US EPA RECORDS CENTER REGION 5
497033

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
START
SYBILL SITE
DATA VALIDATION

Trace Analytical Laboratories, Inc., Muskegon, Michigan

TPH by 418.1

1.

Samples	Lab ID	Matrix	Date Collected	Date Prepared	Date Analyzed
AST-1	DB116-01	Water	2/13/03	2/14/03	02/17/03
AST-2	DB116-02	Sludge	2/13/03	2/14/03	02/17/03

2. Holding Times

All samples were analyzed within required holding times.

3. Blanks

One method blank (SB021401) was associated with these samples.

No TPH was detected in the method blanks.

4. Laboratory Control Sample

All laboratory control spike sample results were acceptable.

5. Surrogate Spike Recoveries

All surrogate spike recoveries were within quality control limits.

Karen J Campbell
3/7/03

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
START
SYBILL SITE
DATA VALIDATION

Trace Analytical Laboratories, Inc., Muskegon, Michigan

Diesel Range Organics (DRO) by SW 846 Method 8015B

1.

Samples	Lab ID	Matrix	Date Collected	Date Prepared	Date Analyzed
AST-1		Water	2/13/03	2/14/03	02/17/03
AST-2		Sludge	2/13/03	2/14/03	02/17/03

2. Holding Times

All samples were analyzed within required holding times.

3. Blanks

One method blank (OB021401) was associated with these samples.

No DRO was detected in either of the method blanks.

4. Laboratory Control Sample

All laboratory control spike sample results were acceptable.

5. Surrogate Spike Recoveries

All surrogate spike recoveries were within quality control limits.

Karen J Campbell
3/7/03

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE

the science of compliance

February 24, 2003

Mr. Dan Capone
Weston Solutions
2501 Jolly Rd. Suite 100
Okemos, MI 48864

RE: TRACE ID DB116
Weston Solutions
Project: Sybill

Dear Mr. Capone:

Enclosed are the analytical results for the above referenced project. The samples were received on February 14, 2003, in good condition, correctly labeled and properly preserved.

The analytical data associated with this project has been reviewed for accuracy, precision, and completeness. Methods used for analyses are indicated on analytical reports. Every practical effort was made to meet the quality control requirements of each analytical method, and the detection level specifications of the project. The GC/MS fingerprint data is included as the chromatogram off the instrument. Also included, is the fingerprint that was performed on 5W-30 motor oil. Perhaps this will facilitate a comparison to help determine the type of contaminant in the samples.

No problems were encountered during the handling and/or analyses of the samples, therefore, no Statement of Data Qualifications was required. Please note that narratives for quality control data which fell outside of specifications, but had no impact on the actual sample data, are included on the individual QC reports. If you have any questions or require further information, please do not hesitate to contact me at 1-800-733-5998 ext. 224.

Sincerely,

Ann L. Preston
Client Services Manager

Enclosures

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE

the science of compliance

February 24, 2003
Mr. Dan Capone
Project : Sybill

CROSS REFERENCE TABLE

WESTON SOLUTIONS ID	TRACE ID
AST-1	DB116-01
AST-2	DB116-02

Chain of Custody Form(s)
Sample Log-in Checklist(s)

Chain of Custody

2/21

2241 Black Creek Rd
Muskegon, MI 49444-2673

Project Number: W.O.# 12634.001.001.0309.00

Firm Name	Weston Solutions of MI, Inc.
Turn around time	5 business days
Date	2/13/03
Date Due	
Firm Address	2501 Jolly Rd Suite 100
Project Name	USEPA - Sybill Site
City, State, Zip	Okemos, MI 48864-3515
State Samples Taken From	AST #2 EPA Sybill Site
Phone	517 381-5932
Fax	517 381-5921
Contact Person	Dan Capone

Item No	Lab I.D.	Client Sample Number	Date Taken	Time Taken	Sample Description (sample type: water, soil, other)	Number of Containers	TPH 418.1 soil	DRO 8015 soil	GC/MS Fingerprint 8270 soil						Remarks
01		AST-1	2/13/03	1420	0-3' water/oily	3-8oz	X	X	X						
02		AST-2	2/13/03	1445	18' sludge material	3 8oz	X	X	X						
3															
4															
5															
6															
7															
8															
9															
10															

Released by	Received by	Date	Time
Shawn [illegible]	[illegible]	2-14-03	10:10
FED-Ex			

Laboratory use only

5 day TAT

☐ Blue Ice ____°

☐ Regular Ice

☐ No Coolant

Quote 5806

Level III Data Pkg

SAMPLE LOG IN CHECKLIST

Date: 2-14-03 | Client Name: Weston | # of Coolers: 1

HPN #: | Project Name: Sybil Site | Cooler #s: Clients

Project #: DB1C6 | Logged in by: DSmith | Cooler #s:

Cooler Receipt

Cooler/samples delivered by: Trace courier [ ] Hand delivered [ ] Commercial courier [✓] — Name of delivery person: ____ Name of courier service: FED EX

Did cooler come with a bill of lading? No [✓] Yes [ ] — Way Bill or Tracking #: ____

COC Seals present and intact on cooler? No [ ] Yes [✓] — Custody seals signed by: See Back

Client COC number: ____

Type of packing in cooler: ____

Coolant and Temperature

Type of Coolant Used

	Yes	No
Slurry w/ crushed, cubed, or chip ice?	[ ]	[ ]
Multiple bags of ice around samples?	[X]	[ ]
Ice Packs/ Blue Ice :	[ ]	[ ]
No Coolant Present:		[ ]

Temperature (as taken in Cooler)

Date: 2-14-03 Time: 10:10

Temperature Blank: ____ °C

Range of 3 samples: 4-6 °C

Melt Water: ____ °C

Ice still present upon receipt: [✓] Yes [ ] No

General

	Yes	No	NA
COC taped to inside of cooler lid?	[ ]	[✓]	[ ]
All bottles arrived unbroken with labels in good condition?	[✓]	[ ]	[ ]
Each sample is in a sealed plastic bag?	[✓]	[ ]	[ ]
Labels filled out completely?	[✓]	[ ]	[ ]
All bottle labels agree with Chain of Custody (COC)?	[✓]	[ ]	[ ]
Sufficient sample to run tests requested?	[✓]	[ ]	[ ]
pH checked and samples at correct pH?	[ ]	[ ]	[✓]
Correct preservative added to samples?	[ ]	[ ]	[✓]
Soil volatiles received and appropriate check in form completed?	[ ]	[ ]	[✓]
Air bubbles absent from VOAs?	[ ]	[✓]	[✓]
COC filled out properly and signed by client?	[✓]	[ ]	[ ]
COC signed in by TRACE sample custodian?	[✓]	[ ]	[ ]
Was project manager called and samples discussed?	[ ]	[ ]	[ ]

Contact: ____ Date: ____

Notes: ____

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
traceanalytical@mad.scientist.com

TRACE
Assurance
Accuracy
Accountability

Custody Seal
Sam Blue 2/13/05

13
31

Janaş
Ma'na

Sample Results

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

TRACE ID:	DB116-01
REPORT DATE:	02/24/03
ANALYSIS DATE:	02/17/03
EXTRACTION DATE:	02/14/03
ANALYST:	tml
SAMPLE DATE:	02/13/03
SAMPLE RECEIVED:	02/14/03
SAMPLE TYPE:	Oil
SAMPLER:	NA

Mr. Dan Capone
Weston Solutions Inc.

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
SAMPLE ID: AST-1 (0-3' Water-Oily)
BATCH ID: DRO021401S

PARAMETER	RESULT mg/kg	REPORTING LIMIT mg/kg	METHOD NUMBER
Diesel Range Organics	390000	41000	EPA 8015 Mod.

SURROGATE PERFORMANCE	RECOVERY %	CONTROL LIMIT %
Triacontane	89	50 - 118

U = Undetected at reporting limits

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

TRACE ID: DB116-02
REPORT DATE: 02/24/03
ANALYSIS DATE: 02/17/03
EXTRACTION DATE: 02/14/03
ANALYST: tml
SAMPLE DATE: 02/13/03
SAMPLE RECEIVED: 02/14/03
SAMPLE TYPE: Oil
SAMPLER: NA

Mr. Dan Capone
Weston Solutions Inc.

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
SAMPLE ID: AST-2 (18' Sludge-Material
BATCH ID: DRO021401S

PARAMETER	RESULT mg/kg	REPORTING LIMIT mg/kg	METHOD NUMBER
Diesel Range Organics	420000	44000	EPA 8015 Mod.

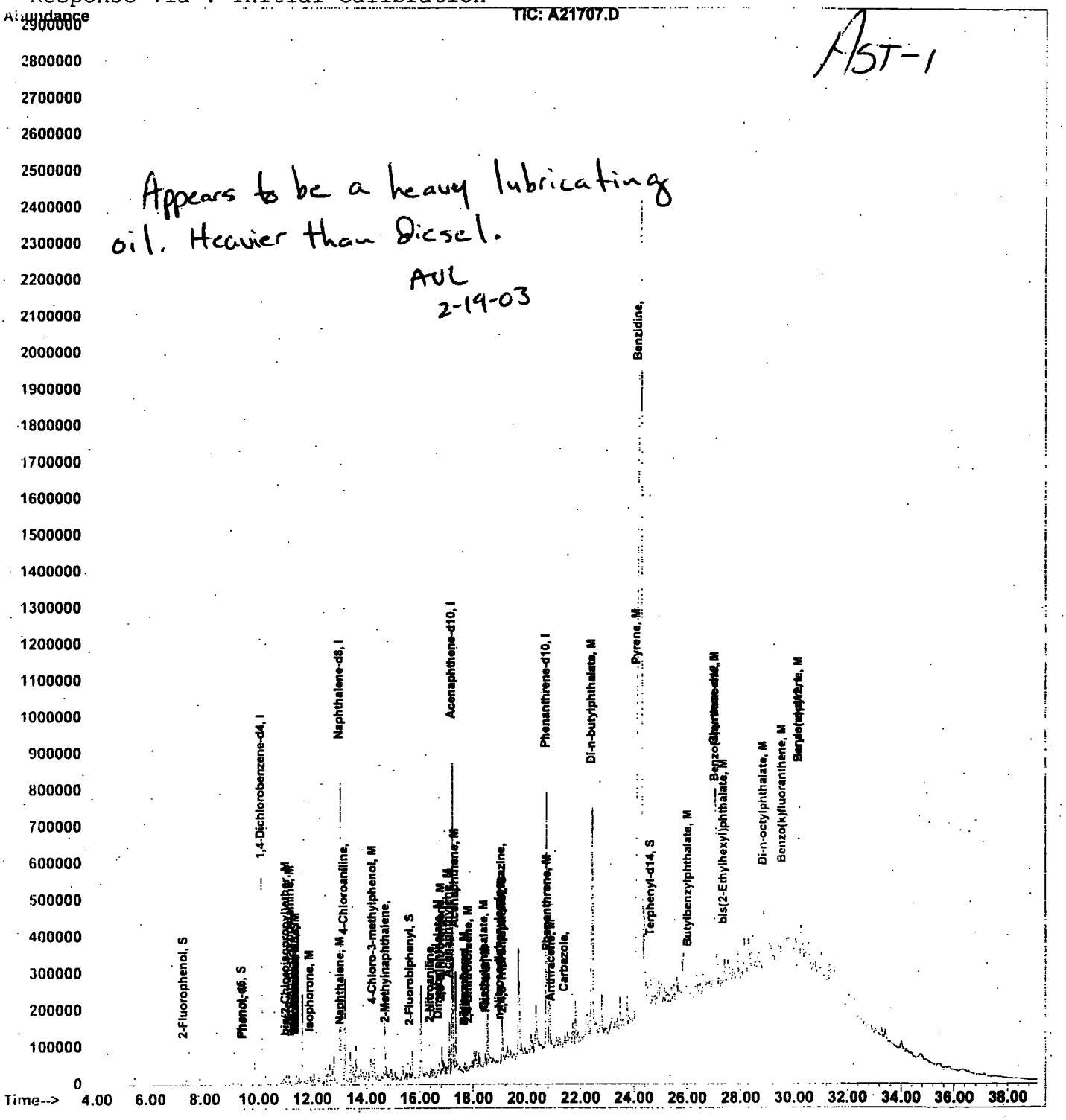
SURROGATE PERFORMANCE	RECOVERY %	CONTROL LIMIT %
Triacontane	91	50 - 118

U = Undetected at reporting limits

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D Vial: 7
Acq On : 17 Feb 2003 5:02 pm Operator: AVL/TC
Sample : DB116-01 DIL=10 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003 Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



AST-1

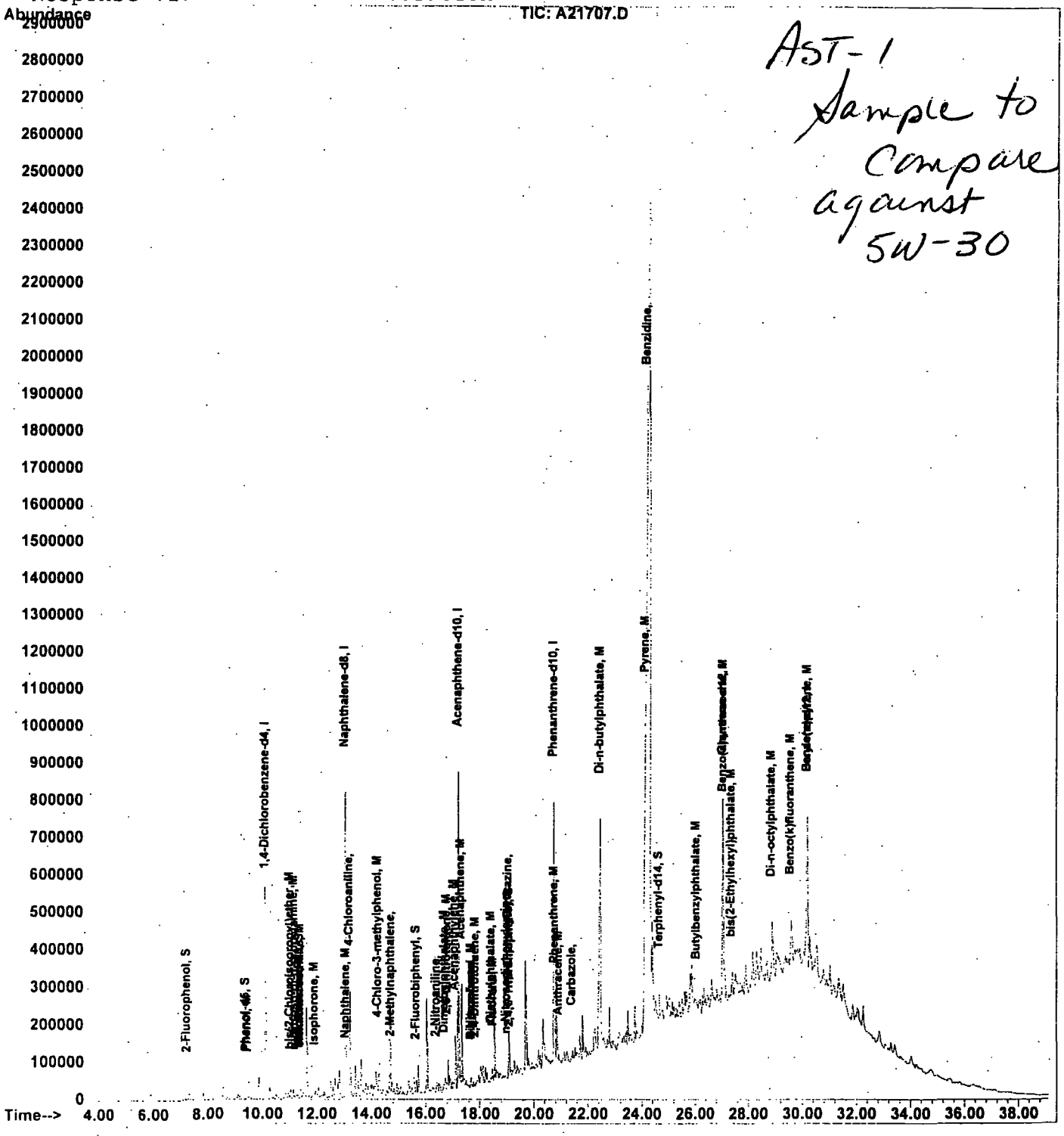
Appears to be a heavy lubricating oil. Heavier than Diesel.

AVL
2-19-03

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D Vial: 7
Acq On : 17 Feb 2003 5:02 pm Operator: AVL/TC
Sample : DB116-01 DIL=10 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003 Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration



AST-1 Sample to Compare against 5W-30

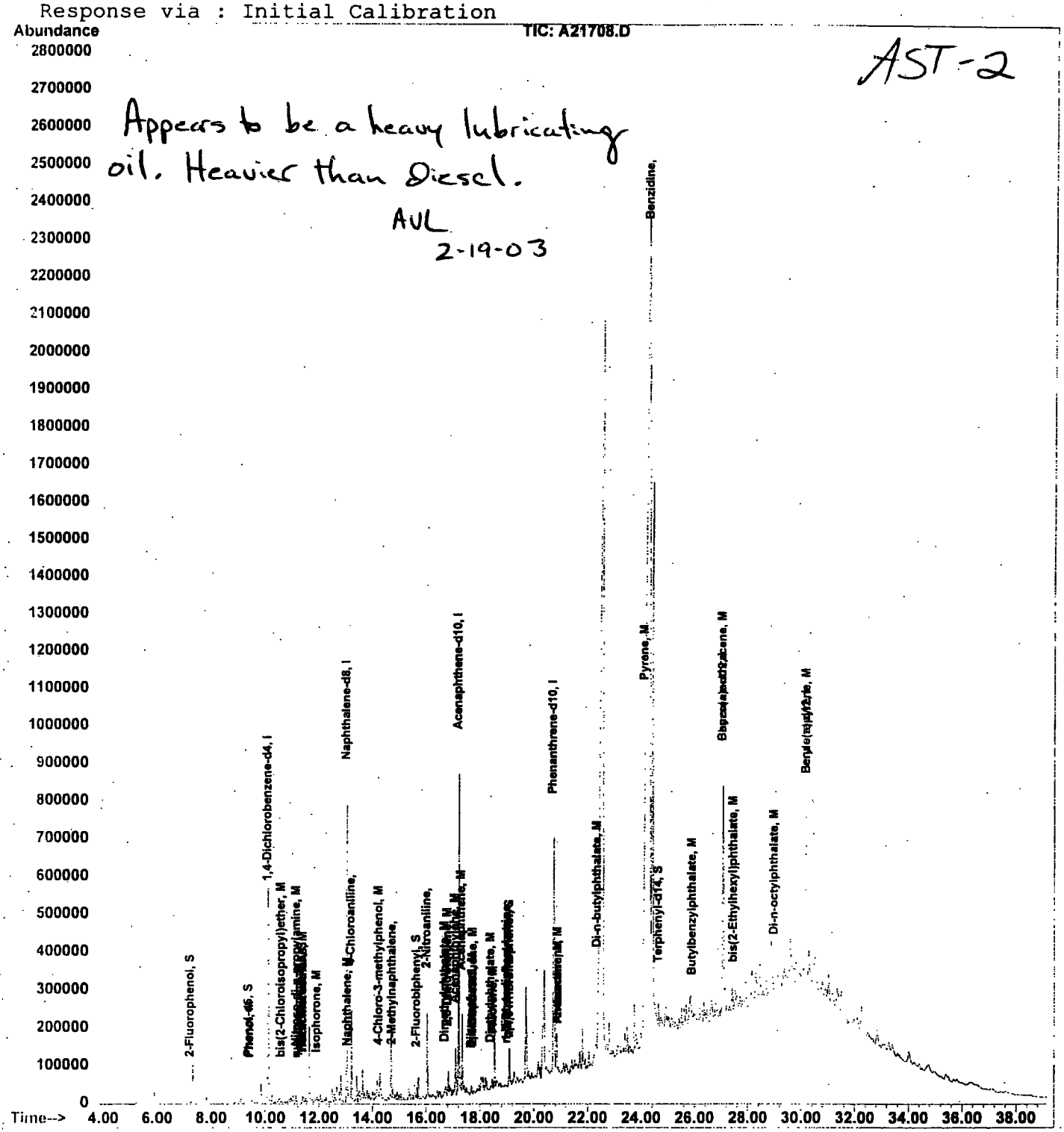
Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21708.D
Acq On : 17 Feb 2003 5:52 pm
Sample : DB116-02 DIL=10 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 18:31 2003

Vial: 8
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



AST-2

Appears to be a heavy lubricating oil. Heavier than Diesel.

AVL
2-19-03

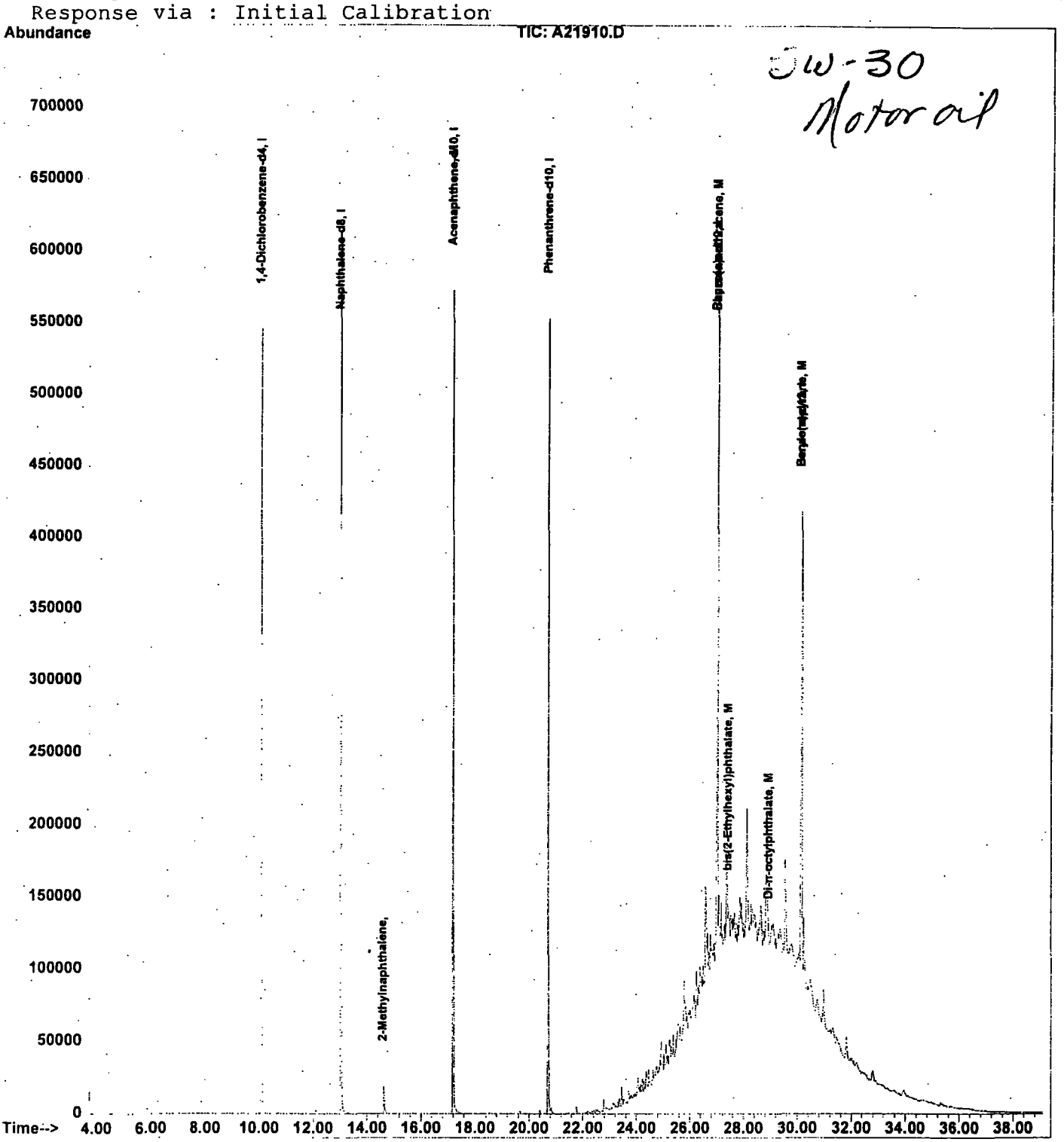
Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-19-03\A21910.D
Acq On : 19 Feb 2003 2:38 pm
Sample : MOTOR OIL (5W30)
Misc :
MS Integration Params: rteint.p
Quant Time: Feb 19 15:17 2003

Vial: 10
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

Mr. Dan Capone
Weston Solutions Inc.

TRACE ID: DB116
REPORT DATE: 02/24/03
METHOD: EPA 418.1
ANALYST: cr
SAMPLE RECEIVED: 02/14/03
SAMPLE TYPE: Oil
SAMPLER: NA

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
BATCH ID: TPH021401W

TRACE SAMPLE NO.	SAMPLE DATE	SAMPLE ID	TOTAL PETROLEUM HYDROCARBONS	REPORTING LIMIT	ANALYZED
01	02/13/03	AST-1 (0-3' Water-Oily)	100%	0.0050%	02/20/03
02	02/13/03	AST-2 (18' Sludge-Material)	100%	0.0050%	02/20/03
Method Blank		SB021401	U	0.0050%	02/20/03

U = Undetected at reporting limits

Quality Control Results

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

Mr. Dan Capone
Weston Solutions Inc.

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
SAMPLE ID: Method Blank OB021401
BATCH ID: BNA021401O

TRACE ID: DB116
REPORT DATE: 02/24/03
ANALYSIS DATE: 02/17/03
EXTRACTION DATE: 02/14/03
ANALYST: tc
D.L. MULTIPLIER: 1
SAMPLE DATE: NA
SAMPLE RECEIVED: NA
SAMPLE TYPE: Oil
SAMPLER: NA

EPA 8270 MASS SPECTROMETRY SEMI-VOLATILE ORGANICS TARGET COMPOUND LIST	RESULT mg/kg	REPORTING LIMIT mg/kg
bis(2-Chloroethyl)ether	U	25
2-Chlorophenol	U	25
Phenol	U	25
1,3-Dichlorobenzene	U	25
1,4-Dichlorobenzene	U	25
1,2-Dichlorobenzene	U	25
Benzyl alcohol	U	25
bis(2-Chloroisopropyl)ether	U	25
2-Methylphenol	U	25
3/4-Methylphenol	U	25
N-Nitroso-di-n-propylamine	U	25
Hexachloroethane	U	25
Nitrobenzene	U	25
Isophorone	U	25
2-Nitrophenol	U	25
2,4-Dimethylphenol	U	25
bis(2-Chloroethoxy)methane	U	25
Benzoic acid	U	50
1,2,4-Trichlorobenzene	U	25
2,4-Dichlorophenol	U	25
Naphthalene	U	25
4-Chloroaniline	U	25
Hexachloro-1,3-butadiene	U	25
4-Chloro-3-methylphenol	U	25
2-Methylnaphthalene	U	25
Hexachlorocyclopentadiene	U	50
2,4,6-Trichlorophenol	U	25
2,4,5-Trichlorophenol	U	25
2-Chloronaphthalene	U	25
2-Nitroaniline	U	25
Dimethylphthalate	U	25
Acenaphthylene	U	25
2,6-Dinitrotoluene	U	25
3-Nitroaniline	U	25
Acenaphthene	U	25
Dibenzofuran	U	25
2,4-Dinitrotoluene	U	25
4-Nitrophenol	U	200
2,4-Dinitrophenol	U	200
Diethylphthalate	U	25
Fluorene	U	25

U = Undetected at reporting limits

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

CLIENT: Weston Solutions Inc.
TRACE ID: DB116

EPA 8270 MASS SPECTROMETRY SEMI-VOLATILE ORGANICS TARGET COMPOUND LIST	RESULT mg/kg	REPORTING LIMIT mg/kg
4-Chlorophenyl-phenylether	U	25
4-Nitroaniline	U	25
4,6-Dinitro-2-methylphenol	U	50
N-Nitrosodiphenylamine	U	25
4-Bromophenyl-phenylether	U	25
Hexachlorobenzene	U	25
Pentachlorophenol	U	50
Phenanthrene	U	25
Anthracene	U	25
Carbazole	U	25
Di-n-butylphthalate	U	25
Fluoranthene	U	25
Pyrene	U	25
Butylbenzylphthalate	U	25
Benzo(a)anthracene	U	25
Chrysene	U	25
3,3'-Dichlorobenzidine	U	25
bis(2-Ethylhexyl)phthalate	U	25
Di-n-octylphthalate	U	25
Benzo(b)fluoranthene	U	25
Benzo(k)fluoranthene	U	25
Benzo(a)pyrene	U	25
Indeno(1,2,3-cd)pyrene	U	25
Dibenzo(a,h)anthracene	U	25
Benzo(g,h,i)perylene	U	25

SURROGATE PERFORMANCE	RECOVERY %	CONTROL LIMIT %
2-Fluorophenol	90	70 - 130
Phenol-D50	91	70 - 130
Nitrobenzene-D50	91	70 - 130
2-Fluorobiphenyl	94	70 - 130
2,4,6-Tribromophenol	76	70 - 130
p-Terphenyl-d14	96	70 - 130

U = Undetected at reporting limits

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

LCS Recovery and RPD Summary Report

Trace ID : OS021401/OSD021401
QC Batch ID: BNA 021401O
Analytical Batch: A217003
Extraction Date: 2-14-03
Analysis Date: 2-17-03

Analyst Initials: TC
Matrix: OTHER
Method Number: 8270
Client: R.F. WESTON
LCS Multiplier: 1.00
LCSD Multiplier: 1.00

Compound Name	Sample Conc. ug/l	LCS Spk Added ug/l	LCSD Spk Added ug/l	LCS Final ug/l	LCSD Final ug/l	LCS %Rec	LCSD %Rec	RPD	QC Limits RPD	QC Limits %Rec
2-Chlorophenol	0.0	200	200	200	190	100	95	5.1	30	40-160
Phenol	0.0	200	200	180	180	90	90	0.0	30	40-160
1,4-Dichlorobenzene	0.0	100	100	100	100	100	100	0.0	30	40-160
N-Nitroso-di-n-propylamine	0.0	100	100	99	97	99	97	2.0	30	40-160
1,2,4-Trichlorobenzene	0.0	100	100	110	100	110	100	9.5	30	40-160
4-Chloro-3-methylphenol	0.0	200	200	180	180	90	90	0.0	30	40-160
Acenaphthene	0.0	100	100	99	98	99	98	1.0	30	40-160
2,4-Dinitrotoluene	0.0	100	100	73	71	73	71	2.8	30	40-160
4-Nitrophenol	0.0	200	200	140	130	70	65	7.4	30	40-160
Pentachlorophenol	0.0	200	200	170	170	85	85	0.0	30	40-160
Pyrene	0.0	100	100	94	94	94	94	0.0	30	40-160

Surrogates	Amount Added	LCS Conc	LCSD Conc	LCS %Rec	LCSD %Rec	QC Limits % Rec
2-Fluorophenol	100	90	87	90	87	70-130
Phenol-d5	100	98	99	98	99	70-130
Nitrobenzene-d5	100	88	88	88	88	70-130
2-Fluorobiphenyl	100	96	95	96	95	70-130
2,4,6-Tribromophenol	100	93	93	93	93	70-130
p-Terphenyl-d14	100	92	95	92	95	70-130

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

TRACE ID:	DB116
REPORT DATE:	02/24/03
ANALYSIS DATE:	02/17/03
EXTRACTION DATE:	02/14/03
ANALYST:	tml
SAMPLE DATE:	NA
SAMPLE RECEIVED:	NA
SAMPLE TYPE:	Oil
SAMPLER:	NA

Mr. Dan Capone
Weston Solutions Inc.

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
SAMPLE ID: Method Blank OB021401
BATCH ID: DRO021401S

PARAMETER	RESULT mg/kg	REPORTING LIMIT mg/kg	METHOD NUMBER
Diesel Range Organics	U	1000	EPA 8015 Mod.

