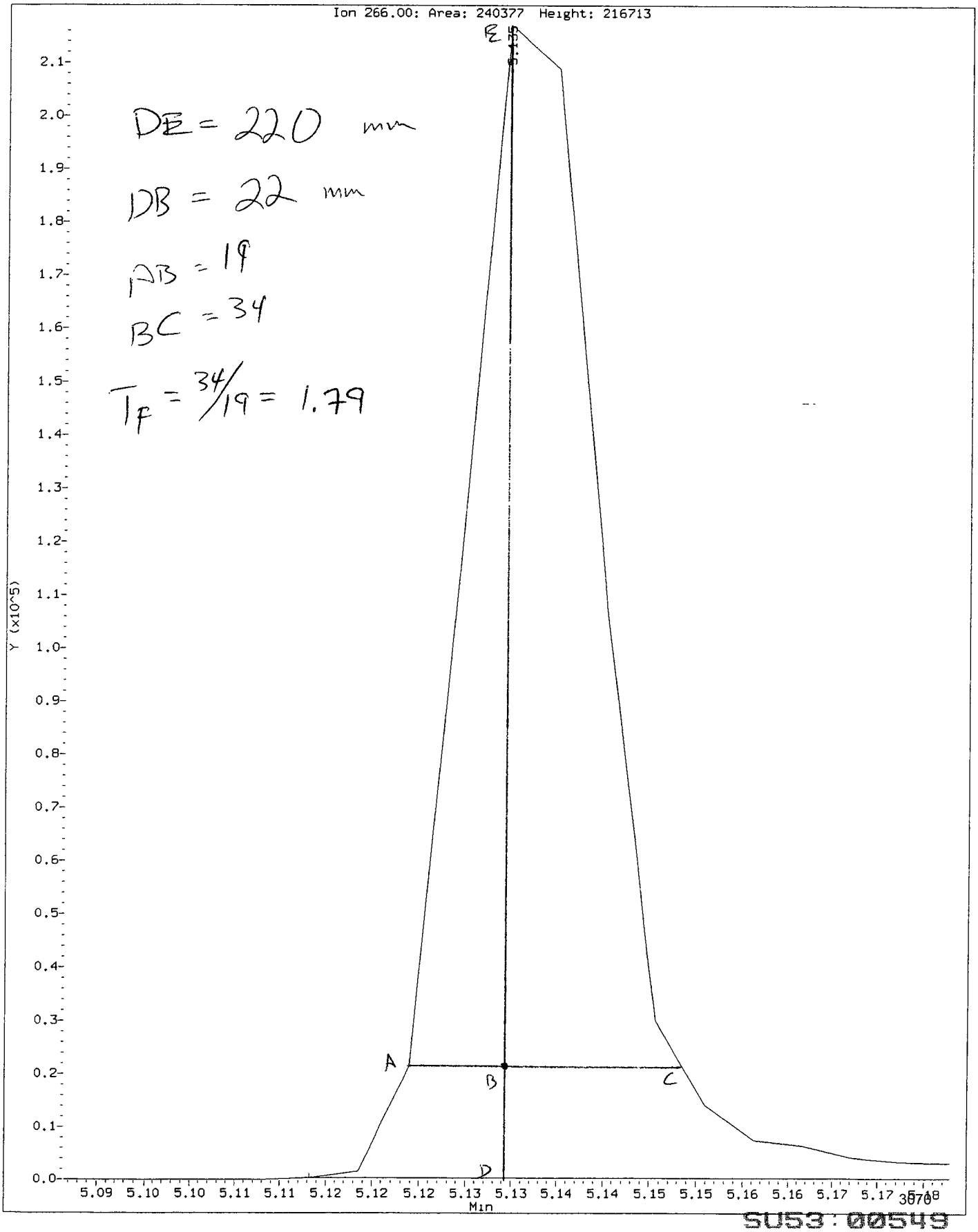
Column diameter: 0.25

Data File: df0430.d
Spectrum: Avg. Scans 273-275 (5.55), Background Scan 268
Location of Maximum: 198.00
Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	2986	203.00	2725	292.00	579	415.00	323
117.00	38656	204.00	13504	293.00	1983	416.00	68
118.00	2690	205.00	23800	294.00	528	421.00	2775
119.00	601	206.00	97264	295.00	657	422.00	3015
120.00	627	207.00	14188	296.00	25640	423.00	20056
121.00	69	208.00	2965	297.00	3849	424.00	4847
122.00	3288	209.00	880	298.00	343	425.00	554
123.00	4673	210.00	1936	299.00	164	441.00	57616
124.00	1765	211.00	3706	301.00	245	442.00	315520
125.00	2498	212.00	357	302.00	671	443.00	73624
127.00	182592	213.00	507	303.00	3682	444.00	7765
128.00	13673	214.00	223	304.00	1014	445.00	525
129.00	67776	215.00	911	305.00	145	493.00	64
130.00	5837	216.00	1725	308.00	523		

Data File: /chem3/nt11.i/20110430.b/ddt.b/df0430.d
Injection Date: 30-APR-2011 09:52
Instrument: nt11.i
Client Sample ID:

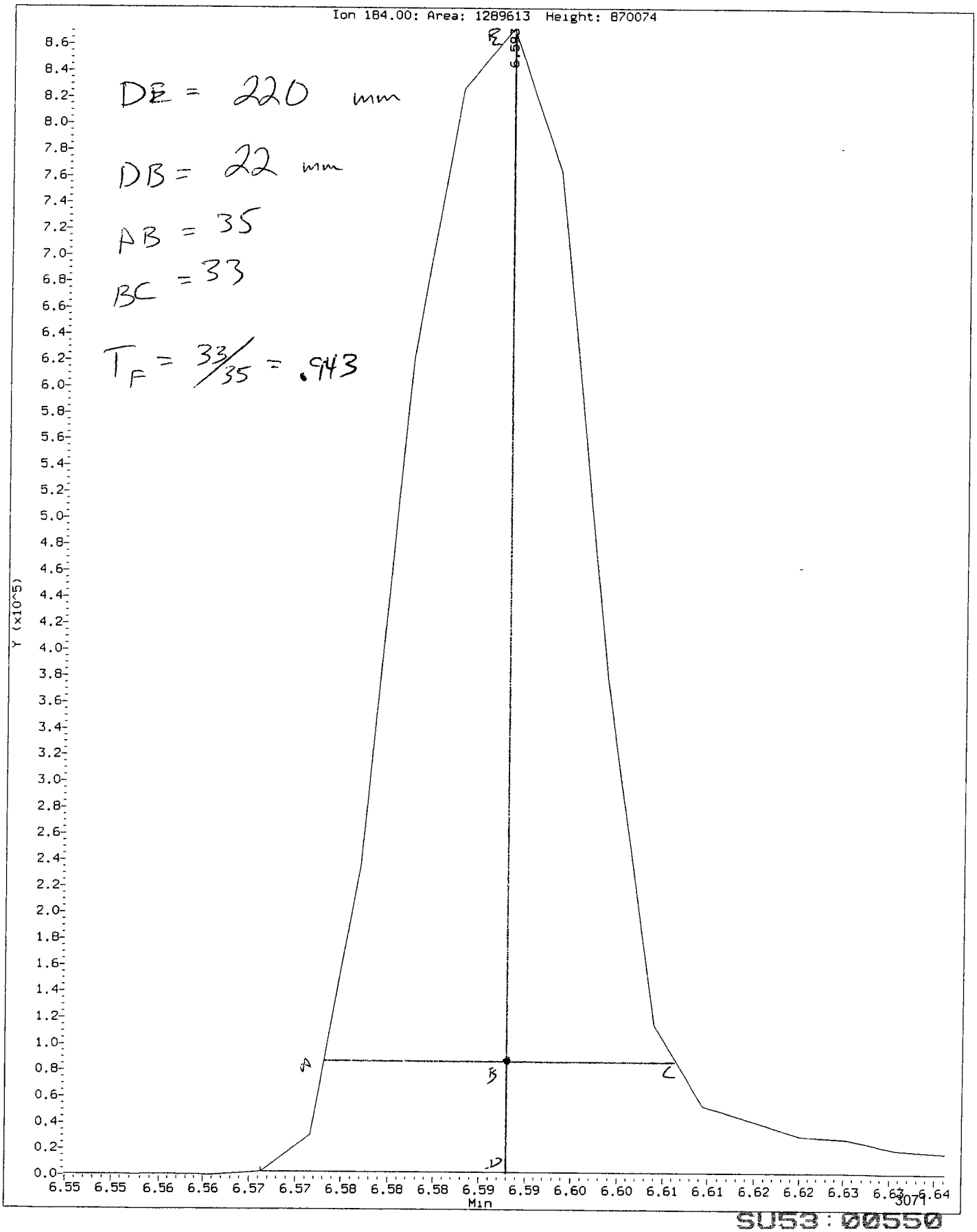
Compound: Pentachlorophenol
CAS Number: 87-86-5



SU53:00549

Data File: /chem3/nt11.i/20110430.b/ddt.b/df0430.d
Injection Date: 30-APR-2011 09:52
Instrument: nt11.i
Client Sample ID:

Compound: Benzidine
CAS Number:



SU53 : 00550

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt11.i/20110430.b/ddt.b/df0430.d ARI ID: DF0430
Method: /chem3/nt11.i/20110430.b/ddt.b/sw846ddt.m Misc:
Analysis Date: 30-APR-2011 09:52 Instrument: nt11.i

COMPOUND	RT	AREA
Pentachlorophenol	5.135	240377
Benzidine	6.593	1289613
4,4'-DDE	6.807	3713
4,4'-DDD	7.138	62455
4,4'-DDT	7.437	801029

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 3713 + 62455) * 100}{(\ 3713 + 62455 + 801029)}$$

DDT Percent Breakdown = 7.6 %

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110430.b/ic0430a.d
Lab Smp Id: SIM250
Inj Date : 30-APR-2011 10:12
Operator : VTS Inst ID: nt11.i
Smp Info : SIM250
Misc Info :
Comment :
Method : /chem3/nt11.i/20110430.b/lowsim.m
Meth Date : 30-Apr-2011 13:05 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.273	6.272	(1.000)	129326	200.000	
	5 Naphthalene	128	6.296	6.295	(1.004)	157126	250.000	253
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	96303	250.000	256
	7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	97467	250.000	259
	8 1-Methylnaphthalene	142	7.274	7.273	(1.160)	96412	250.000	258
	10 Acenaphthylene	152	8.265	8.265	(0.976)	140554	250.000	255
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	70573	200.000	
	12 Acenaphthene	153	8.493	8.492	(1.003)	89313	250.000	257
	14 Dibenzofuran	168	8.694	8.694	(1.027)	133124	250.000	261
	15 Fluorene	166	9.123	9.123	(1.078)	93087	250.000	258
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	113741	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	144848	250.000	253
	20 Anthracene	178	10.383	10.383	(1.008)	138295	250.000	256
	24 Fluoranthene	202	11.831	11.817	(1.148)	143481	250.000	255
	25 Pyrene	202	12.113	12.112	(0.889)	153370	250.000	258
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	121381	250.000	245
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	70763	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	123024	250.000	247
	43 Total Benzofluoranthenes	252	15.042	15.041	(0.964)	225199	500.000	508
	34 Benzo(a)pyrene	252	15.522	15.512	(0.994)	100217	250.000	254
*	35 Perylene-d12	264	15.608	15.608	(1.000)	54896	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.685	17.672	(1.133)	122152	250.000	257
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	87539	250.000	255
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	94143	250.000	254
	39 Benzo(g,h,i)perylene	276	18.302	18.289	(1.173)	107630	250.000	254

4.30.11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0430a.d
Lab Smp Id: SIM250
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110430.b/lowsim.m
Misc Info:

Calibration Date: 30-APR-2011
Calibration Time: 10:12

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	129326	0.00
11 Acenaphthene-d10	70573	35286	141146	70573	0.00
18 Phenanthrene-d10	113741	56870	227482	113741	0.00
29 Chrysene-d12	70763	35382	141526	70763	0.00
35 Perylene-d12	54896	27448	109792	54896	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

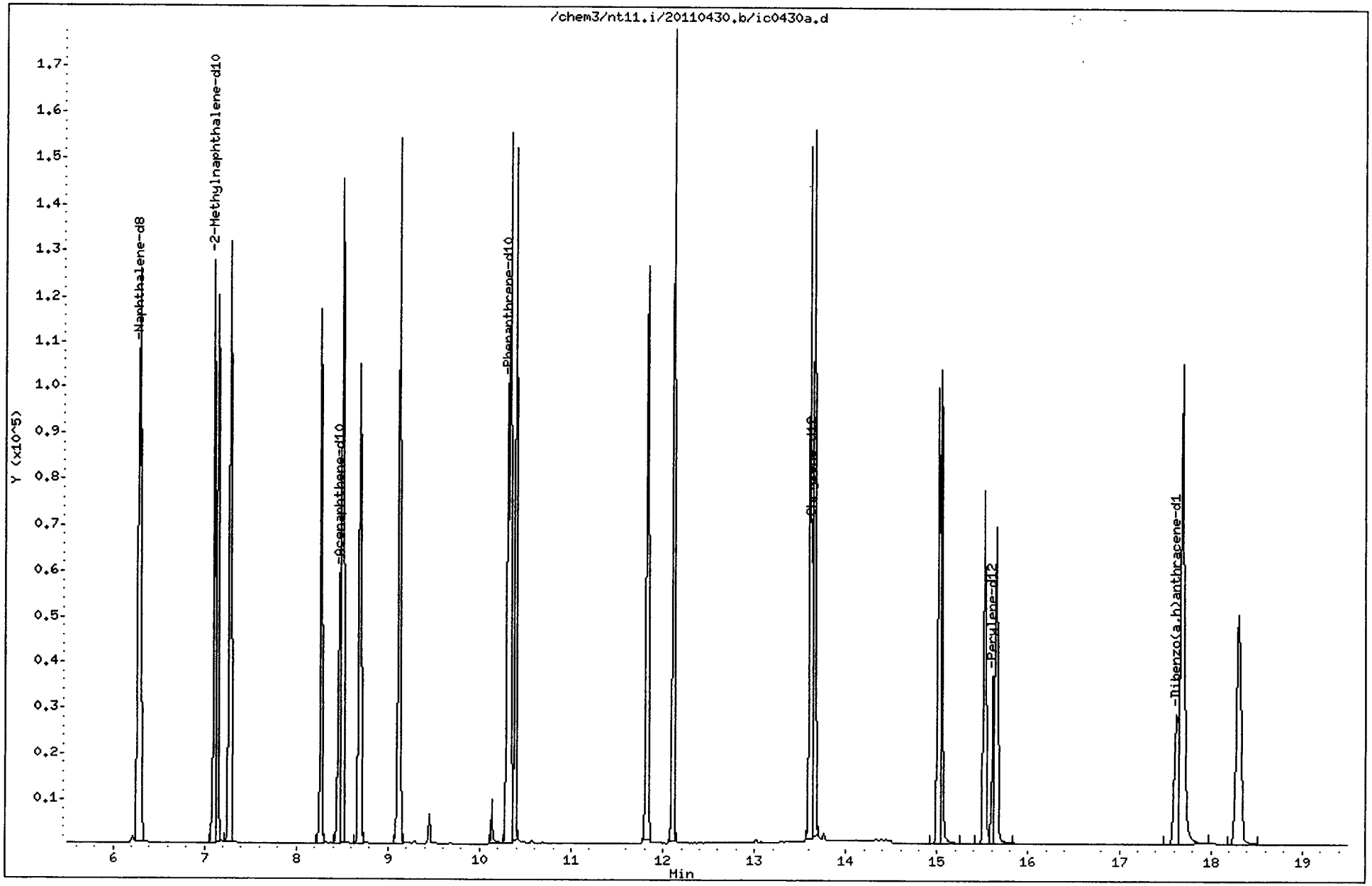
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20110430.b/ic0430a.d
Date : 30-APR-2011 10:12
Client ID:
Sample Info: SIM250

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0430a.d

Lab ID: SIM250, Method: lowsim.m, Instrument: nt11.i, Date: 30-APR-2011

RT	CO-ELUTION COMPOUNDS
17.685	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
17.685	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110430.b/ic0430b.d
Lab Smp Id: SIM1000
Inj Date : 30-APR-2011 10:37
Operator : VTS Inst ID: nt11.i
Smp Info : SIM1000
Misc Info :
Comment :
Method : /chem3/nt11.i/20110430.b/lowsim.m
Meth Date : 30-Apr-2011 13:05 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 3 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.272	6.272	(1.000)	133908	200.000	
	5 Naphthalene	128	6.295	6.295	(1.004)	499464	1000.00	778
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	343890	1000.00	884
	7 2-Methylnaphthalene	142	7.135	7.135	(1.138)	348447	1000.00	893
	8 1-Methylnaphthalene	142	7.273	7.273	(1.160)	344176	1000.00	889
	10 Acenaphthylene	152	8.265	8.265	(0.976)	488844	1000.00	863
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	72587	200.000	
	12 Acenaphthene	153	8.492	8.492	(1.003)	325241	1000.00	912
	14 Dibenzofuran	168	8.694	8.694	(1.027)	451464	1000.00	859
	15 Fluorene	166	9.123	9.123	(1.078)	341381	1000.00	921
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	114760	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	473114	1000.00	820
	20 Anthracene	178	10.383	10.383	(1.008)	479136	1000.00	877
	24 Fluoranthene	202	11.831	11.817	(1.148)	492461	1000 00	869
	25 Pyrene	202	12.112	12.112	(0.889)	505226	1000.00	770
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	442950	1000.00	810
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	78082	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	441076	1000.00	802
	43 Total Benzofluoranthenes	252	15.041	15.041	(0.964)	845178	2000.00	1790
	34 Benzo(a)pyrene	252	15.512	15.512	(0.994)	396564	1000.00	946
*	35 Perylene-d12	264	15.608	15.608	(1.000)	58430	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.685	17.672	(1.133)	479179	1000.00	947
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	347856	1000.00	951
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	378298	1000.00	960
	39 Benzo(g,h,i)perylene	276	18.302	18.289	(1.173)	419205	1000.00	930

VB
4.30.11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0430b.d
Lab Smp Id: SIM1000
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110430.b/lowsim.m
Misc Info:

Calibration Date: 30-APR-2011
Calibration Time: 10:12

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	133908	3.54
11 Acenaphthene-d10	70573	35286	141146	72587	2.85
18 Phenanthrene-d10	113741	56870	227482	114760	0.90
29 Chrysene-d12	70763	35382	141526	78082	10.34
35 Perylene-d12	54896	27448	109792	58430	6.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20110430.b/ic0430b.d
Date : 30-APR-2011 10:37
Client ID:
Sample Info: SIM1000

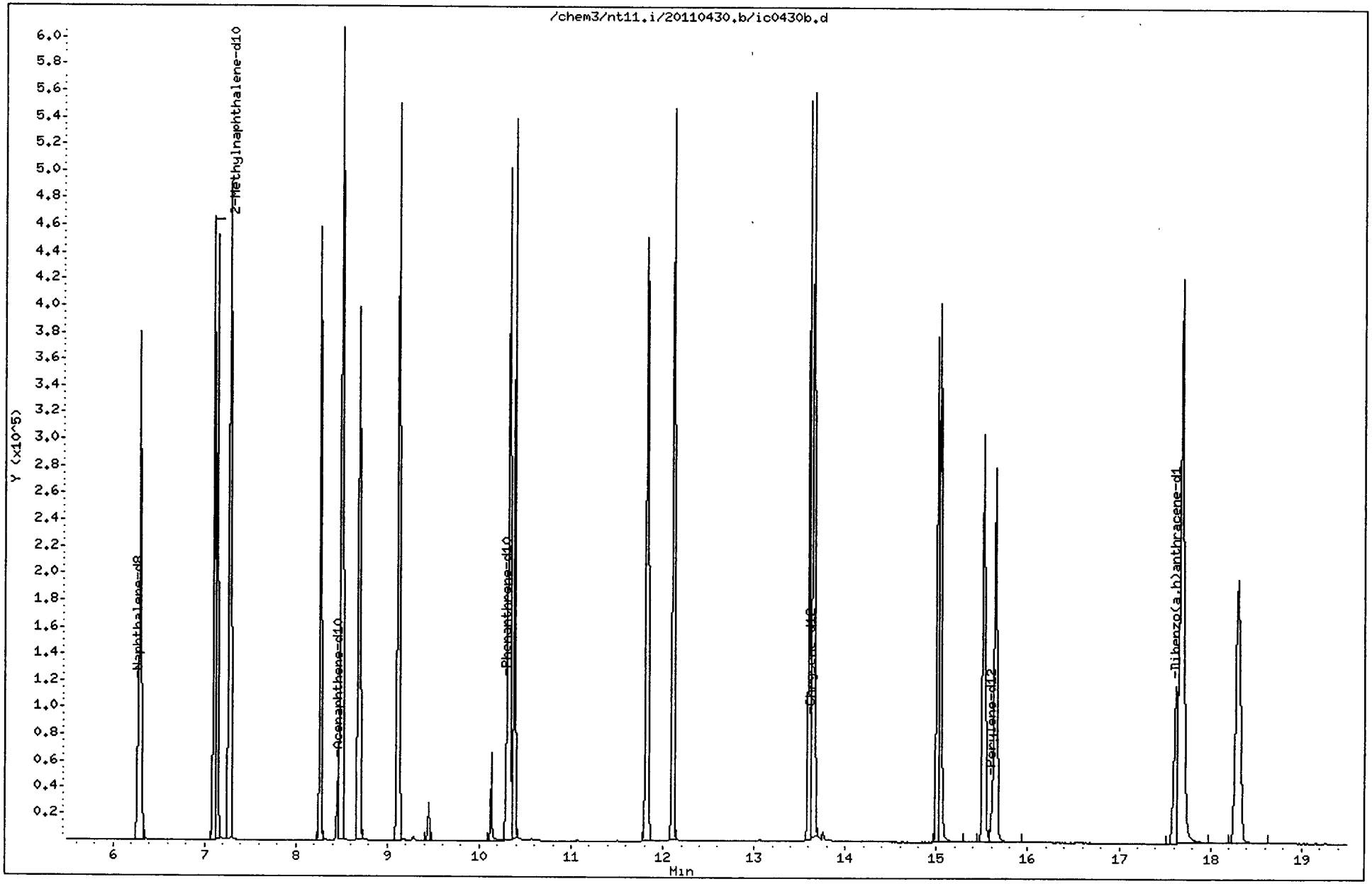
Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5ms1

3079

SU53 00553



CO-ELUTION SUMMARY FOR FILE - ic0430b.d

Lab ID: SIM1000, Method: lowsim.m, Instrument: nt11.i, Date: 30-APR-2011

RT	CO-ELUTION COMPOUNDS
17.685	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
17.685	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110430.b/ic0430c.d
Lab Smp Id: SIM10
Inj Date : 30-APR-2011 11:02
Operator : VTS Inst ID: nt11.i
Smp Info : SIM10
Misc Info :
Comment :
Method : /chem3/nt11.i/20110430.b/lowsim.m
Meth Date : 30-Apr-2011 13:05 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pnalmn.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.273	6.272	(1.000)	126410	200.000	
	5 Naphthalene	128	6.296	6.295	(1.004)	6833	10.0000	11.3
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	3881	10.0000	10.6
	7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	3733	10.0000	10.1
	8 1-Methylnaphthalene	142	7.274	7.273	(1.160)	3699	10.0000	10.1
	10 Acenaphthylene	152	8.265	8.265	(0.976)	5589	10.0000	10.7
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	67004	200.000	
	12 Acenaphthene	153	8.493	8.492	(1.003)	3451	10.0000	10.5
	14 Dibenzofuran	168	8.694	8.694	(1.027)	5210	10.0000	10.7
	15 Fluorene	166	9.123	9.123	(1.078)	3590	10.0000	10.5
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	107827	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	6023	10.0000	11.1
	20 Anthracene	178	10.383	10.383	(1.008)	5387	10.0000	10.5
	24 Fluoranthene	202	11.818	11.817	(1.147)	5780	10.0000	10.8
	25 Pyrene	202	12.113	12.112	(0.889)	5871	10.0000	11 6
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	5125	10.0000	12.1
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	60309	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	5054	10.0000	11.9
	43 Total Benzofluoranthenes	252	15.042	15.041	(0.964)	8687	20.0000	21.4(M)
	34 Benzo(a)pyrene	252	15.512	15.512	(0.994)	3785	10.0000	10.5
*	35 Perylene-d12	264	15.609	15.608	(1.000)	50334	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	4520	10.0000	10.4
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	3406	10.0000	10.8
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	3569	10.0000	10.5
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	4125	10.0000	10.6

VTS 4.30.11

QC Flag Legend

M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0430c.d
Lab Smp Id: SIM10
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110430.b/lowsim.m
Misc Info:

Calibration Date: 30-APR-2011
Calibration Time: 10:12

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	126410	-2.25
11 Acenaphthene-d10	70573	35286	141146	67004	-5.06
18 Phenanthrene-d10	113741	56870	227482	107827	-5.20
29 Chrysene-d12	70763	35382	141526	60309	-14.77
35 Perylene-d12	54896	27448	109792	50334	-8.31

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20110430.b/ic0430c.d
Date : 30-APR-2011 11:02
Client ID:
Sample Info: SIM10

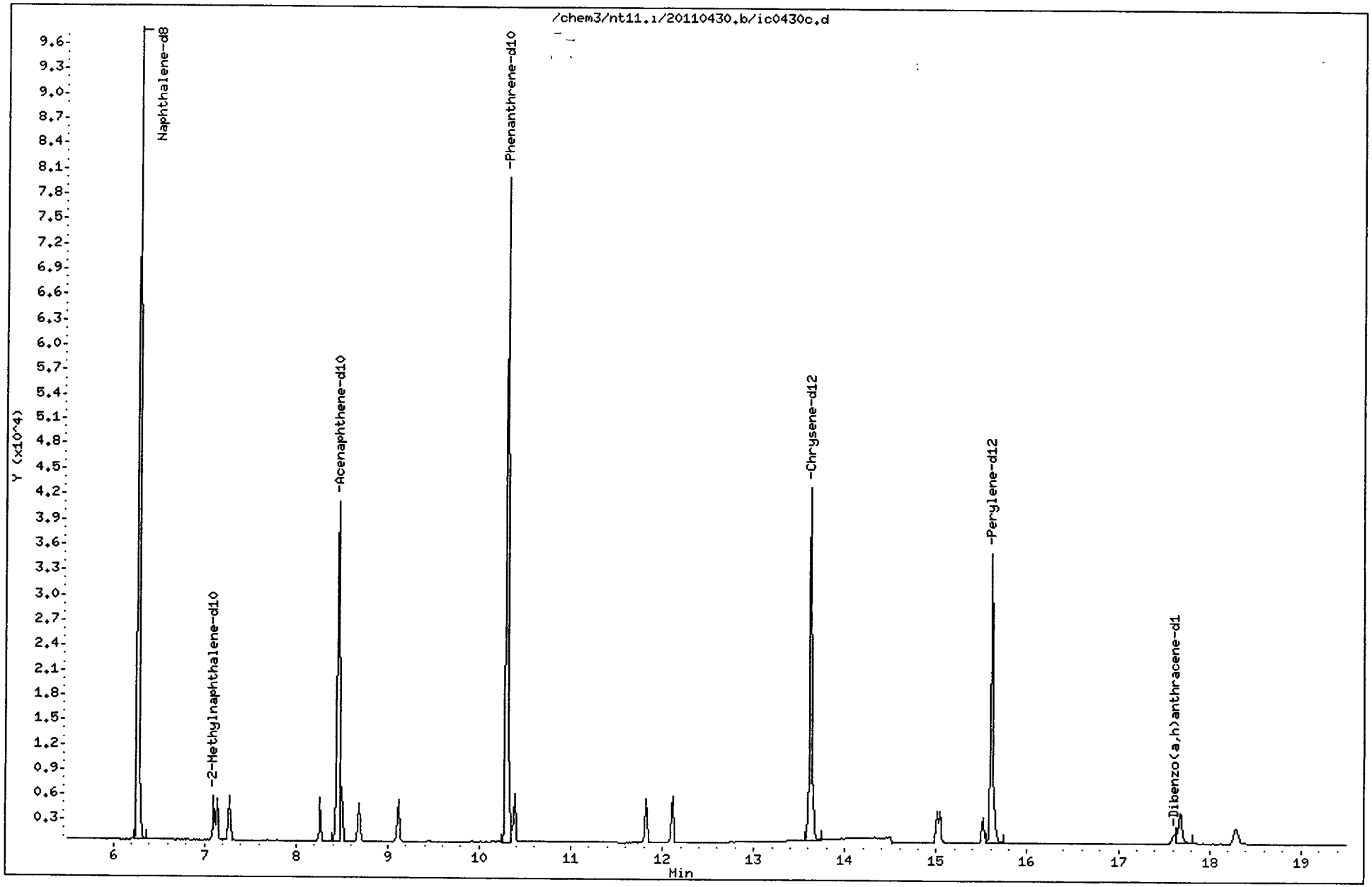
Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi

3084

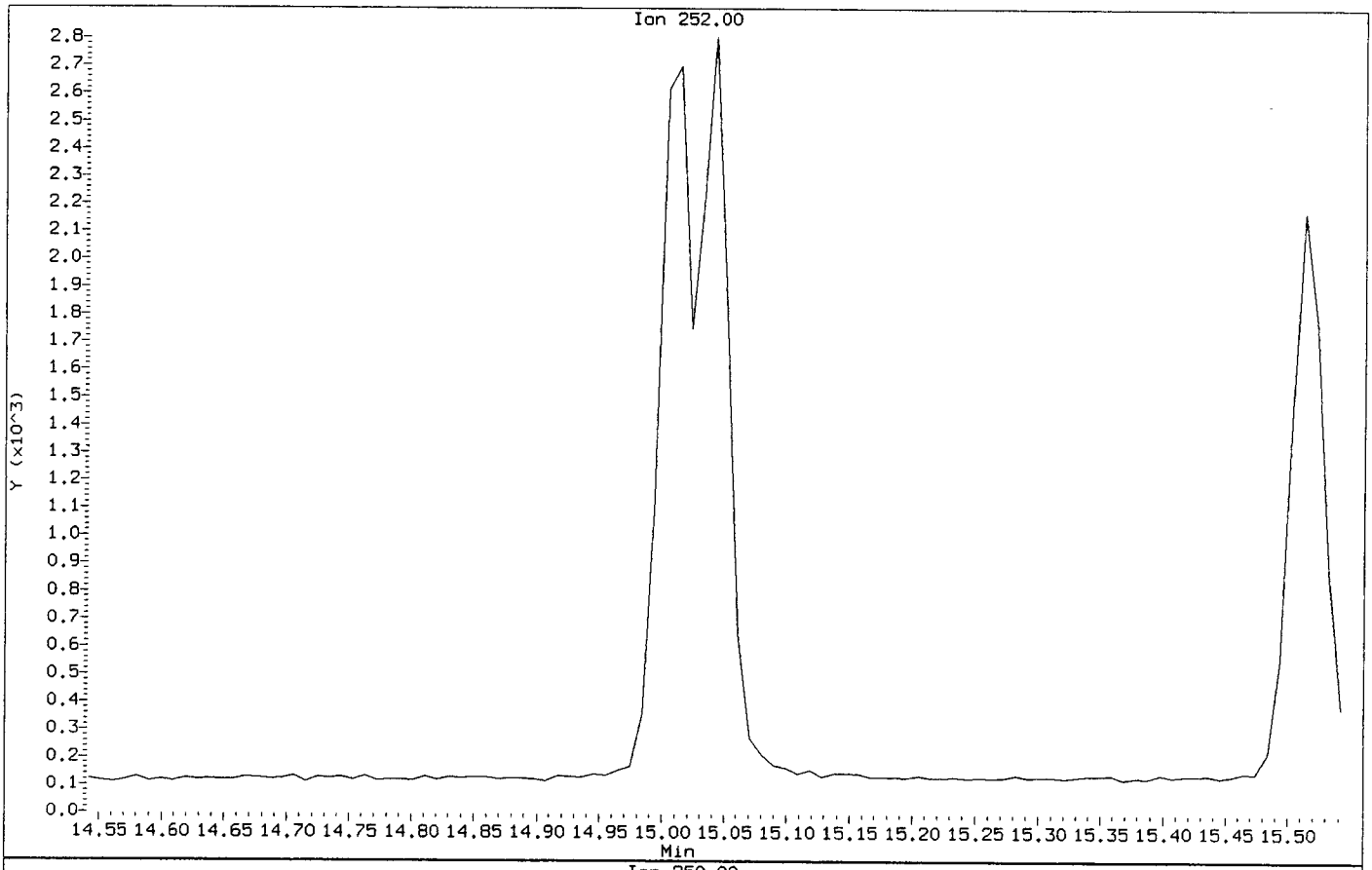
SU53:00563

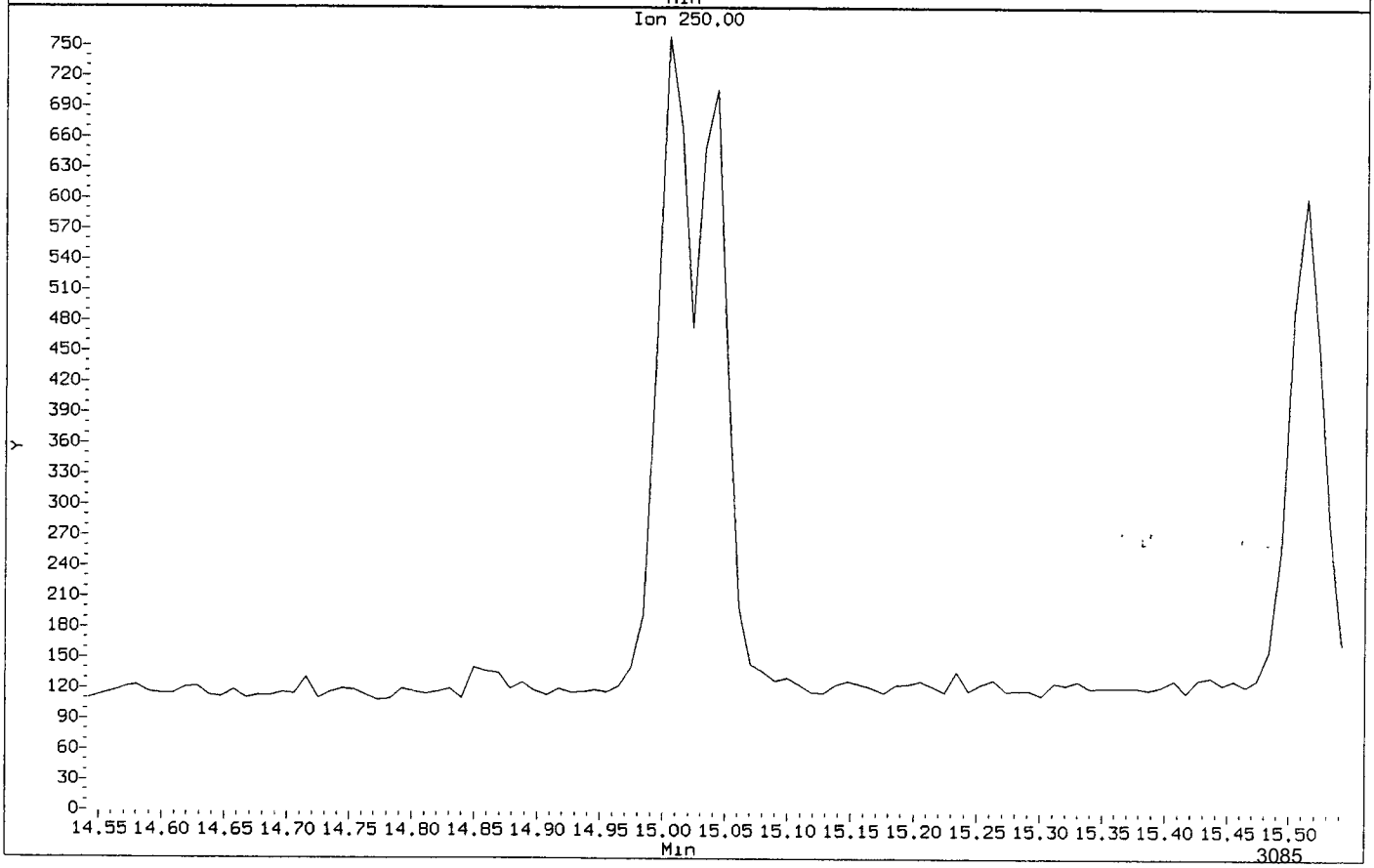


VB
4.30.11

Data File: /chem3/nt11.i/20110430.b/ic0430c.d
Injection Date: 30-APR-2011 11:02
Instrument: nt11.i
Client Sample ID:

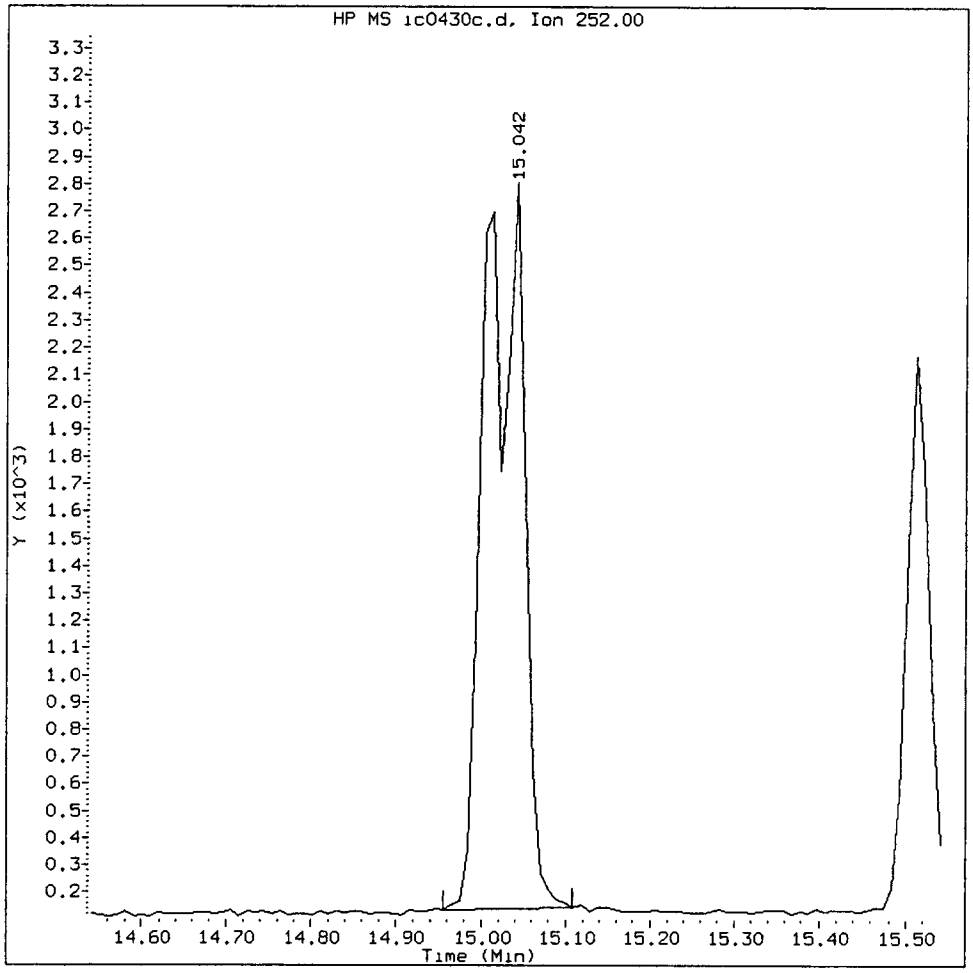
Compound: Total Benzofluoranthenes
CAS Number:





SIM10, /chem3/nt11.i/20110430.b/ic0430c.d

Total Benzofluoranthenes Amount: 21.37 Area: 8687



MANUAL INTEGRATION for Total Benzofluoranthenes

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: VB Date: 4-30-11

CO-ELUTION SUMMARY FOR FILE - ic0430c.d

Lab ID: SIM10, Method: lowsim.m, Instrument: nt11.i, Date: 30-APR-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110430.b/ic0430d.d
Lab Smp Id: SIM500
Inj Date : 30-APR-2011 11:26
Operator : VTS Inst ID: nt11.i
Smp Info : SIM500
Misc Info :
Comment :
Method : /chem3/nt11.i/20110430.b/lowsim.m
Meth Date : 30-Apr-2011 13:05 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.273	6.272	(1.000)	127404	200.000	
	5 Naphthalene	128	6.296	6.295	(1.004)	286280	500.000	469
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	181907	500.000	492
	7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	187040	500.000	504
	8 1-Methylnaphthalene	142	7.274	7.273	(1.160)	186475	500.000	506
	10 Acenaphthylene	152	8.265	8.265	(0.976)	276004	500.000	490
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	72156	200.000	
	12 Acenaphthene	153	8.493	8.492	(1.003)	171570	500.000	484
	14 Dibenzofuran	168	8.694	8.694	(1.027)	251202	500.000	481
	15 Fluorene	166	9.123	9.123	(1.078)	179539	500.000	487
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	112214	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	271263	500.000	481
	20 Anthracene	178	10.383	10.383	(1.008)	265871	500.000	498
	24 Fluoranthene	202	11.818	11.817	(1.147)	278570	500.000	502
	25 Pyrene	202	12.113	12.112	(0.889)	283258	500.000	462
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	238142	500.000	466
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	73029	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	236979	500.000	461
	43 Total Benzofluoranthenes	252	15.042	15.041	(0.964)	439089	1000.00	972
	34 Benzo(a)pyrene	252	15.512	15.512	(0.994)	198356	500.000	495
*	35 Perylene-d12	264	15.608	15.608	(1.000)	55910	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	238454	500.000	493
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	167115	500.000	477
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	184723	500.000	490
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	209148	500.000	485

UJ3
4-30-11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0430d.d
Lab Smp Id: SIM500
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110430.b/lowsim.m
Misc Info:

Calibration Date: 30-APR-2011
Calibration Time: 10:12

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	127404	-1.49
11 Acenaphthene-d10	70573	35286	141146	72156	2.24
18 Phenanthrene-d10	113741	56870	227482	112214	-1.34
29 Chrysene-d12	70763	35382	141526	73029	3.20
35 Perylene-d12	54896	27448	109792	55910	1.85

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

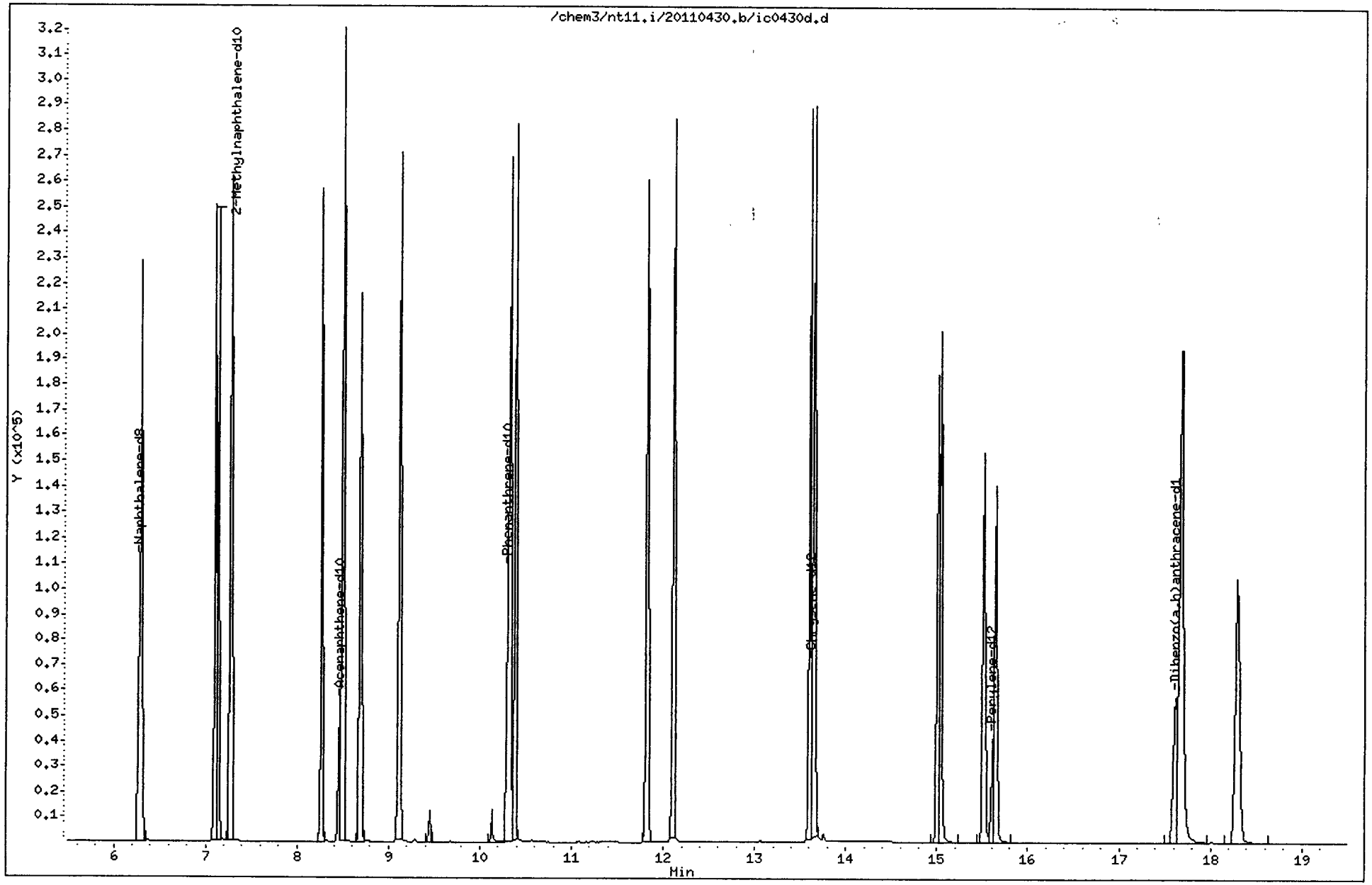
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20110430.b/ic0430d.d
Date : 30-APR-2011 11:26
Client ID:
Sample Info: SIM500

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0430d.d

Lab ID: SIM500, Method: lowsim.m, Instrument: nt11.i, Date: 30-APR-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110430.b/ic0430e.d
Lab Smp Id: SIM50
Inj Date : 30-APR-2011 11:51
Operator : VTS Inst ID: nt11.i
Smp Info : SIM50
Misc Info :
Comment :
Method : /chem3/nt11.i/20110430.b/lowsim.m
Meth Date : 30-Apr-2011 13:05 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.273	6.272	(1.000)	128015	200.000	
	5 Naphthalene	128	6.296	6.295	(1.004)	32789	50.0000	53.4
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	18714	50.0000	50.3
	7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	18690	50.0000	50.1
	8 1-Methylnaphthalene	142	7.274	7.273	(1.160)	18509	50.0000	50.0
	10 Acenaphthylene	152	8.265	8.265	(0.976)	27320	50.0000	49.9
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	70175	200.000	
	12 Acenaphthene	153	8.493	8.492	(1.003)	16885	50.0000	49.0
	14 Dibenzofuran	168	8.694	8.694	(1.027)	25226	50.0000	49.7
	15 Fluorene	166	9.123	9.123	(1.078)	17525	50.0000	48.9
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	110629	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	28738	50.0000	51.7
	20 Anthracene	178	10.383	10.383	(1.008)	25981	50.0000	49 4
	24 Fluoranthene	202	11.818	11.817	(1.147)	26162	50.0000	47.9
	25 Pyrene	202	12.113	12.112	(0.889)	27512	50.0000	51.2
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	22302	50.0000	49.8
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	63954	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	22927	50.0000	50 9
	43 Total Benzofluoranthenes	252	15.042	15.041	(0.964)	40873	100.000	99.2
	34 Benzo(a)pyrene	252	15.512	15.512	(0.994)	17695	50.0000	48.4
*	35 Perylene-d12	264	15.609	15.608	(1.000)	50988	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	21585	50.0000	48.9
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	15277	50.0000	47.8
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	16748	50.0000	48.7
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	19464	50.0000	49.5

VJS
4-30-11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0430e.d
Lab Smp Id: SIM50
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110430.b/lowsim.m
Misc Info:

Calibration Date: 30-APR-2011
Calibration Time: 10:12

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	128015	-1.01
11 Acenaphthene-d10	70573	35286	141146	70175	-0.56
18 Phenanthrene-d10	113741	56870	227482	110629	-2.74
29 Chrysene-d12	70763	35382	141526	63954	-9.62
35 Perylene-d12	54896	27448	109792	50988	-7.12

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

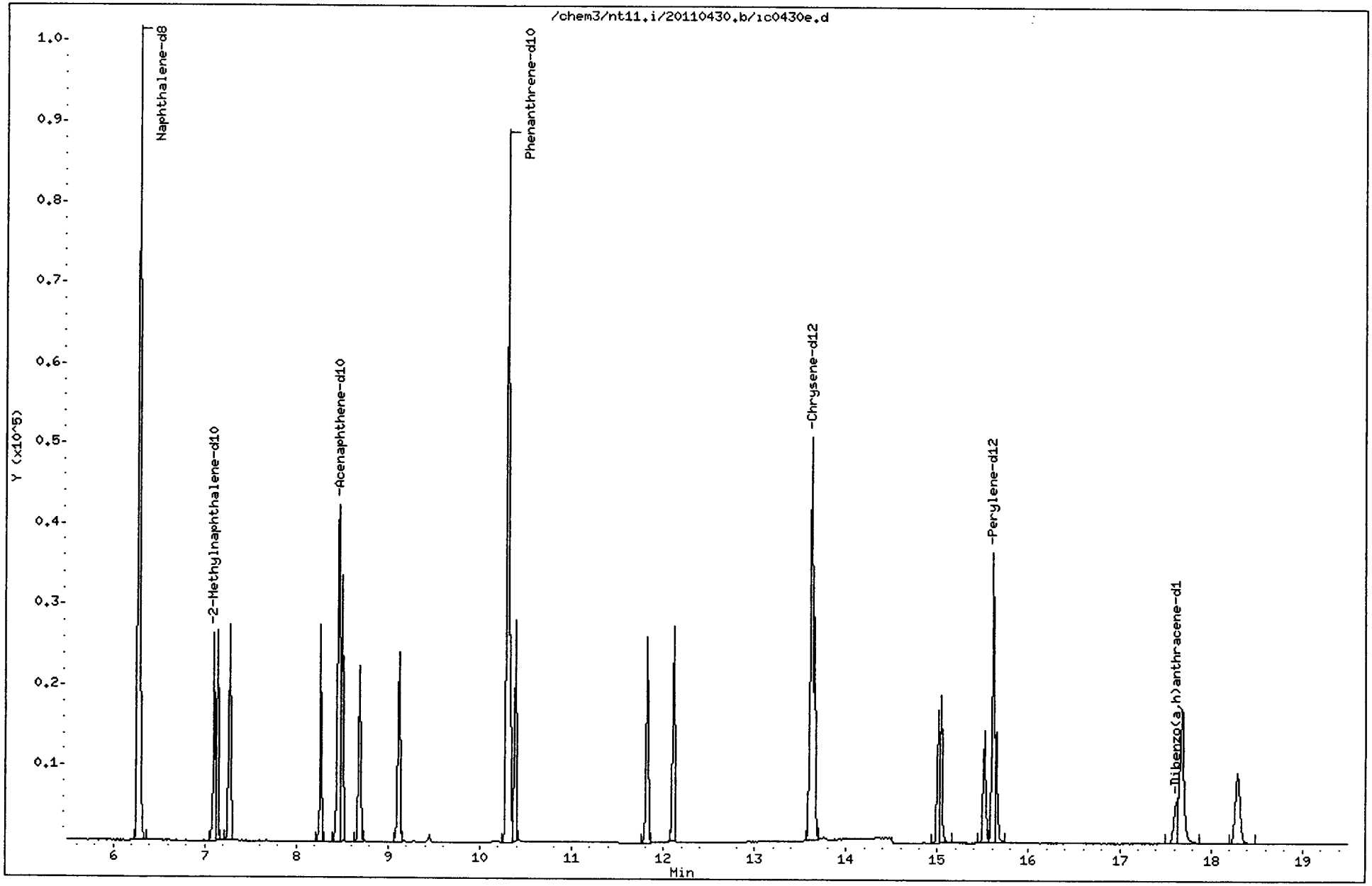
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20110430.b/ic0430e.d
Date : 30-APR-2011 11:51
Client ID:
Sample Info: SIM50

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi



CO-ELUTION SUMMARY FOR FILE - ic0430e.d

Lab ID: SIM50, Method: lowsim.m, Instrument: nt11.i, Date: 30-APR-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110430.b/ic0430f.d
Lab Smp Id: SIM100
Inj Date : 30-APR-2011 12:15
Operator : VTS Inst ID: nt11.i
Smp Info : SIM100
Misc Info :
Comment :
Method : /chem3/nt11.i/20110430.b/lowsim.m
Meth Date : 30-Apr-2011 13:05 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.272	6.272	(1.000)	126437	200.000	
	5 Naphthalene	128	6.295	6.295	(1.004)	65292	100.000	108
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	38295	100.000	104
	7 2-Methylnaphthalene	142	7.135	7.135	(1.138)	38601	100.000	105
	8 1-Methylnaphthalene	142	7.273	7.273	(1.160)	38565	100.000	105
	10 Acenaphthylene	152	8.265	8.265	(0.976)	57385	100.000	107
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	68901	200.000	
	12 Acenaphthene	153	8.492	8.492	(1.003)	36035	100.000	106
	14 Dibenzofuran	168	8.694	8.694	(1.027)	53236	100.000	107
	15 Fluorene	166	9.123	9.123	(1.078)	36836	100.000	105
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	107249	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	57150	100.000	106
	20 Anthracene	178	10.383	10.383	(1.008)	54465	100.000	107
	24 Fluoranthene	202	11.817	11.817	(1.147)	56322	100.000	106
	25 Pyrene	202	12.112	12.112	(0.889)	59053	100.000	109
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	48234	100.000	107
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	64366	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	48943	100.000	108
	43 Total Benzofluoranthenes	252	15.041	15.041	(0.964)	88964	200.000	211
	34 Benzo(a)pyrene	252	15.512	15.512	(0.994)	38564	100.000	103
*	35 Perylene-d12	264	15.608	15.608	(1.000)	52142	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	46269	100.000	102
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	33941	100.000	104
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	35801	100.000	102
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	41518	100.000	103

VJB
4.30.11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: ic0430f.d
Lab Smp Id: SIM100
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110430.b/lowsim.m
Misc Info:

Calibration Date: 30-APR-2011
Calibration Time: 10:12

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	126437	-2.23
11 Acenaphthene-d10	70573	35286	141146	68901	-2.37
18 Phenanthrene-d10	113741	56870	227482	107249	-5.71
29 Chrysene-d12	70763	35382	141526	64366	-9.04
35 Perylene-d12	54896	27448	109792	52142	-5.02

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20110430.b/ic0430f.d
Date : 30-APR-2011 12:15
Client ID:
Sample Info: SIM100

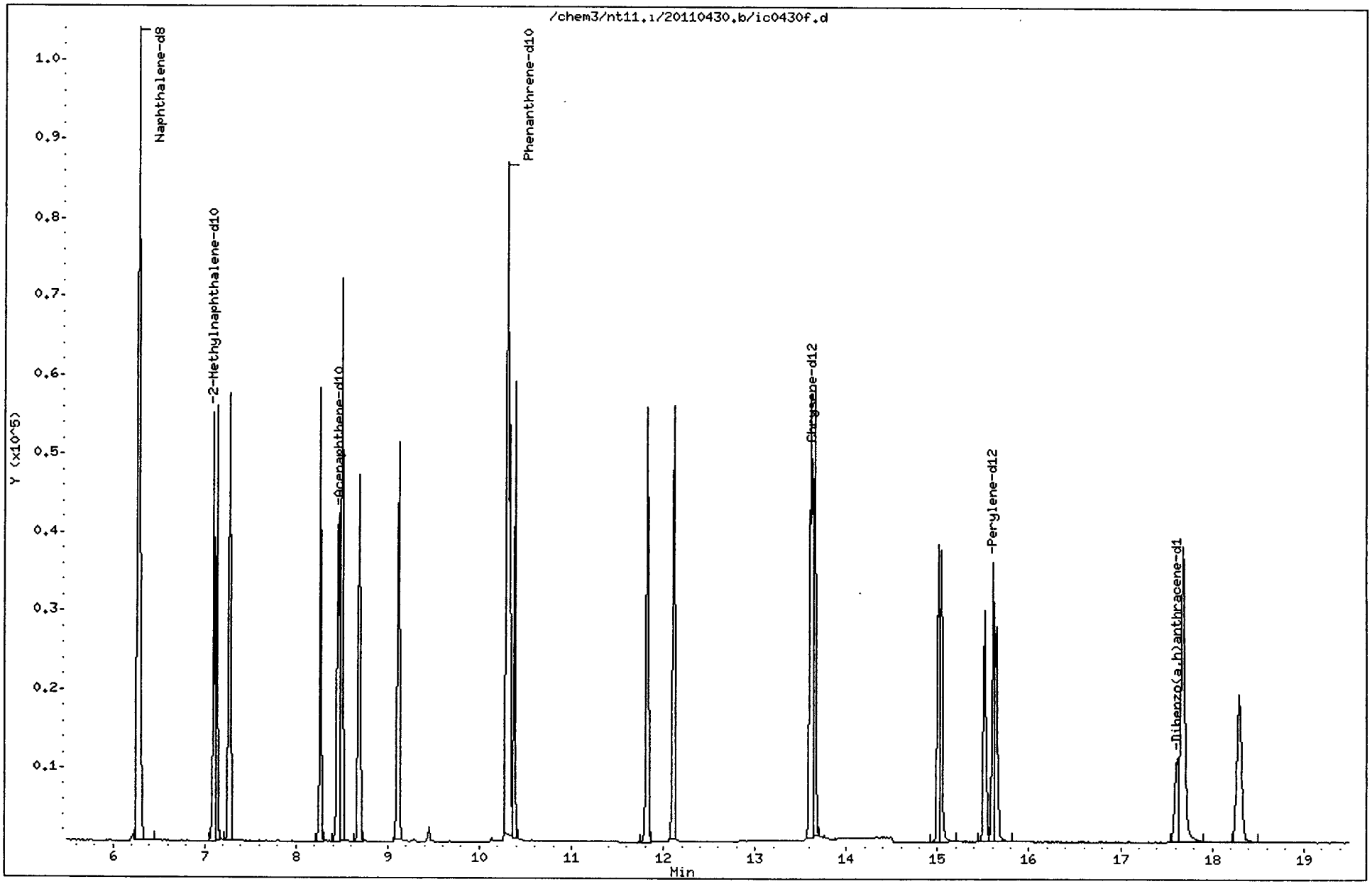
Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi

3098

SUS3-00577



CO-ELUTION SUMMARY FOR FILE - ic0430f.d

Lab ID: SIM100, Method: lowsim.m, Instrument: nt11.i, Date: 30-APR-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110430.b/icv0430.d
Lab Smp Id: ICV-250
Inj Date : 30-APR-2011 12:39
Operator : VTS Inst ID: nt11.i
Smp Info : ICV-250
Misc Info :
Comment :
Method : /chem3/nt11.i/20110430.b/lowsim.m
Meth Date : 30-Apr-2011 14:37 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	4 Naphthalene-d8	136	6.273	6.272	(1.000)	124975	200.000	
	5 Naphthalene	128	6.296	6.295	(1.004)	173843	290.039	290
$	6 2-Methylnaphthalene-d10	152	Compound Not Detected.					
	7 2-Methylnaphthalene	142	~~7.274~~	7.135	(1.160)	94554	~~259.712~~	260
	8 1-Methylnaphthalene	142	7.274	7.273	(1.160)	94554	261.680	262
	10 Acenaphthylene	152	8.265	8.265	(0.978)	163303	298.522	299
*	11 Acenaphthene-d10	164	8.452	8.466	(1.000)	70122	200.000	
	12 Acenaphthene	153	8.493	8.492	(1.005)	100025	290.212	290
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	9.123	9.123	(1.079)	110202	307.606	308
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	110829	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	163542	293.547	294
	20 Anthracene	178	10.383	10.383	(1.008)	152395	288.991	289
	24 Fluoranthene	202	11.817	11.817	(1.147)	162660	297.061	297
	25 Pyrene	202	12.113	12.112	(0.889)	168034	285.733	286
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	136905	279.272	279
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	69995	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	140351	284.777	285
	43 Total Benzofluoranthenes	252	15.041	15.041	(0.964)	256486	581.696	582
	34 Benzo(a)pyrene	252	15.512	15.512	(0.994)	110447	282.062	282
*	35 Perylene-d12	264	15.608	15.608	(1.000)	54585	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	133097	281.608	282
$	36 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	102758	279.114	279
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	119260	283.189	283

@250

1232

VD
4.30.11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: icv0430.d
Lab Smp Id: ICV-250
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110430.b/lowsim.m
Misc Info:

Calibration Date: 30-APR-2011
Calibration Time: 10:12

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	124975	-3.36
11 Acenaphthene-d10	70573	35286	141146	70122	-0.64
18 Phenanthrene-d10	113741	56870	227482	110829	-2.56
29 Chrysene-d12	70763	35382	141526	69995	-1.09
35 Perylene-d12	54896	27448	109792	54585	-0.57

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.45	-0.16
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20110430.b/icv0430.d
Date : 30-APR-2011 12:39
Client ID:
Sample Info: ICV-250

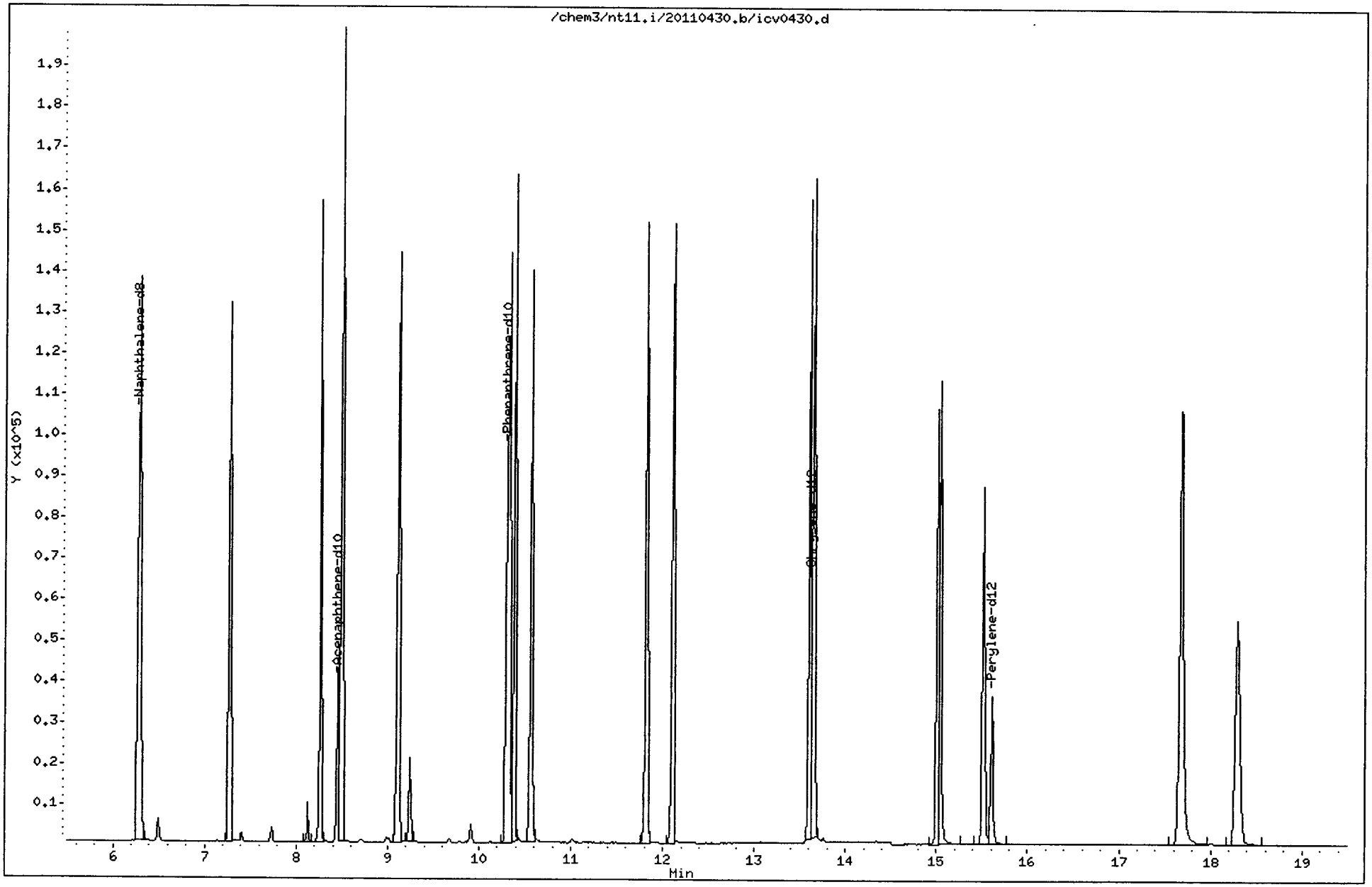
Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi

3102

SU53:00581



CO-ELUTION SUMMARY FOR FILE - icv0430.d

Lab ID: ICV-250, Method: lowsim.m, Instrument: nt11.i, Date: 30-APR-2011

RT	CO-ELUTION COMPOUNDS
7.274	1-Methylnaphthalene and ~~2-Methylnaphthalene~~

NOT IN ICV

SIM PAH Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: SU53, SU73, SU74

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: SU53 Client ID: Floyd Snyder

ARI SOP: **801S**(SIM-PNA) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): SIM PNA L.L

Instrument: NT-4 NT-6 NT-8 NT-10 NT11 NT12

Curve Date: 04/30/11 Analysis Start Date: 05/16/11

DFTPP Tune Meets Criteria?	YES / NO	Internal Standard Meets Criteria?	YES / NO
DDT Breakdown <20%?	YES / NO / NA	Method Blank In Control?	YES / NO
Peak Tailing Factor ≤2?	YES / NO / NA	LCS / LCSD Recovery In Control?	YES / NO
ICal acceptable?	YES / NO	CCal acceptable?	YES / NO
Q flag applied?	YES / NO	Q flag applied?	YES / NO
Surrogate Recovery in Control?	YES / NO	Special Analysis Criteria Met?	YES / NO / NA
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	YES / NO

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst: YZ **Date:** 5/20/11

Reviewer: [signature] **Date:** 5/20/11

Analytical Resources Inc.: Organics Instrument Log

NT-11 Serial No.:GC=US10140004, MS=US10481502

Date: 5/16/11 Analysis: Low SIM PAH Analyst: YZ

GC Program: Low SIM Column No: 196516 Column Type: ZB5 msi

Instrument Tune (.U or .CT.): 110430u EM Voltage: 1474

Calibration File: DF 0516 Curve Date: 04/30/11

IS/SS	Ical/Ccal	LCS/ICV
1754-1	1818-2	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem3/nt11.i/20110516.b