SURROGATE PERFORMANCE	RECOVERY %	CONTROL LIMIT %
Triacontane	88	50 - 118

U = Undetected at reporting limits

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

Laboratory Control Spike Recovery and RPD Summary Report

Trace ID: OS, OSD 021401
QC Batch ID: DRO021401S
Analytical Batch:
Extraction Date: 2-14-03
Analysis Date: 2-17-03

Analyst Initials: TML
Matrix: OIL
Method Number: Modified 8015
Client: Weston DB116

Multiplier: 1.0000

Compound Name	Blank Conc. mg/kg	LCS Spk Added mg/kg	LCSD Spk Added mg/kg	LCS Final mg/kg	LCSD Final mg/kg	**LCS %Rec**	**LCSD %Rec**	**RPD**	QC Limits RPD	QC Limits %Rec
Diesel Range Organics	0	500	500	432	443	**86**	**89**	**2.5**	25	66-120

Surrogates	Amount Added	LCS Conc	LCSD Conc	**LCS %Rec**	**LCSD %Rec**	QC Limits % Rec
Triacontane	200	181	176	**91**	**88**	50-118

* = see narrative below

phone 231-773-5998
toll-free 800-733-5998
fax 231-773-6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

Quality Control Report for Wet Chemistry

TPH

Trace LCS ID:	SS/SSD021401
QC Batch ID:	TPH021401S
Analysis Date:	02/20/03
MS/MSD ID:	*
Method:	418.1

Parameter	Method Blank Result (mg/kg)	LCS Spk. Added (mg/kg)	LCSD Spk. Added (mg/kg)	LCS Result (mg/kg)	LCSD Result (mg/kg)	LCS % Recovery	LCSD % Recovery	RPD	Control Limits % Recovery	Control Limits RPD
TPH	U	809.8	809.8	856.7	845.1	106	104	1.9	49 - 154	6.9

*A matrix spike and matrix spike diplicate were not performed because of high hydrocarbon background concentrations of the samples in the batch.

Trace Analytical Laboratories, Inc. RVWORG.XLS Rev.3
Organics File Review 7/30/97
Trace Job No. DB116

PART 2: ORGANIC MANAGER REVIEW

	DB20				
Appropriate SOPs have been followed	X				
Extraction date on benchsheet	X				
Analyst initials are on benchsheet	X				
Analysis date is on benchsheet	X				
Analysis in file matches request on COC, all requested analytes have been looked for	X				
Calibration data are scientifically sound, appropriate and documented	X				
Quantitative results and detection limits have been reviewed	X				
Detection limit multiplier is correct	X				
Qualitative results have been checked	X				
Quality control issues are explained on benchsheet and noted to report if necessary	X				
Significant figures are correct	X				
Transcriptions are correct from quantitation reports to benchsheets	X				
Extraction amounts on benchsheet match extraction log	X				
Extraction hold times were met	X				
Analyst review has been checked	X				
Analysis is approved for release to reporting	X				

Notations/Comments:

Signed/Date [illegible] 2/18/03

Trace Analytical Laboratories, Inc.
Organics File Review
Trace Job No. D3116

RVWORG.XLS

Rev. 3
7/30/97

PART 1: ANALYST REVIEW

	624	625	8260	8270
GC/MS Analysis				
Appropriate SOP has been followed				✓
Sample preparation information is correct and complete				✓
BFB/DFTPP tune passes criteria				✓
SPCC and CCC compounds pass criteria				✓
All other compounds pass 40 % criteria				✓
Method blank and reagent blank frequency and QC criteria have been met				✓
All samples are analyzed within 12 hours of the tune				✓
All sample hold times are met for analysis				✓
Internal Standards QC criteria has been met or narrated				✓
Surrogate recoveries have met QC criteria or been qualified and narrated on benchsheet				✓
All compounds quantitated are within the calibration curve				✓
MS/MSD criteria has been met or qualified and narrated on benchsheet				✓
LCS data has been met or qualified and narrated on benchsheet				✓
Primary sample qualifiers have been added to benchsheet and explained if necessary				✓
Signed/Date				[illegible] 7-19-03

Notations/Comments:

Trace Analytical Laboratories, Inc.
Organics File Review
Trace Job No. D3116

RVWORG.XLS

Rev. 3
7/30/97

PART 1: ANALYST REVIEW

	8081	8150, 515.1	8015 DRO in OIL	601	8021	601/602
GC Analysis: Semi-Volatiles						
Appropriate SOP has been followed			✓			
Sample preparation information is correct and complete			✓			
DDT and Endrin breakdown passes QC criteria			—			
The CCV has been analyzed at the proper frequency			✓			
The ICV and all CCVs have passed QC criteria			✓			
Method blank and reagent blank criteria have been met			✓			
All samples have been analyzed within hold times			✓			
All surrogate recoveries are within QC limits			✓			
All quantitation is within the calibration curve			✓			
All single component pesticides & herbicides are confirmed on a second column			—			
All internal standard areas are within QC limits			—			
MS/MSD data has been met or			—			
LCS data has been checked against QC criteria			✓			
Qualifiers have been added to the benchsheets and explained			✓			
GC Analysis: Volatiles						
Appropriate SOP has been followed						
Sample preparation information is correct and complete						
The CCV has been analyzed at the proper frequency						
The CCV has passed QC criteria						
Method blank and reagent blank criteria have been met						
All samples have met hold times						
All surrogate recoveries are within QC limits						
All quantitations are within the calibration curve						
All internal standard areas are within QC limits						
MS/MSD data has been checked against QC criteria						
LCS data has been checked against QC criteria						
Qualifiers have been added to the benchsheets and explained						
Signed/ Date			2-18-03			

Notations/Comments:

Trace Analytical Laboratories, Inc.
Wet Chemistry File Review
Trace Job No. D8116

rvwwet.xls

Rev.4
7/30/97

Please enter method here

TPH

PART 1: ANALYST REVIEW

Sample analyzed within hold time								
Analysis in file matches COC								
Sample preparation information is correct and complete								
MS/MSD are within established control limits								
Blanks are within established control limits								
Laboratory control samples are within established control limits								
Qualifiers have been added to benchsheet and explained correctly								
Appropriate SOPs have been followed								
Analyst initials are on benchsheet								
Analysis date is on benchsheet								
Quantitative results are correct and complete								
All data is generated with a valid calibration curve								
Reporting limits have been adjusted if necessary								
Signed/Date	2-21-03 CL							

Notations/Comments:

DB116

DRO

DATA PACKAGE

SEQUENCE LOG INSTRUMENT: FRANK

TRACE ANALYTICAL LABS

DATE: 2-17-03 ANALYST: [illegible]

CURVE DATE: 12-26-02 (DRO-1226.MTH) QC BATCH ID: DRO021401S, DRO021402S

METHOD: 8015 DRO ANALYTICAL BATCH ID: —

File Name	Sample ID	Dilution	IS	Surr.	Additional Info.
0217102	MeCl2				
03	MeCl2				
04	750. PPM DRO				CC: 92%; OK
05	200. PPM SURR				CC: 100%; OK
06	OB021401	10.		P	
07	OS021401	10.		P	
08	OSD021401	10.		P	
09	DB116-01	10.		P	
10	DB116-02	10.		P	
11	DB107-04	1.		P	
12	MS DB107-04	1.		P	
13	MSD DB107-04	1.		P	
14	DB107-01	1.		P	
15	DB107-02	1.		P	
16	MeCl2				
17	MeCl2				
18	750. PPM DRO				CC: 102%; OK
19	200. PPM SURR				CC: 91%; OK
20	SB021401	1.		P	
21	SS021401	1.		P	
22	SSD021401	1.		P	
23	DB107-03	1.		P	
24	DB107-05	1.		P	
25	DB107-06	1.		P	
26	DB107-07	1.		P	
27	DB107-08	1.		P	
28	DB107-09	1.		P	
29	DB107-10	1.		P	
30	MeCl2				
31	MeCl2				
32	750. PPM DRO				CC: 102%; OK
33	200. PPM SURR				CC: 88%; OK

Temperature Program:

Init. temp: 60 deg. C

Init. time: 2.0 min.

Ramp rate: 12. deg. C / min.

Final temp: 300 deg. C

Final time: 4.0 min.

Total run time: 28.5 min.

Column: ZB-5

% Recov CC's (85% - 115%)

P = Pass / F=Fail

I S Name: —

I S Area (-50% to +100%) —

- I S Range:

Surrogate: TRIACONTANE

Surrogate Recovery: 50-118

I S ID: —

Standard ID: SVQ-623.52.0

Surrogate ID: SVS-726.89.0

Spike ID: SVS-726.82.0

Software Version: 4.1<2F12>
Date: 2/17/03 10:57 AM
Sample Name : 750 PPM DRO
Data File : G:\TC4\FRANK\0217104A.RAW Date: 2/17/03 10:30 AM
Sequence File: G:\TC4\FRANK\DRO.SEQ Cycle: 4 Channel : A
Instrument : FRANK Rack/Vial: 0/0 Operator: TML
Sample Amount : 1.0000 Dilution Factor : 1.00

DRO 750 ppm C.C. REPORT

Time [min]	Component Name	Area [µV·s]	Raw Amount	Adjusted Amount	SURR. % RECOV.	SPIKE % RECOV.	C.C. % RECOV.
14.300	DRO	18857013	691.76	691.76	345.9	138.4	92
		18857013	691.76	691.76	345.9	138.4	92

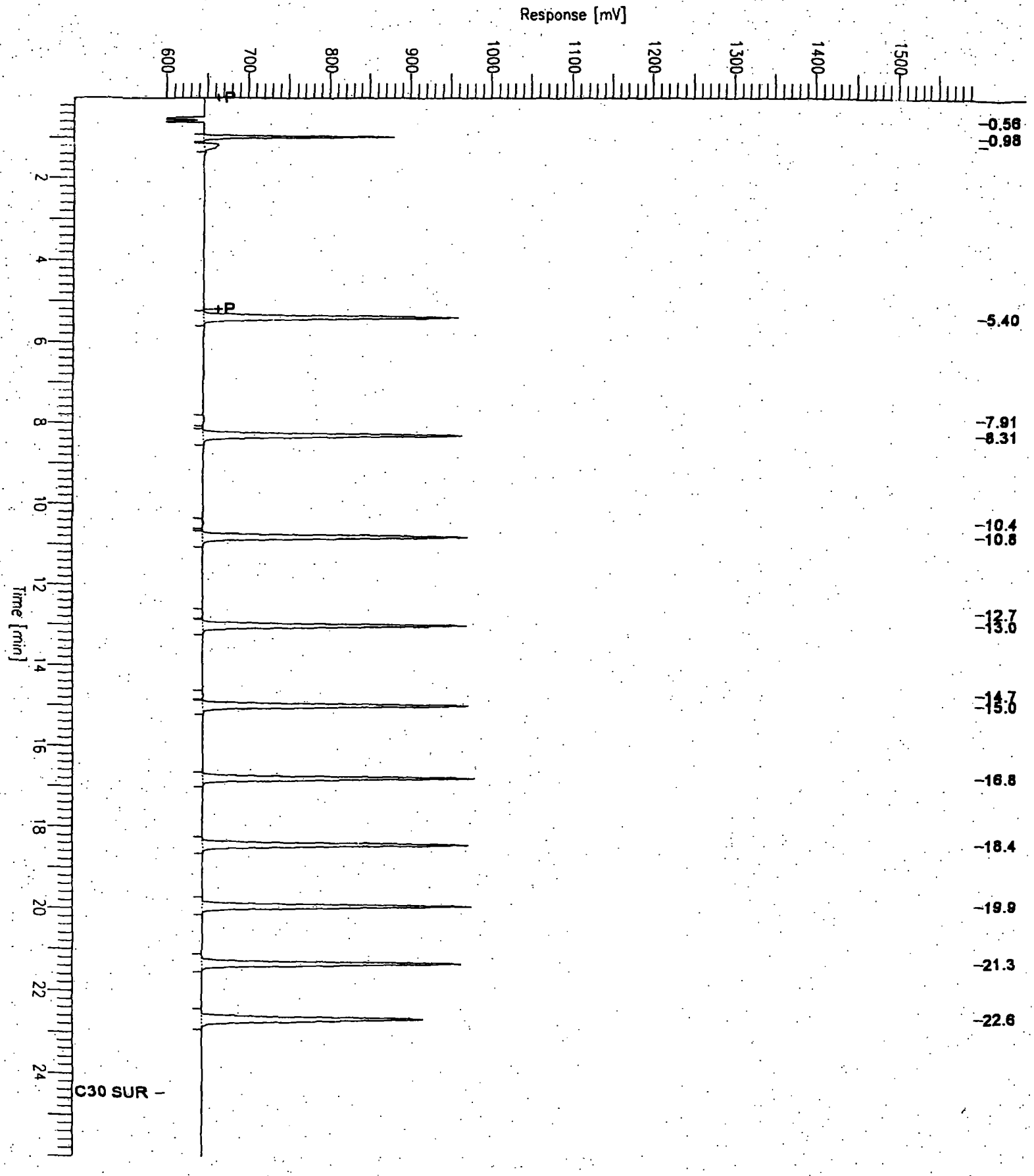
Report stored in ASCII file: G:\TC4\FRANK\0217104.TXO

CC: OK

FRANK DRO - ZB-5

Sample Name : 750 PPM DRO
FileName : G:\TC4\FRANK\0217104A.RAW
Method :
Start Time : 0.02 min End Time : 26.00 min
Scale Factor: 0.0 Plot Offset: 600 mV

Sample #:
Date : 2/17/03 10:57 AM
Time of Injection: 2/17/03 10:30 AM
Low Point : 600.00 mV High Point : 1600.00 mV
Plot Scale: 1000.0 mV



Software Version: 4.1<2F12>
Date: 2/17/03 11:34 AM
Sample Name : 200 PPM SURR.
Data File : G:\TC4\FRANK\0217105A.RAW Date: 2/17/03 11:02 AM
Sequence File: G:\TC4\FRANK\DRO.SEQ Cycle: 5 Channel : A
Instrument : FRANK Rack/Vial: 0/0 Operator: TML
Sample Amount : 1.0000 Dilution Factor : 1.00

DRO REPORT

Time [min]	Component Name	Area [µV·s]	Raw Amount	Adjusted Amount	SURR. % RECOV.	SPIKE % RECOV.	C.C. % RECOV.
24.394	C30 SURROGATE	5810288	199.84	199.84	99.9	40.0	40
		5810288	199.84	199.84	99.9	40.0	40

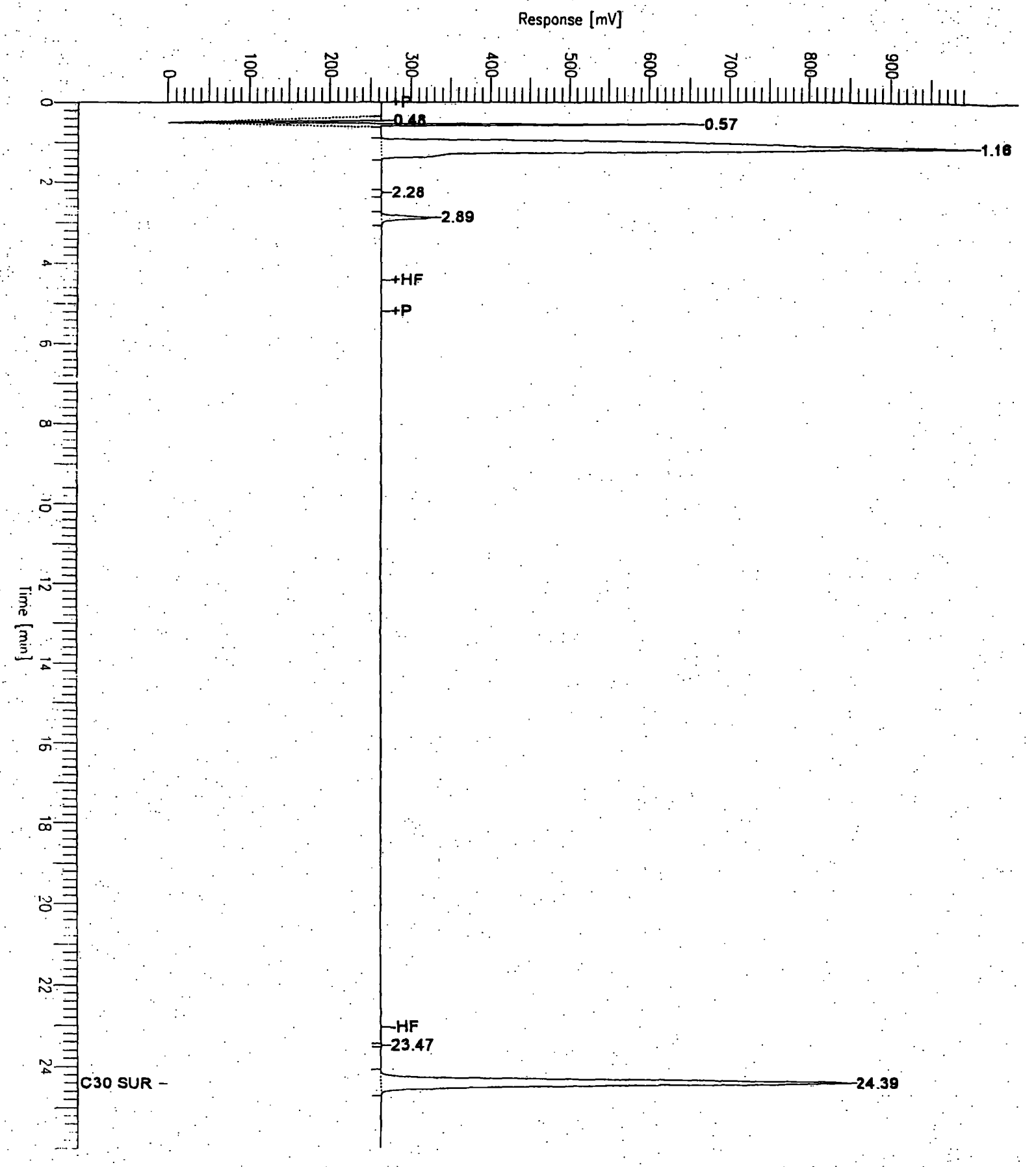
Report stored in ASCII file: G:\TC4\FRANK\0217105.TX0

CC: OK

FRANK DRO - ZB-5

Sample Name : 200 PPM SURR.
FileName : G:\TC4\FRANK\0217105A.RAW
Method :
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: Page 1 of 1
Date : 2/17/03 11:34 AM
Time of Injection: 2/17/03 11:02 AM
Low Point : 0.00 mV High Point : 1000.00 mV
Plot Scale: 1000.0 mV



Software Version: 4.1<2F12>
Date: 2/18/03 12:07 PM
Sample Name : 750 PPM DRO
Data File : G:\TC4\FRANK\0217118B.RAW Date: 2/17/03 07:04 PM
Sequence File: G:\TC4\FRANK\DRO.SEQ Cycle: 18 Channel : A
Instrument : FRANK Rack/Vial: 0/0 Operator: TML
Sample Amount : 1.0000 Dilution Factor : 1.00

DRO 750 ppm C.C. REPORT

Time [min]	Component Name	Area [µV·s]	Raw Amount	Adjusted Amount	SURR. % RECOV.	SPIKE % RECOV.	C.C. % RECOV.
14.300	DRO	20827697	764.27	764.27	382.1	152.9	102
		20827697	764.27	764.27	382.1	152.9	102

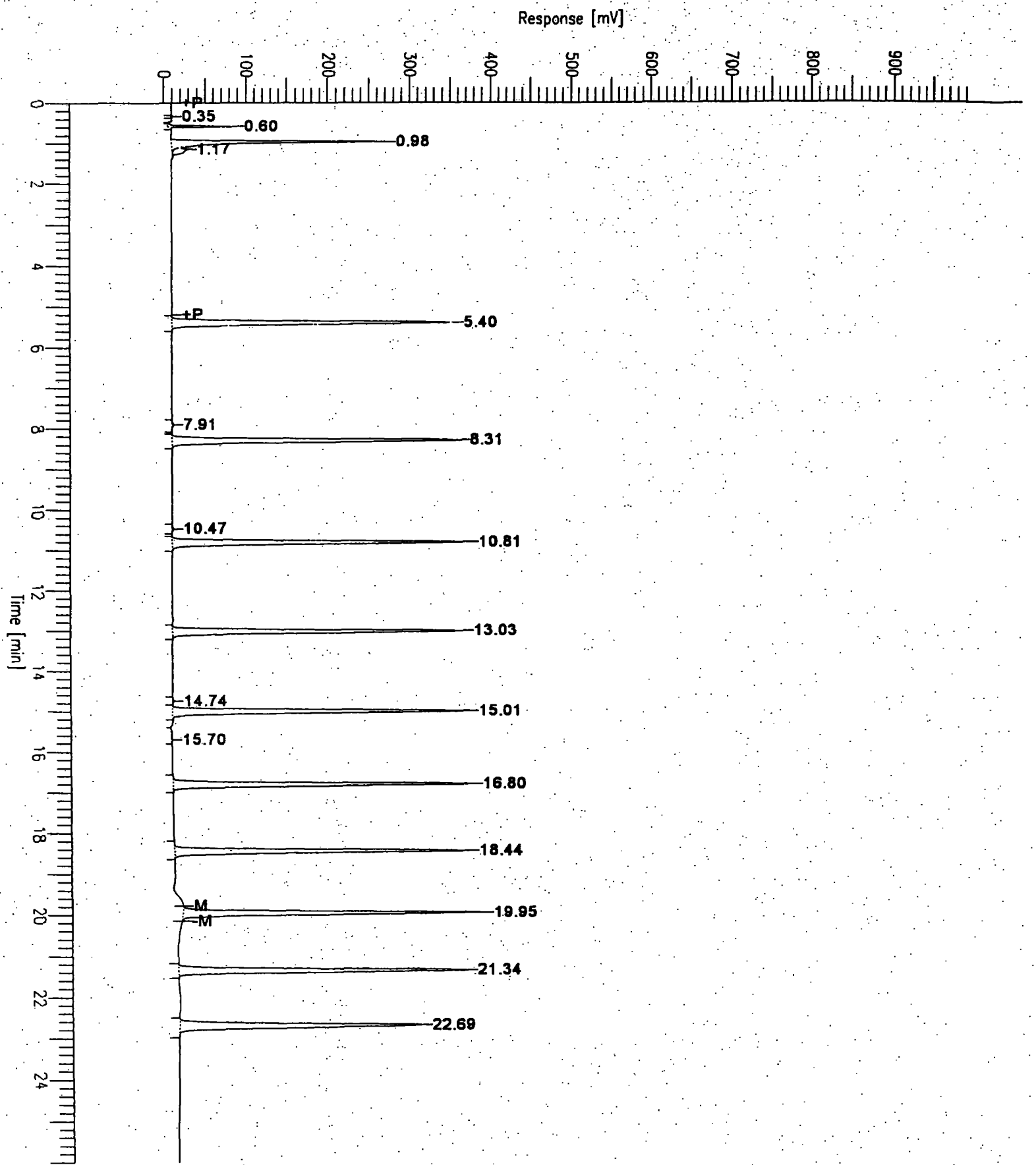
Report stored in ASCII file: G:\TC4\FRANK\0217118.TX0

CC:OK

FRANK DRO - ZB-5

Sample Name : 750 PPM DRO
FileName : G:\TC4\FRANK\0217118B.RAW
Method :
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #:
Date : 2/18/03 12:07 PM
Time of Injection: 2/17/03 07:04 PM
Low Point : 0.00 mV High Point : 1000.00 mV
Plot Scale: 1000.0 mV



Software Version: 4.1<2F12>
Date: 2/18/03 12:07 PM
Sample Name : 200 PPM SURR.
Data File : G:\TC4\FRANK\0217119B.RAW Date: 2/17/03 07:47 PM
Sequence File: G:\TC4\FRANK\DRO.SEQ Cycle: 19 Channel : A
Instrument : FRANK Rack/Vial: 0/0 Operator: TML
Sample Amount : 1.0000 Dilution Factor : 1.00

DRO REPORT

Time [min]	Component Name	Area [µV·s]	Raw Amount	Adjusted Amount	SURR. % RECOV.	SPIKE % RECOV.	C.C. % RECOV.
14.300	DRO	75454	0.73	0.73	0.4	0.1	0
24.397	C30 SURROGATE	5295352	182.13	182.13	91.1	36.4	36
		5370806	182.86	182.86	91.4	36.6	37

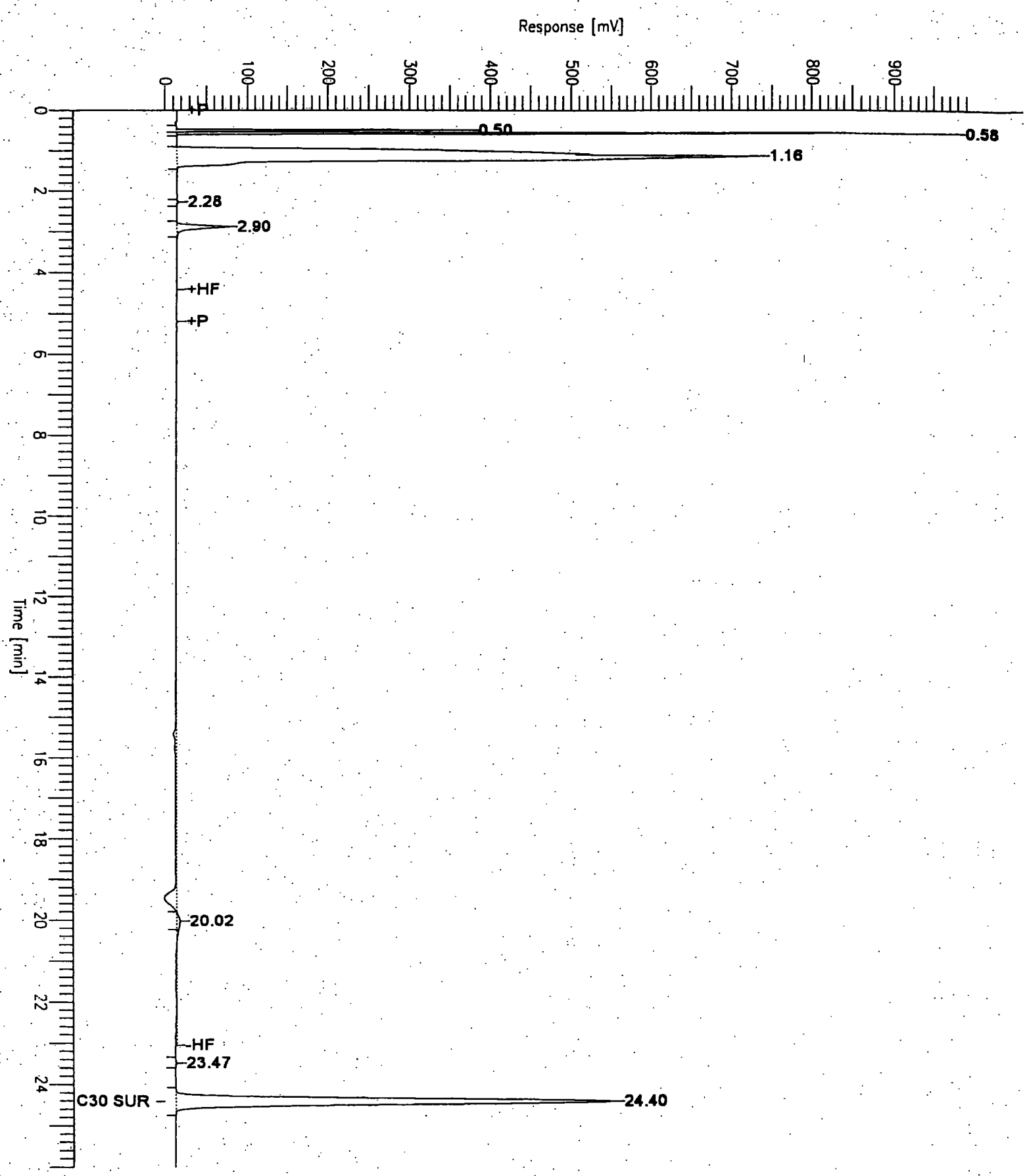
Report stored in ASCII file: G:\TC4\FRANK\0217119.TX0

CC:OK

FRANK DRO - ZB-5

Sample Name : 200 PPM SURR.
FileName : G:\TC4\FRANK\0217119B.RAW
Method :
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #:
Date : 2/18/03 12:07 PM
Time of Injection: 2/17/03 07:47 PM
Low Point : 0.00 mV High Point : 1000.00 mV
Plot Scale: 1000.0 mV



Turbochrom Method File : G:\TC4\FRANK\DRO_1226.MTH
Created by : TML on : 12/26/02 10:39 AM
Edited by : TML on : 12/27/02 08:14 AM
Description : FRANK DRO - ZB-5 COLUMN
CALIB. RANGE = 100 TO 1000 PPM; 5-POINT CURVE
C30 SURR. CALIBRATED @ 200. PPM
12-26-02

Initial Calibration

Number of Times Edited : 4
Number of Times Calibrated : 10

Instrument Conditions :
COLUMN: ZB-5
CARRIER: N2
FLOW: 10. ml/min.
DETECTOR: FID
PROGRAM:
INIT: 60 - 2.0 min
RAMP: 12.
FINAL: 300 - 4.0 min
TOTAL TIME: 26.0 min

Instrument Control Method:
Instrument name : FRANK

Interface Parameters :
Delay Time : 0.00 min.
Run Time : 26.00 min.
Sampling Rate : 1.0000 pts/s
Interface Type : 900
Analog Voltage Input : 1000 mV
Data will be collected from channel A

Timed Events:
There are no timed events in the method

Real Time Plot Parameters :
Channel A -- Pages: 1 Offset: 0.000 mV Scale: 1000.000 mV
Channel B -- Pages: 1 Offset: 0.000 mV Scale: 1000.000 mV

Processing Parameters :
Bunch Factor : 1 points
Noise Threshold : 180 µV
Area Threshold : 900.00 µV

Peak Separation Criteria
Width Ratio : 0.200
Valley-to-Peak Ratio : 0.010

Exponential Skim Criteria
Peak Height Ratio : 5.000
Adjusted Height Ratio : 4.000

Valley Height Ratio : 3.000

Baseline Timed Events :
Event #1 - +P at 0.017
Event #2 - +HF at 0.144
Event #3 - +P at 5.200
Event #4 - -HF at 23.500

Annotated Replot Parameters :
Offset & Scale set to absolute values
Plot Offset : 0.000 mV
Plot Scale : 1000.000 mV

Number of Pages : 1
Plot Title : FRANK DRO - ZB-5
X-Axis Label : Time [min]
Y-Axis Label : Response [mV]
Orientation : Landscape
Retention Labels : Peak Crests
Component Labels : Actual Time
Start Time : 0.00
End Time : 26.00

Report Format files :
No report format files given

User Programs :
No user programs will be executed

Global Information :
Default Sample Volume : 1.000 uL
Quantitation Units : ng
Void Time : 0.000 min
Correct amounts during calibration : NO
Reject outliers during calibration : NO
An External Standard calibration will be used
Unknown peaks will be quantitated using a response factor of 1.000000e+06

Component Information :
DRO
Component Type : Timed Group
Start Time : 5.200 min End Time : 23.400 min
Reference Component:
Calibrating Area versus Amount using a 1st Order Fit
Curve will ignore the origin
Amounts will not be scaled prior to the regression
Weighting factor for the regression: None
User Values:
Label :
Value 1: 0.000000
Value 2: 0.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000

Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	100.0000	2617509.00	439431.05	----------	----------	1
2	200.0000	5338256.00	902844.80	----------	----------	1
3	500.0000	14264691.00	2.43e+06	----------	----------	1
4	750.0000	20251917.50	3.45e+06	----------	----------	1
5	1000.0000	27111991.50	4.63e+06	----------	----------	1

Calibration Curve : y = (55534.835854) + (27179.094440)x + (0.000000)x^2 + (0.000000)x^3
R-squared : 0.998840

C30 SURROGATE

Component Type : Single Peak Component
Retention Time : 24.407 min Search Window: 6.00 s, 0.00 %
Reference Component:
Find peak closest to expected RT in window
Use Average Calibration Factor (Area / Amount)
User Values:
Label :
Value 1: 0.000000
Value 2: 0.000000
Value 3: 0.000000
Value 4: 0.000000
Value 5: 0.000000

Calibration Levels:

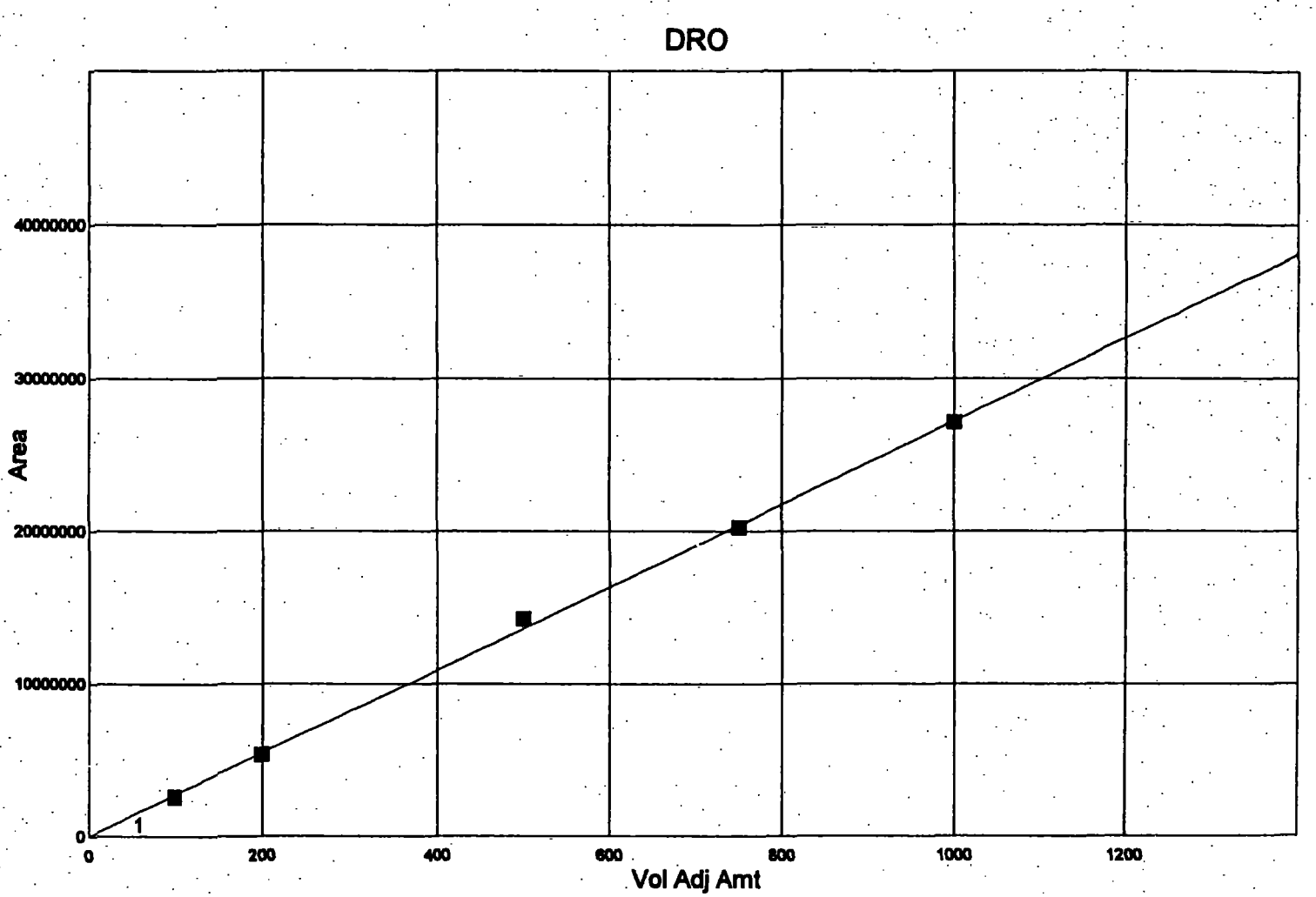
Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
6	200.0000	5814932.00	590049.11	----------	----------	1

Average Calibration Factor = 29074.660000 (%RSD = 0.00)

Fit Analysis Output For Method File: "G:\TC4\FRANK\DRO_1226.MTH"
Component Name: "DRO"
Date: 12/27/02 Time: 08:14 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1.0 (No Weighting) r^2 = 0.998840
Calibration Curve = (55534.835854) + (27179.094440)X



Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	100.000000	94.262676	5.737324	6.087	2617509.000	2773444.280	-155935.280	-5.622
2	200.000000	194.367078	5.632922	2.898	5338256.000	5491353.724	-153097.724	-2.788
3	500.000000	522.797262	-22.797262	-4.361	14264691.000	13645082.056	619608.944	4.541
4	750.000000	743.085194	6.914806	0.931	20251917.500	20439855.665	-187938.165	-0.919
5	1000.000000	995.487790	4.512210	0.453	27111991.500	27234629.275	-122637.775	-0.450

Software Version: 4.1<2F12>
Date: 12/26/02 01:12 PM
Sample Name : SVS-726.82.0 X2
Data File : G:\TC4\FRANK\1226109B.RAW Date: 12/26/02 12:42 PM
Sequence File: G:\TC4\FRANK\DRO.SEQ Cycle: 9 Channel : A
Instrument : FRANK Rack/Vial: 0/0 Operator: TML
Sample Amount : 1.0000 Dilution Factor : 2.00

DRO REPORT

Time [min]	Component Name	Area [µV·s]	Raw Amount	Adjusted Amount	SURR. % RECOV.	SPIKE % RECOV.	C.C. % RECOV.
14.300	DRO	6650188	242.64	485.27	242.6	97.1	97
		6650188	242.64	485.27	242.6	97.1	97

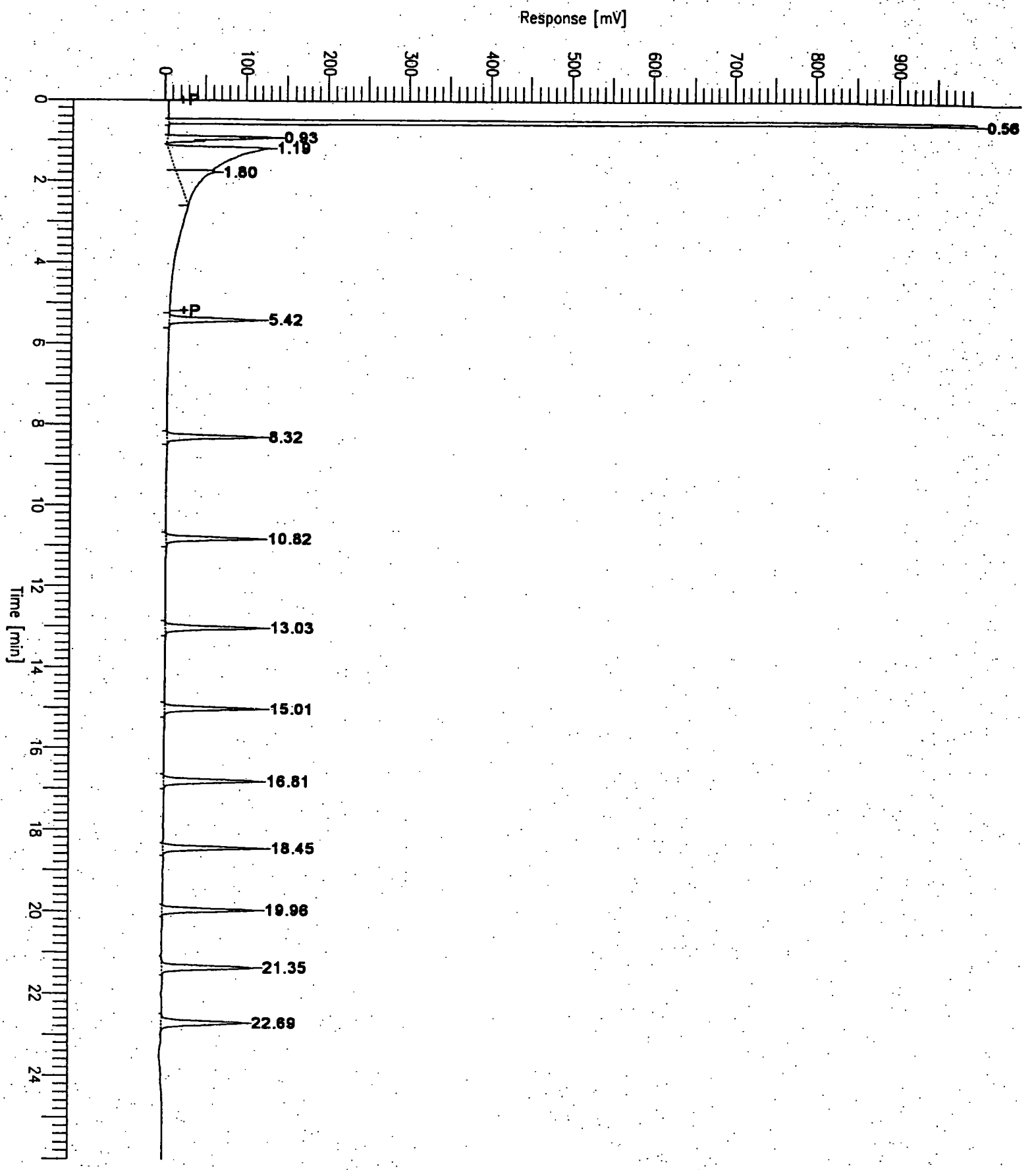
Report stored in ASCII file: G:\TC4\FRANK\1226109.TXO

ICV/LCS: OK

FRANK DRO - ZB-5

Sample Name : SVS-726.82.0 X2
FileName : G:\TC4\FRANK\1226109B.RAW
Method :
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: Page 1 of 1
Date : 12/26/02 01:12 PM
Time of Injection: 12/26/02 12:42 PM
Low Point : 0.00 mV High Point : 1000.00 mV
Plot Scale: 1000.0 mV



Software Version: 4.1<2F12>
Date: 2/17/03 01:39 PM
Sample Name : DB116-01
Data File : G:\TC4\FRANK\0217109A.RAW Date: 2/17/03 01:12 PM
Sequence File: G:\TC4\FRANK\DRO.SEQ Cycle: 9 Channel : A
Instrument : FRANK Rack/Vial: 0/0 Operator: TML
Sample Amount : 1.0000 Dilution Factor : 10.00

DRO REPORT

Time [min]	Component Name	Area [µV·s]	Raw Amount	Adjusted Amount	SURR. % RECOV.	SPIKE % RECOV.	C.C. % RECOV.
14.300	DRO	26329090	966.68	9666.83	4833.4	1933.4	1933
24.392	C30 SURROGATE	1038500	35.72	357.18	~~178.6~~ 89	71.4	71
		27367590	1002.40	10024.01	5012.0	2004.8	2005

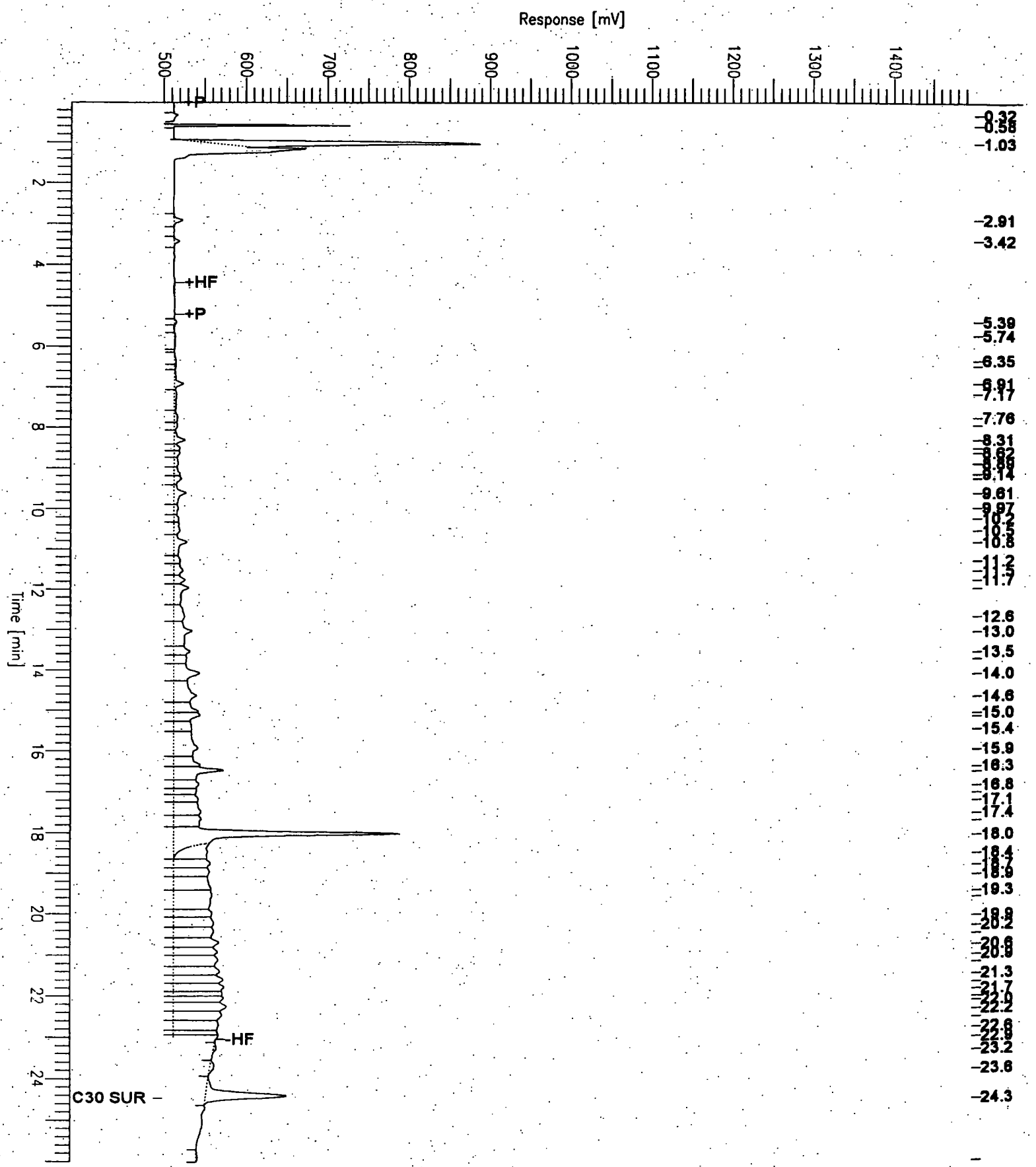
Report stored in ASCII file: G:\TC4\FRANK\0217109.TXO

$$\frac{9666.83}{0.0245g} = 390{,}000.\ mg/kg$$

FRANK DRO - ZB-5

Sample Name : DB116-01
FileName : G:\TC4\FRANK\0217109A.RAW
Method :
Start Time : 0.02 min End Time : 26.00 min
Scale Factor: 0.0 Plot Offset: 500 mV

Sample #:
Date : 2/17/03 01:39 PM
Time of Injection: 2/17/03 01:12 PM
Low Point : 500.00 mV High Point : 1500.00 mV
Plot Scale: 1000.0 mV



Software Version: 4.1<2F12>
Date: 2/17/03 02:18 PM
Sample Name : DB116-02
Data File : G:\TC4\FRANK\0217110A.RAW Date: 2/17/03 01:44 PM
Sequence File: G:\TC4\FRANK\DRO.SEQ Cycle: 10 Channel : A
Instrument : FRANK Rack/Vial: 0/0 Operator: TML
Sample Amount : 1.0000 Dilution Factor : 10.00

DRO REPORT

Time [min]	Component Name	Area [µV·s]	Raw Amount	Adjusted Amount	SURR. % RECOV.	SPIKE % RECOV.	C.C. % RECOV.
14.300	DRO	25896750	950.78	9507.75	4753.9	1901.6	1902
24.390	C30 SURROGATE	1058351	36.40	364.01	~~182.0~~ 91	72.8	73
		26955101	987.18	9871.77	4935.9	1974.4	1974

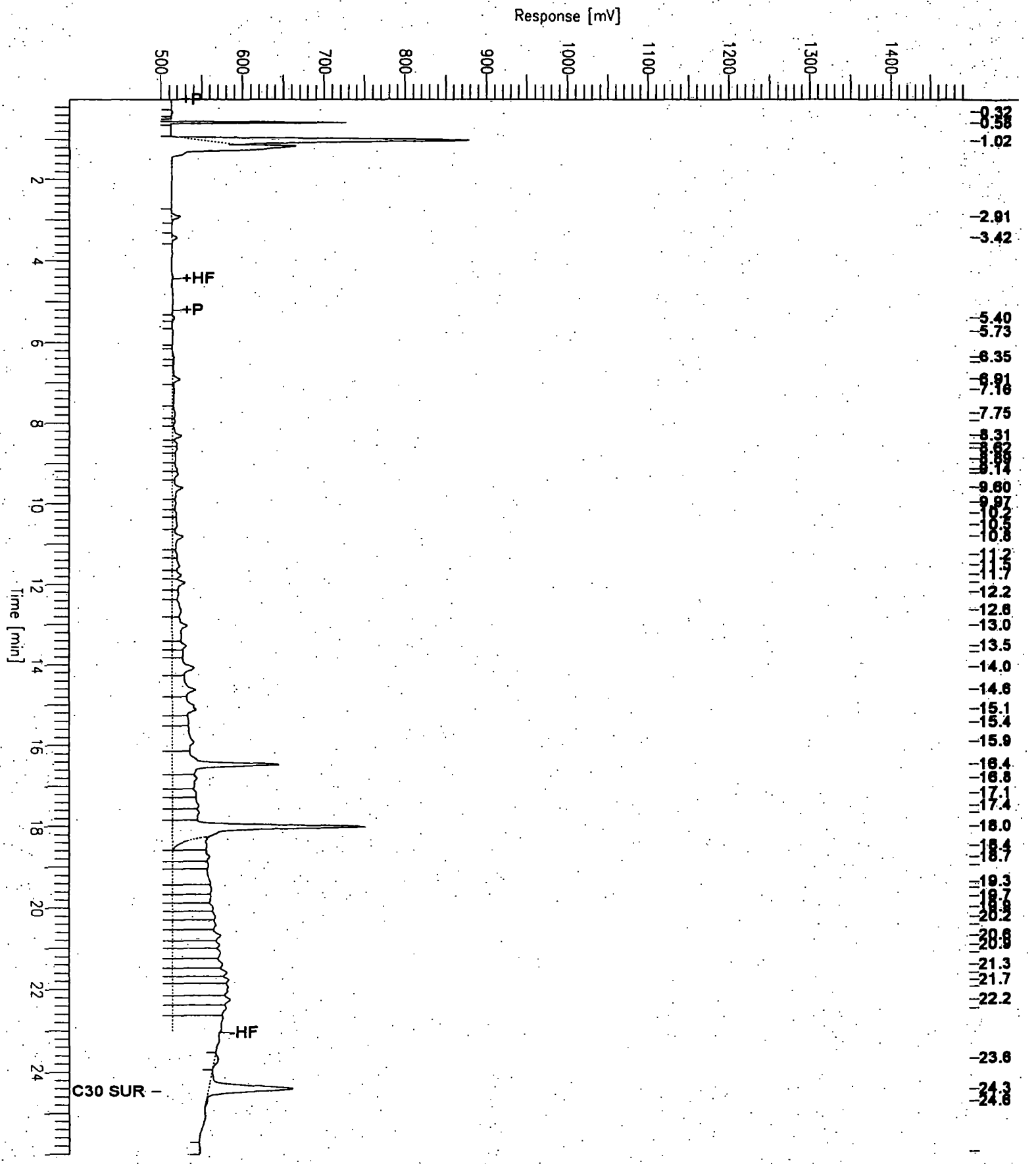
Report stored in ASCII file: G:\TC4\FRANK\0217110.TX0

$$\frac{9507.75}{0.0225g} = 420{,}000.\ mg/kg$$

FRANK DRO - ZB-5

Sample Name : DB116-02
FileName : G:\TC4\FRANK\0217110A.RAW
Method :
Start Time : 0.02 min End Time : 26.00 min
Scale Factor: 0.0 Plot Offset: 500 mV

Sample #:
Date : 2/17/03 02:18 PM
Time of Injection: 2/17/03 01:44 PM
Low Point : 500.00 mV High Point : 1500.00 mV
Plot Scale: 1000.0 mV



Software Version: 4.1<2F12>
Date: 2/17/03 12:39 PM
Sample Name : OB021401
Data File : G:\TC4\FRANK\0217106A.RAW Date: 2/17/03 11:35 AM
Sequence File: G:\TC4\FRANK\DRO.SEQ Cycle: 6 Channel : A
Instrument : FRANK Rack/Vial: 0/0 Operator: TML
Sample Amount : 1.0000 Dilution Factor : 10.00

DRO REPORT

Time [min]	Component Name	Area [µV·s]	Raw Amount	Adjusted Amount	SURR. % RECOV.	SPIKE % RECOV.	C.C. % RECOV.
24.390	C30 SURROGATE	509914	17.54	175.38	87.7	35.1	35
		509914	17.54	175.38	87.7	35.1	35

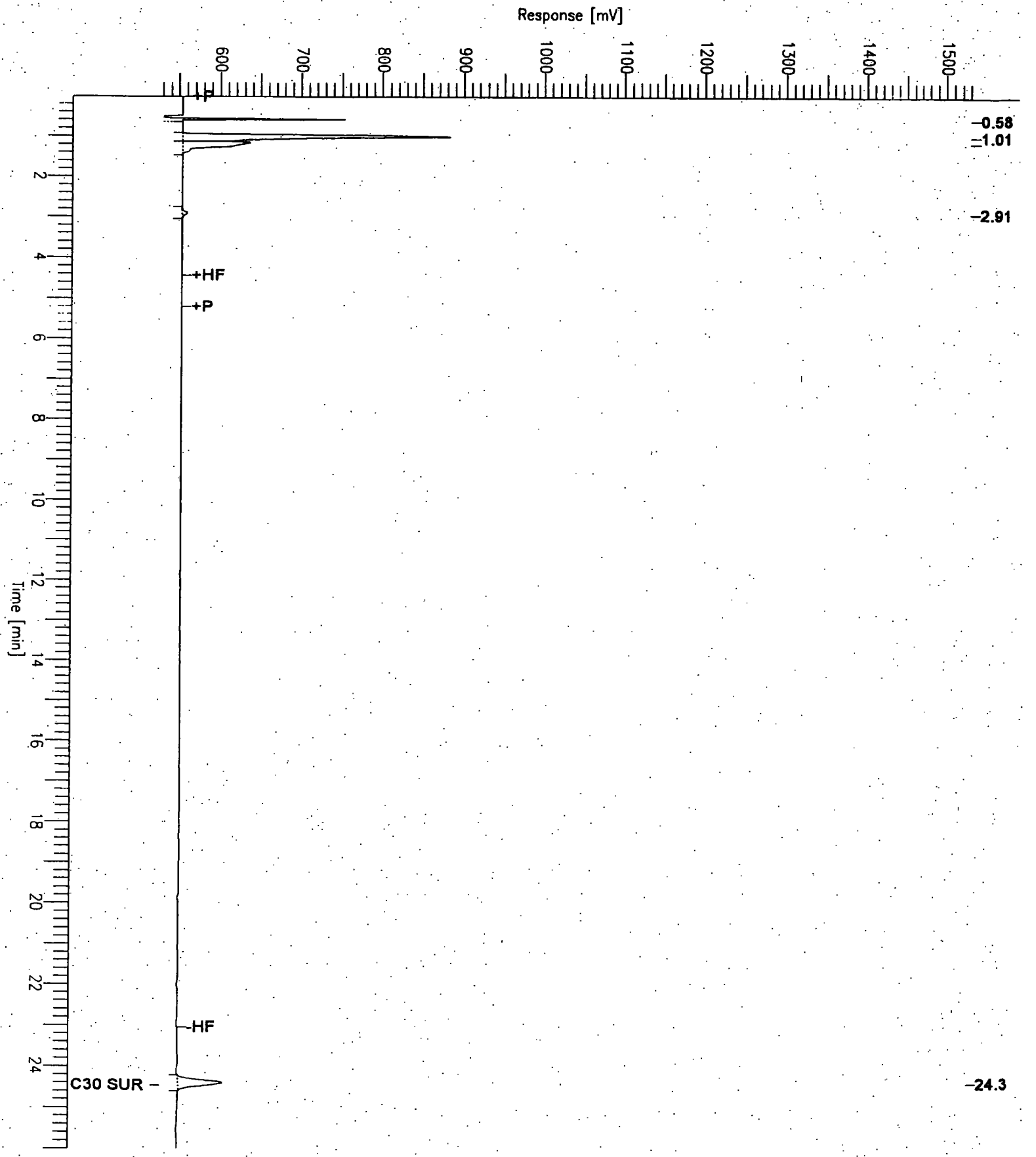
Report stored in ASCII file: G:\TC4\FRANK\0217106.TX0

DRO: BDL

FRANK DRO - ZB-5

Sample Name : OB021401
FileName : G:\TC4\FRANK\0217106A.RAW
Method :
Start Time : 0.02 min End Time : 26.00 min
Scale Factor: 0.0 Plot Offset: 530 mV

Sample #: Page 1 of 1
Date : 2/17/03 01:04 PM
Time of Injection: 2/17/03 11:35 AM
Low Point : 530.00 mV High Point : 1530.00 mV
Plot Scale: 1000.0 mV



Software Version: 4.1<2F12>
Date: 2/17/03 12:39 PM
Sample Name : OS021401
Data File : G:\TC4\FRANK\0217107A.RAW Date: 2/17/03 12:07 PM
Sequence File: G:\TC4\FRANK\DRO.SEQ Cycle: 7 Channel : A
Instrument : FRANK Rack/Vial: 0/0 Operator: TML
Sample Amount : 1.0000 Dilution Factor : 10.00

DRO REPORT

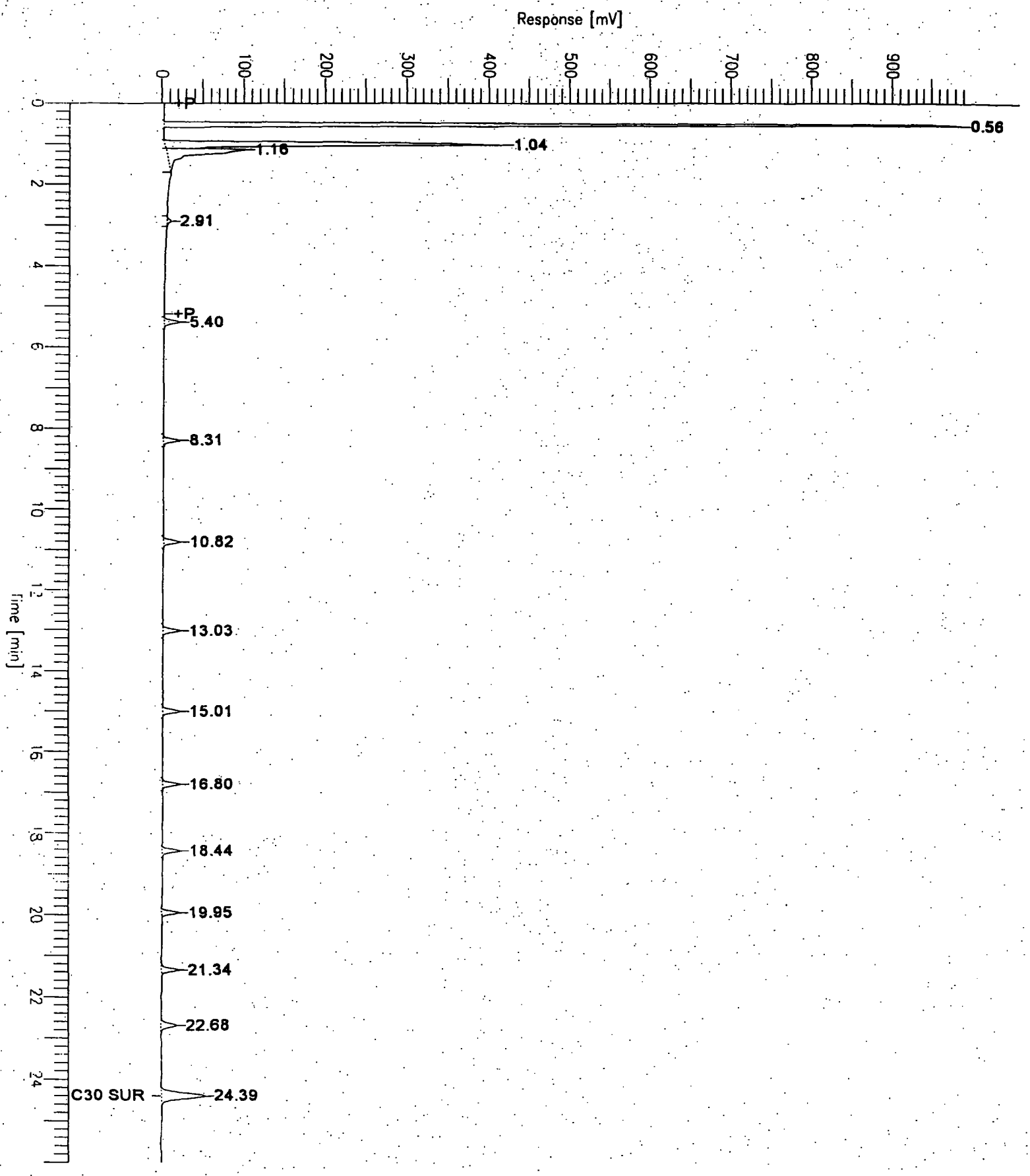
Time [min]	Component Name	Area [µV·s]	Raw Amount	Adjusted Amount	SURR. % RECOV.	SPIKE % RECOV.	C.C. % RECOV.
14.300	DRO	1228400	43.15	431.53	215.8	86.3	86
24.389	C30 SURROGATE	527140	18.13	181.31	90.7	36.3	36
		1755540	61.28	612.84	306.4	122.6	123

Report stored in ASCII file: G:\TC4\FRANK\0217107.TX0

FRANK DRO - ZB-5

Sample Name : OS021401
FileName : G:\TC4\FRANK\0217107A.RAW
Method :
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: Page 1 of 1
Date : 2/17/03 12:39 PM
Time of Injection: 2/17/03 12:07 PM
Low Point : 0.00 mV High Point : 1000.00 mV
Plot Scale: 1000.0 mV



Software Version: 4.1<2F12>
Date: 2/17/03 01:05 PM
Sample Name : OSD021401
Data File : G:\TC4\FRANK\0217108A.RAW Date: 2/17/03 12:39 PM
Sequence File: G:\TC4\FRANK\DRO.SEQ Cycle: 8 Channel : A
Instrument : FRANK Rack/Vial: 0/0 Operator: TML
Sample Amount : 1.0000 Dilution Factor : 10.00

DRO REPORT

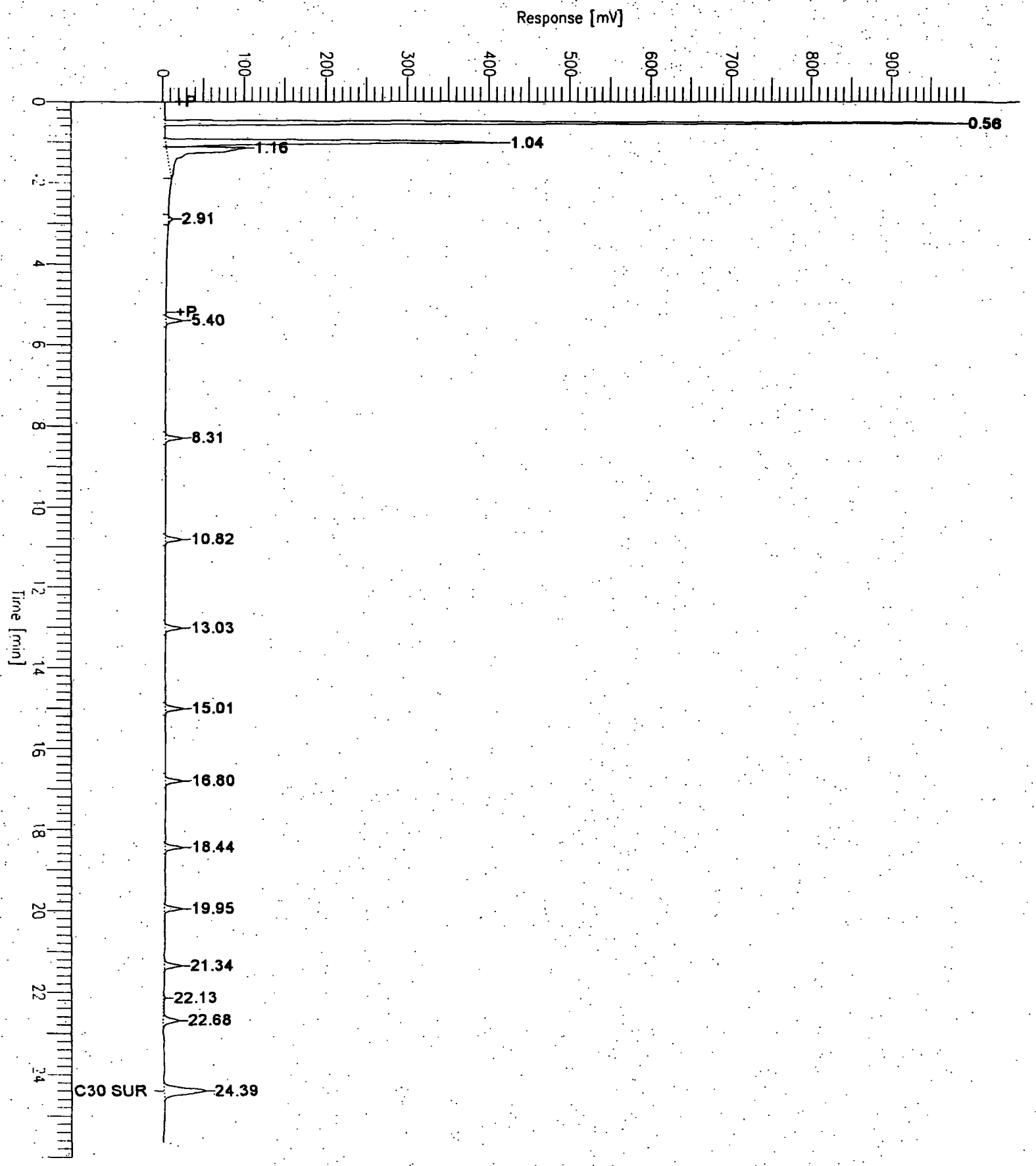
Time [min]	Component Name	Area [µV·s]	Raw Amount	Adjusted Amount	SURR. % RECOV.	SPIKE % RECOV.	C.C. % RECOV.
14.300	DRO	1258564	44.26	442.63	221.3	88.5	89
24.391	C30 SURROGATE	512513	17.63	176.27	88.1	35.3	35
		1771076	61.89	618.90	309.5	123.8	124

Report stored in ASCII file: G:\TC4\FRANK\0217108.TX0

FRANK DRO - ZB-5

Sample Name : OSD021401
FileName : G:\TC4\FRANK\0217108A.RAW
Method :
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: Page 1 of 1
Date : 2/17/03 01:05 PM
Time of Injection: 2/17/03 12:39 PM
Low Point : 0.00 mV High Point : 1000.00 mV
Plot Scale: 1000.0 mV



0.1

DRO SOIL EXTRACTION LOG

DATE: 02/14/03

BATCH:DRO 021401 S

EXT. REC'D BY: RJB DATE: 2/14/03 TIME: 4:30

REVIEWED BY: [illegible] DATE: 2-17-03 TIME: 10:00AM

EXTRACTION METHOD: SONIC 3550

T 2-18-03

	SAMPLE #	INITIAL WEIGHT	TECH INT.	CONC. DATE	FINAL VOLUME	TECH INT.	COMMENTS
0 SB	021401	-	JP		10 ml		
0 SS	↓	-	↓		↓		
0 SSD	↓	-	↓		↓		
MS	-	-	-		↓		
MSD	-	-	-		↓		
1	DB116-01	0.0245g	JP		↓		2mL Surrogate
2	↓ -02	0.0225g	↓		↓		"
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

SURROGATE SOLN #/ AMOUNT SPIKED SVS-726.89.0 1mL for QC / 2mL for samples

SPIKE SOLN #/ AMOUNT SPIKED 1mL - SVS-726.82.0

EXTRACTION SOLVENT/ LOT #(s) MeCl2 / 023755 / Fisher

WATER BATH TEMP —

N-EVAP TEMP —

TRACE Trace Analytical Laboratories, Inc.