	Time	Filename	LabID	ClientId	DF								
1	1043	su21c d	SU21C	MW10-042711	1	6 27	115895	8 47	66799	10.30	113038	13.63	72524	15.61	60672
2	1107	su21d.d	SU21D	MW09-042711	1	6 27	116896	8 45	68135	10 30	116708	13.63	75275	15 61	62256
3	1131	su21e d	SU21E	MW08-042711	1	6 27	121086	8.45	70652	10 30	115647	13.63	75741	15 61	63723
4	1156	su21f d	SU21F	MW12-042711	1	6 27	115933	8 47	68372	10.30	113477	13.63	74607	15 61	61690
5	1220	su45mb d	SU45MBW1	SU45MBW1	1	6 27	114372	8 45	63779	10 30	101283	13 63	66352	15 61	57382
6	1333	su45qls d	SU45QLS		1	6.27	116798	8 45	67069	10 30	110231	13.63	70277	15 61	59877
7	1244	su45sb d	SU45LCSW1	SU45LCSW1	1	6 27	122313	8 45	72780	10 30	119298	13.63	78581	15 61	65906
8	1308	su45sbd.d	SU45LCSDW1	SU45LCSDW1	1	6 27	118073	8 45	69478	10.30	106510	13.63	71825	15.61	60831
9	1357	su45a d	SU45A	PS2220-04271	1	6 27	123112	8 47	73762	10 30	122629	13 63	75002	15.62	66199
10	1421	su45b d	SU45B	NF20925-0427	1	6 27	110636	8 47	64734	10 30	104703	13 63	66073	15 61	59685
11	1446	su45c d	SU45C	BDC2088-0427	1	6 27	124452	8 45	72832	10 30	119394	13 63	79460	15.61	69050
12	1510	su47a d	SU47A	DK1-042711-W	1	6 27	121199	8 47	70565	10.30	119220	13 63	73532	15.61	64621
13	1534	su47b d	SU47B	DK2-042711-W	1	6 27	113494	8.47	66738	10 30	109012	13 63	70695	15.62	62178
14	1558	su53a d	SU53A	MW5042811	1	6 27	118071	8 47	70065	10 30	113950	13.63	77577	15 61	66676
15	1623	su53b d	SU53B	MW15042811	1	6 27	121196	8.47	70575	10 30	118974	13.63	78241	15.61	66146
16	1647	su53c d	SU53C	MW4042811	1	6 27	120343	8 47	72423	10 30	123589	13 63	81508	15.61	68851
17	1711	su53cms d	SU53CMS	MW4042811 MS	1	6 27	120332	8 47	72647	10.30	120641	13.63	83655	15 61	69114
18	1736	su53cmsd d	SU53CMSD	MW4042811 MS	1	6 27	123172	8 45	72829	10 30	121870	13 63	81868	15 61	69858
19	1800	su53d d	SU53D	MW17042811	1	6 27	124759	8 47	72222	10 30	122396	13 63	80713	15 61	66914
20	1824	su53e.d	SU53E	MW14042811	1	6 27	121662	8 45	70080	10 30	118353	13.63	78044	15 61	67186
21	1848	su53f d	SU53F	MW16042811	1	6.27	122354	8 45	68437	10 30	113162	13.63	75098	15 61	65013

YZ 5/20/11

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Data File: /chem3/nt11.i/20110516.b/df0516.d

Date : 16-MAY-2011 10:04

Client ID:

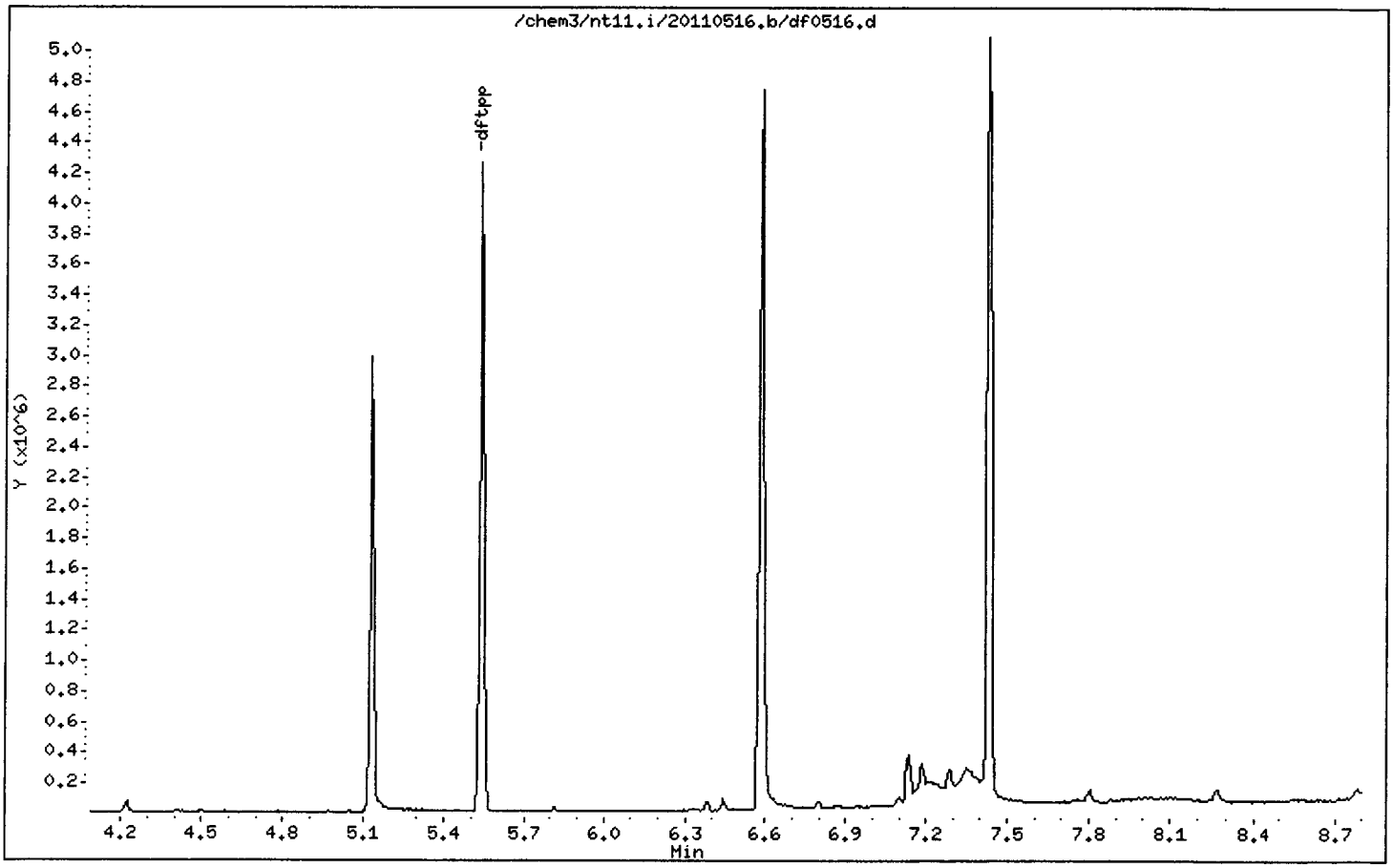
Instrument: nt11.i

Sample Info: DF0516

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem3/nt11.i/20110516.b/df0516.d

Date : 16-MAY-2011 10:04

Client ID:

Instrument: nt11.i

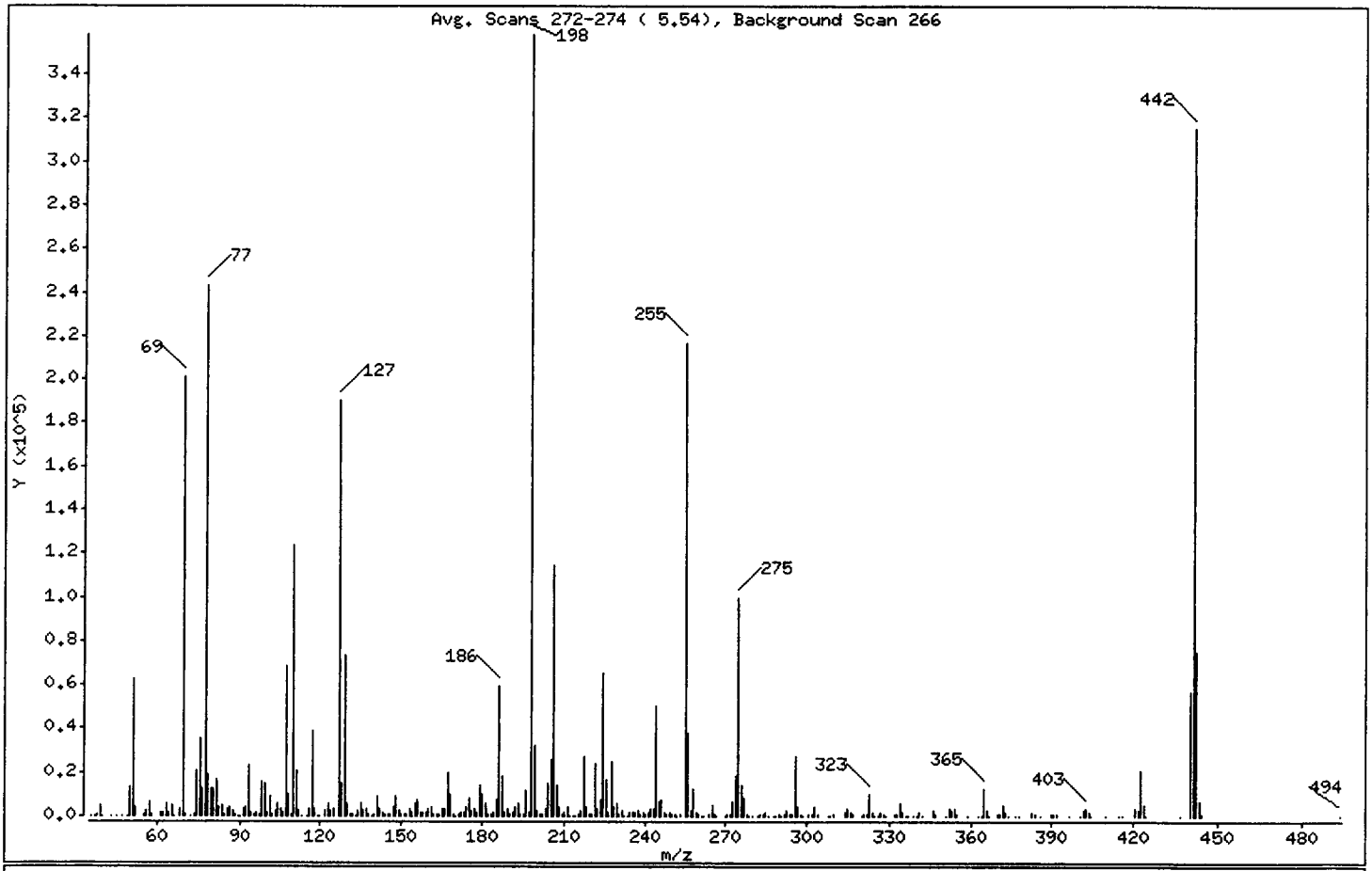
Sample Info: DF0516

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	17.43
68	Less than 2.00% of mass 69	0.91 (1.61)
69	Mass 69 relative abundance	56.08
70	Less than 2.00% of mass 69	0.26 (0.46)
127	10.00 - 80.00% of mass 198	52.99
197	Less than 2.00% of mass 198	0.45
199	5.00 - 9.00% of mass 198	8.92
275	10.00 - 60.00% of mass 198	27.72
365	Greater than 1.00% of mass 198	3.52
441	0.01 - 24.00% of mass 442	15.96 (18.15)
442	50.00 - 200.00% of mass 198	87.96
443	15.00 - 24.00% of mass 442	20.92 (23.78)

Data File: /chem3/nt11.i/20110516.b/df0516.d

Date : 16-MAY-2011 10:04

Client ID:

Instrument: nt11.i

Sample Info: DF0516

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0516.d
Spectrum: Avg. Scans 272-274 (5.54), Background Scan 266
Location of Maximum: 198.00
Number of points: 327

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	55	130.00	6124	212.00	394	301.00	530
37.00	261	131.00	1189	213.00	361	302.00	672
38.00	465	132.00	681	214.00	145	303.00	3936
39.00	4583	133.00	262	215.00	981	304.00	999
40.00	309	134.00	2263	216.00	2164	306.00	95
41.00	239	135.00	5572	217.00	27080	308.00	391
43.00	65	136.00	2272	218.00	3748	309.00	282
45.00	121	137.00	3566	219.00	520	310.00	477
47.00	59	138.00	768	220.00	502	314.00	1481
49.00	271	139.00	110	221.00	24232	315.00	3553
50.00	13063	140.00	691	222.00	2949	316.00	1867
51.00	62440	141.00	9392	223.00	7628	317.00	463
52.00	3707	142.00	3086	224.00	65320	320.00	70
55.00	513	143.00	1875	225.00	16608	321.00	1018
56.00	2498	144.00	673	226.00	1729	322.00	630
57.00	6987	145.00	640	227.00	25088	323.00	9894
58.00	510	146.00	1157	228.00	3872	324.00	1993
59.00	58	147.00	4197	229.00	5371	325.00	130
61.00	1667	148.00	9462	230.00	808	326.00	110
62.00	1991	149.00	2203	231.00	2151	327.00	1343
63.00	5971	150.00	648	232.00	252	328.00	857
64.00	1255	151.00	1177	233.00	292	329.00	304
65.00	4592	152.00	707	234.00	1714	332.00	728
66.00	265	153.00	3064	235.00	1778	333.00	880
68.00	3242	154.00	1881	236.00	1360	334.00	5607
69.00	200896	155.00	5396	237.00	2616	335.00	1648
70.00	930	156.00	7721	238.00	449	336.00	366
72.00	77	157.00	1460	239.00	1275	337.00	54
73.00	1126	158.00	1747	240.00	743	339.00	50
74.00	20976	159.00	1452	241.00	1274	340.00	133
75.00	35712	160.00	3044	242.00	2973	341.00	1264
76.00	12195	161.00	4475	243.00	3038	342.00	326
77.00	243328	162.00	930	244.00	50368	346.00	2060
78.00	18840	163.00	528	245.00	6768	347.00	466
79.00	11943	164.00	483	246.00	7401	351.00	354

Date : 16-MAY-2011 10:04

Client ID: Instrument: nt11.i

Sample Info: DF0516

Operator: VTS

Column phase: ZB-5ms1 Column diameter: 0.25

Data File: df0516.d
Spectrum: Avg. Scans 272-274 (5.54), Background Scan 266
Location of Maximum: 198.00
Number of points: 327

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	12159	165.00	3157	247.00	1872	352.00	3037
81.00	16832	166.00	3200	248.00	612	353.00	2379
82.00	3731	167.00	19456	249.00	1570	354.00	2980
83.00	4929	168.00	10002	250.00	566	355.00	450
84.00	440	169.00	1068	251.00	428	357.00	82
85.00	3186	170.00	251	252.00	351	359.00	311
86.00	4405	171.00	719	253.00	944	363.00	63
87.00	2093	172.00	1483	255.00	216640	364.00	60
88.00	887	173.00	1786	256.00	37904	365.00	12604
89.00	111	174.00	4193	257.00	2542	366.00	2285
90.00	129	175.00	7973	258.00	12555	367.00	109
91.00	3630	176.00	2348	259.00	2029	370.00	457
92.00	4079	177.00	3355	260.00	432	371.00	950
93.00	22976	178.00	1293	261.00	234	372.00	4727
94.00	1907	179.00	13917	262.00	53	373.00	1568
95.00	785	180.00	10116	264.00	627	374.00	200
96.00	1466	181.00	5393	265.00	4843	377.00	157
97.00	499	182.00	674	266.00	1011	378.00	118
98.00	15240	183.00	730	267.00	83	383.00	1327
99.00	14927	184.00	1330	270.00	95	384.00	461
100.00	1344	185.00	7814	271.00	534	386.00	143
101.00	9116	186.00	59448	272.00	897	390.00	769
102.00	683	187.00	17976	273.00	6733	391.00	615
103.00	2298	188.00	1333	274.00	17984	392.00	425
104.00	5463	189.00	3366	275.00	99312	397.00	61
105.00	3444	190.00	861	276.00	13717	401.00	369
106.00	1573	191.00	1719	277.00	8285	402.00	2425
107.00	68048	192.00	4216	278.00	1005	403.00	3129
108.00	10158	193.00	5928	279.00	122	404.00	1267
109.00	642	194.00	782	280.00	122	405.00	63
110.00	123216	195.00	869	282.00	337	410.00	57
111.00	20608	196.00	11897	283.00	1038	415.00	83
112.00	2365	197.00	1606	284.00	872	416.00	68
113.00	374	198.00	358208	285.00	1537	421.00	3059
115.00	317	199.00	31936	286.00	333	422.00	2752

Date : 16-MAY-2011 10:04

Client ID: Instrument: nt11.1

Sample Info: DF0516

Operator: VTS

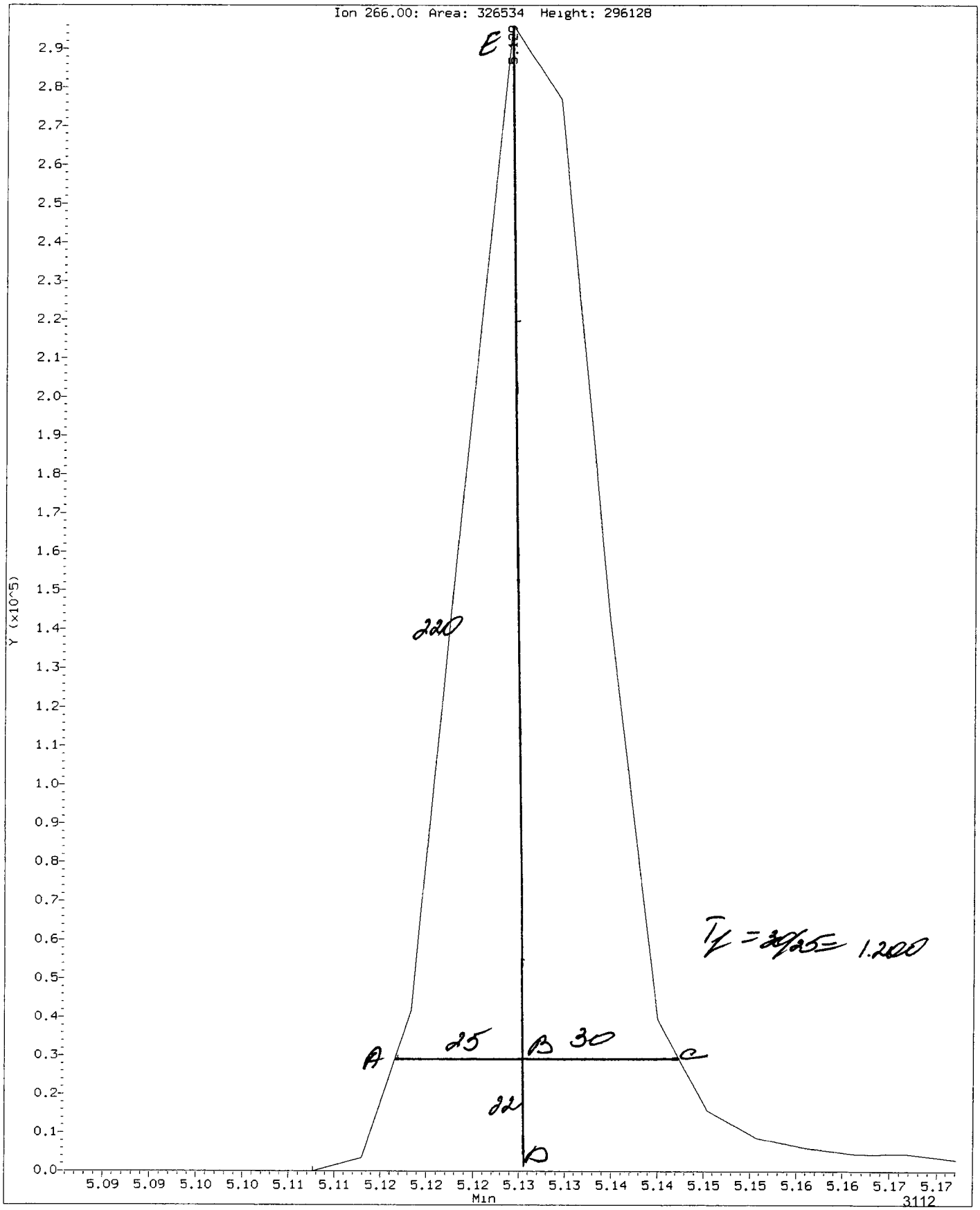
Column phase: ZB-5msi Column diameter: 0.25

Data File: df0516.d
Spectrum: Avg. Scans 272-274 (5.54), Background Scan 266
Location of Maximum: 198.00
Number of points: 327

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	3241	200.00	2339	288.00	256	423.00	20704
117.00	38776	201.00	878	289.00	306	424.00	4616
118.00	2928	202.00	726	290.00	440	425.00	383
119.00	401	203.00	3398	291.00	322	430.00	56
120.00	408	204.00	14711	292.00	429	437.00	52
122.00	2580	205.00	25280	293.00	2361	441.00	57176
123.00	5684	206.00	114152	294.00	492	442.00	315072
124.00	2616	207.00	13991	295.00	444	443.00	74936
125.00	3028	208.00	4219	296.00	27192	444.00	6354
127.00	189824	209.00	1001	297.00	4292	445.00	577
128.00	14574	210.00	1641	298.00	413	494.00	53
129.00	72968	211.00	3864	299.00	152		

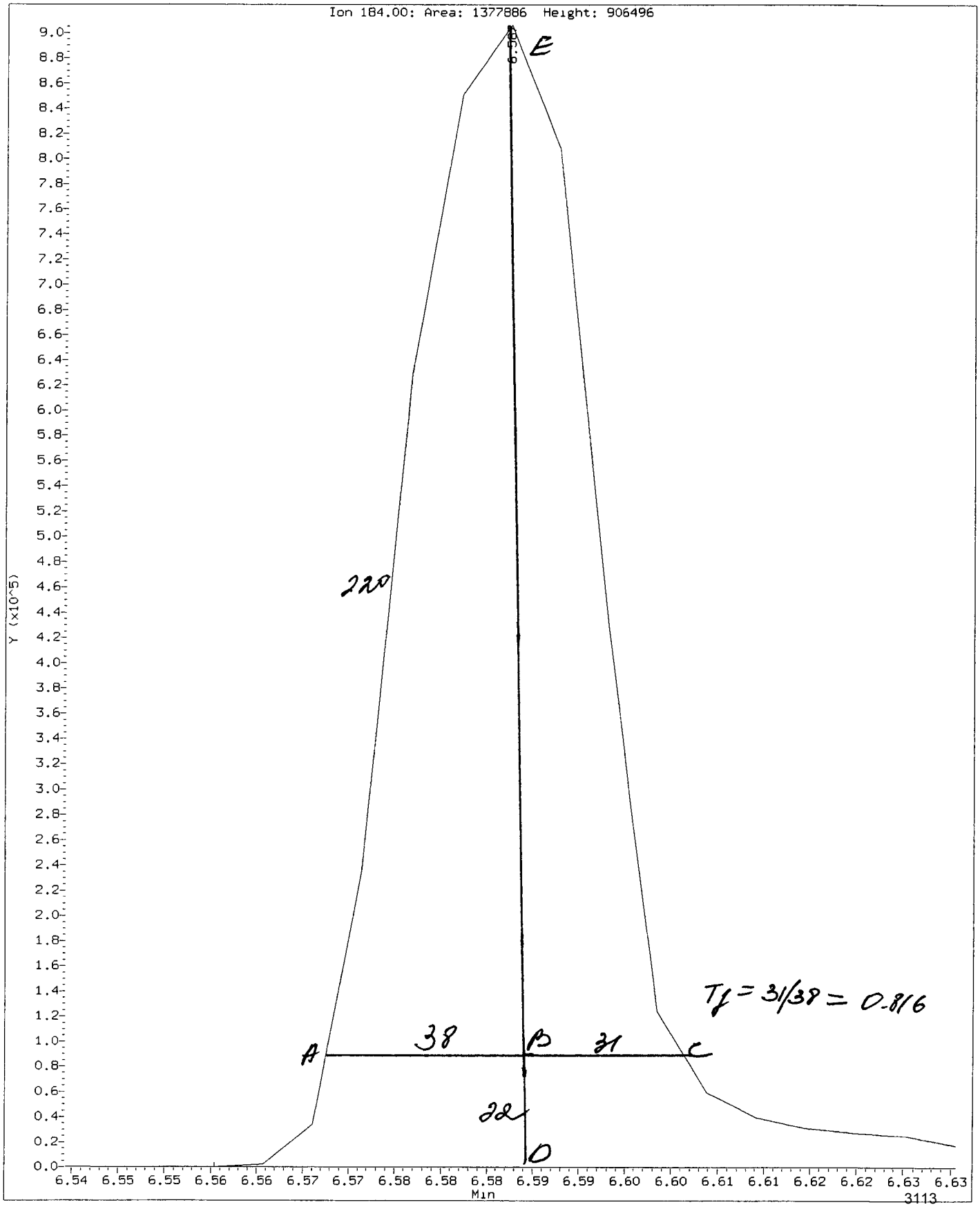
Data File: /chem3/nt11.1/20110516.b/ddt.b/df0516.d
Injection Date: 16-MAY-2011 10:04
Instrument: nt11.1
Client Sample ID:

Compound: Pentachlorophenol
CAS Number: 87-86-5



Data File: /chem3/nt11.i/20110516.b/ddt.b/df0516.d
Injection Date: 16-MAY-2011 10:04
Instrument: nt11.i
Client Sample ID:

Compound: Benzidine
CAS Number:



Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt11.i/20110516.b/ddt.b/df0516.d ARI ID: DF0516
Method: /chem3/nt11.i/20110516.b/ddt.b/sw846ddt.m Misc:
Analysis Date: 16-MAY-2011 10:04 Instrument: nt11.i

COMPOUND	RT	AREA
Pentachlorophenol	5.129	326534
Benzidine	6.587	1377885
4,4'-DDE	6.801	6502
4,4'-DDD	7.138	55534
4,4'-DDT	7.432	822529

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(\ 6502 + 55534) * 100}{(\ 6502 + 55534 + 822529)}$$

DDT Percent Breakdown = 7.0 %

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt11.i Injection Date: 16-MAY-2011 10:19
Lab File ID: cc0516.d Init. Cal. Date(s): 30-APR-2011 30-APR-2011
Analysis Type: Init. Cal. Times: 10:12 12:15
Lab Sample ID: CC0514 Quant Type: ISTD
Method: /chem3/nt11.i/20110516.b/lowsim.m

COMPOUND	RRF / AMOUNT	RF250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
5 Naphthalene	0.95920	0.96878	0.010	0.99873	20.00000	Averaged
$ 6 2-Methylnaphthalene-d10	0.58083	0.60424	0.010	4.02979	20.00000	Averaged
7 2-Methylnaphthalene	0.58263	0.60448	0.010	3.75036	20.00000	Averaged
8 1-Methylnaphthalene	0.57825	0.61500	0.010	6.35566	20.00000	Averaged
10 Acenaphthylene	1.56025	1.62832	0.010	4.36286	20.00000	Averaged
12 Acenaphthene	0.98304	1.00196	0 010	1.92467	20.00000	Averaged
14 Dibenzofuran	1.44731	1.52314	0.010	5.23928	20.00000	Averaged
15 Fluorene	1.02181	1.07888	0.010	5.58546	20.00000	Averaged
19 Phenanthrene	1.00537	0 97708	0.010	-2.81451	20.00000	Averaged
20 Anthracene	0.95162	0.97044	0.010	1.97791	20.00000	Averaged
24 Fluoranthene	0.98812	1.05213	0.010	6.47737	20.00000	Averaged
25 Pyrene	1.68035	1 62150	0.010	-3.50230	20.00000	Averaged
28 Benzo(a)anthracene	1.40073	1.35742	0.010	-3.09225	20.00000	Averaged
30 Chrysene	1 40823	1.38003	0.010	-2.00267	20.00000	Averaged
43 Total Benzofluoranthenes	1.61557	1.53358	0.010	-5.07482	20.00000	Averaged
34 Benzo(a)pyrene	1.43471	1.38494	0.010	-3.46940	20.00000	Averaged
37 Indeno(1,2,3-cd)pyrene	1.73173	1.70705	0.010	-1.42499	20.00000	Averaged
$ 36 Dibenzo(a,h)anthracene-d14	1.25261	1.22798	0.010	-1.96650	20.00000	Averaged
38 Dibenzo(a,h)anthracene	1.34894	1.34622	0.010	-0.20140	20.00000	Averaged
39 Benzo(g,h,i)perylene	1.54303	1.50008	0.010	-2.78373	20.00000	Averaged

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110516.b/cc0516.d
Lab Smp Id: CC0514
Inj Date : 16-MAY-2011 10:19
Operator : VTS Inst ID: nt11.i

YZ 5/16/11

Smp Info : CC0514
Misc Info :
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.272	6.272	(1.000)	121727	200.000	
	5 Naphthalene	128	6.295	6.295	(1.004)	147408	250.000	252
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	91940	250.000	260
	7 2-Methylnaphthalene	142	7.135	7.135	(1.138)	91977	250.000	259
	8 1-Methylnaphthalene	142	7.273	7.273	(1.160)	93578	250.000	266
	10 Acenaphthylene	152	8.265	8.265	(0.976)	142243	250.000	261
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	69884	200.000	
	12 Acenaphthene	153	8.492	8.492	(1.003)	87526	250.000	255
	14 Dibenzofuran	168	8.694	8.694	(1.027)	133054	250.000	263
	15 Fluorene	166	9.123	9.123	(1.078)	94246	250.000	264
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	116143	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	141851	250.000	243
	20 Anthracene	178	10.383	10.383	(1.008)	140888	250.000	255
	24 Fluoranthene	202	11.817	11.817	(1.147)	152747	250.000	266
	25 Pyrene	202	12.112	12.112	(0.889)	157723	250.000	241
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	132036	250.000	242
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	77816	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	134235	250.000	245
	43 Total Benzofluoranthenes	252	15.041	15.041	(0.964)	246664	500.000	475
	34 Benzo(a)pyrene	252	15.512	15.512	(0.994)	111378	250.000	241
*	35 Perylene-d12	264	15.608	15.608	(1.000)	64337	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	137283	250.000	246
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	98755	250.000	245
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	108264	250.000	249
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	120638	250.000	243

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: cc0516.d
Lab Smp Id: CC0514
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info:

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	121727	-5.88
11 Acenaphthene-d10	70573	35286	141146	69884	-0.98
18 Phenanthrene-d10	113741	56870	227482	116143	2.11
29 Chrysene-d12	70763	35382	141526	77816	9.97
35 Perylene-d12	54896	27448	109792	64337	17.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20110516.b/cc0516.d
Date : 16-MAY-2011 10:19
Client ID:
Sample Info: CC0514

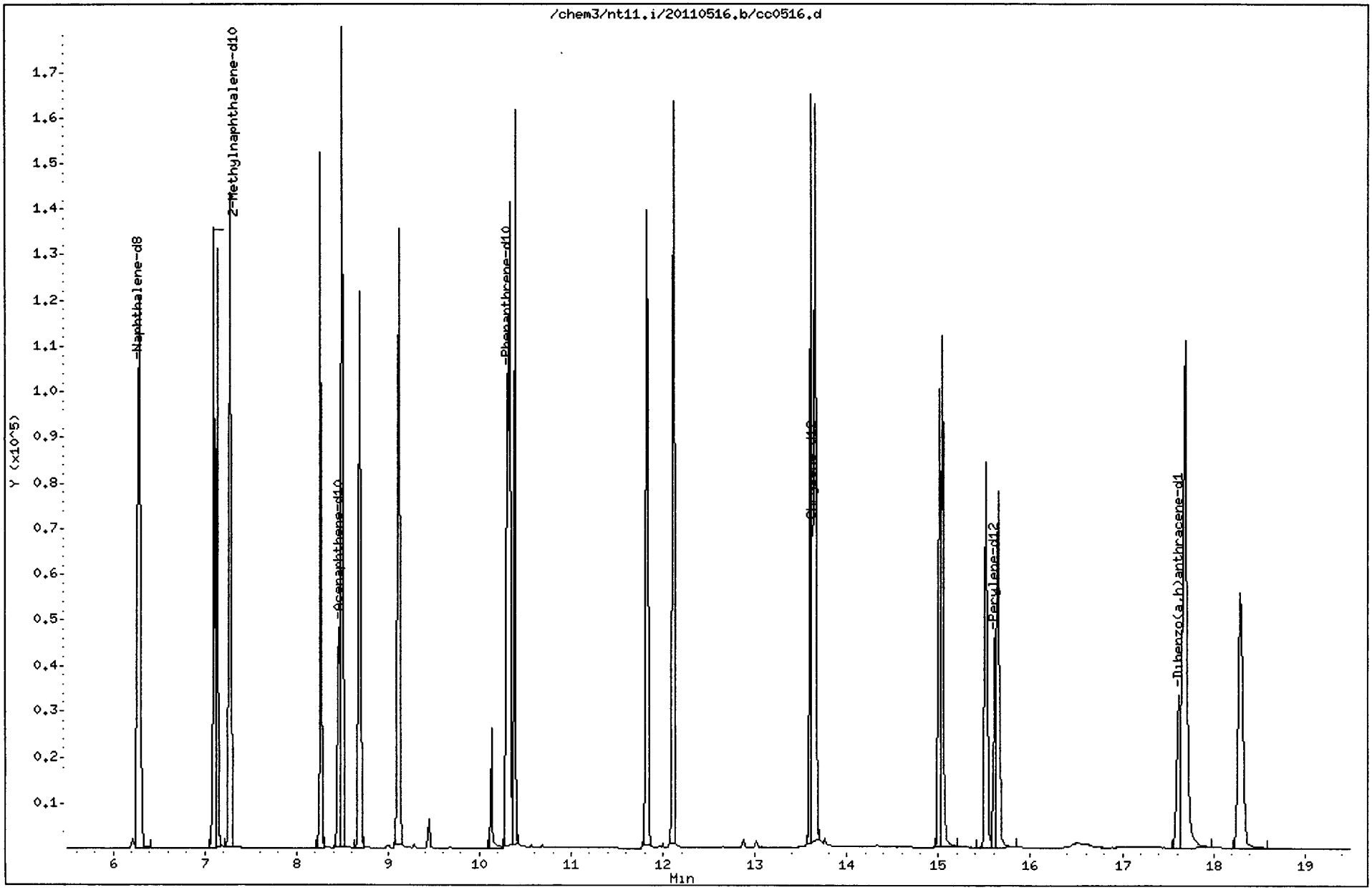
Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi

3118

SUSQ00597



CO-ELUTION SUMMARY FOR FILE - cc0516.d

Lab ID: CC0514, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 5/20/11

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110516.b/su45mb.d
Lab Smp Id: SU45MBW1 Client Smp ID: SU45MBW1
Inj Date : 16-MAY-2011 12:20
Operator : VTS Inst ID: nt11.i
Smp Info : SU45MBW1
Misc Info : 11-9581
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.272	(1.000)	114372	200.000	
	5 Naphthalene	128	6.296	6.295	(1.004)	4465	8.13999 J	8.14(R)
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	58475	176.047	176
	7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	1836	5.51047 J	5.51(R)
	8 1-Methylnaphthalene	142	7.274	7.273	(1.160)	1661	5.02300 J	5.02(R)
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	8.452	8.466	(1.000)	63779	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	101283	200.000	
	19 Phenanthrene	178	Compound Not Detected.					
	20 Anthracene	178	Compound Not Detected.					
	24 Fluoranthene	202	Compound Not Detected.					
	25 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	66352	200.000	
	30 Chrysene	228	Compound Not Detected.					
	43 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	15.609	15.608	(1.000)	57382	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	80121	222.938	223
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Newfields
Client SDG: SU45
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU45MBW1
Client Smp ID: SU45MBW1
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: BLANK
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9581

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	176	58.68	31-109
$ 36 Dibenzo(a,h)anthra	300	223	74.31	10-133

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su45mb.d
Lab Smp Id: SU45MBW1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9581

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Client Smp ID: SU45MBW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	114372	-11.56
11 Acenaphthene-d10	70573	35286	141146	63779	-9.63
18 Phenanthrene-d10	113741	56870	227482	101283	-10.95
29 Chrysene-d12	70763	35382	141526	66352	-6.23
35 Perylene-d12	54896	27448	109792	57382	4.53

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.45	-0.16
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

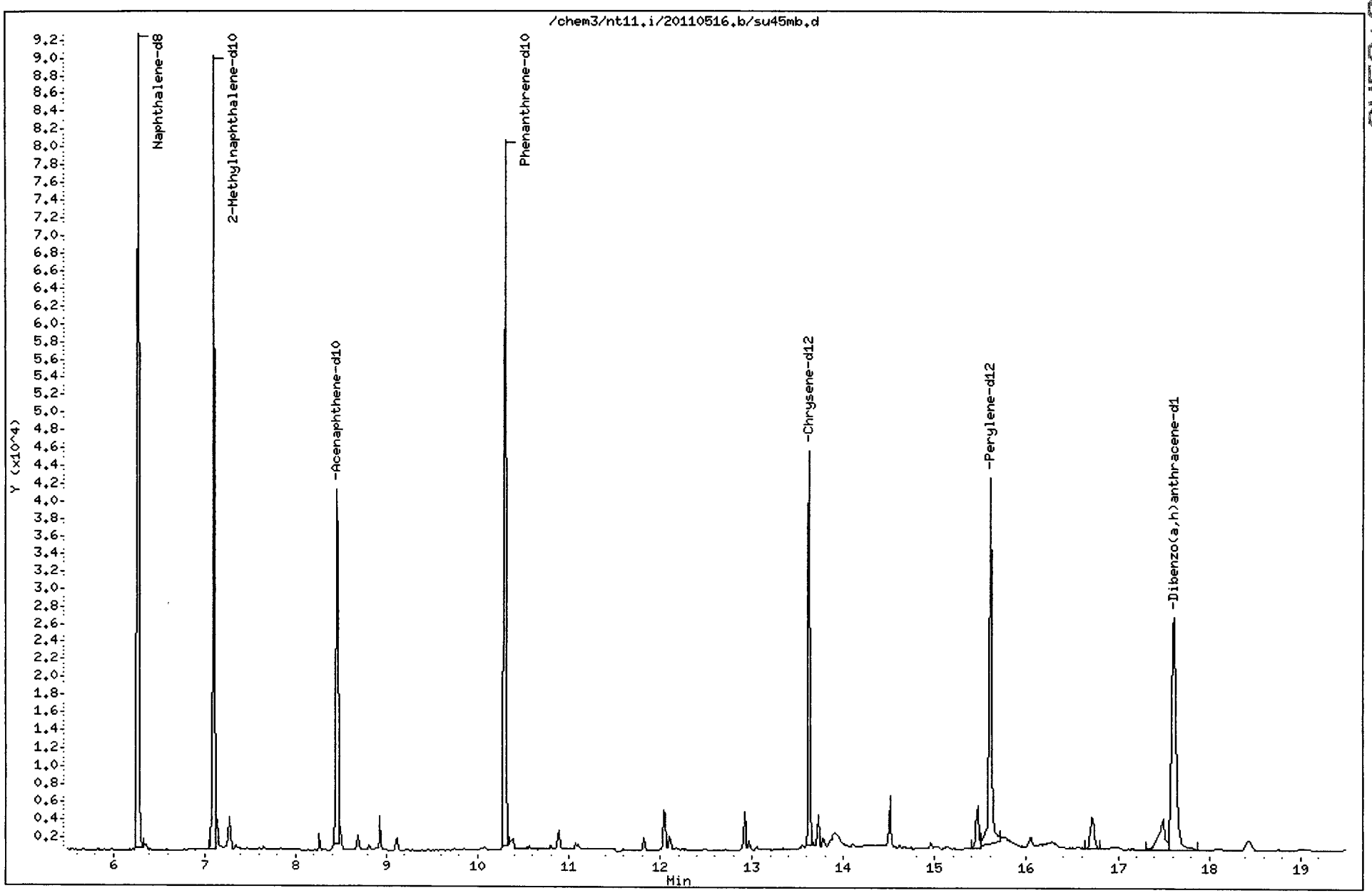
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/nt11.i/20110516.b/su45mb.d
Date : 16-MAY-2011 12:20
Client ID: SU45MBW1
Sample Info: SU45MBW1
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3124

SU53:00603



Data File: /chem3/nt11.i/20110516.b/su45mb.d

Date : 16-MAY-2011 12:20

Client ID: SU45MBW1

Instrument: nt11.i

Sample Info: SU45MBW1

Volume Injected (uL): 2.0

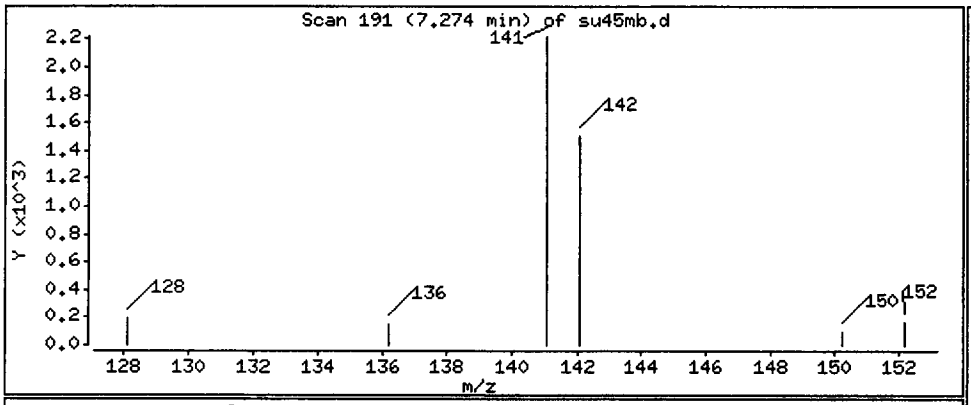
Operator: VTS

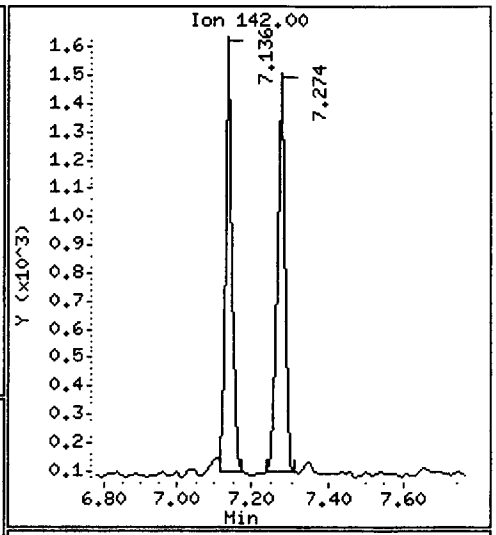
Column phase: ZB-5ms1

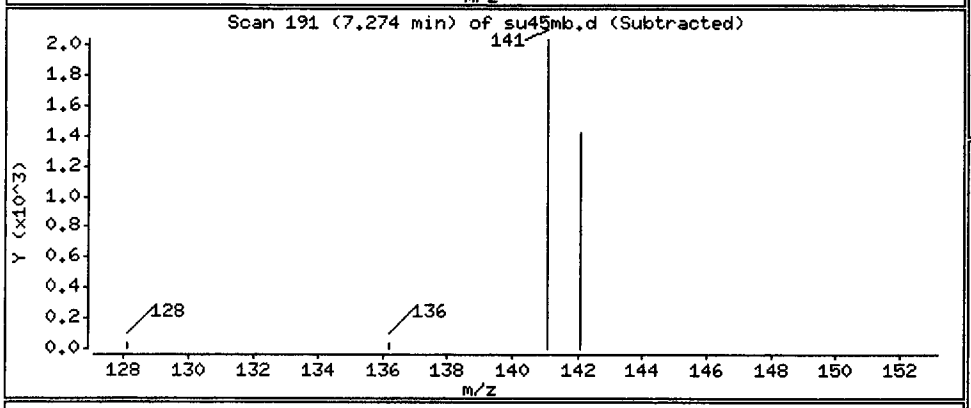
Column diameter: 0.25

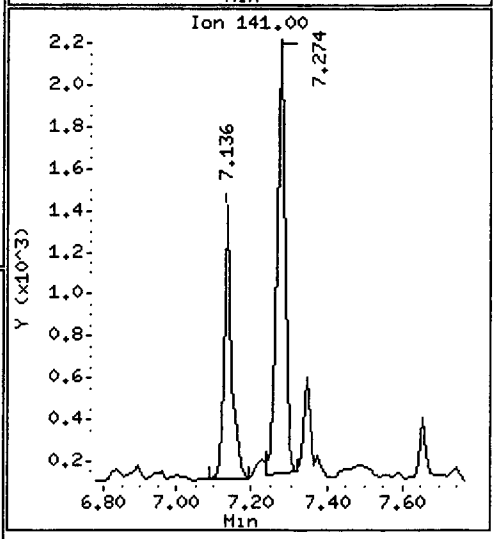
8 1-Methylnaphthalene

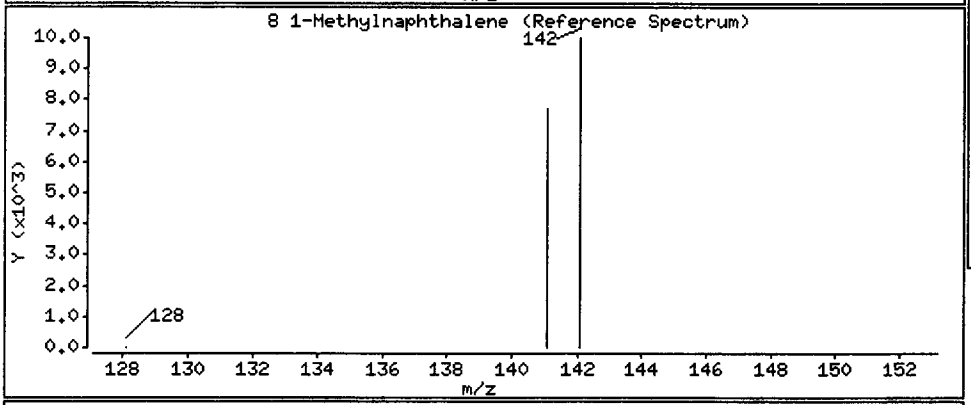
Concentration: 5.02 ug/L

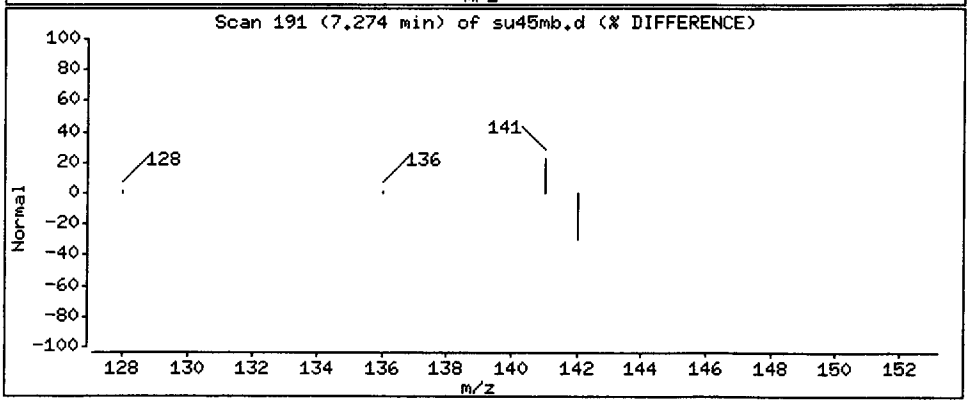












Data File: /chem3/nt11.i/20110516.b/su45mb.d

Date : 16-MAY-2011 12:20

Client ID: SU45MBW1

Instrument: nt11.i

Sample Info: SU45MBW1

Volume Injected (uL): 2.0

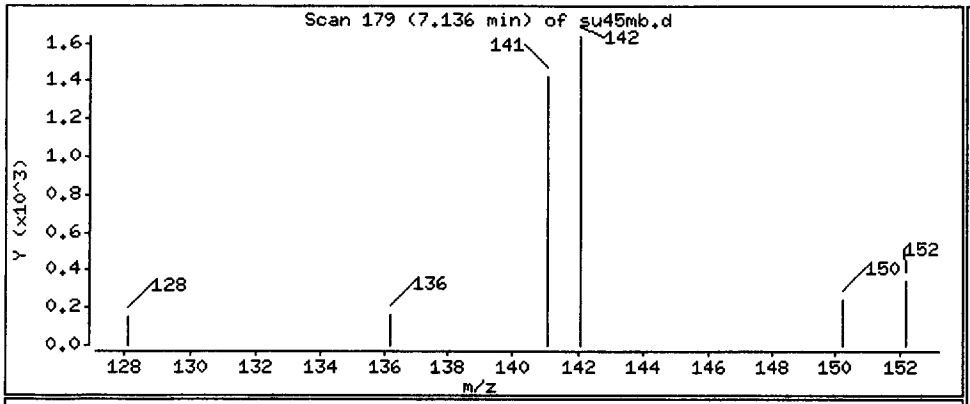
Operator: VTS

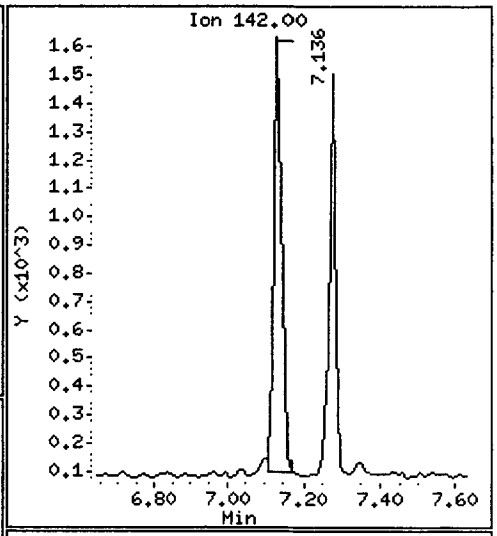
Column phase: ZB-5ms1

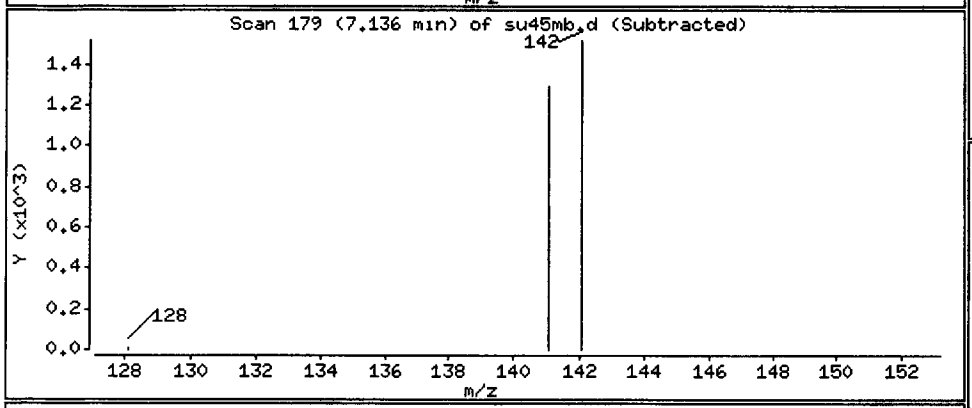
Column diameter: 0.25

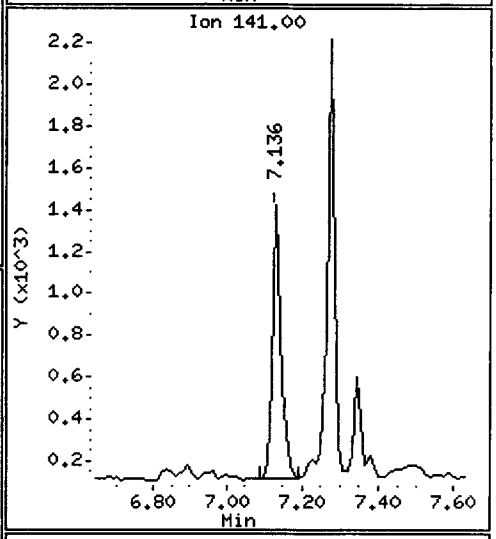
7 2-Methylnaphthalene

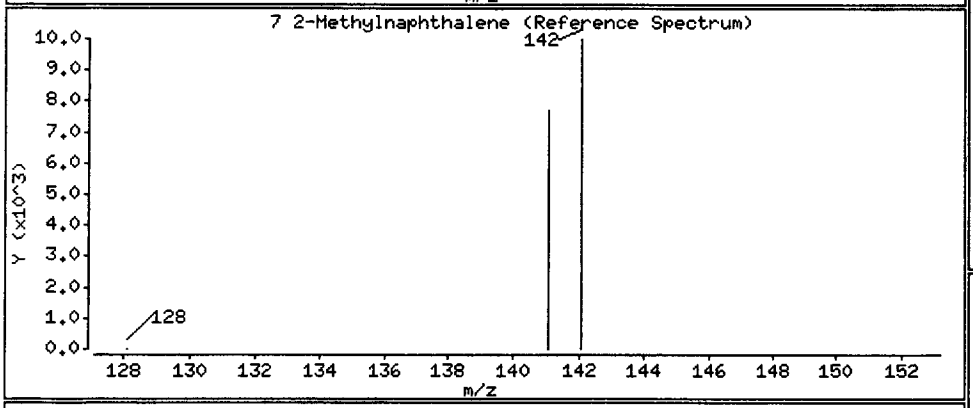
Concentration: 5.51 ug/L

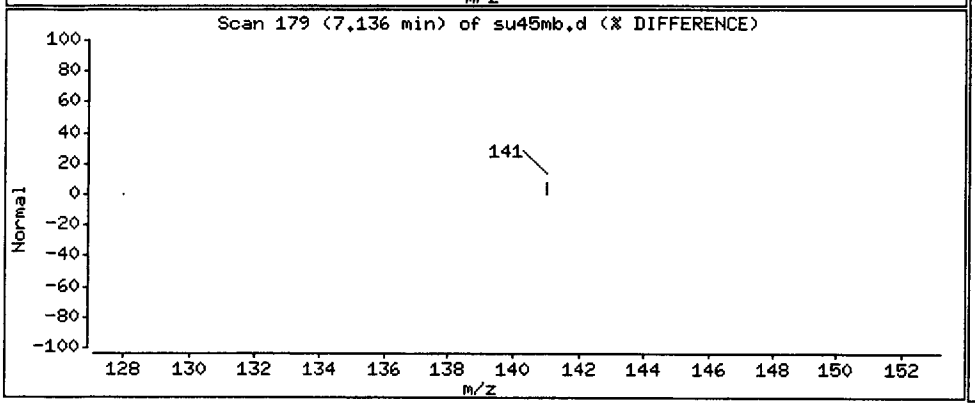


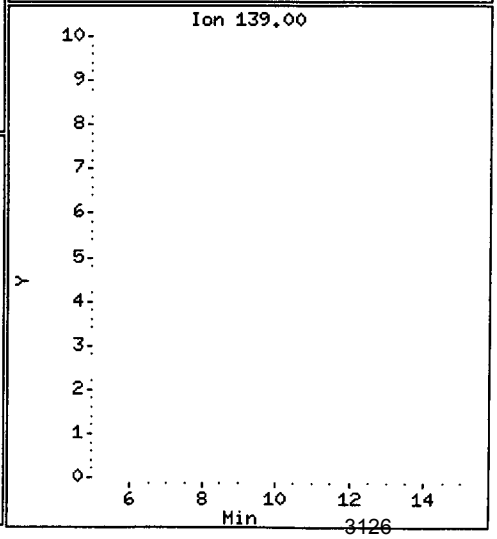












Data File: /chem3/nt11.i/20110516.b/su45mb.d

Date : 16-MAY-2011 12:20

Client ID: SU45MBW1

Instrument: nt11.i

Sample Info: SU45MBW1

Volume Injected (uL): 2.0

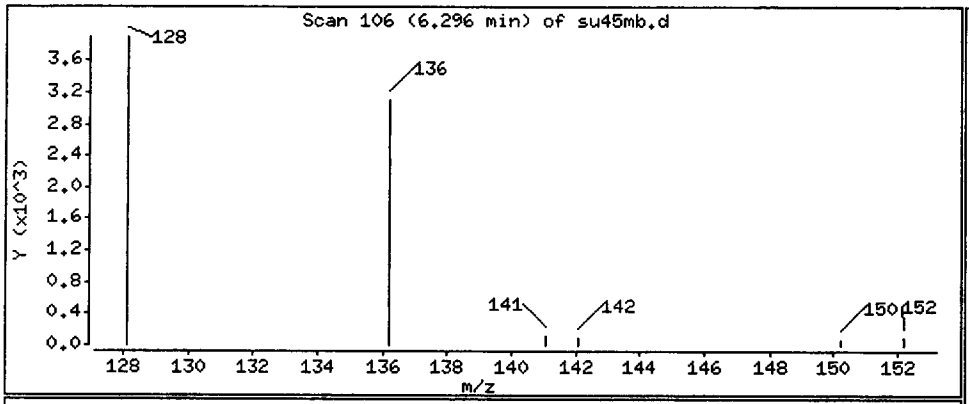
Operator: VTS

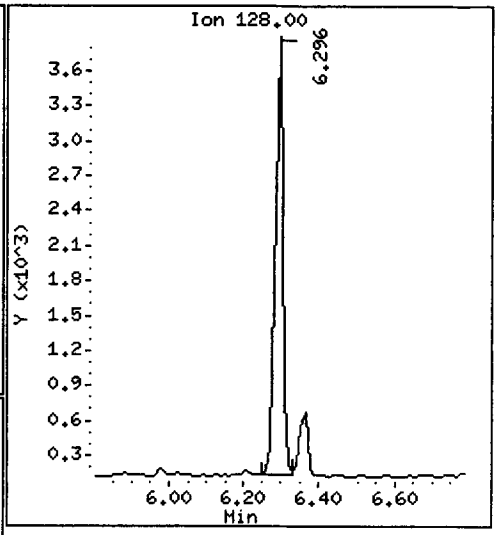
Column phase: ZB-5msi

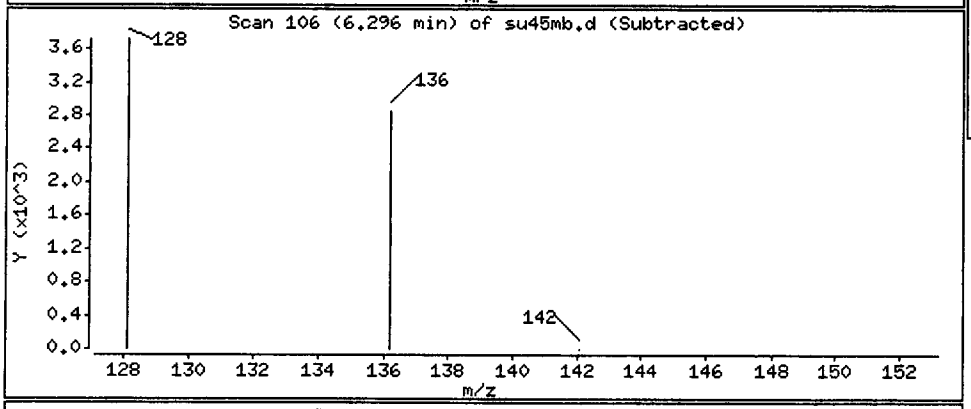
Column diameter: 0.25

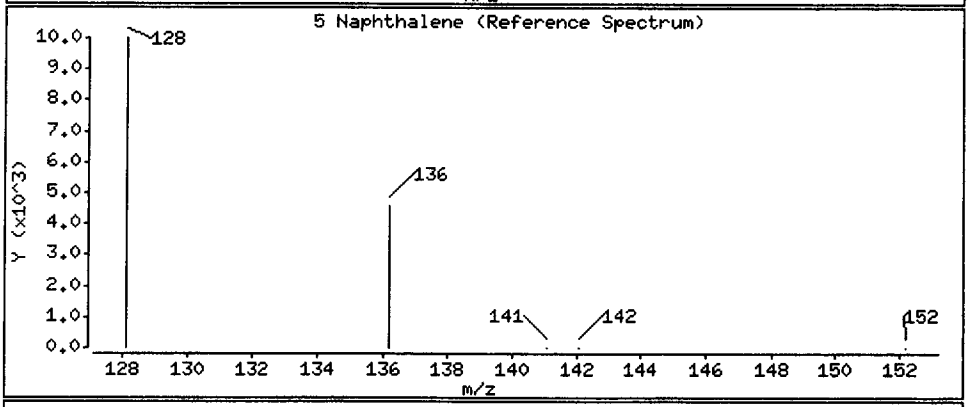
5 Naphthalene

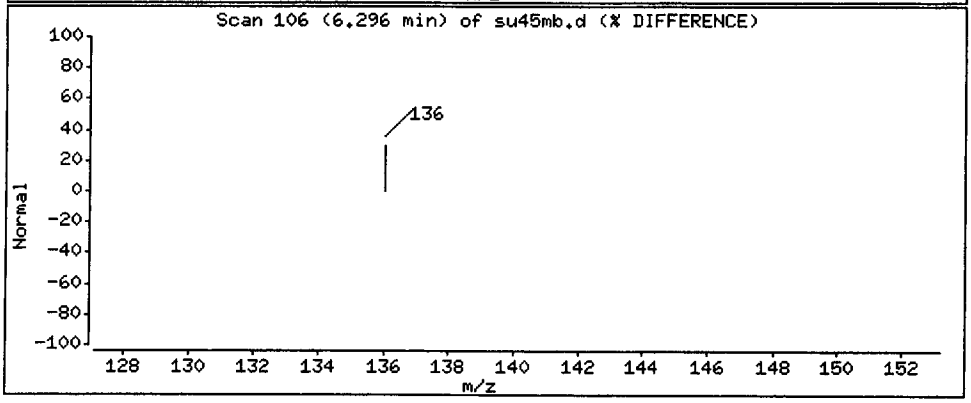
Concentration: 8.14 ug/L











CO-ELUTION SUMMARY FOR FILE - su45mb.d

Lab ID: SU45MBW1, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

IZ 5/20/11

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110516.b/su45sb.d
Lab Smp Id: SU45LCSW1 Client Smp ID: SU45LCSW1
Inj Date : 16-MAY-2011 12:44
Operator : VTS Inst ID: nt11.i
Smp Info : SU45LCSW1
Misc Info : 11-9581
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
*	4 Naphthalene-d8	136	6.272	6.272	(1.000)	122313	200.000	
	5 Naphthalene	128	6.295	6.295	(1.004)	98229	167.452 B	167
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	62873	176.999	177
	7 2-Methylnaphthalene	142	7.135	7.135	(1.138)	61048	171.330 B	171
	8 1-Methylnaphthalene	142	7.273	7.273	(1.160)	60009	169.690 B	170
	10 Acenaphthylene	152	8.265	8.265	(0.978)	99202	174.721	175
*	11 Acenaphthene-d10	164	8.452	8.466	(1.000)	72780	200.000	
	12 Acenaphthene	153	8.492	8.492	(1.005)	61022	170.583	171
	14 Dibenzofuran	168	8.694	8.694	(1.029)	94337	179.118	179
	15 Fluorene	166	9.123	9.123	(1.079)	68916	185.339	185
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	119298	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	113584	189.403	189
	20 Anthracene	178	10.383	10.383	(1.008)	100062	176.280	176
	24 Fluoranthene	202	11.817	11.817	(1.147)	135036	229.105	229
	25 Pyrene	202	12.112	12.112	(0.889)	141447	214.243	214

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	110991	201.672	202
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	78581	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	115568	208.870	209
	43 Total Benzofluoranthenes	252	15.041	15.041	(0.964)	212302	398.781	399
	34 Benzo(a)pyrene	252	15.512	15.512	(0.994)	81184	171.716	172
*	35 Perylene-d12	264	15.608	15.608	(1.000)	65906	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	108377	189.917	190
$	36 Dibenzo(a,h)anthracene-d14	292	17.605	17.618	(1.128)	83892	203.239	203
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	87083	195.906	196
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	89729	176.467	176

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su45sb.d
Lab Smp Id: SU45LCSW1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9581

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Client Smp ID: SU45LCSW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	122313	-5.42
11 Acenaphthene-d10	70573	35286	141146	72780	3.13
18 Phenanthrene-d10	113741	56870	227482	119298	4.89
29 Chrysene-d12	70763	35382	141526	78581	11.05
35 Perylene-d12	54896	27448	109792	65906	20.06

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.45	-0.16
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Newfields
Sample Matrix: LIQUID
Lab Smp Id: SU45LCSW1
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9581

Client SDG: SU45
Fraction: SV
Client Smp ID: SU45LCSW1
Operator: VTS
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	167	55.82	41-101
7 2-Methylnaphthalen	300	171	57.11	47-100
8 1-Methylnaphthalen	300	170	56.56	30-160
10 Acenaphthylene	300	175	58.24	35-100
12 Acenaphthene	300	171	56.86	43-104
14 Dibenzofuran	300	179	59.71	37-100
15 Fluorene	300	185	61.78	51-103
19 Phenanthrene	300	189	63.13	55-109
20 Anthracene	300	176	58.76	30-101
24 Fluoranthene	300	229	76.37	49-123
25 Pyrene	300	214	71.41	48-120
28 Benzo(a)anthracene	300	202	67.22	43-113
30 Chrysene	300	209	69.62	59-112
43 Total Benzofluoran	600	399	66.46	30-160
34 Benzo(a)pyrene	300	172	57.24	10-100
37 Indeno(1,2,3-cd)py	300	190	63.31	43-112
38 Dibenzo(a,h)anthra	300	196	65.30	42-114
39 Benzo(g,h,i)peryle	300	176	58.82	31-118

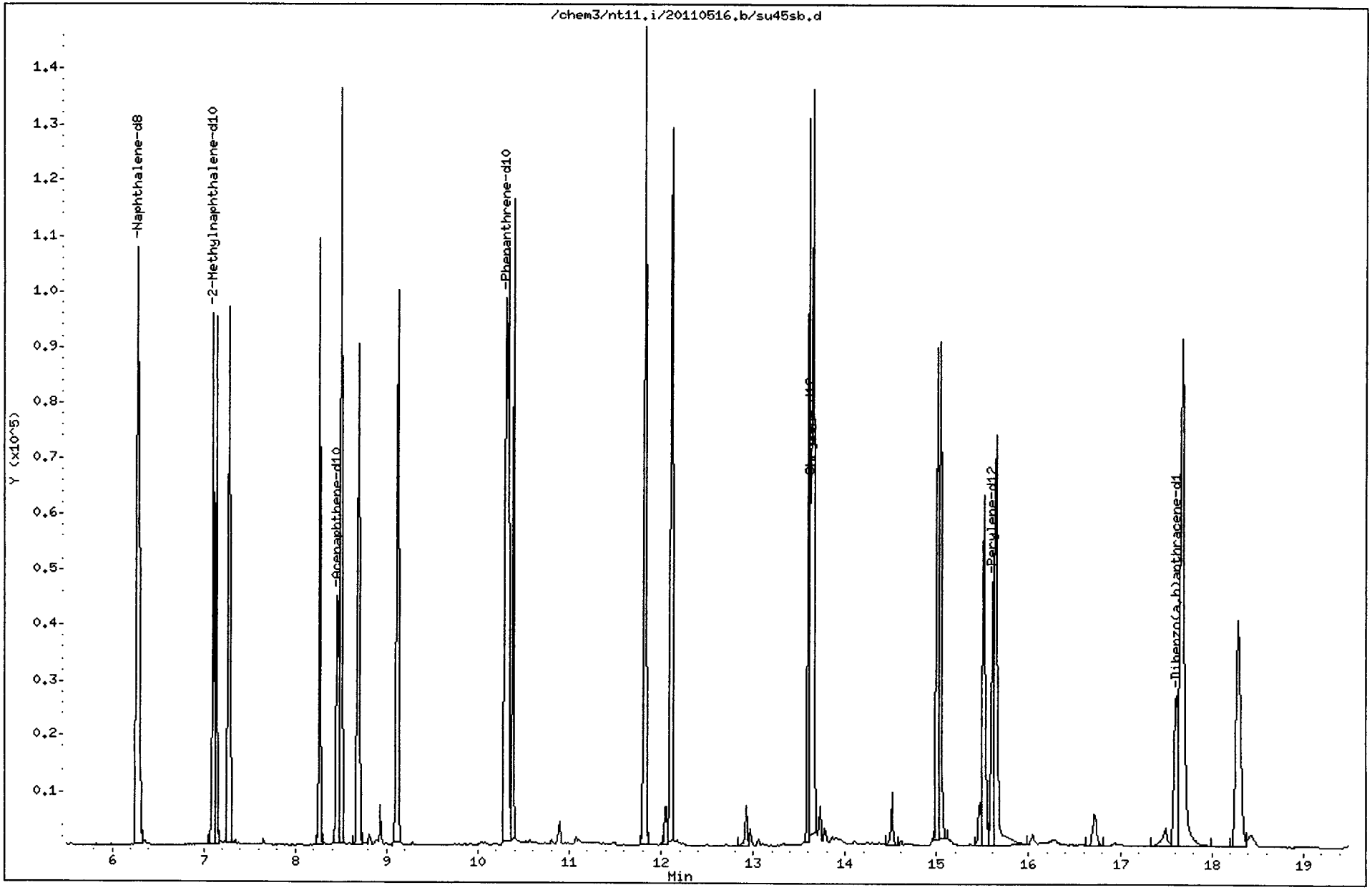
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	177	59.00	31-109
$ 36 Dibenzo(a,h)anthra	300	203	67.75	10-133

Data File: /chem3/nt11.i/20110516.b/su45sb.d
Date : 16-MAY-2011 12:44
Client ID: SU45LCSW1
Sample Info: SU45LCSW1
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

3133
SU53:006512



CO-ELUTION SUMMARY FOR FILE - su45sb.d

Lab ID: SU45LCSW1, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc. YZ 5/20/11

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110516.b/su45sbd.d
Lab Smp Id: SU45LCSDW1 Client Smp ID: SU45LCSDW1
Inj Date : 16-MAY-2011 13:08
Operator : VTS Inst ID: nt11.i
Smp Info : SU45LCSDW1
Misc Info : 11-9581
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 10 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.272	(1.000)	118073	200.000	
	5 Naphthalene	128	6.296	6.295	(1.004)	107608	190.027	190
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	67507	196.869	197
	7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	67200	195.368	195
	8 1-Methylnaphthalene	142	7.274	7.273	(1.160)	68388	200.328	200
	10 Acenaphthylene	152	8.265	8.265	(0.978)	107164	197.714	198
*	11 Acenaphthene-d10	164	8.452	8.466	(1.000)	69478	200.000	
	12 Acenaphthene	153	8.493	8.492	(1.005)	67398	197.361	197
	14 Dibenzofuran	168	8.694	8.694	(1.029)	102383	203.634	204
	15 Fluorene	166	9.123	9.123	(1.079)	75234	211.947	212
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	106510	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	117672	219.778	220
	20 Anthracene	178	10.383	10.383	(1.008)	104227	205.663	206
	24 Fluoranthene	202	11.818	11.817	(1.147)	137354	261.017	261
	25 Pyrene	202	12.113	12.112	(0.889)	142379	235.940	236

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	116169	230.935	231
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	71825	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	117969	233.265	233
	43 Total Benzofluoranthenes	252	15.042	15.041	(0.964)	224361	456.592	457
	34 Benzo(a)pyrene	252	15.512	15.512	(0.994)	87780	201.157	201
*	35 Perylene-d12	264	15.609	15.608	(1.000)	60831	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	115786	219.827	220
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	87383	229.358	229
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	92809	226.206	226
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	96488	205.590	206

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su45sbd.d
Lab Smp Id: SU45LCSDW1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9581

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Client Smp ID: SU45LCSDW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	118073	-8.70
11 Acenaphthene-d10	70573	35286	141146	69478	-1.55
18 Phenanthrene-d10	113741	56870	227482	106510	-6.36
29 Chrysene-d12	70763	35382	141526	71825	1.50
35 Perylene-d12	54896	27448	109792	60831	10.81

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.45	-0.16
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Newfields
Sample Matrix: LIQUID
Lab Smp Id: SU45LCSDW1
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9581

Client SDG: SU45
Fraction: SV
Client Smp ID: SU45LCSDW1
Operator: VTS
SampleType: LCSD
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	190	63.34	41-101
7 2-Methylnaphthalen	300	195	65.12	47-100
8 1-Methylnaphthalen	300	200	66.78	30-160
10 Acenaphthylene	300	198	65.90	35-100
12 Acenaphthene	300	197	65.79	43-104
14 Dibenzofuran	300	204	67.88	37-100
15 Fluorene	300	212	70.65	51-103
19 Phenanthrene	300	220	73.26	55-109
20 Anthracene	300	206	68.55	30-101
24 Fluoranthene	300	261	87.01	49-123
25 Pyrene	300	236	78.65	48-120
28 Benzo(a)anthracene	300	231	76.98	43-113
30 Chrysene	300	233	77.75	59-112
43 Total Benzofluoran	600	457	76.10	30-160
34 Benzo(a)pyrene	300	201	67.05	10-100
37 Indeno(1,2,3-cd)py	300	220	73.28	43-112
38 Dibenzo(a,h)anthra	300	226	75.40	42-114
39 Benzo(g,h,i)peryle	300	206	68.53	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	197	65.62	31-109
$ 36 Dibenzo(a,h)anthra	300	229	76.45	10-133

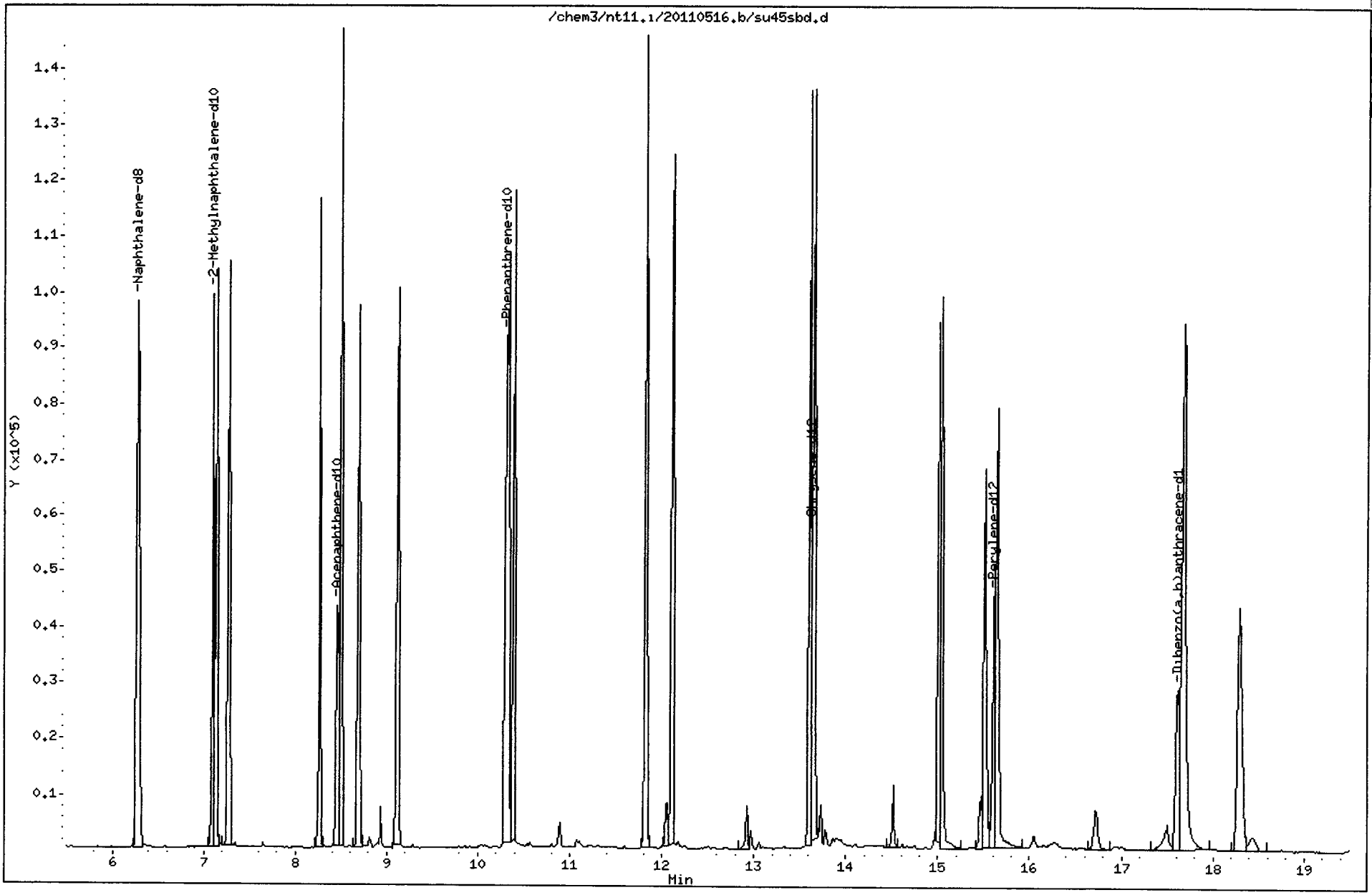
Data File: /chem3/nt11.i/20110516.b/su45sbd.d
Date : 16-MAY-2011 13:08
Client ID: SU45LCSDW1
Sample Info: SU45LCSDW1
Volume Injected (uL): 2.0
Column phase: ZB-5ms1

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

3139

SU53:00618



CO-ELUTION SUMMARY FOR FILE - su45sbd.d

Lab ID: SU45LCSDW1, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

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Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110516.b/su53a.d
Lab Smp Id: SU53A Client Smp ID: MW5042811
Inj Date : 16-MAY-2011 15:58
Operator : VTS Inst ID: nt11.i
Smp Info : SU53A
Misc Info : 11-9621
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
*	4 Naphthalene-d8	136	6.272	6.272	(1.000)	118071	200.000	
	5 Naphthalene	128	6.295	6.295	(1.004)	13317	23.5172 B	23.5
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	58429	170.398	170
	7 2-Methylnaphthalene	142	Compound Not Detected.					
	8 1-Methylnaphthalene	142	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	70065	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	113950	200.000	
	19 Phenanthrene	178	Compound Not Detected.					
	20 Anthracene	178	Compound Not Detected.					
	24 Fluoranthene	202	Compound Not Detected.					
	25 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	77577	200.000	
	30 Chrysene	228	Compound Not Detected.					
	43 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	15.608	15.608	(1.000)	66676	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	82434	197.401	197
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su53a.d
Lab Smp Id: SU53A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9621

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Client Smp ID: MW5042811
Level: LOW
Sample Type: Groundwater

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	118071	-8.70
11 Acenaphthene-d10	70573	35286	141146	70065	-0.72
18 Phenanthrene-d10	113741	56870	227482	113950	0.18
29 Chrysene-d12	70763	35382	141526	77577	9.63
35 Perylene-d12	54896	27448	109792	66676	21.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Sample Matrix: LIQUID
Lab Smp Id: SU53A
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9621

Client SDG: SU53
Fraction: SV
Client Smp ID: MW5042811
Operator: VTS
SampleType: SAMPLE
Quant Type: ISTD

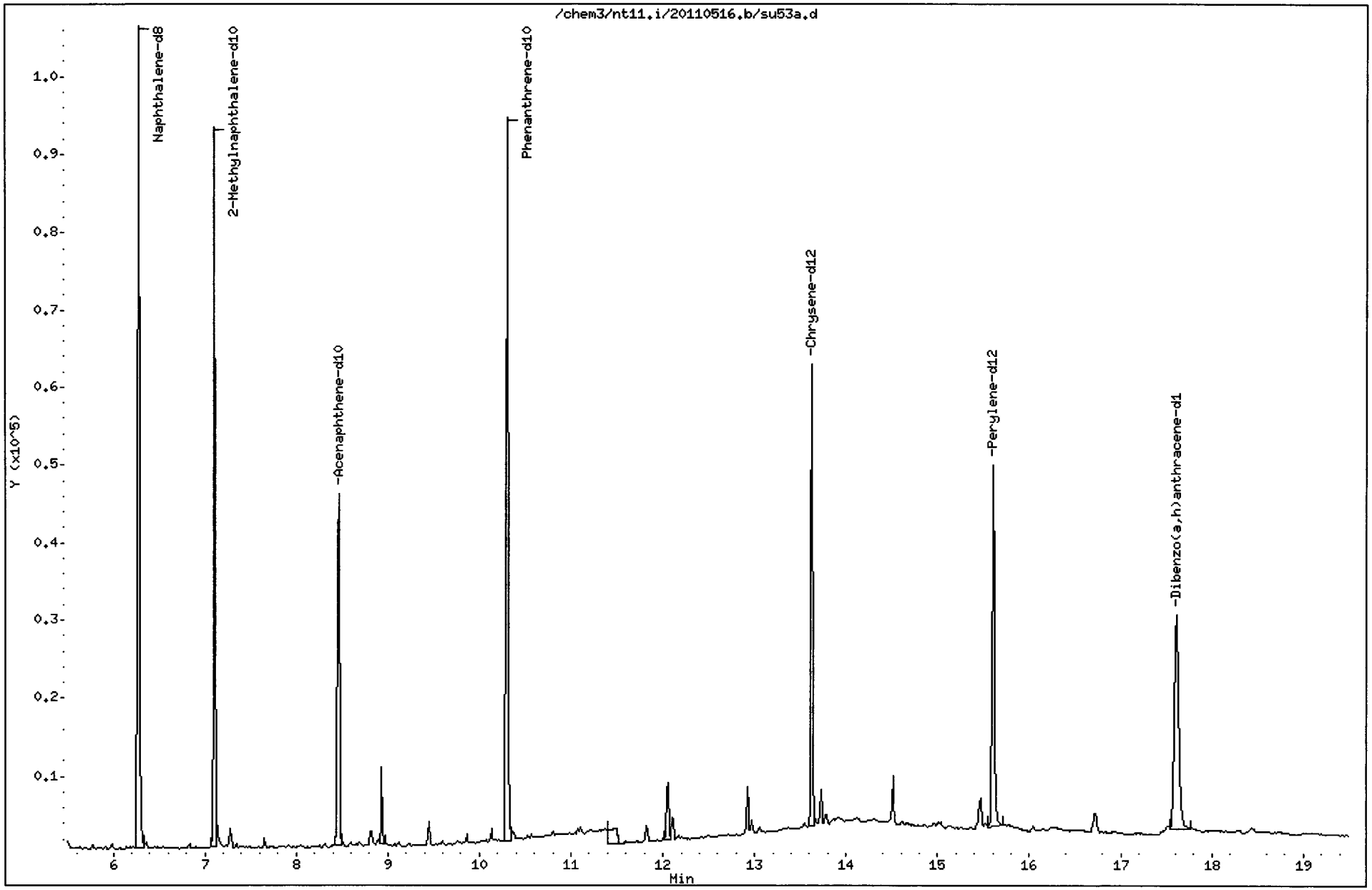
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	170	56.80	31-109
$ 36 Dibenzo(a,h)anthra	300	197	65.80	10-133

Data File: /chem3/nt11.i/20110516.b/su53a.d
Date : 16-MAY-2011 15:58
Client ID: MW5042811
Sample Info: SU53A
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3145

SU53:09624



CO-ELUTION SUMMARY FOR FILE - su53a.d

Lab ID: SU53A, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

yz 5/20/11

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110516.b/su53b.d
Lab Smp Id: SU53B Client Smp ID: MW15042811
Inj Date : 16-MAY-2011 16:23
Operator : VTS Inst ID: nt11.i
Smp Info : SU53B
Misc Info : 11-9622
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.272	(1.000)	121196	200.000	
	5 Naphthalene	128	6.296	6.295	(1.004)	8462	14.5582 B	14.6
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	57777	164.152	164
	7 2-Methylnaphthalene	142	Compound Not Detected.					
	8 1-Methylnaphthalene	142	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	70575	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	118974	200.000	
	19 Phenanthrene	178	Compound Not Detected.					
	20 Anthracene	178	Compound Not Detected.					
	24 Fluoranthene	202	Compound Not Detected.					
	25 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	78241	200.000	
	30 Chrysene	228	Compound Not Detected.					
	43 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	15.608	15.608	(1.000)	66146	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	76304	184.186	184
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su53b.d
Lab Smp Id: SU53B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9622

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Client Smp ID: MW15042811
Level: LOW
Sample Type: Groundwater

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	121196	-6.29
11 Acenaphthene-d10	70573	35286	141146	70575	0.00
18 Phenanthrene-d10	113741	56870	227482	118974	4.60
29 Chrysene-d12	70763	35382	141526	78241	10.57
35 Perylene-d12	54896	27448	109792	66146	20.49

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Sample Matrix: LIQUID
Lab Smp Id: SU53B
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9622

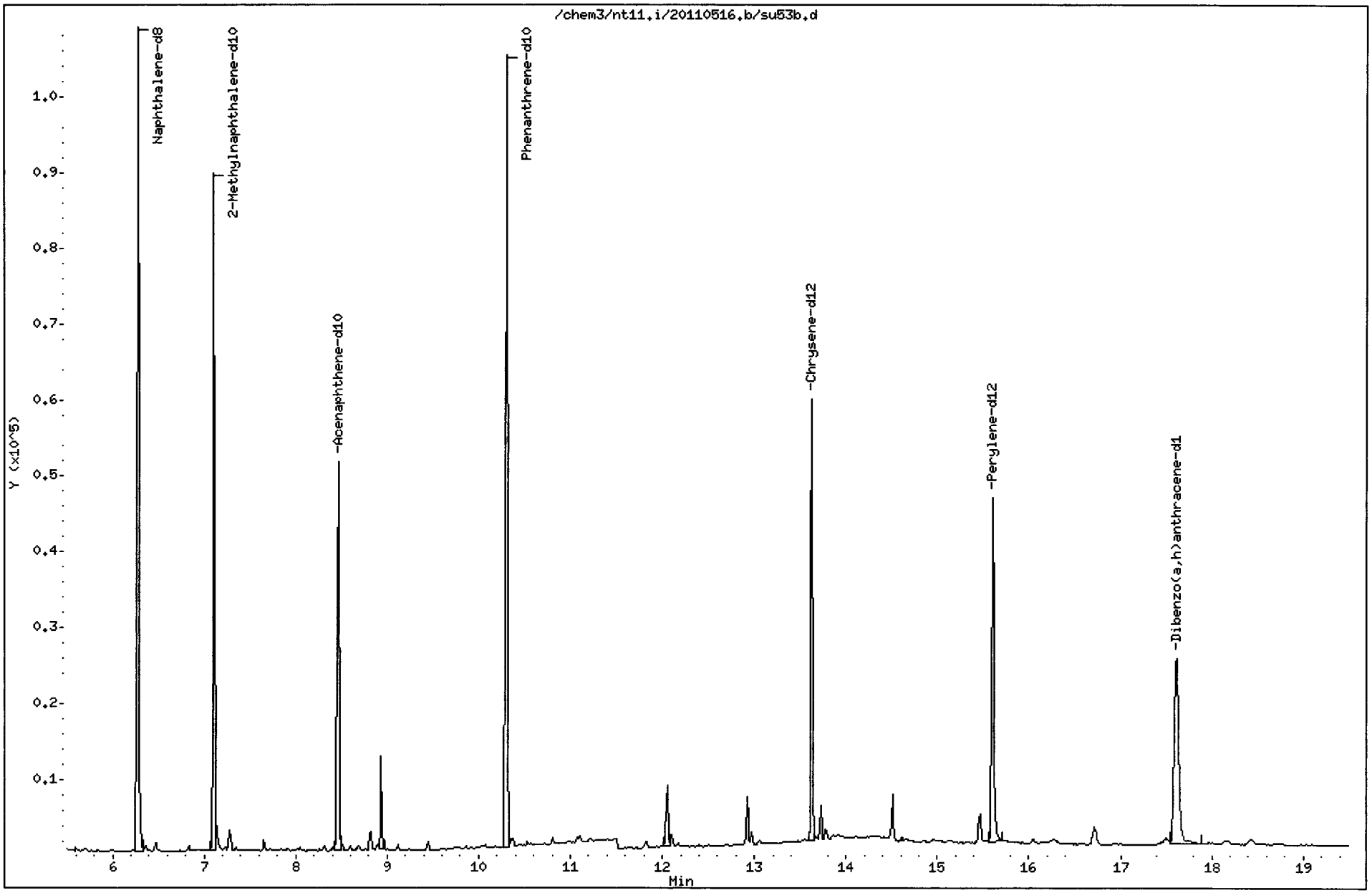
Client SDG: SU53
Fraction: SV
Client Smp ID: MW15042811
Operator: VTS
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	164	54.72	31-109
$ 36 Dibenzo(a,h)anthra	300	184	61.40	10-133

Data File: /chem3/nt11.i/20110516.b/su53b.d
Date : 16-MAY-2011 16:23
Client ID: MW15042811
Sample Info: SU53B
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3151
SU53:00639



CO-ELUTION SUMMARY FOR FILE - su53b.d

Lab ID: SU53B, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

yz 5/20/11

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110516.b/su53c.d
Lab Smp Id: SU53C Client Smp ID: MW4042811
Inj Date : 16-MAY-2011 16:47
Operator : VTS Inst ID: nt11.i
Smp Info : SU53C
Misc Info : 11-9623
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.273	6.272	(1.000)	120343	200.000	
5 Naphthalene	128	6.296	6.295	(1.004)	11928	20.6666 B	20.7
$ 6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	61101	174.826	175
7 2-Methylnaphthalene	142	Compound Not Detected.					
8 1-Methylnaphthalene	142	Compound Not Detected.					
10 Acenaphthylene	152	Compound Not Detected.					
* 11 Acenaphthene-d10	164	8.466	8.466	(1.000)	72423	200.000	
12 Acenaphthene	153	Compound Not Detected.					
14 Dibenzofuran	168	Compound Not Detected.					
15 Fluorene	166	Compound Not Detected.					
* 18 Phenanthrene-d10	188	10.302	10.302	(1.000)	123589	200.000	
19 Phenanthrene	178	Compound Not Detected.					
20 Anthracene	178	Compound Not Detected.					
24 Fluoranthene	202	Compound Not Detected.					
25 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	81508	200.000	
	30 Chrysene	228	Compound Not Detected.					
	43 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	15.608	15.608	(1.000)	68851	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	73735	170.992	171
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su53c.d
Lab Smp Id: SU53C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9623

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Client Smp ID: MW4042811
Level: LOW
Sample Type: Groundwater

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	120343	-6.95
11 Acenaphthene-d10	70573	35286	141146	72423	2.62
18 Phenanthrene-d10	113741	56870	227482	123589	8.66
29 Chrysene-d12	70763	35382	141526	81508	15.18
35 Perylene-d12	54896	27448	109792	68851	25.42

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

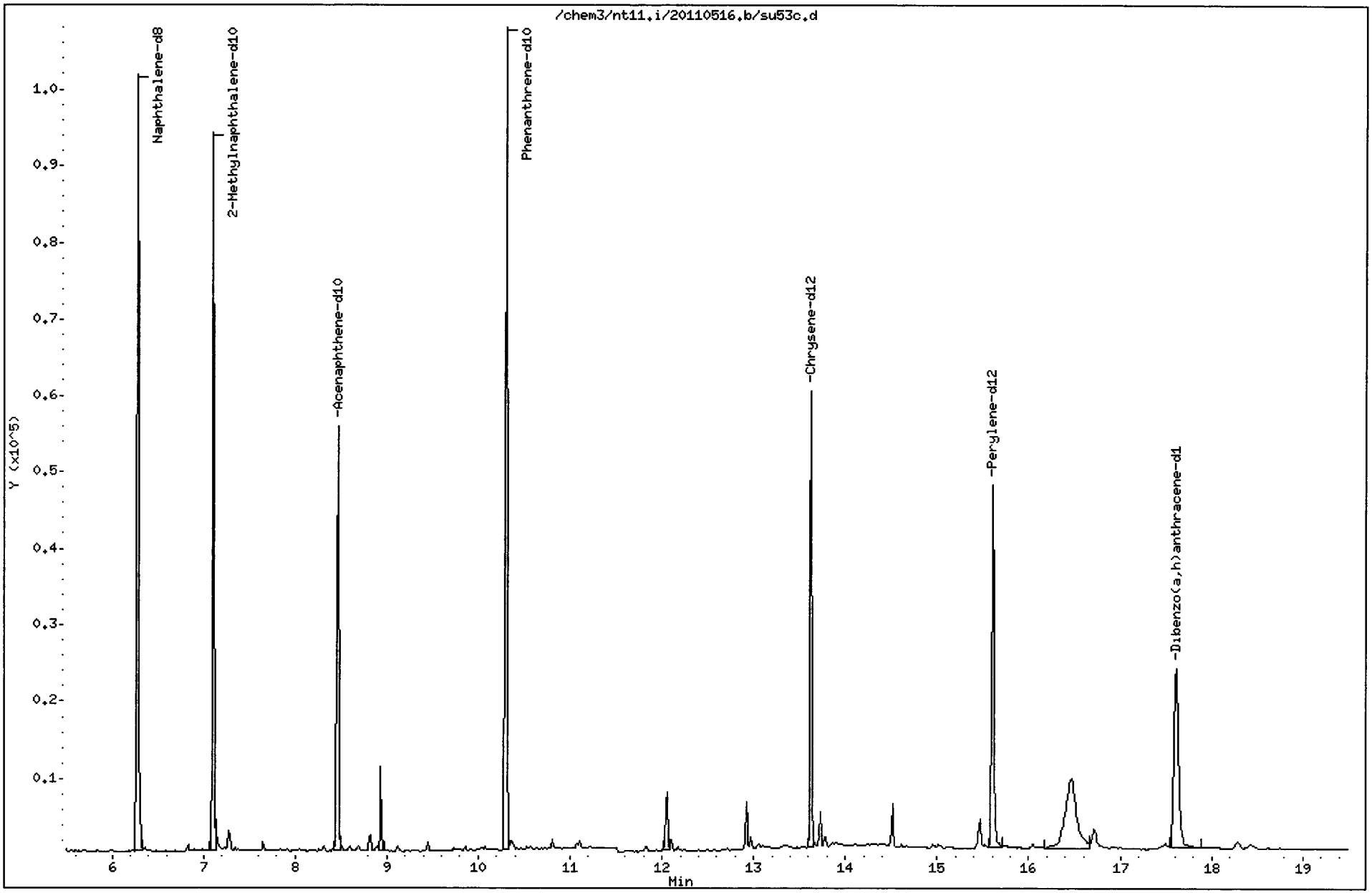
Client Name: Floyd Snider
Client SDG: SU53
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU53C
Client Smp ID: MW4042811
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9623

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	175	58.28	31-109
$ 36 Dibenzo(a,h)anthra	300	171	57.00	10-133

Data File: /chem3/nt11.i/20110516.b/su53c.d
Date : 16-MAY-2011 16:47
Client ID: MW4042811
Sample Info: SU53C
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3157
SU53:00636



CO-ELUTION SUMMARY FOR FILE - su53c.d

Lab ID: SU53C, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

YZ 5/24/11

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110516.b/su53cms.d
Lab Smp Id: SU53CMS Client Smp ID: MW4042811 MS
Inj Date : 16-MAY-2011 17:11
Operator : VTS Inst ID: nt11.i
Smp Info : SU53CMS
Misc Info : 11-9623
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 20 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.272	(1.000)	120332	200.000	
	5 Naphthalene	128	6.296	6.295	(1.004)	106442	184.440	184
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	61033	174.648	175
	7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	60842	173.563	174
	8 1-Methylnaphthalene	142	7.274	7.273	(1.160)	60817	174.806	175
	10 Acenaphthylene	152	8.265	8.265	(0.976)	96731	170.681	171
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	72647	200.000	
	12 Acenaphthene	153	8.493	8.492	(1.003)	59676	167.126	167
	14 Dibenzofuran	168	8.694	8.694	(1.027)	93843	178.506	179
	15 Fluorene	166	9.123	9.123	(1.078)	69356	186.864	187
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	120641	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	115580	190.585	191
	20 Anthracene	178	10.383	10.383	(1.008)	97631	170.083	170
	24 Fluoranthene	202	11.818	11.817	(1.147)	133404	223.817	224
	25 Pyrene	202	12.113	12.112	(0.889)	137843	196.121	196

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	113697	194.058	194
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	83655	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	114025	193.582	194
	43 Total Benzofluoranthenes	252	15.003	15.041	(0.961)	220236	394.483	394
	34 Benzo(a)pyrene	252	15.512	15.512	(0.994)	81406	164.193	164
*	35 Perylene-d12	264	15.608	15.608	(1.000)	69114	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	115362	192.774	193
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	85207	196.844	197
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	91340	195.945	196
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	96383	180.754	181

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su53cms.d
Lab Smp Id: SU53CMS
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9623

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Client Smp ID: MW4042811 MS
Level: LOW
Sample Type: Groundwater

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	120332	-6.95
11 Acenaphthene-d10	70573	35286	141146	72647	2.94
18 Phenanthrene-d10	113741	56870	227482	120641	6.07
29 Chrysene-d12	70763	35382	141526	83655	18.22
35 Perylene-d12	54896	27448	109792	69114	25.90

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snid
Client SDG: SU53
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU53CMS
Client Smp ID: MW4042811 MS
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: MS
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9623

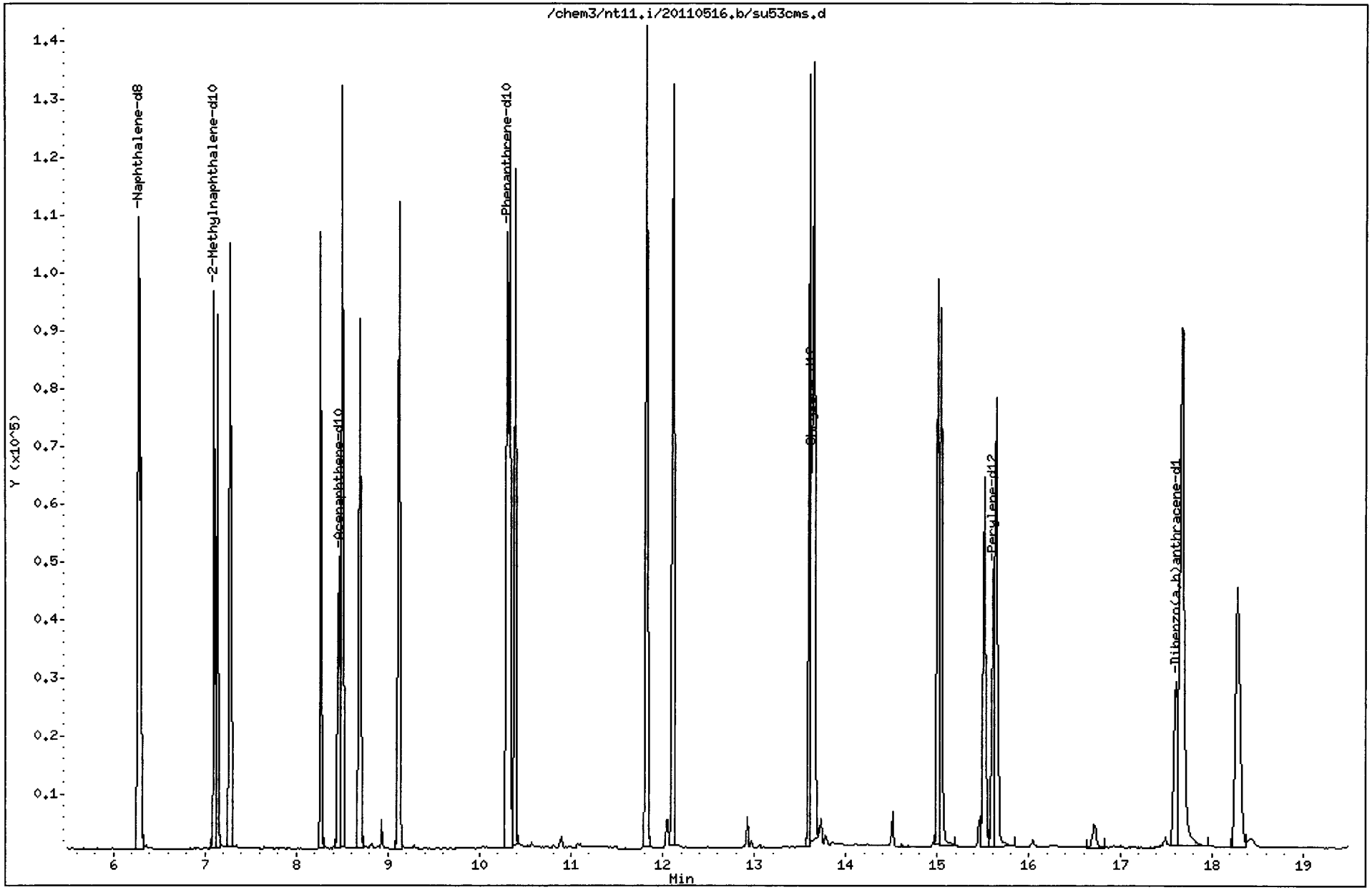
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	184	61.48	41-101
7 2-Methylnaphthalen	300	174	57.85	47-100
8 1-Methylnaphthalen	300	175	58.27	30-160
10 Acenaphthylene	300	171	56.89	35-100
12 Acenaphthene	300	167	55.71	43-104
14 Dibenzofuran	300	179	59.50	37-100
15 Fluorene	300	187	62.29	51-103
19 Phenanthrene	300	191	63.53	55-109
20 Anthracene	300	170	56.69	30-101
24 Fluoranthene	300	224	74.61	49-123
25 Pyrene	300	196	65.37	48-120
28 Benzo(a)anthracene	300	194	64.69	43-113
30 Chrysene	300	194	64.53	59-112
43 Total Benzofluoran	600	394	65.75	30-160
34 Benzo(a)pyrene	300	164	54.73	10-100
37 Indeno(1,2,3-cd)py	300	193	64.26	43-112
38 Dibenzo(a,h)anthra	300	196	65.31	42-114
39 Benzo(g,h,i)peryle	300	181	60.25	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	175	58.22	31-109
$ 36 Dibenzo(a,h)anthra	300	197	65.61	10-133

Data File: /chem3/nt11.i/20110516.b/su53cms.d
Date : 16-MAY-2011 17:11
Client ID: MW4042811 MS
Sample Info: SU53CMS
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3163
SU53:006642



CO-ELUTION SUMMARY FOR FILE - su53cms.d

Lab ID: SU53CMS, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM YZ 5/26/11

Data file : /chem3/nt11.i/20110516.b/su53cmsd.d
Lab Smp Id: SU53CMSD Client Smp ID: MW4042811 MSD
Inj Date : 16-MAY-2011 17:36
Operator : VTS Inst ID: nt11.i
Smp Info : SU53CMSD
Misc Info : 11-9623
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 21 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.273	6.272	(1.000)	123172	200.000	
5 Naphthalene	128	6.296	6.295	(1.004)	113231	191.680	192
$ 6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	65551	183.251	183
7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	66703	185.896	186
8 1-Methylnaphthalene	142	7.274	7.273	(1.160)	67110	188.447	188
10 Acenaphthylene	152	8.265	8.265	(0.978)	105490	185.671	186
* 11 Acenaphthene-d10	164	8.452	8.466	(1.000)	72829	200.000	
12 Acenaphthene	153	8.493	8.492	(1.005)	64169	179.259	179
14 Dibenzofuran	168	8.694	8.694	(1.029)	98448	186.798	187
15 Fluorene	166	9.123	9.123	(1.079)	74706	200.776	201
* 18 Phenanthrene-d10	188	10.303	10.302	(1.000)	121870	200.000	
19 Phenanthrene	178	10.329	10.329	(1.003)	125336	204.588	205
20 Anthracene	178	10.383	10.383	(1.008)	105741	182.353	182
24 Fluoranthene	202	11.818	11.817	(1.147)	139234	231.242	231
25 Pyrene	202	12.113	12.112	(0.889)	148678	216.154	216

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	120053	209.379	209
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	81868	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	123030	213.429	213
	43 Total Benzofluoranthenes	252	15.042	15.041	(0.964)	237908	421.598	422
	34 Benzo(a)pyrene	252	15.512	15.512	(0.994)	87813	175.229	175
*	35 Perylene-d12	264	15.608	15.608	(1.000)	69858	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	126150	208.556	209
$	36 Dibenzo(a,h)anthracene-d14	292	17.605	17.618	(1.128)	91394	208.888	209
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	99032	210.183	210
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	105162	195.118	195

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su53cmsd.d
Lab Smp Id: SU53CMSD
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9623

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Client Smp ID: MW4042811 MSD
Level: LOW
Sample Type: Groundwater

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	123172	-4.76
11 Acenaphthene-d10	70573	35286	141146	72829	3.20
18 Phenanthrene-d10	113741	56870	227482	121870	7.15
29 Chrysene-d12	70763	35382	141526	81868	15.69
35 Perylene-d12	54896	27448	109792	69858	27.26

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.45	-0.16
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snid
Client SDG: SU53
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU53CMSD
Client Smp ID: MW4042811 MSD
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: MS
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9623

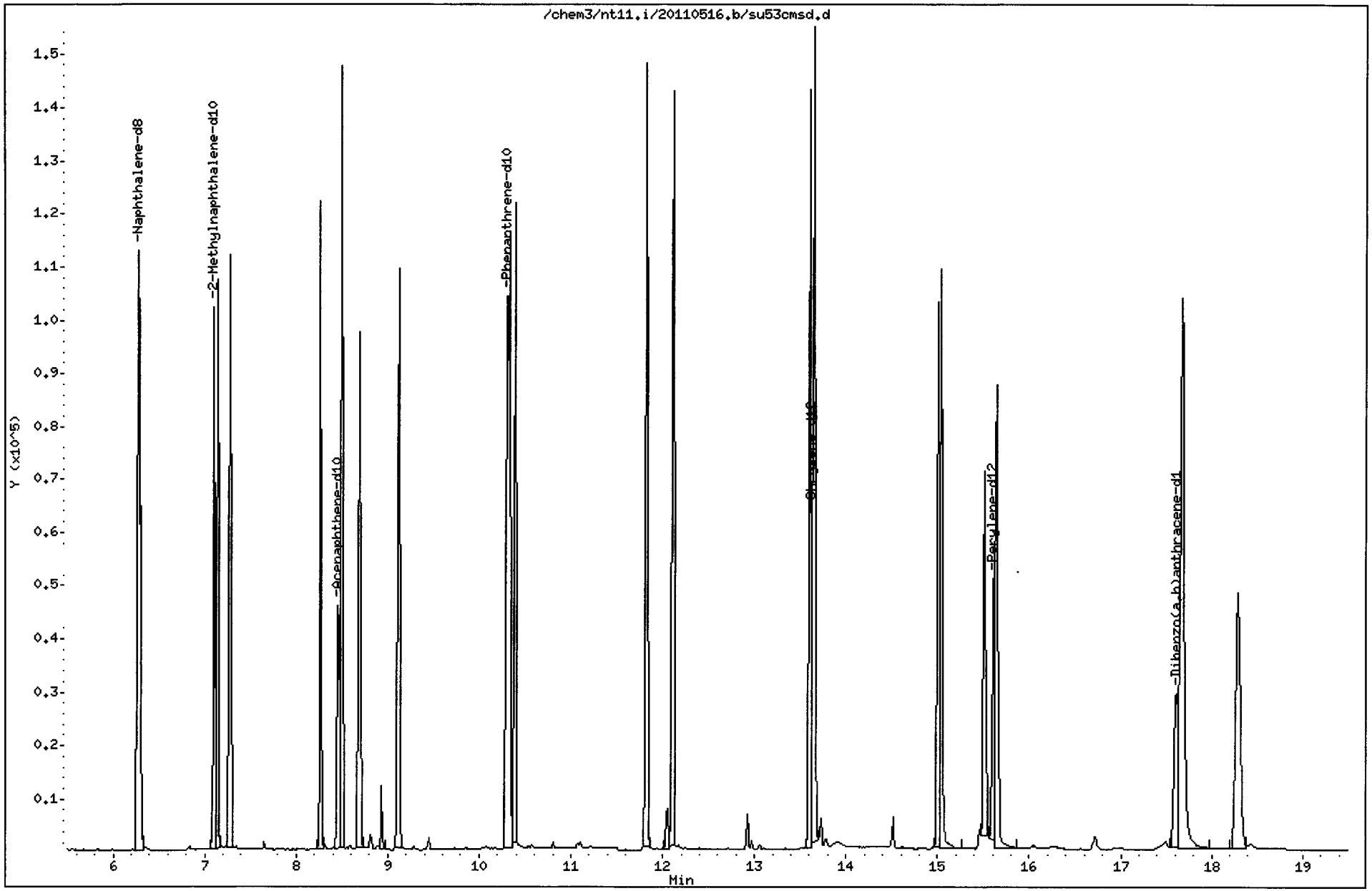
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	192	63.89	41-101
7 2-Methylnaphthalen	300	186	61.97	47-100
8 1-Methylnaphthalen	300	188	62.82	30-160
10 Acenaphthylene	300	186	61.89	35-100
12 Acenaphthene	300	179	59.75	43-104
14 Dibenzofuran	300	187	62.27	37-100
15 Fluorene	300	201	66.93	51-103
19 Phenanthrene	300	205	68.20	55-109
20 Anthracene	300	182	60.78	30-101
24 Fluoranthene	300	231	77.08	49-123
25 Pyrene	300	216	72.05	48-120
28 Benzo(a)anthracene	300	209	69.79	43-113
30 Chrysene	300	213	71.14	59-112
43 Total Benzofluoran	600	422	70.27	30-160
34 Benzo(a)pyrene	300	175	58.41	10-100
37 Indeno(1,2,3-cd)py	300	209	69.52	43-112
38 Dibenzo(a,h)anthra	300	210	70.06	42-114
39 Benzo(g,h,i)peryle	300	195	65.04	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	183	61.08	31-109
$ 36 Dibenzo(a,h)anthra	300	209	69.63	10-133

Data File: /chem3/nt11.i/20110516.b/su53cmsd.d
Date : 16-MAY-2011 17:36
Client ID: MW4042811 MSD
Sample Info: SU53CMSD
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3169
SU53:006648



CO-ELUTION SUMMARY FOR FILE - su53cmsd.d

Lab ID: SU53CMSD, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

YE 5/18/11

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110516.b/su53d.d
Lab Smp Id: SU53D Client Smp ID: MW17042811
Inj Date : 16-MAY-2011 18:00
Operator : VTS Inst ID: nt11.i
Smp Info : SU53D
Misc Info : 11-9624
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 4 Naphthalene-d8	136	6.273	6.272	(1.000)	124759	200.000	
5 Naphthalene	128	6.296	6.295	(1.004)	11805	19.7295 B	19.7
$ 6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	69736	192.470	192
7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	2160	5.94316 BJ	5.94
8 1-Methylnaphthalene	142	Compound Not Detected.					
10 Acenaphthylene	152	Compound Not Detected.					
* 11 Acenaphthene-d10	164	8.466	8.466	(1.000)	72222	200.000	
12 Acenaphthene	153	Compound Not Detected.					
14 Dibenzofuran	168	Compound Not Detected.					
15 Fluorene	166	Compound Not Detected.					
* 18 Phenanthrene-d10	188	10.303	10.302	(1.000)	122396	200.000	
19 Phenanthrene	178	Compound Not Detected.					
20 Anthracene	178	Compound Not Detected.					
24 Fluoranthene	202	Compound Not Detected.					
25 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	80713	200.000	
	30 Chrysene	228	Compound Not Detected.					
	43 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	15.609	15.608	(1.000)	66914	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	87147	207.945	208
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su53d.d
Lab Smp Id: SU53D
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9624

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Client Smp ID: MW17042811
Level: LOW
Sample Type: Groundwater

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	124759	-3.53
11 Acenaphthene-d10	70573	35286	141146	72222	2.34
18 Phenanthrene-d10	113741	56870	227482	122396	7.61
29 Chrysene-d12	70763	35382	141526	80713	14.06
35 Perylene-d12	54896	27448	109792	66914	21.89

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

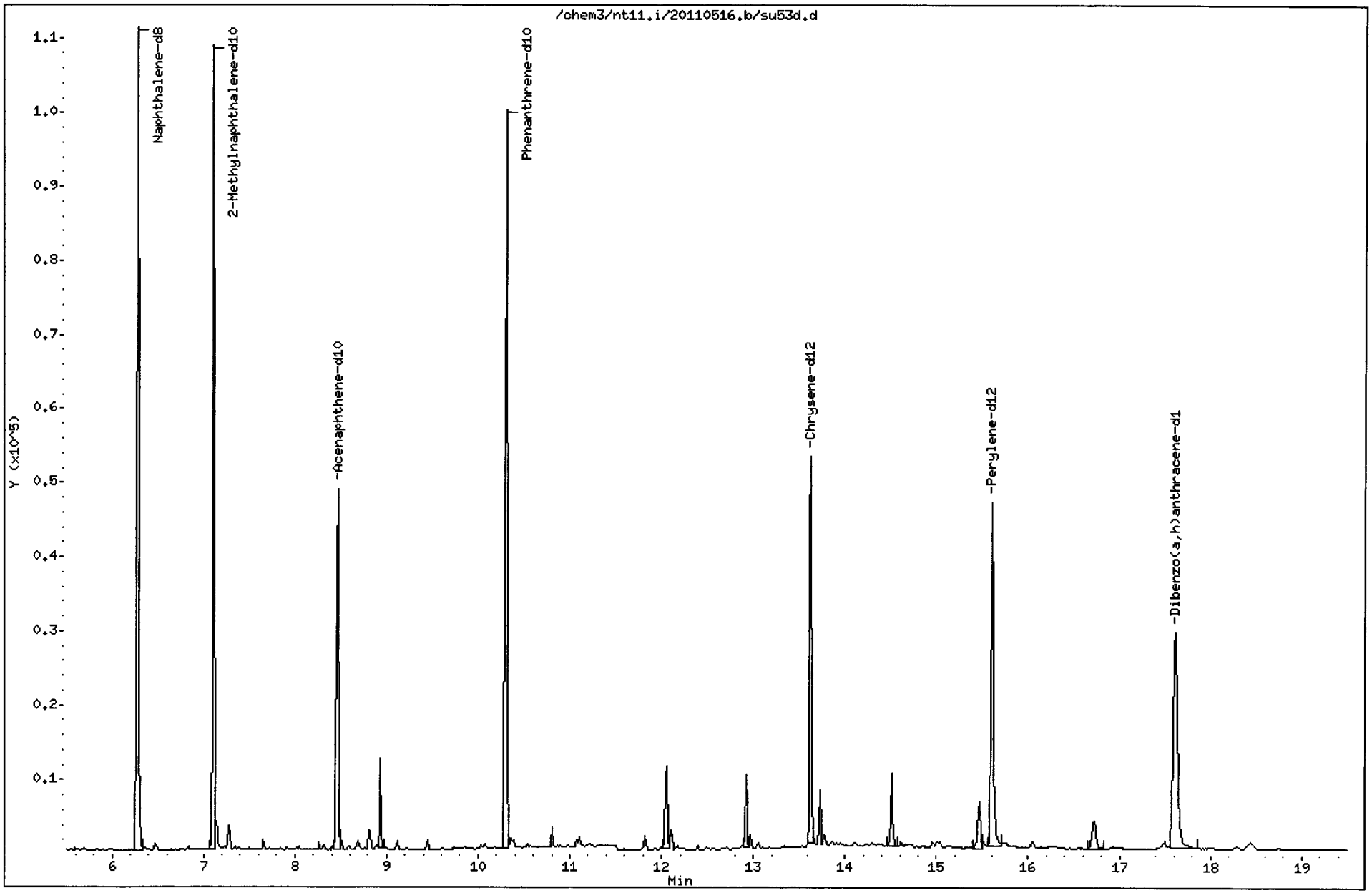
Client Name: Floyd Snider
Client SDG: SU53
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU53D
Client Smp ID: MW17042811
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9624

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	192	64.16	31-109
$ 36 Dibenzo(a,h)anthra	300	208	69.31	10-133

Data File: /chem3/nt11.i/20110516.b/su53d.d
Date : 16-MAY-2011 18:00
Client ID: MW17042811
Sample Info: SU53D
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3175
SU53:006514



Data File: /chem3/nt11.i/20110516.b/su53d.d

Date : 16-MAY-2011 18:00

Client ID: MW17042811

Instrument: nt11.i

Sample Info: SU53D

Volume Injected (uL): 2.0

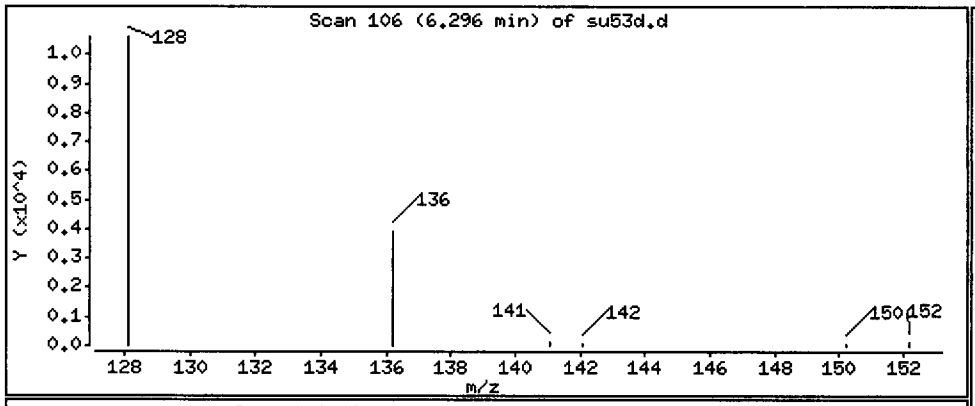
Operator: VTS

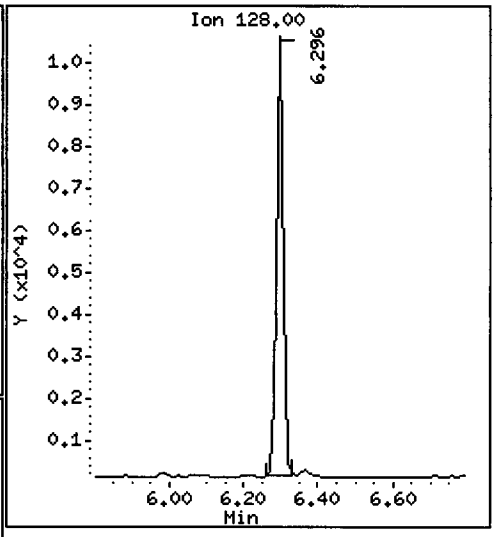
Column phase: ZB-5msi

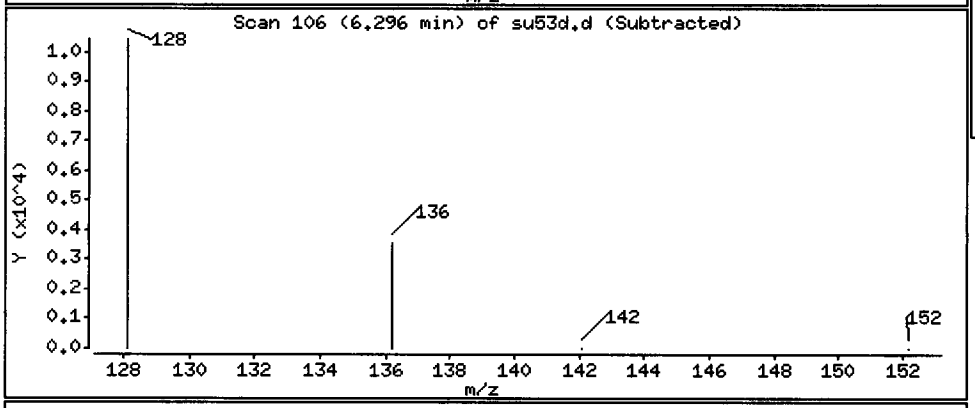
Column diameter: 0.25

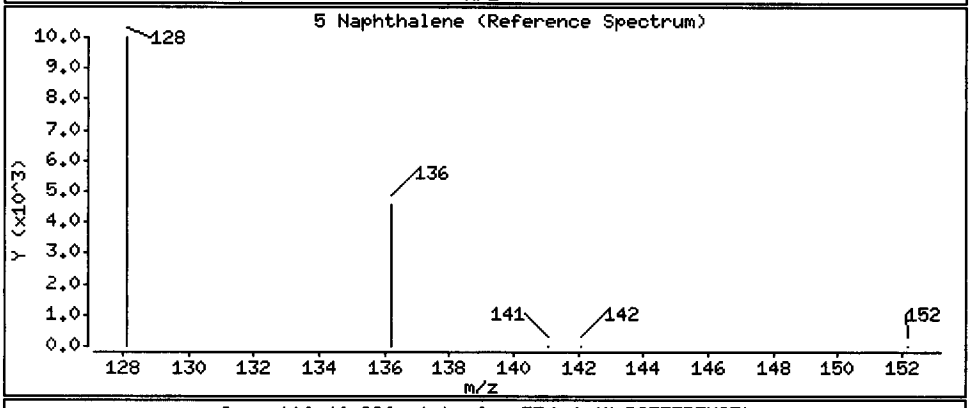
5 Naphthalene

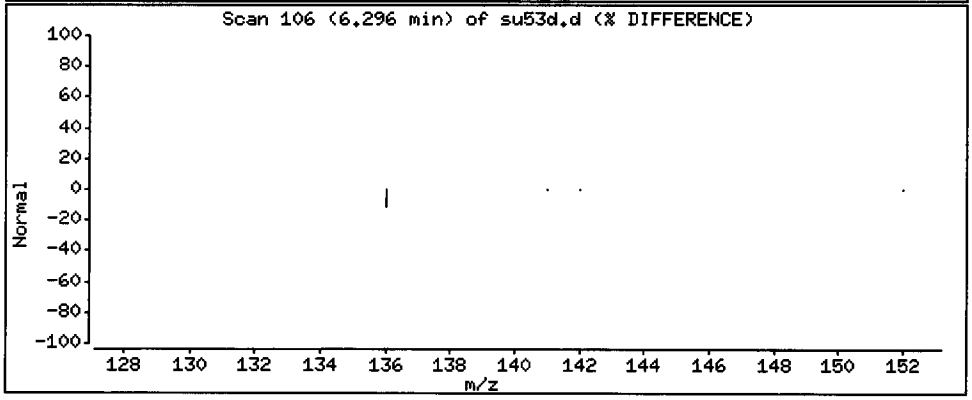
Concentration: 19.7 ug/L











CO-ELUTION SUMMARY FOR FILE - su53d.d

Lab ID: SU53D, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

YZ 5/26/11

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110516.b/su53e.d
Lab Smp Id: SU53E Client Smp ID: MW14042811
Inj Date : 16-MAY-2011 18:24
Operator : VTS Inst ID: nt11.i
Smp Info : SU53E
Misc Info : 11-9625
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.272	(1.000)	121662	200.000	
	5 Naphthalene	128	6.296	6.295	(1.004)	8472	14.5196 B	14.5
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	57145	161.734	162
	7 2-Methylnaphthalene	142	Compound Not Detected.					
	8 1-Methylnaphthalene	142	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	8.452	8.466	(1.000)	70080	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	118353	200.000	
	19 Phenanthrene	178	Compound Not Detected.					
	20 Anthracene	178	Compound Not Detected.					
	24 Fluoranthene	202	Compound Not Detected.					
	25 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	78044	200.000	
	30 Chrysene	228	Compound Not Detected.					
	43 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	15.609	15.608	(1.000)	67186	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	77401	183.942	184
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su53e.d
Lab Smp Id: SU53E
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9625

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Client Smp ID: MW14042811
Level: LOW
Sample Type: Groundwater

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	121662	-5.93
11 Acenaphthene-d10	70573	35286	141146	70080	-0.70
18 Phenanthrene-d10	113741	56870	227482	118353	4.05
29 Chrysene-d12	70763	35382	141526	78044	10.29
35 Perylene-d12	54896	27448	109792	67186	22.39

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.45	-0.16
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

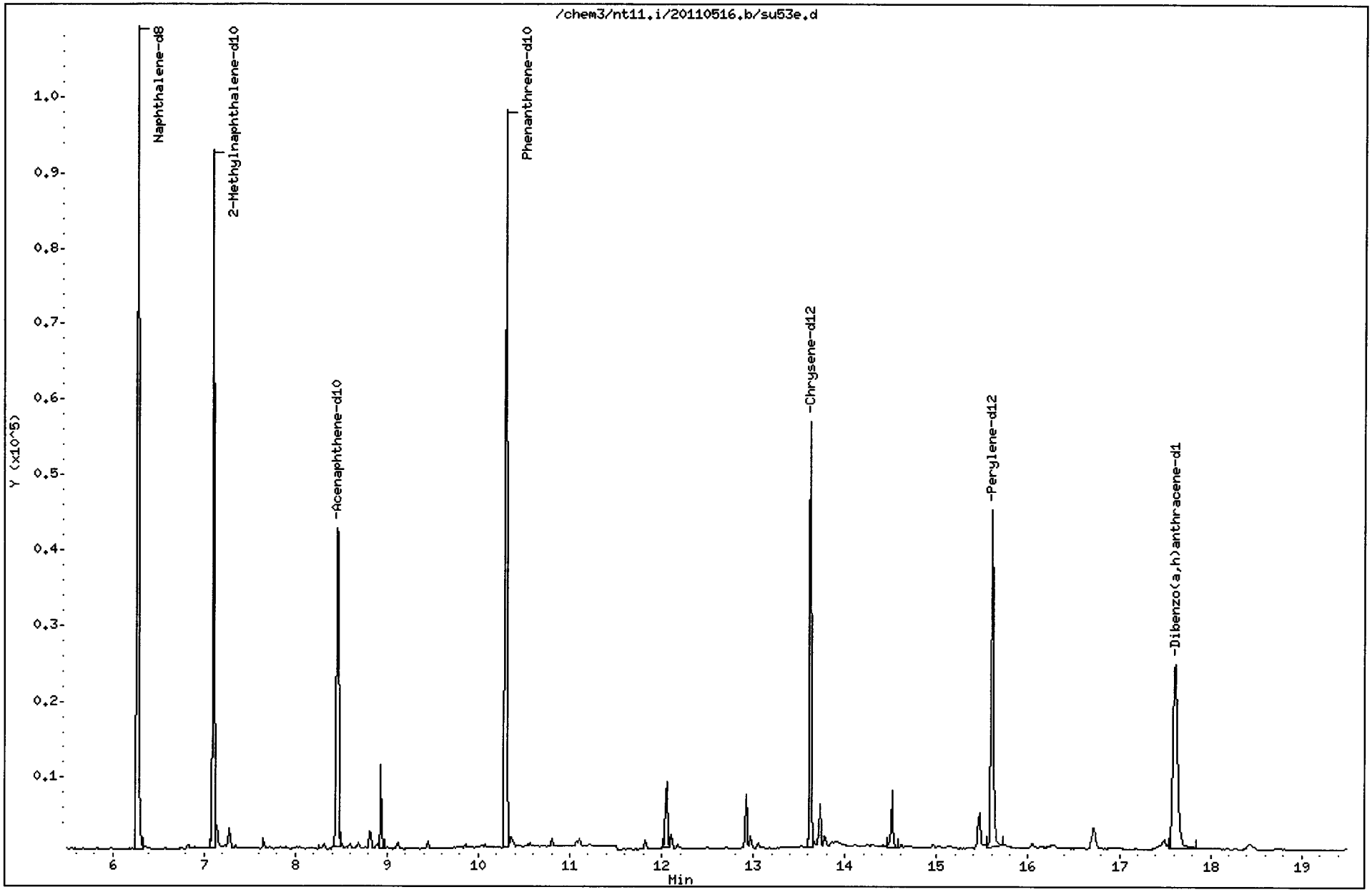
Client Name: Floyd Snider
Client SDG: SU53
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU53E
Client Smp ID: MW14042811
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9625

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	162	53.91	31-109
$ 36 Dibenzo(a,h)anthra	300	184	61.31	10-133

Data File: /chem3/nt11.i/20110516.b/su53e.d
Date : 16-MAY-2011 18:24
Client ID: MW14042811
Sample Info: SU53E
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3182
SU53 00661



CO-ELUTION SUMMARY FOR FILE - su53e.d

Lab ID: SU53E, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

YZ 5/20/11

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110516.b/su53f.d
Lab Smp Id: SU53F Client Smp ID: MW16042811
Inj Date : 16-MAY-2011 18:48
Operator : VTS Inst ID: nt11.i
Smp Info : SU53F
Misc Info : 11-9626
Comment :
Method : /chem3/nt11.i/20110516.b/lowsim.m
Meth Date : 16-May-2011 12:01 yev Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.272	(1.000)	122354	200.000	
	5 Naphthalene	128	6.296	6.295	(1.004)	6478	11.0394 B	11.0
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	68055	191.523	192
	7 2-Methylnaphthalene	142	Compound Not Detected.					
	8 1-Methylnaphthalene	142	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	8.452	8.466	(1.000)	68437	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	113162	200.000	
	19 Phenanthrene	178	Compound Not Detected.					
	20 Anthracene	178	Compound Not Detected.					
	24 Fluoranthene	202	Compound Not Detected.					
	25 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	75098	200.000	
	30 Chrysene	228	Compound Not Detected.					
	43 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	15.608	15.608	(1.000)	65013	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	84432	207.357 ✓	207
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su53f.d
Lab Smp Id: SU53F
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9626

Calibration Date: 16-MAY-2011
Calibration Time: 10:19
Client Smp ID: MW16042811
Level: LOW
Sample Type: Groundwater

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	122354	-5.39
11 Acenaphthene-d10	70573	35286	141146	68437	-3.03
18 Phenanthrene-d10	113741	56870	227482	113162	-0.51
29 Chrysene-d12	70763	35382	141526	75098	6.13
35 Perylene-d12	54896	27448	109792	65013	18.43

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.45	-0.16
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

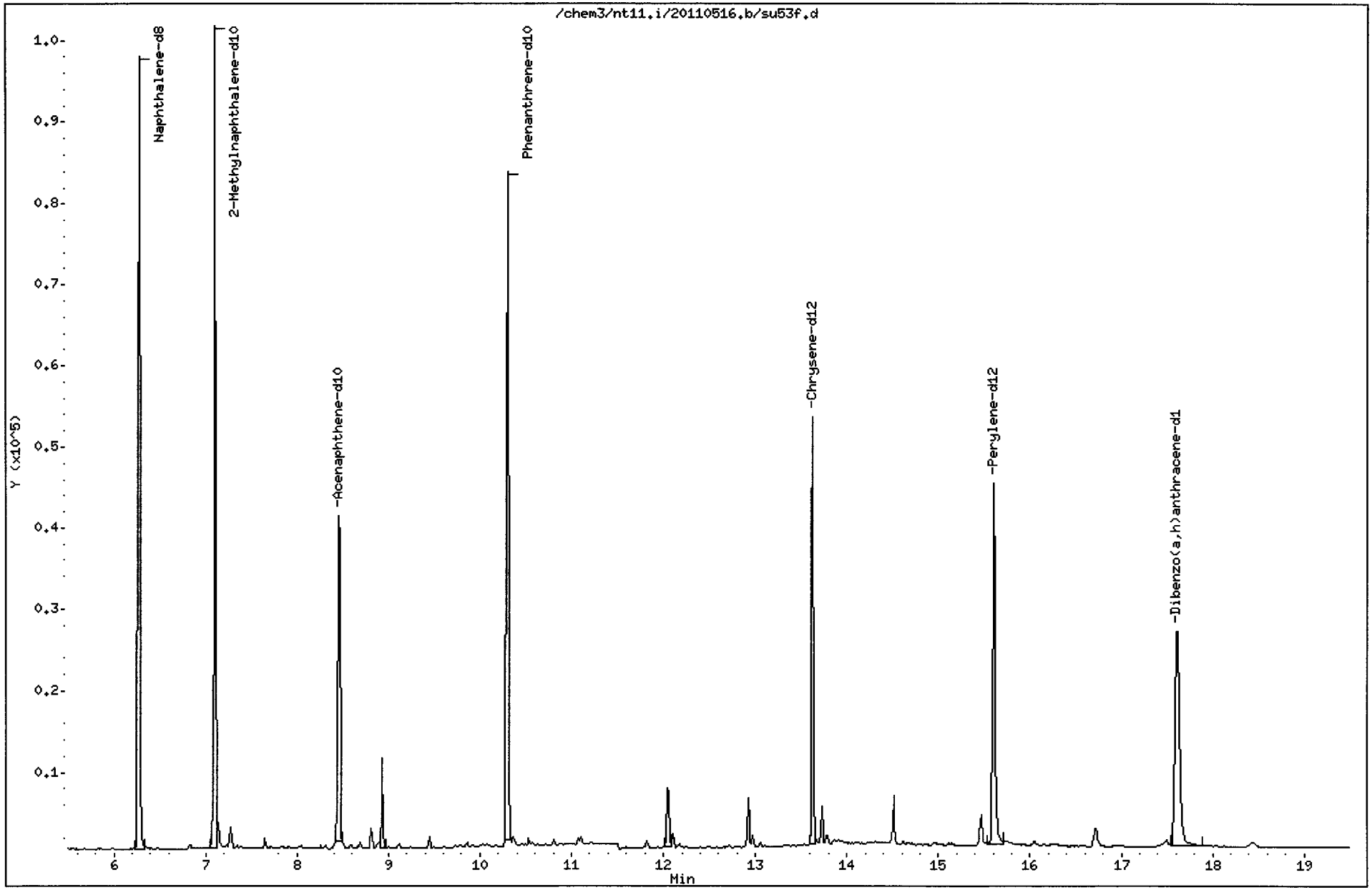
Client Name: Floyd Snider
Client SDG: SU53
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU53F
Client Smp ID: MW16042811
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110516.b/lowsim.m
Misc Info: 11-9626

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	192	63.84	31-109
$ 36 Dibenzo(a,h)anthra	300	207	69.12	10-133