Raw Data

TPH BY IR EXTRACTION AND ANALYSIS LOGBOOK

METHODS 418.1/413.2

Extraction Date: 2-14-03 Batch: TPH 021401 Analysis Date: 2-20-03

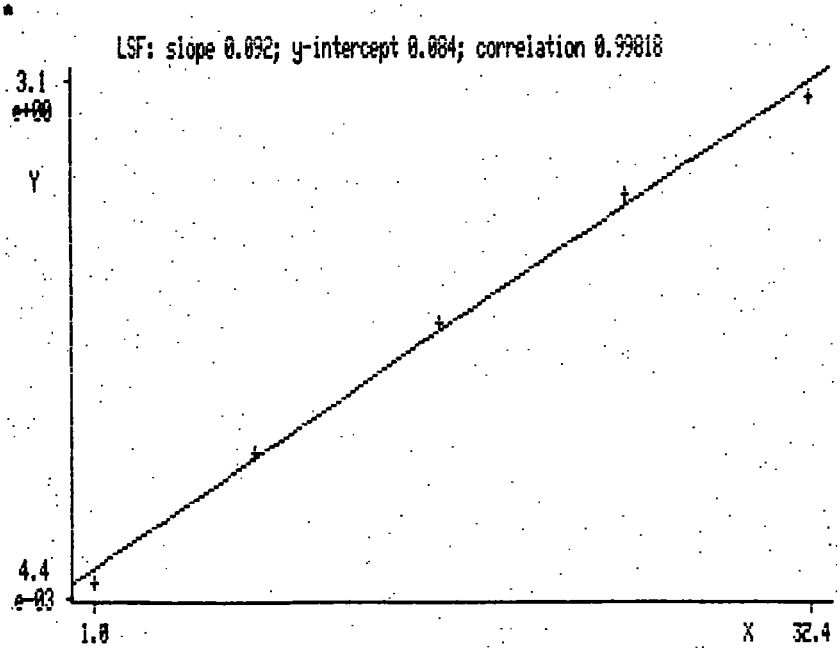
Analyst: RVB Solvent: Freon / Netchem Lab Lot #: CH112L901-V2001 Analyst: CR / KM

TRACE SAMPLE ID	Sample Wt./Vol.	Spike Amount (ml)	Spike Std. ID	Final Volume	g. Silica Gel	Dilution Factor	Comments and Observations
Blank	—	—	—	100 ml			
LCS	—	4 ml	WCS.547.95.1	100 ml			Results based on nominal 20 g sample size.
LCSD	—	4 ml	WCS.547.95.1	100 ml			
DB116-01	0.0130g	—	—	100 ml			Concentration of WCS.547.95.1
DB116-02	0.0120g	—	—	100 ml			is 404.9 mg/100 ml

CR/KM
2/20/03

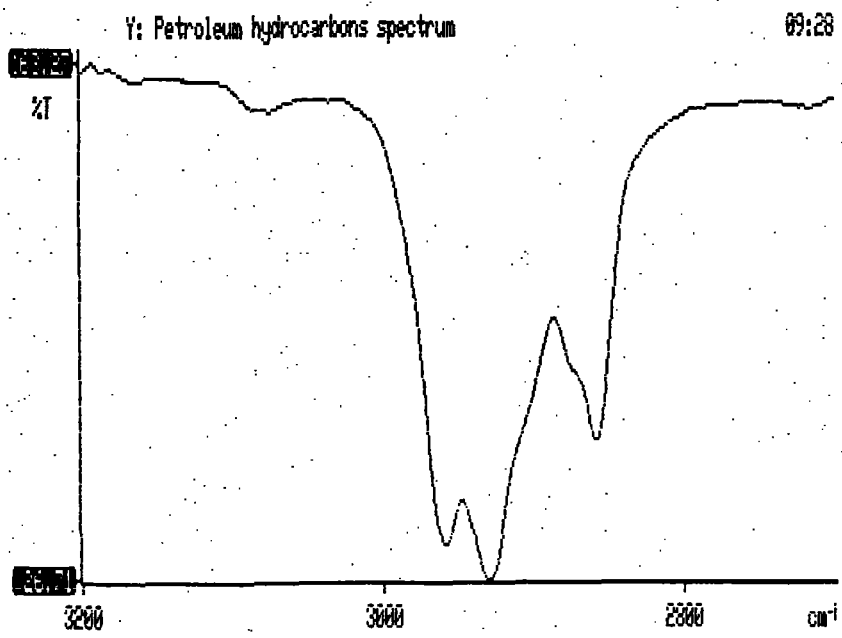
TPH021401S

```
*************************************************************
*                    Test Method for                        *
*      Oil and Grease and Petroleum Hydrocarbons            *
*                    in Water and Soil                      *
*                                                           *
*             Perkin-Elmer Model 1600 FT-IR                 *
*                    Calibration Report                     *
*************************************************************
*
 03/02/20  08:46
*
*
*  Concentrations of standards, mg/100 ml
 32.432
 24.324
 16.216
 8.108
 1.014
*
*
*  Net absorbance of standards
 2.987
 2.381
 1.628
 0.867
 0.106
*
*
*
```



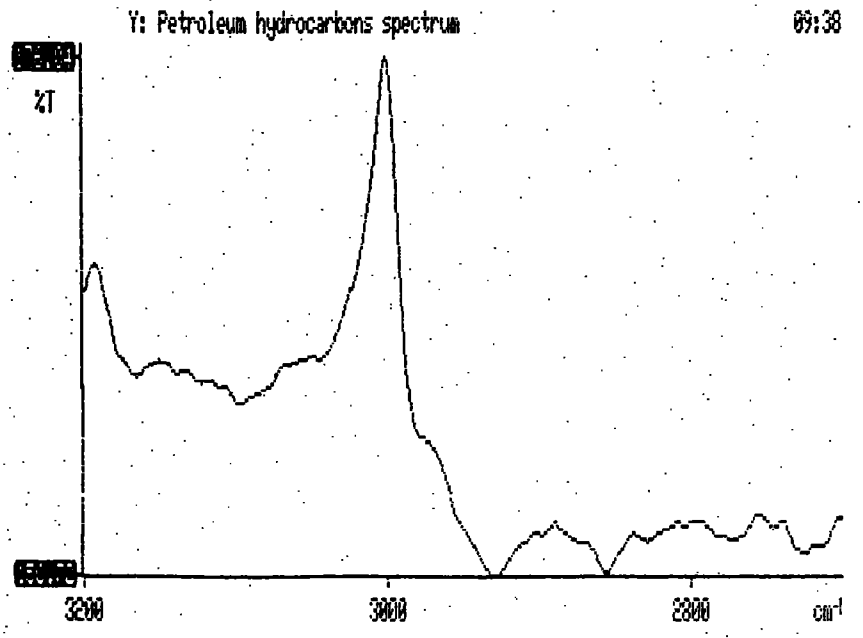
```
*****************************************************
*                  Test Method for                  *
*     Oil and Grease and Petroleum Hydrocarbons     *
*                 in Water and Soil                 *
*                                                   *
*           Perkin-Elmer Model 1600 FT-IR           *
*                  Analysis Report                  *
*****************************************************
*
 03/02/20  09:27
*
*  Sample identification 021401W
 8.098
*
*  Initial mass of sample, g
 1000.000
*
*  Volume of sample after extraction, ml
 100.000
*
*  Petroleum hydrocarbons, ppm
 7.685
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.791
*
*
*
```

ICV 95%



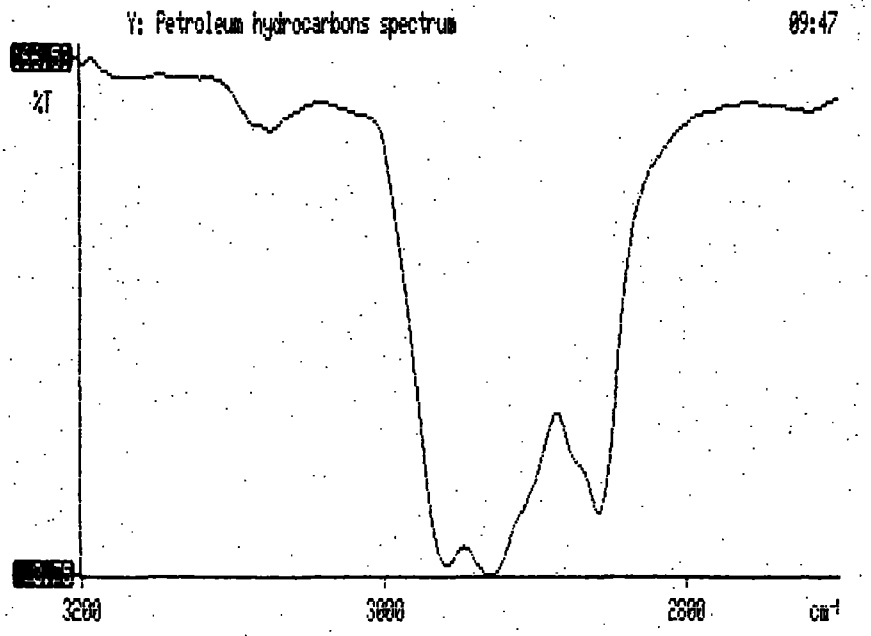
```
*****************************************************
*                Test Method for                    *
*     Oil and Grease and Petroleum Hydrocarbons     *
*              in Water and Soil                    *
*                                                   *
*          Perkin-Elmer Model 1600 FT-IR            *
*               Analysis Report                     *
*****************************************************
*
 03/02/20  09:38
*
*  Sample identification
 021401
*
*  Initial mass of sample, g
 20.000
*
*  Volume of sample after extraction, ml
 100.000
*
*  Petroleum hydrocarbons, ppm
 -45.817
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.791
*
*
*
```

SB021401 M



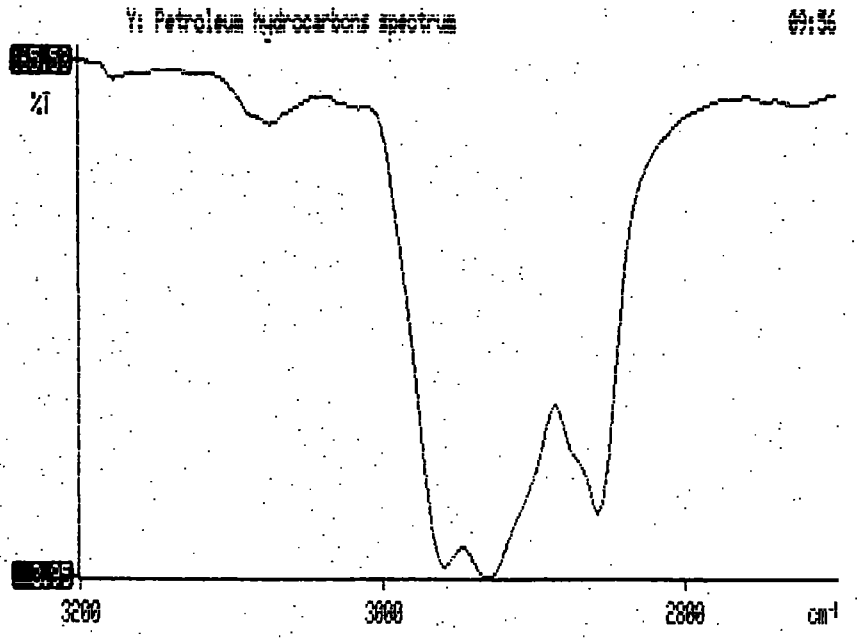
```
*************************************************************
*                    Test Method for                        *
*      Oil and Grease and Petroleum Hydrocarbons            *
*                  in Water and Soil                        *
*                                                           *
*            Perkin-Elmer Model 1600 FT-IR                  *
*                    Analysis Report                        *
*************************************************************
*
 03/02/20  09:47
*
*  Sample identification
 021401(809.8)  S021401
*
*  Initial mass of sample, g
 20.000
*
*  Volume of sample after extraction, ml
 100.000
*
*  Petroleum hydrocarbons, ppm
 856.699
*  Net absorbance of hydrocarbons (2930 cm-1)
 1.659
*
*
*
```

104%



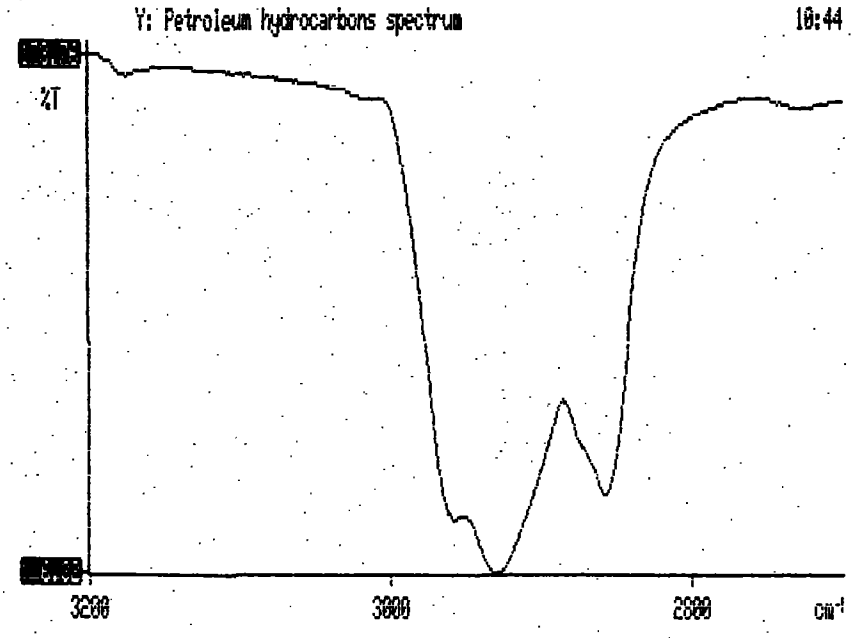
```
*************************************************
*                Test Method for                *
*     Oil and Grease and Petroleum Hydrocarbons *
*              in Water and Soil                *
*                                               *
*          Perkin-Elmer Model 1600 FT-IR        *
*               Analysis Report                 *
*************************************************
*
 03/02/20  09:56
*
*  Sample identification
 021401(809.8)        SPD021401
*
*  Initial mass of sample, g
 20.000
*
*  Volume of sample after extraction, ml
 100.000
*
*  Petroleum hydrocarbons, ppm
 845.108
*  Net absorbance of hydrocarbons (2930 cm-1)
 1.638
*
*
*
```

104%, RPD = 1.9%



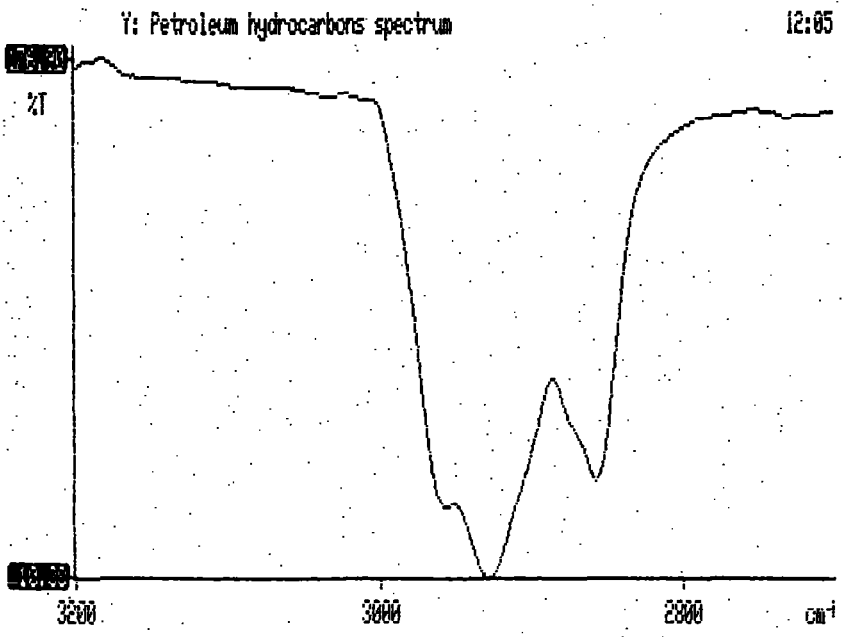
```
*********************************************************
*                    Test Method for                    *
*      Oil and Grease and Petroleum Hydrocarbons        *
*                  in Water and Soil                    *
*                                                       *
*             Perkin-Elmer Model 1600 FT-IR             *
*                    Analysis Report                    *
*********************************************************
*
 03/02/20  10:44
*
*  Sample identification
 116-01
*
*  Initial mass of sample, g
 0.013
*
*  Volume of sample after extraction, ml
 100.000
*
*  Petroleum hydrocarbons, ppm
 1150847.319
*  Net absorbance of hydrocarbons (2930 cm-1)
 1.460
*
*
*
```

DB 116-01



```
*****************************************************
*                Test Method for                    *
*     Oil and Grease and Petroleum Hydrocarbons     *
*              in Water and Soil                    *
*                                                   *
*          Perkin-Elmer Model 1600 FT-IR            *
*               Analysis Report                     *
*****************************************************
*
 03/02/20  12:05
*
*  Sample identification
 116.02
*
*  Initial mass of sample, g
 0.012
*
*  Volume of sample after extraction, ml
 100.000
*
*  Petroleum hydrocarbons, ppm
 1051830.031
*  Net absorbance of hydrocarbons (2930 cm-1)
 1.245
*
*
*
```

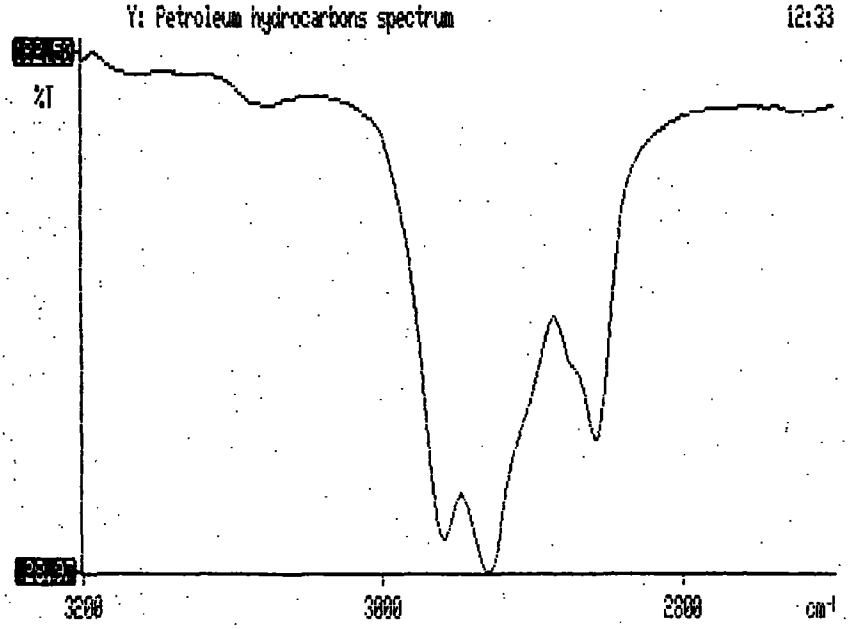
LB116-02



```
*************************************************************
*                    Test Method for                        *
*      Oil and Grease and Petroleum Hydrocarbons            *
*                  in Water and Soil                        *
*                                                           *
*             Perkin-Elmer Model 1600 FT-IR                 *
*                    Analysis Report                        *
*************************************************************
*
 03/02/20  12:32
*
*  Sample identification
 8.098
*
*  Initial mass of sample, g
 1000.000
*
*  Volume of sample after extraction, ml
 100.000
*
*  Petroleum hydrocarbons, ppm
 7.910
*  Net absorbance of hydrocarbons (2930 cm-1)
 0.811
*
*
*
```

CCV

98 %



GC/MS SEMI-VOLATILE RAW DATA

SEQUENCE LOG INST. *ALPHA*

Method: 8270/625

DATE: 2-17-03

DATA PATH: 42-17-03

QC BATCH ID: BVA0214010

ANALYTICAL BATCH ID: 4217003

ANALYST: TC

BACKUP DATE: —

DELETE DATE: —

DILUTION SOLVENT: $MeCl_2$ FISHER 034096

Vial	File Name	Method	Sample ID	Dilution	Time	Tune	CC	Additional Info.
1	A21701	DBVA	Reagent Blank					OK
2	02	DFTPP	50ng DFTPP SVS-623.79A.0		12:51 fin			
3	03	DBVA	50 FAM BVA SVQ-623.79B.4-6		1:17			
4	04		OB021401 BVA		2:33			WASTE DILUTIONS FINGER PRINT P
5	05		05021401		3:22			P
6	06		05D021401		4:12			P
7	07		DB116-01	10	5:02			P
8	08		-02	10	5:52			P
1	09		Blank					

TC 2-18-03

Tune:
- DFTPP Criteria
- Peak Tailing (<6)
- DDT Breakdown (<20%)

P = Pass / F = Fail

CC:
- Int. Std. Areas (-50% to +100%)
- Retent. Time Shift (+/-.50min.)
- %RSD CCCs (<20%)
- RF SPCCs (>0.05)
- % RSD Others (<40%)

Sample:
- Int. Std. Areas (-50% to +100%)
- Retent. Time Shift (+/-.50min.)
- Surrogates

Standard ID: SVQ-623.79B.4-6

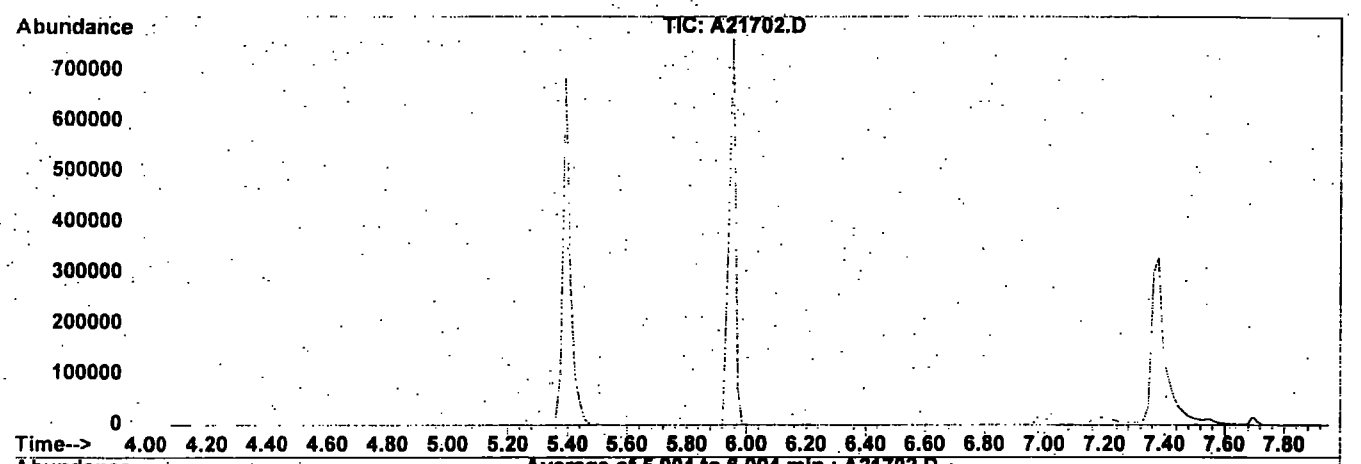
Int. Std ID: B20S0130

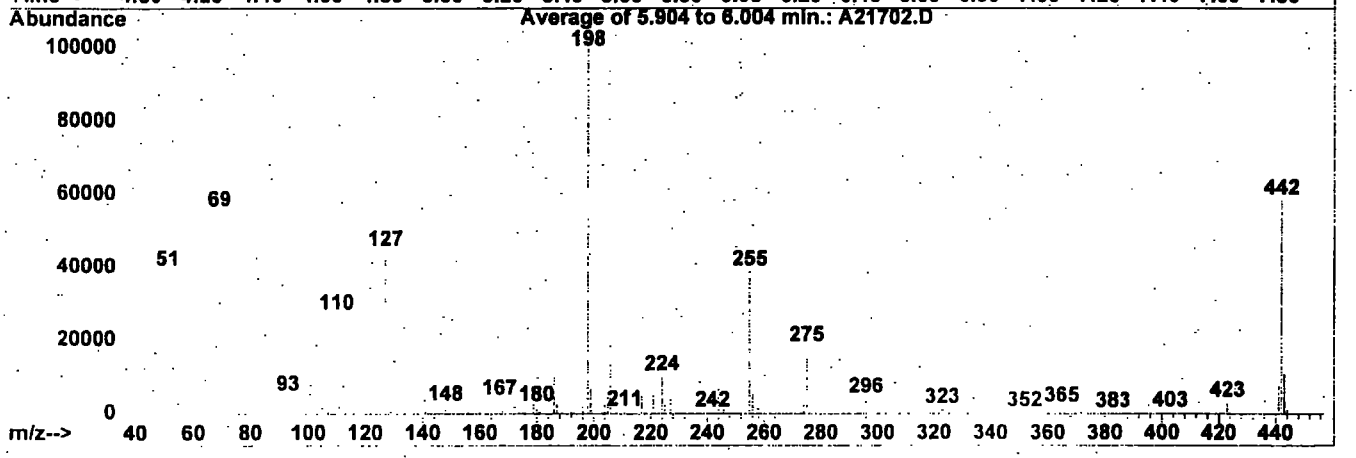
Spike Sol. ID: SVS-726.43B.7

Surr. Sol. ID: SVS-726.61B.K2

DFTPP

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21702.D Vial: 2
Acq On : 17 Feb 2003 12:59 pm Operator: AVL/TC
Sample : 50ng DFTPP SVS-623.78A.0 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title :





Spectrum Information: Average of 5.904 to 6.004 min.