Data File: /chem3/nt11.i/20110516.b/su53f.d
Date : 16-MAY-2011 18:48
Client ID: MW16042811
Sample Info: SU53F
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3188
SU53:00667



CO-ELUTION SUMMARY FOR FILE - su53f.d

Lab ID: SU53F, Method: lowsim.m, Instrument: nt11.i, Date: 16-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: 5473 Client ID: Floyd Smith

ARI SOP: **801S**(SIM-PNA) (Low) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): Low Sim PNA

Instrument: NT-4 NT-6 NT-8 NT-10 (NT11) NT12

Curve Date: 4.30.11 Analysis Start Date: 5.19.11

DFTPP Tune Meets Criteria?	(YES) / NO	Internal Standard Meets Criteria?	(YES) / NO
DDT Breakdown <20%?	(YES) / NO / NA	Method Blank In Control?	(YES) / NO
Peak Tailing Factor ≤2?	(YES) / NO / NA	LCS / LCSD Recovery In Control?	(YES) / NO
ICal acceptable?	(YES) / NO	CCal acceptable?	(YES) / NO
Q flag applied?	YES / (NO)	Q flag applied?	YES / (NO)
Surrogate Recovery in Control?	(YES) / NO	Special Analysis Criteria Met?	(YES) / NO / NA
Manual Integrations for ICal?	(YES) / NO	Manual Integrations for Samples?	Yes / (NO)

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

- Batched with 5474

Additional Details on Reverse: Yes / No

Analyst: VB **Date:** 5.21.11

Reviewer: [signature] **Date:** 5/23/11

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC/MS SVOA Analyst Notes / Corrective Action Log

ARI Project ID: SU474 Client ID: Floyd Snider

ARI SOP (**801S**(low SIM-PNA)) **802S**(Butyl Tins) **804S**(SVOA-8270D) **805S**(op-Pest)

Parameter(s): low sim PNA's

Instrument: NT-4 NT-6 NT-8 NT-10 (NT11) NT12

Curve Date: 4.30.11 Analysis Start Date: 5.19.11

DFTPP Tune Meets Criteria?	(YES) / NO	Internal Standard Meets Criteria?	(YES) / NO
DDT Breakdown <20%?	(YES) / NO / NA	Method Blank In Control?	(YES) / NO
Peak Tailing Factor ≤2?	(YES) / NO / NA	(LCS) / LCSD Recovery In Control?	(YES) / NO
ICal acceptable?	(YES) / ~~NO~~	CCal acceptable?	(YES) / NO
Q flag applied?	YES / (NO)	Q flag applied?	YES / (NO)
Surrogate Recovery in Control?	(YES) / NO	Special Analysis Criteria Met?	(YES) / NO / NA
Manual Integrations for ICal?	(YES) / NO	Manual Integrations for Samples?	Yes / (NO)

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Batched with SU473

Additional Details on Reverse: Yes / No

Analyst: VB **Date:** 5.21.11

Reviewer: [signature] **Date:** 5/23/11

Analytical Resources Inc.: Organics Instrument Log

NT-11 Serial No.:GC=US10140004, MS=US10481502

Date: 5·19·11 Analysis: Low sim pnA Analyst: VTS

GC Program: Lowsim Column No: 195516 Column Type: ZB·5msi

Instrument Tune (.U or .CT.): 110430.U EM Voltage: 1471

Calibration File: df 0519 Curve Date: 4·30·11

IS/SS	Ical/Ccal	LCS/ICV
1754-1	1818-2	

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chems/nt11.i/20110519.b

	Time	Filename	LabID	ClientId	DF								
1	0921	df0519.d	DF0519		1	NO ISTDS FOUND							
2	0935	cc0519.d	CC0519		1	6.27	114549	8.47	64310	10 30	104174	13 63	70778	15.61	59638
3	1022	su27mb.d	SU27MBW1	SU27MBW1	1	6 27	118831	8 47	68562	10 30	114667	13 63	74843	15 62	59215
4	1046	su27sb.d	SU27LCSW1	SU27LCSW1	1	6 27	119449	8.45	69410	10.30	113813	13.63	76346	15.61	62403
5	1111	su27sbd.d	SU27LCSDW1	SU27LCSDW1	1	6.27	122344	8.45	69852	10.30	114624	13.63	75188	15 61	63734
6	1135	su27qls1.d	SU27QLS1		1	6.27	121395	8 45	69500	10 30	116695	13.63	73615	15.61	63376
7	1159	su27a d	SU27A	NBF-MH178-04	10	6.27	118225	8.45	67543	10.30	109552	13.63	74123	15 61	66554
8	1223	su27b.d	SU27B	NBF-MH108-04	1	6 27	122126	8 45	70871	10 30	115616	13.63	76560	15.61	66882
9	1248	su27c.d	SU27C	NBF-LS431-04	1	6.27	119921	8 45	70202	10.30	112463	13.63	72336	15.61	64599
10	1312	su73mb.d	SU73MBW1	SU73MBW1	1	6 27	124138	8.45	70204	10.30	114479	13.63	73529	15.61	64698
11	1336	su73sb d	SU73LCSW1	SU73LCSW1	1	6.27	118038	8 47	69817	10 30	118403	13.63	80682	15.61	63399
12	1400	su73qls1.d	SU73QLS1		1	6.27	117835	8.45	69735	10.30	117102	13 63	76143	15.61	61325
13	1425	su73a.d	SU73A	MW-01-042911	1	6.27	125849	8.45	79455	10.30	124833	13.63	77890	15 61	65588
14	1449	su73b.d	SU73B	MW-01-042911	1	6.27	120625	8.47	76759	10.30	123762	13.63	76395	15.61	61863
15	1513	su74a.d	SU74A	B312-042911	1	6.27	119557	8.47	70279	10 30	120326	13 63	77405	15.61	63881
16	1538	su74ams.d	SU74AMS	B312-042911	1	6.27	115311	8 47	68463	10 30	116747	13 63	77009	15.61	63699
17	1602	su74amsd.d	SU74AMSD	B312-042911	1	6.27	116649	8.47	69292	10 30	119369	13 63	81533	15.61	64909
18	1626	su74b.d	SU74B	B310-042911	1	6.27	115855	8.45	68143	10.30	111834	13.63	71589	15.61	61430
19	1650	su74c.d	SU74C	B311-042911	1	6.27	114081	8 47	66837	10.30	111242	13 63	75124	15.61	62191
20	1715	sv26mb.d	SV26MBW1	SV26MBW1	1	6 27	120849	8 45	69902	10.30	117286	13 63	77841	15.61	64770
21	1739	sv26sb.d	SV26LCSW1	SV26LCSW1	1	6.27	114530	8 47	69705	10.30	116813	13.63	81559	15.61	65062
22	1803	sv26sbd.d	SV26LCSDW1	SV26LCSDW1	1	6 27	120523	8 47	71170	10.30	122905	13.63	84347	15.60	67785
23	1827	sv26qls1 d	SV26QLS1		1	6.27	118981	8.47	69648	10.30	118870	13.63	81289	15.60	65121
24	1852	sv26a.d	SV26A	JBLM_01035_0	1	6 27	120491	8.47	69969	10.30	119389	13 63	79755	15.61	66588
25	1916	sv26b.d	SV26B	JBLM_01035_0	1	6.27	117485	8.47	69292	10.30	119631	13 63	79743	15.61	64652
26	1940	sv26c.d	SV26C	JBLM_03627_0	1	6.27	116473	8 47	67087	10 30	116543	13.63	79492	15.61	63996
27	2004	sv26d.d	SV26D	JBLM_03627_0	1	6.27	116520	8.47	67062	10.30	115098	13.63	79473	15 61	63899
28	2028	sv26e.d	SV26E	JBLM_03627_0	1	6.28	118706	8.47	69276	10.30	118510	13.63	81598	15 60	65861
29	2053	sv26ems d	SV26EMS	JBLM_03627_0	1	6 27	120775	8.45	71629	10.30	120730	13 63	82906	15.60	68476
30	2117	sv26emsd d	SV26EMSD	JBLM_03627_0	1	6 27	120112	8.45	70067	10 30	114346	13.63	78516	15.60	67054
31	2141	sv26f.d	SV26F	JBLM_03945_0	1	6.27	119660	8.45	69828	10.30	113360	13.63	77464	15.60	63997

VTS 5·21·BU53 : 00671

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/nt11.i/20110519.b

ARI Job No.: DF05 Method: DF8270.m Instrument: nt11.i Date: 19-MAY-2011

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0921	df0519.d	DF0519		1	NO MANUAL INTEGRATION
0935	cc0519.d	CC0519		1	NO MANUAL INTEGRATION
1425	su73a.d	SU73A	MW-01-0429	1	NO MANUAL INTEGRATION
1449	su73b.d	SU73B	MW-01-0429	1	NO MANUAL INTEGRATION
1312	su73mb.d	SU73MBW1	SU73MBW1	1	NO MANUAL INTEGRATION
1336	su73sb.d	SU73LCSW1	SU73LCSW1	1	NO MANUAL INTEGRATION
1513	su74a.d	SU74A	B312-04291	1	NO MANUAL INTEGRATION
1538	su74ams.d	SU74AMS	B312-04291	1	NO MANUAL INTEGRATION
1602	su74amsd.d	SU74AMSD	B312-04291	1	NO MANUAL INTEGRATION
1626	su74b.d	SU74B	B310-04291	1	NO MANUAL INTEGRATION
1650	su74c.d	SU74C	B311-04291	1	NO MANUAL INTEGRATION

Q-FLAG SUMMARY FOR DATABATCH - /chem3/nt11.i/20110519.b

Instrument: nt11.i Date: 19-MAY-2011 Method: lowsim.m

INITIAL CAL: 30-APR-2011

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 19-MAY-2011

Compound	%D
NO Q-FLAGS	

Data File: /chem3/nt11.i/20110519.b/df0519.d

Date : 19-MAY-2011 09:21

Client ID:

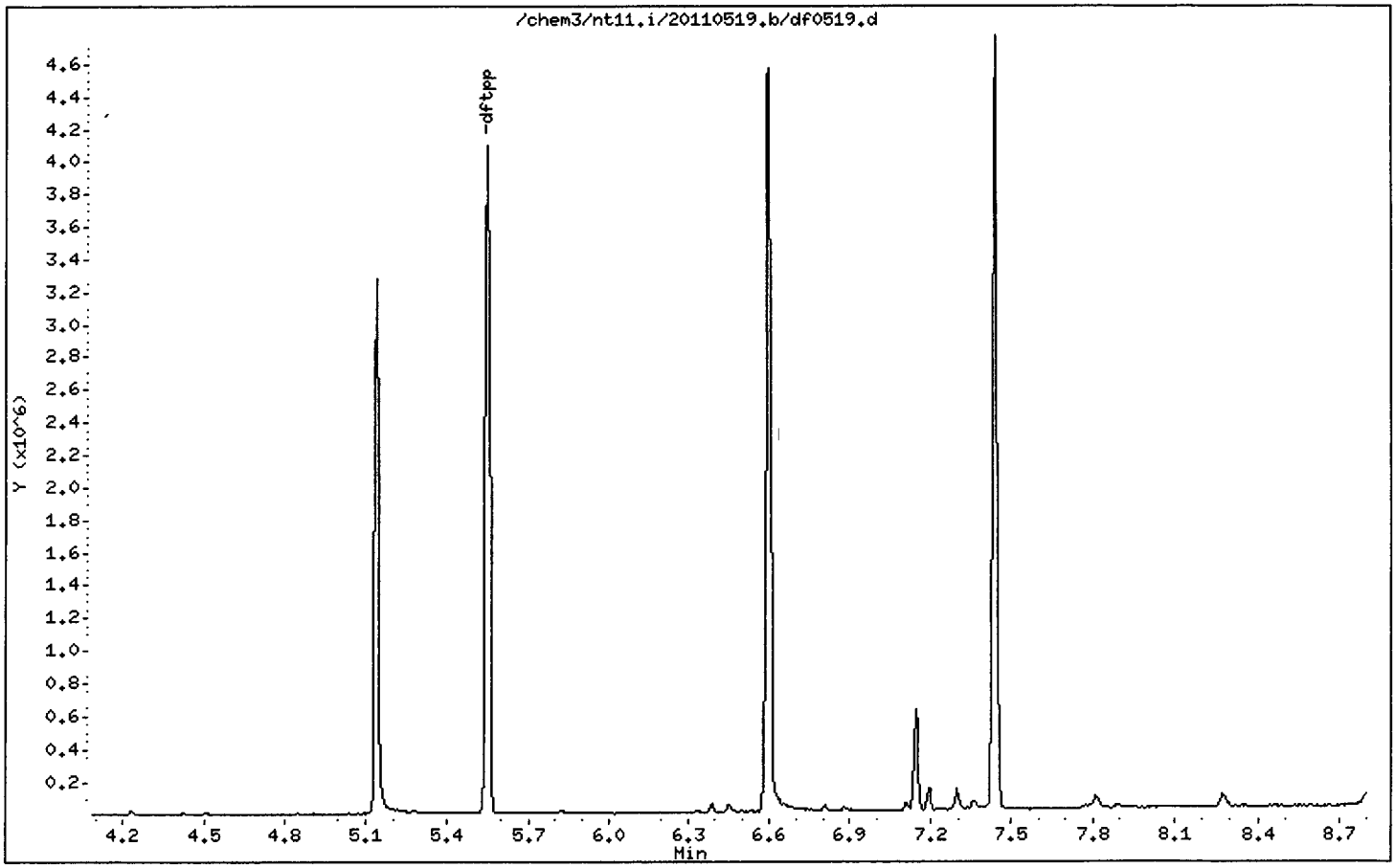
Instrument: nt11.i

Sample Info: DF0519

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25



Data File: /chem3/nt11.i/20110519.b/df0519.d

Date : 19-MAY-2011 09:21

Client ID:

Instrument: nt11.i

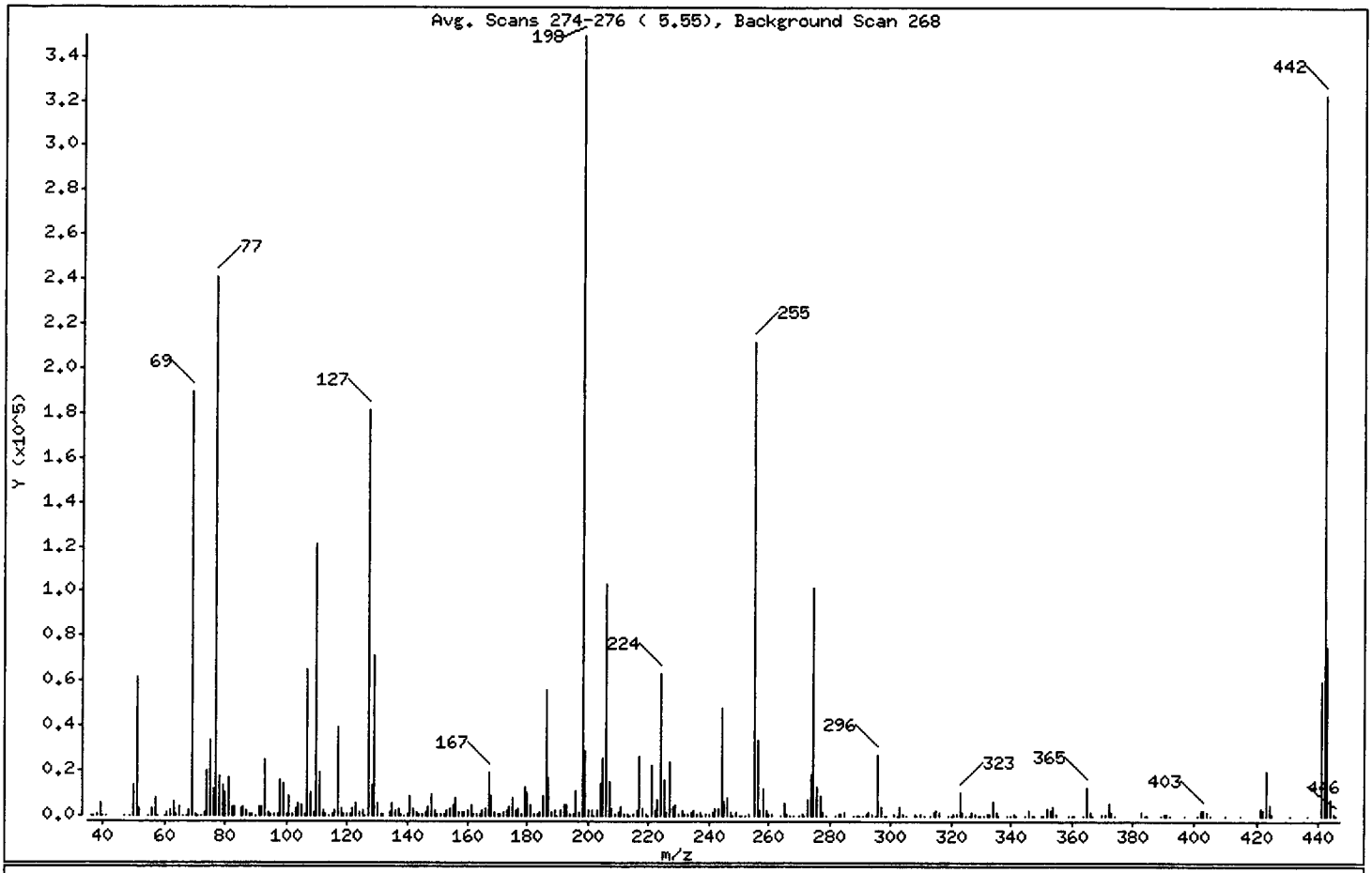
Sample Info: DF0519

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	17.59
68	Less than 2.00% of mass 69	0.73 (1.35)
69	Mass 69 relative abundance	54.30
70	Less than 2.00% of mass 69	0.34 (0.63)
127	10.00 - 80.00% of mass 198	51.86
197	Less than 2.00% of mass 198	0.53
199	5.00 - 9.00% of mass 198	8.37
275	10.00 - 60.00% of mass 198	29.17
365	Greater than 1.00% of mass 198	3.59
441	0.01 - 24.00% of mass 442	17.18 (18.59)
442	50.00 - 200.00% of mass 198	92.39
443	15.00 - 24.00% of mass 442	21.50 (23.27)

Data File: /chem3/nt11.i/20110519.b/df0519.d

Date : 19-MAY-2011 09:21

Client ID:

Instrument: nt11.i

Sample Info: DF0519

Operator: VTS

Column phase: ZB-5ms

Column diameter: 0.25

Data File: df0519.d
Spectrum: Avg. Scans 274-276 (5.55), Background Scan 268
Location of Maximum: 198.00
Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	67	128.00	13589	213.00	507	308.00	713
37.00	323	129.00	71128	214.00	56	309.00	150
38.00	775	130.00	5811	215.00	1096	310.00	411
39.00	5327	131.00	801	216.00	2193	311.00	162
40.00	270	132.00	728	217.00	26456	313.00	272
41.00	247	133.00	190	218.00	3067	314.00	1270
47.00	100	134.00	1962	219.00	689	315.00	2785
49.00	95	135.00	5398	220.00	286	316.00	1731
50.00	13674	136.00	2476	221.00	22680	317.00	255
51.00	61464	137.00	3047	222.00	2483	319.00	98
52.00	3139	138.00	571	223.00	6843	320.00	175
53.00	158	139.00	216	224.00	63504	321.00	1158
55.00	105	140.00	851	225.00	16031	322.00	694
56.00	3050	141.00	9135	226.00	1653	323.00	10365
57.00	7875	142.00	3160	227.00	24424	324.00	1941
58.00	224	143.00	1602	228.00	3850	325.00	266
59.00	270	144.00	564	229.00	5061	326.00	273
60.00	61	145.00	768	230.00	471	327.00	1612
61.00	1498	146.00	1685	231.00	2218	328.00	798
62.00	2535	147.00	4317	232.00	505	329.00	374
63.00	6404	148.00	9800	233.00	480	330.00	89
64.00	1173	149.00	2450	234.00	1263	331.00	93
65.00	3854	150.00	794	235.00	2183	332.00	1027
66.00	153	151.00	1019	236.00	1113	333.00	908
67.00	364	152.00	402	237.00	1500	334.00	6057
68.00	2558	153.00	2579	238.00	289	335.00	1769
69.00	189696	154.00	2847	239.00	835	336.00	174
70.00	1191	155.00	4982	240.00	687	339.00	168
71.00	44	156.00	7977	241.00	1290	340.00	113
72.00	104	157.00	1844	242.00	2878	341.00	1107
73.00	1740	158.00	1747	243.00	2949	342.00	228
74.00	19960	159.00	1418	244.00	48072	345.00	211
75.00	33408	160.00	2631	245.00	6806	346.00	2094
76.00	12262	161.00	4478	246.00	7991	347.00	372
77.00	241024	162.00	1095	247.00	1757	348.00	50

Data File: /chem3/nt11.i/20110519.b/df0519.d

Date : 19-MAY-2011 09:21

Client ID:

Instrument: nt11.i

Sample Info: DF0519

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0519.d
Spectrum: Avg. Scans 274-276 (5.55), Background Scan 268
Location of Maximum: 198.00
Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	17448	163.00	621	248.00	396	350.00	67
79.00	13968	164.00	603	249.00	1632	351.00	106
80.00	10616	165.00	2622	250.00	394	352.00	3544
81.00	16648	166.00	2964	251.00	372	353.00	2210
82.00	4192	167.00	19080	252.00	216	354.00	3996
83.00	3904	168.00	8804	253.00	1163	355.00	716
84.00	252	169.00	1638	255.00	211840	359.00	394
85.00	3134	170.00	780	256.00	33552	360.00	71
86.00	3753	171.00	623	257.00	2598	361.00	76
87.00	2019	172.00	1749	258.00	11989	364.00	76
88.00	552	173.00	2096	259.00	2359	365.00	12557
89.00	827	174.00	3971	260.00	604	366.00	1463
90.00	78	175.00	8256	261.00	467	367.00	166
91.00	3981	176.00	2097	264.00	353	370.00	427
92.00	4224	177.00	3612	265.00	5334	371.00	679
93.00	24664	178.00	1153	266.00	528	372.00	5802
94.00	1593	179.00	12939	267.00	50	373.00	1512
95.00	827	180.00	10095	268.00	302	374.00	282
96.00	532	181.00	4905	270.00	321	377.00	92
97.00	522	182.00	820	271.00	526	383.00	1578
98.00	16166	183.00	834	272.00	373	384.00	360
99.00	14280	184.00	1308	273.00	7046	385.00	146
100.00	1117	185.00	8949	274.00	18856	388.00	52
101.00	8777	186.00	56032	275.00	101928	389.00	50
102.00	550	187.00	17088	276.00	13011	390.00	906
103.00	2954	188.00	1977	277.00	8488	391.00	578
104.00	5285	189.00	2794	278.00	1375	392.00	223
105.00	4699	190.00	399	279.00	385	397.00	91
106.00	862	191.00	2010	282.00	276	401.00	296
107.00	65240	192.00	4840	283.00	819	402.00	2498
108.00	10267	193.00	4926	284.00	675	403.00	2592
109.00	1960	194.00	844	285.00	1724	404.00	1478
110.00	121264	195.00	787	286.00	284	405.00	172
111.00	19600	196.00	11542	288.00	60	410.00	74
112.00	2541	197.00	1857	289.00	187	415.00	56

Data File: /chem3/nt11.i/20110519.b/df0519.d

Date : 19-MAY-2011 09:21

Client ID:

Instrument: nt11.i

Sample Info: DF0519

Operator: VTS

Column phase: ZB-5msi

Column diameter: 0.25

Data File: df0519.d

Spectrum: Avg. Scans 274-276 (5.55), Background Scan 268

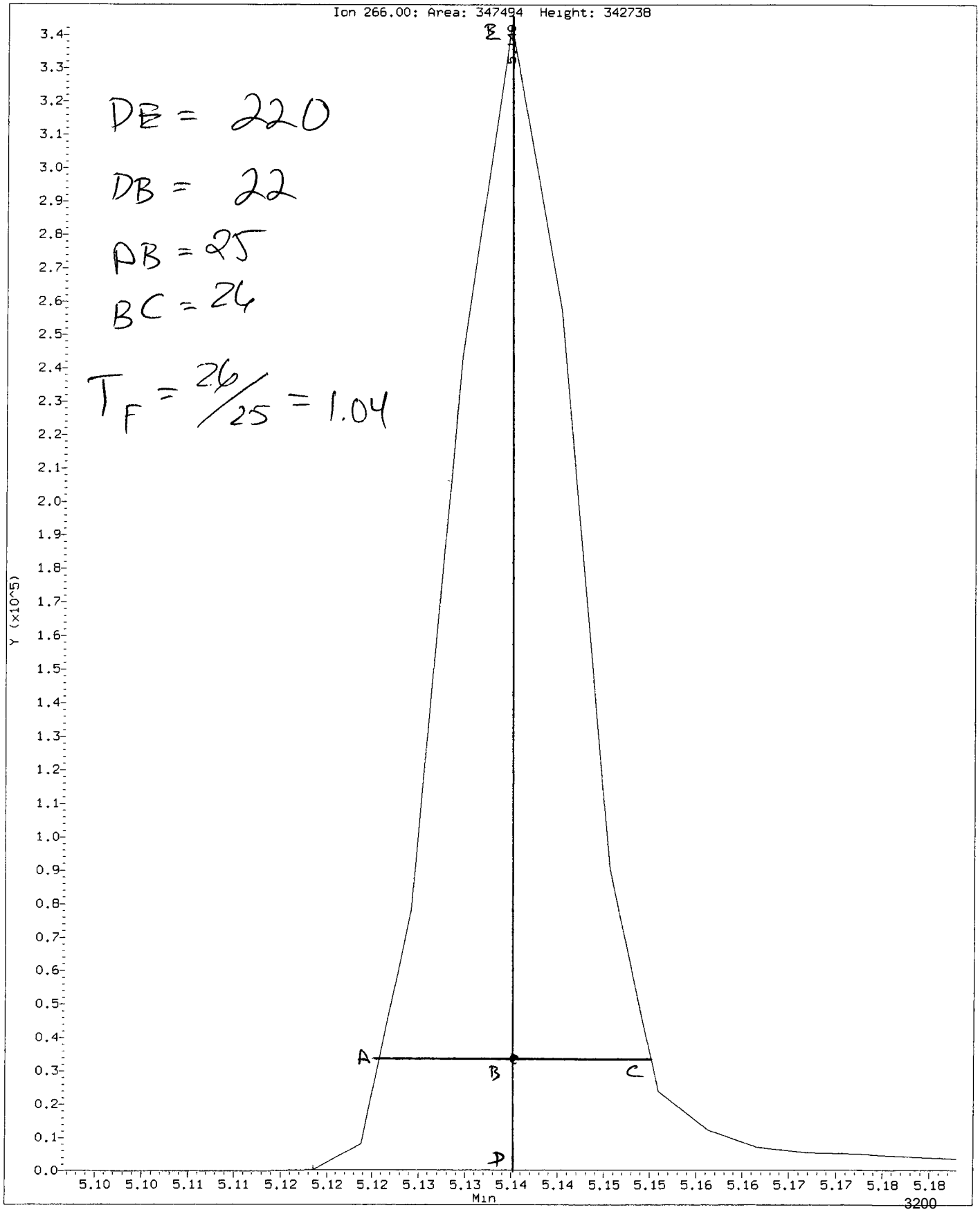
Location of Maximum: 198.00

Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	964	198.00	349376	290.00	231	421.00	2829
114.00	81	199.00	29240	291.00	184	422.00	2645
115.00	492	200.00	2113	292.00	487	423.00	20144
116.00	2468	201.00	2299	293.00	1442	424.00	4822
117.00	39280	202.00	316	294.00	525	425.00	810
118.00	2822	203.00	2390	295.00	372	431.00	51
119.00	588	204.00	14416	296.00	27088	436.00	70
120.00	732	205.00	25600	297.00	3943	441.00	60016
121.00	416	206.00	103832	298.00	376	442.00	322752
122.00	3510	207.00	15051	299.00	57	443.00	75104
123.00	5822	208.00	3507	301.00	436	444.00	7413
124.00	1998	209.00	986	302.00	399	445.00	455
125.00	2139	210.00	1626	303.00	3748	446.00	63
126.00	177	211.00	4126	304.00	1045		
127.00	181184	212.00	734	305.00	58		

Data File: /chem3/nt11.i/20110519.b/ddt.b/df0519.d
Injection Date: 19-MAY-2011 09:21
Instrument: nt11.i
Client Sample ID:

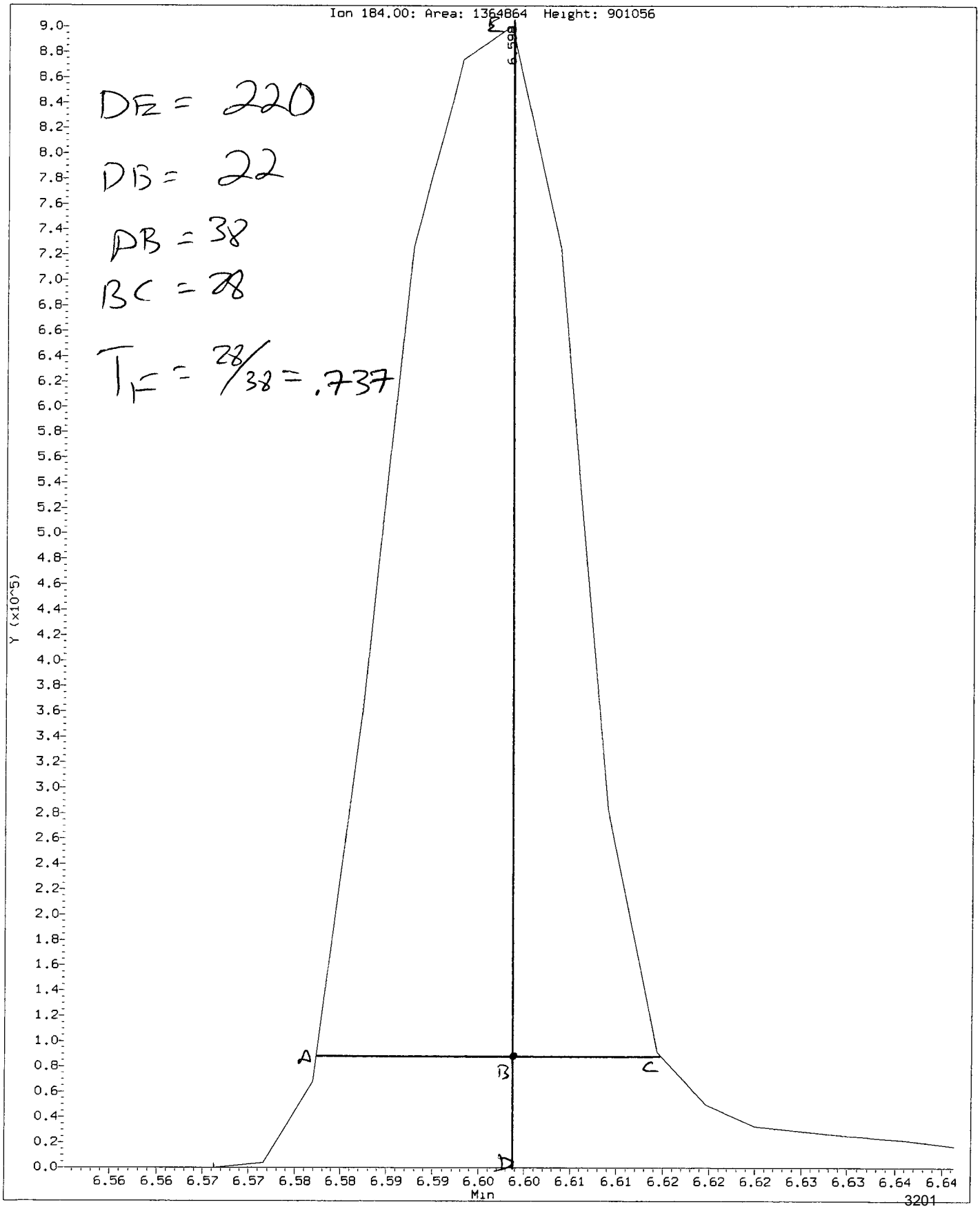
Compound: Pentachlorophenol
CAS Number: 87-86-5



SU53 : 00679

Data File: /chem3/nt11.1/20110519.b/ddt.b/df0519.d
Injection Date: 19-MAY-2011 09:21
Instrument: nt11.1
Client Sample ID:

Compound: Benzidine
CAS Number:



SU53 : 00680

Analytical Resources Inc.
ABN by sw846 8270C
DDT Breakdown Report

Data file: /chem3/nt11.i/20110519.b/ddt.b/df0519.d ARI ID: DF0519
Method: /chem3/nt11.i/20110519.b/ddt.b/sw846ddt.m Misc:
Analysis Date: 19-MAY-2011 09:21 Instrument: nt11.i

COMPOUND	RT	AREA
Pentachlorophenol	5.140	347494
Benzidine	6.598	1364864
4,4'-DDE	6.812	4721
4,4'-DDD	7.143	122728
4,4'-DDT	7.442	802102

$$\text{DDT Percent Breakdown} = \frac{(\text{DDE Area} + \text{DDD Area}) * 100}{(\text{DDE Area} + \text{DDD Area} + \text{DDT Area})}$$

$$\text{DDT Percent Breakdown} = \frac{(4721 + 122728) * 100}{(4721 + 122728 + 802102)}$$

DDT Percent Breakdown = 13.7 %

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110519.b/cc0519.d
Lab Smp Id: CC0519
Inj Date : 19-MAY-2011 09:35
Operator : VTS Inst ID: nt11.i
Smp Info : CC0519
Misc Info :
Comment :
Method : /chem3/nt11.i/20110519.b/lowsim.m
Meth Date : 19-May-2011 10:16 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
*	4 Naphthalene-d8	136	6.273	6.273	(1.000)	114549	200.000	
	5 Naphthalene	128	6.296	6.296	(1.004)	138990	250.000	253
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	86347	250.000	260
	7 2-Methylnaphthalene	142	7.135	7.135	(1.138)	87163	250.000	261
	8 1-Methylnaphthalene	142	7.274	7.274	(1.160)	86191	250.000	260
	10 Acenaphthylene	152	8.265	8.265	(0.976)	129364	250.000	258
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	64310	200.000	
	12 Acenaphthene	153	8.493	8.493	(1.003)	80824	250.000	256
	14 Dibenzofuran	168	8.694	8.694	(1.027)	123065	250.000	264
	15 Fluorene	166	9.123	9.123	(1.078)	84790	250.000	258
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	104174	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	131746	250.000	252
	20 Anthracene	178	10.383	10.383	(1.008)	125152	250.000	252
	24 Fluoranthene	202	11.831	11.831	(1.148)	135125	250.000	263
	25 Pyrene	202	12.112	12.112	(0.889)	141507	250.000	238
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	119334	250.000	241
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	70778	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	124251	250.000	249
	43 Total Benzofluoranthenes	252	15.041	15.041	(0.964)	238592	500.000	495
	34 Benzo(a)pyrene	252	15.522	15.522	(0.994)	107156	250.000	250
*	35 Perylene-d12	264	15.608	15.608	(1.000)	59638	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	131243	250.000	254
$	36 Dibenzo(a,h)anthracene-d14	292	17.618	17.618	(1.129)	94220	250.000	252
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	102113	250.000	254
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	111159	250.000	242

5.19.11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: cc0519.d
Lab Smp Id: CC0519
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info:

Calibration Date: 19-MAY-2011
Calibration Time: 09:35
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	114549	-11.43
11 Acenaphthene-d10	70573	35286	141146	64310	-8.87
18 Phenanthrene-d10	113741	56870	227482	104174	-8.41
29 Chrysene-d12	70763	35382	141526	70778	0.02
35 Perylene-d12	54896	27448	109792	59638	8.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: nt11.i Injection Date: 19-MAY-2011 09:35
Lab File ID: cc0519.d Init. Cal. Date(s): 30-APR-2011 30-APR-2011
Analysis Type: Init. Cal. Times: 10:12 12:15
Lab Sample ID: CC0519 Quant Type: ISTD
Method: /chem3/nt11.i/20110519.b/lowsim.m

COMPOUND	RRF / AMOUNT	RF250	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
5 Naphthalene	0.95920	0.97069	0.010	1.19855	20.00000	Averaged
$ 6 2-Methylnaphthalene-d10	0.58083	0.60304	0.010	3.82264	20.00000	Averaged
7 2-Methylnaphthalene	0.58263	0.60873	0.010	4.48010	20.00000	Averaged
8 1-Methylnaphthalene	0.57825	0.60195	0.010	4.09858	20.00000	Averaged
10 Acenaphthylene	1.56025	1.60924	0.010	3.14029	20.00000	Averaged
12 Acenaphthene	0.98304	1.00542	0.010	2.27676	20.00000	Averaged
14 Dibenzofuran	1.44731	1.53088	0.010	5.77417	20.00000	Averaged
15 Fluorene	1.02181	1.05475	0.010	3.22390	20.00000	Averaged
19 Phenanthrene	1.00537	1.01174	0.010	0.63307	20.00000	Averaged
20 Anthracene	0.95162	0.96110	0.010	0.99675	20.00000	Averaged
24 Fluoranthene	0.98812	1.03769	0.010	5.01606	20.00000	Averaged
25 Pyrene	1.68035	1.59944	0.010	-4.81527	20.00000	Averaged
28 Benzo(a)anthracene	1.40073	1.34882	0.010	-3.70618	20.00000	Averaged
30 Chrysene	1.40823	1.40440	0.010	-0.27169	20.00000	Averaged
43 Total Benzofluoranthenes	1.61557	1.60024	0.010	-0.94837	20.00000	Averaged
34 Benzo(a)pyrene	1.43471	1.43740	0.010	0.18731	20.00000	Averaged
37 Indeno(1,2,3-cd)pyrene	1.73173	1.76051	0.010	1.66202	20.00000	Averaged
$ 36 Dibenzo(a,h)anthracene-d14	1.25261	1.26388	0.010	0.89964	20.00000	Averaged
38 Dibenzo(a,h)anthracene	1.34894	1.36975	0.010	1.54316	20.00000	Averaged
39 Benzo(g,h,i)perylene	1.54303	1.49109	0.010	-3.36609	20.00000	Averaged

Data File: /chem3/nt11.i/20110519.b/cc0519.d
Date : 19-MAY-2011 09:35
Client ID:
Sample Info: CC0519

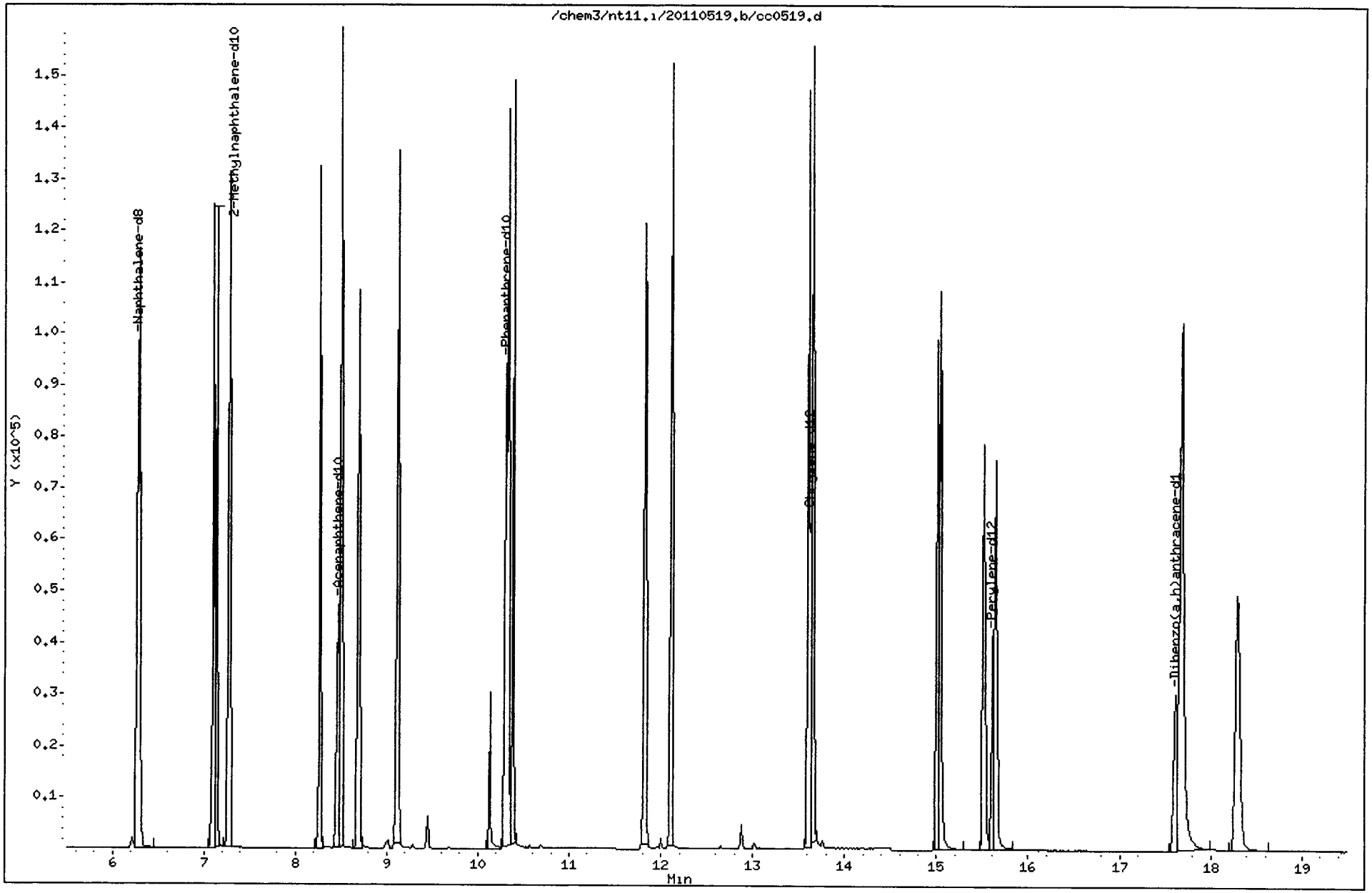
Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

Column phase: ZB-5msi

3206

SUS3:00685



CO-ELUTION SUMMARY FOR FILE - cc0519.d

Lab ID: CC0519, Method: lowsim.m, Instrument: nt11.i, Date: 19-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110519.b/su73mb.d
Lab Smp Id: SU73MBW1 Client Smp ID: SU73MBW1
Inj Date : 19-MAY-2011 13:12
Operator : VTS Inst ID: nt11.i
Smp Info : SU73MBW1
Misc Info : 11-9762
Comment :
Method : /chem3/nt11.i/20110519.b/lowsim.m
Meth Date : 19-May-2011 10:16 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 8 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.273	(1.000)	124138	200.000	
	5 Naphthalene	128	Compound Not Detected.					
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	72398	200.817	201
	7 2-Methylnaphthalene	142	Compound Not Detected.					
	8 1-Methylnaphthalene	142	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	8.452	8.466	(1.000)	70204	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	114479	200.000	
	19 Phenanthrene	178	Compound Not Detected.					
	20 Anthracene	178	Compound Not Detected.					
	24 Fluoranthene	202	Compound Not Detected.					
	25 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	73529	200.000	
	30 Chrysene	228	Compound Not Detected.					
	43 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	15.609	15.608	(1.000)	64698	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	17.605	17.618	(1.128)	78077	192.684	193
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

VTS
5.21.11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su73mb.d
Lab Smp Id: SU73MBW1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9762

Calibration Date: 19-MAY-2011
Calibration Time: 09:35
Client Smp ID: SU73MBW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	124138	-4.01
11 Acenaphthene-d10	70573	35286	141146	70204	-0.52
18 Phenanthrene-d10	113741	56870	227482	114479	0.65
29 Chrysene-d12	70763	35382	141526	73529	3.91
35 Perylene-d12	54896	27448	109792	64698	17.86

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.45	-0.16
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Sample Matrix: LIQUID
Lab Smp Id: SU73MBW1
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9762

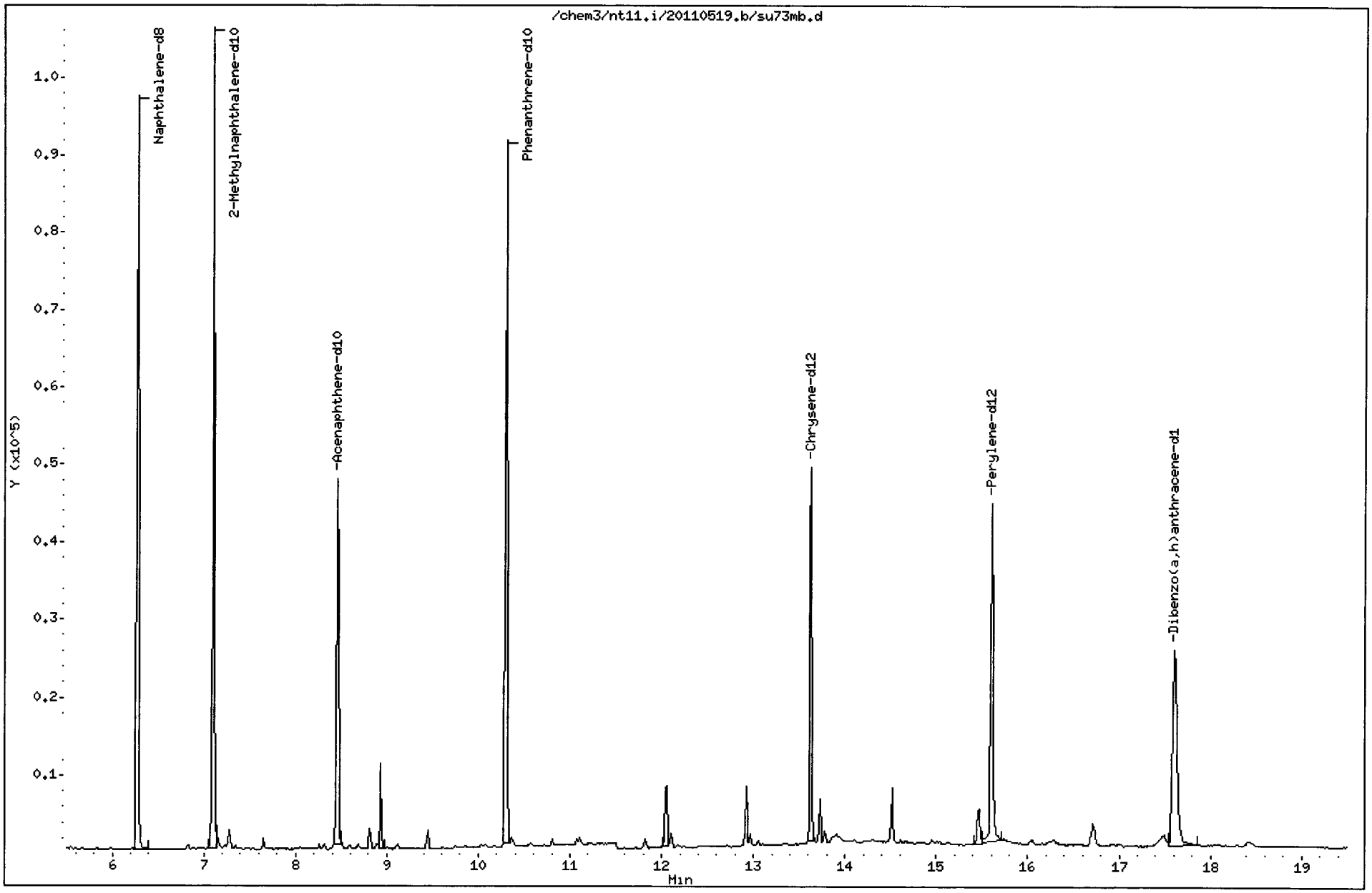
Client SDG: SU73
Fraction: SV
Client Smp ID: SU73MBW1
Operator: VTS
SampleType: BLANK
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	201	66.94	31-109
$ 36 Dibenzo(a,h)anthra	300	193	64.23	10-133

Data File: /chem3/nt11.i/20110519.b/su73mb.d
Date : 19-MAY-2011 13:12
Client ID: SU73MBW1
Sample Info: SU73MBW1
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3212
SU53:00691



CO-ELUTION SUMMARY FOR FILE - su73mb.d

Lab ID: SU73MBW1, Method: lowsim.m, Instrument: nt11.i, Date: 19-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110519.b/su73sb.d
Lab Smp Id: SU73LCSW1 Client Smp ID: SU73LCSW1
Inj Date : 19-MAY-2011 13:36
Operator : VTS Inst ID: nt11.i
Smp Info : SU73LCSW1
Misc Info : 11-9762
Comment :
Method : /chem3/nt11.i/20110519.b/lowsim.m
Meth Date : 19-May-2011 10:16 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 9 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.273	(1.000)	118038	200.000	
	5 Naphthalene	128	6.296	6.296	(1.004)	93777	165.652	166
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	59237	172.803	173
	7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	58645	170.547	171
	8 1-Methylnaphthalene	142	7.274	7.274	(1.160)	58069	170.151	170
	10 Acenaphthylene	152	8.265	8.265	(0.976)	89939	165.129	165
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	69817	200.000	
	12 Acenaphthene	153	8.493	8.493	(1.003)	57282	166.924	167
	14 Dibenzofuran	168	8.694	8.694	(1.027)	92411	182.907	183
	15 Fluorene	166	9.123	9.123	(1.078)	69068	193.631	194
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	118403	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	112988	189.833	190
	20 Anthracene	178	10.383	10.383	(1.008)	66135	117.391	117
	24 Fluoranthene	202	11.818	11.831	(1.147)	129959	222.158	222
	25 Pyrene	202	12.113	12.112	(0.889)	134747	198.780	199

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	101248	179.178	179
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	80682	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	110210	194.000	194
	43 Total Benzofluoranthenes	252	15.003	15.041	(0.961)	199514	389.580	390
	34 Benzo(a)pyrene	252	15.512	15.522	(0.994)	41164	90.5107	90.5
*	35 Perylene-d12	264	15.608	15.608	(1.000)	63399	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	91227	166.185	166
$	36 Dibenzo(a,h)anthracene-d14	292	17.605	17.618	(1.128)	71270	179.489	179
	38 Dibenzo(a,h)anthracene	278	17.672	17.685	(1.132)	75033	175.472	175
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	72619	148.464	148

VR 5-21-11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su73sb.d
Lab Smp Id: SU73LCSW1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9762

Calibration Date: 19-MAY-2011
Calibration Time: 09:35
Client Smp ID: SU73LCSW1
Level: LOW
Sample Type: Liquid

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	118038	-8.73
11 Acenaphthene-d10	70573	35286	141146	69817	-1.07
18 Phenanthrene-d10	113741	56870	227482	118403	4.10
29 Chrysene-d12	70763	35382	141526	80682	14.02
35 Perylene-d12	54896	27448	109792	63399	15.49

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Client SDG: SU73
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU73LCSW1
Client Smp ID: SU73LCSW1
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: LCS
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9762

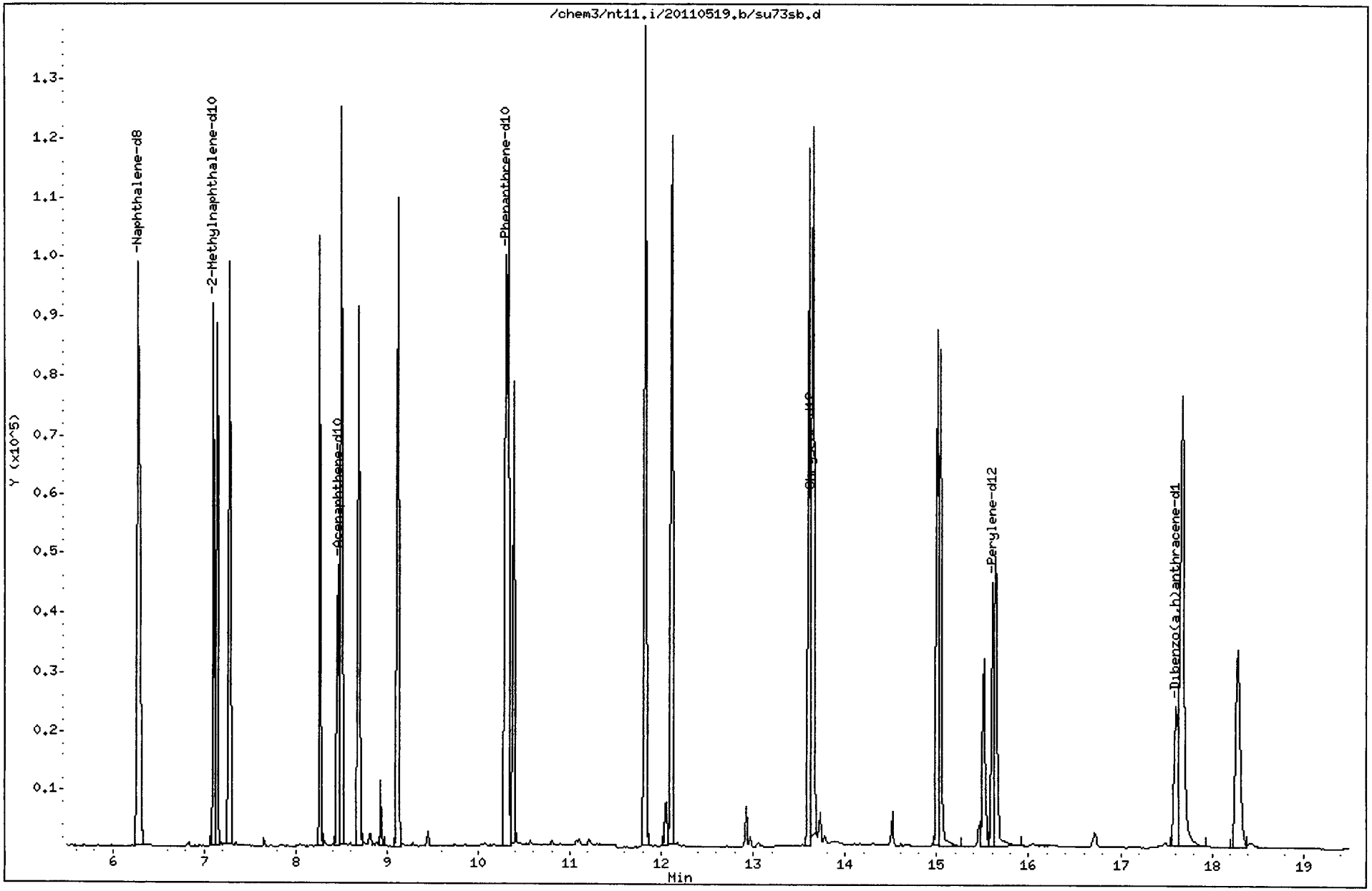
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	166	55.22	41-101
7 2-Methylnaphthalen	300	171	56.85	47-100
8 1-Methylnaphthalen	300	170	56.72	30-160
10 Acenaphthylene	300	165	55.04	35-100
12 Acenaphthene	300	167	55.64	43-104
14 Dibenzofuran	300	183	60.97	37-100
15 Fluorene	300	194	64.54	51-103
19 Phenanthrene	300	190	63.28	55-109
20 Anthracene	300	117	39.13	30-101
24 Fluoranthene	300	222	74.05	49-123
25 Pyrene	300	199	66.26	48-120
28 Benzo(a)anthracene	300	179	59.73	43-113
30 Chrysene	300	194	64.67	59-112
43 Total Benzofluoran	600	390	64.93	30-160
34 Benzo(a)pyrene	300	90.5	30.17	10-100
37 Indeno(1,2,3-cd)py	300	166	55.39	43-112
38 Dibenzo(a,h)anthra	300	175	58.49	42-114
39 Benzo(g,h,i)peryle	300	148	49.49	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	173	57.60	31-109
$ 36 Dibenzo(a,h)anthra	300	179	59.83	10-133

Data File: /chem3/nt11.i/20110519.b/su73sb.d
Date : 19-MAY-2011 13:36
Client ID: SU73LCSW1
Sample Info: SU73LCSW1
Volume Injected (uL): 2.0
Column phase: ZB-5ms1

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3218
SU53:099697



CO-ELUTION SUMMARY FOR FILE - su73sb.d

Lab ID: SU73LCSW1, Method: lowsim.m, Instrument: nt11.i, Date: 19-MAY-2011

RT	CO-ELUTION COMPOUNDS
17.672	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
17.672	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110519.b/su73a.d
Lab Smp Id: SU73A Client Smp ID: MW-01-042911
Inj Date : 19-MAY-2011 14:25
Operator : VTS Inst ID: nt11.i
Smp Info : SU73A
Misc Info : 11-9762
Comment :
Method : /chem3/nt11.i/20110519.b/lowsim.m
Meth Date : 19-May-2011 10:16 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.273	(1.000)	125849	200.000	
	5 Naphthalene	128	6.296	6.296	(1.004)	996523	1651.05	1650
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	68027	186.127	186
	7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	271109	739.486	739
	8 1-Methylnaphthalene	142	7.274	7.274	(1.160)	460069	1264.41	1260
	10 Acenaphthylene	152	8.265	8.265	(0.978)	21125	34.0810	34.1
*	11 Acenaphthene-d10	164	8.452	8.466	(1.000)	79455	200.000	
	12 Acenaphthene	153	8.493	8.493	(1.005)	93467	239.330	239
	14 Dibenzofuran	168	8.694	8.694	(1.029)	83874	145.873	146
	15 Fluorene	166	9.123	9.123	(1.079)	124764	307.346	307
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	124833	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	70891	112.970	113
	20 Anthracene	178	10.383	10.383	(1.008)	29685	49.9775	50.0
	24 Fluoranthene	202	11.818	11.831	(1.147)	23695	38.4190	38.4
	25 Pyrene	202	12.113	12.112	(0.889)	28323	43.2801	43.3
	28 Benzo(a)anthracene	228	Compound Not Detected.					

MR

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
* 29 Chrysene-d12	240	13.628	13.628	(1.000)	77890	200.000	
30 Chrysene	228	13.641	13.655	(1.001)	4367	7.96266	7.96
43 Total Benzofluoranthenes	252	Compound Not Detected.					
34 Benzo(a)pyrene	252	15.512	15.522	(0.994)	2697	5.73220	5.73
* 35 Perylene-d12	264	15.609	15.608	(1.000)	65588	200.000	
37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$ 36 Dibenzo(a,h)anthracene-d14	292	17.605	17.618	(1.128)	79447	193.404	193
38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	2586	~~5.11044~~	5.11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su73a.d
Lab Smp Id: SU73A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9762

Calibration Date: 19-MAY-2011
Calibration Time: 09:35
Client Smp ID: MW-01-042911
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	125849	-2.69
11 Acenaphthene-d10	70573	35286	141146	79455	12.59
18 Phenanthrene-d10	113741	56870	227482	124833	9.75
29 Chrysene-d12	70763	35382	141526	77890	10.07
35 Perylene-d12	54896	27448	109792	65588	19.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.45	-0.16
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

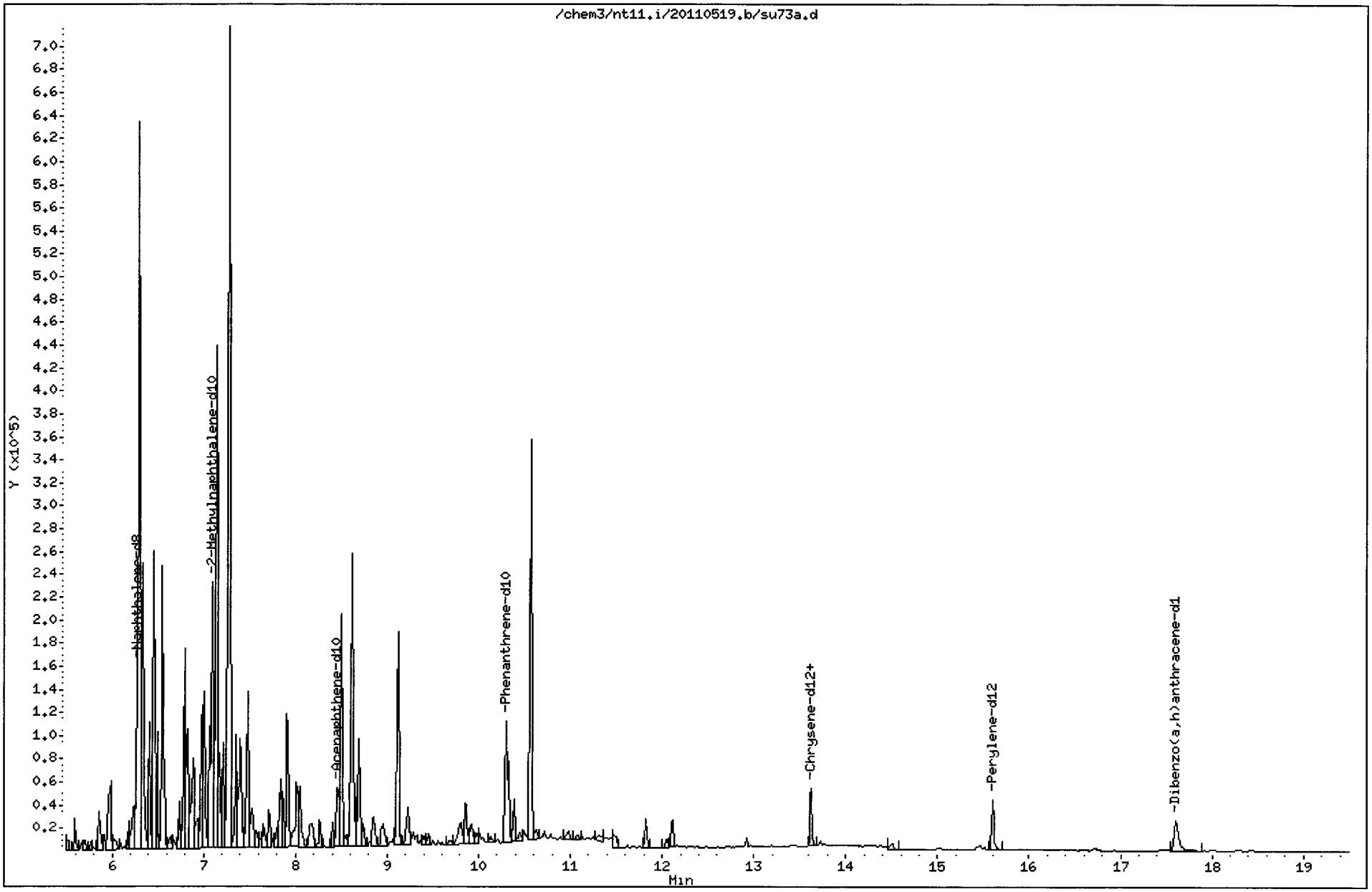
Client Name: Floyd Snider
Client SDG: SU73
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU73A
Client Smp ID: MW-01-042911
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9762

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	186	62.04	31-109
$ 36 Dibenzo(a,h)anthra	300	193	64.47	10-133

Data File: /chem3/nt11.i/20110519.b/su73a.d
Date : 19-MAY-2011 14:25
Client ID: MW-01-042911
Sample Info: SU73A
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3224
SU53:00793



Data File: /chem3/nt11.i/20110519.b/su73a.d

Date : 19-MAY-2011 14:25

Client ID: MW-01-042911 Instrument: nt11.i

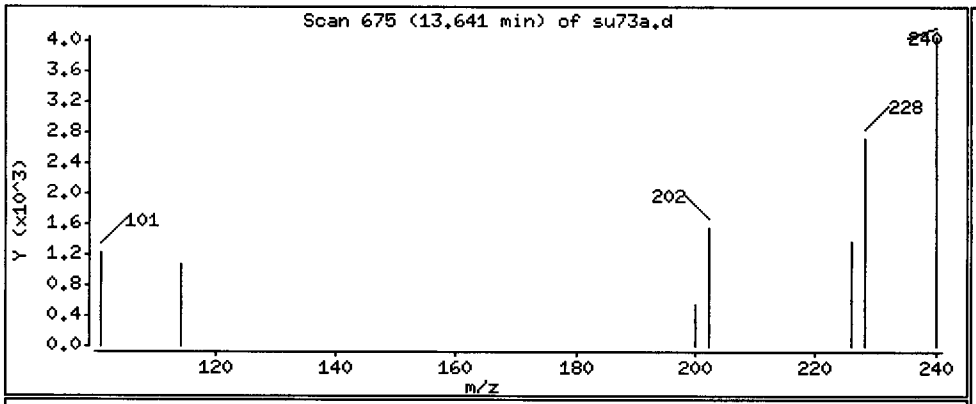
Sample Info: SU73A

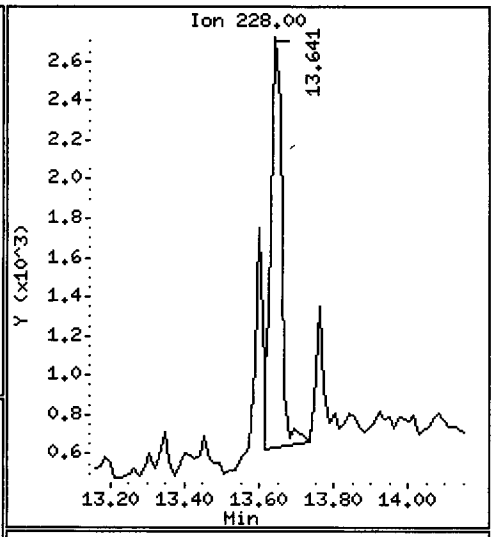
Volume Injected (uL): 2.0 Operator: VTS

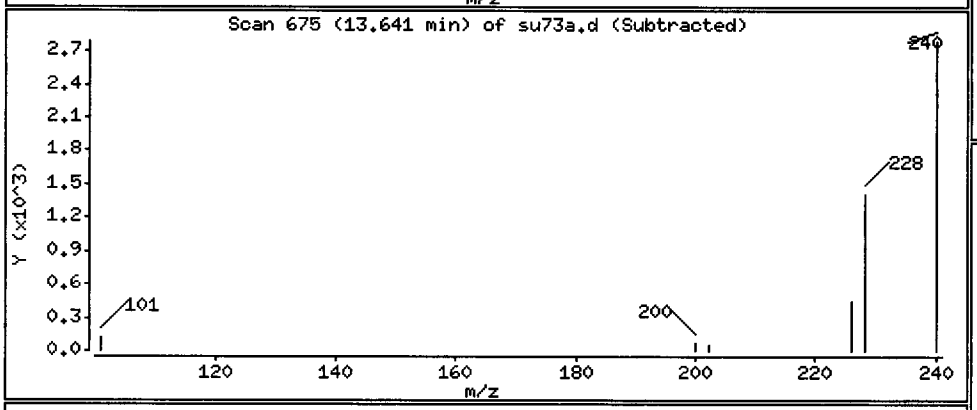
Column phase: ZB-5msi Column diameter: 0.25

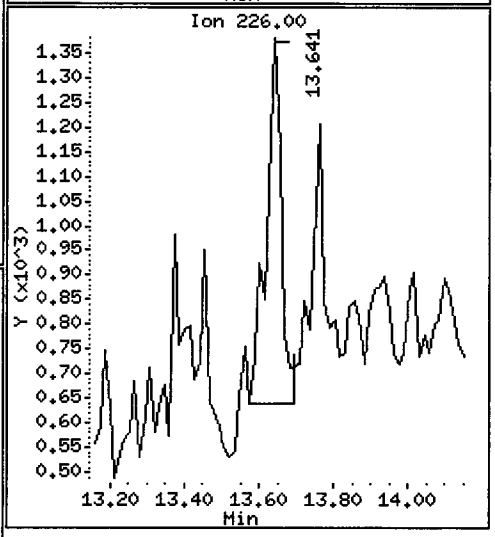
30 Chrysene Concentration: 7.96 ug/L

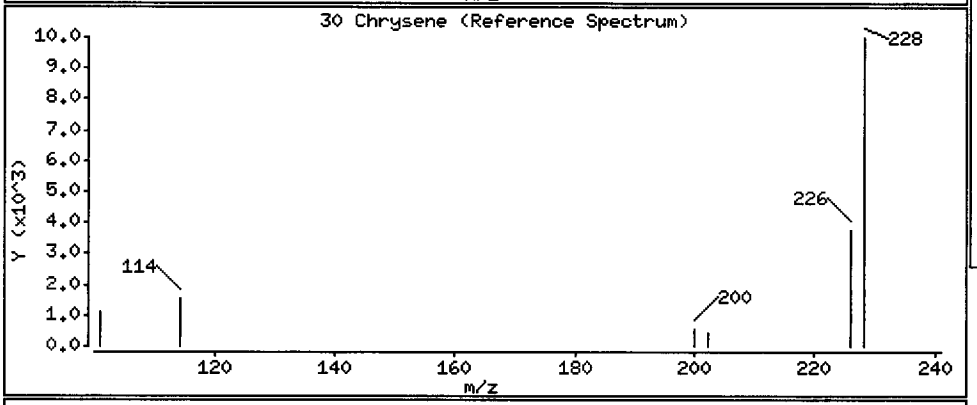
JLR

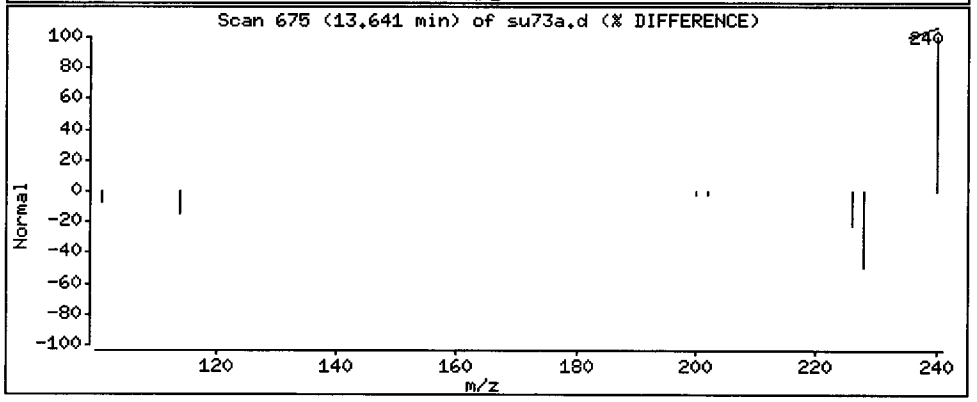












Data File: /chem3/nt11.i/20110519.b/su73a.d

Date : 19-MAY-2011 14:25

Client ID: MW-01-042911 Instrument: nt11.i

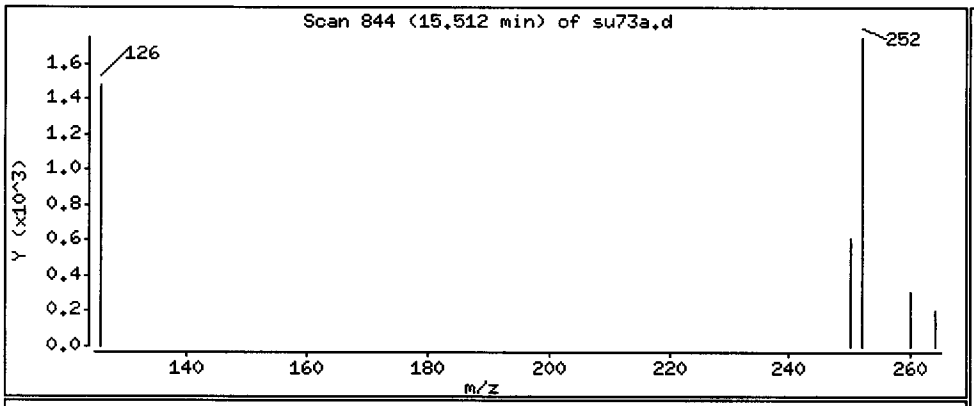
Sample Info: SU73A

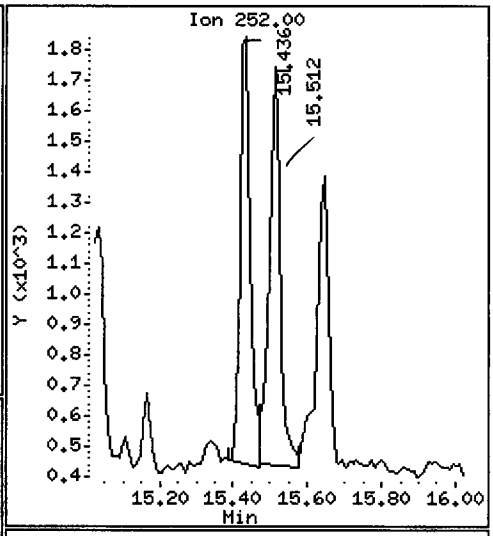
Volume Injected (uL): 2.0 Operator: VTS

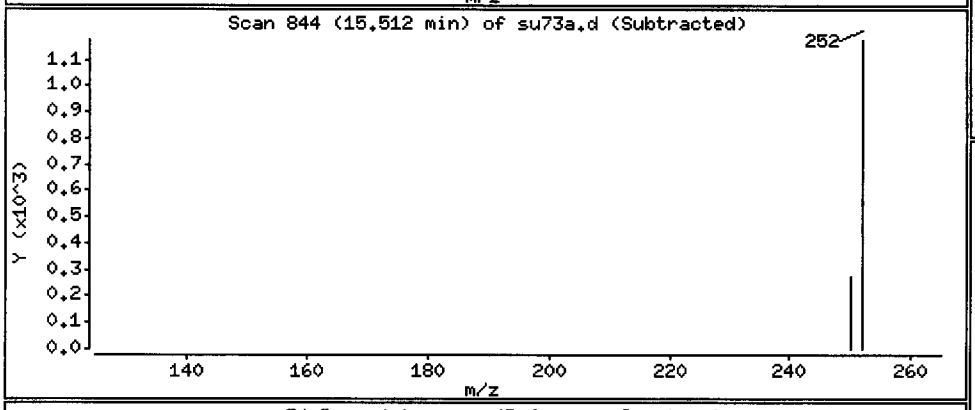
Column phase: ZB-5msi Column diameter: 0.25

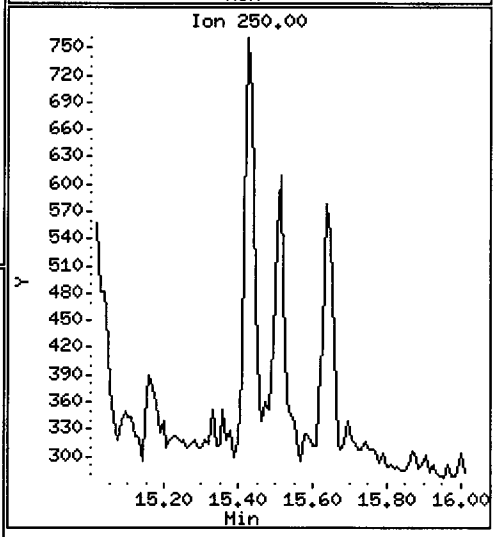
JLR

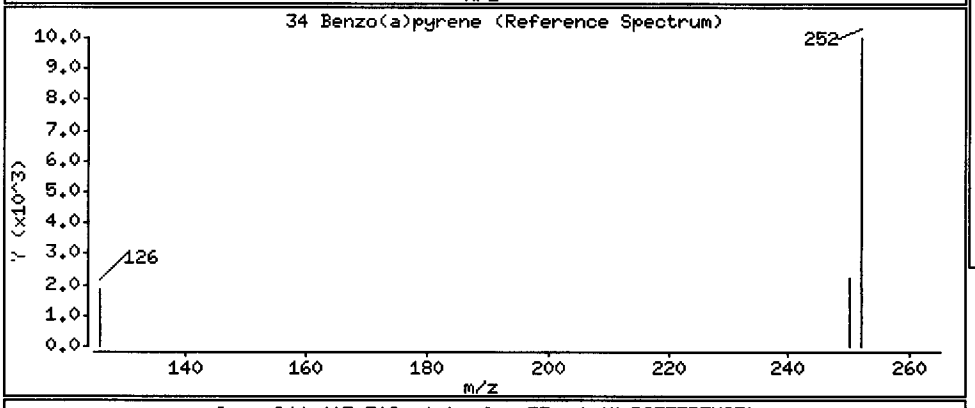
34 Benzo(a)pyrene Concentration: 5.73 ug/L

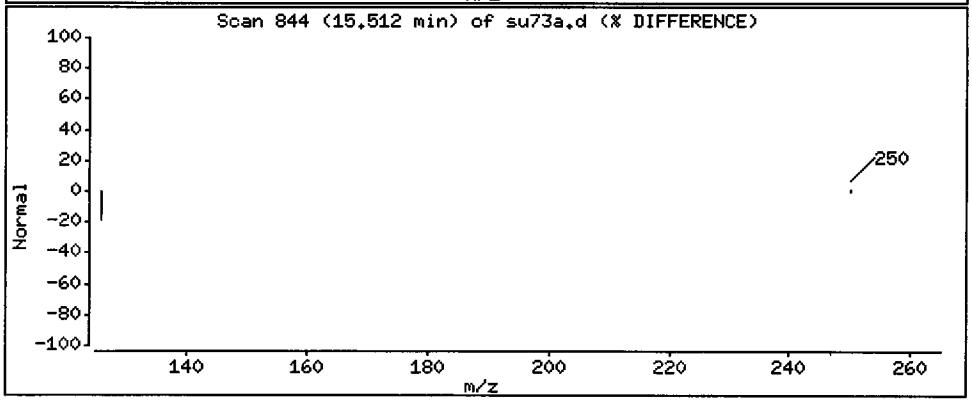












CO-ELUTION SUMMARY FOR FILE - su73a.d

Lab ID: SU73A, Method: lowsim.m, Instrument: nt11.i, Date: 19-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110519.b/su73b.d
Lab Smp Id: SU73B Client Smp ID: MW-01-042911-D
Inj Date : 19-MAY-2011 14:49
Operator : VTS Inst ID: nt11.i
Smp Info : SU73B
Misc Info : 11-9763
Comment :
Method : /chem3/nt11.i/20110519.b/lowsim.m
Meth Date : 19-May-2011 10:16 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)	
*	4 Naphthalene-d8	136	6.273	6.273	(1.000)	120625	200.000		
	5 Naphthalene	128	6.296	6.296	(1.004)	946982	1636.92	1640	NR
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	65011	185.579	186	
	7 2-Methylnaphthalene	142	7.136	7.135	(1.138)	253480	721.343	721	
	8 1-Methylnaphthalene	142	7.274	7.274	(1.160)	434695	1246.41	1250	
	10 Acenaphthylene	152	8.265	8.265	(0.976)	19632	32.7848	32.8	
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	76759	200.000		
	12 Acenaphthene	153	8.493	8.493	(1.003)	90780	240.614	241	
	14 Dibenzofuran	168	8.694	8.694	(1.027)	76551	137.813	138	
	15 Fluorene	166	9.123	9.123	(1.078)	118891	303.165	303	
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	123762	200.000		
	19 Phenanthrene	178	10.329	10.329	(1.003)	68511	110.122	110	
	20 Anthracene	178	10.383	10.383	(1.008)	31184	52.9556	53.0	
	24 Fluoranthene	202	11.818	11.831	(1.147)	27180	44.4509	44.5	
	25 Pyrene	202	12.113	12.112	(0.889)	30599	47.6730	47.7	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)	
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	3109	5.81073	5.81	T
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	76395	200.000		
	30 Chrysene	228	13.641	13.655	(1.001)	5752	10.6933	10.7	
	43 Total Benzofluoranthenes	252	Compound Not Detected.						T
	34 Benzo(a)pyrene	252	15.512	15.522	(0.994)	3805	8.57409	8.57	
*	35 Perylene-d12	264	15.609	15.608	(1.000)	61863	200.000		
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
$	36 Dibenzo(a,h)anthracene-d14	292	17.605	17.618	(1.128)	75857	195.784	196	
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	3589	~~7.51964~~	7.52	NR

LVL
5-21-11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su73b.d
Lab Smp Id: SU73B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9763

Calibration Date: 19-MAY-2011
Calibration Time: 09:35
Client Smp ID: MW-01-042911-D
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	120625	-6.73
11 Acenaphthene-d10	70573	35286	141146	76759	8.77
18 Phenanthrene-d10	113741	56870	227482	123762	8.81
29 Chrysene-d12	70763	35382	141526	76395	7.96
35 Perylene-d12	54896	27448	109792	61863	12.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Sample Matrix: LIQUID
Lab Smp Id: SU73B
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9763

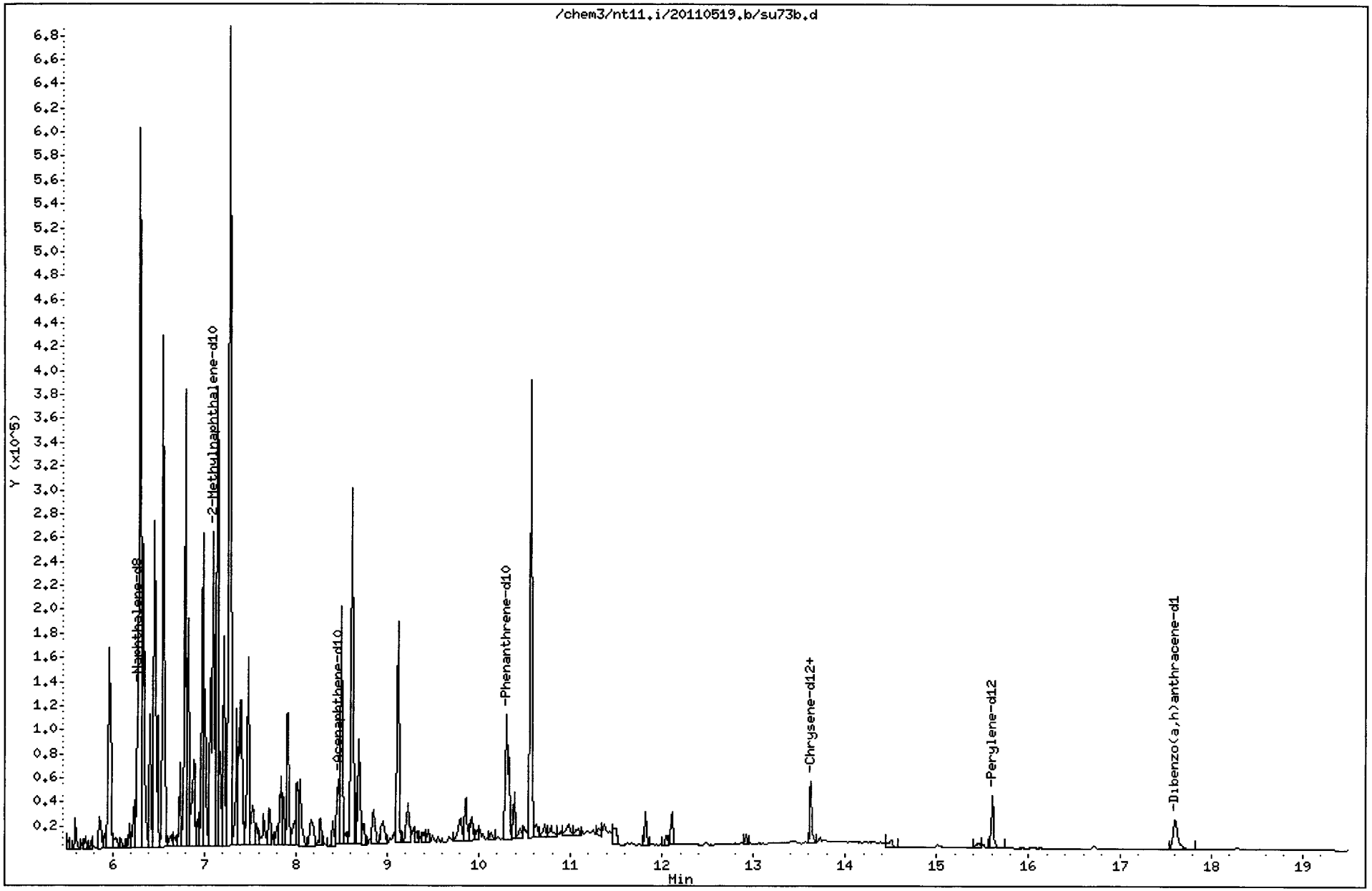
Client SDG: SU73
Fraction: SV
Client Smp ID: MW-01-042911-D
Operator: VTS
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	186	61.86	31-109
$ 36 Dibenzo(a,h)anthra	300	196	65.26	10-133

Data File: /chem3/nt11.i/20110519.b/su73b.d
Date : 19-MAY-2011 14:49
Client ID: MW-01-042911-D
Sample Info: SU73B
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3232
SU53:99711



Data File: /chem3/nt11.i/20110519.b/su73b.d

Date : 19-MAY-2011 14:49

Client ID: MW-01-042911-D

Instrument: nt11.i

Sample Info: SU73B

Volume Injected (uL): 2.0

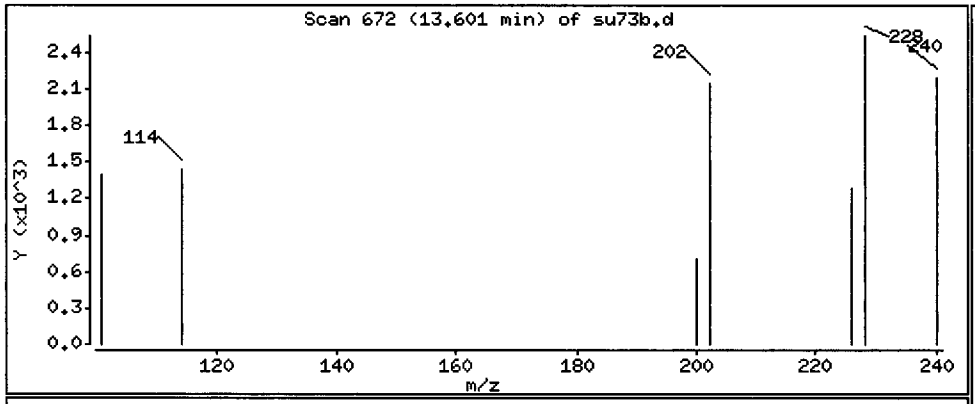
Operator: VTS

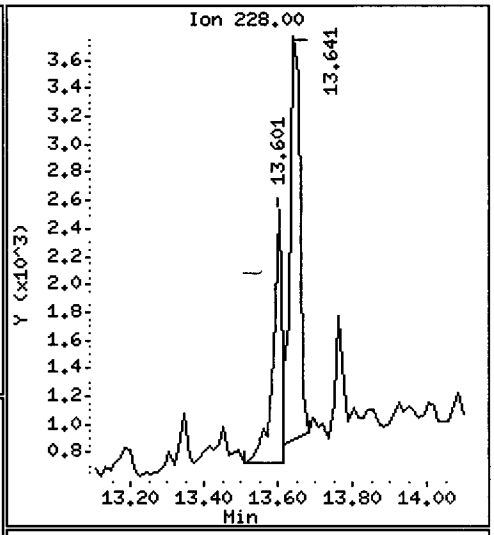
Column phase: ZB-5msi

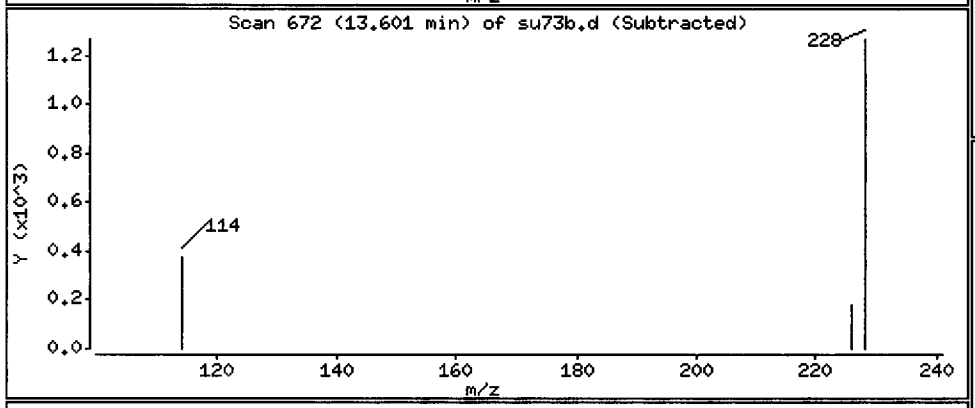
Column diameter: 0.25

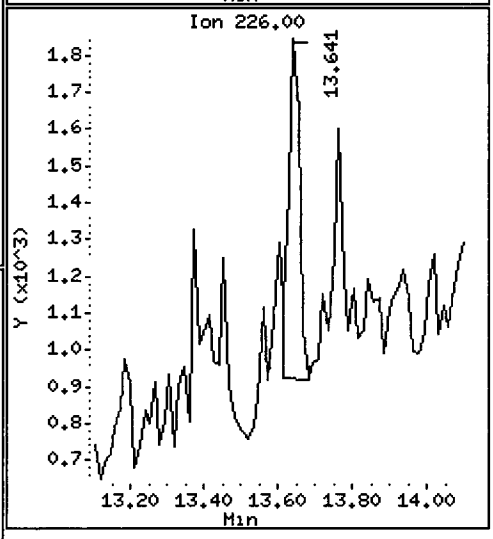
28 Benzo(a)anthracene

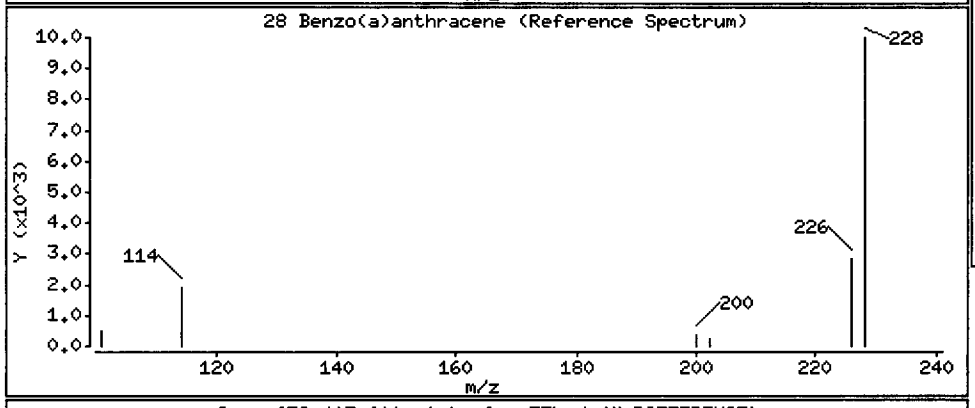
Concentration: 5.81 ug/L

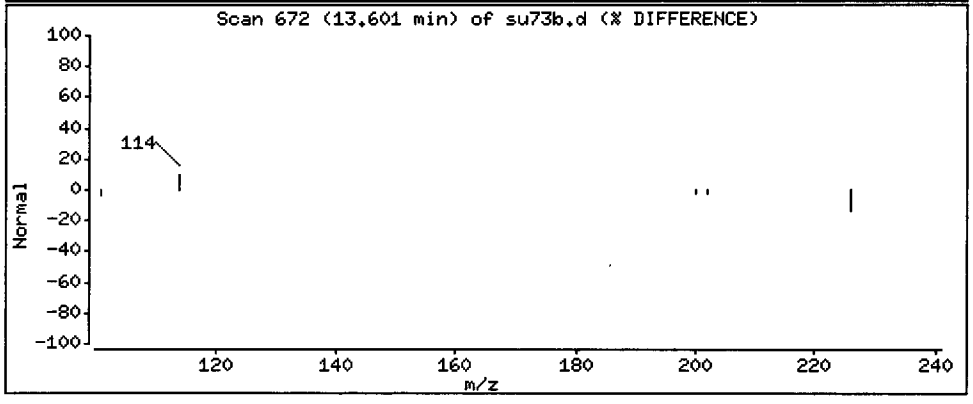












Data File: /chem3/nt11.i/20110519.b/su73b.d

Date : 19-MAY-2011 14:49

Client ID: MW-01-042911-D

Instrument: nt11.i

Sample Info: SU73B

Volume Injected (uL): 2.0

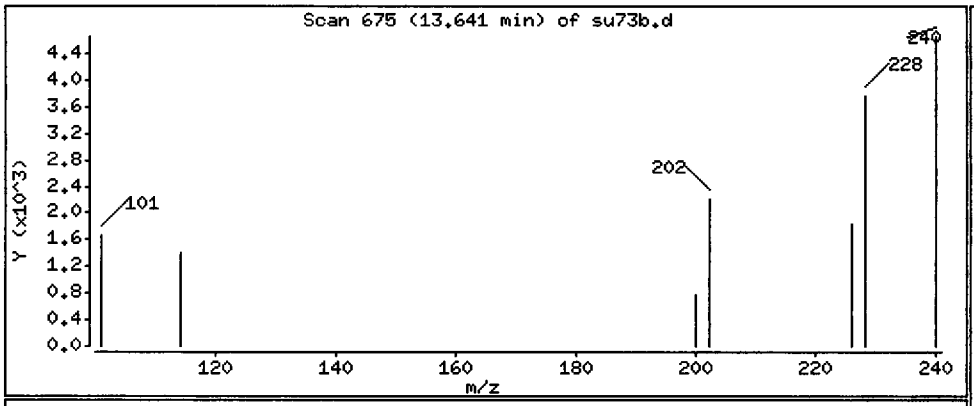
Operator: VTS

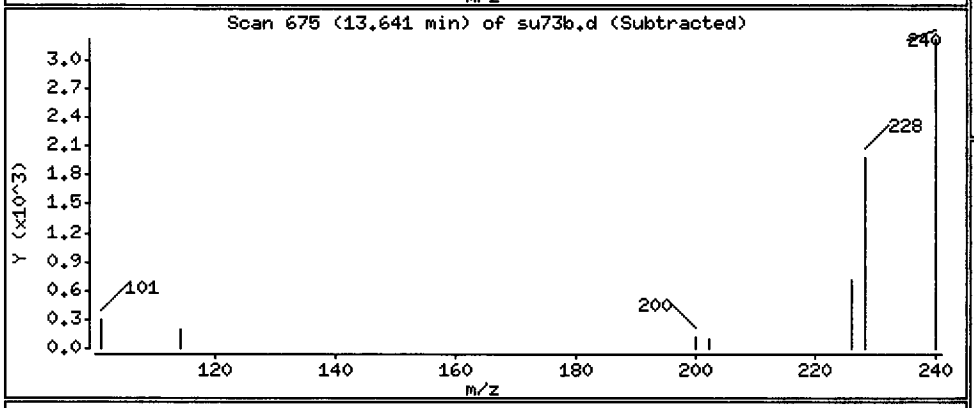
Column phase: ZB-5msi

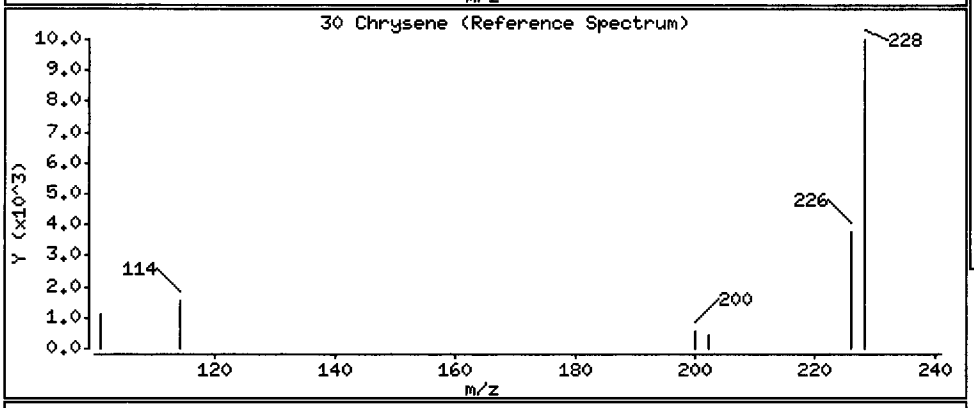
Column diameter: 0.25

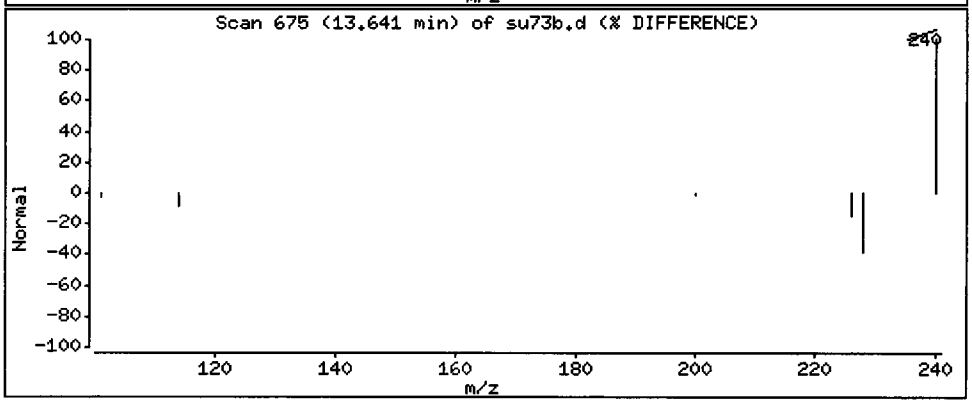
30 Chrysene

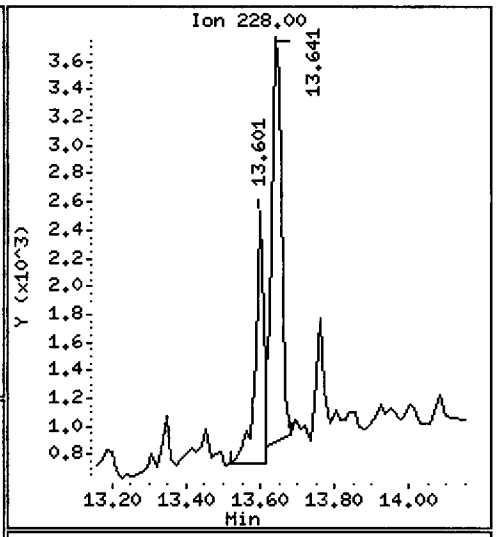
Concentration: 10.7 ug/L

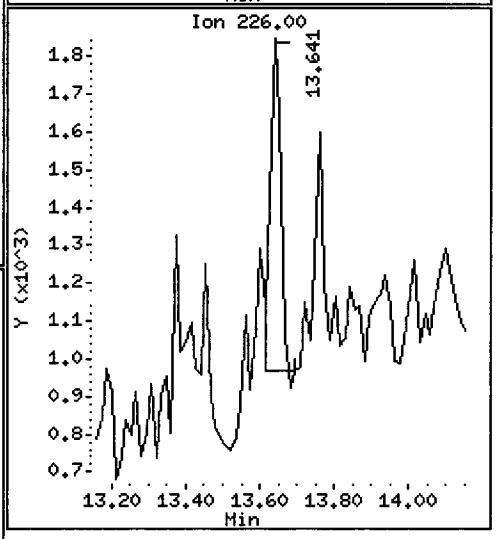












Data File: /chem3/nt11.i/20110519.b/su73b.d

Date : 19-MAY-2011 14:49

Client ID: MW-01-042911-D

Instrument: nt11.i

Sample Info: SU73B

Volume Injected (uL): 2.0

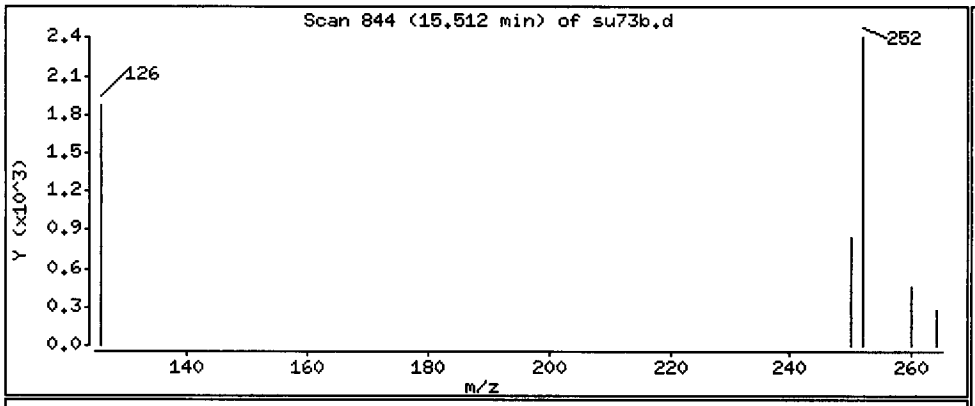
Operator: VTS

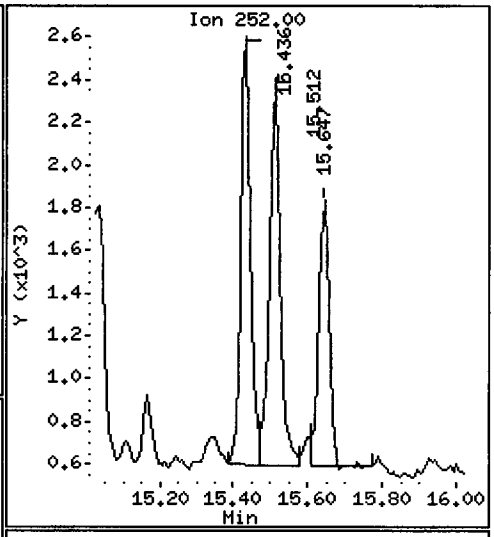
Column phase: ZB-5msi

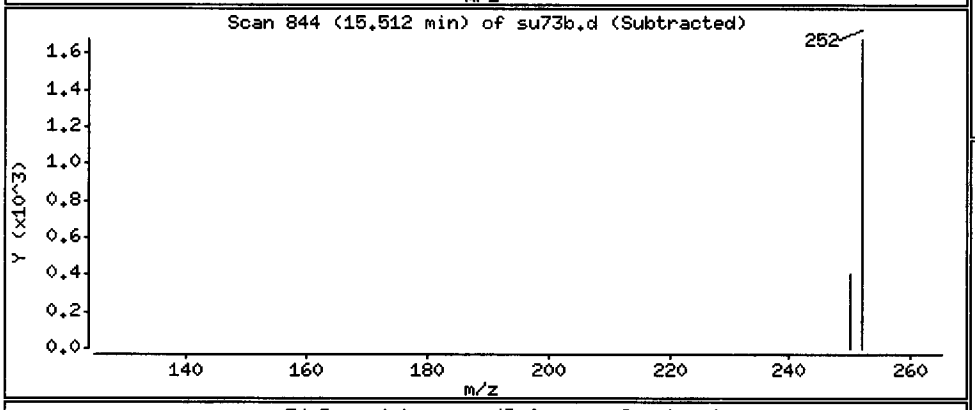
Column diameter: 0.25

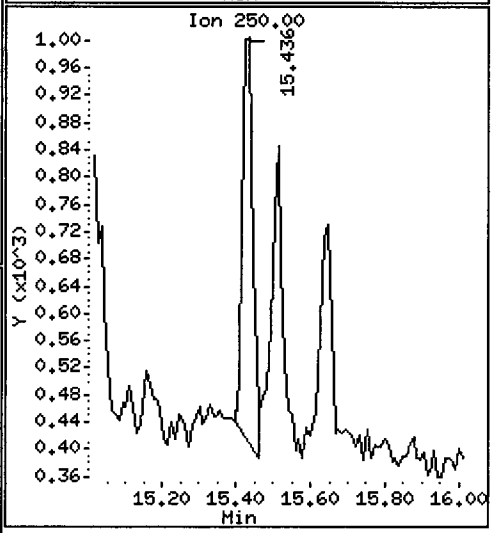
34 Benzo(a)pyrene

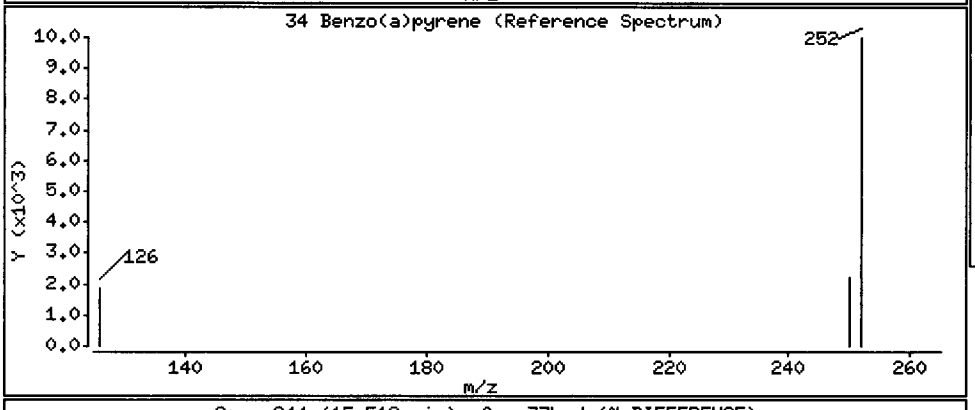
Concentration: 8.57 ug/L

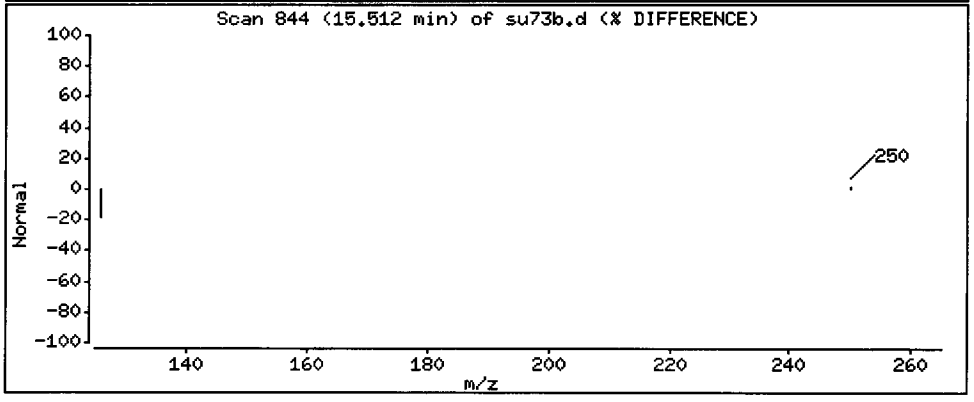












CO-ELUTION SUMMARY FOR FILE - su73b.d

Lab ID: SU73B, Method: lowsim.m, Instrument: nt11.i, Date: 19-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110519.b/su74a.d
Lab Smp Id: SU74A Client Smp ID: B312-042911
Inj Date : 19-MAY-2011 15:13
Operator : VTS Inst ID: nt11.i
Smp Info : SU74A
Misc Info : 11-9772
Comment :
Method : /chem3/nt11.i/20110519.b/lowsim.m
Meth Date : 19-May-2011 10:16 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.272	6.273	(1.000)	119557	200.000	
	5 Naphthalene	128	6.296	6.296	(1.004)	21789	38.0001	38.0
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	57649	166.033	166
	7 2-Methylnaphthalene	142	Compound Not Detected.					
	8 1-Methylnaphthalene	142	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	70279	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	120326	200.000	
	19 Phenanthrene	178	Compound Not Detected.					
	20 Anthracene	178	Compound Not Detected.					
	24 Fluoranthene	202	Compound Not Detected.					
	25 Pyrene	202	Compound Not Detected.					

NR

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	77405	200.000	
	30 Chrysene	228	Compound Not Detected.					
	43 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	15.608	15.608	(1.000)	63881	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	17.605	17.618	(1.128)	84567	211.369	211
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

VJS
5-21-11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su74a.d
Lab Smp Id: SU74A
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9772

Calibration Date: 19-MAY-2011
Calibration Time: 09:35
Client Smp ID: B312-042911
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	119557	-7.55
11 Acenaphthene-d10	70573	35286	141146	70279	-0.42
18 Phenanthrene-d10	113741	56870	227482	120326	5.79
29 Chrysene-d12	70763	35382	141526	77405	9.39
35 Perylene-d12	54896	27448	109792	63881	16.37

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

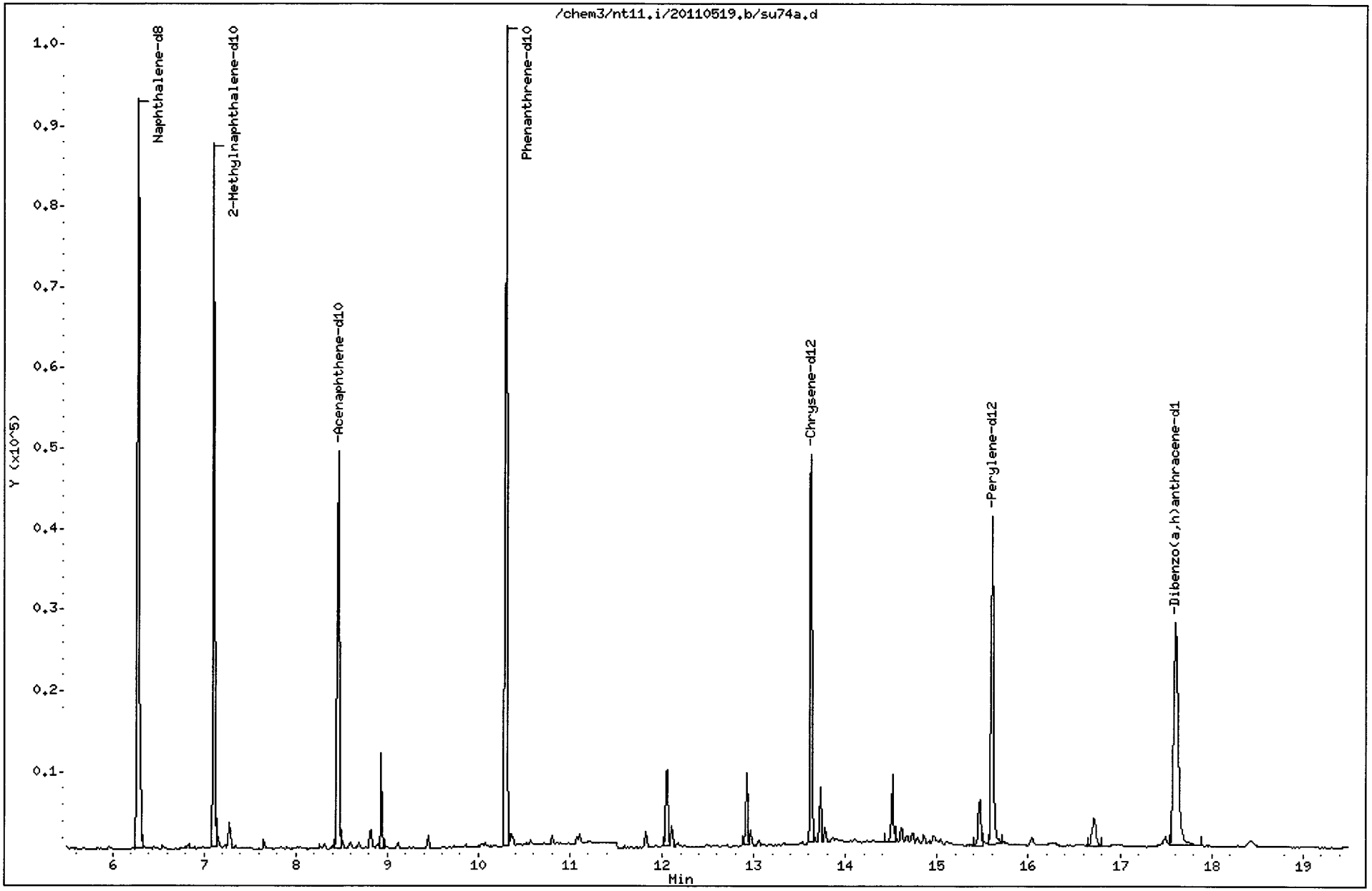
Client Name: Floyd Snider
Client SDG: SU74
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU74A
Client Smp ID: B312-042911
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9772

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	166	55.34	31-109
$ 36 Dibenzo(a,h)anthra	300	211	70.46	10-133

Data File: /chem3/nt11.i/20110519.b/su74a.d
Date : 19-MAY-2011 15:13
Client ID: B312-042911
Sample Info: SU74A
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3241
SU53:00720



CO-ELUTION SUMMARY FOR FILE - su74a.d

Lab ID: SU74A, Method: lowsim.m, Instrument: nt11.i, Date: 19-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110519.b/su74ams.d
Lab Smp Id: SU74AMS Client Smp ID: B312-042911 MS
Inj Date : 19-MAY-2011 15:38
Operator : VTS Inst ID: nt11.i
Smp Info : SU74AMS
Misc Info : 11-9772
Comment :
Method : /chem3/nt11.i/20110519.b/lowsim.m
Meth Date : 19-May-2011 10:16 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 14 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.272	6.273	(1.000)	115311	200.000	
	5 Naphthalene	128	6.295	6.296	(1.004)	100281	181.330	181
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	53752	160.510	161
	7 2-Methylnaphthalene	142	7.135	7.135	(1.138)	53080	158.014	158
	8 1-Methylnaphthalene	142	7.273	7.274	(1.160)	52881	158.614	159
	10 Acenaphthylene	152	8.265	8.265	(0.976)	87960	164.690	165
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	68463	200.000	
	12 Acenaphthene	153	8.492	8.493	(1.003)	54497	161.949	162
	14 Dibenzofuran	168	8.694	8.694	(1.027)	86227	174.043	174
	15 Fluorene	166	9.123	9.123	(1.078)	66114	189.015	189
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	116747	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	112949	192.459	192
	20 Anthracene	178	10.383	10.383	(1.008)	102862	185.172	185
	24 Fluoranthene	202	11.817	11.831	(1.147)	137086	237.665	238
	25 Pyrene	202	12.112	12.112	(0.889)	138824	214.562	215

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	114632	212.539	213
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	77009	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	113383	209.104	209
	43 Total Benzofluoranthenes	252	15.003	15.041	(0.961)	216974	421.678	422
	34 Benzo(a)pyrene	252	15.512	15.522	(0.994)	85347	186.776	187
*	35 Perylene-d12	264	15.608	15.608	(1.000)	63699	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	112313	203.633	204
$	36 Dibenzo(a,h)anthracene-d14	292	17.605	17.618	(1.128)	85359	213.958	214
	38 Dibenzo(a,h)anthracene	278	17.672	17.685	(1.132)	88236	205.377	205
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	93469	190.191	190

VB 5-21-11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su74ams.d
Lab Smp Id: SU74AMS
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9772

Calibration Date: 19-MAY-2011
Calibration Time: 09:35
Client Smp ID: B312-042911 MS
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	115311	-10.84
11 Acenaphthene-d10	70573	35286	141146	68463	-2.99
18 Phenanthrene-d10	113741	56870	227482	116747	2.64
29 Chrysene-d12	70763	35382	141526	77009	8.83
35 Perylene-d12	54896	27448	109792	63699	16.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snid
Client SDG: SU74
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU74AMS
Client Smp ID: B312-042911 MS
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: MS
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9772

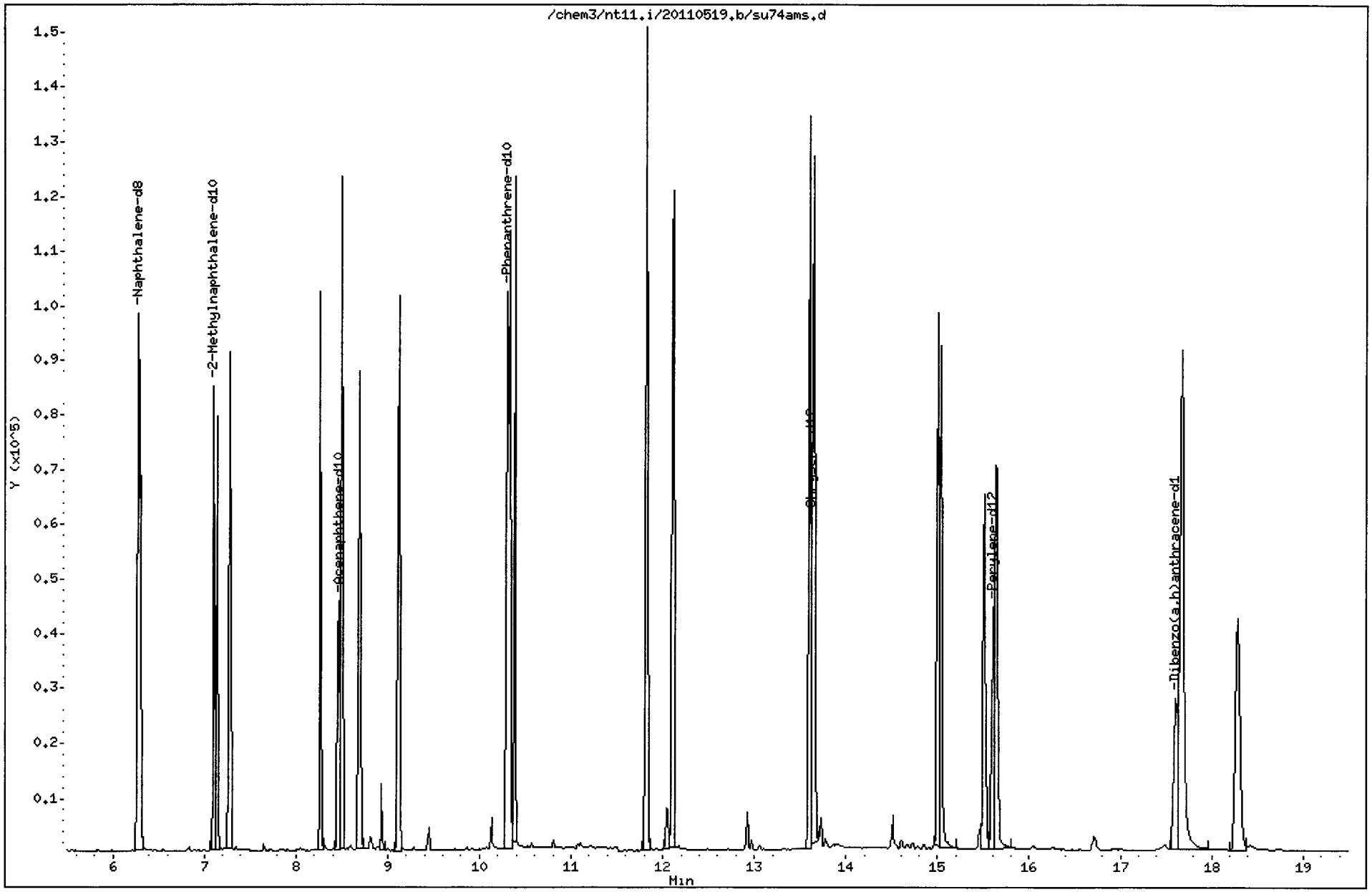
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	181	60.44	41-101
7 2-Methylnaphthalen	300	158	52.67	47-100
8 1-Methylnaphthalen	300	159	52.87	30-160
10 Acenaphthylene	300	165	54.90	35-100
12 Acenaphthene	300	162	53.98	43-104
14 Dibenzofuran	300	174	58.01	37-100
15 Fluorene	300	189	63.01	51-103
19 Phenanthrene	300	192	64.15	55-109
20 Anthracene	300	185	61.72	30-101
24 Fluoranthene	300	238	79.22	49-123
25 Pyrene	300	215	71.52	48-120
28 Benzo(a)anthracene	300	213	70.85	43-113
30 Chrysene	300	209	69.70	59-112
43 Total Benzofluoran	600	422	70.28	30-160
34 Benzo(a)pyrene	300	187	62.26	10-100
37 Indeno(1,2,3-cd)py	300	204	67.88	43-112
38 Dibenzo(a,h)anthra	300	205	68.46	42-114
39 Benzo(g,h,i)peryle	300	190	63.40	31-118

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	161	53.50	31-109
$ 36 Dibenzo(a,h)anthra	300	214	71.32	10-133

Data File: /chem3/nt11.i/20110519.b/su74ams.d
Date : 19-MAY-2011 15:38
Client ID: B312-042911 MS
Sample Info: SU74AMS
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3247
SU53:66726



CO-ELUTION SUMMARY FOR FILE - su74ams.d

Lab ID: SU74AMS, Method: lowsim.m, Instrument: nt11.i, Date: 19-MAY-2011

RT	CO-ELUTION COMPOUNDS
17.672	Indeno(1,2,3-cd)pyrene and Dibenzo(a,h)anthracene
17.672	Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110519.b/su74amsd.d
Lab Smp Id: SU74AMSD Client Smp ID: B312-042911 MSD
Inj Date : 19-MAY-2011 16:02
Operator : VTS Inst ID: nt11.i
Smp Info : SU74AMSD
Misc Info : 11-9772
Comment :
Method : /chem3/nt11.i/20110519.b/lowsim.m
Meth Date : 19-May-2011 10:16 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 15 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.273	(1.000)	116649	200.000	
	5 Naphthalene	128	6.296	6.296	(1.004)	101695	181.778	182
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	54091	159.670	160
	7 2-Methylnaphthalene	142	7.147	7.135	(1.139)	54295	159.777	160
	8 1-Methylnaphthalene	142	7.274	7.274	(1.160)	54526	161.672	162
	10 Acenaphthylene	152	8.265	8.265	(0.976)	87127	161.178	161
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	69292	200.000	
	12 Acenaphthene	153	8.493	8.493	(1.003)	56154	164.876	165
	14 Dibenzofuran	168	8.694	8.694	(1.027)	85580	170.670	171
	15 Fluorene	166	9.123	9.123	(1.078)	66117	186.763	187
*	18 Phenanthrene-d10	188	10.302	10.302	(1.000)	119369	200.000	
	19 Phenanthrene	178	10.329	10.329	(1.003)	114609	190.998	191
	20 Anthracene	178	10.383	10.383	(1.008)	103147	181.607	182
	24 Fluoranthene	202	11.817	11.831	(1.147)	140722	238.610	239
	25 Pyrene	202	12.113	12.112	(0.889)	145400	212.257	212

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	13.601	13.601	(0.998)	123032	215.456	215
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	81533	200.000	
	30 Chrysene	228	13.655	13.655	(1.002)	123899	215.820	216
	43 Total Benzofluoranthenes	252	15.003	15.041	(0.961)	229162	437.062	437
	34 Benzo(a)pyrene	252	15.512	15.522	(0.994)	86098	184.907	185
*	35 Perylene-d12	264	15.608	15.608	(1.000)	64909	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	17.672	17.672	(1.132)	116567	207.406	207
$	36 Dibenzo(a,h)anthracene-d14	292	17.605	17.618	(1.128)	85828	211.123	211
	38 Dibenzo(a,h)anthracene	278	17.685	17.685	(1.133)	92900	212.202	212
	39 Benzo(g,h,i)perylene	276	18.289	18.289	(1.172)	98461	196.614	197

VS 5-21-11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su74amsd.d
Lab Smp Id: SU74AMSD
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9772

Calibration Date: 19-MAY-2011
Calibration Time: 09:35
Client Smp ID: B312-042911 MSD
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	116649	-9.80
11 Acenaphthene-d10	70573	35286	141146	69292	-1.82
18 Phenanthrene-d10	113741	56870	227482	119369	4.95
29 Chrysene-d12	70763	35382	141526	81533	15.22
35 Perylene-d12	54896	27448	109792	64909	18.24

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snid
Sample Matrix: LIQUID
Lab Smp Id: SU74AMSD
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9772

Client SDG: SU74
Fraction: SV
Client Smp ID: B312-042911 MSD
Operator: VTS
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
5 Naphthalene	300	182	60.59	41-101
7 2-Methylnaphthalen	300	160	53.26	47-100
8 1-Methylnaphthalen	300	162	53.89	30-160
10 Acenaphthylene	300	161	53.73	35-100
12 Acenaphthene	300	165	54.96	43-104
14 Dibenzofuran	300	171	56.89	37-100
15 Fluorene	300	187	62.25	51-103
19 Phenanthrene	300	191	63.67	55-109
20 Anthracene	300	182	60.54	30-101
24 Fluoranthene	300	239	79.54	49-123
25 Pyrene	300	212	70.75	48-120
28 Benzo(a)anthracene	300	215	71.82	43-113
30 Chrysene	300	216	71.94	59-112
43 Total Benzofluoran	600	437	72.84	30-160
34 Benzo(a)pyrene	300	185	61.64	10-100
37 Indeno(1,2,3-cd)py	300	207	69.14	43-112
38 Dibenzo(a,h)anthra	300	212	70.73	42-114
39 Benzo(g,h,i)peryle	300	197	65.54	31-118

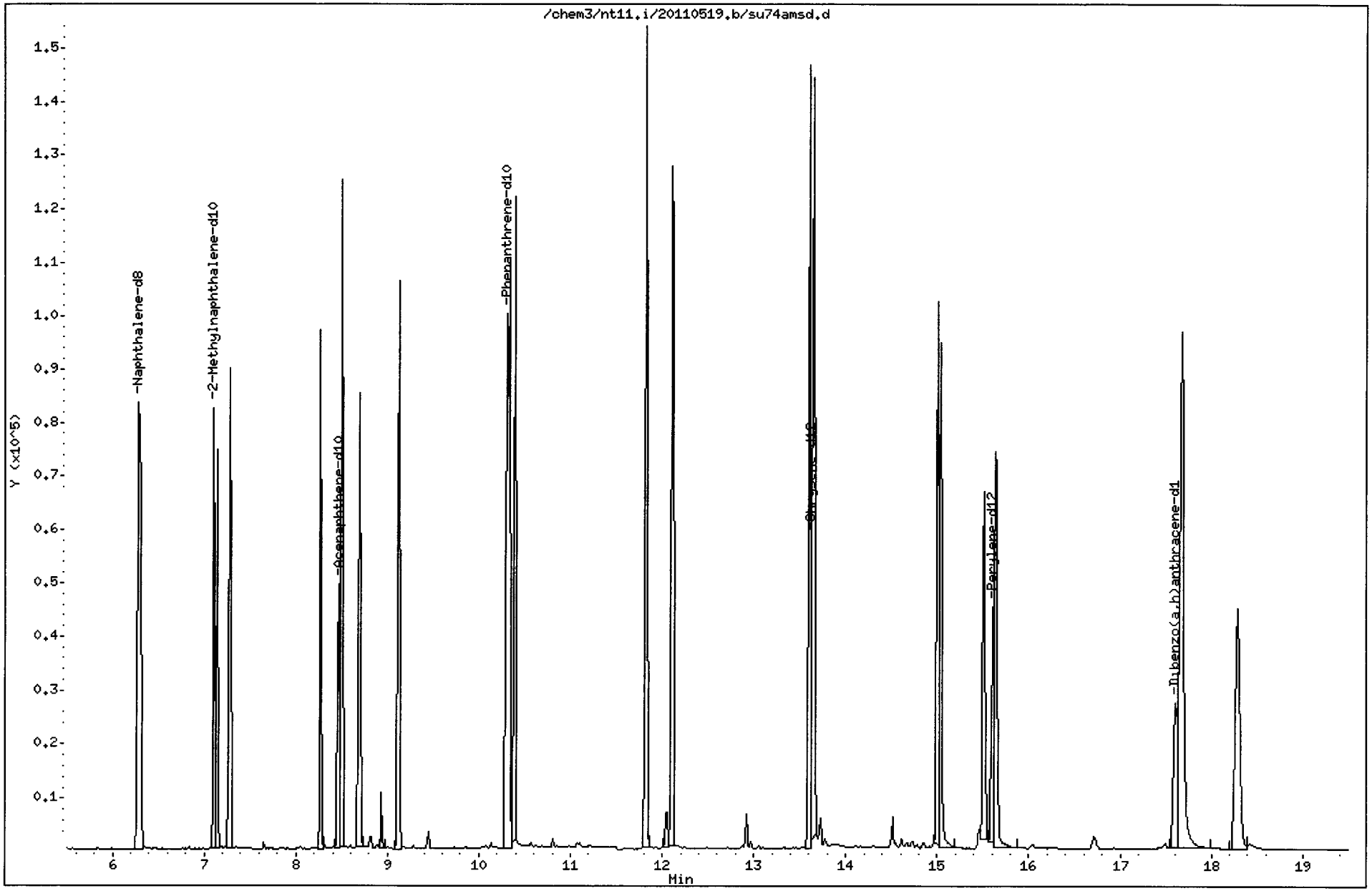
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	160	53.22	31-109
$ 36 Dibenzo(a,h)anthra	300	211	70.37	10-133

Data File: /chem3/nt11.i/20110519.b/su74amsd.d
Date : 19-MAY-2011 16:02
Client ID: B312-042911 MSD
Sample Info: SU74AMSD
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25

3253
SU53:60732



CO-ELUTION SUMMARY FOR FILE - su74amsd.d

Lab ID: SU74AMSD, Method: lowsim.m, Instrument: nt11.i, Date: 19-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110519.b/su74b.d
Lab Smp Id: SU74B Client Smp ID: B310-042911
Inj Date : 19-MAY-2011 16:26
Operator : VTS Inst ID: nt11.i
Smp Info : SU74B
Misc Info : 11-9773
Comment :
Method : /chem3/nt11.i/20110519.b/lowsim.m
Meth Date : 19-May-2011 10:16 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.273	(1.000)	115855	200.000	
	5 Naphthalene	128	6.296	6.296	(1.004)	18202	32.7587	32.8
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	63611	189.059	189
	7 2-Methylnaphthalene	142	Compound Not Detected.					
	8 1-Methylnaphthalene	142	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	8.452	8.466	(1.000)	68143	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	111834	200.000	
	19 Phenanthrene	178	Compound Not Detected.					
	20 Anthracene	178	Compound Not Detected.					
	24 Fluoranthene	202	Compound Not Detected.					
	25 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ug/L)
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	71589	200.000	
	30 Chrysene	228	Compound Not Detected.					
	43 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	15.608	15.608	(1.000)	61430	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	17.605	17.618	(1.128)	82881	215.420	215
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

V15
5-21-11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su74b.d
Lab Smp Id: SU74B
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9773

Calibration Date: 19-MAY-2011
Calibration Time: 09:35
Client Smp ID: B310-042911
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	115855	-10.42
11 Acenaphthene-d10	70573	35286	141146	68143	-3.44
18 Phenanthrene-d10	113741	56870	227482	111834	-1.68
29 Chrysene-d12	70763	35382	141526	71589	1.17
35 Perylene-d12	54896	27448	109792	61430	11.90

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.45	-0.16
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Sample Matrix: LIQUID
Lab Smp Id: SU74B
Level: LOW
Data Type: MS DATA
SpikeList File: waterlcs.spk
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9773

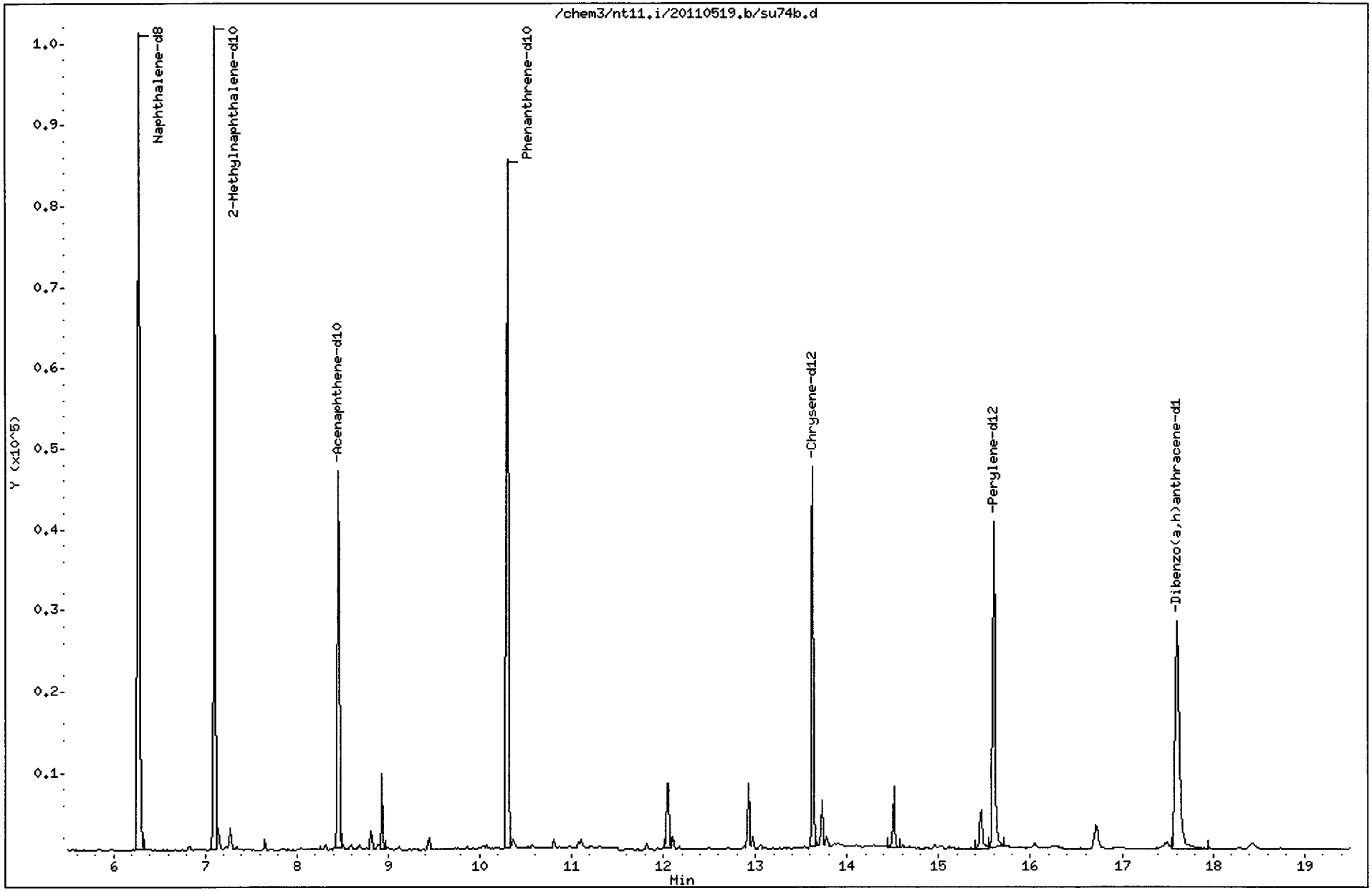
Client SDG: SU74
Fraction: SV
Client Smp ID: B310-042911
Operator: VTS
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	189	63.02	31-109
$ 36 Dibenzo(a,h)anthra	300	215	71.81	10-133

Data File: /chem3/nt11.i/20110519.b/su74b.d
Date : 19-MAY-2011 16:26
Client ID: B310-042911
Sample Info: SU74B
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

3259
SU53:00738



CO-ELUTION SUMMARY FOR FILE - su74b.d

Lab ID: SU74B, Method: lowsim.m, Instrument: nt11.i, Date: 19-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : /chem3/nt11.i/20110519.b/su74c.d
Lab Smp Id: SU74C Client Smp ID: B311-042911
Inj Date : 19-MAY-2011 16:50
Operator : VTS Inst ID: nt11.i
Smp Info : SU74C
Misc Info : 11-9774
Comment :
Method : /chem3/nt11.i/20110519.b/lowsim.m
Meth Date : 19-May-2011 10:16 van Quant Type: ISTD
Cal Date : 30-APR-2011 12:15 Cal File: ic0430f.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pna1mn.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Vt / Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Final Extract Volume (uL)
Vo	500.00000	Sample Volume extracted (mL)

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
*	4 Naphthalene-d8	136	6.273	6.273	(1.000)	114081	200.000	
	5 Naphthalene	128	6.296	6.296	(1.004)	12585	~~23.0018~~	23.0 NR
$	6 2-Methylnaphthalene-d10	152	7.101	7.101	(1.132)	65729	198.391	198
	7 2-Methylnaphthalene	142	Compound Not Detected.					
	8 1-Methylnaphthalene	142	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	8.466	8.466	(1.000)	66837	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	14 Dibenzofuran	168	Compound Not Detected.					
	15 Fluorene	166	Compound Not Detected.					
*	18 Phenanthrene-d10	188	10.303	10.302	(1.000)	111242	200.000	
	19 Phenanthrene	178	Compound Not Detected.					
	20 Anthracene	178	Compound Not Detected.					
	24 Fluoranthene	202	Compound Not Detected.					
	25 Pyrene	202	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ug/L)
	28 Benzo(a)anthracene	228	Compound Not Detected.					
*	29 Chrysene-d12	240	13.628	13.628	(1.000)	75124	200.000	
	30 Chrysene	228	Compound Not Detected.					
	43 Total Benzofluoranthenes	252	Compound Not Detected.					
	34 Benzo(a)pyrene	252	Compound Not Detected.					
*	35 Perylene-d12	264	15.608	15.608	(1.000)	62191	200.000	
	37 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
$	36 Dibenzo(a,h)anthracene-d14	292	17.605	17.618	(1.128)	83928	215.472	215
	38 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	39 Benzo(g,h,i)perylene	276	Compound Not Detected.					