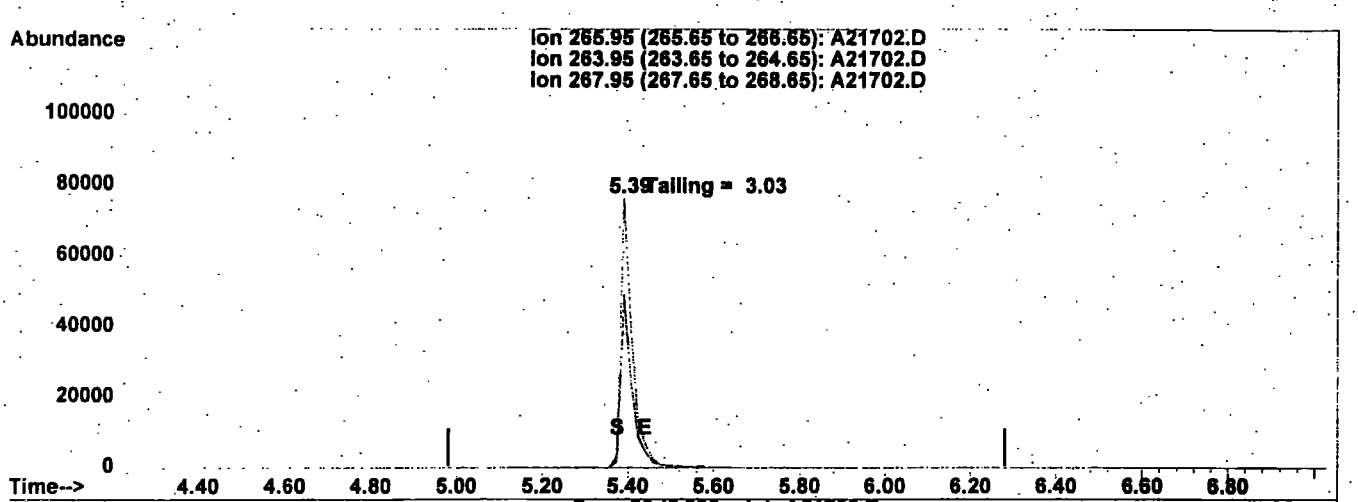
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	39.1	39129	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	55.4	55395	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	44.5	44535	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	100000	PASS
199	198	5	9	6.7	6713	PASS
275	198	10	30	18.1	18050	PASS
365	198	1	100	1.6	1576	PASS
441	443	0.01	100	75.9	8324	PASS
442	198	40	100	58.5	58464	PASS
443	442	17	23	18.8	10964	PASS

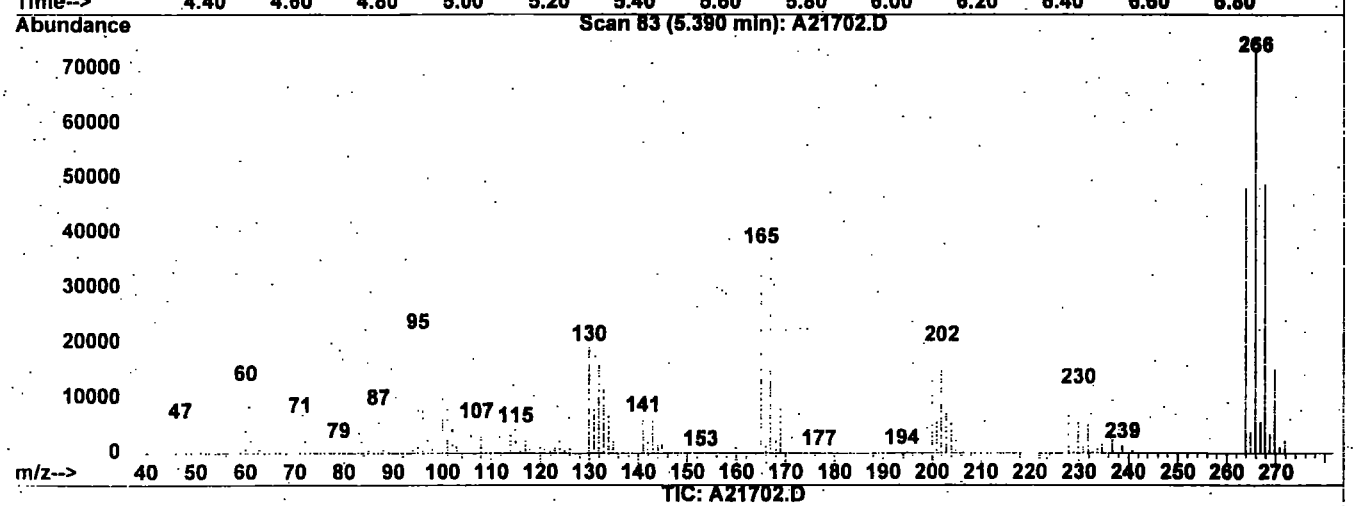
A21702.D DFTPP.M Mon Feb 17 13:11:33 2003

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21702.D Vial: 2
Acq On : 17 Feb 2003 12:59 pm Operator: AVL/TC
Sample : 50ng DFTPP SVS-623.78A.0 Inst : Alpha
Misc : Multiplr: 1.00
Quant Time: Feb 17 13:12 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title :
Last Update : Thu Feb 15 10:48:55 2001
Response via : Single Level Calibration





(4) PENTACHLOROPHENOL

5.39min 0.00ng

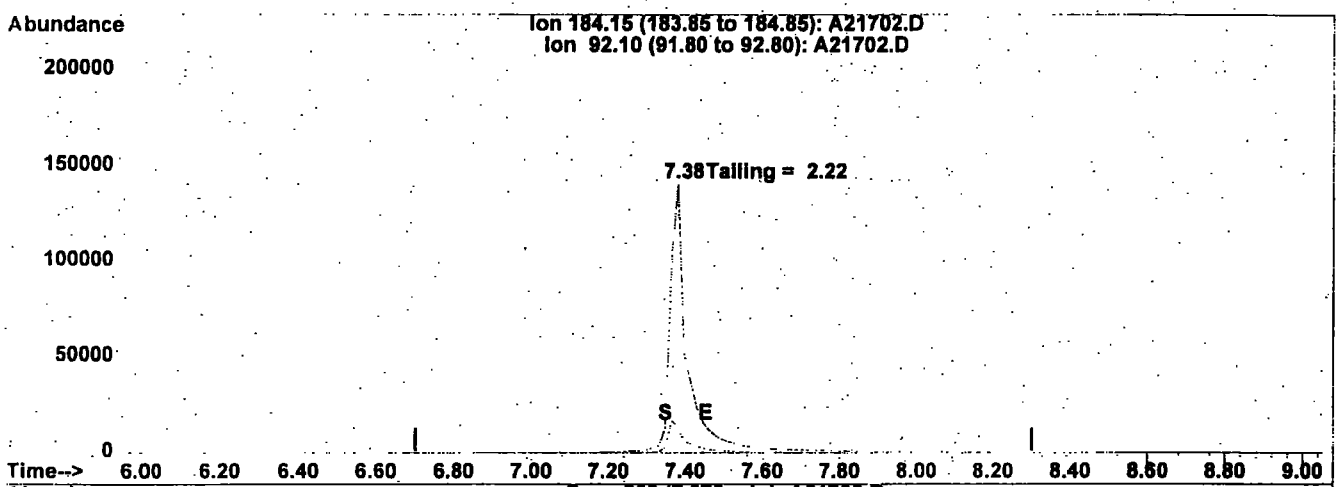
response 144566

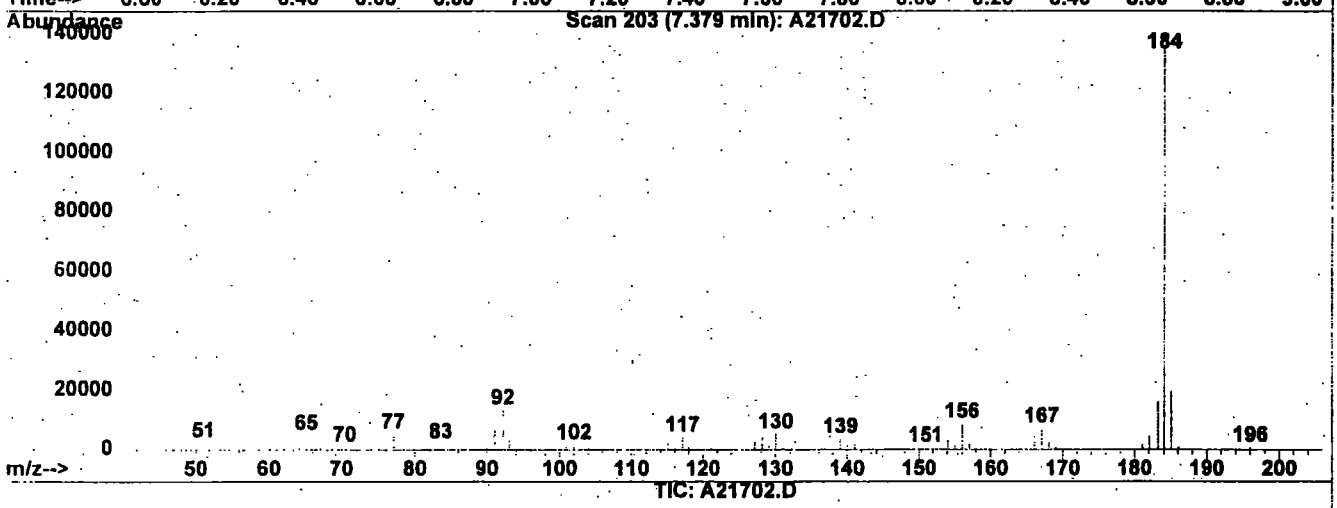
Ion	Exp%	Act%
265.95	100	100
263.95	62.60	63.48
267.95	63.90	64.49
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21702.D Vial: 2
Acq On : 17 Feb 2003 12:59 pm Operator: AVL/TC
Sample : 50ng DFTPP SVS-623.78A.0 Inst : Alpha
Misc : Multiplr: 1.00
Quant Time: Feb 17 13:12 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title :
Last Update : Thu Feb 15 10:48:55 2001
Response via : Single Level Calibration





(5) BENZIDINE

7.38min 0.00ng

response 461735

Ion	Exp%	Act%
184.15	100	100
92.10	11.00	9.51
0.00	0.00	0.00
0.00	0.00	0.00

DDT Breakdown Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21702.D Vial: 2
Acq On : 17 Feb 2003 12:59 pm Operator: AVL/TC
Sample : 50ng DFTPP SVS-623.78A.0 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title :
Last Update : Thu Feb 15 10:48:55 2001
Response via : Single Level Calibration

RT	Compound Name	Area
7.69	DDE	3531
8.37	DDD	8298
9.10	DDT	238443
	Total	250272
	DDT Breakdown	4.73 %

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21703.D Vial: 3
Acq On : 17 Feb 2003 1:17 pm Operator: AVL/TC
Sample : 50PPM BNA SVQ-623.79B.4-6 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Wed Feb 12 09:32:46 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	141	-0.04
2		N-Nitrosodimethylamine	0.610	0.748	-22.6#	158	0.00
3		Pyridine	1.542	1.587	-2.9	153	0.00
4	S	2-Fluorophenol	1.254	1.348	-7.5	156	0.00
5		Aniline	1.888	1.932	-2.3	152	-0.02
6	M	bis(2-Chloroethyl)ether	1.316	1.387	-5.4	159	-0.02
7	S	Phenol-d5	1.515	1.626	-7.3	160	0.00
8	M	2-Chlorophenol	1.376	1.394	-1.3	150	-0.02
9	M	Phenol	1.767	1.849	-4.6	154	0.00
10	M	1,3-Dichlorobenzene	1.429	1.446	-1.2	148	-0.02
11	M	1,4-Dichlorobenzene	1.437	1.451	-1.0	147	-0.04
12	M	1,2-Dichlorobenzene	1.327	1.403	-5.7	151	-0.02
13		Benzyl Alcohol	0.838	0.849	-1.3	154	-0.02
14	M	bis(2-Chloroisopropyl)ether	2.130	2.209	-3.7	154	-0.06
15		2-Methylphenol	0.950	0.990	-4.2	151	-0.02
16		3/4-Methylphenol	1.377	1.498	-8.8	160	-0.02
17	M	n-Nitroso-di-n-propylamine	0.798	0.826	-3.5	153	-0.02
18	M	Hexachloroethane	0.563	0.584	-3.7	144	-0.06
19	I	Naphthalene-d8	1.000	1.000	0.0	143	-0.04
20	S	Nitrobenzene-d5	0.353	0.379	-7.4	154	-0.02
21	M	Nitrobenzene	0.355	0.396	-11.5	156	-0.02
22	M	Isophorone	0.716	0.726	-1.4	149	-0.04
23	M	2-Nitrophenol	0.205	0.218	-6.3	150	-0.04
24	M	2,4-Dimethylphenol	0.277	0.290	-4.7	151	-0.02
25	M	bis(2-Chloroethoxy)methane	0.417	0.410	1.7	137	-0.04
26		Benzoic Acid	0.189	0.187	1.1	152	0.03
27	M	1,2,4-Trichlorobenzene	0.261	0.272	-4.2	152	-0.04
28	M	2,4-Dichlorophenol	0.247	0.267	-8.1	150	-0.02
29	M	Naphthalene	0.916	0.943	-2.9	146	-0.04
30		4-Chloroaniline	0.400	0.424	-6.0	150	-0.02
31	M	Hexachlorobutadiene	0.141	0.142	-0.7	145	-0.04
32	M	4-Chloro-3-methylphenol	0.281	0.291	-3.6	150	-0.02
33		2-Methylnaphthalene	0.584	0.592	-1.4	145	-0.04
34	I	Acenaphthene-d10	1.000	1.000	0.0	139	-0.04
35		Hexachlorocyclopentadiene	0.299	0.334	-11.7	144	-0.04
36	M	2,4,6-Trichlorophenol	0.380	0.383	-0.8	139	-0.04
37		2,4,5-Trichlorophenol	0.415	0.430	-3.6	143	-0.02
38	S	2-Fluorobiphenyl	1.191	1.220	-2.4	140	-0.04
39	M	2-Chloronaphthalene	1.124	1.193	-6.1	146	-0.04

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21703.D Vial: 3
Acq On : 17 Feb 2003 1:17 pm Operator: AVL/TC
Sample : 50PPM BNA SVQ-623.79B.4-6 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Wed Feb 12 09:32:46 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40		2-Nitroaniline	0.451	0.462	-2.4	151	-0.04
41	M	Dimethylphthalate	1.376	1.397	-1.5	143	-0.04
42	M	Acenaphthylene	1.823	1.853	-1.6	138	-0.04
43	M	2,6-Dinitrotoluene	0.328	0.336	-2.4	139	-0.02
44		3-Nitroaniline	0.429	0.420	2.1	144	-0.02
45	M	Acenaphthene	1.033	1.026	0.7	143	-0.04
46		Dibenzofuran	1.491	1.497	-0.4	143	-0.04
47	M	2,4-Dinitrotoluene	0.454	0.473	-4.2	140	-0.04
48	M	4-Nitrophenol	0.201	0.199	1.0	141	0.00
49	M	2,4-Dinitrophenol	0.213	0.252	-18.3	187	-0.02
50	M	Diethylphthalate	1.444	1.479	-2.4	146	-0.02
51	M	Fluorene	1.191	1.181	0.8	138	-0.04
52	M	4-Chlorophenyl-phenylether	0.551	0.564	-2.4	138	-0.04
53		4-Nitroaniline	0.458	0.456	0.4	146	-0.02
54	I	Phenanthrene-d10	1.000	1.000	0.0	138	-0.06
55	M	4,6-Dinitro-2-methylphenol	0.181	0.207	-14.4	170	-0.02
56		n-Nitrosodiphenylamine	0.509	0.526	-3.3	142	-0.04
57		1,2-Diphenylhydrazine	1.003	1.107	-10.4	154	-0.04
58	S	2,4,6-Tribromophenol	0.117	0.127	-8.5	145	-0.04
59	M	4-Bromophenyl-phenylether	0.189	0.188	0.5	143	-0.04
60	M	Hexachlorobenzene	0.230	0.236	-2.6	143	-0.04
61	M	Pentachlorophenol	0.161	0.162	-0.6	142	-0.04
62	M	Phenanthrene	0.987	1.011	-2.4	144	-0.04
63	M	Anthracene	1.049	1.038	1.0	142	-0.04
64		Carbazole	1.015	0.990	2.5	135	-0.04
65	M	Di-n-butylphthalate	1.595	1.520	4.7	130	-0.06
66	I	Chyrsene-d12	1.000	1.000	0.0	133	-0.07
67	M	Fluoranthene	1.267	1.296	-2.3	135	-0.06
68		Benzidine	0.572	0.566	1.0	136	-0.06
69	M	Pyrene	1.267	1.318	-4.0	144	-0.06
70	S	Terphenyl-d14	0.746	0.784	-5.1	141	-0.04
71	M	Butylbenzylphthalate	0.802	0.804	-0.2	133	-0.06
72	M	Benzo(a)anthracene	1.123	1.120	0.3	138	-0.06
73	M	Chrysene	0.999	1.046	-4.7	137	-0.06
74	M	3,3'-Dichlorobenzidine	0.429	0.421	1.9	131	-0.06
75	M	bis(2-Ethylhexyl)phthalate	1.094	1.121	-2.5	132	-0.07
76	M	Di-n-octylphthalate	1.947	2.060	-5.8	139	-0.06
77	I	Perylene-d12	1.000	1.000	0.0	137	-0.07

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21703.D Vial: 3
Acq On : 17 Feb 2003 1:17 pm Operator: AVL/TC
Sample : 50PPM BNA SVQ-623.79B.4-6 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Wed Feb 12 09:32:46 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78	M	Benzo(b)fluoranthene	1.607	1.531	4.7	123	-0.06
79	M	Benzo(k)fluoranthene	1.230	1.470	-19.5	153	-0.05
80	M	Benzo(a)pyrene	1.385	1.444	-4.3	137	-0.07
81	M	Indeno(1,2,3-cd)pyrene	0.939	1.317	-40.3#	169	-0.12
82	M	Dibenz(a,h)anthracene	0.947	1.371	-44.8#	167	-0.14
83	M	Benzo(g,h,i)perylene	1.037	1.298	-25.2#	170	-0.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21703.D Vial: 3
Acq On : 17 Feb 2003 1:17 pm Operator: AVL/TC
Sample : 50PPM BNA SVQ-623.79B.4-6 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 14:17 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.11	152	195195	40.00	ng	-0.04
19) Naphthalene-d8	13.06	136	729592	40.00	ng	-0.04
34) Acenaphthene-d10	17.22	164	319841	40.00	ng	-0.04
54) Phenanthrene-d10	20.76	188	498350	40.00	ng	-0.06
66) Chyrsene-d12	27.08	240	425716	40.00	ng	-0.07
77) Perylene-d12	30.21	264	291800	40.00	ng	-0.07
System Monitoring Compounds						
4) 2-Fluorophenol	7.24	112	328869	53.74	mg/L	0.00
7) Phenol-d5	9.44	99	396634	53.66	mg/L	0.00
20) Nitrobenzene-d5	11.42	82	345259	53.66	mg/L	-0.02
38) 2-Fluorobiphenyl	15.70	172	487880	51.23	mg/L	-0.04
58) 2,4,6-Tribromophenol	19.14	330	78975	54.37	mg/L	-0.04
70) Terphenyl-d14	24.69	244	417369	52.58	mg/L	-0.04
Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.19	42	182398	55.06	mg/L	100
3) Pyridine	4.20	79	387136	51.46	mg/L	99
5) Aniline	9.40	93	471395	51.15	mg/L	96
6) bis(2-Chloroethyl)ether	9.62	93	338404	52.68	mg/L	98
8) 2-Chlorophenol	9.64	128	340040	50.66	mg/L	96
9) Phenol	9.45	94	451140	52.33	mg/L	98
10) 1,3-Dichlorobenzene	9.98	146	352756	50.59	mg/L	96
11) 1,4-Dichlorobenzene	10.15	146	353990	50.49	mg/L	99
12) 1,2-Dichlorobenzene	10.49	146	342206	52.83	mg/L	97
13) Benzyl Alcohol	10.52	108	207158	50.67	mg/L	97
14) bis(2-Chloroisopropyl)ethe	10.82	45	539079	51.86	mg/L #	86
15) 2-Methylphenol	10.81	107	241520	52.11	mg/L	99
16) 3/4-Methylphenol	11.18	107	365484	54.38	mg/L	100
17) n-Nitroso-di-n-propylamine	11.16	70	201543	51.78	mg/L	99
18) Hexachloroethane	11.23	117	142447	51.83	mg/L #	74
21) Nitrobenzene	11.47	77	361520	55.80	mg/L #	86
22) Isophorone	12.06	82	662552	50.76	mg/L	98
23) 2-Nitrophenol	12.20	139	198679	48.36	mg/L	93
24) 2,4-Dimethylphenol	12.42	122	264068	52.23	mg/L	100
25) bis(2-Chloroethoxy)methane	12.64	93	374217	49.15	mg/L	99
26) Benzoic Acid	12.86	122	170951	49.67	mg/L	95
27) 1,2,4-Trichlorobenzene	12.94	180	247983	52.12	mg/L	97
28) 2,4-Dichlorophenol	12.79	162	243473	53.94	mg/L	98
29) Naphthalene	13.11	128	860200	51.46	mg/L	100
30) 4-Chloroaniline	13.31	127	387131	53.08	mg/L	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21703.D Vial: 3
Acq On : 17 Feb 2003 1:17 pm Operator: AVL/TC
Sample : 50PPM BNA SVQ-623.79B.4-6 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 14:17 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Hexachlorobutadiene	13.45	225	129928	50.54 mg/L	99
32)	4-Chloro-3-methylphenol	14.53	107	265816	51.87 mg/L	99
33)	2-Methylnaphthalene	14.77	142	540135	50.68 mg/L	99
35)	Hexachlorocyclopentadiene	15.16	237	133529	52.53 mg/L	98
36)	2,4,6-Trichlorophenol	15.48	196	153081	50.32 mg/L	99
37)	2,4,5-Trichlorophenol	15.57	196	171892	51.81 mg/L #	92
39)	2-Chloronaphthalene	15.92	162	476771	53.04 mg/L	98
40)	2-Nitroaniline	16.23	65	184737	51.17 mg/L	94
41)	Dimethylphthalate	16.75	163	558437	50.75 mg/L	99
42)	Acenaphthylene	16.89	152	740767	50.83 mg/L	100
43)	2,6-Dinitrotoluene	16.87	165	134163	51.11 mg/L	94
44)	3-Nitroaniline	17.24	138	167896	48.98 mg/L	94
45)	Acenaphthene	17.31	154	410362	49.70 mg/L	99
46)	Dibenzofuran	17.73	168	598377	50.19 mg/L	95
47)	2,4-Dinitrotoluene	17.82	165	189121	47.59 mg/L #	84
48)	4-Nitrophenol	17.75	109	79392	49.34 mg/L #	40
49)	2,4-Dinitrophenol	17.51	184	100934	50.70 mg/L	100
50)	Diethylphthalate	18.48	149	591307	51.20 mg/L	97
51)	Fluorene	18.55	166	472020	49.58 mg/L	99
52)	4-Chlorophenyl-phenylether	18.63	204	225466	51.14 mg/L	99
53)	4-Nitroaniline	18.71	138	182400	49.76 mg/L	99
55)	4,6-Dinitro-2-methylphenol	18.78	198	128878	57.08 mg/L	100
56)	n-Nitrosodiphenylamine	18.93	169	327635	51.66 mg/L	98
57)	1,2-Diphenylhydrazine	19.00	77	689393	55.18 mg/L	100
59)	4-Bromophenyl-phenylether	19.78	248	116991	49.59 mg/L	95
60)	Hexachlorobenzene	19.85	284	147193	51.42 mg/L	96
61)	Pentachlorophenol	20.36	266	100751	50.13 mg/L	99
62)	Phenanthrene	20.83	178	629952	51.20 mg/L	99
63)	Anthracene	20.95	178	646462	49.46 mg/L	99
64)	Carbazole	21.39	167	616875	48.76 mg/L	99
65)	Di-n-butylphthalate	22.41	149	946959	47.66 mg/L	99
67)	Fluoranthene	23.66	202	689915	51.16 mg/L #	97
68)	Benzidine	24.10	184	602332	98.88 mg/L	96
69)	Pyrene	24.17	202	701528	52.01 mg/L	99
71)	Butylbenzylphthalate	25.96	149	427816	50.14 mg/L	99
72)	Benzo(a)anthracene	27.06	228	596157m	49.87 mg/L	96
73)	Chrysene	27.15	228	556579m	52.34 mg/L	99
74)	3,3'-Dichlorobenzidine	27.11	252	448029	98.13 mg/L	99
75)	bis(2-Ethylhexyl)phthalate	27.42	149	596377	51.23 mg/L #	97
76)	Di-n-octylphthalate	28.91	149	1095961	52.88 mg/L	99
78)	Benzo(b)fluoranthene	29.45	252	558447	47.63 mg/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21703.D Vial: 3
Acq On : 17 Feb 2003 1:17 pm Operator: AVL/TC
Sample : 50PPM BNA SVQ-623.79B.4-6 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 14:17 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

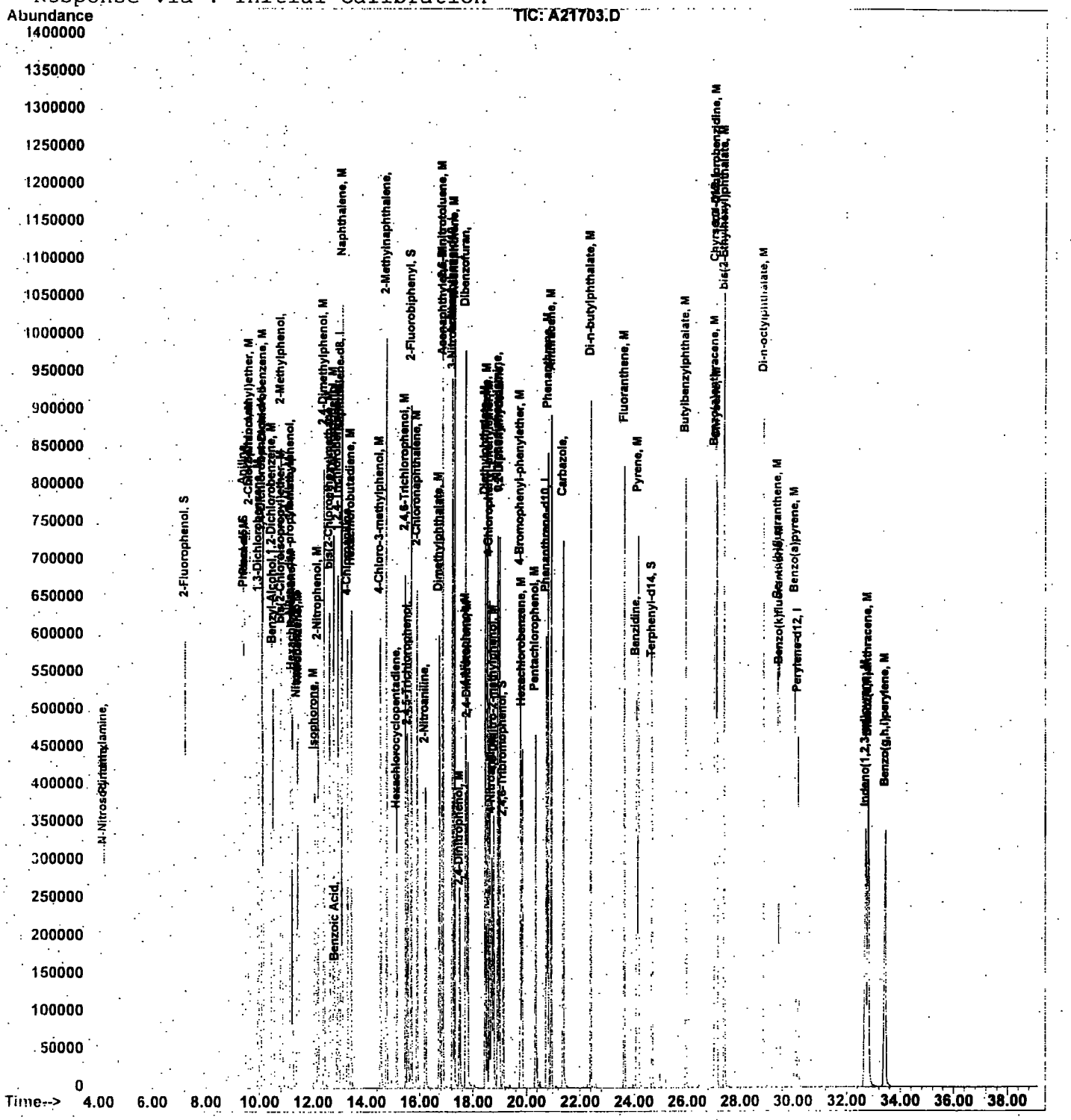
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Benzo(k)fluoranthene	29.52	252	536001	54.44 mg/L #	95
80) Benzo(a)pyrene	30.09	252	526528	52.10 mg/L #	95
81) Indeno(1,2,3-cd)pyrene	32.73	276	480431	55.64 mg/L	91
82) Dibenz(a,h)anthracene	32.82	278	500137	57.85 mg/L	96
83) Benzo(g,h,i)perylene	33.46	276	473365	62.59 mg/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

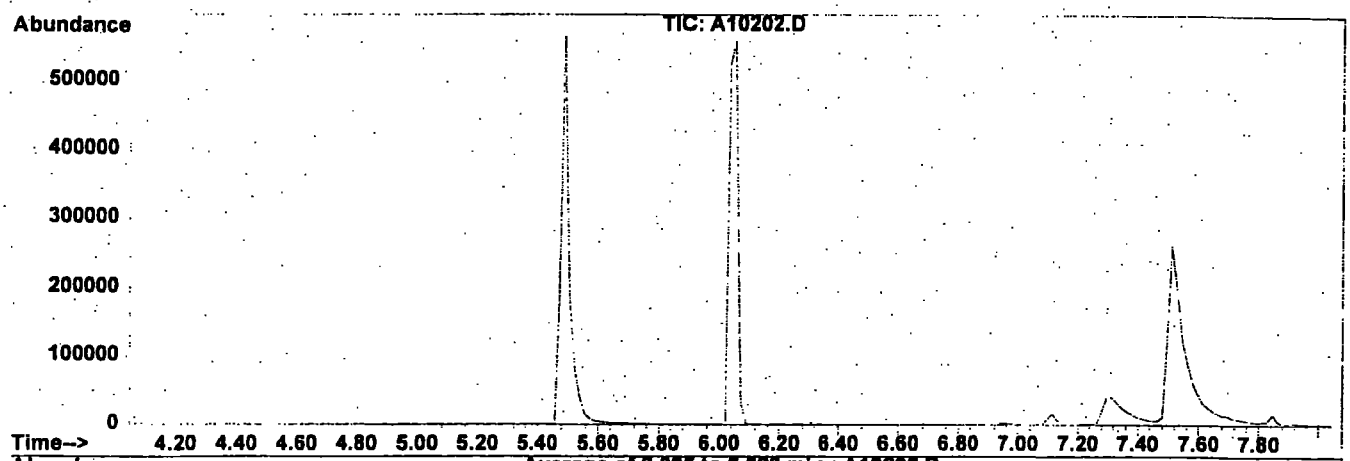
Data File : C:\HPCHEM\1\DATA\A2-17-03\A21703.D Vial: 3
Acq On : 17 Feb 2003 1:17 pm Operator: AVL/TC
Sample : 50PPM BNA SVQ-623.79B.4-6 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 14:17 2003 Quant Results File: DBNA.RES

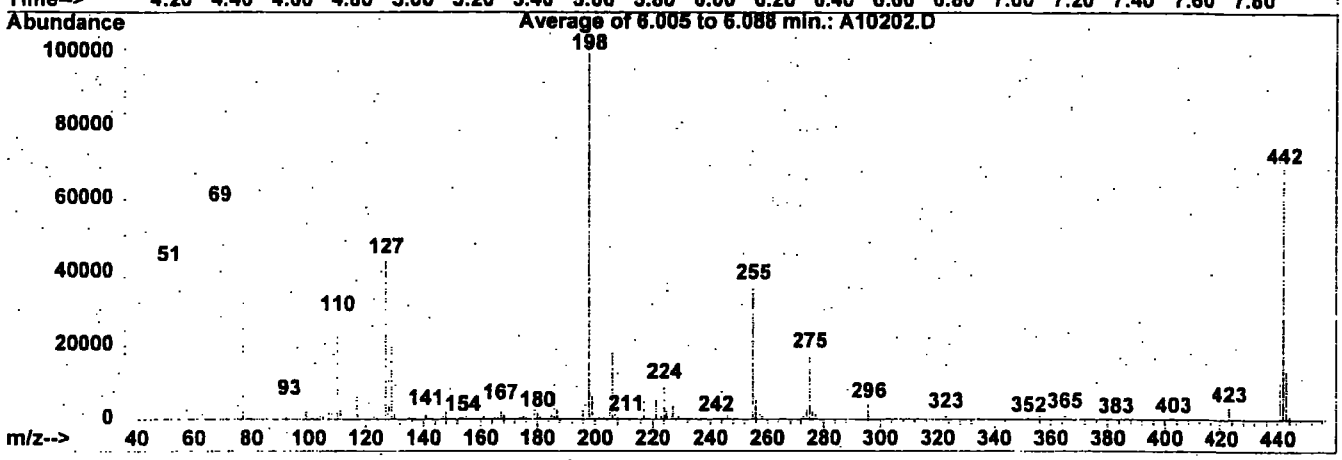
Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



DFTPP Initial Calibration

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10202.D Vial: 2
Acq On : 2 Jan 2003 9:02 am Operator: AVL/TC
Sample : 50ng DFTPP SVS-623.78A.0 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title :





Spectrum Information: Average of 6.005 to 6.088 min.