VR 5-21-11

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: su74c.d
Lab Smp Id: SU74C
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9774

Calibration Date: 19-MAY-2011
Calibration Time: 09:35
Client Smp ID: B311-042911
Level: LOW
Sample Type: Water

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	129326	64663	258652	114081	-11.79
11 Acenaphthene-d10	70573	35286	141146	66837	-5.29
18 Phenanthrene-d10	113741	56870	227482	111242	-2.20
29 Chrysene-d12	70763	35382	141526	75124	6.16
35 Perylene-d12	54896	27448	109792	62191	13.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
4 Naphthalene-d8	6.27	5.77	6.77	6.27	0.00
11 Acenaphthene-d10	8.47	7.97	8.97	8.47	0.00
18 Phenanthrene-d10	10.30	9.80	10.80	10.30	0.00
29 Chrysene-d12	13.63	13.13	14.13	13.63	0.00
35 Perylene-d12	15.61	15.11	16.11	15.61	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

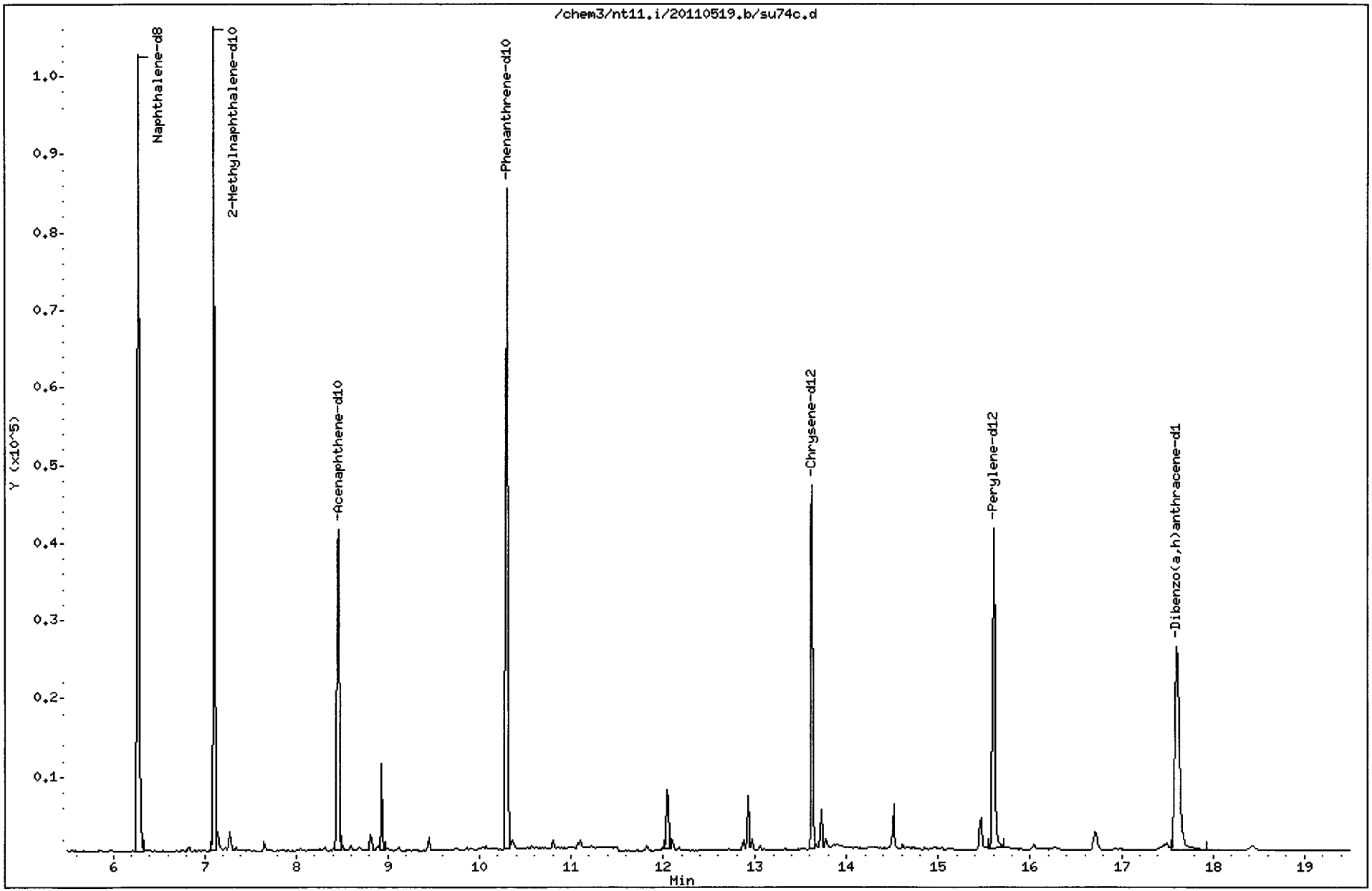
RECOVERY REPORT

Client Name: Floyd Snider
Client SDG: SU74
Sample Matrix: LIQUID
Fraction: SV
Lab Smp Id: SU74C
Client Smp ID: B311-042911
Level: LOW
Operator: VTS
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: waterlcs.spk
Quant Type: ISTD
Sublist File: pna1mn.sub
Method File: /chem3/nt11.i/20110519.b/lowsim.m
Misc Info: 11-9774

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 6 2-Methylnaphthalen	300	198	66.13	31-109
$ 36 Dibenzo(a,h)anthra	300	215	71.82	10-133

Data File: /chem3/nt11.i/20110519.b/su74c.d
Date : 19-MAY-2011 16:50
Client ID: B311-042911
Sample Info: SU74C
Volume Injected (uL): 2.0
Column phase: ZB-5msi

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25



CO-ELUTION SUMMARY FOR FILE - su74c.d

Lab ID: SU74C, Method: lowsim.m, Instrument: nt11.i, Date: 19-MAY-2011

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

PCP/Chlorophenols Raw Data
Extraction Bench Sheets and Notes

ARI Job ID: SU53, SU73, SU74

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8041 PCP – Water
Separatory Funnel (3510C) (SOP # 3311S)

Preparation Test PCP # 1

In-House (0.25ppb)

ARI Job No(s) 5u53

Batch set up by: JH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD Exchange To Hexane (X2)	Turbo Vap 1 2 3	Volume to Lab	Derivitize	Final Effective Volume	Comments
	5u53 MBW	Date 5-4-11	500mL	↓		10mL	2C µL 2mp ?	50mL	
	↓ SBW	↓	↓	↓		↓	2C µL [illegible] Hex	↓	
	~~SBWDup.~~		↓			↓		↓	
	5u53 QLS	↓	↓			↓		↓	
7	A	verified	↓						
5&7	B		↓						Homogenized
	Bms		475						
↓	Bmsd		↓						
11	C		500						1.5 [illegible] ml when rinsing syringe MH 5/14.
13	D		↓						
12	E								
~~9~~ 11	F	↓	↓	↓		↓	↓	↓	
							AR 5/6/2011		
Analyst/Date:	AC 5-4-11			RR 5/12/11		MHS 5/14/11	AR 5/6/2011	MHS 5/14/11	

AC 5-4-11

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	F 1791-3	100µL 12.5	12/09/11	AC	TH
Spike	6 1791-5	100µL 12.5/125	12/10/11	AC	TH
QLS Spike	16	50µL	12/10/11	AC	TH
Extraction Time: 17:35			Derivitized by: AR 5		Diazald ID: I

SPECIAL INSTRUCTIONS: 1. Add surr/spike. 2. Acidify all with 1:1 Sulfuric Acid 3. Extract 3X with 30mL DCM.

4. KD (NO Drying Column) at 80° to 5mL. 5. Exchange (2 X with 20mL) Hexane at 100°. 6. Turbo Vap.

7. Vial at 10mL into Herb tubes using Hexane. 8. GC Analyst to Derivitize.

6-5-42

A. Archive Y / N

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: SU53 Client ID: Floyd Surder

Parameter: PCP Client Project: Lora Lake Apts RI

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	
☐ No Anomalies (standard soil/sediment)	
☐ Wet sediment/sludge=	
☐ Standing Water Decanted=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay (Difficult to homogenize/Mixed with Kitchen Aid)=	
☐ Rocks/Organics=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☒ No Anomalies E,F	AC 5-4-11
☒ Turbid/Color= A,B,C,D are light-yellow	
☐ Particulates=	
☐ Emulsions=	
☐ Other (Details)=	
☐ Other Notes/Comments=	

3056F

Revision 007
02/25/10

SU53 : 00748

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Benchsheet

8041 PCP – Water
Separatory Funnel (3510C) (SOP # 3311S)

Preparation Test PCP # 1

In-House (0.25ppb)

ARI Job No(s) 5473, 5474

Batch set up by: JH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD Exchange To Hexane (X2)	Turbo Vap 1 2 3	Volume to Lab	Derivitize	Final Effective Volume	Comments
	5473 MBW	Date 5-5-11	500mL	↓		10mL		50mL	
	SBW	↓	↓	↓		↓		↓	
	~~SBWDup.~~		↓			↓		↓	
	5473 QLS	5-5-11	↓			↓		↓	
13	A	verified	5mL						
11,12,13	B								
	Bms								
	Bmsd								
12	5474 A								
11	B								
13	C			✓					
				YL					
Analyst/Date:		PD 5-5-11		5/13/11		MHS/11/4/11		MHS/11/4/11	

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	**F** 1791-3	**100**µL 12.5	12/19/11	NL	PD
Spike	**6** 1791-5	**100**µL 12.5 25	12/14/11	NL	PD
QLS Spike	**16**	**50**µL	12/14/11	NL	PD
Extraction Time: 15:36			**Derivitized by:**		**Diazald ID:**

SPECIAL INSTRUCTIONS: 1. Add surr/spike. 2. Acidify all with 1:1 Sulfuric Acid 3. Extract 3X with 30mL DCM.

4. KD (NO Drying Column) at 80° to 5mL. 5. Exchange (2 X with 20mL) Hexane at 100°. 6. Turbo Vap.

7. Vial at 10mL into Herb tubes using Hexane. 8. GC Analyst to Derivitize.

A. Archive Y /(N)

66 26

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: SU73 Client ID: Floyd Snider

Parameter: PCP Client Project: Loon Lake Apts RI

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	
☐ No Anomalies (standard soil/sediment)	
☐ Wet sediment/sludge=	
☐ Standing Water Decanted=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay (Difficult to homogenize/Mixed with Kitchen Aid)=	
☐ Rocks/Organics=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☑ Turbid/Color= A, B, are Light Tan not turbid.	PDS-5-11
☐ Particulates=	
☐ Emulsions=	
☐ Other (Details)=	
☐ Other Notes/Comments=	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: SU74 Client ID: Floyd Snider

Parameter: PCP Client Project: Lora Lake Parcel

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	
☐ **No Anomalies (standard soil/sediment)**	
☐ **Wet sediment/sludge=**	
☐ **Standing Water Decanted=**	
☐ **Standing Water Homogenized (Shared samples)=**	
☐ **Clay (Difficult to homogenize/Mixed with Kitchen Aid)=**	
☐ **Rocks/Organics=**	
☐ **Oily, obvious fuel/sulfur odors=**	
☐ **Other (Details)=**	
Aqueous:	
☑ **No Anomalies** A-C.	PD5-5-11
☐ **Turbid/Color=**	
☐ **Particulates=**	
☐ **Emulsions=**	
☐ **Other (Details)=**	
☐ **Other Notes/Comments=**	

PCP/Chlorophenols Raw Data
Initial Calibration

ARI Job ID: SU53, SU73, SU74

Analytical Resources, Incorporated
Analytical Chemists and Consultants

GC Analyst Notes / Corrective Action Log

ARI Project ID: Cl. Phenols Curve Client ID: ARI

ARI SOP: **403S**(PCB) **405S**(Herb) **407S**(TPH-D) **409S**(HCID) (**412S**(PCP)) **423S**(Pest)
427S(Dir Inj) **428S**(EPH) **432S**(EDB) **Other**

Parameter(s): _____

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 (ECD-1) ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/4/2011 Analysis Start: 5/4/2011

Endrin/DDT Breakdown <15%? YES / NO / (NA)		Method Blank In Control?	YES / NO
ICal Meets RF & %RSD Criteria?	YES / NO	LCS/LCSD Recovery In Control?	YES / NO
CCal Meets RF & %RSD Criteria?	YES / NO	Surrogate Recovery In Control?	YES / NO
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	YES / NO
Internal Standard Meets Criteria? YES / NO / (NA)		Special Analysis Criteria Met?	YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Col 2 Quadratic-forced: 2,4-DCP; 2,3,4-TCP & 2,3,4,5-TTCP

Col 1 Quadratic-forced: 2,4-DCP & 2,4,5-TCP

Additional Details on Reverse: Yes / (No)

Analyst: _____ **Date:** 5/6/2011

Reviewer: _____ **Date:** 5/6/11

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd1.i/PCP20110504.b/ical-2.b

ARI Job No.: PCPD Method: PCPB.m Instrument: ecd1.i Date: 04-MAY-2011

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1356	0504A009.d	PCPD		1	NO MANUAL INTEGRATION
1432	0504A010.d	PCPA		1	NO MANUAL INTEGRATION
1508	0504A011.d	PCPB		1	NO MANUAL INTEGRATION
1544	0504A012.d	PCPC		1	NO MANUAL INTEGRATION
1621	0504A013.d	PCPE		1	NO MANUAL INTEGRATION
1657	0504A014.d	PCPF		1	NO MANUAL INTEGRATION
1733	0504A015.d	PCP ICV		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecd1.i/PCP20110504.b/ical-1.b

ARI Job No.: PCPD Method: PCP.m Instrument: ecd1.i Date: 04-MAY-2011

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1356	0504A009.d	PCPD		1	NO MANUAL INTEGRATION
1432	0504A010.d	PCPA		1	2,3,4,5-Tetrachlorophenol,
1508	0504A011.d	PCPB		1	NO MANUAL INTEGRATION
1544	0504A012.d	PCPC		1	NO MANUAL INTEGRATION
1621	0504A013.d	PCPE		1	NO MANUAL INTEGRATION
1657	0504A014.d	PCPF		1	NO MANUAL INTEGRATION
1733	0504A015.d	PCP ICV		1	NO MANUAL INTEGRATION

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd1.i/PCP20110504.b/PCPB.m
Batch File: /chem2/ecd1.i/PCP20110504.b/ical-2.b
Inst ID: ecd1.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0504A009	0504A010	0504A011	0504A012	0504A013	0504A014	0504A015
INJ.DATE:	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011
INJ.TIME:	13:56	14:32	15:08	15:44	16:21	16:57	17:33

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	2,4-Dichlorophenol	13.820	13.824	13.821	13.821	13.821	13.820	13.822	13.820	13.750-13.890	13.821	0.001
2	2,4,6-Trichlorophenol	14.311	14.314	14.311	14.312	14.312	14.311	14.313	14.311	14.241-14.381	14.312	0.001
3	2,3,6-Trichlorophenol	15.557	15.560	15.557	15.558	15.558	15.559	15.560	15.557	15.487-15.627	15.558	0.001
4	2,4,5-Trichlorophenol	17.474	17.477	17.475	17.474	17.475	17.475	17.476	17.474	17.404-17.544	17.475	0.001
5	2,3,5,6-Tetrachlorophe	18.814	18.816	18.814	18.814	18.814	18.814	18.816	18.814	18.744-18.884	18.814	0.001
6	2,3,4-Trichlorophenol	19.023	19.025	19.024	19.023	19.023	19.023	19.024	19.023	18.953-19.093	19.024	0.001
$ 7	2,4,6-Tribromophenol (	20.936	20.937	20.936	20.936	20.937	20.937	20.938	20.936	20.866-21.006	20.937	0.001
8	2,3,4,5-Tetrachlorophe	22.080	22.082	22.081	22.080	22.081	22.081	22.081	22.080	22.010-22.150	22.081	0.001
9	Pentachlorophenol	22.967	22.968	22.967	22.967	22.967	22.968	22.968	22.967	22.897-23.037	22.968	0.001

Reviewer 1 AR Date: 5/6/2011
Reviewer 2 Date: 5/6/11

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd1.i/PCP20110504.b/PCP.m
Batch File: /chem2/ecd1.i/PCP20110504.b/ical-1.b
Inst ID: ecd1.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0504A009	0504A010	0504A011	0504A012	0504A013	0504A014	0504A015
INJ.DATE:	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011
INJ.TIME:	13:56	14:32	15:08	15:44	16:21	16:57	17:33

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	2,4-Dichlorophenol	12.555	12.560	12.557	12.556	12.556	12.556	12.557	12.555	12.485-12.625	12.557	0.002
2	2,4,6-Trichlorophenol	13.101	13.104	13.101	13.102	13.101	13.102	13.103	13.101	13.031-13.171	13.102	0.001
3	2,3,6-Trichlorophenol	14.097	14.100	14.097	14.097	14.097	14.097	14.099	14.097	14.027-14.167	14.098	0.001
4	2,4,5-Trichlorophenol	15.845	15.849	15.845	15.846	15.845	15.846	15.847	15.845	15.775-15.915	15.846	0.001
5	2,3,4-Trichlorophenol	17.351	17.355	17.352	17.352	17.352	17.351	17.354	17.351	17.281-17.421	17.353	0.001
6	2,3,5,6-Tetrachlorophe	17.153	17.155	17.153	17.153	17.153	17.154	17.155	17.153	17.083-17.223	17.154	0.001
$ 7	2,4,6-Tribromophenol (	18.596	18.598	18.596	18.596	18.596	18.596	18.598	18.596	18.526-18.666	18.597	0.001
8	2,3,4,5-Tetrachlorophe	20.155	20.157	20.156	20.155	20.155	20.155	20.157	20.155	20.085-20.225	20.156	0.001
9	Pentachlorophenol	20.997	21.000	20.998	20.998	20.998	20.999	20.999	20.997	20.927-21.067	20.998	0.001

Reviewer 1 _____ Date: 5/6/2011
Reviewer 2 _____ Date: 5/6/11

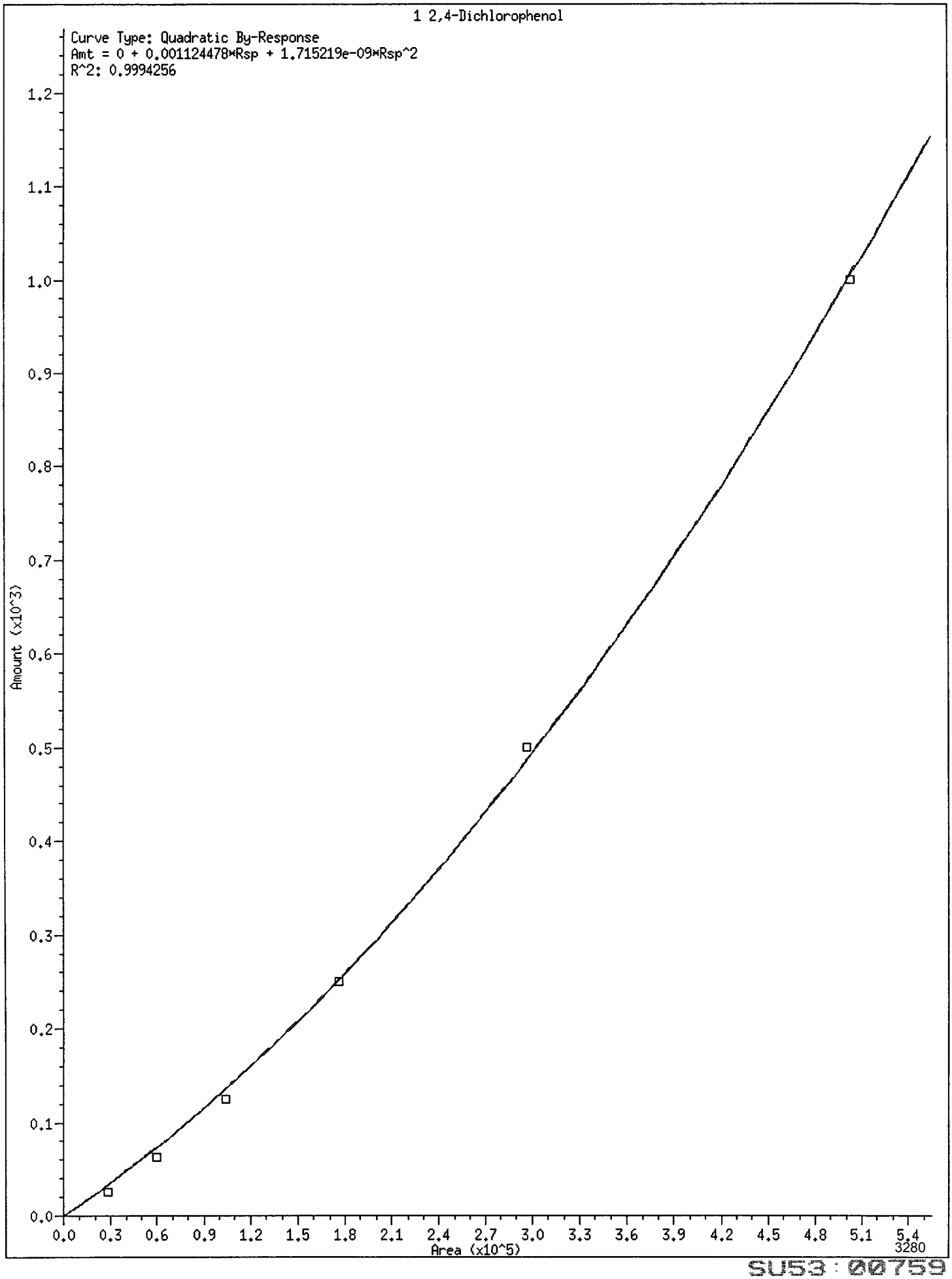
Analytical Resources, Inc.

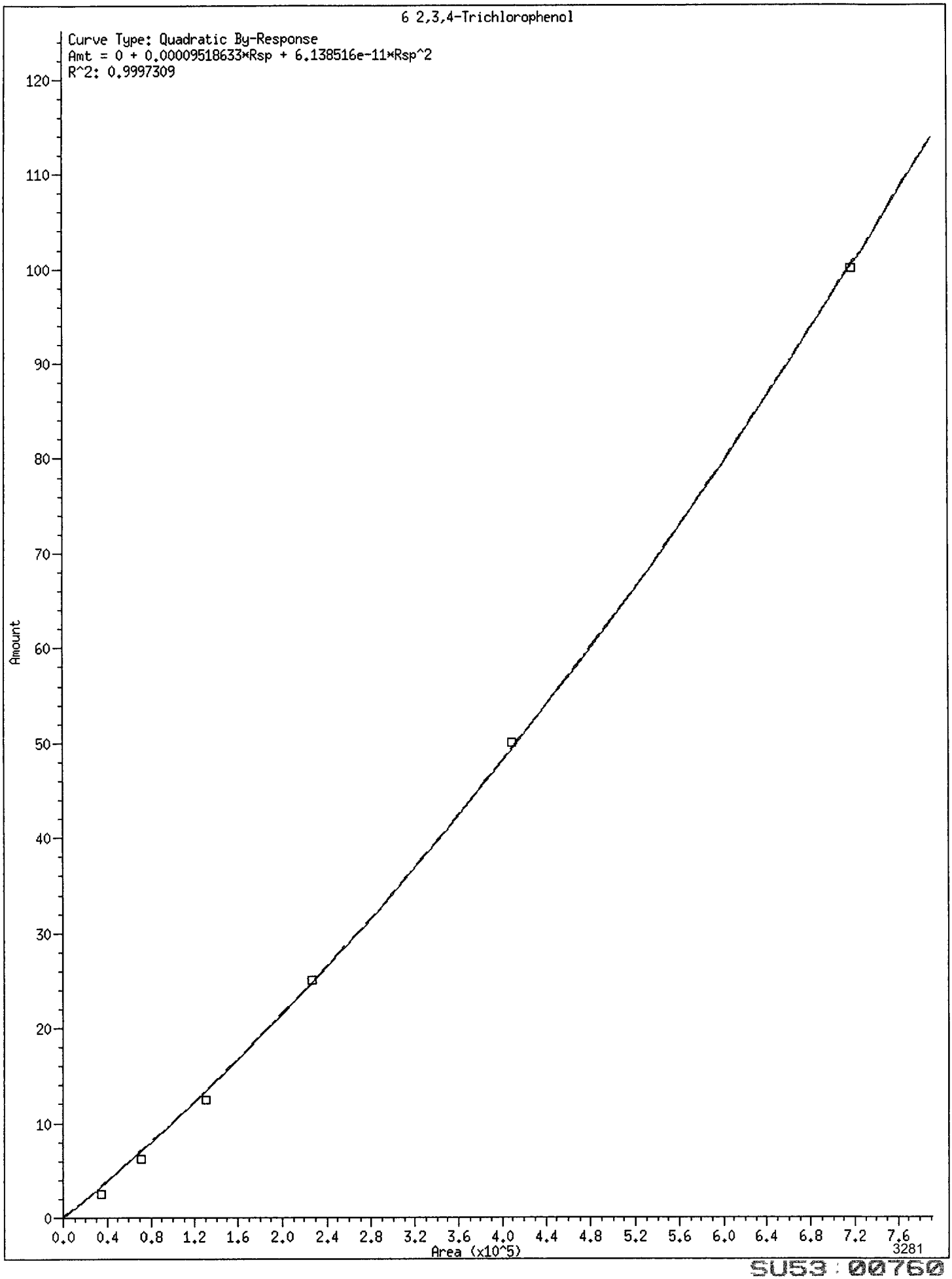
INITIAL CALIBRATION DATA

Start Cal Date : 04-MAY-2011 13:56
End Cal Date : 04-MAY-2011 16:57
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/PCP20110504.b/PCPB.m
Cal Date : 06-May-2011 10:29 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A010.d
Level 2: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A011.d
Level 3: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A012.d
Level 4: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A009.d
Level 5: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A013.d
Level 6: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A014.d

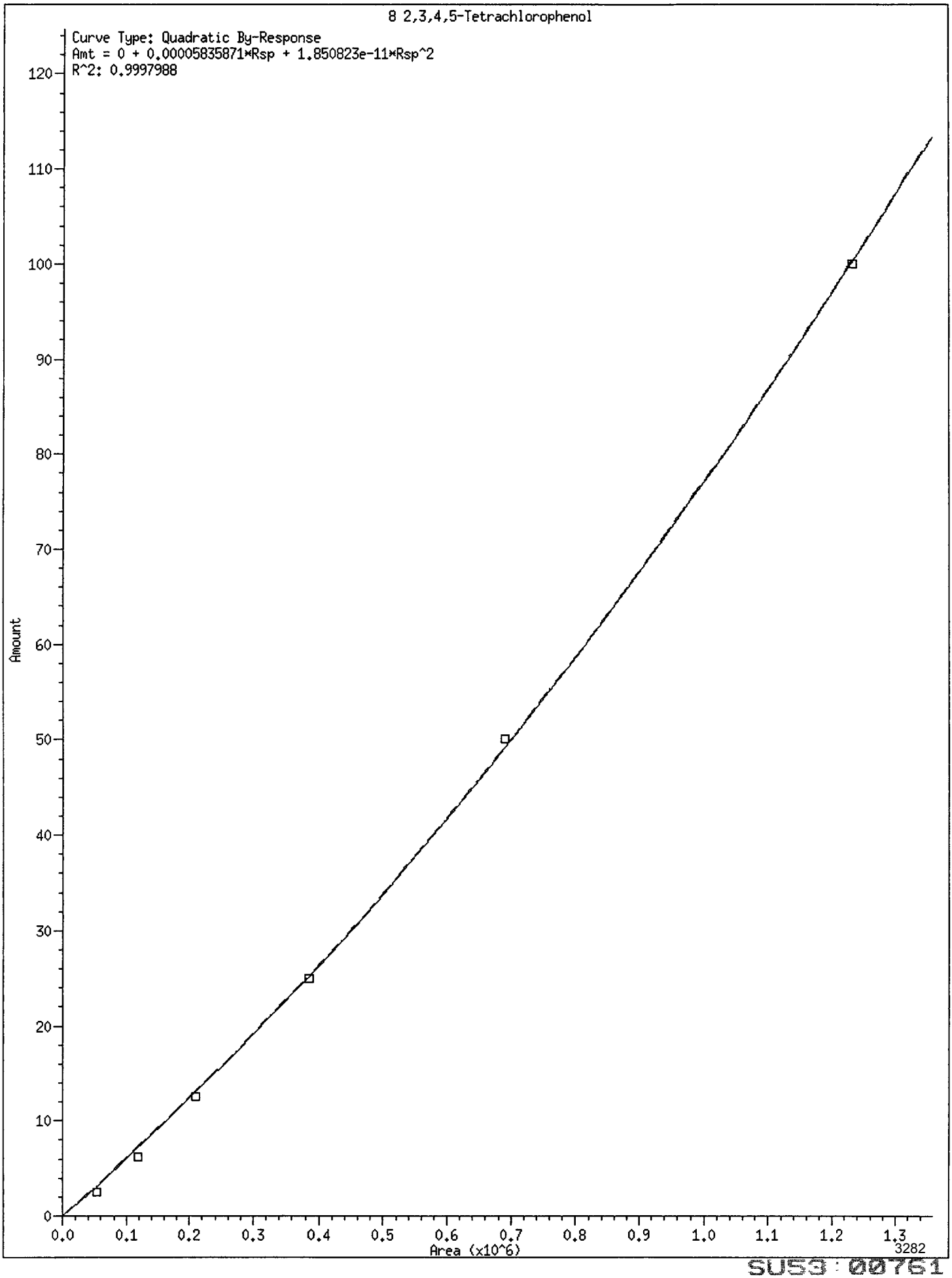
	Compound	2.500 Level 1	6.250 Level 2	12.500 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	1 2,4-Dichlorophenol	1124	962	835	702	594	505	787	29.552	<-
	2 2,4,6-Trichlorophenol	18173	16199	15364	13872	12302	11052	14494	18.054	
	3 2,3,6-Trichlorophenol	17538	16304	15194	13812	12444	10949	14373	17.093	
	4 2,4,5-Trichlorophenol	10375	9203	8375	7827	6888	5906	8096	19.784	
	5 2,3,5,6-Tetrachlorophenol	28198	24060	22545	20410	19063	17352	21938	17.734	
	6 2,3,4-Trichlorophenol	13793	11382	10368	9080	8182	7194	10000	23.857	<-
	8 2,3,4,5-Tetrachlorophenol	21700	18848	16677	15352	13827	12342	16458	20.753	<-
	9 Pentachlorophenol	35686	31408	28958	26156	24465	22293	28161	17.390	
$	7 2,4,6-Tribromophenol (surr)	26776	22121	21311	19850	18746	17341	21024	15.703	


1 2,4-Dichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.001124478*Rsp + 1.715219e-09*Rsp^2
R^2: 0.9994256
Amount (x10^3)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4
Area (x10^5)
3280



3281

SU53 : 00760


8 2,3,4,5-Tetrachlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.00005835871*Rsp + 1.850823e-11*Rsp^2
R^2: 0.9997988
Amount
Area (x10^6)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAY-2011 13:56
End Cal Date : 04-MAY-2011 16:57
Quant Method : ESTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/PCP20110504.b/PCPB.m
Cal Date : 06-May-2011 10:29 aron

Calibration File Names:
Level 1: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A010.d
Level 2: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A011.d
Level 3: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A012.d
Level 4: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A009.d
Level 5: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A013.d
Level 6: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A014.d

	Compound	2 Level 1	6 Level 2	12 Level 3	25 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
1	2,4-Dichlorophenol	28101	60102	104374	175491	297223	504644	QUAD	0.000e+00	0.00112	1.715e-09	0.99943
2	2,4,6-Trichlorophenol	18173	16199	15364	13872	12302	11052	AVRG		14494		18.05411
3	2,3,6-Trichlorophenol	17538	16304	15194	13812	12444	10949	AVRG		14373		17.09291
4	2,4,5-Trichlorophenol	10375	9203	8375	7827	6888	5906	AVRG		8096		19.78419
5	2,3,5,6-Tetrachlorophenol	28198	24060	22545	20410	19063	17352	AVRG		21938		17.73407
6	2,3,4-Trichlorophenol	34482	71137	129601	227012	409120	719354	QUAD	0.000e+00	0.00010	6.139e-11	0.99973
8	2,3,4,5-Tetrachlorophenol	54250	117798	208459	383811	691341	1234197	QUAD	0.000e+00	0.00006	1.851e-11	0.99980
9	Pentachlorophenol	35686	31408	28958	26156	24465	22293	AVRG		28161		17.38988
7	2,4,6-Tribromophenol (surr)	26776	22121	21311	19850	18746	17341	AVRG		21024		15.70277

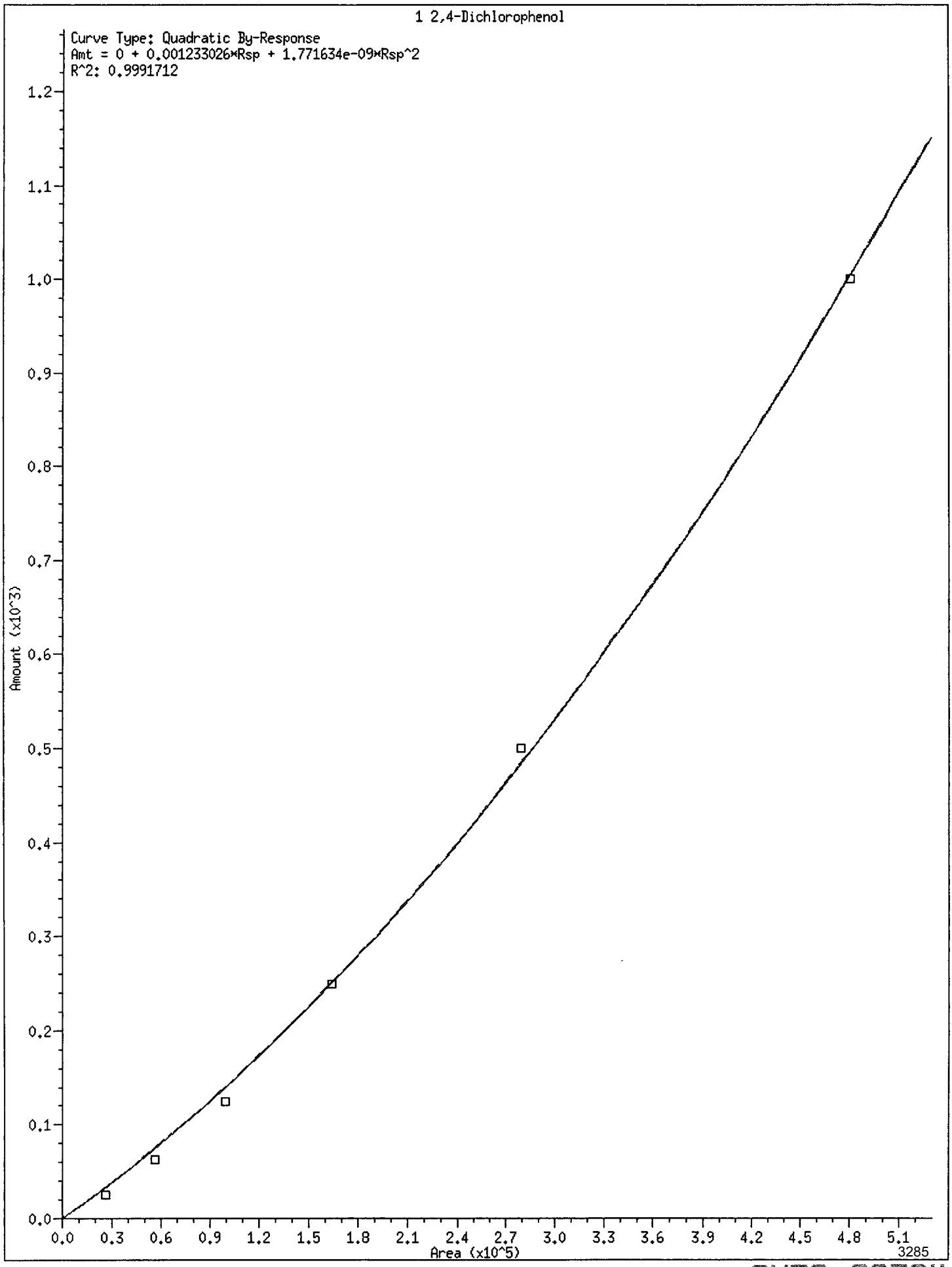
Analytical Resources, Inc.

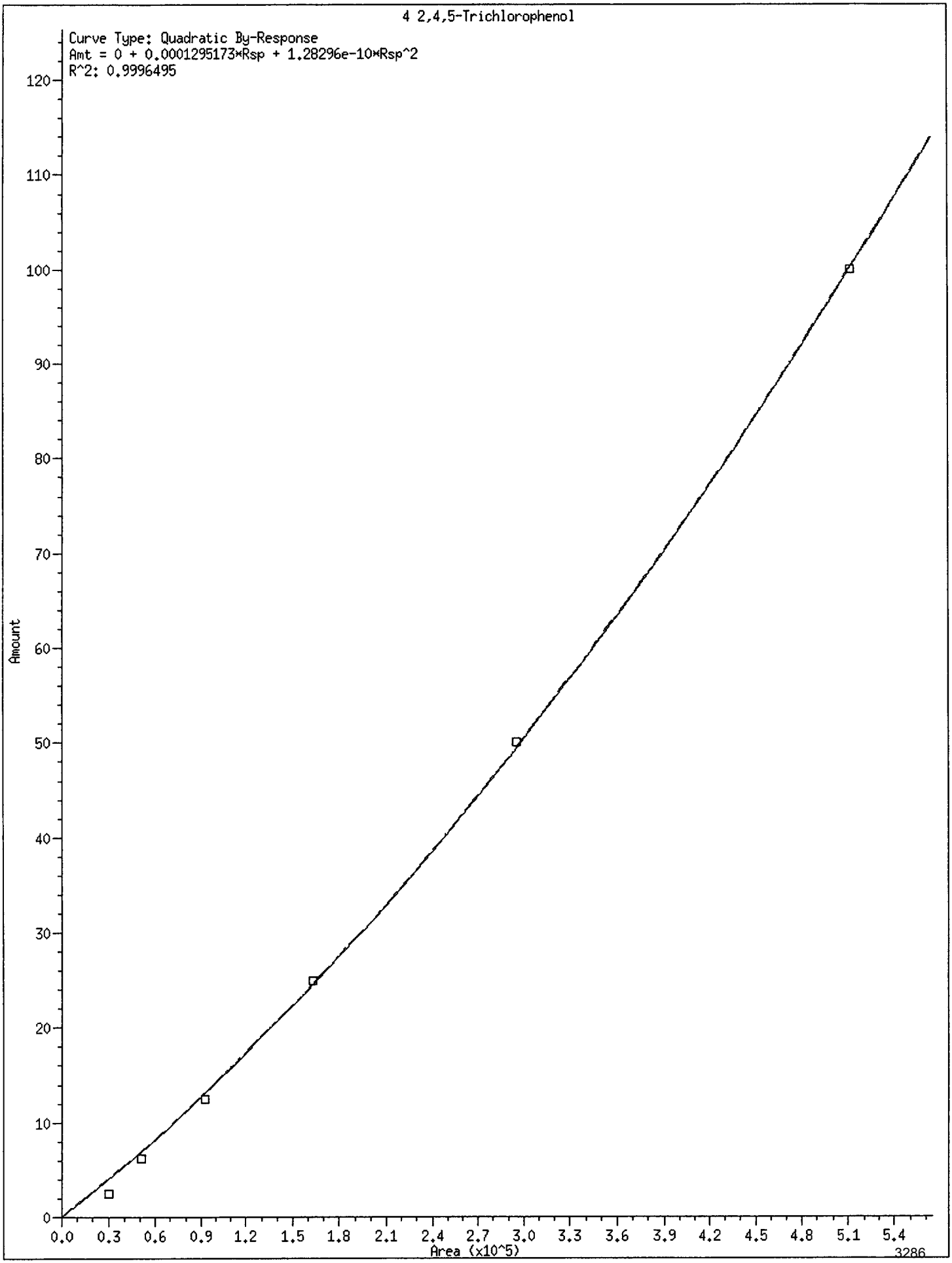
INITIAL CALIBRATION DATA

Start Cal Date : 04-MAY-2011 13:56
End Cal Date : 04-MAY-2011 16:57
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/PCP20110504.b/PCP.m
Cal Date : 06-May-2011 10:50 aron
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A010.d
Level 2: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A011.d
Level 3: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A012.d
Level 4: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A009.d
Level 5: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A013.d
Level 6: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A014.d

Compound	2.500 Level 1	6.250 Level 2	12.500 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
1 2,4-Dichlorophenol	1040	896	796	655	559	482	738	28.677	<-
2 2,4,6-Trichlorophenol	15281	13835	12795	11181	10412	9532	12173	17.948	
3 2,3,6-Trichlorophenol	14259	12818	11863	10765	9925	9085	11453	16.712	
4 2,4,5-Trichlorophenol	12140	8082	7421	6534	5905	5130	7535	33.025	<-
5 2,3,4-Trichlorophenol	10565	9519	8778	7811	7138	6322	8355	18.794	
6 2,3,5,6-Tetrachlorophenol	20194	18565	17499	16125	15182	13876	16907	13.661	
8 2,3,4,5-Tetrachlorophenol	16824	14772	13475	11938	10977	9904	12982	19.728	
9 Pentachlorophenol	24557	22356	20781	19124	17785	16292	20149	15.089	
$ 7 2,4,6-Tribromophenol (surr)	18340	16896	15885	15230	14566	13549	15744	10.839	


1 2,4-Dichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.001233026*Rsp + 1.771634e-09*Rsp^2
R^2: 0.9991712
Amount (x10^3)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1
Area (x10^5)
3285


4 2,4,5-Trichlorophenol
Curve Type: Quadratic By-Response
Amt = 0 + 0.0001295173*Rsp + 1.28296e-10*Rsp^2
R^2: 0.9996495
Amount
Area (x10^5)
0
10
20
30
40
50
60
70
80
90
100
110
120
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
3286

SU53 : 00765

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAY-2011 13:56
End Cal Date : 04-MAY-2011 16:57
Quant Method : ESTD
Origin : Force
Target Version : 3.50
Integrator : HP Genie
Method file : /chem2/ecd1.i/PCP20110504.b/PCP.m
Cal Date : 06-May-2011 10:50 aron

Calibration File Names:
Level 1: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A010.d
Level 2: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A011.d
Level 3: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A012.d
Level 4: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A009.d
Level 5: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A013.d
Level 6: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A014.d

	Compound	2 Level 1	6 Level 2	12 Level 3	25 Level 4	50 Level 5	100 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
1	2,4-Dichlorophenol	25994	56009	99540	163817	279617	481637	QUAD	0.000e+00	0.00123	1.772e-09	0.99917
2	2,4,6-Trichlorophenol	15281	13835	12795	11181	10412	9532	AVRG		12173		17.94765
3	2,3,6-Trichlorophenol	14259	12818	11863	10765	9925	9085	AVRG		11453		16.71151
4	2,4,5-Trichlorophenol	30350	50514	92760	163352	295231	512989	QUAD	0.000e+00	0.00013	1.283e-10	0.99965
5	2,3,4-Trichlorophenol	10565	9519	8778	7811	7138	6322	AVRG		8355		18.79441
6	2,3,5,6-Tetrachlorophenol	20194	18565	17499	16125	15182	13876	AVRG		16907		13.66148
8	2,3,4,5-Tetrachlorophenol	16824	14772	13475	11938	10977	9904	AVRG		12982		19.72816
9	Pentachlorophenol	24557	22356	20781	19124	17785	16292	AVRG		20149		15.08931
7	2,4,6-Tribromophenol (surr)	18340	16896	15885	15230	14566	13549	AVRG		15744		10.83879

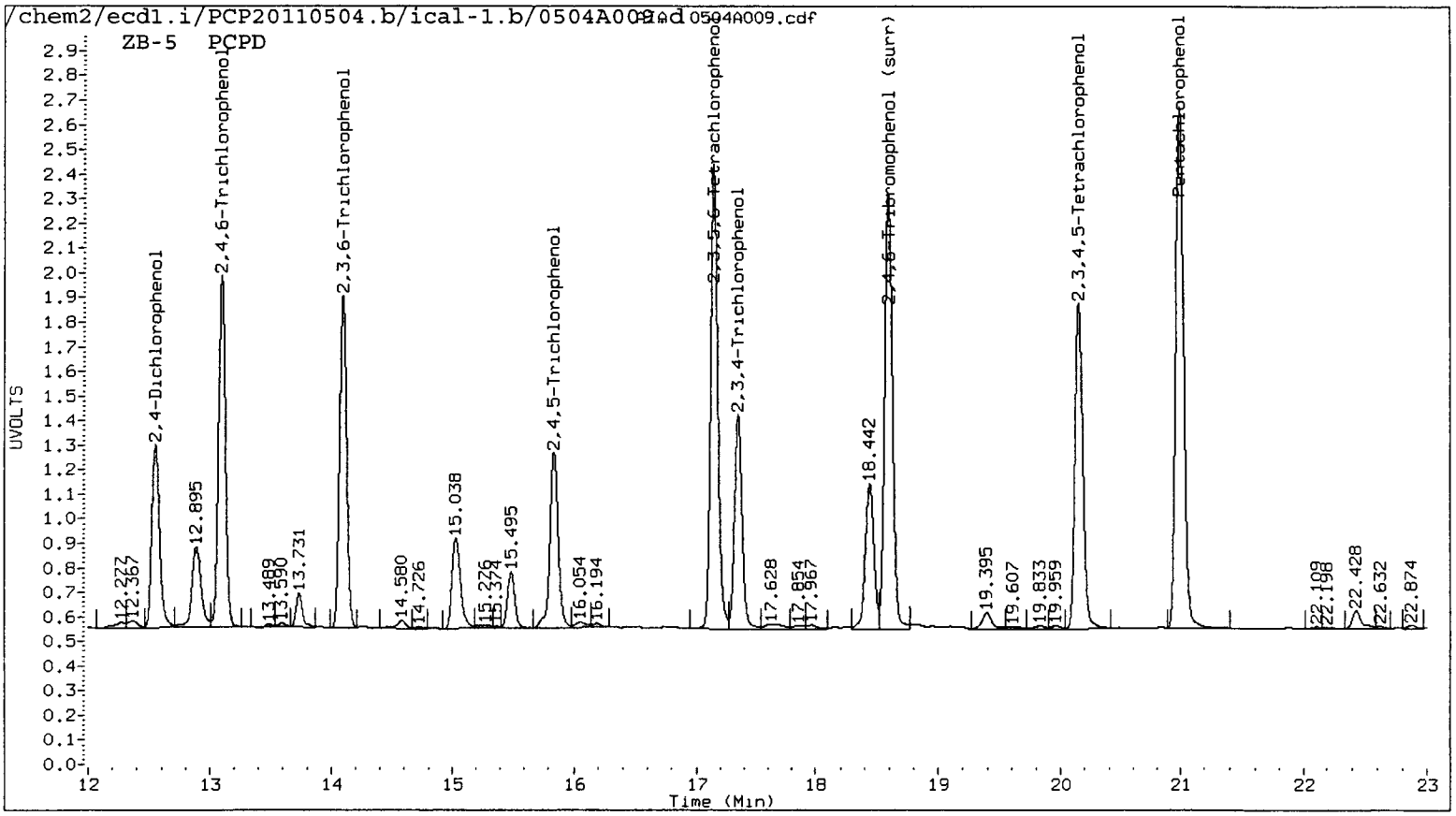
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A009.d ARI ID: PCPD
Data file 2: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A009.d Client ID:
Method: /chem2/ecd1.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 13:56
Compound Sublist: all Report Date: 05/06/2011 10:51
Instrument: ecd1.i Matrix: WATER
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
20.997	0.000	478095	22.967	0.000	653905	23.7278	23.2203	2.2	Pentachlorophenol
13.101	0.000	279531	14.311	0.000	346808	22.9636	23.9281	4.1	2,4,6-Trichlorophenol
14.097	0.000	269131	15.557	0.000	345288	23.4995	24.0227	2.2	2,3,6-Trichlorophenol
15.845	0.000	163352	17.474	0.000	195681	24.5803	24.1710	1.7	2,4,5-Trichlorophenol
17.351	0.000	195271	19.023	0.000	227012	23.3708	24.7719	5.8	2,3,4-Trichlorophenol
17.153	0.000	403117	18.814	0.000	510260	23.8436	23.2592	2.5	2,3,5,6-Tetrachlorophenol
20.155	0.000	298448	22.080	0.000	383811	22.9898	25.1252	8.9	2,3,4,5-Tetrachlorophenol
12.555	0.000	163817	13.820	0.000	175491	249.5342	250.1594	0.3	2,4-Dichlorophenol
18.596	0.000	380744	20.936	0.000	496261	24.2	23.6	2.4	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	96.7	94.4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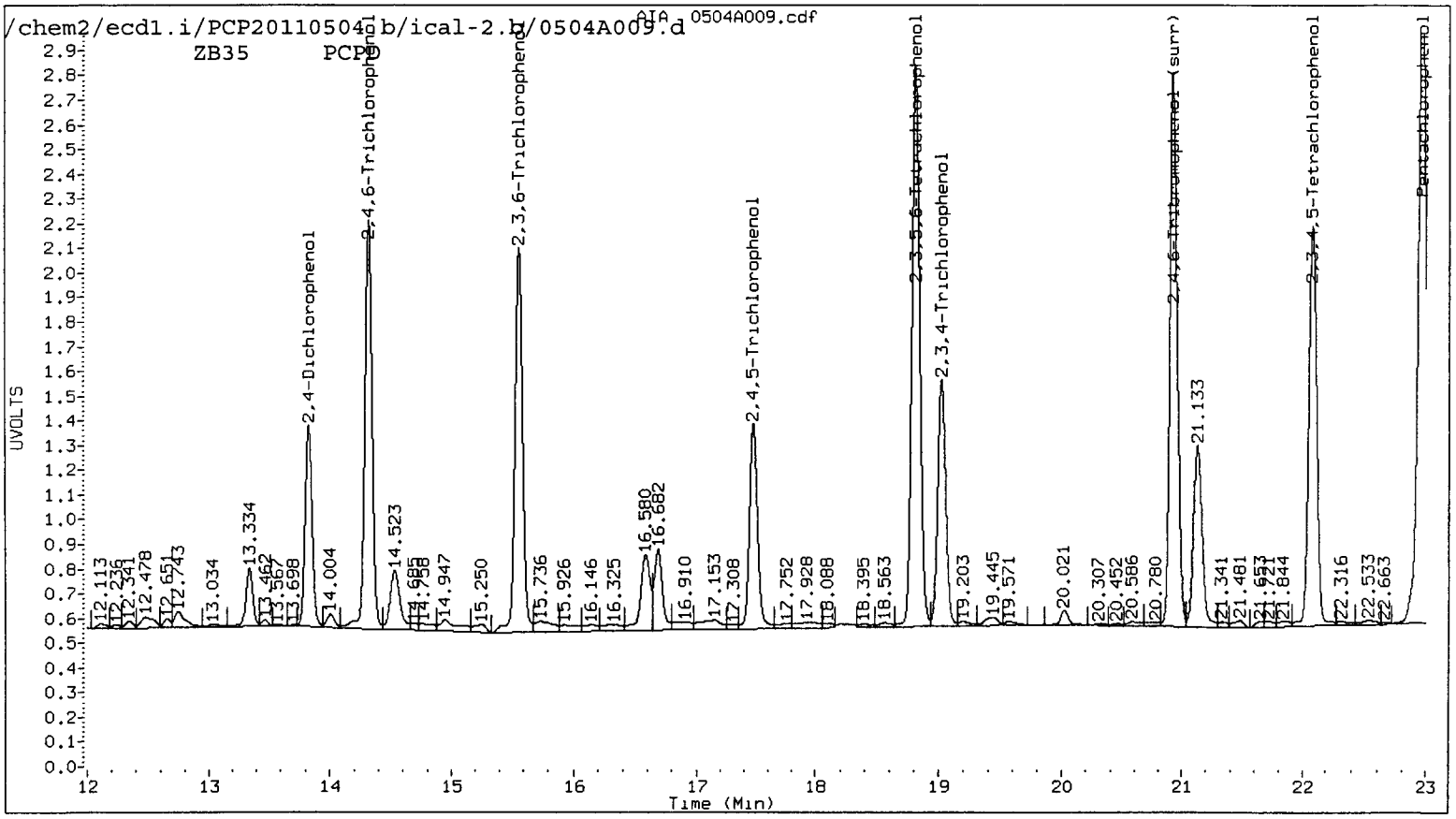
ZB-5 PCPD
UVOLTS
Time (Min)
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
2,4,5-Trichlorophenol
2,3,5,6-Tetrachlorophenol
2,3,4-Trichlorophenol
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
12.895
13.731
15.038
15.495
18.442
22.428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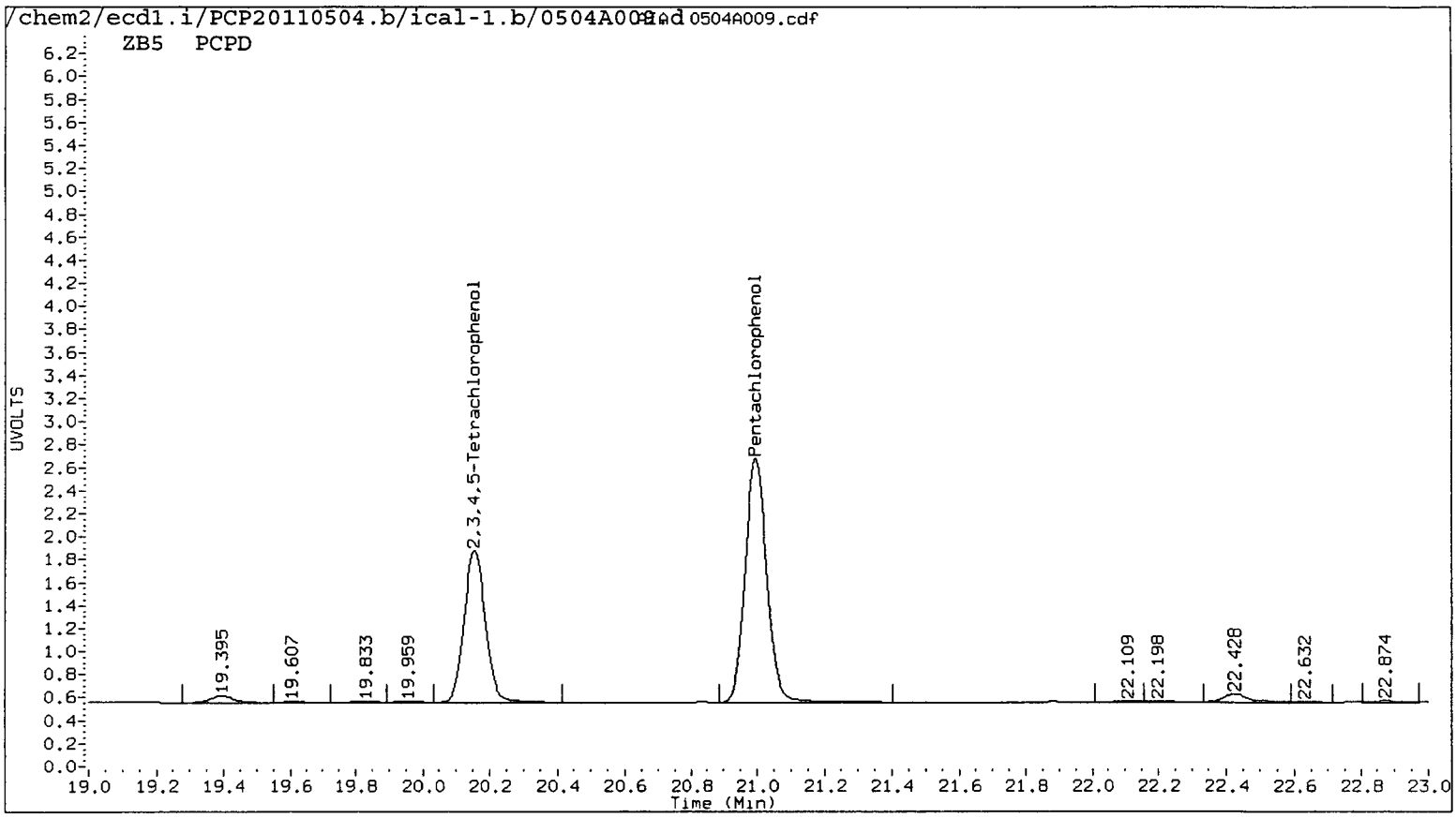
0504A009.cdf
ZB35 PCPD
UVOLTS
Time (Min)
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
2,4,5-Trichlorophenol
2,3,5,6-Tetrachlorophenol
2,3,4-Trichlorophenol
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
13.334
14.004
14.523
15.736
16.580
16.882
21.133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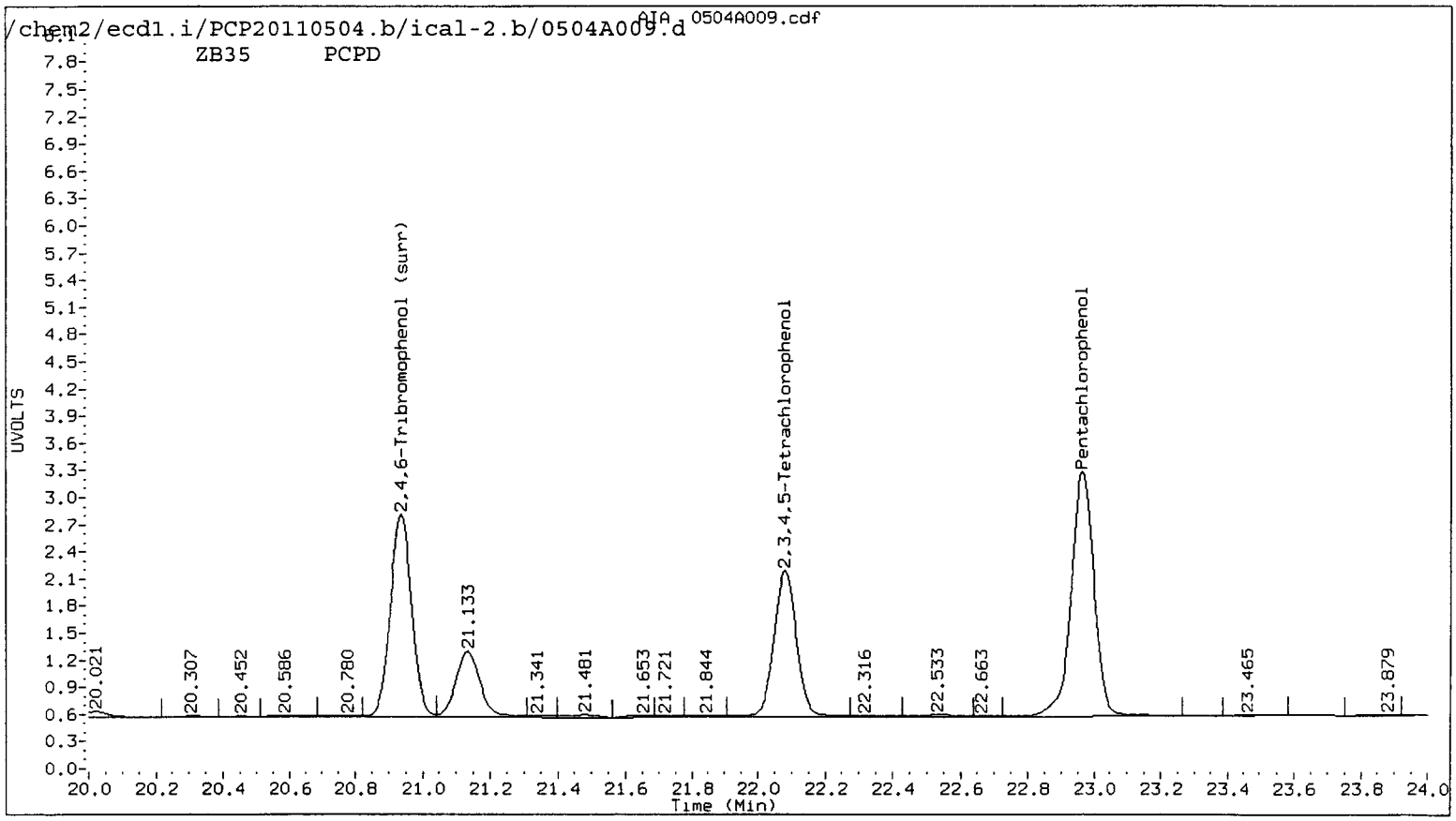
0504A009.cdf
ZB5 PCPD
UVOLTS
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
19.395
19.607
19.833
19.959
22.109
22.198
22.428
22.632
22.874
Time (Min)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0504A009.cdf
ZB35 PCPD
UVOLTS
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
20.021
20.307
20.452
20.586
20.780
21.133
21.341
21.481
21.653
21.721
21.844
22.316
22.533
22.663
23.465
23.879
Time (Min)

Data File: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A009.d

Page 1

Date : 04-MAY-2011 13:56

Client ID:

Instrument: ecd1.i

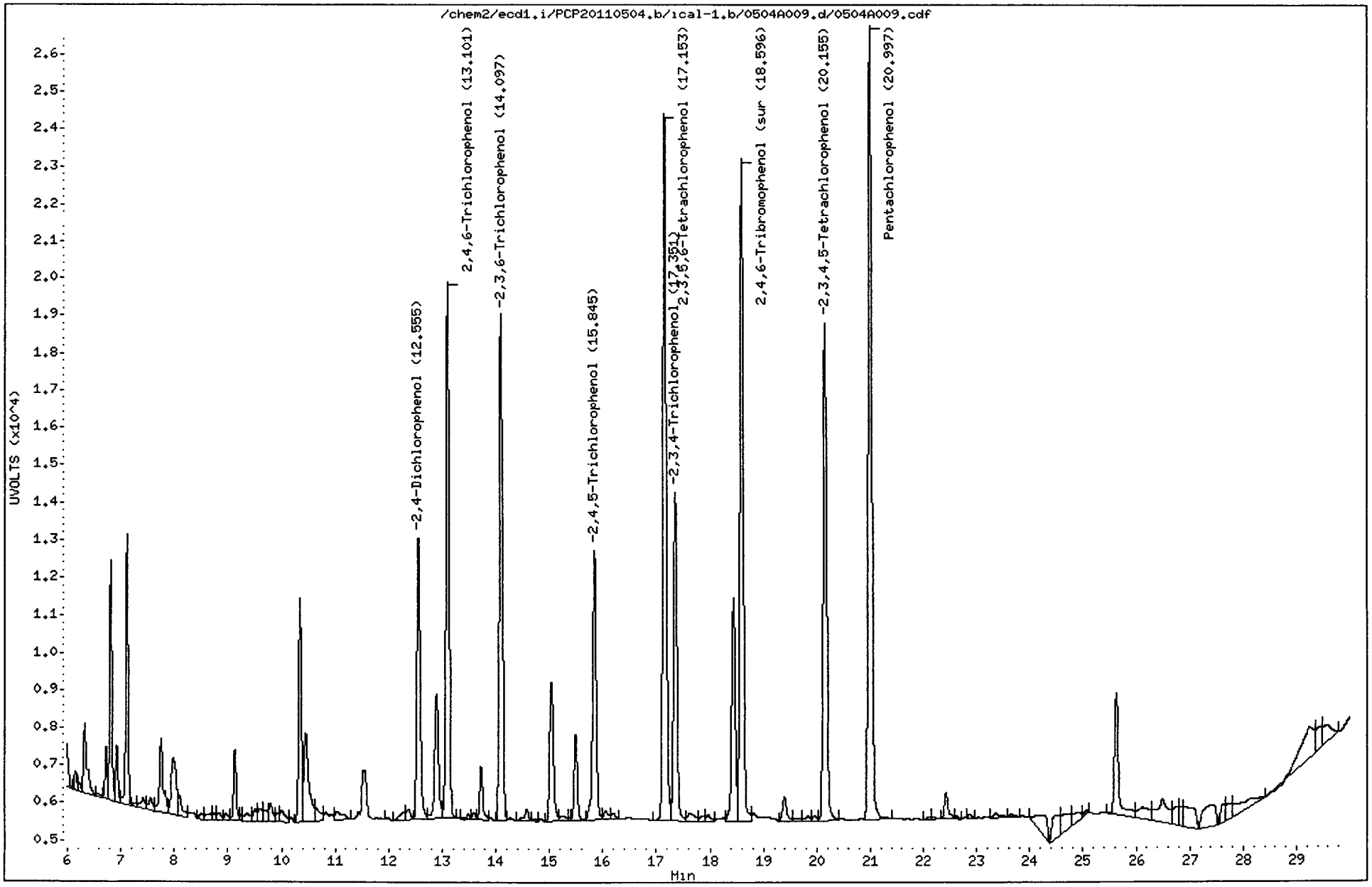
Sample Info: PCPD

Purge Volume: 500.0

Operator: ar

Column phase: STX CLP1

Column diameter: 0.53



SUS3 : 00776

3291

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Date : 04-MAY-2011 13:56

Client ID:

Instrument: ecd1.i

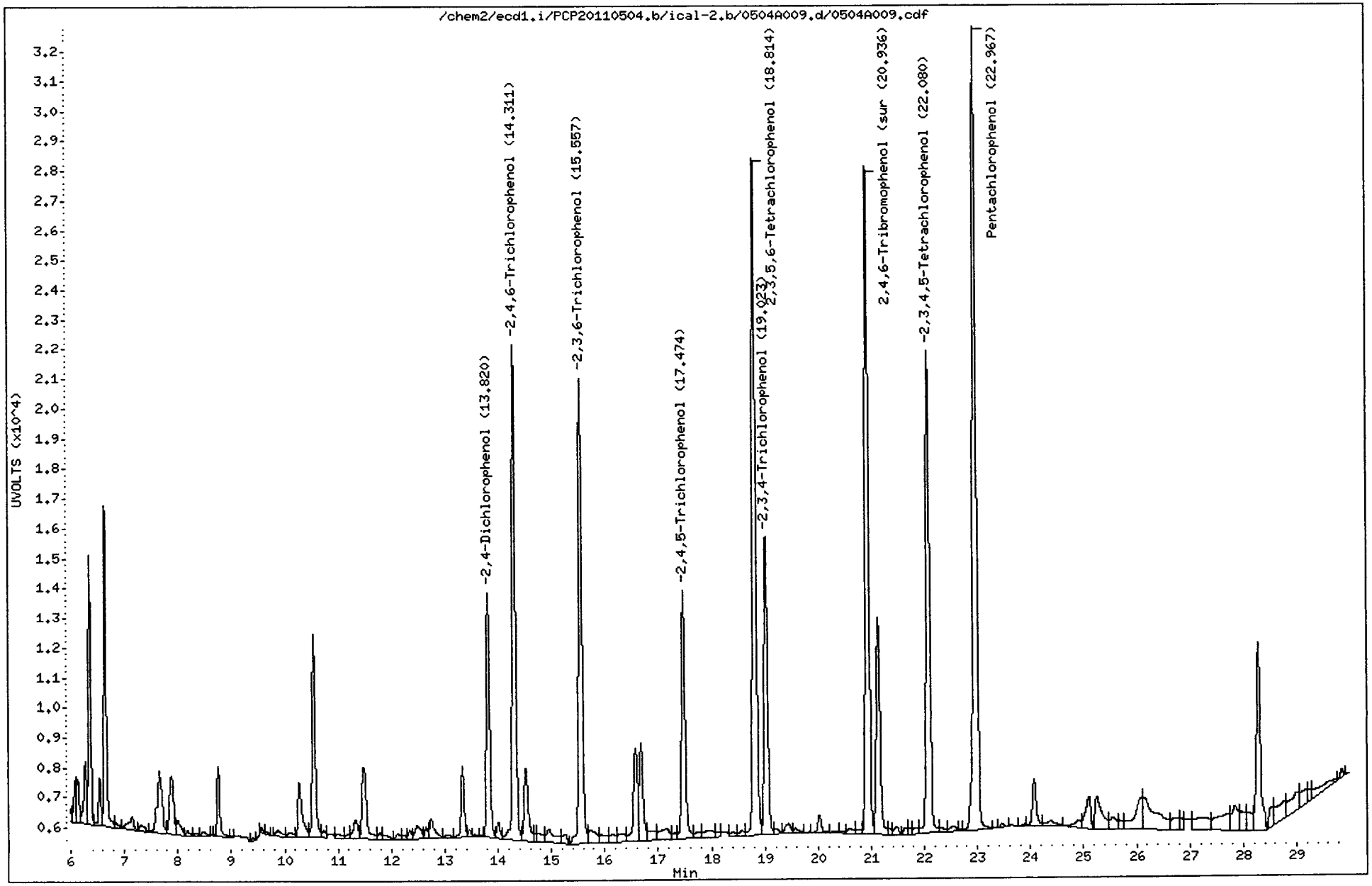
Sample Info: PCPD

Purge Volume: 500.0

Operator: ar

Column phase: STX CLP2

Column diameter: 0.53



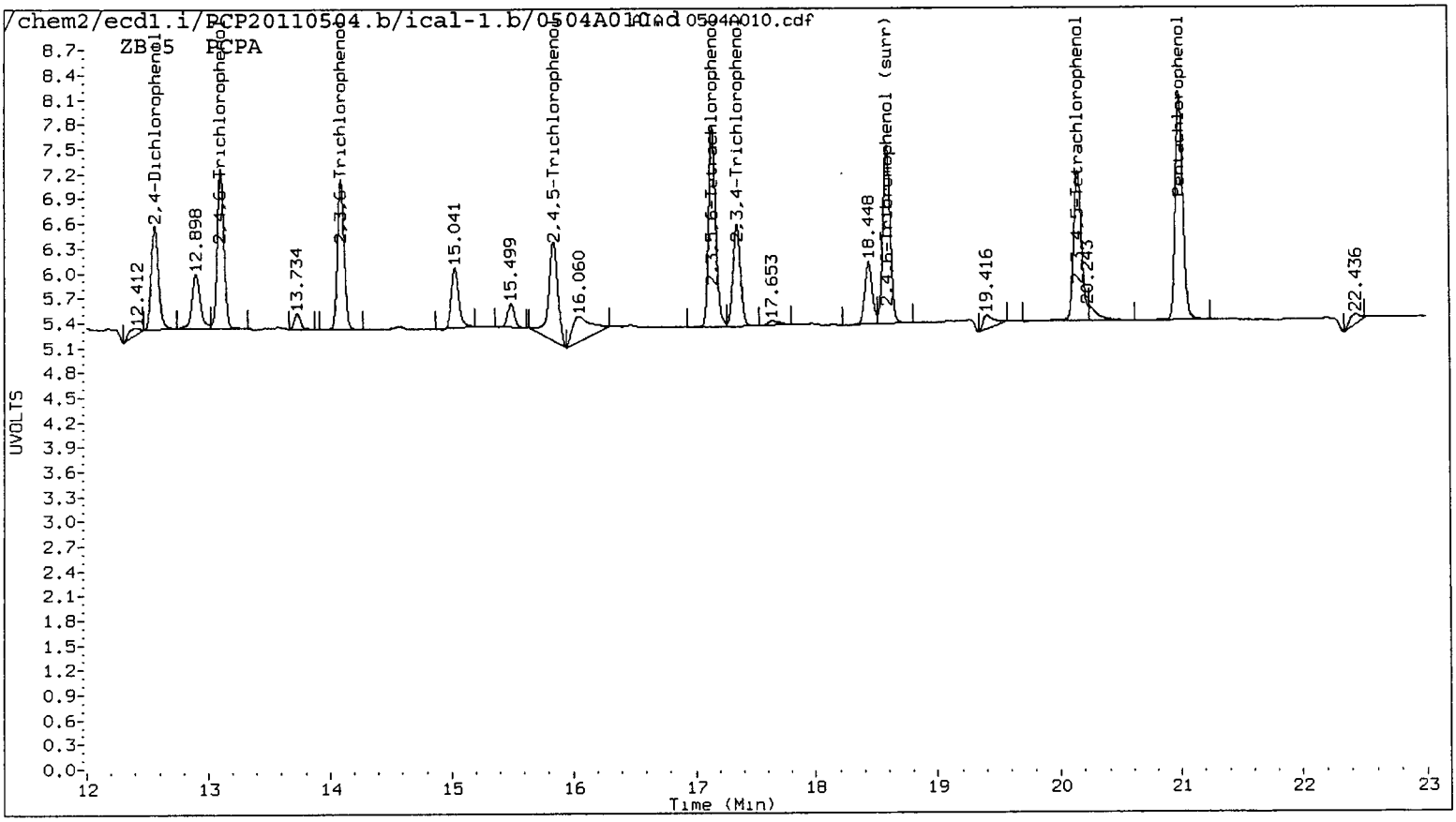
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A010.d ARI ID: PCPA
Data file 2: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A010.d Client ID:
Method: /chem2/ecd1.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 14:32
Compound Sublist: all Report Date: 05/06/2011 10:51
Instrument: ecd1.i Matrix: WATER
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
21.000	0.002	61392	22.968	0.001	89214	3.0469	3.1680	3.9	Pentachlorophenol
13.104	0.003	38202	14.314	0.003	45432	3.1383	3.1346	0.1	2,4,6-Trichlorophenol
14.100	0.003	35647	15.560	0.003	43844	3.1126	3.0504	2.0	2,3,6-Trichlorophenol
15.849	0.004	30350	17.477	0.003	25938	4.0490	3.2039	23.3	2,4,5-Trichlorophenol
17.355	0.004	26413	19.025	0.002	34482	3.1612	3.3552	6.0	2,3,4-Trichlorophenol
17.155	0.003	50484	18.816	0.002	70494	2.9860	3.2133	7.3	2,3,5,6-Tetrachlorophenol
20.157	0.002	42060	22.082	0.002	54250	3.2399	3.2204	0.6	2,3,4,5-Tetrachlorophenol
12.560	0.005	25994	13.824	0.004	28101	33.2484	32.9534	0.9	2,4-Dichlorophenol
18.598	0.002	45851	20.937	0.001	66939	2.9	3.2	8.9	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	11.6	12.7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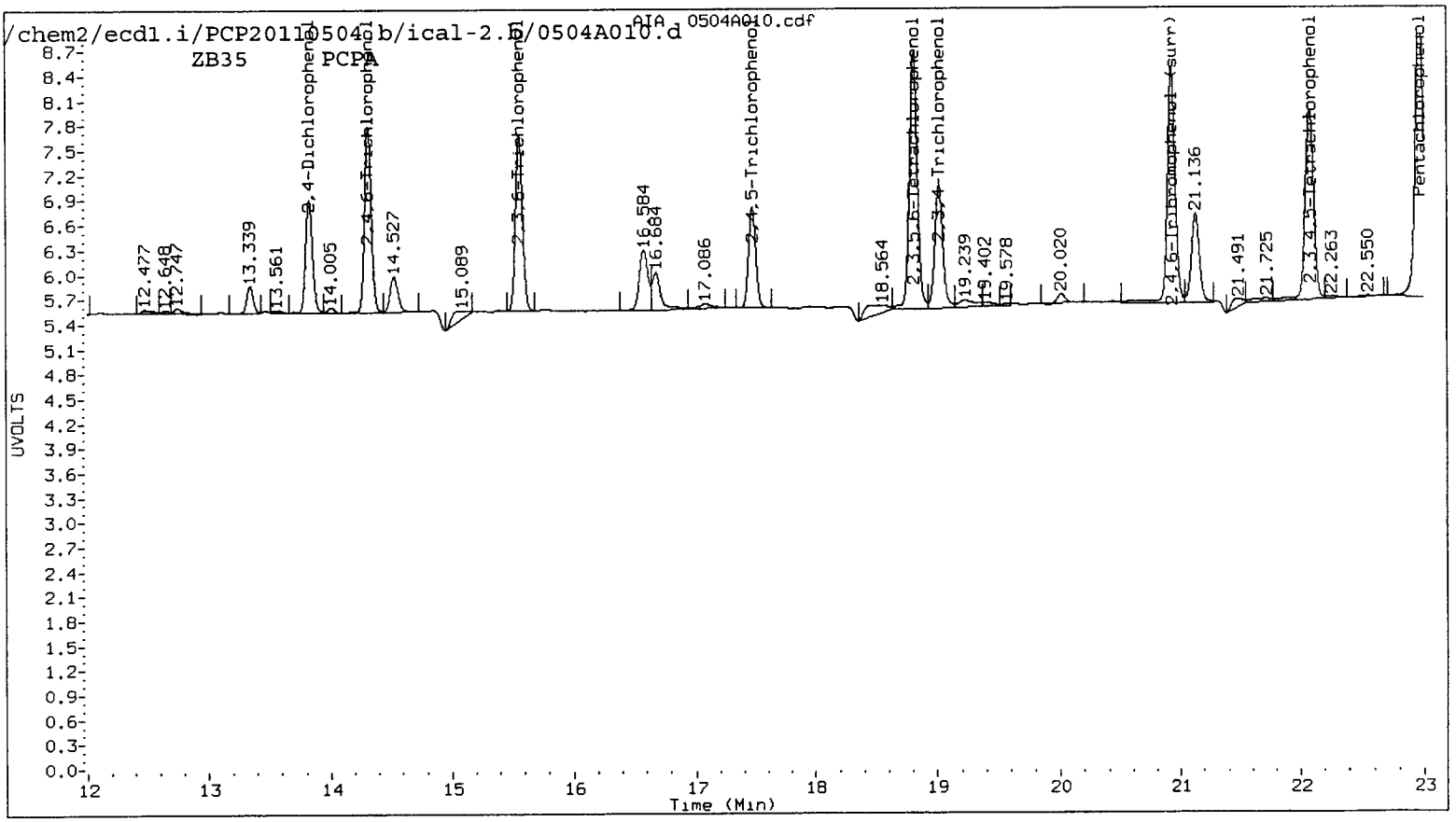
AIA 0504A010.cdf
ZB35 PCPA
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
2,4,5-Trichlorophenol
2,3,5,6-Tetrachlorophenol
2,3,4-Trichlorophenol
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
12.412
12.898
13.734
15.041
15.499
16.060
17.653
18.448
19.416
20.243
22.436
UVOLTS
Time (Min)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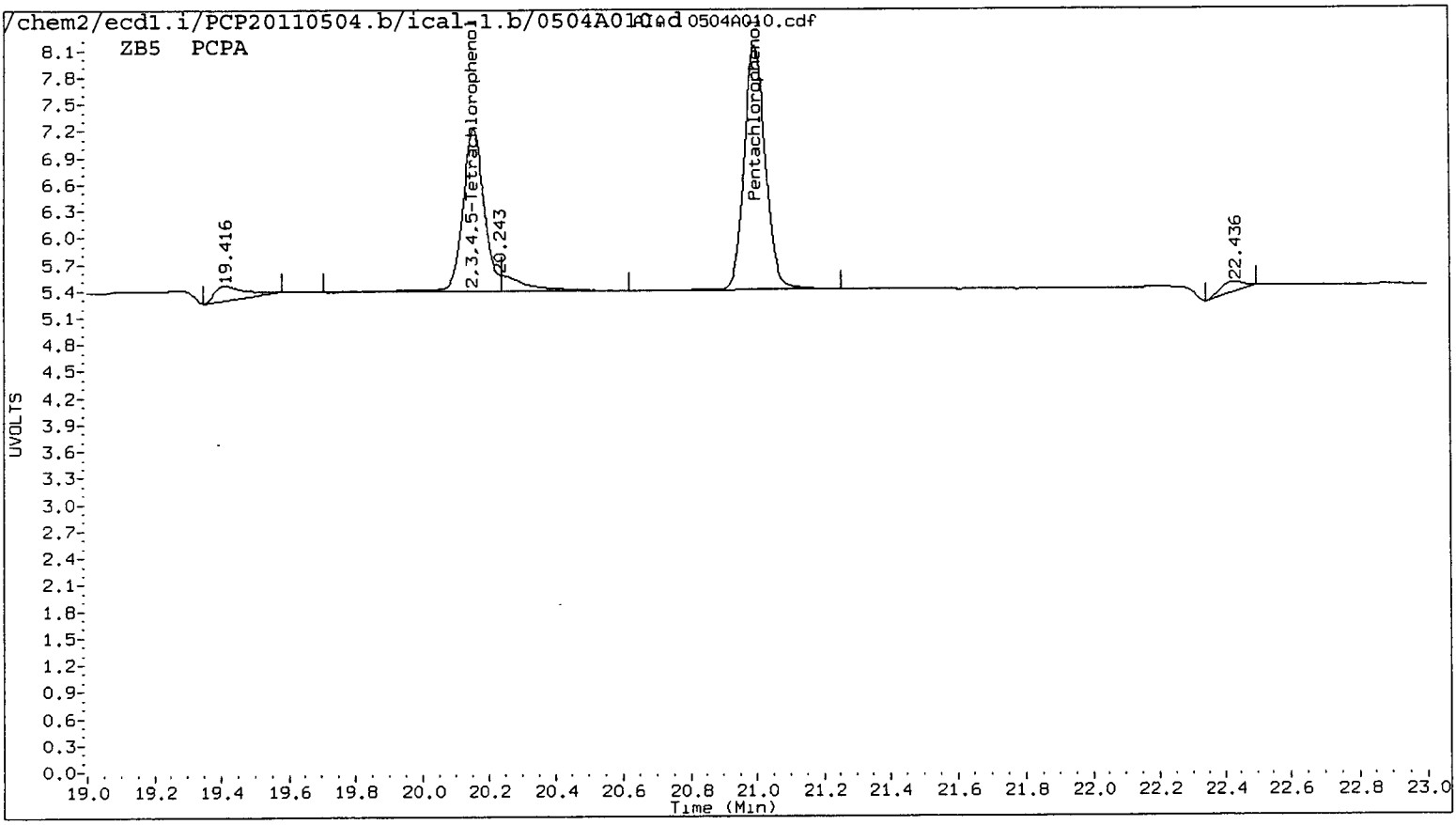
AIA 0504A010.cdf
ZB35 PCPA
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
2,4,5-Trichlorophenol
2,3,5,6-Tetrachlorophenol
2,3,4-Trichlorophenol
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
12.477
12.648
12.947
13.339
13.561
14.005
14.527
15.089
16.584
16.684
17.086
18.564
19.239
19.402
19.578
20.020
21.136
21.491
21.725
22.263
22.550
UVOLTS
Time (Min)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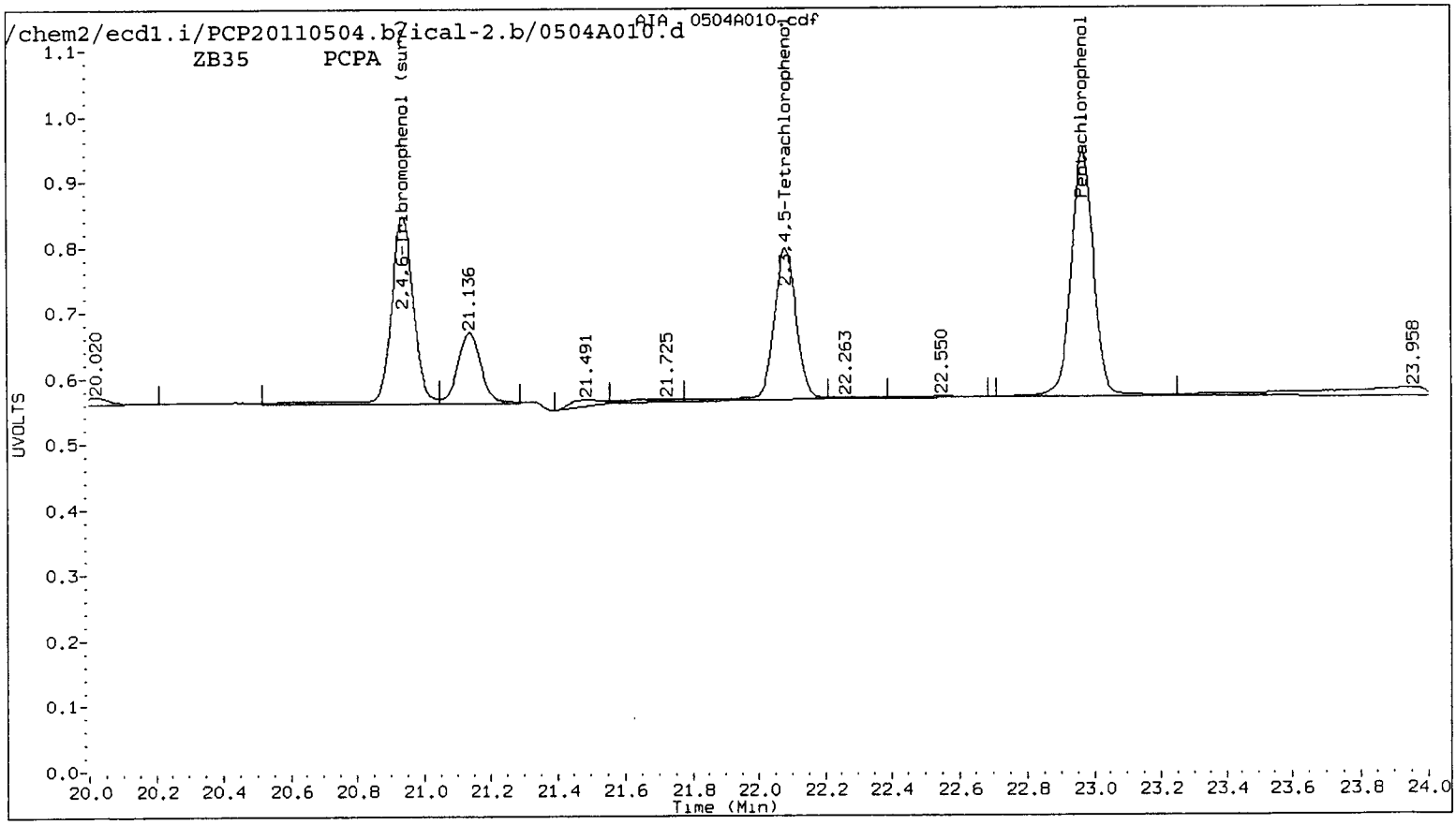
AIA 0504A010.cdf
ZB5 PCPA
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
19.416
20.243
22.436
UVOLTS
Time (Min)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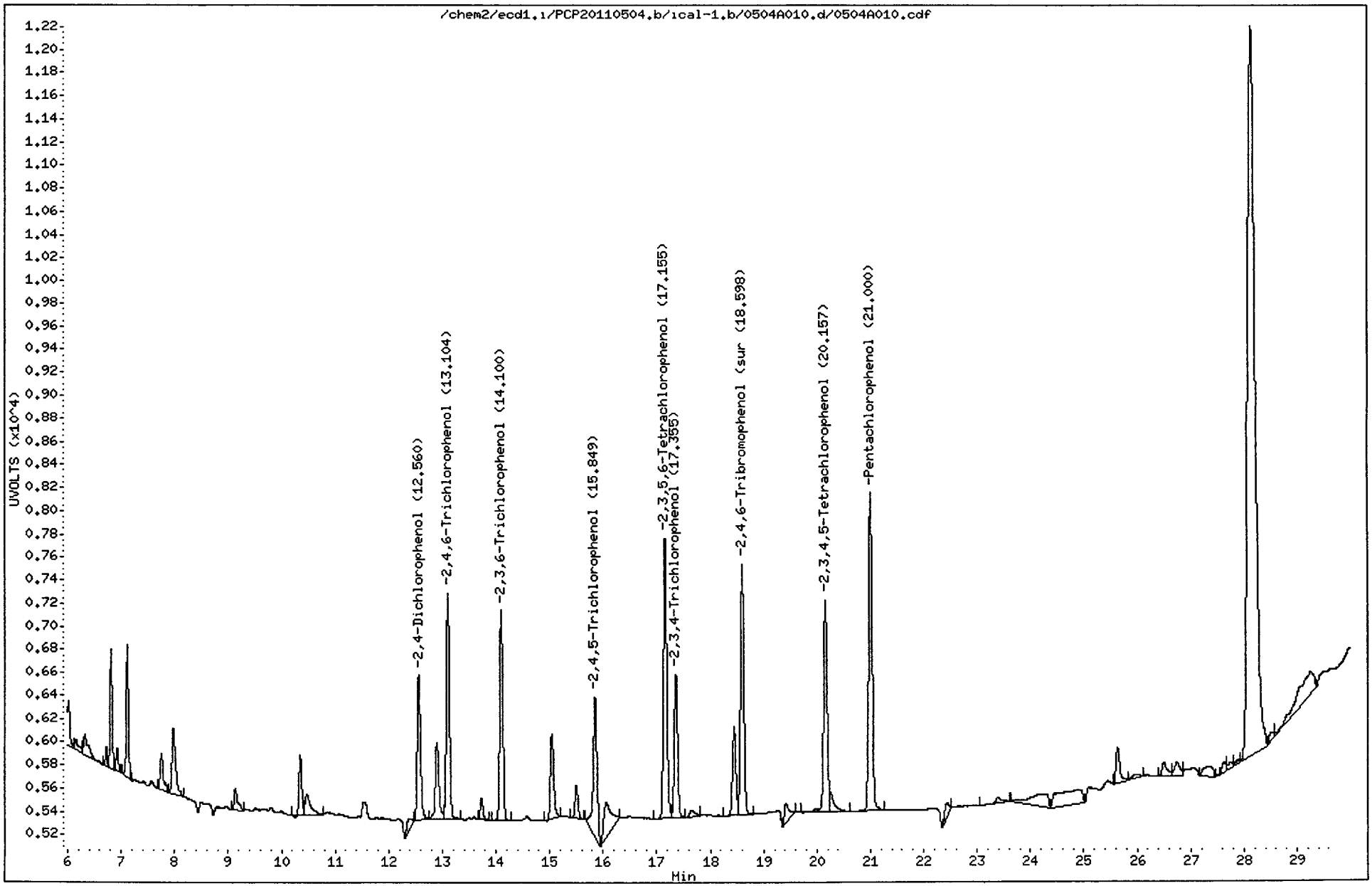
AIA 0504A010.cdf
ZB35 PCPA
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
20.020
21.136
21.491
21.725
22.263
22.550
23.958
UVOLTS
Time (Min)

Data File: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A010.d
Date : 04-MAY-2011 14:32
Client ID:
Sample Info: PCPA
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecd1.i
Operator: ar
Column diameter: 0.53



SUSS : 00775

3296

Data File: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A010.d

Date : 04-MAY-2011 14:32

Client ID:

Instrument: ecd1.i

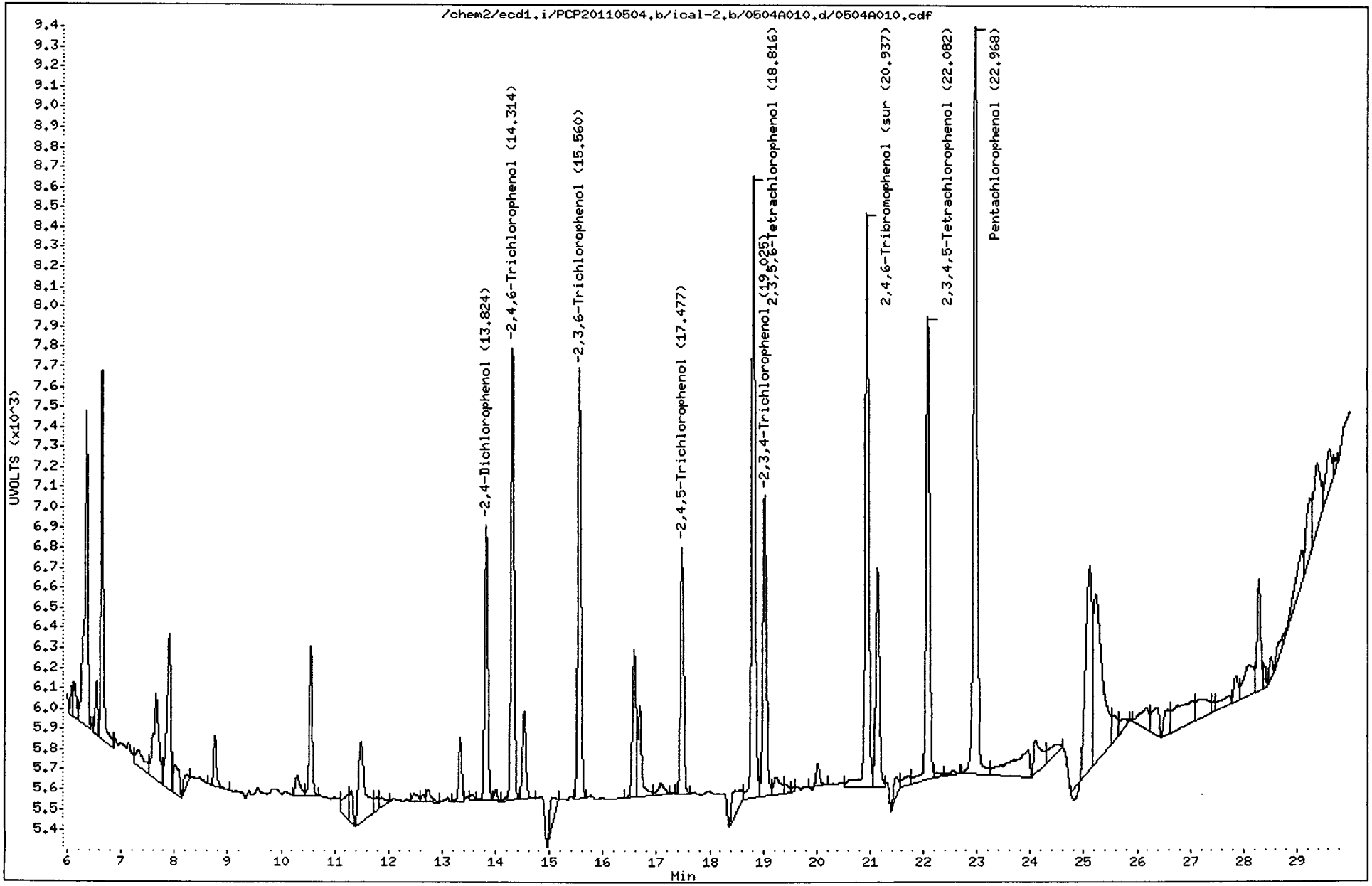
Sample Info: PCPA

Purge Volume: 500.0

Operator: ar

Column phase: STX CLP2

Column diameter: 0.53



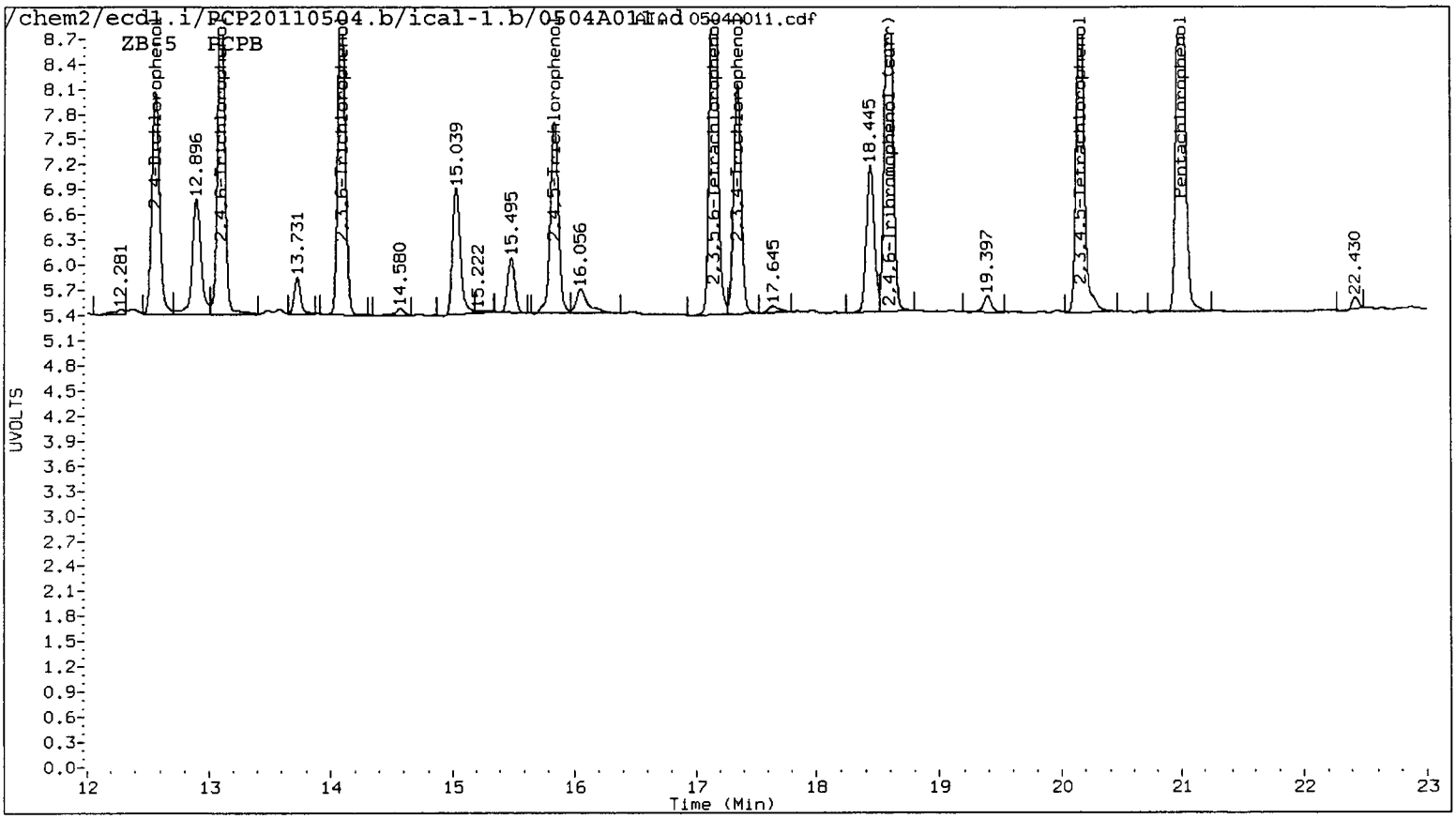
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A011.d ARI ID: PCPB
Data file 2: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A011.d Client ID:
Method: /chem2/ecd1.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 15:08
Compound Sublist: all Report Date: 05/06/2011 10:51
Instrument: ecd1.i Matrix: WATER
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
20.998	0.001	139728	22.967	0.000	196299	6.9347	6.9706	0.5	Pentachlorophenol
13.101	0.000	86469	14.311	0.000	101246	7.1035	6.9855	1.7	2,4,6-Trichlorophenol
14.097	0.000	80111	15.557	0.000	101902	6.9950	7.0896	1.3	2,3,6-Trichlorophenol
15.845	0.000	50514	17.475	0.001	57517	6.8698	7.1047	3.4	2,4,5-Trichlorophenol
17.352	0.001	59492	19.024	0.001	71137	7.1202	7.0819	0.5	2,3,4-Trichlorophenol
17.153	0.000	116029	18.814	0.000	150373	6.8629	6.8545	0.1	2,3,5,6-Tetrachlorophenol
20.156	0.001	92328	22.081	0.001	117798	7.1121	7.1314	0.3	2,3,4,5-Tetrachlorophenol
12.557	0.002	56009	13.821	0.001	60102	74.6182	73.7791	1.1	2,4-Dichlorophenol
18.596	0.000	105601	20.936	0.000	138254	6.7	6.6	2.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	26.8	26.3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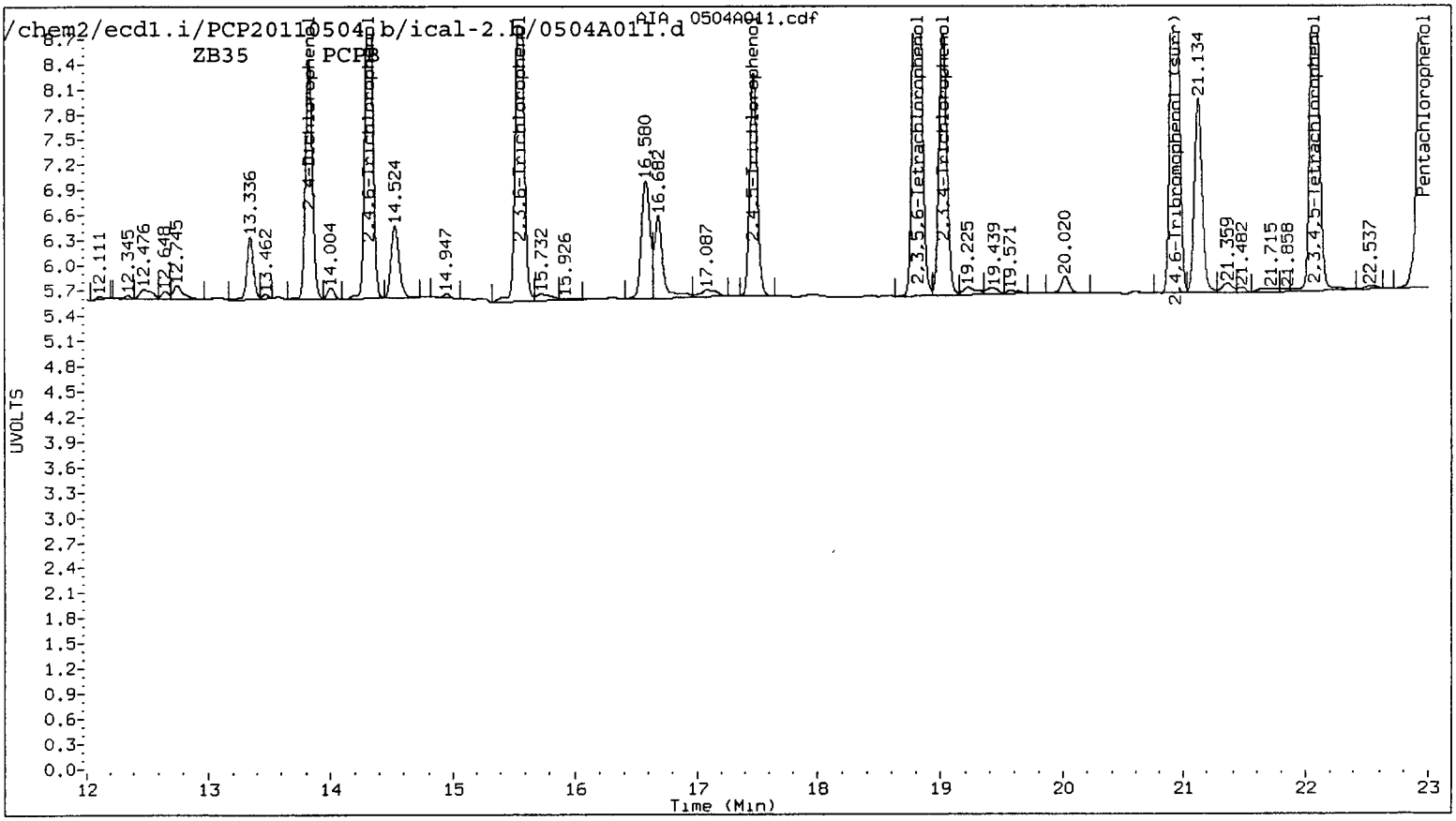
AIA 0504A011.cdf
ZB5 PCPB
2,4-Dichlorophenol
12.896
2,4,6-Trichlorophenol
13.731
2,3,6-Trichlorophenol
14.580
15.039
15.222
15.495
2,4,5-Trichlorophenol
16.056
2,3,5,6-Tetrachlorophenol
2,3,4-Trichlorophenol
17.645
18.445
2,4,6-Tribromophenol (surr)
19.397
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
22.430
12.281
UVOLTS
Time (Min)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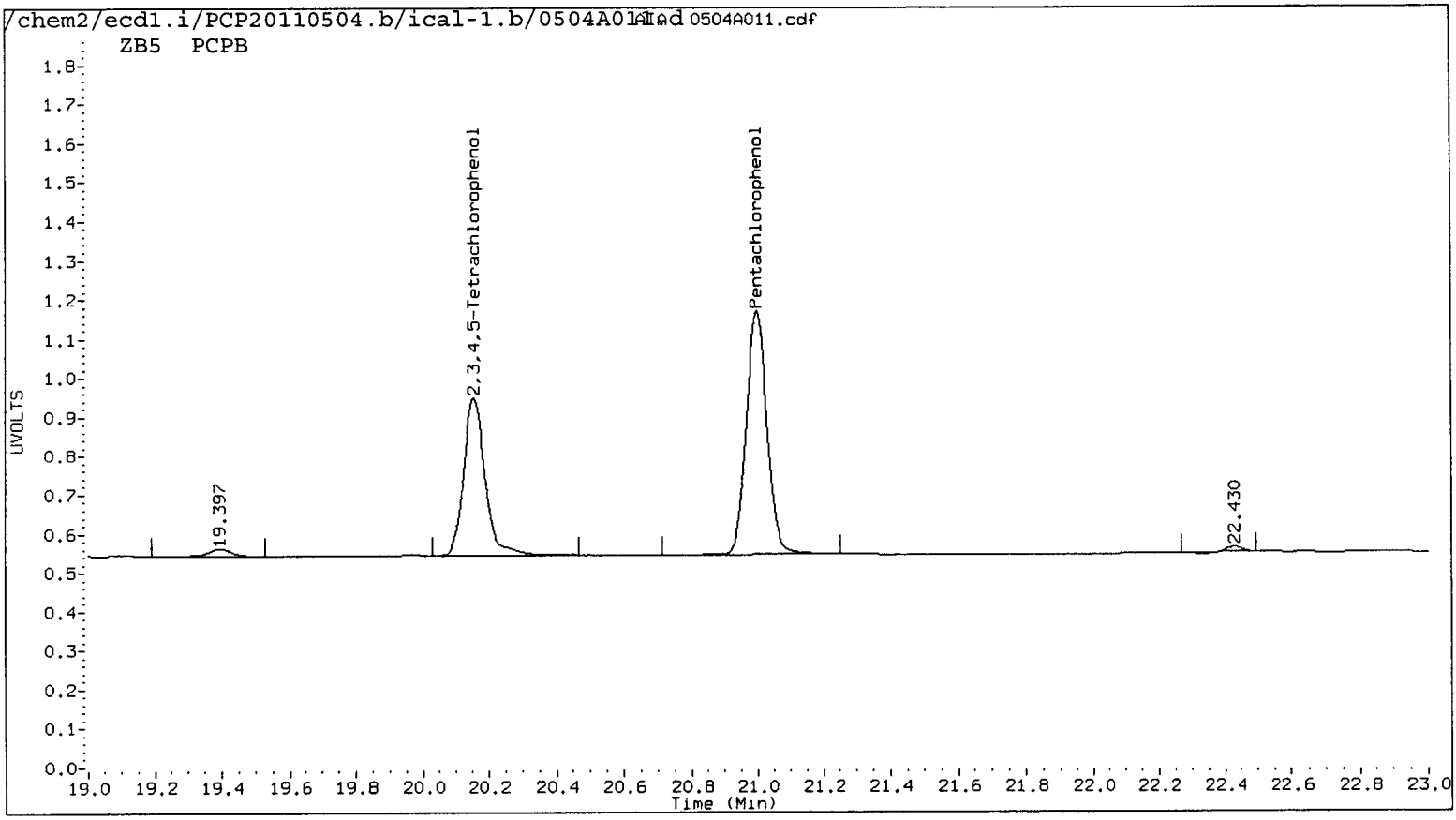
AIA 0504A011.cdf
ZB35 PCPB
12.111
12.345
12.476
12.648
12.745
13.336
13.462
2,4-Dichlorophenol
14.004
2,4,6-Trichlorophenol
14.524
14.947
2,3,6-Trichlorophenol
15.732
15.926
16.580
16.682
17.087
2,4,5-Trichlorophenol
2,3,5,6-Tetrachlorophenol
2,3,4-Trichlorophenol
19.225
19.439
19.571
20.020
2,4,6-Tribromophenol (surr)
21.134
21.359
21.482
21.715
21.858
2,3,4,5-Tetrachlorophenol
22.537
Pentachlorophenol
UVOLTS
Time (Min)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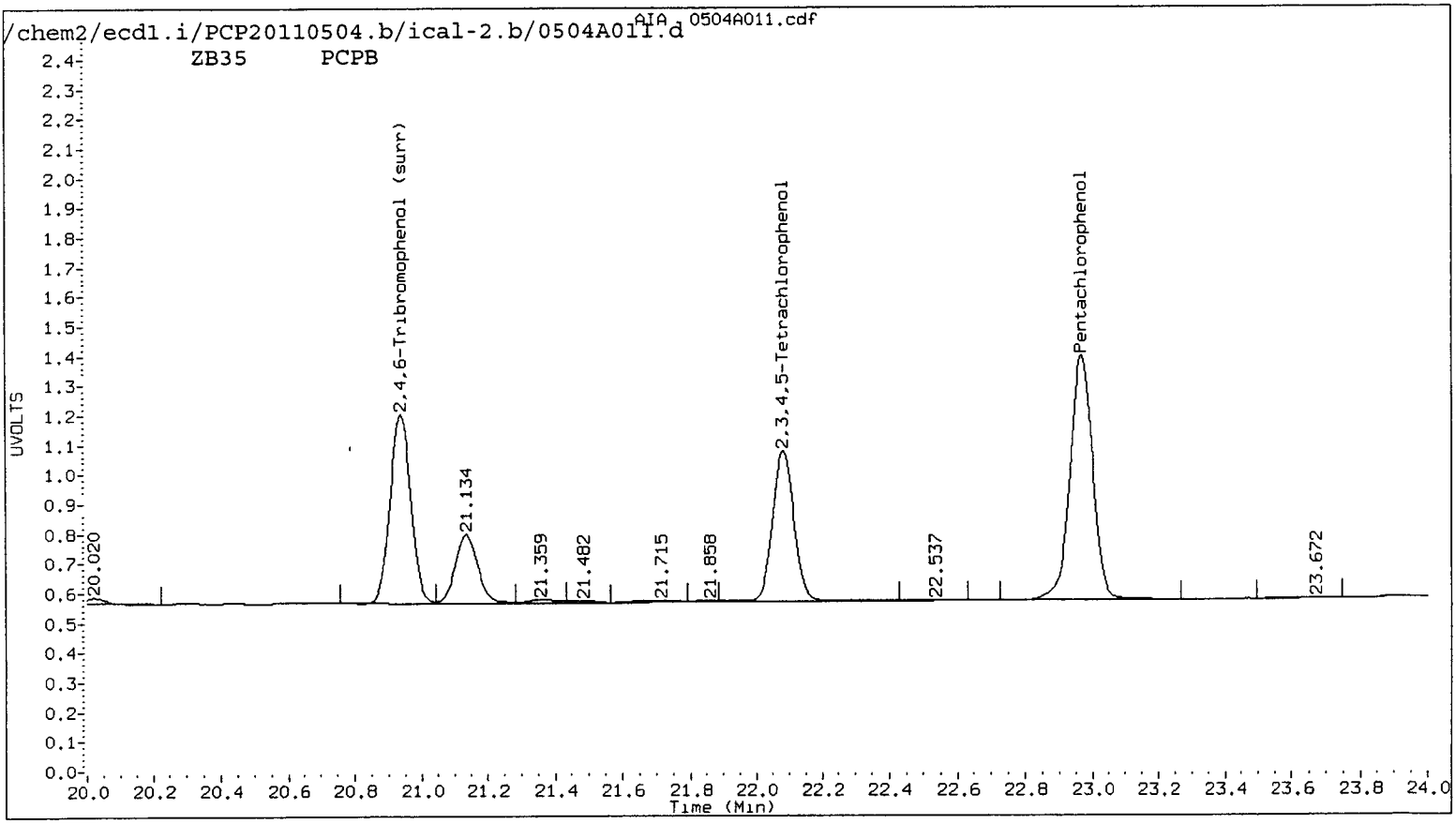
ZB5 PCPB
UVOLTS
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
19.397
22.430
Time (Min)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ZB35 PCPB
UVOLTS
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
20.020
21.134
21.359
21.482
21.715
21.858
22.537
23.672
Time (Min)

Data File: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A011.d

Date : 04-MAY-2011 15:08

Client ID:

Instrument: ecd1.i

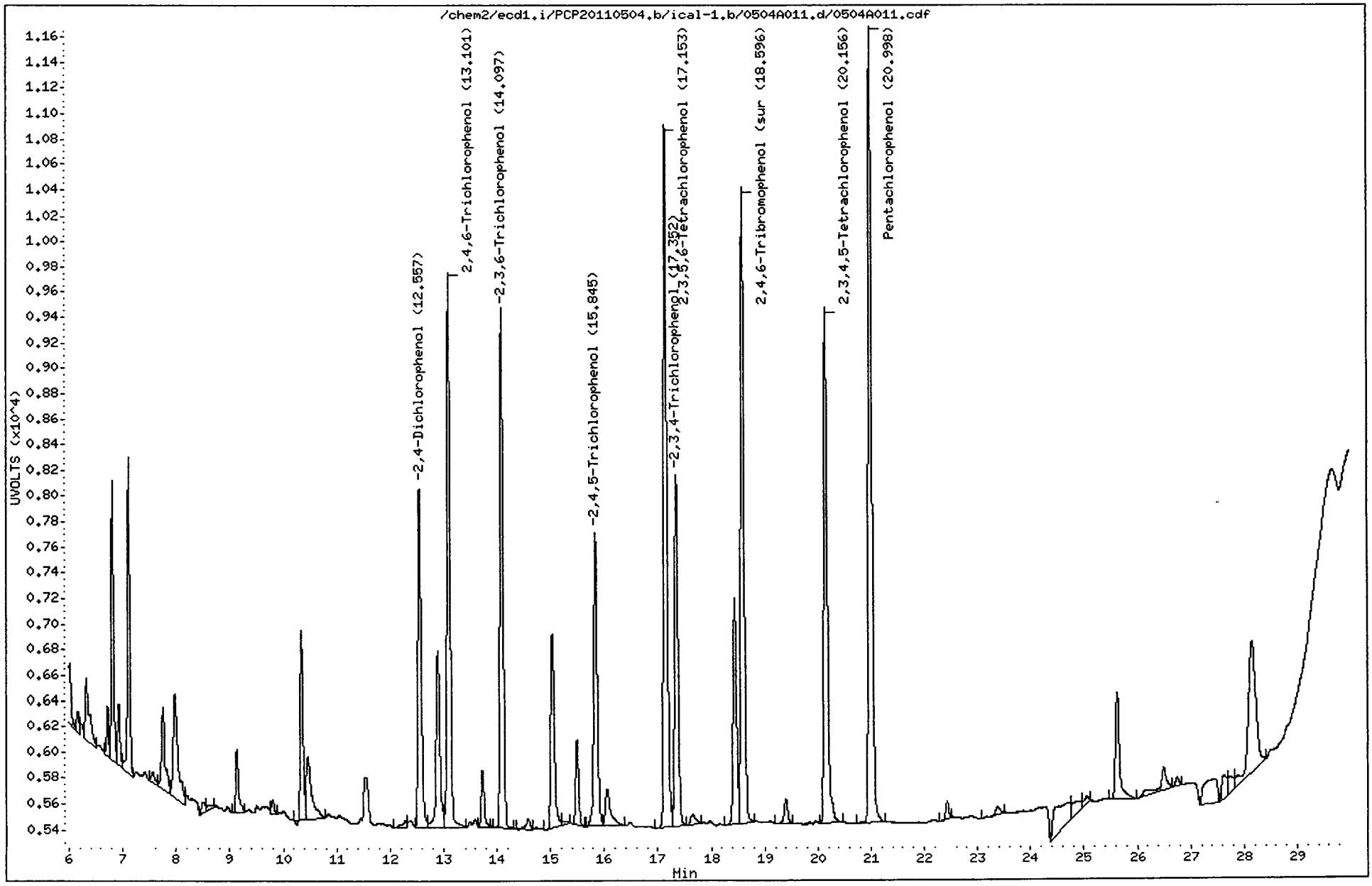
Sample Info: PCPB

Purge Volume: 500.0

Operator: ar

Column phase: STX CLP1

Column diameter: 0.53



Data File: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A011.d

Date : 04-MAY-2011 15:08

Client ID:

Instrument: ecd1.i

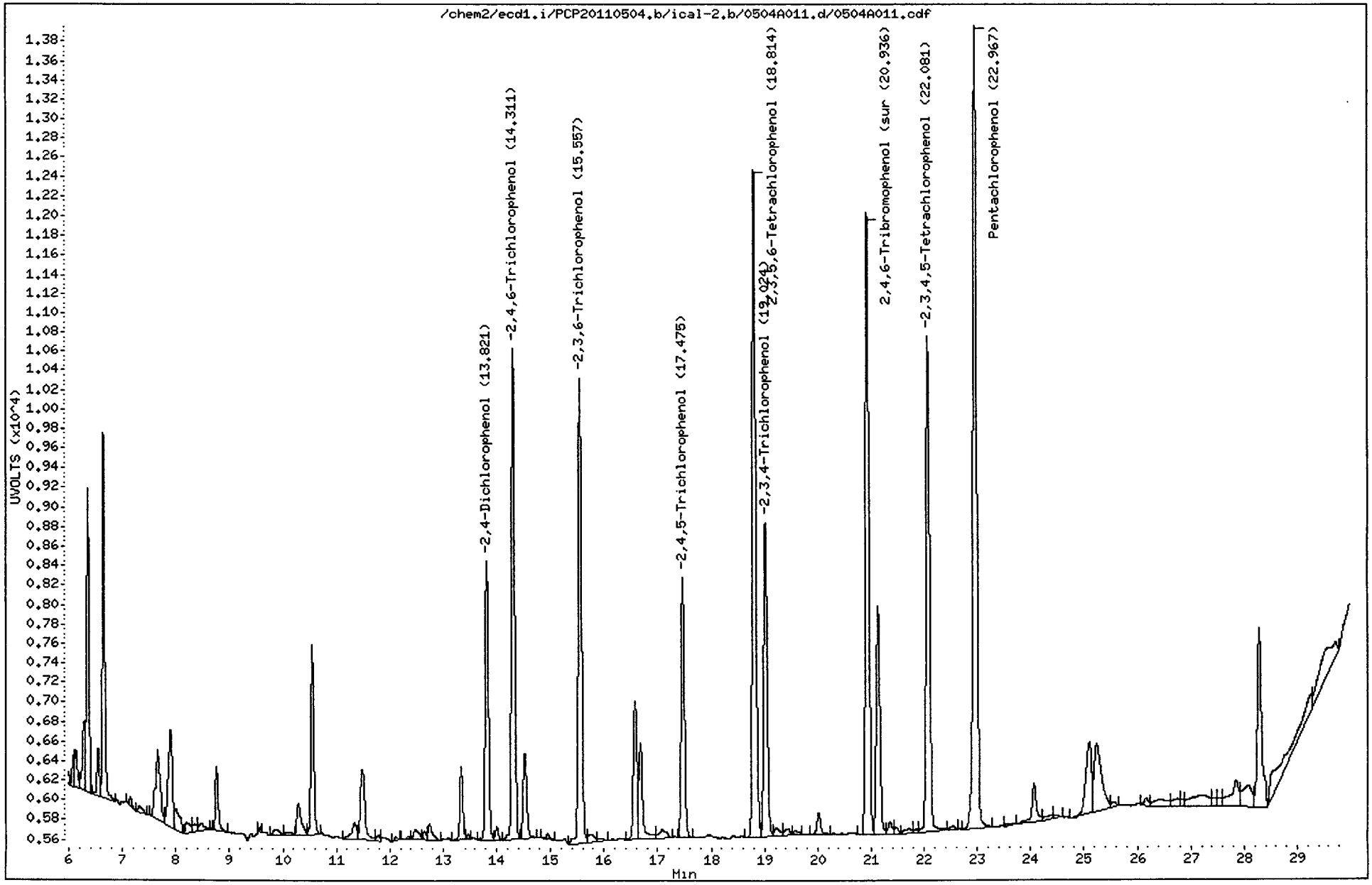
Sample Info: PCPB

Purge Volume: 500.0

Operator: ar

Column phase: STX CLP2

Column diameter: 0.53



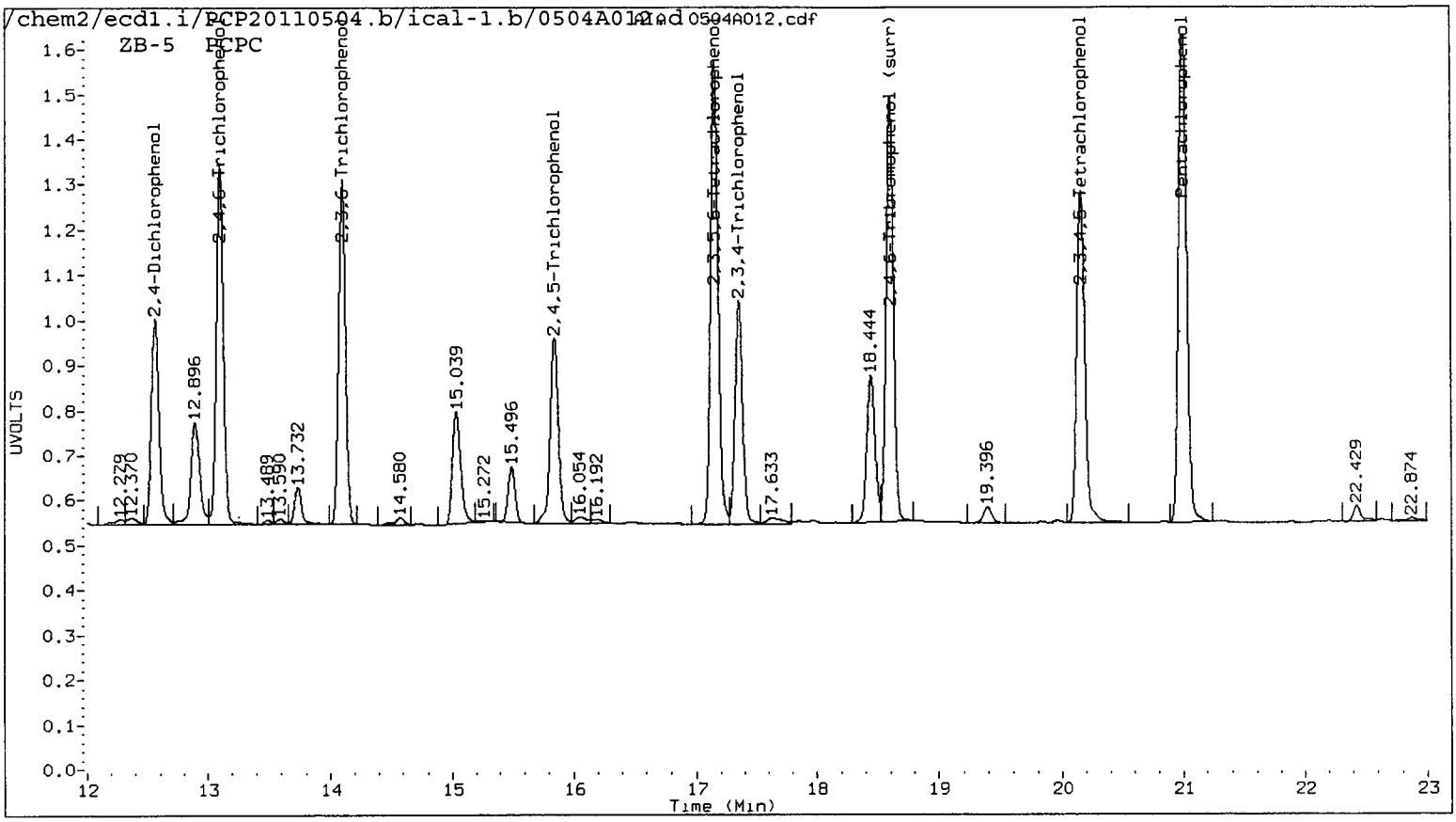
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A012.d ARI ID: PCPC
Data file 2: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A012.d Client ID:
Method: /chem2/ecd1.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 15:44
Compound Sublist: all Report Date: 05/06/2011 10:51
Instrument: ecd1.i Matrix: WATER
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
20.998	0.000	259764	22.967	0.000	361971	12.8921	12.8537	0.3	Pentachlorophenol
13.102	0.001	159940	14.312	0.001	192050	13.1391	13.2505	0.8	2,4,6-Trichlorophenol
14.097	0.000	148290	15.558	0.001	189925	12.9481	13.2136	2.0	2,3,6-Trichlorophenol
15.846	0.001	92760	17.474	0.000	104692	13.1179	12.9318	1.4	2,4,5-Trichlorophenol
17.352	0.001	109723	19.023	0.000	129601	13.1321	13.3673	1.8	2,3,4-Trichlorophenol
17.153	0.001	218741	18.814	0.000	281810	12.9381	12.8458	0.7	2,3,5,6-Tetrachlorophenol
20.155	0.000	168443	22.080	0.000	208459	12.9754	12.9697	0.0	2,3,4,5-Tetrachlorophenol
12.556	0.001	99540	13.821	0.001	104374	140.2891	136.0517	3.1	2,4-Dichlorophenol
18.596	0.000	198567	20.936	0.000	266388	12.6	12.7	0.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	50.4	50.7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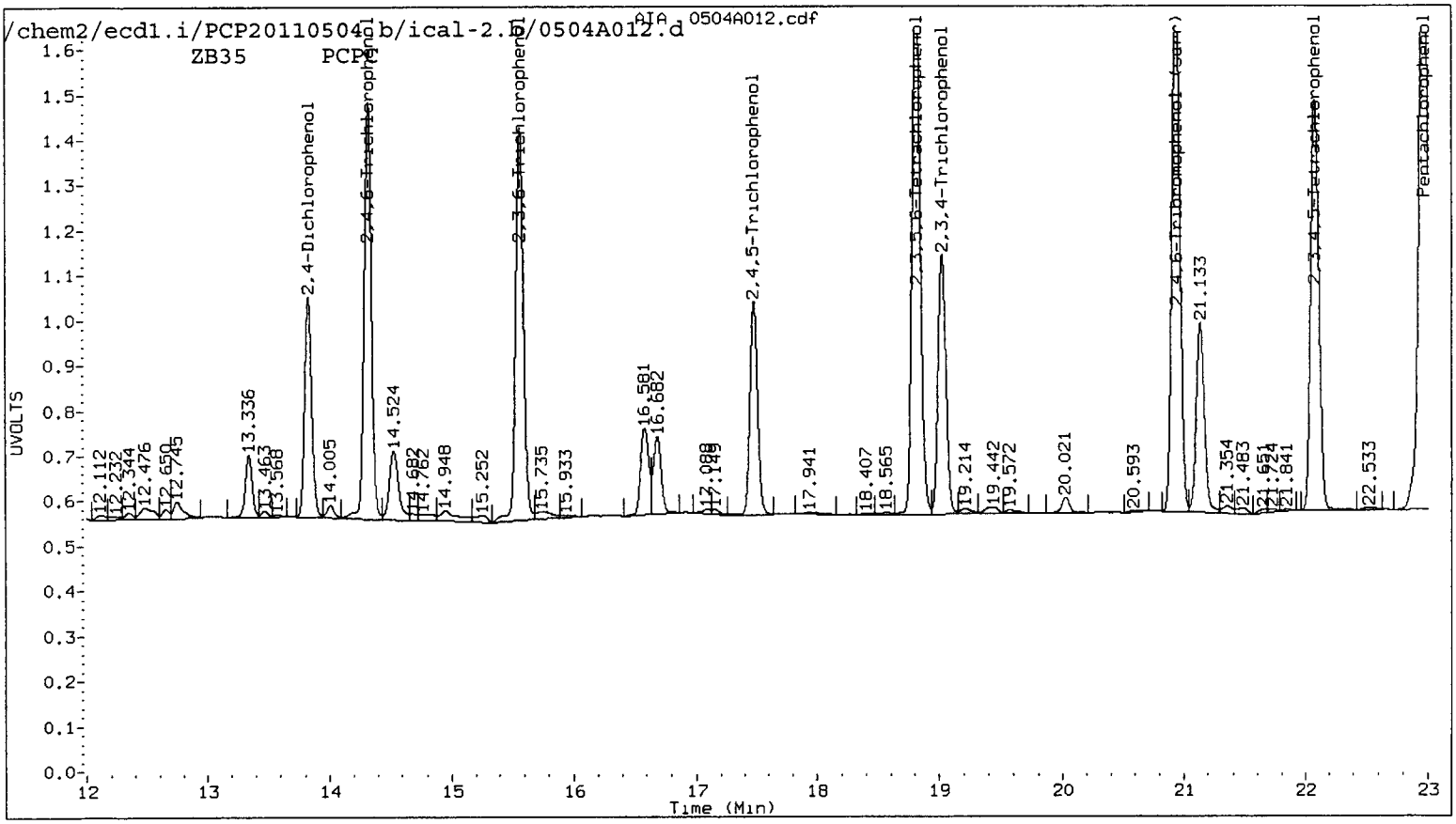
0504A012.cdf
ZB-5 PCPC
UVOLTS
Time (Min)
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
2,4,5-Trichlorophenol
2,3,5,6-Tetrachlorophenol
2,3,4-Trichlorophenol
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
12.896
15.039
15.496
18.444
22.429
22.874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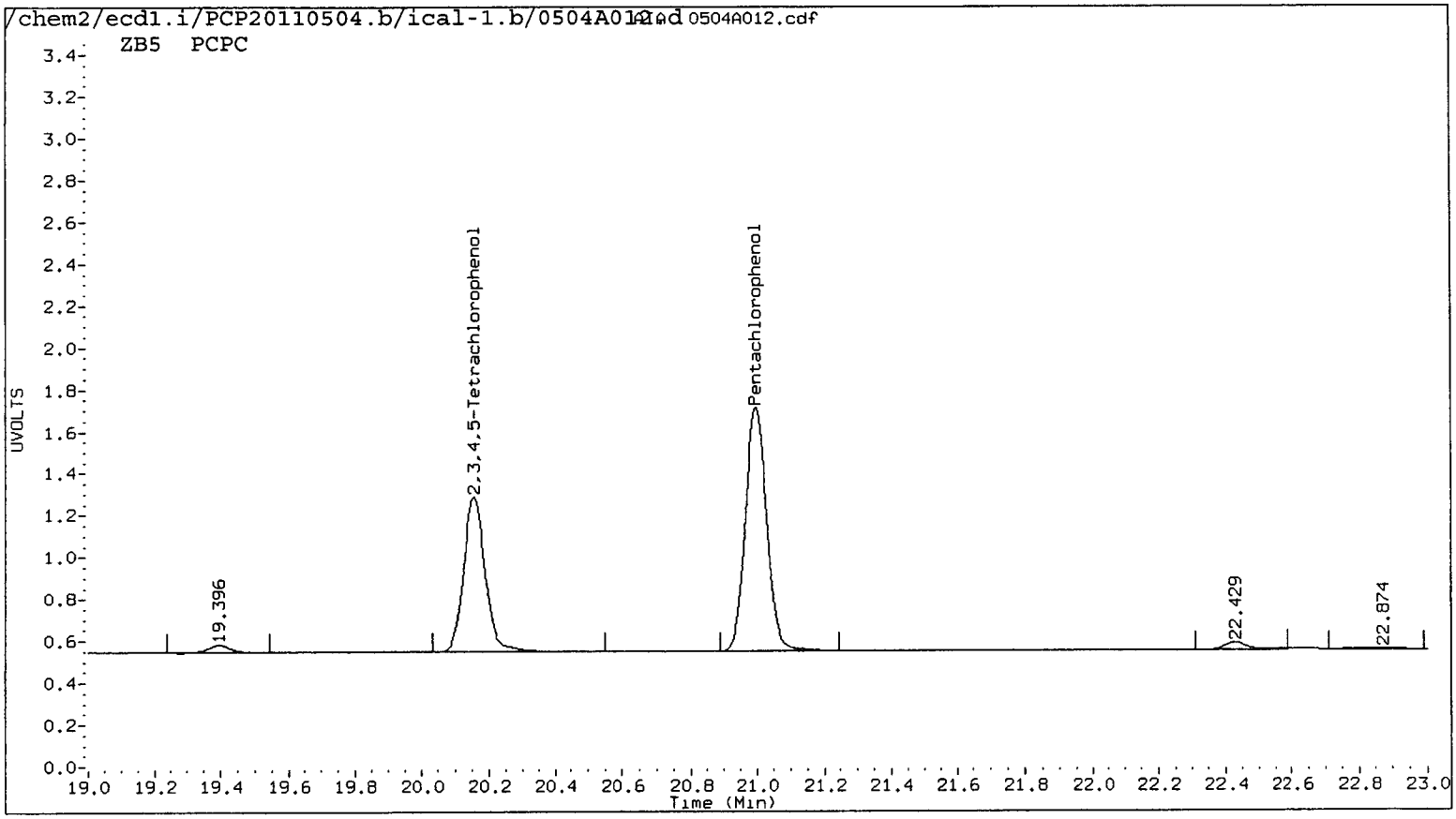
0504A012.cdf
ZB35 PCPC
UVOLTS
Time (Min)
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
2,4,5-Trichlorophenol
2,3,5,6-Tetrachlorophenol
2,3,4-Trichlorophenol
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
13.336
14.524
16.581
16.682
21.133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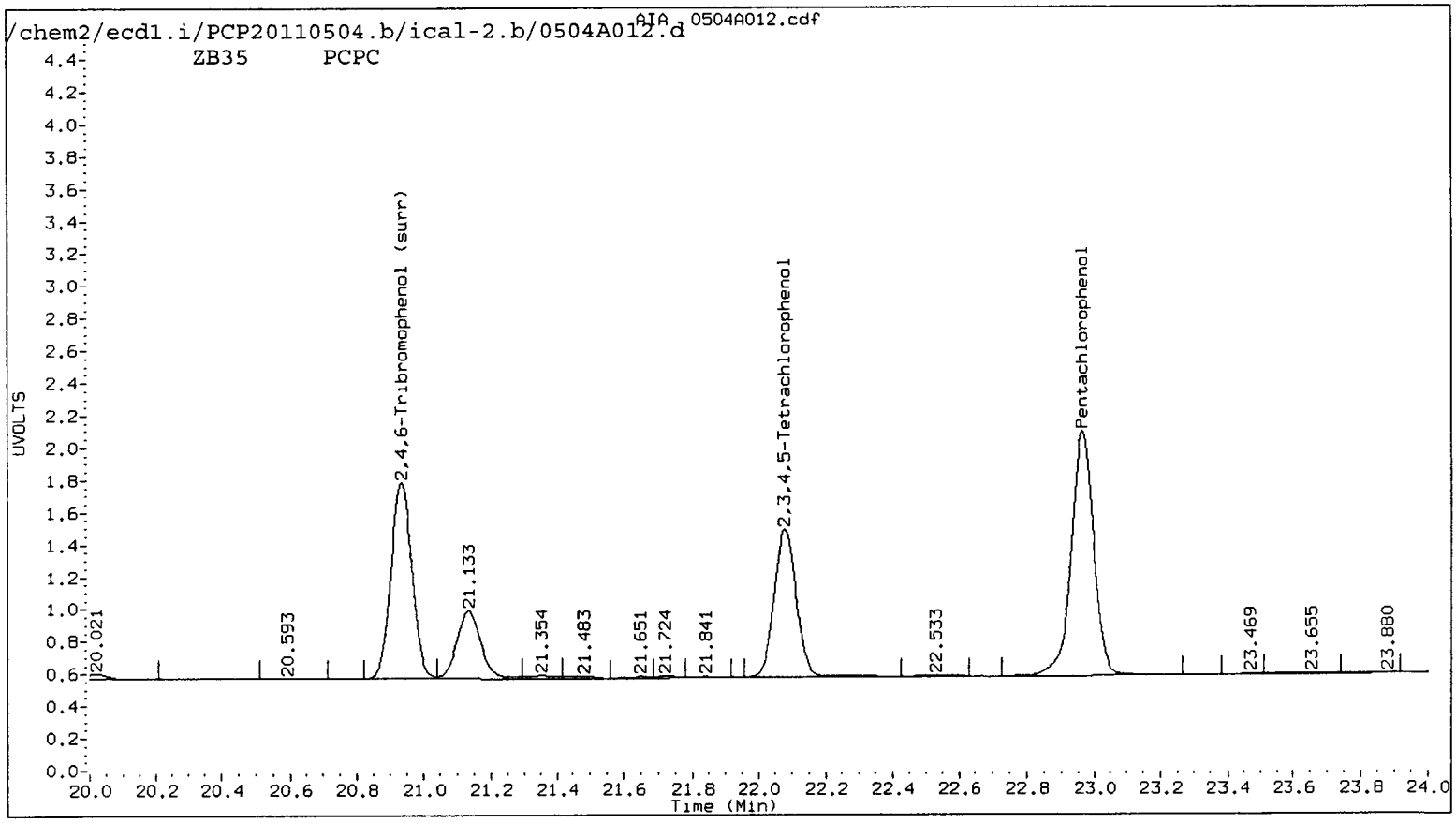
0504A012.cdf
ZB5 PCPC
UVOLTS
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
19.396
22.429
22.874
Time (Min)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0504A012.cdf
ZB35 PCPC
UVOLTS
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
20.021
20.593
21.133
21.354
21.483
21.651
21.724
21.841
22.533
23.469
23.655
23.880
Time (Min)