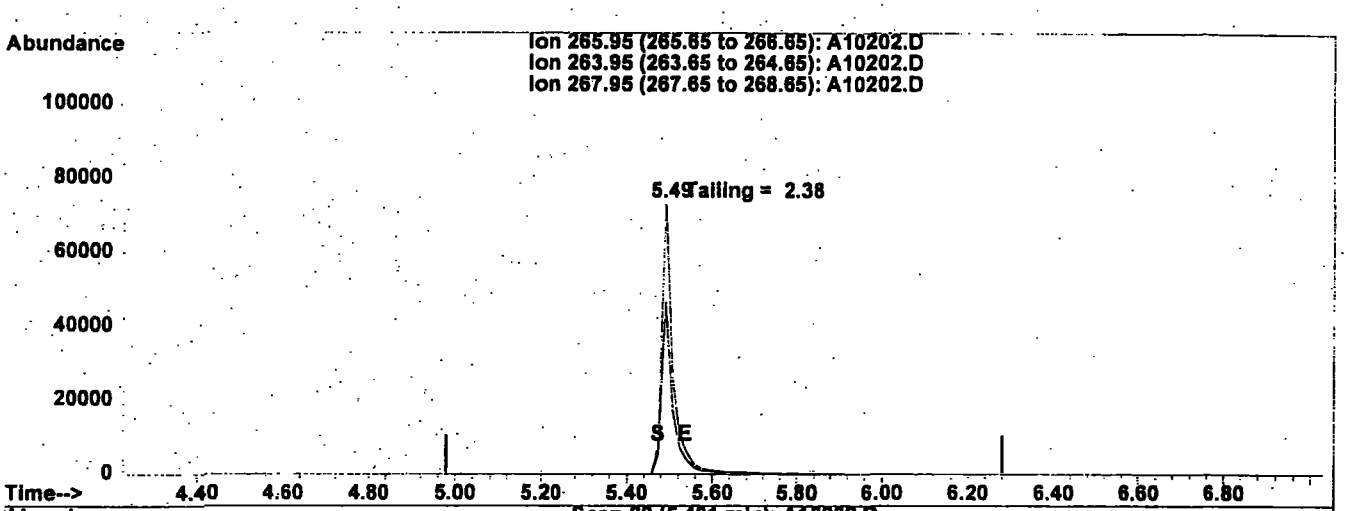
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.6	41605	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	57.8	57755	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	43.6	43605	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	100000	PASS
199	198	5	9	6.1	6148	PASS
275	198	10	30	17.9	17851	PASS
365	198	1	100	1.5	1472	PASS
441	443	0.01	100	75.7	10047	PASS
442	198	40	100	68.4	68399	PASS
443	442	17	23	19.4	13275	PASS

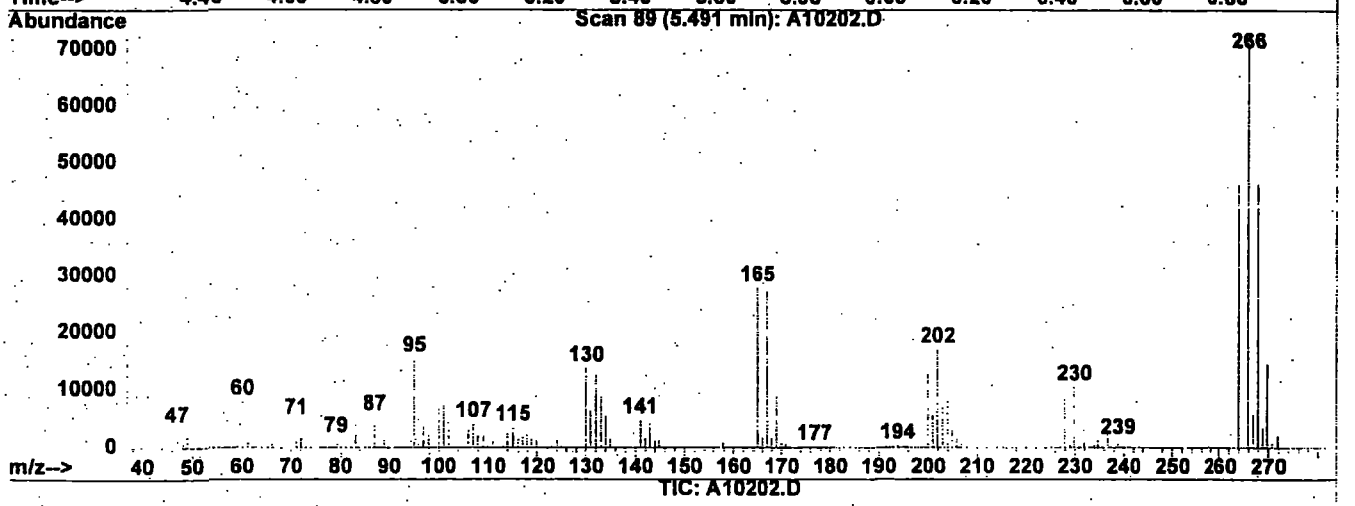
A10202.D DFTPP.M Thu Jan 02 09:16:46 2003

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10202.D Vial: 2
Acq On : 2 Jan 2003 9:02 am Operator: AVL/TC
Sample : 50ng DFTPP SVS-623.78A.0 Inst : Alpha
Misc : Multiplr: 1.00
Quant Time: Jan 2 9:16 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title :
Last Update : Thu Feb 15 10:48:55 2001
Response via : Single Level Calibration





(4) PENTACHLOROPHENOL

5.49min 0.00ng

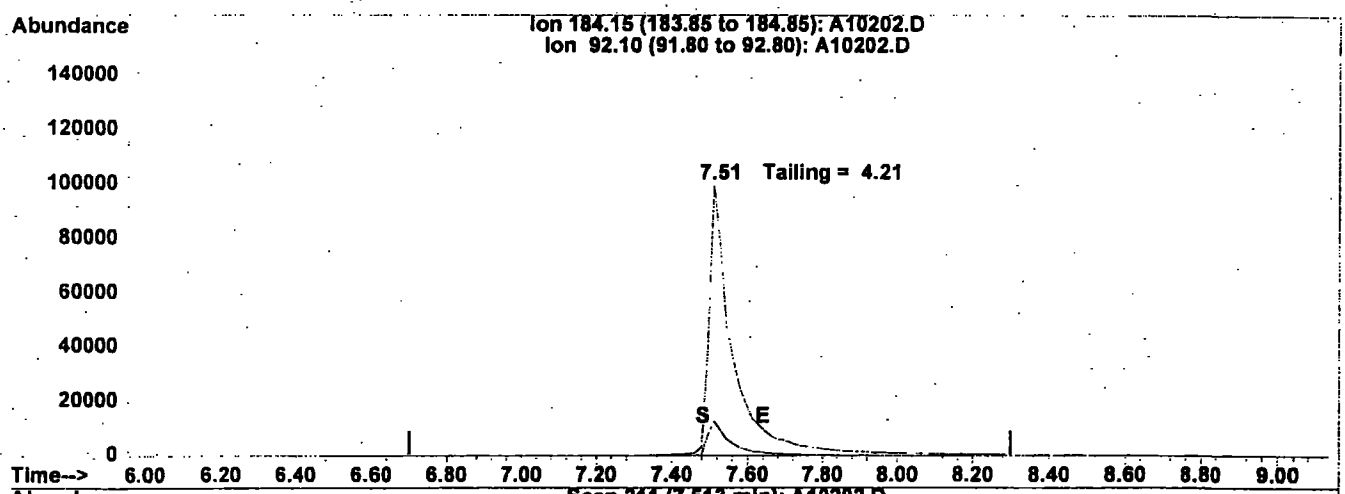
response 135612

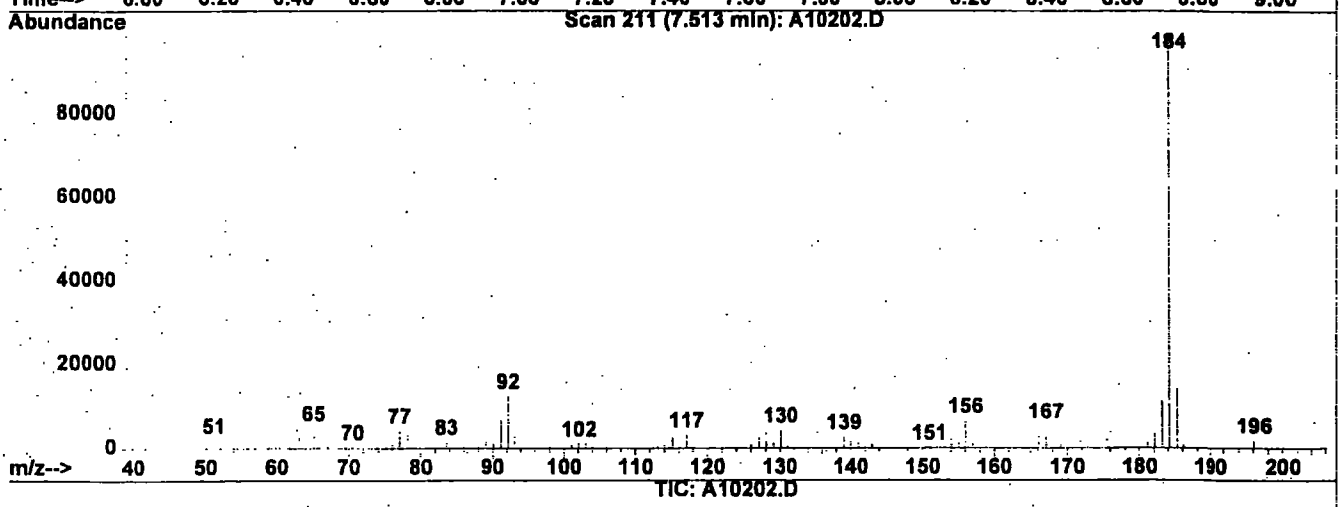
Ion	Exp%	Act%
265.95	100	100
263.95	62.60	63.25
267.95	63.90	63.64
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10202.D Vial: 2
Acq On : 2 Jan 2003 9:02 am Operator: AVL/TC
Sample : 50ng DFTPP SVS-623.78A.0 Inst : Alpha
Misc : Multiplr: 1.00
Quant Time: Jan 2 9:16 2003 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title :
Last Update : Thu Feb 15 10:48:55 2001
Response via : Single Level Calibration





(5) BENZIDINE

7.51min 0.00ng

response 447185

Ion	Exp%	Act%
184.15	100	100
92.10	11.00	12.79
0.00	0.00	0.00
0.00	0.00	0.00

DDT Breakdown Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10202.D Vial: 2
Acq On : 2 Jan 2003 9:02 am Operator: AVL/TC
Sample : 50ng DFTPP SVS-623.78A.0 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title :
Last Update : Thu Feb 15 10:48:55 2001
Response via : Single Level Calibration

RT	Compound Name	Area
7.84	DDE	2716
8.54	DDD	6263
9.30	DDT	240987
	Total	249966
	DDT Breakdown	3.59 %

Response Factor Report Alpha

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Tue Jan 14 08:27:06 2003
Response via : Initial Calibration

Calibration Files

125	=A10209.D	100	=A10208.D	75	=A10207.D
50	=A10206.D	20	=A10205.D	5	=A10204.D
1	=A10203.D		=		=

		Compound	125	100	75	50	20	5	1	Avg	%RSD
1)	I	1,4-Dichlorobenzene-d	----------ISTD----------								
2)		N-Nitrosodimeth	0.691	0.683	0.653	0.670	0.519	0.441		-----	
								LO M=	0.679	R=0.999	
3)		Pyridine	1.666	1.653	1.686	1.470	1.426	1.348		1.542	9.39
4)	S	2-Fluorophenol	1.265	1.264	1.245	1.218	1.324	1.208		1.254	3.31
5)		Aniline	1.896	1.887	1.867	1.799	1.965	1.917		1.888	2.92
6)	M	bis(2-Chloroeth		1.226	1.303	1.235	1.435	1.464	1.236	1.316	8.13
7)	S	Phenol-d5	1.580	1.548	1.543	1.436	1.522	1.460		1.515	3.67
8)	M	2-Chlorophenol	1.370	1.363	1.340	1.312	1.471	1.396		1.376	3.98
9)	M	Phenol	1.742	1.821	1.793	1.702	1.853	1.690		1.767	3.74
10)	M	1,3-Dichloroben	1.330	1.387	1.427	1.385	1.535	1.509		1.429	5.51
11)	M	1,4-Dichloroben	1.313	1.371	1.411	1.394	1.568	1.565		1.437	7.36
12)	M	1,2-Dichloroben	1.234	1.281	1.322	1.313	1.415	1.399		1.327	5.22
13)		Benzyl Alcohol	0.887	0.851	0.852	0.779	0.819			0.838	4.85
14)	M	bis(2-Chloroiso	2.065	2.107	2.144	2.028	2.174	2.262		2.130	3.91
15)		2-Methylphenol	0.956	0.950	0.990	0.927	1.001	0.875		0.950	4.83
16)		3/4-Methylpheno	1.400	1.413	1.442	1.327	1.471	1.210		1.377	6.91
17)	M	n-Nitroso-di-n-	0.778	0.836	0.875	0.764	0.824	0.708		0.798	7.46
18)	M	Hexachloroethan	0.505	0.529	0.573	0.575	0.607	0.590		0.563	6.84
19)	I	Naphthalene-d8		----------ISTD----------							
20)	S	Nitrobenzene-d5	0.365	0.375	0.368	0.351	0.356	0.302		0.353	7.48
21)	M	Nitrobenzene		0.372	0.391	0.363	0.384	0.339	0.283	0.355	11.25
22)	M	Isophorone	0.713	0.736	0.724	0.699	0.750	0.671		0.716	3.92
23)	M	2-Nitrophenol	0.226	0.236	0.213	0.207	0.202	0.148		-----	
								LO M=	0.225	R=0.996	
24)	M	2,4-Dimethylphe	0.279	0.287	0.292	0.274	0.301	0.231		0.277	8.89
25)	M	bis(2-Chloroeth	0.401	0.422	0.410	0.429	0.436	0.407		0.417	3.32
26)		Benzoic Acid	0.210	0.209	0.189	0.177	0.158			0.189	11.74
27)	M	1,2,4-Trichloro	0.250	0.258	0.263	0.256	0.271	0.268		0.261	2.99
28)	M	2,4-Dichlorophe	0.254	0.264	0.264	0.255	0.265	0.183		0.247	12.92
29)	M	Naphthalene	0.886	0.845	0.878	0.921	0.995	0.973		0.916	6.34
30)		4-Chloroaniline	0.411	0.404	0.429	0.406	0.421	0.328		0.400	9.15
31)	M	Hexachlorobutad	0.132	0.139	0.138	0.140	0.150	0.147		0.141	4.66
32)	M	4-Chloro-3-meth	0.297	0.286	0.287	0.278	0.289	0.249		0.281	6.05
33)		2-Methylnaphtha	0.538	0.564	0.579	0.584	0.634	0.607		0.584	5.70
34)	I	Acenaphthene-d10		----------ISTD----------							
35)		Hexachlorocyclo	0.315	0.317	0.328	0.321	0.303	0.208		-----	
								LO M=	0.318	R=0.999	
36)	M	2,4,6-Trichloro	0.391	0.396	0.392	0.384	0.389	0.332		0.380	6.40
37)		2,4,5-Trichloro	0.419	0.424	0.434	0.419	0.422	0.372		0.415	5.27

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report Alpha

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Tue Jan 14 08:27:06 2003
Response via : Initial Calibration

Calibration Files

125	=A10209.D	100	=A10208.D	75	=A10207.D
50	=A10206.D	20	=A10205.D	5	=A10204.D
1	=A10203.D		=		=

		Compound	125	100	75	50	20	5	1	Avg	%RSD
38)	S	2-Fluorobipheny	1.091	1.148	1.210	1.207	1.276	1.214		1.191	5.35
39)	M	2-Chloronaphtha	1.046	1.111	1.161	1.132	1.193	1.102		1.124	4.51
40)		2-Nitroaniline	0.465	0.473	0.464	0.424	0.431			0.451	4.96
41)	M	Dimethylphthala	1.345	1.383	1.400	1.352	1.430	1.346		1.376	2.51
42)	M	Acenaphthylene	1.687	1.683	1.789	1.869	2.000	1.908		1.823	6.95
43)	M	2,6-Dinitrotolu	0.356	0.339	0.332	0.336	0.342	0.265		0.328	9.74
44)		3-Nitroaniline	0.444	0.441	0.450	0.404	0.404			0.429	5.30
45)	M	Acenaphthene	0.989	1.018	1.005	0.999	1.106	1.079		1.033	4.67
46)		Dibenzofuran	1.448	1.431	1.455	1.454	1.590	1.568		1.491	4.64
47)	M	2,4-Dinitrotolu	0.499	0.500	0.500	0.471	0.463	0.293		-----	
								LO M=	0.497	R=1.000	
48)	M	4-Nitrophenol	0.218	0.214	0.215	0.195	0.164			0.201	11.33
49)	M	2,4-Dinitrophen	0.266	0.249	0.239	0.187	0.126			-----	
								LO M=	0.249	R=0.996	
50)	M	Diethylphthalat	1.387	1.456	1.424	1.402	1.527	1.469		1.444	3.54
51)	M	Fluorene	1.133	1.183	1.219	1.191	1.232	1.186		1.191	2.90
52)	M	4-Chlorophenyl-	0.524	0.523	0.545	0.569	0.593	0.556		0.551	4.92
53)		4-Nitroaniline	0.474	0.469	0.478	0.434	0.437			0.458	4.64
54)	I	Phenanthrene-d10		----------ISTD----------							
55)	M	4,6-Dinitro-2-m	0.200	0.198	0.193	0.169	0.147			0.181	12.51
56)		n-Nitrosodiphen	0.503	0.513	0.502	0.513	0.530	0.493		0.509	2.48
57)		1,2-Diphenylhyd	0.972	0.979	1.002	0.992	1.063	1.008		1.003	3.26
58)	S	2,4,6-Tribromop	0.123	0.119	0.122	0.121	0.121	0.094		0.117	9.40
59)	M	4-Bromophenyl-p	0.187	0.187	0.189	0.182	0.203	0.188		0.189	3.74
60)	M	Hexachlorobenze	0.222	0.224	0.229	0.229	0.239	0.235		0.230	2.83
61)	M	Pentachlorophen	0.167	0.168	0.166	0.158	0.148			0.161	5.36
62)	M	Phenanthrene	0.940	0.956	0.968	0.973	1.077	1.010		0.987	5.03
63)	M	Anthracene	1.001	0.986	1.056	1.014	1.144	1.095		1.049	5.83
64)		Carbazole	0.991	1.000	1.040	1.013	1.076	0.971		1.015	3.70
65)	M	Di-n-butylphtha	1.452	1.567	1.596	1.621	1.678	1.654		1.595	5.03
66)	I	Chyrsene-d12		----------ISTD----------							
67)	M	Fluoranthene	1.246	1.247	1.279	1.268	1.315	1.247		1.267	2.15
68)		Benzidine	0.544	0.575	0.586	0.553	0.603			0.572	4.21
69)	M	Pyrene	1.202	1.269	1.288	1.209	1.316	1.320		1.267	4.05
70)	S	Terphenyl-d14	0.700	0.737	0.755	0.737	0.812	0.733		0.746	4.98
71)	M	Butylbenzylphth	0.836	0.791	0.787	0.799	0.837	0.760		0.802	3.73
72)	M	Benzo(a)anthrac		1.190	1.175	1.076	1.143	1.073	1.081	1.123	4.72
73)	M	Chrysene	0.902	0.958	0.994	1.012	1.066	1.062		0.999	6.28
74)	M	3,3'-Dichlorobe	0.446	0.440	0.427	0.427	0.405			0.429	3.65
75)	M	bis(2-Ethylhexy	1.068	1.077	1.075	1.126	1.150	1.066		1.094	3.24
76)	M	Di-n-octylphtha	2.004	1.963	1.972	1.971	2.026	1.748		1.947	5.15

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Response Factor Report Alpha

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Tue Jan 14 08:27:06 2003
Response via : Initial Calibration

Calibration Files

125	=A10209.D	100	=A10208.D	75	=A10207.D
50	=A10206.D	20	=A10205.D	5	=A10204.D
1	=A10203.D		=		=

		Compound	125	100	75	50	20	5	1	Avg	%RSD
77)	I	Perylene-d12	----------ISTD----------								
78)	M	Benzo(b)fluoran		1.910	1.667	1.698	1.586	1.476	1.306	1.607	12.81
79)	M	Benzo(k)fluoran	0.832	0.964	1.302	1.312	1.513	1.458		-----	
								QO A= -0.297 R=0.988			
								B= 1.754			
80)	M	Benzo(a)pyrene	1.413	1.407	1.501	1.437	1.502	1.361	1.077	1.385	10.49
81)	M	Indeno(1,2,3-cd		1.187	1.248	1.065	0.947	0.775	0.410	-----	
								LO M= 1.184 R=0.995			
82)	M	Dibenz(a,h)anth		1.163	1.263	1.123	1.041	0.799	0.290	-----	
								LO M= 1.185 R=0.996			
83)	M	Benzo(g,h,i)per	1.062	1.081	1.190	1.046	0.954	0.888		1.037	10.13

L = Linear LO = Linear+Origin Q = Quad QO = Quad+Origin R = Corr. Coef
(#) = Out of Range ### Number of calibration levels exceeded format ###

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10203.D Vial: 3
Acq On : 2 Jan 2003 9:21 am Operator: AVL/TC
Sample : 1PPM BNA SVQ-623.79B.7-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 2 10:08 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.25	152	144604	40.00 ng	0.00
19) Naphthalene-d8	13.18	136	513811	40.00 ng	-0.02
34) Acenaphthene-d10	17.36	164	241032	40.00 ng	0.00
54) Phenanthrene-d10	20.90	188	370101	40.00 ng	-0.02
66) Chyrsene-d12	27.21	240	326386	40.00 ng	-0.02
77) Perylene-d12	30.36	264	203672	40.00 ng	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	7.34	112	2825	0.60 mg/L	0.00
7) Phenol-d5	9.52	99	3662	0.63 mg/L	0.00
20) Nitrobenzene-d5	11.52	82	2962	0.65 mg/L	-0.02
38) 2-Fluorobiphenyl	15.84	172	6367	0.87 mg/L	0.00
58) 2,4,6-Tribromophenol	0.00	330	0	0.00 mg/L	
70) Terphenyl-d14	24.83	244	5164	0.82 mg/L	0.00
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.00	42		N.D.	
3) Pyridine	0.00	79		N.D.	
5) Aniline	9.52	93	6152	0.87 mg/L	89
6) bis(2-Chloroethyl)ether	9.72	93	4467	0.93 mg/L	88
8) 2-Chlorophenol	9.76	128	4206	0.84 mg/L #	87
9) Phenol	9.54	94	4116	0.61 mg/L #	82
10) 1,3-Dichlorobenzene	10.10	146	5159	1.00 mg/L #	96
11) 1,4-Dichlorobenzene	10.28	146	5371	1.03 mg/L	95
12) 1,2-Dichlorobenzene	10.60	146	4901	1.02 mg/L	93
13) Benzyl Alcohol	10.62	108	800	0.26 mg/L	94
14) bis(2-Chloroisopropyl)ethe	10.98	45	7120	0.86 mg/L #	87
15) 2-Methylphenol	0.00	107		N.D.	
16) 3/4-Methylphenol	10.93	107	1399	0.38 mg/L	97
17) n-Nitroso-di-n-propylamine	11.26	70	1216	0.40 mg/L #	85
18) Hexachloroethane	11.37	117	1858	0.89 mg/L #	75
21) Nitrobenzene	11.57	77	3630	0.79 mg/L #	89
22) Isophorone	12.21	82	5528	0.57 mg/L #	63
23) 2-Nitrophenol	12.33	139	365	0.14 mg/L #	38
24) 2,4-Dimethylphenol	12.60	122	1076	0.28 mg/L #	72
25) bis(2-Chloroethoxy)methane	12.77	93	3569	0.64 mg/L #	87
26) Benzoic Acid	0.00	122		N.D.	
27) 1,2,4-Trichlorobenzene	13.08	180	3311	0.99 mg/L	96
28) 2,4-Dichlorophenol	0.00	162		N.D.	
29) Naphthalene	13.23	128	12194	1.04 mg/L	98
30) 4-Chloroaniline	0.00	127		N.D. d	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10203.D Vial: 3
Acq On : 2 Jan 2003 9:21 am Operator: AVL/TC
Sample : 1PPM BNA SVQ-623.79B.7-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 2 10:08 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	Hexachlorobutadiene	13.58	225	1628	0.88 mg/L		98
32)	4-Chloro-3-methylphenol	14.75	107	1280	0.34 mg/L	#	83
33)	2-Methylnaphthalene	14.92	142	5835	0.77 mg/L		90
35)	Hexachlorocyclopentadiene	15.29	237	408	0.23 mg/L	#	29
36)	2,4,6-Trichlorophenol	0.00	196		N.D.		
37)	2,4,5-Trichlorophenol	0.00	196		N.D. d		
39)	2-Chloronaphthalene	16.06	162	5028	0.73 mg/L		91
40)	2-Nitroaniline	0.00	65		N.D.		
41)	Dimethylphthalate	16.88	163	7621	0.91 mg/L	#	92
42)	Acenaphthylene	17.00	152	10343	0.92 mg/L		99
43)	2,6-Dinitrotoluene	0.00	165		N.D. d		
44)	3-Nitroaniline	0.00	138		N.D.		
45)	Acenaphthene	17.44	154	6089	0.99 mg/L		99
46)	Dibenzofuran	17.88	168	8120	0.87 mg/L		93
47)	2,4-Dinitrotoluene	0.00	165		N.D.		
48)	4-Nitrophenol	0.00	109		N.D.		
49)	2,4-Dinitrophenol	0.00	184		N.D.		
50)	Diethylphthalate	18.58	149	7494	0.81 mg/L		93
51)	Fluorene	18.68	166	6487	0.86 mg/L		98
52)	4-Chlorophenyl-phenylether	18.76	204	2912	0.84 mg/L		92
53)	4-Nitroaniline	0.00	138		N.D.		
55)	4,6-Dinitro-2-methylphenol	0.00	198		N.D.		
56)	n-Nitrosodiphenylamine	19.05	169	3025	0.63 mg/L		89
57)	1,2-Diphenylhydrazine	19.12	77	8253	0.82 mg/L	#	87
59)	4-Bromophenyl-phenylether	19.92	248	848	0.48 mg/L	#	84
60)	Hexachlorobenzene	19.97	284	1658	0.78 mg/L	#	83
61)	Pentachlorophenol	0.00	266		N.D.		
62)	Phenanthrene	20.95	178	9424	1.04 mg/L		97
63)	Anthracene	21.08	178	9191	0.95 mg/L		98
64)	Carbazole	21.57	167	6896	0.74 mg/L	#	80
65)	Di-n-butylphthalate	22.56	149	14544	0.96 mg/L		98
67)	Fluoranthene	23.81	202	9863	0.93 mg/L	#	93
68)	Benzidine	24.30	184	4167	0.81 mg/L	#	73
69)	Pyrene	24.32	202	9746	0.93 mg/L		95
71)	Butylbenzylphthalate	26.10	149	5465	0.79 mg/L		94
72)	Benzo(a)anthracene	27.18	228	8824	0.94 mg/L		96
73)	Chrysene	27.26	228	8875	1.07 mg/L		97
74)	3,3'-Dichlorobenzidine	27.25	252	3338	0.97 mg/L	#	87
75)	bis(2-Ethylhexyl)phthalate	27.57	149	7260	0.76 mg/L	#	89
76)	Di-n-octylphthalate	29.04	149	11027	0.67 mg/L		96
78)	Benzo(b)fluoranthene	29.57	252	6648	0.80 mg/L		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10203.D Vial: 3
Acq On : 2 Jan 2003 9:21 am Operator: AVL/TC
Sample : 1PPM BNA SVQ-623.79B.7-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 2 10:08 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

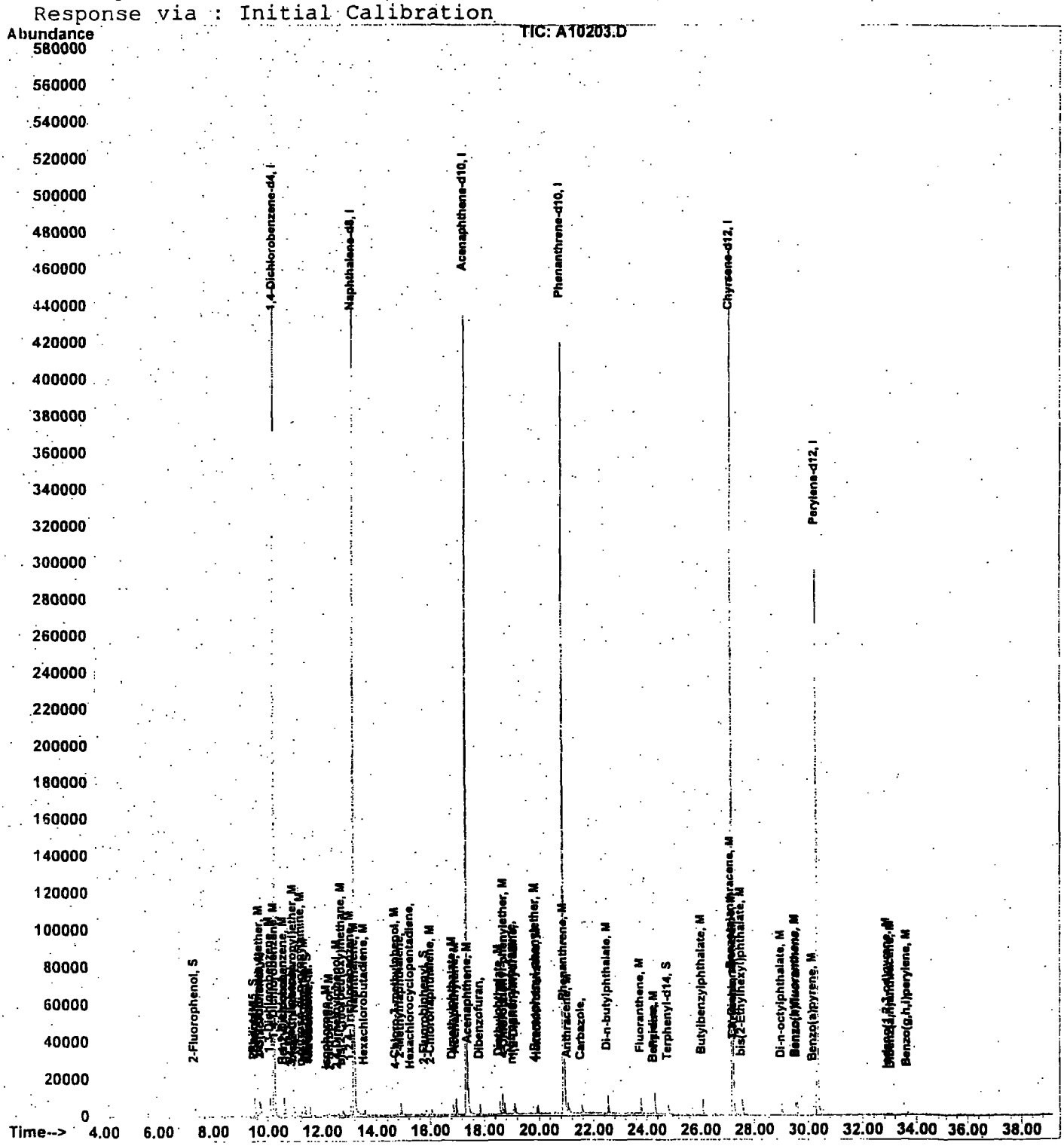
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Benzo(k)fluoranthene	29.62	252	6444m	0.70 mg/L #	99
80) Benzo(a)pyrene	30.21	252	5483	0.76 mg/L #	87
81) Indeno(1,2,3-cd)pyrene	32.95	276	2088	0.42 mg/L #	36
82) Dibenz(a,h)anthracene	33.09	278	1479	0.30 mg/L #	45
83) Benzo(g,h,i)perylene	33.68	276	2597	0.54 mg/L #	78

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10203.D Vial: 3
Acq On : 2 Jan 2003 9:21 am Operator: AVL/TC
Sample : 1PPM BNA SVQ-623.79B.7-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 2 10:08 2003 Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Fri Jan 10 09:44:14 2003
Response via : Initial Calibration



Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10204.D Vial: 4
Acq On : 2 Jan 2003 10:10 am Operator: AVL/TC
Sample : 5PPM BNA SVQ-623.79B.6-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:24 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.24	152	135837	40.00 ng	-0.01
19) Naphthalene-d8	13.18	136	507092	40.00 ng	-0.01
34) Acenaphthene-d10	17.37	164	230708	40.00 ng	0.00
54) Phenanthrene-d10	20.90	188	365627	40.00 ng	-0.01
66) Chyrsene-d12	27.20	240	321686	40.00 ng	-0.03
77) Perylene-d12	30.35	264	194709	40.00 ng	-0.01
System Monitoring Compounds					
4) 2-Fluorophenol	7.33	112	20519	4.62 mg/L	-0.01
7) Phenol-d5	9.51	99	24788	4.52 mg/L	-0.01
20) Nitrobenzene-d5	11.52	82	19133	4.28 mg/L	-0.01
38) 2-Fluorobiphenyl	15.82	172	35018	5.01 mg/L	-0.01
58) 2,4,6-Tribromophenol	19.28	330	4313	4.32 mg/L	0.00
70) Terphenyl-d14	24.81	244	29462	4.77 mg/L	-0.01
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	4.33	42	7483	3.16 mg/L	99
3) Pyridine	4.38	79	22896m	4.11 mg/L	98
5) Aniline	9.51	93	32556	4.88 mg/L	92
6) bis(2-Chloroethyl)ether	9.71	93	24853	5.58 mg/L	92
8) 2-Chlorophenol	9.75	128	23700	5.02 mg/L	96
9) Phenol	9.53	94	28691	4.56 mg/L	90
10) 1,3-Dichlorobenzene	10.09	146	25614	5.28 mg/L	96
11) 1,4-Dichlorobenzene	10.27	146	26572	5.42 mg/L	98
12) 1,2-Dichlorobenzene	10.59	146	23753	5.27 mg/L	99
13) Benzyl Alcohol	10.61	108	10369	3.54 mg/L	93
14) bis(2-Chloroisopropyl)ethe	10.95	45	38411	4.92 mg/L	97
15) 2-Methylphenol	10.91	107	14849m	7.23 mg/L #	98
16) 3/4-Methylphenol	11.29	107	20542m	5.98 mg/L #	99
17) n-Nitroso-di-n-propylamine	11.25	70	12026	4.17 mg/L	94
18) Hexachloroethane	11.37	117	10025	5.11 mg/L	98
21) Nitrobenzene	11.56	77	21468	4.76 mg/L	97
22) Isophorone	12.17	82	42536	4.43 mg/L	97
23) 2-Nitrophenol	12.32	139	9355	3.52 mg/L #	87
24) 2,4-Dimethylphenol	12.54	122	14621	3.91 mg/L	97
25) bis(2-Chloroethoxy)methane	12.76	93	25771	4.67 mg/L	98
26) Benzoic Acid	0.00	122		N.D. d	
27) 1,2,4-Trichlorobenzene	13.06	180	16971	5.12 mg/L	97
28) 2,4-Dichlorophenol	12.95	162	11598	3.52 mg/L	95
29) Naphthalene	13.22	128	61684	5.32 mg/L	98
30) 4-Chloroaniline	13.44	127	20768	3.93 mg/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10204.D Vial: 4
Acq On : 2 Jan 2003 10:10 am Operator: AVL/TC
Sample : 5PPM BNA SVQ-623.79B.6-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:24 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	Hexachlorobutadiene	13.57	225	9327	5.11 mg/L		98
32)	4-Chloro-3-methylphenol	14.69	107	15753	4.30 mg/L		95
33)	2-Methylnaphthalene	14.89	142	38463	5.14 mg/L		100
35)	Hexachlorocyclopentadiene	15.28	237	6008	3.55 mg/L	#	94
36)	2,4,6-Trichlorophenol	15.62	196	9560	4.27 mg/L		91
37)	2,4,5-Trichlorophenol	15.72	196	10720m	4.64 mg/L		94
39)	2-Chloronaphthalene	16.04	162	31779	4.83 mg/L		99
40)	2-Nitroaniline	16.37	65	7793	2.97 mg/L		93
41)	Dimethylphthalate	16.87	163	38819	4.86 mg/L		99
42)	Acenaphthylene	17.01	152	55019	5.14 mg/L		98
43)	2,6-Dinitrotoluene	16.98	165	7651	4.13 mg/L	#	88
44)	3-Nitroaniline	17.37	138	7147	2.97 mg/L	#	59
45)	Acenaphthene	17.43	154	31113	5.28 mg/L		97
46)	Dibenzofuran	17.86	168	45205	5.08 mg/L		96
47)	2,4-Dinitrotoluene	17.94	165	8461m	3.14 mg/L	#	93
48)	4-Nitrophenol	0.00	109		N.D.		
49)	2,4-Dinitrophenol	0.00	184		N.D.		
50)	Diethylphthalate	18.58	149	42377	4.80 mg/L		98
51)	Fluorene	18.67	166	34211	4.73 mg/L		97
52)	4-Chlorophenyl-phenylether	18.75	204	16022	4.83 mg/L		98
53)	4-Nitroaniline	18.86	138	6551	2.55 mg/L		99
55)	4,6-Dinitro-2-methylphenol	18.91	198	1476	1.15 mg/L		100
56)	n-Nitrosodiphenylamine	19.04	169	22542	4.77 mg/L		99
57)	1,2-Diphenylhydrazine	19.11	77	46071	4.65 mg/L	#	89
59)	4-Bromophenyl-phenylether	19.90	248	8594	4.92 mg/L		88
60)	Hexachlorobenzene	19.96	284	10761	5.11 mg/L	#	78
61)	Pentachlorophenol	20.51	266	3320	2.43 mg/L		95
62)	Phenanthrene	20.95	178	46165	5.15 mg/L		98
63)	Anthracene	21.07	178	50040	5.24 mg/L		99
64)	Carbazole	21.53	167	44385	4.84 mg/L		95
65)	Di-n-butylphthalate	22.55	149	75599	5.06 mg/L		98
67)	Fluoranthene	23.78	202	50150	4.79 mg/L		99
68)	Benzidine	24.24	184	40159	7.95 mg/L	#	92
69)	Pyrene	24.31	202	53072	5.14 mg/L		98
71)	Butylbenzylphthalate	26.08	149	30566	4.48 mg/L		92
72)	Benzo(a)anthracene	27.19	228	43153	4.71 mg/L		97
73)	Chrysene	27.25	228	42717	5.20 mg/L		99
74)	3,3'-Dichlorobenzidine	27.24	252	27006	7.93 mg/L	#	98
75)	bis(2-Ethylhexyl)phthalate	27.56	149	42869	4.58 mg/L		98
76)	Di-n-octylphthalate	29.03	149	70303	4.33 mg/L		99
78)	Benzo(b)fluoranthene	29.56	252	35935	4.61 mg/L		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10204.D Vial: 4
Acq On : 2 Jan 2003 10:10 am Operator: AVL/TC
Sample : 5PPM BNA SVQ-623.79B.6-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:24 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

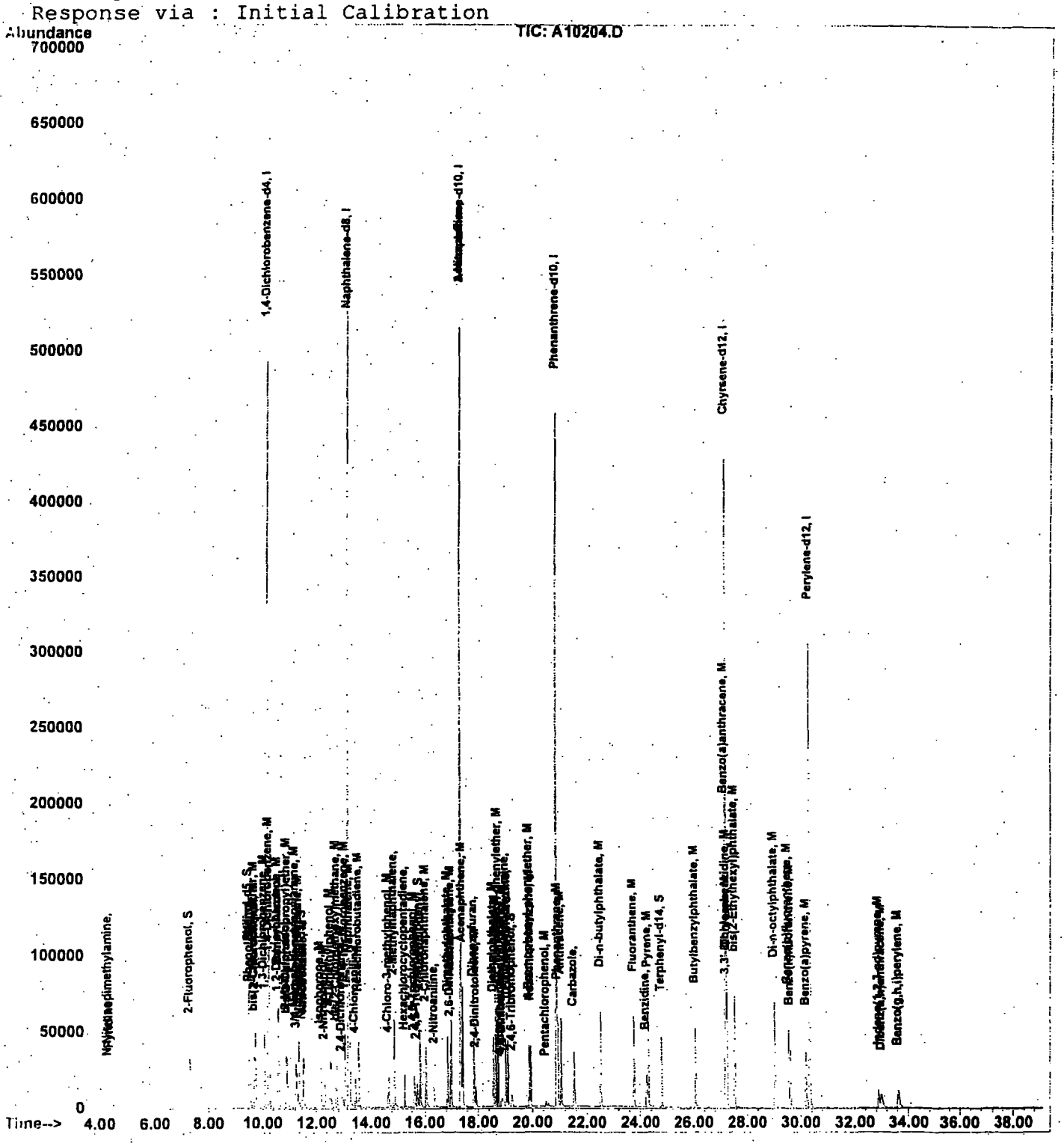
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Benzo(k)fluoranthene	29.62	252	35493	4.10 mg/L	99
80) Benzo(a)pyrene	30.22	252	33128	4.91 mg/L	98
81) Indeno(1,2,3-cd)pyrene	32.91	276	18858m	4.28 mg/L	96
82) Dibenz(a,h)anthracene	33.03	278	19438	4.40 mg/L	92
83) Benzo(g,h,i)perylene	33.65	276	21615	4.69 mg/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10204.D Vial: 4
Acq On : 2 Jan 2003 10:10 am Operator: AVL/TC
Sample : 5PPM BNA SVQ-623.79B.6-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:24 2003 Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Fri Jan 10 09:44:14 2003
Response via : Initial Calibration



Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10205.D Vial: 5
Acq On : 2 Jan 2003 11:00 am Operator: AVL/TC
Sample : 20PPM BNA SVQ-623.79B.5-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:26 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.23	152	164324	40.00	ng	-0.02
19) Naphthalene-d8	13.18	136	624877	40.00	ng	-0.02
34) Acenaphthene-d10	17.36	164	285350	40.00	ng	0.00
54) Phenanthrene-d10	20.90	188	446950	40.00	ng	-0.02
66) Chyrsene-d12	27.21	240	394380	40.00	ng	-0.02
77) Perylene-d12	30.35	264	243078	40.00	ng	-0.02
System Monitoring Compounds						
4) 2-Fluorophenol	7.34	112	108812	20.52	mg/L	0.00
7) Phenol-d5	9.50	99	125017	19.35	mg/L	-0.02
20) Nitrobenzene-d5	11.52	82	111233	19.98	mg/L	-0.02
38) 2-Fluorobiphenyl	15.82	172	182081	21.15	mg/L	-0.02
58) 2,4,6-Tribromophenol	19.26	330	26997	21.90	mg/L	-0.02
70) Terphenyl-d14	24.81	244	160212	21.51	mg/L	-0.02

Target Compounds						Qvalue
2) N-Nitrosodimethylamine	4.29	42	42671m	15.28	mg/L	96
3) Pyridine	4.32	79	117169	17.39	mg/L	95
5) Aniline	9.50	93	161428	20.34	mg/L	93
6) bis(2-Chloroethyl)ether	9.72	93	117886	21.86	mg/L	89
8) 2-Chlorophenol	9.74	128	120884	21.30	mg/L	96
9) Phenol	9.54	94	152285	20.54	mg/L	92
10) 1,3-Dichlorobenzene	10.10	146	126137	21.55	mg/L	99
11) 1,4-Dichlorobenzene	10.28	146	128790	21.74	mg/L	98
12) 1,2-Dichlorobenzene	10.60	146	116275	21.44	mg/L	99
13) Benzyl Alcohol	10.62	108	67275	19.00	mg/L	88
14) bis(2-Chloroisopropyl)ethe	10.94	45	178611	19.16	mg/L	98
15) 2-Methylphenol	10.91	107	82281m	34.79	mg/L #	93
16) 3/4-Methylphenol	11.28	107	120868m	29.83	mg/L #	98
17) n-Nitroso-di-n-propylamine	11.26	70	67714	19.92	mg/L	92
18) Hexachloroethane	11.37	117	49867	21.29	mg/L	99
21) Nitrobenzene	11.57	77	120114	21.47	mg/L	91
22) Isophorone	12.16	82	234349	20.25	mg/L	98
23) 2-Nitrophenol	12.31	139	63097	19.29	mg/L	90
24) 2,4-Dimethylphenol	12.52	122	93941	21.23	mg/L	96
25) bis(2-Chloroethoxy)methane	12.75	93	136229	20.45	mg/L	97
26) Benzoic Acid	12.84	122	49357m	14.41	mg/L	93
27) 1,2,4-Trichlorobenzene	13.06	180	84607	20.74	mg/L	99
28) 2,4-Dichlorophenol	12.89	162	82939	21.38	mg/L	98
29) Naphthalene	13.23	128	310854	21.69	mg/L	100
30) 4-Chloroaniline	13.41	127	131545	20.78	mg/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10205.D Vial: 5
Acq On : 2 Jan 2003 11:00 am Operator: AVL/TC
Sample : 20PPM BNA SVQ-623.79B.5-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:26 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	Hexachlorobutadiene	13.57	225	46808	21.05 mg/L		99
32)	4-Chloro-3-methylphenol	14.63	107	90181	20.22 mg/L		87
33)	2-Methylnaphthalene	14.89	142	197985	21.41 mg/L		99
35)	Hexachlorocyclopentadiene	15.28	237	43201	20.81 mg/L		97
36)	2,4,6-Trichlorophenol	15.60	196	55437	20.25 mg/L		98
37)	2,4,5-Trichlorophenol	15.67	196	60240	20.90 mg/L		100
39)	2-Chloronaphthalene	16.02	162	170174	21.24 mg/L		94
40)	2-Nitroaniline	16.34	65	61493	18.93 mg/L		95
41)	Dimethylphthalate	16.85	163	204005	20.79 mg/L		98
42)	Acenaphthylene	17.00	152	285401	21.62 mg/L		98
43)	2,6-Dinitrotoluene	16.97	165	48735	21.29 mg/L	#	90
44)	3-Nitroaniline	17.34	138	57699	19.36 mg/L		85
45)	Acenaphthene	17.43	154	157864	21.71 mg/L		100
46)	Dibenzofuran	17.85	168	226914	20.84 mg/L		94
47)	2,4-Dinitrotoluene	17.92	165	66003	19.82 mg/L		98
48)	4-Nitrophenol	17.85	109	23382m	14.76 mg/L	#	1
49)	2,4-Dinitrophenol	17.61	184	17972	15.37 mg/L		100
50)	Diethylphthalate	18.58	149	217845	20.16 mg/L		99
51)	Fluorene	18.66	166	175769	19.90 mg/L		99
52)	4-Chlorophenyl-phenylether	18.75	204	84607	20.84 mg/L		92
53)	4-Nitroaniline	18.80	138	62351	19.61 mg/L		95
55)	4,6-Dinitro-2-methylphenol	18.87	198	32914	20.95 mg/L		100
56)	n-Nitrosodiphenylamine	19.04	169	118421	20.75 mg/L		99
57)	1,2-Diphenylhydrazine	19.10	77	237636	19.94 mg/L	#	91
59)	4-Bromophenyl-phenylether	19.90	248	45333	21.42 mg/L		91
60)	Hexachlorobenzene	19.95	284	53335	20.94 mg/L	#	74
61)	Pentachlorophenol	20.47	266	32988	19.75 mg/L		96
62)	Phenanthrene	20.95	178	240699	22.23 mg/L		99
63)	Anthracene	21.07	178	255595	22.04 mg/L		97
64)	Carbazole	21.51	167	240463	21.75 mg/L		98
65)	Di-n-butylphthalate	22.52	149	375006	20.75 mg/L		99
67)	Fluoranthene	23.78	202	259381	20.49 mg/L		98
68)	Benzidine	24.22	184	237903	38.43 mg/L	#	92
69)	Pyrene	24.28	202	259537	20.64 mg/L	#	89
71)	Butylbenzylphthalate	26.08	149	164970	19.95 mg/L		98
72)	Benzo(a)anthracene	27.18	228	225452	20.43 mg/L		99
73)	Chrysene	27.26	228	210161	21.01 mg/L		100
74)	3,3'-Dichlorobenzidine	27.21	252	159845	38.29 mg/L		98
75)	bis(2-Ethylhexyl)phthalate	27.55	149	226764	19.96 mg/L		99
76)	Di-n-octylphthalate	29.02	149	399439	20.23 mg/L		100
78)	Benzo(b)fluoranthene	29.57	252	192707m	19.71 mg/L	#	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10205.D Vial: 5
Acq On : 2 Jan 2003 11:00 am Operator: AVL/TC
Sample : 20PPM BNA SVQ-623.79B.5-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:26 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

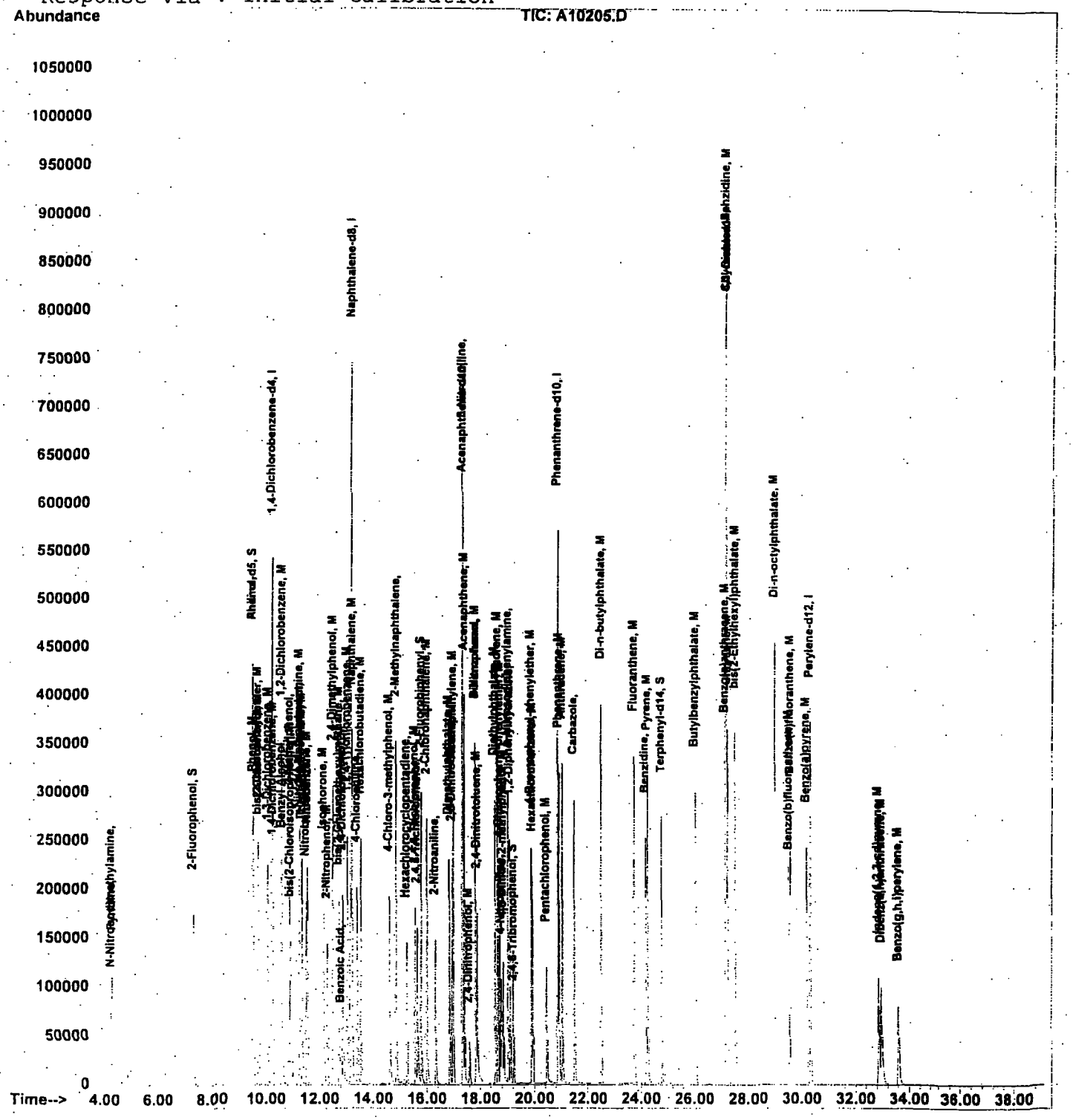
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Benzo(k)fluoranthene	29.62	252	183893	17.97 mg/L	97
80) Benzo(a)pyrene	30.21	252	182507	21.54 mg/L #	94
81) Indeno(1,2,3-cd)pyrene	32.89	276	115151	22.19 mg/L	99
82) Dibenz(a,h)anthracene	32.99	278	126463	24.04 mg/L	98
83) Benzo(g,h,i)perylene	33.63	276	115920	21.02 mg/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10205.D Vial: 5
Acq On : 2 Jan 2003 11:00 am Operator: AVL/TC
Sample : 20PPM BNA SVQ-623.79B.5-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:26 2003 Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Fri Jan 10 09:44:14 2003
Response via : Initial Calibration



Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10206.D Vial: 6
Acq On : 2 Jan 2003 11:50 am Operator: AVL/TC
Sample : 50PPM BNA SVQ-623.79B.4-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:27 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.23	152	138089	40.00 ng	-0.02
19) Naphthalene-d8	13.18	136	509974	40.00 ng	-0.02
34) Acenaphthene-d10	17.34	164	230390	40.00 ng	-0.02
54) Phenanthrene-d10	20.90	188	360270	40.00 ng	-0.02
66) Chyrsene-d12	27.23	240	321171	40.00 ng	0.00
77) Perylene-d12	30.36	264	213423	40.00 ng	0.00
System Monitoring Compounds					
4) 2-Fluorophenol	7.32	112	210254	47.57 mg/L	-0.02
7) Phenol-d5	9.52	99	247903	46.64 mg/L	0.00
20) Nitrobenzene-d5	11.52	82	223529	49.10 mg/L	-0.02
38) 2-Fluorobiphenyl	15.82	172	347458	49.94 mg/L	-0.02
58) 2,4,6-Tribromophenol	19.26	330	54477	54.33 mg/L	-0.02
70) Terphenyl-d14	24.81	244	295978	48.74 mg/L	-0.02
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	4.27	42	115586	52.11 mg/L	97
3) Pyridine	4.29	79	253732	46.56 mg/L	95
5) Aniline	9.50	93	310495	47.12 mg/L	93
6) bis(2-Chloroethyl)ether	9.72	93	213188	47.32 mg/L	94
8) 2-Chlorophenol	9.74	128	226534	47.54 mg/L	97
9) Phenol	9.54	94	293782	47.93 mg/L	98
10) 1,3-Dichlorobenzene	10.08	146	239104	48.54 mg/L	97
11) 1,4-Dichlorobenzene	10.27	146	240540	48.25 mg/L	99
12) 1,2-Dichlorobenzene	10.59	146	226634	49.77 mg/L	97
13) Benzyl Alcohol	10.62	108	134535	45.28 mg/L	93
14) bis(2-Chloroisopropyl)ethe	10.96	45	350038	45.36 mg/L	96
15) 2-Methylphenol	10.91	107	159976m	80.71 mg/L #	95
16) 3/4-Methylphenol	11.28	107	229078m	67.52 mg/L #	98
17) n-Nitroso-di-n-propylamine	11.27	70	131791	46.73 mg/L	97
18) Hexachloroethane	11.37	117	99191	50.61 mg/L	92
21) Nitrobenzene	11.57	77	231357	50.70 mg/L	98
22) Isophorone	12.18	82	445591	47.44 mg/L	97
23) 2-Nitrophenol	12.31	139	132259	49.46 mg/L	92
24) 2,4-Dimethylphenol	12.52	122	174513	48.59 mg/L	97
25) bis(2-Chloroethoxy)methane	12.76	93	273667	50.73 mg/L	99
26) Benzoic Acid	12.91	122	112831m	40.31 mg/L	99
27) 1,2,4-Trichlorobenzene	13.06	180	163039	49.14 mg/L	99
28) 2,4-Dichlorophenol	12.89	162	162440	51.15 mg/L	98
29) Naphthalene	13.23	128	587390	50.09 mg/L	99
30) 4-Chloroaniline	13.42	127	258854	50.32 mg/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10206.D Vial: 6
Acq On : 2 Jan 2003 11:50 am Operator: AVL/TC
Sample : 50PPM BNA SVQ-623.79B.4-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:27 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	Hexachlorobutadiene	13.57	225	89379	49.24 mg/L		99
32)	4-Chloro-3-methylphenol	14.63	107	177082	48.68 mg/L		88
33)	2-Methylnaphthalene	14.89	142	372358	49.00 mg/L		100
35)	Hexachlorocyclopentadiene	15.28	237	92541	54.74 mg/L		98
36)	2,4,6-Trichlorophenol	15.60	196	110492	49.94 mg/L		98
37)	2,4,5-Trichlorophenol	15.67	196	120591	51.61 mg/L		96
39)	2-Chloronaphthalene	16.04	162	325975	50.20 mg/L		100
40)	2-Nitroaniline	16.34	65	122066	46.25 mg/L		93
41)	Dimethylphthalate	16.87	163	389453	49.08 mg/L		100
42)	Acenaphthylene	17.00	152	538357	50.34 mg/L		99
43)	2,6-Dinitrotoluene	16.97	165	96714	52.18 mg/L	#	76
44)	3-Nitroaniline	17.34	138	116235	47.78 mg/L		100
45)	Acenaphthene	17.43	154	287570	48.81 mg/L		100
46)	Dibenzofuran	17.85	168	418756	47.83 mg/L	#	84
47)	2,4-Dinitrotoluene	17.94	165	135504	50.26 mg/L		99
48)	4-Nitrophenol	17.83	109	56164	44.96 mg/L	#	5
49)	2,4-Dinitrophenol	17.61	184	53872	56.81 mg/L		100
50)	Diethylphthalate	18.58	149	403722	46.73 mg/L		98
51)	Fluorene	18.66	166	342925	48.38 mg/L		99
52)	4-Chlorophenyl-phenylether	18.75	204	163785	50.07 mg/L		97
53)	4-Nitroaniline	18.82	138	124983	47.75 mg/L		95
55)	4,6-Dinitro-2-methylphenol	18.88	198	75961	59.57 mg/L		100
56)	n-Nitrosodiphenylamine	19.05	169	231011	50.35 mg/L		98
57)	1,2-Diphenylhydrazine	19.12	77	446884	46.93 mg/L		96
59)	4-Bromophenyl-phenylether	19.90	248	81873	48.20 mg/L		98
60)	Hexachlorobenzene	19.97	284	103256	50.33 mg/L		96
61)	Pentachlorophenol	20.48	266	71091	51.59 mg/L		99
62)	Phenanthrene	20.95	178	438217	50.02 mg/L		100
63)	Anthracene	21.07	178	456519	48.53 mg/L		99
64)	Carbazole	21.51	167	456406	50.91 mg/L		98
65)	Di-n-butylphthalate	22.54	149	729809	50.30 mg/L		99
67)	Fluoranthene	23.79	202	509198	49.58 mg/L	#	94
68)	Benzidine	24.23	184	444197	88.17 mg/L		97
69)	Pyrene	24.30	202	485522	47.43 mg/L		94
71)	Butylbenzylphthalate	26.10	149	320720	47.96 mg/L		99
72)	Benzo(a)anthracene	27.20	228	431911	48.20 mg/L		99
73)	Chrysene	27.28	228	406231	50.10 mg/L		99
74)	3,3'-Dichlorobenzidine	27.25	252	342626	101.18 mg/L	#	96
75)	bis(2-Ethylhexyl)phthalate	27.57	149	452057	49.08 mg/L		99
76)	Di-n-octylphthalate	29.04	149	791287	49.63 mg/L		100
78)	Benzo(b)fluoranthene	29.58	252	452886	52.69 mg/L		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10206.D Vial: 6
Acq On : 2 Jan 2003 11:50 am Operator: AVL/TC
Sample : 50PPM BNA SVQ-623.79B.4-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:27 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Dec 30 12:13:20 2002
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Benzo(k)fluoranthene	29.65	252	350138	43.02 mg/L	98
80)	Benzo(a)pyrene	30.24	252	383484	51.37 mg/L	98
81)	Indeno(1,2,3-cd)pyrene	32.94	276	284217	62.98 mg/L	99
82)	Dibenz(a,h)anthracene	33.04	278	299547	64.65 mg/L	98
83)	Benzo(g,h,i)perylene	33.68	276	278977	57.31 mg/L	97

(#) = qualifier out of range (m) = manual integration

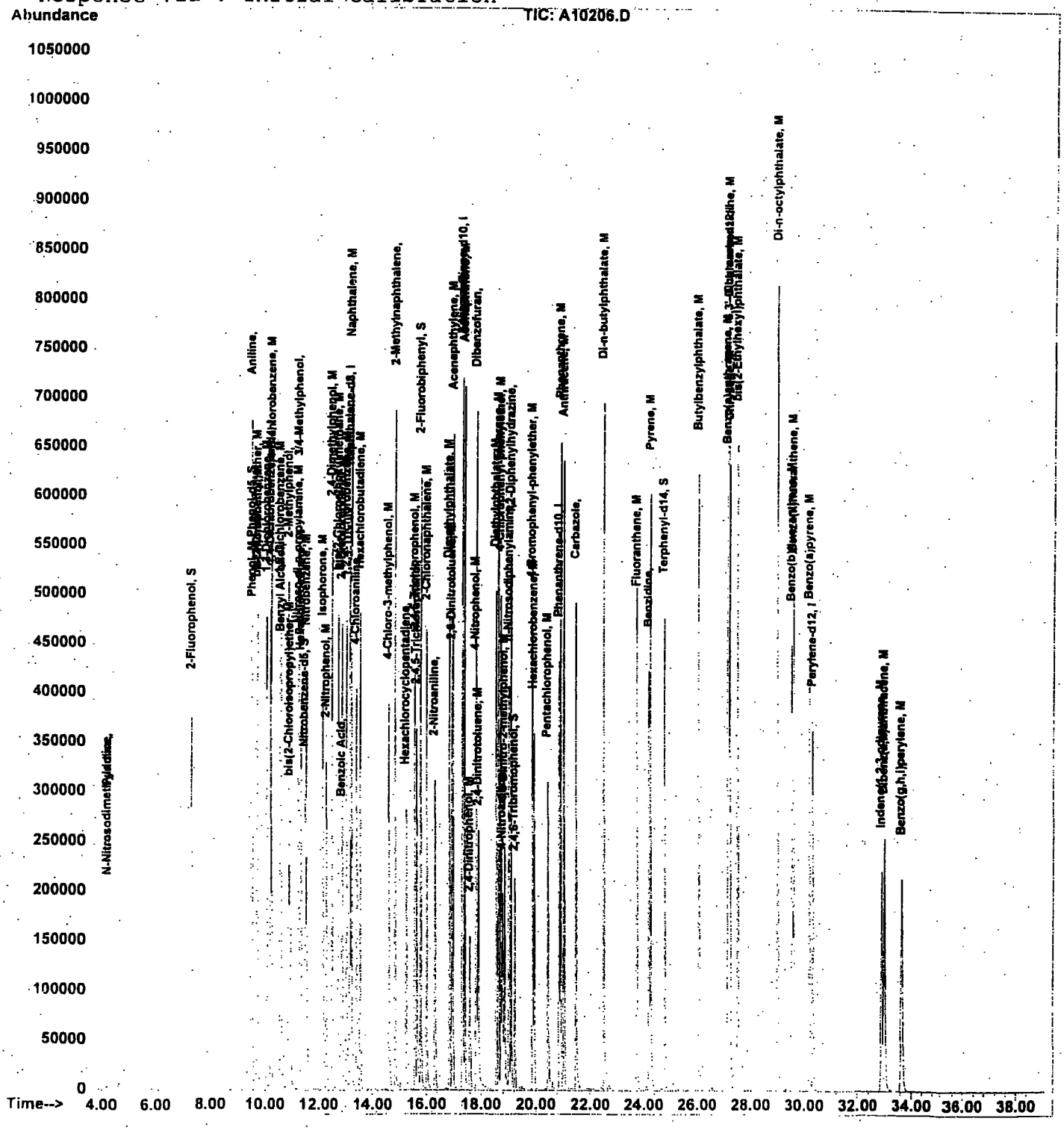
Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10206.D
Acq On : 2 Jan 2003 11:50 am
Sample : 50PPM BNA SVQ-623.79B.4-2
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 10 9:27 2003