Data File: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A012.d

Page 1

Date : 04-MAY-2011 15:44

Client ID:

Instrument: ecd1.i

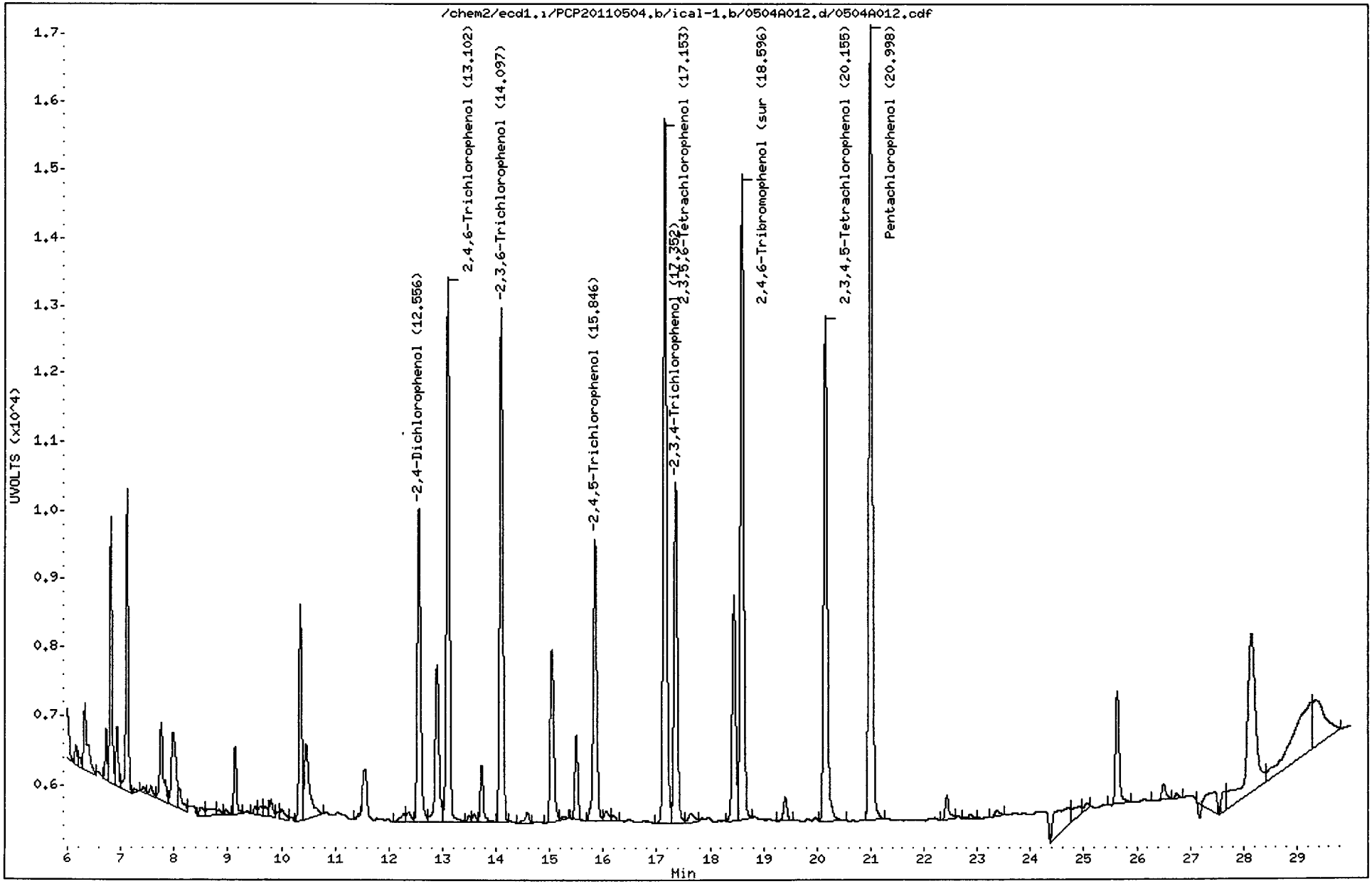
Sample Info: PCPC

Purge Volume: 500.0

Operator: ar

Column phase: STX CLP1

Column diameter: 0.53



SUSS : 00785

3309

Data File: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A012.d

Date : 04-MAY-2011 15:44

Client ID:

Instrument: ecd1.i

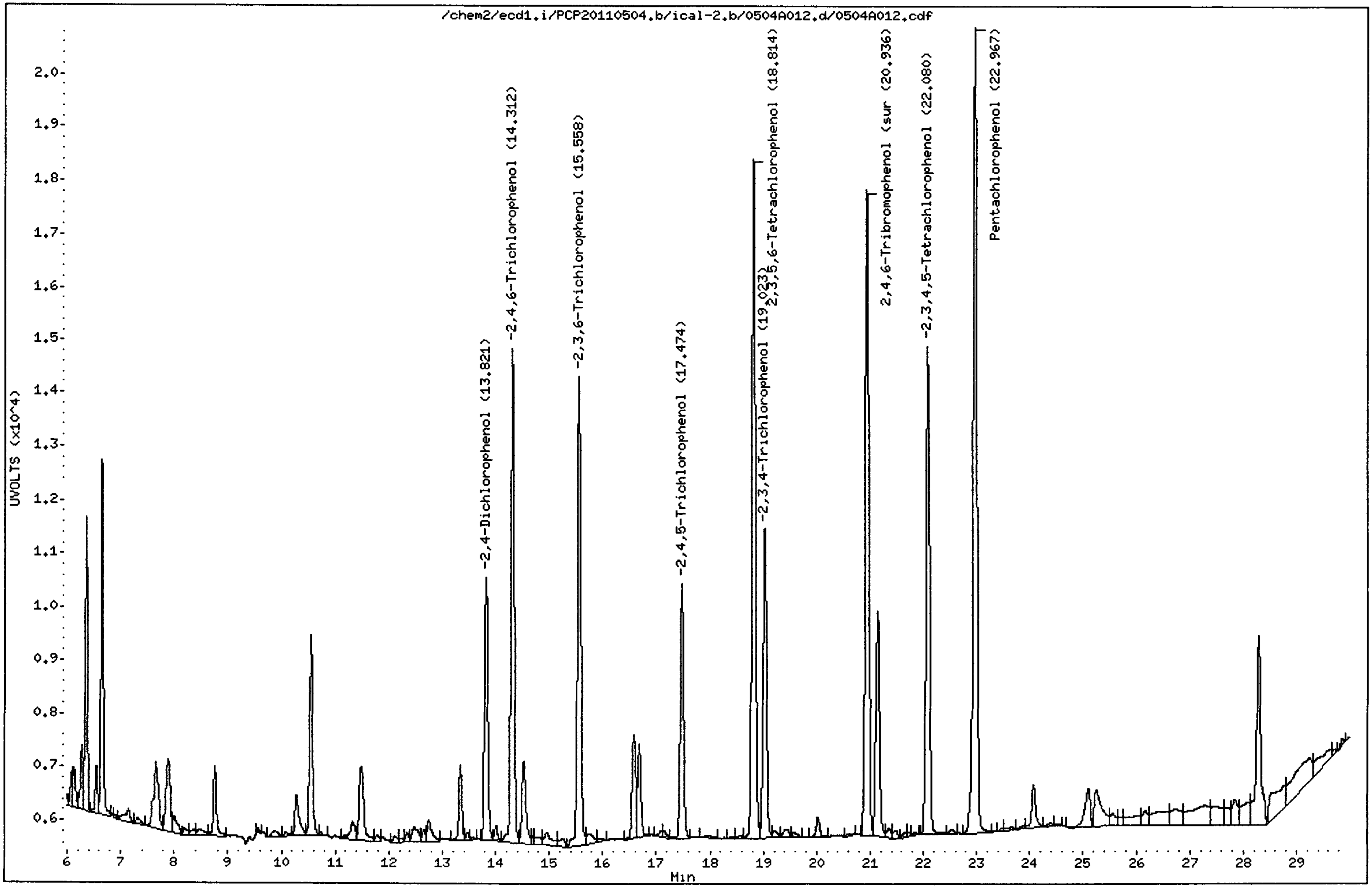
Sample Info: PCPC

Purge Volume: 500.0

Operator: ar

Column phase: STX CLP2

Column diameter: 0.53



SU53 : 00786

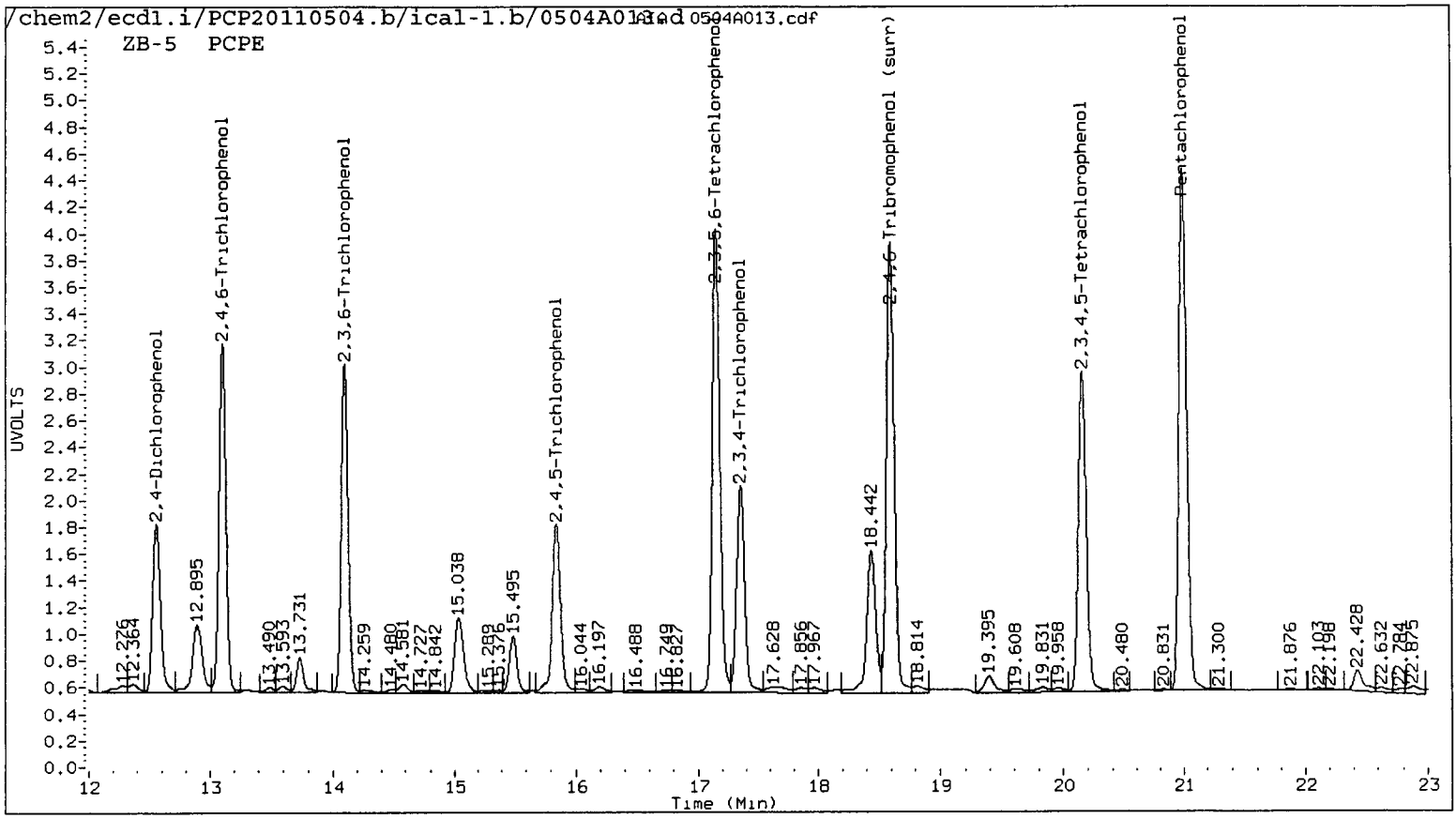
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

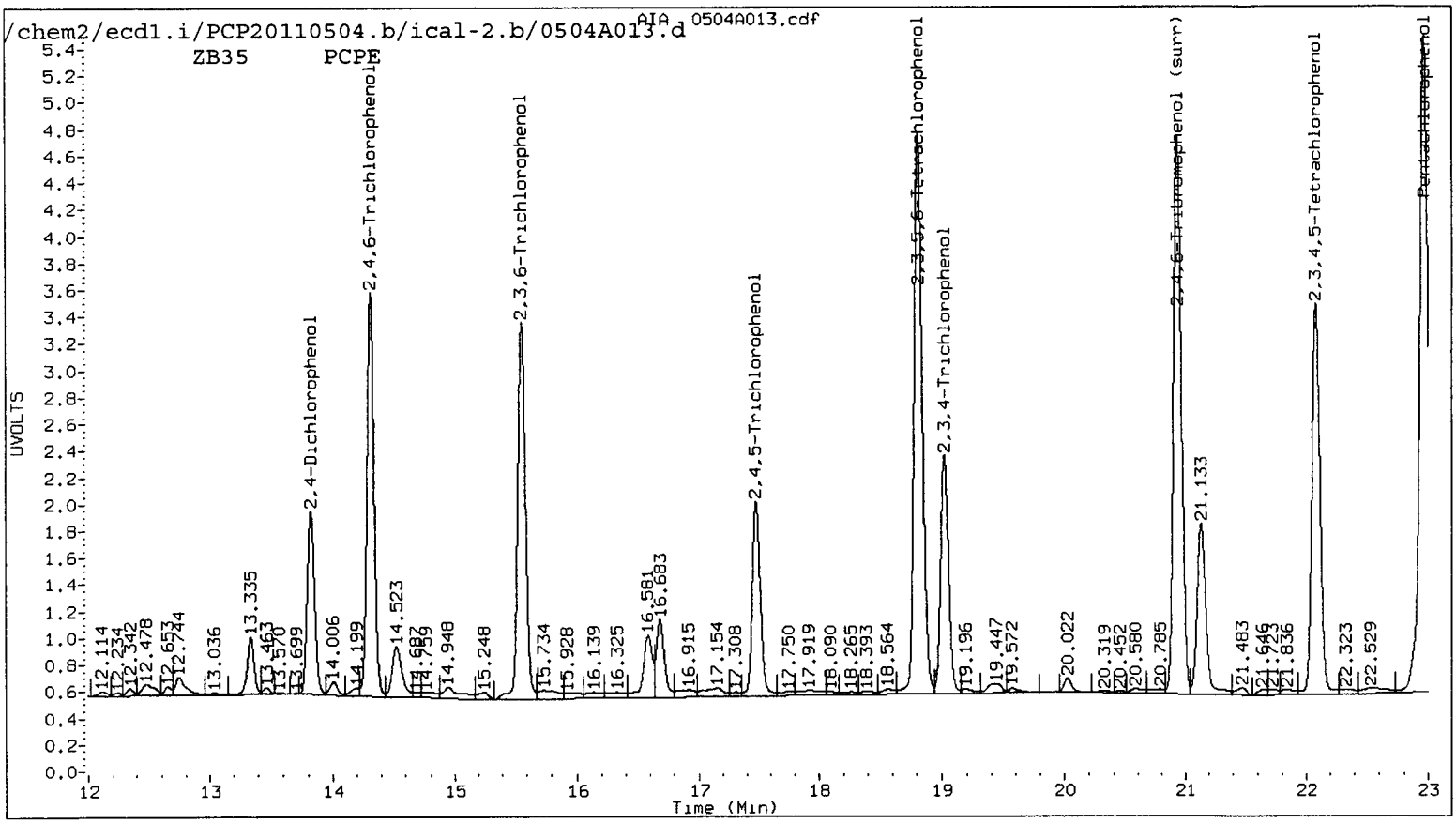
Data file 1: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A013.d ARI ID: PCPE
Data file 2: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A013.d Client ID:
Method: /chem2/ecd1.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 16:21
Compound Sublist: all Report Date: 05/06/2011 10:51
Instrument: ecd1.i Matrix: WATER
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
20.998	0.001	889243	22.967	0.000	1223251	44.1330	43.4380	1.6	Pentachlorophenol
13.101	0.000	520607	14.312	0.001	615086	42.7681	42.4380	0.8	2,4,6-Trichlorophenol
14.097	0.000	496269	15.558	0.001	622220	43.3323	43.2897	0.1	2,3,6-Trichlorophenol
15.845	0.000	295231	17.475	0.001	344386	49.4200	42.5395	15.0	2,4,5-Trichlorophenol
17.352	0.000	356877	19.023	0.000	409120	42.7124	49.2172	14.2	2,3,4-Trichlorophenol
17.153	0.001	759088	18.814	0.000	953164	44.8986	43.4481	3.3	2,3,5,6-Tetrachlorophenol
20.155	0.000	548832	22.081	0.001	691341	42.2771	49.1918	15.1	2,3,4,5-Tetrachlorophenol
12.556	0.001	279617	13.821	0.001	297223	483.2915	485.7456	0.5	2,4-Dichlorophenol
18.596	0.001	728285	20.937	0.001	937307	46.3	44.6	3.7	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	185.0	178.3


/chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A013.d
AIA 0504A013.cdf
ZB-5 PCPE
UVOLTS
Time (Min)
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
2,4,5-Trichlorophenol
2,3,5,6-Tetrachlorophenol
2,3,4-Trichlorophenol
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
12.895
13.731
15.038
15.495
18.442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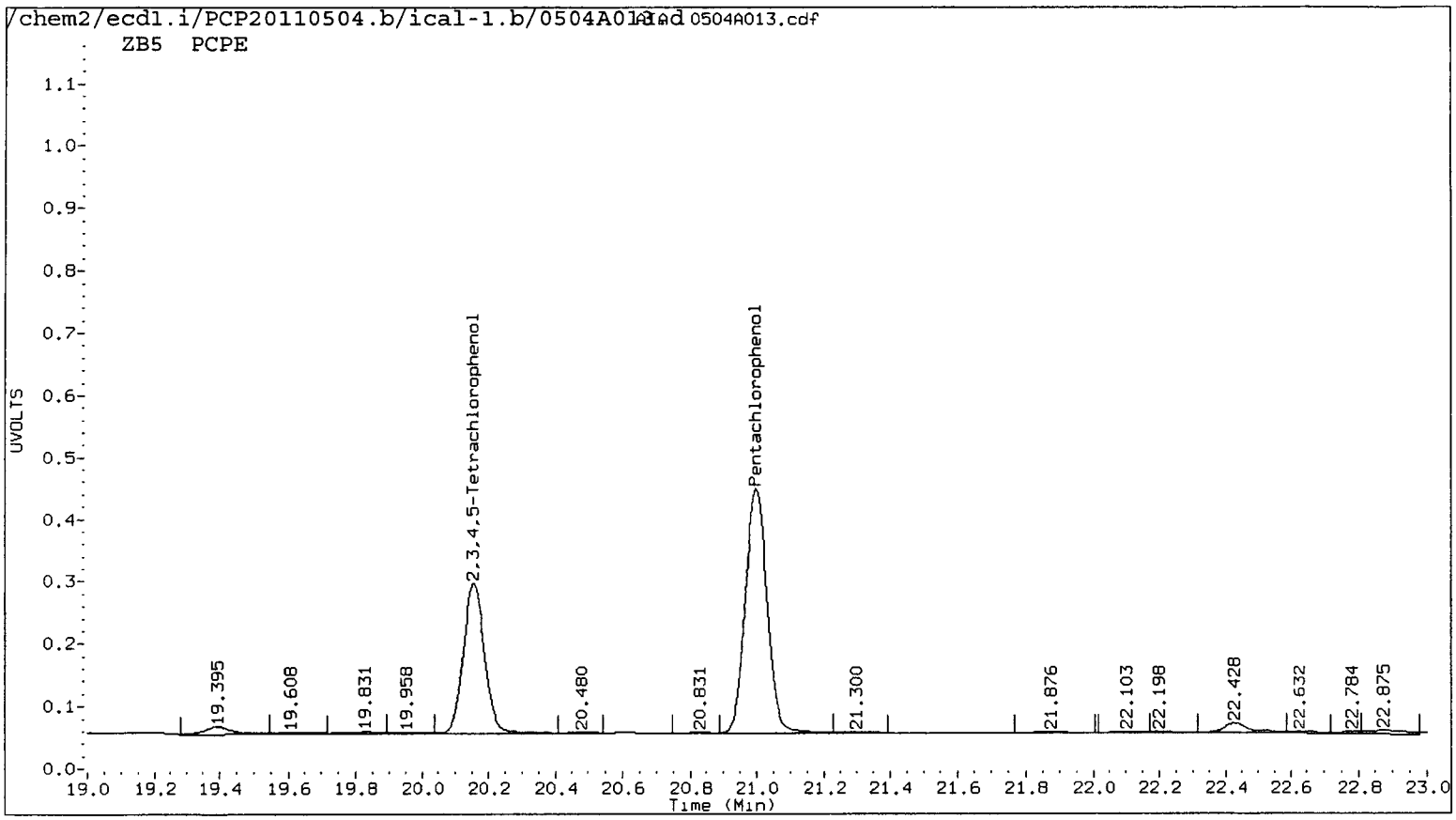
AIA 0504A013.cdf
ZB35 PCPE
UVOLTS
Time (Min)
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
2,4,5-Trichlorophenol
2,3,4-Trichlorophenol
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
13.335
14.523
16.581
16.683
21.133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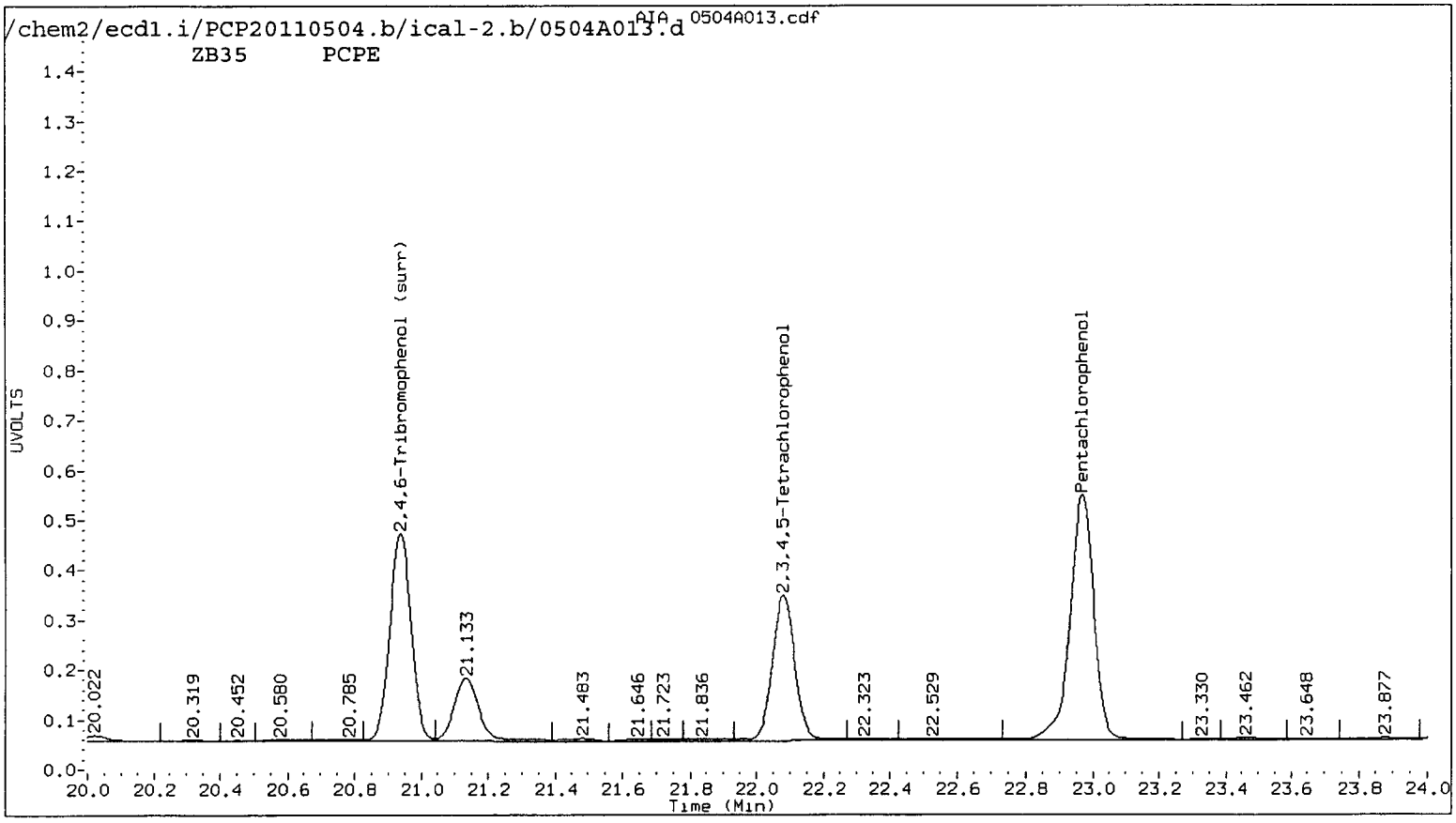
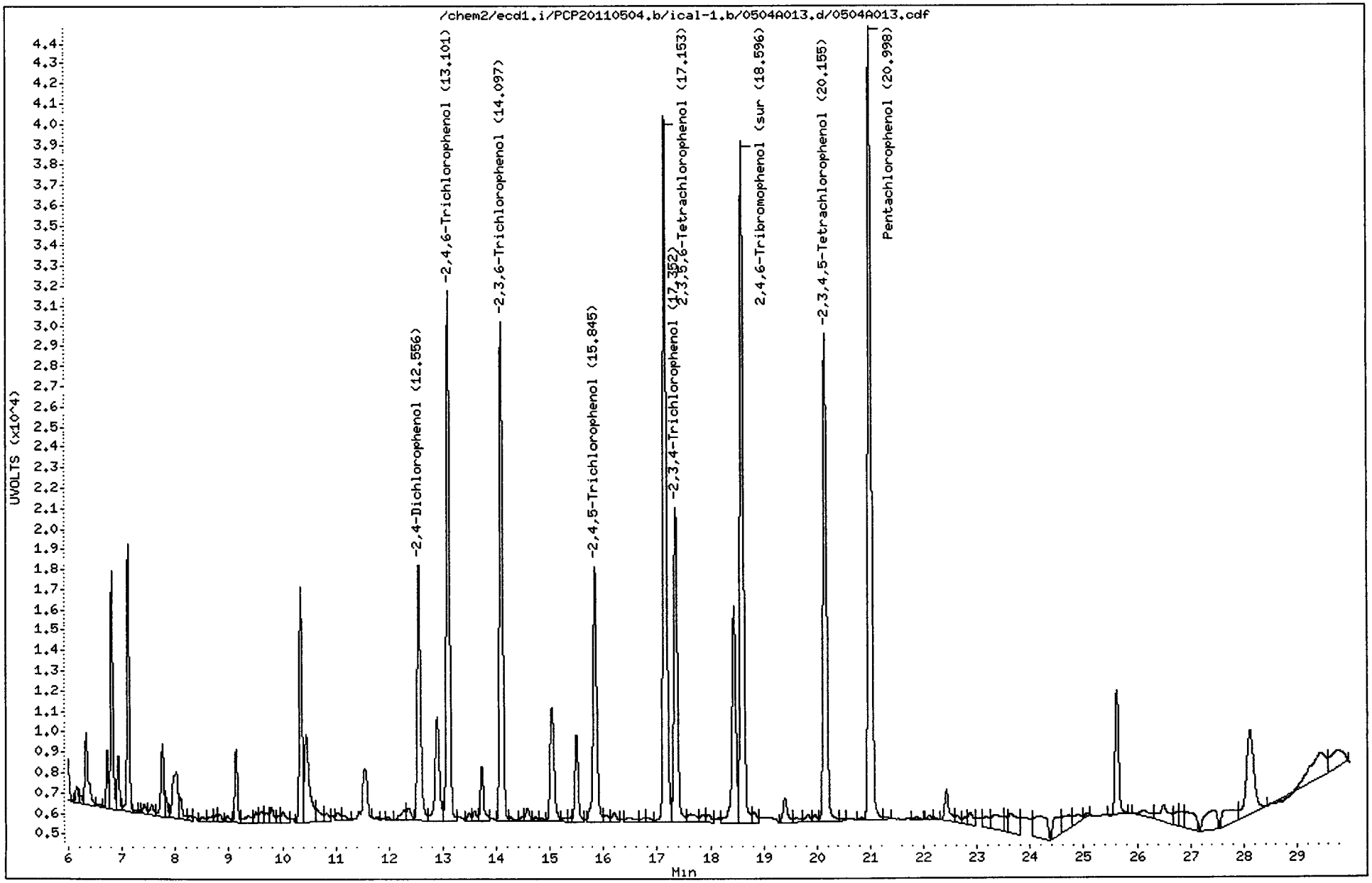
AIA 0504A013.cdf
ZB5 PCPE
UVOLTS
Time (Min)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
19.395
19.608
19.831
19.958
20.480
20.831
21.300
21.876
22.103
22.198
22.428
22.632
22.784
22.875


/chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A013.d
AIA 0504A013.cdf
ZB35 PCPE
UVOLTS
Time (Min)
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
20.022
20.319
20.452
20.580
20.785
21.133
21.483
21.646
21.723
21.836
22.323
22.529
23.330
23.462
23.648
23.877

Data File: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A013.d
Date : 04-MAY-2011 16:21
Client ID:
Sample Info: PCPE
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecd1.i
Operator: ar
Column diameter: 0.53



SLS3 : 00790

3311

Data File: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A013.d

Date : 04-MAY-2011 16:21

Client ID:

Instrument: ecd1.i

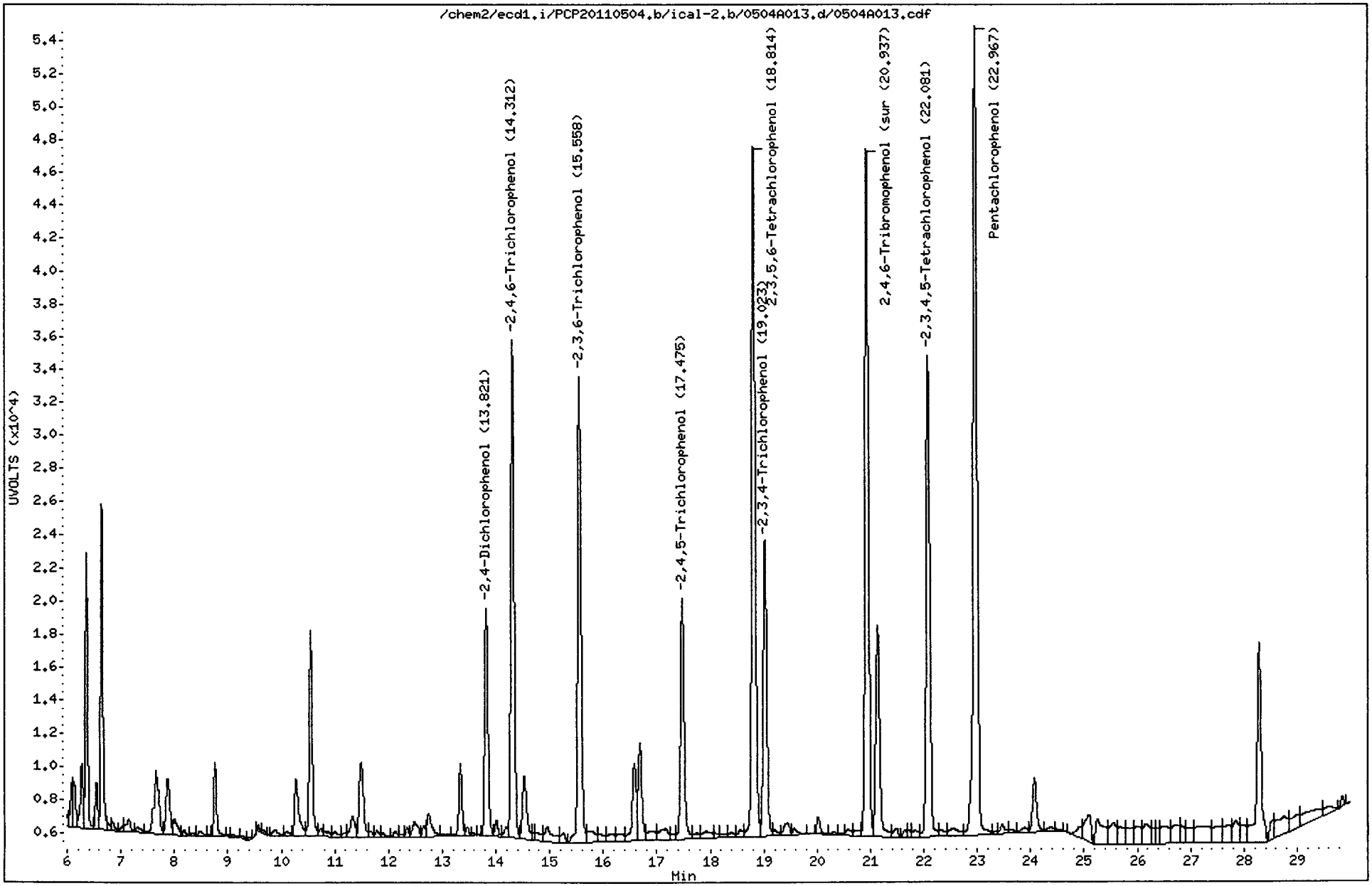
Sample Info: PCPE

Purge Volume: 500.0

Operator: ar

Column phase: STX CLP2

Column diameter: 0.53



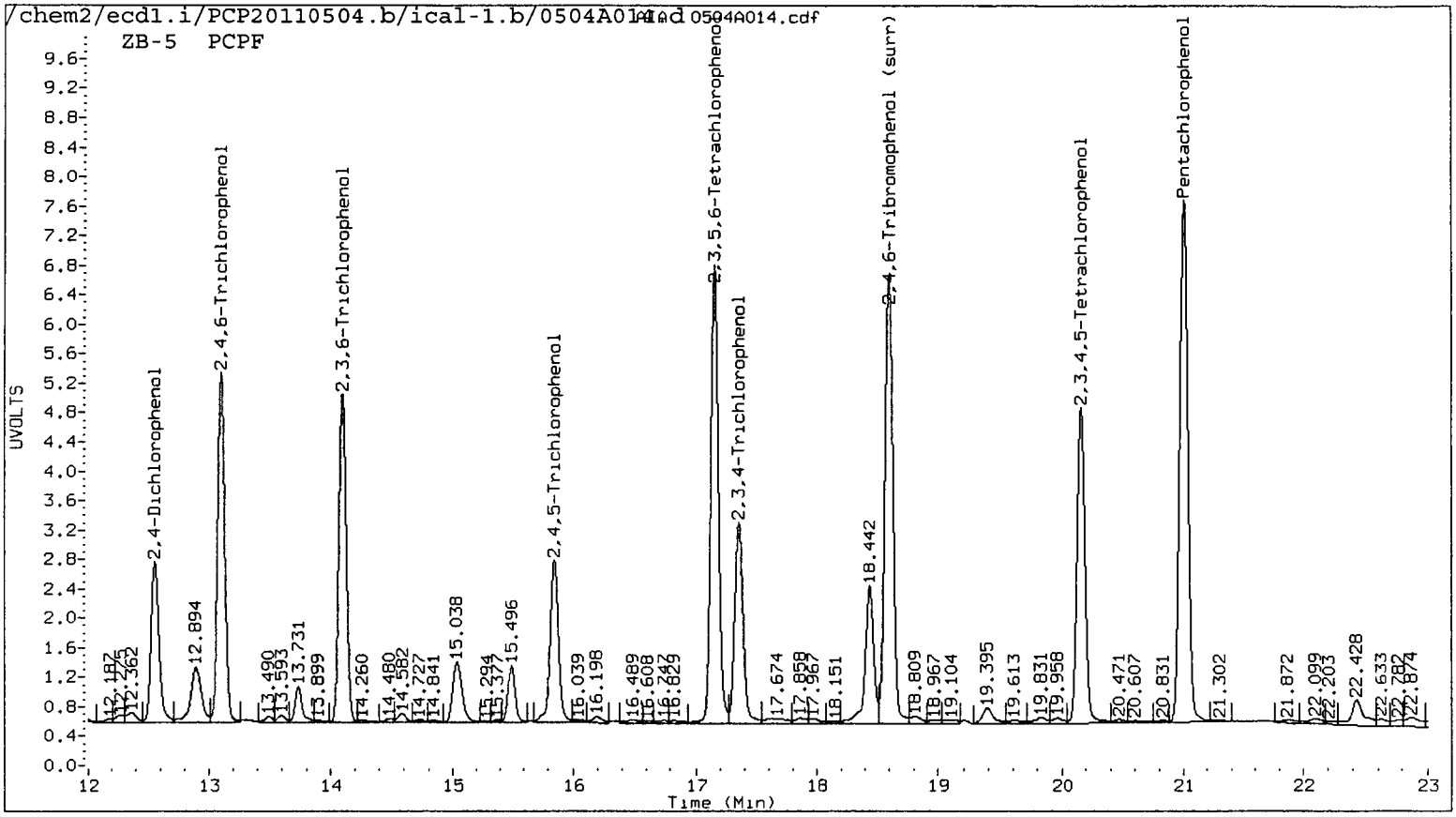
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A014.d ARI ID: PCPF
Data file 2: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A014.d Client ID:
Method: /chem2/ecd1.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 16:57
Compound Sublist: all Report Date: 05/06/2011 10:51
Instrument: ecd1.i Matrix: WATER
Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound
20.999	0.002	1629183	22.968	0.001	2229293	80.8562	79.1628	2.1	Pentachlorophenol
13.102	0.001	953234	14.311	0.000	1105237	78.3086	76.2560	2.7	2,4,6-Trichlorophenol
14.097	0.000	908546	15.559	0.002	1094858	79.3307	76.1725	4.1	2,3,6-Trichlorophenol
15.846	0.001	512989	17.475	0.001	590583	100.2030	72.9504	31.5	2,4,5-Trichlorophenol
17.351	0.000	632191	19.023	0.000	719354	75.6631	100.2377	27.9	2,3,4-Trichlorophenol
17.154	0.001	1387633	18.814	0.000	1735216	82.0758	79.0964	3.7	2,3,5,6-Tetrachloropheno
20.155	0.000	990411	22.081	0.001	1234197	76.2925	100.2187	27.1	2,3,4,5-Tetrachloropheno
12.556	0.001	481637	13.820	0.000	504644	1004.8445	1004.2680	0.1	2,4-Dichlorophenol
18.596	0.001	1354876	20.937	0.001	1734112	86.1	82.5	4.2	2,4,6-Tribromophenol (sur

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	344.2	329.9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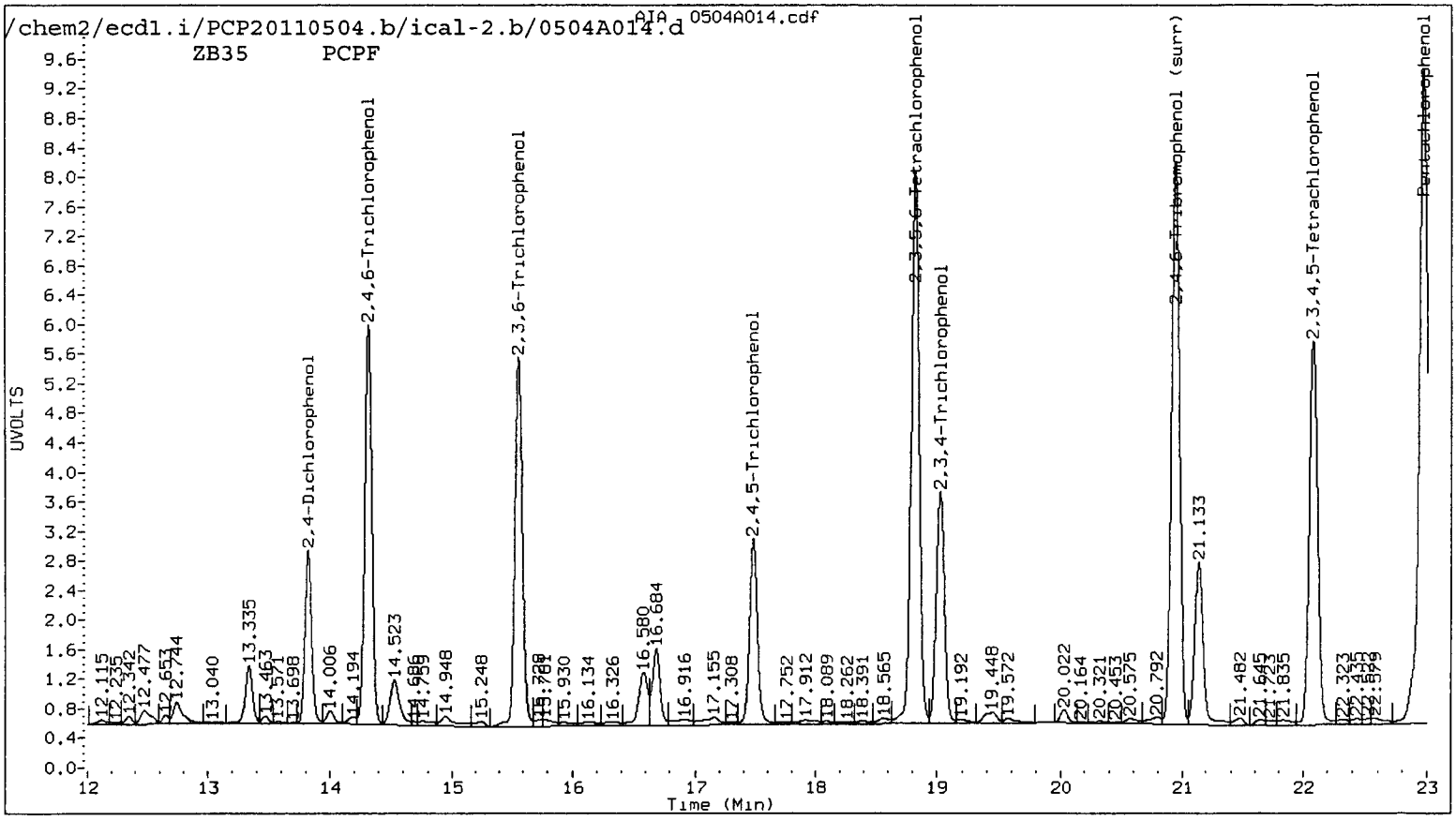
AIA 0504A014.cdf
ZB-5 PCPF
UVOLTS
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
2,4,5-Trichlorophenol
2,3,5,6-Tetrachlorophenol
2,3,4-Trichlorophenol
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
Time (Min)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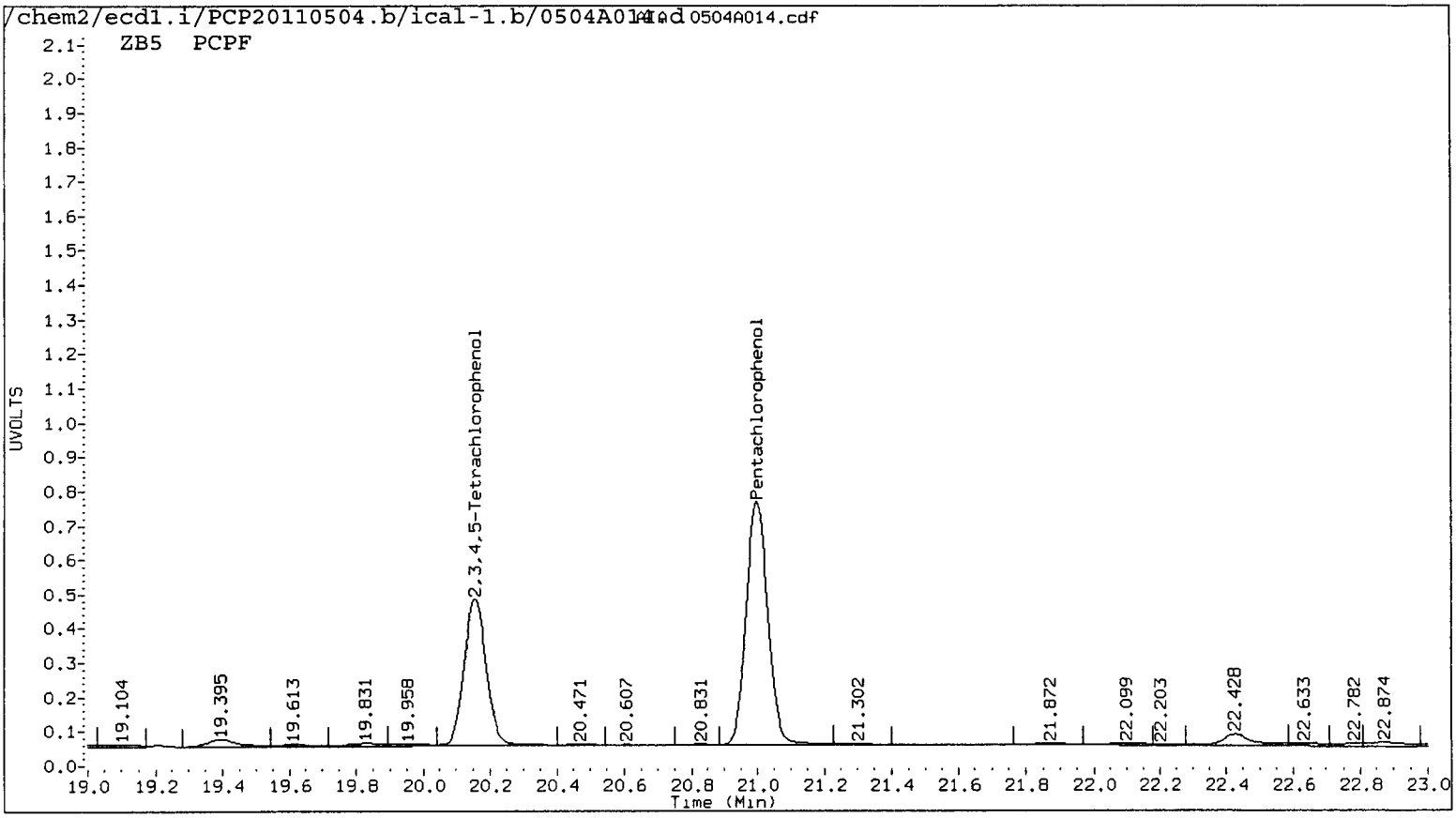
AIA 0504A014.cdf
ZB35 PCPF
UVOLTS
2,4-Dichlorophenol
2,4,6-Trichlorophenol
2,3,6-Trichlorophenol
2,4,5-Trichlorophenol
2,3,4-Trichlorophenol
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
Time (Min)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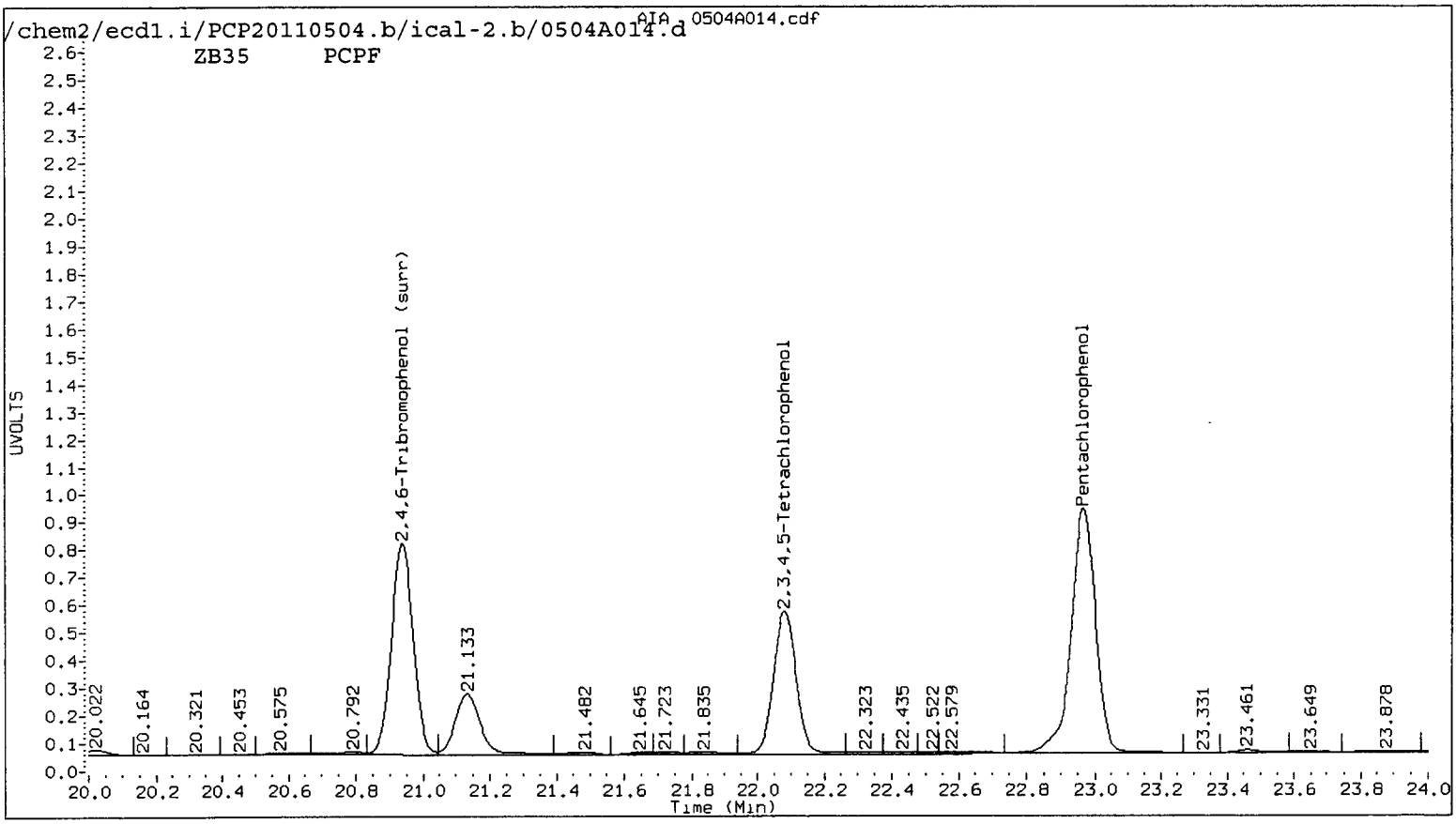
AIA 0504A014.cdf
ZB5 PCPF
UVOLTS
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
19.104
19.395
19.613
19.831
19.958
20.471
20.607
20.831
21.302
21.872
22.099
22.203
22.428
22.633
22.782
22.874
Time (Min)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AIA 0504A014.cdf
ZB35 PCPF
UVOLTS
2,4,6-Tribromophenol (surr)
2,3,4,5-Tetrachlorophenol
Pentachlorophenol
20.022
20.164
20.321
20.453
20.575
20.792
21.133
21.482
21.645
21.723
21.835
22.323
22.435
22.522
22.579
23.331
23.461
23.649
23.878
Time (Min)

Data File: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A014.d

Page 1

Date : 04-MAY-2011 16:57

Client ID:

Instrument: ecd1.i

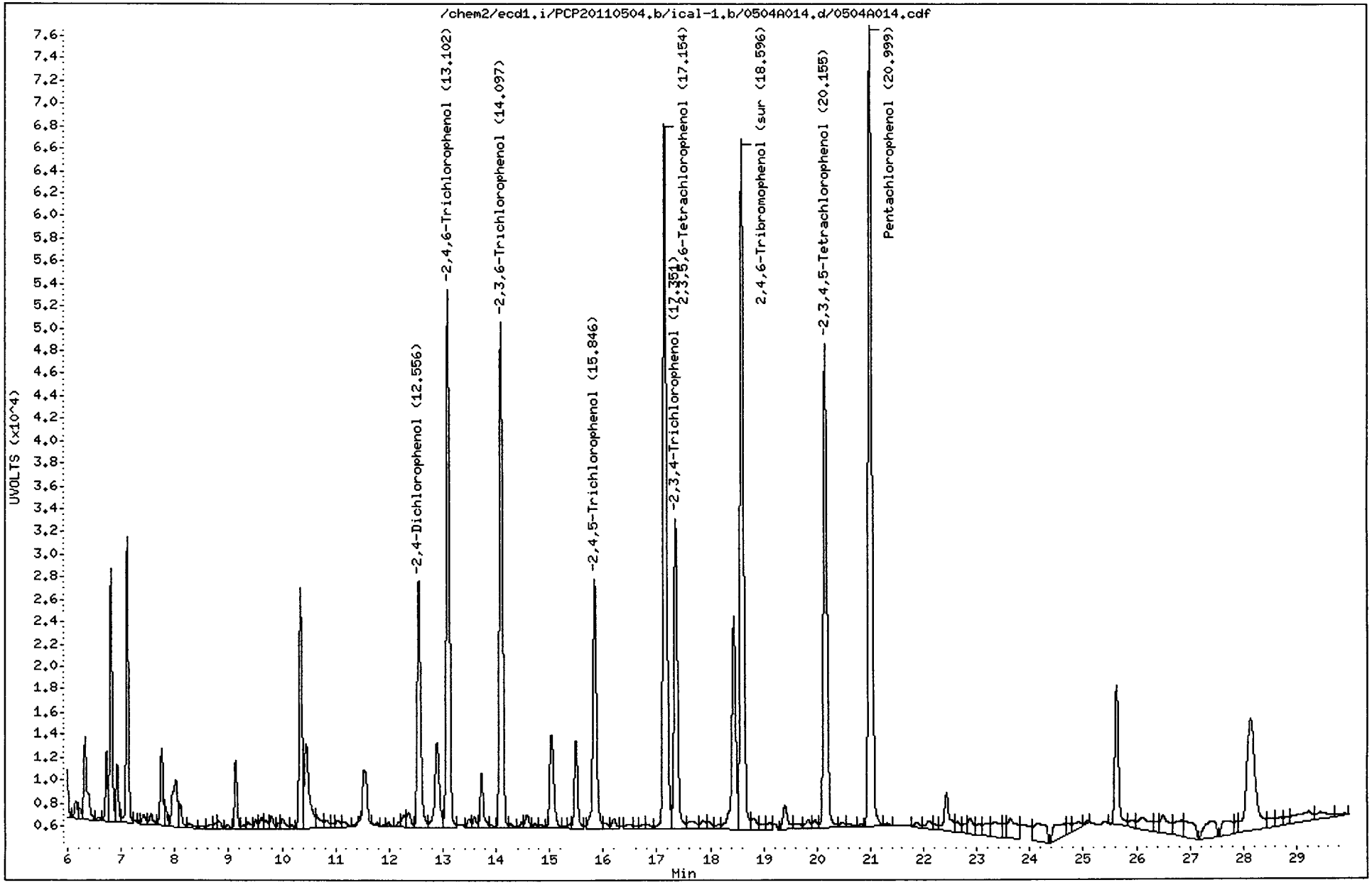
Sample Info: PCPF

Purge Volume: 500.0

Operator: ar

Column phase: STX CLP1

Column diameter: 0.53



Data File: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A014.d

Page 1

Date : 04-MAY-2011 16:57

Client ID:

Instrument: ecd1.i

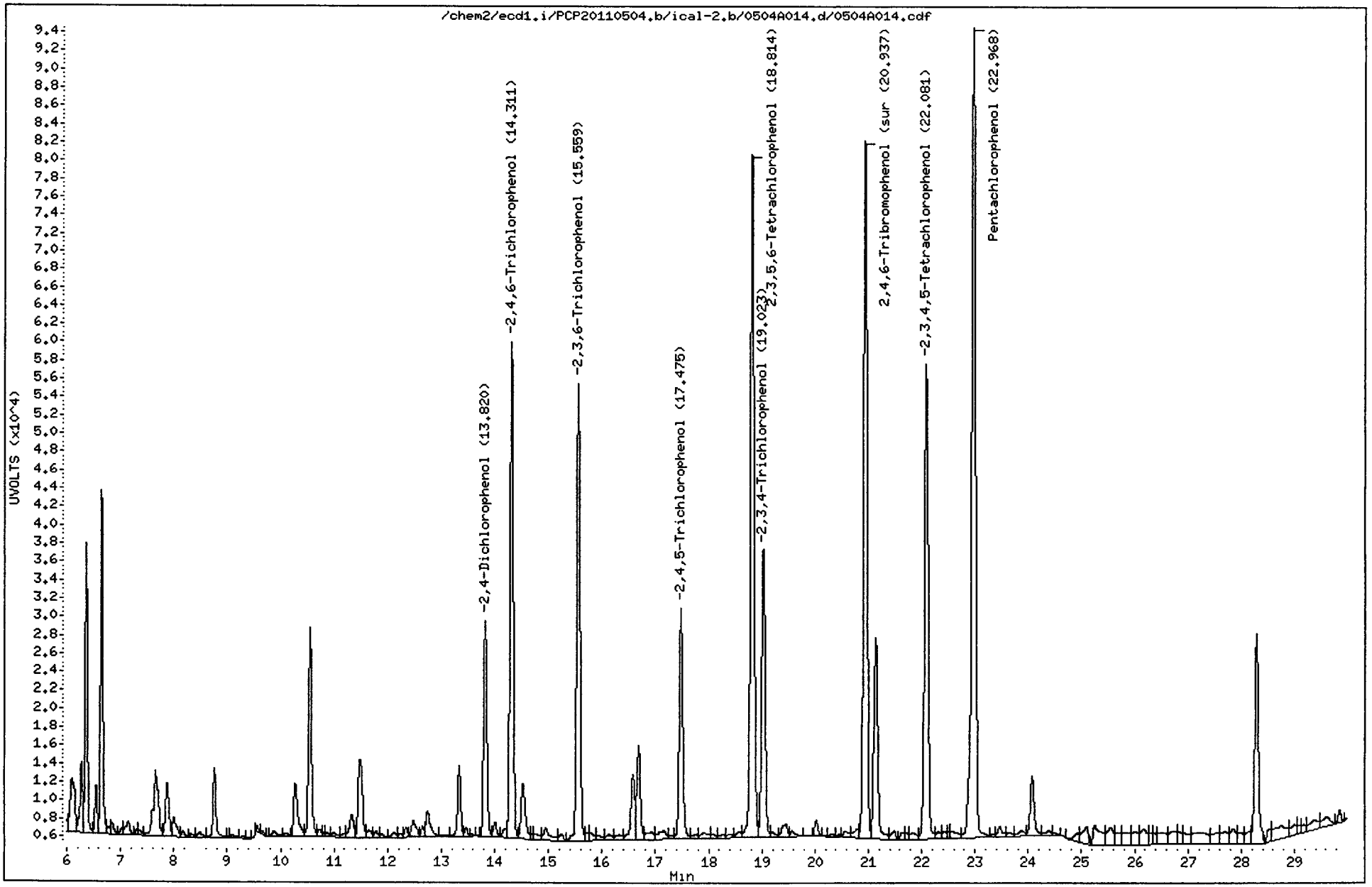
Sample Info: PCPF

Purge Volume: 500.0

Operator: ar

Column phase: STX CLP2

Column diameter: 0.53



96700 ESTS

3317

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A015.d ARI ID: PCP ICV
Data file 2: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A015.d Client ID:
Method: /chem2/ecd1.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 17:33
Compound Sublist: all Report Date: 05/06/2011 10:51
Instrument: ecd1.i Matrix: WATER
Operator: ar Dilution Factor: 1.000

ZB-5 Col RT	Shift	Response	ZB35 Col RT	Shift	Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.999	0.002	419390	22.968	0.001	573013	20.8143	20.3478	2.3	Pentachlorophenol
13.103	0.002	261364	14.313	0.002	313109	21.4712	21.6030	0.6	2,4,6-Trichlorophenol
14.099	0.002	249795	15.560	0.003	297315	21.8111	20.6851	5.3	2,3,6-Trichlorophenol
15.847	0.002	142426	17.476	0.002	175158	21.0491	21.6360	2.7	2,4,5-Trichlorophenol
17.354	0.002	182226	19.024	0.001	220578	21.8095	23.9827	9.5	2,3,4-Trichlorophenol
17.155	0.002	353209	18.816	0.002	460959	20.8916	21.0119	0.6	2,3,5,6-Tetrachlorophenol
20.157	0.002	280017	22.081	0.001	345838	21.5700	22.3963	3.8	2,3,4,5-Tetrachlorophenol
12.557	0.002	154019	13.822	0.002	166897	231.9359	235.4487	1.5	2,4-Dichlorophenol
18.598	0.002	326814	20.938	0.002	449994	20.8	21.4	3.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	83.3	81.4
2,4,6-Trichlorophenol	85.9	86.4
2,3,6-Trichlorophenol	87.2	82.7
2,4,5-Trichlorophenol	84.2	86.5
2,3,4-Trichlorophenol	87.2	95.9
2,3,5,6-Tetrachlorophenol	83.6	84.0
2,3,4,5-Tetrachlorophenol	86.3	89.6
2,4-Dichlorophenol	92.8	94.2
2,4,6-TBP (surr)	~~41.5~~ 83.0	42.8 85.6