Vial: 6
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Fri Jan 10 09:44:14 2003
Response via : Initial Calibration



Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10207.D
Acq On : 2 Jan 2003 12:38 pm
Sample : 75PPM BNA SVQ-623.79B.3-2
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 10 9:28 2003

Vial: 7
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 12:31:08 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.27	152	159863	40.00	ng		0.03
19) Naphthalene-d8	13.21	136	612638	40.00	ng		0.03
34) Acenaphthene-d10	17.38	164	272611	40.00	ng		0.03
54) Phenanthrene-d10	20.93	188	433993	40.00	ng		0.03
66) Chyrsene-d12	27.26	240	380984	40.00	ng		0.03
77) Perylene-d12	30.40	264	260238	40.00	ng		0.03
System Monitoring Compounds							
4) 2-Fluorophenol	7.37	112	373291	73.79	mg/L		0.05
7) Phenol-d5	9.57	99	462546	76.03	mg/L		0.05
20) Nitrobenzene-d5	11.57	82	423053	77.95	mg/L		0.05
38) 2-Fluorobiphenyl	15.85	172	618471	74.97	mg/L		0.03
58) 2,4,6-Tribromophenol	19.29	330	99183	81.17	mg/L		0.03
70) Terphenyl-d14	24.84	244	539316	75.06	mg/L		0.03
Target Compounds							Qvalue
2) N-Nitrosodimethylamine	4.32	42	195847	76.95	mg/L		97
3) Pyridine	4.34	79	505406m	82.54	mg/L		97
5) Aniline	9.55	93	559613	73.97	mg/L		93
6) bis(2-Chloroethyl)ether	9.77	93	390490	75.08	mg/L		94
8) 2-Chlorophenol	9.79	128	401721	73.36	mg/L		95
9) Phenol	9.61	94	537329	75.77	mg/L		96
10) 1,3-Dichlorobenzene	10.13	146	427592	75.46	mg/L		97
11) 1,4-Dichlorobenzene	10.30	146	422933	73.73	mg/L		100
12) 1,2-Dichlorobenzene	10.64	146	396399	75.36	mg/L		96
13) Benzyl Alcohol	10.69	108	255400m	75.93	mg/L		98
14) bis(2-Chloroisopropyl)ethe	10.99	45	642665	73.50	mg/L		98
15) 2-Methylphenol	10.96	107	296729m	132.16	mg/L	#	99
16) 3/4-Methylphenol	11.33	107	432143m	111.94	mg/L	#	98
17) n-Nitroso-di-n-propylamine	11.32	70	262328	82.11	mg/L		99
18) Hexachloroethane	11.38	117	171764	76.07	mg/L	#	74
21) Nitrobenzene	11.62	77	448603	82.81	mg/L		94
22) Isophorone	12.25	82	832205	74.73	mg/L		98
23) 2-Nitrophenol	12.35	139	244805	75.80	mg/L		92
24) 2,4-Dimethylphenol	12.57	122	334957	78.54	mg/L		99
25) bis(2-Chloroethoxy)methane	12.79	93	470909	72.52	mg/L		100
26) Benzoic Acid	13.03	122	217170m	64.75	mg/L		94
27) 1,2,4-Trichlorobenzene	13.09	180	301777	76.13	mg/L		99
28) 2,4-Dichlorophenol	12.94	162	302714	79.76	mg/L		98
29) Naphthalene	13.26	128	1008645	71.62	mg/L		99
30) 4-Chloroaniline	13.47	127	492565	80.06	mg/L		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10207.D
Acq On : 2 Jan 2003 12:38 pm
Sample : 75PPM BNA SVQ-623.79B.3-2
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 10 9:28 2003

Vial: 7
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00
Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 12:31:08 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31) Hexachlorobutadiene	13.60	225	158332	72.89 mg/L	98
32) 4-Chloro-3-methylphenol	14.68	107	330104	76.64 mg/L	87
33) 2-Methylnaphthalene	14.92	142	665639	73.16 mg/L	99
35) Hexachlorocyclopentadiene	15.29	237	167478	83.22 mg/L	98
36) 2,4,6-Trichlorophenol	15.63	196	200264	76.36 mg/L	100
37) 2,4,5-Trichlorophenol	15.70	196	221852m	79.59 mg/L	99
39) 2-Chloronaphthalene	16.07	162	593359	77.02 mg/L	99
40) 2-Nitroaniline	16.39	65	237419	77.01 mg/L	94
41) Dimethylphthalate	16.92	163	715559	75.92 mg/L	100
42) Acenaphthylene	17.04	152	914526	72.34 mg/L	99
43) 2,6-Dinitrotoluene	17.02	165	169563	76.93 mg/L	97
44) 3-Nitroaniline	17.39	138	229891	79.21 mg/L	98
45) Acenaphthene	17.46	154	513467	73.64 mg/L	99
46) Dibenzofuran	17.88	168	743500	72.25 mg/L	99
47) 2,4-Dinitrotoluene	17.99	165	255804	79.70 mg/L #	83
48) 4-Nitrophenol	17.90	109	109768	75.29 mg/L	74
49) 2,4-Dinitrophenol	17.68	184	121923	105.50 mg/L	100
50) Diethylphthalate	18.63	149	727992	72.50 mg/L	99
51) Fluorene	18.71	166	623263	74.44 mg/L	100
52) 4-Chlorophenyl-phenylether	18.78	204	278326	71.85 mg/L	97
53) 4-Nitroaniline	18.88	138	244426	78.40 mg/L	98
55) 4,6-Dinitro-2-methylphenol	18.95	198	156882	98.99 mg/L	100
56) n-Nitrosodiphenylamine	19.09	169	408749	74.04 mg/L	99
57) 1,2-Diphenylhydrazine	19.15	77	815498	72.72 mg/L	94
59) 4-Bromophenyl-phenylether	19.95	248	154006	75.63 mg/L #	76
60) Hexachlorobenzene	20.00	284	186692	75.51 mg/L #	88
61) Pentachlorophenol	20.51	266	135273	80.30 mg/L	100
62) Phenanthrene	20.98	178	787967	74.18 mg/L	100
63) Anthracene	21.12	178	859138m	75.92 mg/L #	98
64) Carbazole	21.54	167	846666	78.05 mg/L	99
65) Di-n-butylphthalate	22.57	149	1298981	74.61 mg/L	100
67) Fluoranthene	23.83	202	913315	74.95 mg/L	98
68) Benzidine	24.27	184	837484	145.11 mg/L	99
69) Pyrene	24.34	202	919852	76.47 mg/L	99
71) Butylbenzylphthalate	26.13	149	562535	71.29 mg/L	98
72) Benzo(a)anthracene	27.23	228	839099	79.59 mg/L	100
73) Chrysene	27.33	228	710361	74.81 mg/L	99
74) 3,3'-Dichlorobenzidine	27.28	252	610067	150.67 mg/L #	98
75) bis(2-Ethylhexyl)phthalate	27.59	149	768062	70.86 mg/L #	96
76) Di-n-octylphthalate	29.08	149	1408706	74.93 mg/L	100
78) Benzo(b)fluoranthene	29.63	252	813593	78.10 mg/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10207.D Vial: 7
Acq On : 2 Jan 2003 12:38 pm Operator: AVL/TC
Sample : 75PPM BNA SVQ-623.79B.3-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:28 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 12:31:08 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

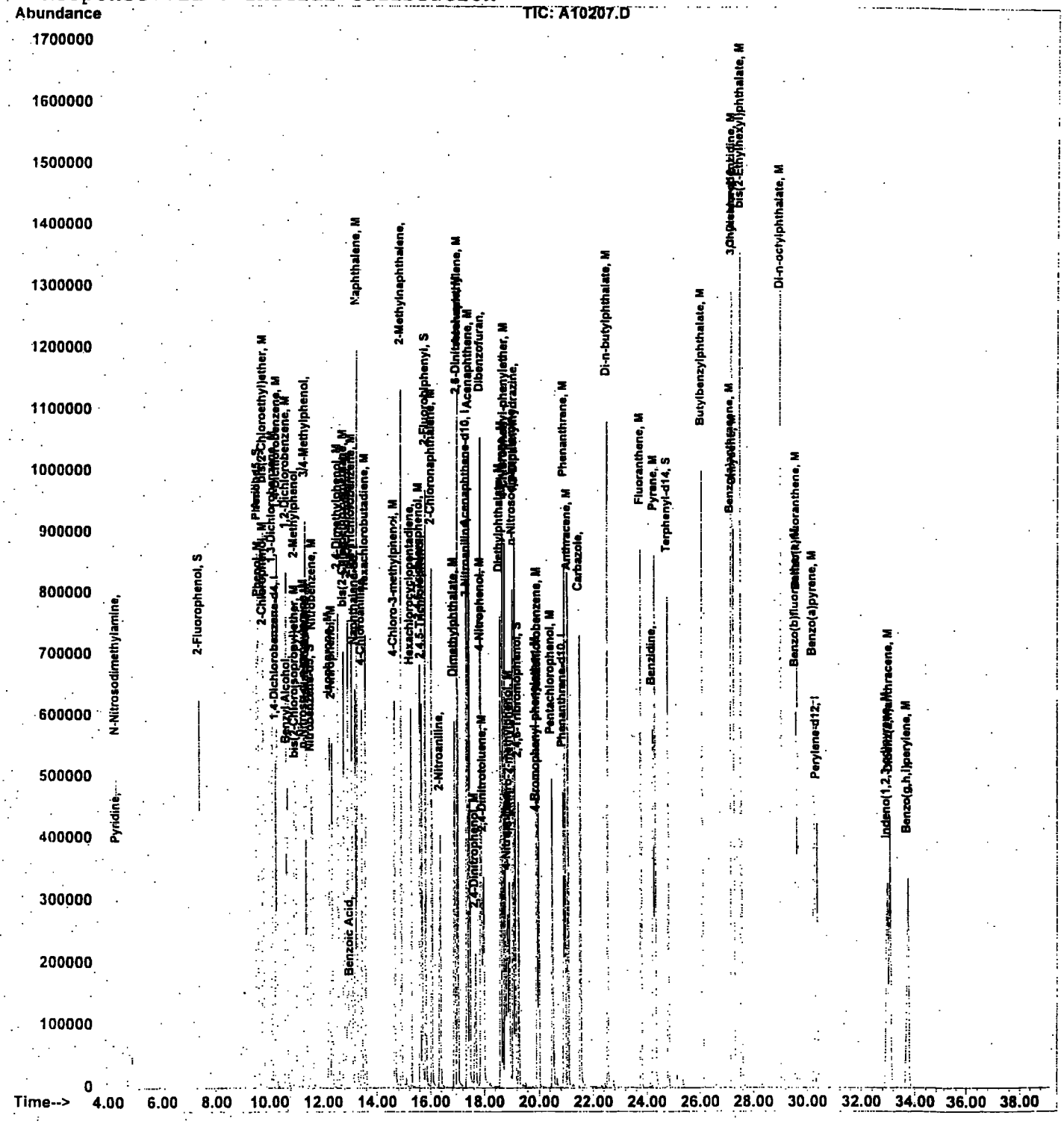
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Benzo(k)fluoranthene	29.69	252	635230m	75.56 mg/L #	97
80) Benzo(a)pyrene	30.28	252	732503	80.95 mg/L	97
81) Indeno(1,2,3-cd)pyrene	33.00	276	609134	107.27 mg/L	98
82) Dibenz(a,h)anthracene	33.11	278	616455	106.02 mg/L	97
83) Benzo(g,h,i)perylene	33.77	276	580599	94.36 mg/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10207.D Vial: 7
Acq On : 2 Jan 2003 12:38 pm Operator: AVL/TC
Sample : 75PPM BNA SVQ-623.79B.3-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:28 2003 Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Fri Jan 10 09:44:14 2003
Response via : Initial Calibration



Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10208.D Vial: 8
Acq On : 2 Jan 2003 1:26 pm Operator: AVL/TC
Sample : 100PPM BNA SVQ-623.79B.2-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:30 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 12:31:08 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.28	152	159027	40.00 ng	0.05
19) Naphthalene-d8	13.23	136	609016	40.00 ng	0.05
34) Acenaphthene-d10	17.39	164	273040	40.00 ng	0.05
54) Phenanthrene-d10	20.95	188	437197	40.00 ng	0.05
66) Chyrsene-d12	27.28	240	375942	40.00 ng	0.05
77) Perylene-d12	30.41	264	265441	40.00 ng	0.05
System Monitoring Compounds					
4) 2-Fluorophenol	7.39	112	502365	100.06 mg/L	0.07
7) Phenol-d5	9.60	99	615344	101.52 mg/L	0.08
20) Nitrobenzene-d5	11.60	82	570660	105.72 mg/L	0.08
38) 2-Fluorobiphenyl	15.87	172	783302	94.74 mg/L	0.05
58) 2,4,6-Tribromophenol	19.31	330	129892	104.45 mg/L	0.05
70) Terphenyl-d14	24.86	244	692718	97.95 mg/L	0.05
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	4.34	42	271441	109.41 mg/L	93
3) Pyridine	4.36	79	657181m	106.62 mg/L	97
5) Aniline	9.57	93	750159	99.49 mg/L	92
6) bis(2-Chloroethyl)ether	9.79	93	487426	92.99 mg/L	92
8) 2-Chlorophenol	9.81	128	541987	99.45 mg/L	98
9) Phenol	9.64	94	723814	102.24 mg/L	91
10) 1,3-Dichlorobenzene	10.15	146	551596	97.43 mg/L	97
11) 1,4-Dichlorobenzene	10.32	146	544875	95.30 mg/L	99
12) 1,2-Dichlorobenzene	10.65	146	509130	96.89 mg/L	96
13) Benzyl Alcohol	10.72	108	338487m	101.02 mg/L	98
14) bis(2-Chloroisopropyl)ethe	11.01	45	837726	96.89 mg/L	97
15) 2-Methylphenol	10.98	107	377865m	170.03 mg/L #	98
16) 3/4-Methylphenol	11.37	107	561922m	146.64 mg/L #	97
17) n-Nitroso-di-n-propylamine	11.40	70	332359	104.01 mg/L	95
18) Hexachloroethane	11.40	117	210424	94.00 mg/L #	78
21) Nitrobenzene	11.64	77	566431	104.48 mg/L	97
22) Isophorone	12.28	82	1120068	101.75 mg/L	100
23) 2-Nitrophenol	12.36	139	359402	110.68 mg/L	91
24) 2,4-Dimethylphenol	12.58	122	437016	102.72 mg/L	99
25) bis(2-Chloroethoxy)methane	12.82	93	642258	99.09 mg/L	98
26) Benzoic Acid	13.09	122	318841m	96.19 mg/L	96
27) 1,2,4-Trichlorobenzene	13.11	180	393436	99.49 mg/L	99
28) 2,4-Dichlorophenol	12.96	162	401582	106.29 mg/L	99
29) Naphthalene	13.28	128	1287076	92.59 mg/L	99
30) 4-Chloroaniline	13.48	127	615354	99.79 mg/L	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10208.D Vial: 8
Acq On : 2 Jan 2003 1:26 pm Operator: AVL/TC
Sample : 100PPM BNA SVQ-623.79B.2-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:30 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 12:31:08 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31) Hexachlorobutadiene	13.62	225	211632	98.19 mg/L		98
32) 4-Chloro-3-methylphenol	14.70	107	436043	102.45 mg/L		95
33) 2-Methylnaphthalene	14.94	142	858241	95.34 mg/L		100
35) Hexachlorocyclopentadiene	15.31	237	216308	106.56 mg/L		99
36) 2,4,6-Trichlorophenol	15.65	196	270403	103.01 mg/L		99
37) 2,4,5-Trichlorophenol	15.72	196	289228m	102.69 mg/L		96
39) 2-Chloronaphthalene	16.09	162	758160	97.75 mg/L		98
40) 2-Nitroaniline	16.41	65	323053	104.30 mg/L		99
41) Dimethylphthalate	16.94	163	944051	99.98 mg/L		99
42) Acenaphthylene	17.05	152	1148767	91.45 mg/L		98
43) 2,6-Dinitrotoluene	17.05	165	231322	104.56 mg/L		92
44) 3-Nitroaniline	17.43	138	301243	102.87 mg/L		96
45) Acenaphthene	17.48	154	694953	99.38 mg/L		100
46) Dibenzofuran	17.90	168	976701	95.27 mg/L		97
47) 2,4-Dinitrotoluene	18.02	165	341044	104.05 mg/L	#	87
48) 4-Nitrophenol	17.93	109	146327	101.85 mg/L	#	25
49) 2,4-Dinitrophenol	17.71	184	170256	133.74 mg/L		100
50) Diethylphthalate	18.66	149	994119	99.32 mg/L		97
51) Fluorene	18.73	166	807546	96.47 mg/L		99
52) 4-Chlorophenyl-phenylether	18.80	204	356957	92.75 mg/L		94
53) 4-Nitroaniline	18.88	138	319872	101.46 mg/L		96
55) 4,6-Dinitro-2-methylphenol	18.98	198	215911	125.48 mg/L		100
56) n-Nitrosodiphenylamine	19.12	169	560413	100.79 mg/L		98
57) 1,2-Diphenylhydrazine	19.17	77	1069628	95.99 mg/L	#	92
59) 4-Bromophenyl-phenylether	19.97	248	204173	99.26 mg/L	#	79
60) Hexachlorobenzene	20.02	284	244840	97.60 mg/L	#	89
61) Pentachlorophenol	20.54	266	183255	106.39 mg/L		99
62) Phenanthrene	21.00	178	1045026	97.08 mg/L		99
63) Anthracene	21.13	178	1077533	93.36 mg/L		98
64) Carbazole	21.57	167	1093198	98.91 mg/L		99
65) Di-n-butylphthalate	22.59	149	1712815	97.48 mg/L		100
67) Fluoranthene	23.84	202	1172158	97.53 mg/L		98
68) Benzidine	24.28	184	1081155	193.24 mg/L		99
69) Pyrene	24.37	202	1192870	99.62 mg/L	#	86
71) Butylbenzylphthalate	26.15	149	743311	97.16 mg/L		97
72) Benzo(a)anthracene	27.25	228	1118638m	106.97 mg/L		100
73) Chrysene	27.35	228	900608m	96.05 mg/L		97
74) 3,3'-Dichlorobenzidine	27.31	252	826840	208.55 mg/L		98
75) bis(2-Ethylhexyl)phthalate	27.60	149	1012500	96.57 mg/L	#	98
76) Di-n-octylphthalate	29.09	149	1844684	100.24 mg/L		100
78) Benzo(b)fluoranthene	29.67	252	1267475m	119.38 mg/L		0

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10208.D Vial: 8
Acq On : 2 Jan 2003 1:26 pm Operator: AVL/TC
Sample : 100PPM BNA SVQ-623.79B.2-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:30 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 12:31:08 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Benzo(k)fluoranthene	29.72	252	640027m	78.14 mg/L	99
80) Benzo(a)pyrene	30.31	252	933583	100.67 mg/L	98
81) Indeno(1,2,3-cd)pyrene	33.02	276	788010	130.14 mg/L	99
82) Dibenz(a,h)anthracene	33.14	278	772035	125.36 mg/L	99
83) Benzo(g,h,i)perylene	33.80	276	717424	109.71 mg/L	100

(#) = qualifier out of range (m) = manual integration

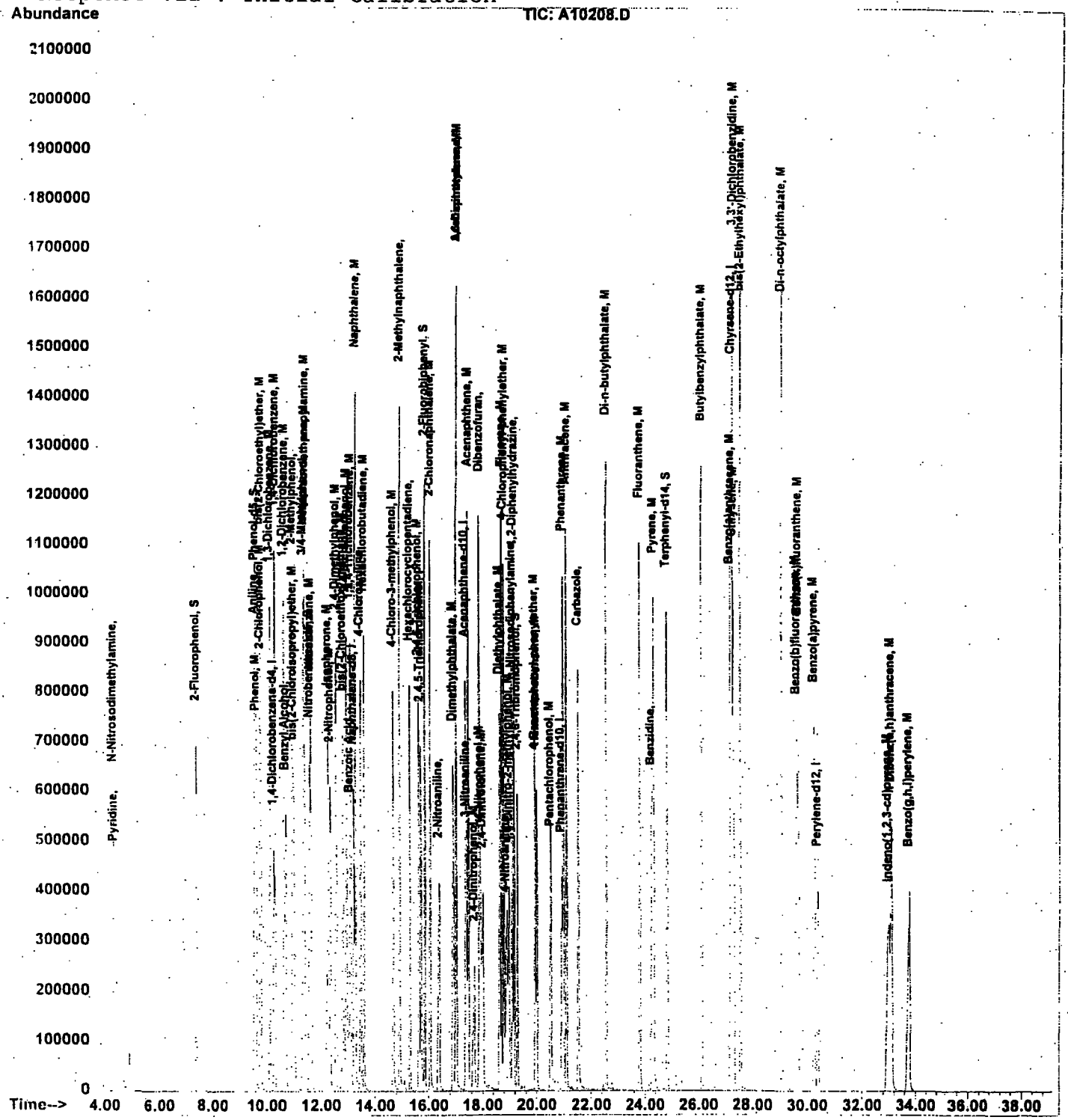
Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10208.D
Acq On : 2 Jan 2003 1:26 pm
Sample : 100PPM BNA SVQ-623.79B.2-2
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 10 9:30 2003

Vial: 8
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Fri Jan 10 09:44:14 2003
Response via : Initial Calibration



Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10209.D Vial: 9
Acq On : 2 Jan 2003 2:14 pm Operator: AVL/TC
Sample : 125PPM BNA SVQ-623.79B.1-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:32 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 12:31:08 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.27	152	154984	40.00	ng		0.03
19) Naphthalene-d8	13.21	136	610510	40.00	ng		0.03
34) Acenaphthene-d10	17.38	164	277129	40.00	ng		0.03
54) Phenanthrene-d10	20.92	188	446431	40.00	ng		0.02
66) Chyrsene-d12	27.26	240	397793	40.00	ng		0.03
77) Perylene-d12	30.38	264	272962	40.00	ng		0.02
System Monitoring Compounds							
4) 2-Fluorophenol	7.40	112	612563	125.52	mg/L		0.08
7) Phenol-d5	9.61	99	765433	130.07	mg/L		0.08
20) Nitrobenzene-d5	11.60	82	696185	128.74	mg/L		0.08
38) 2-Fluorobiphenyl	15.85	172	944792	113.11	mg/L		0.03
58) 2,4,6-Tribromophenol	19.29	330	171078	133.71	mg/L		0.03
70) Terphenyl-d14	24.84	244	870721	116.49	mg/L		0.03
Target Compounds							Qvalue
2) N-Nitrosodimethylamine	4.32	42	334846	139.80	mg/L		95
3) Pyridine	4.37	79	807109m	134.37	mg/L		97
5) Aniline	9.59	93	918379	125.04	mg/L	#	71
6) bis(2-Chloroethyl)ether	9.79	93	593479	116.36	mg/L		93
8) 2-Chlorophenol	9.83	128	663767	124.73	mg/L		93
9) Phenol	9.64	94	843494	122.86	mg/L		99
10) 1,3-Dichlorobenzene	10.13	146	644363	116.70	mg/L		100
11) 1,4-Dichlorobenzene	10.32	146	635679	113.79	mg/L		98
12) 1,2-Dichlorobenzene	10.64	146	597603	116.26	mg/L		99
13) Benzyl Alcohol	10.72	108	429680m	132.88	mg/L		94
14) bis(2-Chloroisopropyl)ethe	11.01	45	1000268	119.80	mg/L		97
15) 2-Methylphenol	10.98	107	462994m	215.39	mg/L	#	97
16) 3/4-Methylphenol	11.38	107	677938m	183.40	mg/L	#	95
17) n-Nitroso-di-n-propylamine	11.40	70	376968	122.25	mg/L		99
18) Hexachloroethane	11.40	117	244542	112.02	mg/L		92
21) Nitrobenzene	11.64	77	692052	127.65	mg/L		96
22) Isophorone	12.28	82	1361233	124.03	mg/L		98
23) 2-Nitrophenol	12.37	139	431569	129.12	mg/L		93
24) 2,4-Dimethylphenol	12.59	122	532781	125.45	mg/L		100
25) bis(2-Chloroethoxy)methane	12.81	93	764375	118.50	mg/L		99
26) Benzoic Acid	13.13	122	400621m	123.20	mg/L		96
27) 1,2,4-Trichlorobenzene	13.11	180	476603	120.18	mg/L		99
28) 2,4-Dichlorophenol	12.96	162	485370	127.99	mg/L		99
29) Naphthalene	13.28	128	1689705	121.36	mg/L		99
30) 4-Chloroaniline	13.48	127	784758	128.45	mg/L		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10209.D
Acq On : 2 Jan 2003 2:14 pm
Sample : 125PPM BNA SVQ-623.79B.1-2
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 10 9:32 2003

Vial: 9
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00
Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 12:31:08 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	Hexachlorobutadiene	13.60	225	251344	116.57 mg/L		99
32)	4-Chloro-3-methylphenol	14.68	107	566424	133.13 mg/L		96
33)	2-Methylnaphthalene	14.92	142	1026375	113.87 mg/L		100
35)	Hexachlorocyclopentadiene	15.29	237	272825	131.70 mg/L		99
36)	2,4,6-Trichlorophenol	15.65	196	338752	127.44 mg/L		100
37)	2,4,5-Trichlorophenol	15.72	196	362860m	127.08 mg/L		100
39)	2-Chloronaphthalene	16.07	162	906174	115.65 mg/L		96
40)	2-Nitroaniline	16.41	65	402569	127.90 mg/L		98
41)	Dimethylphthalate	16.94	163	1164738	121.57 mg/L		100
42)	Acenaphthylene	17.04	152	1460734	115.19 mg/L		99
43)	2,6-Dinitrotoluene	17.04	165	308622	135.56 mg/L		99
44)	3-Nitroaniline	17.43	138	384866	129.88 mg/L		94
45)	Acenaphthene	17.48	154	856887	120.63 mg/L		99
46)	Dibenzofuran	17.88	168	1253867	121.46 mg/L		94
47)	2,4-Dinitrotoluene	18.02	165	432561	128.02 mg/L	#	85
48)	4-Nitrophenol	17.94	109	189014	132.97 mg/L	#	23
49)	2,4-Dinitrophenol	17.72	184	229969	158.06 mg/L		100
50)	Diethylphthalate	18.65	149	1201021	119.24 mg/L		99
51)	Fluorene	18.71	166	980969	117.12 mg/L		100
52)	4-Chlorophenyl-phenylether	18.78	204	453473	117.47 mg/L		94
53)	4-Nitroaniline	18.92	138	410866	129.40 mg/L		99
55)	4,6-Dinitro-2-methylphenol	18.99	198	278726	144.59 mg/L		100
56)	n-Nitrosodiphenylamine	19.10	169	702001	123.53 mg/L		99
57)	1,2-Diphenylhydrazine	19.15	77	1355872	120.06 mg/L		93
59)	4-Bromophenyl-phenylether	19.95	248	261441	124.05 mg/L	#	78
60)	Hexachlorobenzene	20.02	284	309180	120.35 mg/L		100
61)	Pentachlorophenol	20.53	266	233350	131.09 mg/L		99
62)	Phenanthrene	20.98	178	1311791	118.81 mg/L		99
63)	Anthracene	21.12	178	1395868m	119.24 mg/L	#	97
64)	Carbazole	21.56	167	1382991	121.91 mg/L		99
65)	Di-n-butylphthalate	22.56	149	2026274	112.72 mg/L		99
67)	Fluoranthene	23.83	202	1549178	122.25 mg/L		98
68)	Benzidine	24.25	184	1352550	232.65 mg/L		100
69)	Pyrene	24.34	202	1494268	117.82 mg/L		95
71)	Butylbenzylphthalate	26.13	149	1039636	130.43 mg/L	#	85
72)	Benzo(a)anthracene	27.23	228	1421777	127.30 mg/L		100
73)	Chrysene	27.33	228	1121402	113.06 mg/L		100
74)	3,3'-Dichlorobenzidine	27.30	252	1108943	263.54 mg/L	#	96
75)	bis(2-Ethylhexyl)phthalate	27.57	149	1327112	120.98 mg/L	#	97
76)	Di-n-octylphthalate	29.08	149	2490765	129.00 mg/L		100
78)	Benzo(b)fluoranthene	29.63	252	1737183m	158.40 mg/L		0

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10209.D Vial: 9
Acq On : 2 Jan 2003 2:14 pm Operator: AVL/TC
Sample : 125PPM BNA SVQ-623.79B.1-2 Inst : Alpha
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 10 9:32 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 12:31:08 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Benzo(k)fluoranthene	29.69	252	709392m	96.17 mg/L	97
80)	Benzo(a)pyrene	30.28	252	1204892	126.84 mg/L	98
81)	Indeno(1,2,3-cd)pyrene	33.00	276	1042181m	162.66 mg/L	93
82)	Dibenz(a,h)anthracene	33.11	278	997702	154.46 mg/L	99
83)	Benzo(g,h,i)perylene	33.77	276	905845	130.99 mg/L	95

(#) = qualifier out of range (m) = manual integration

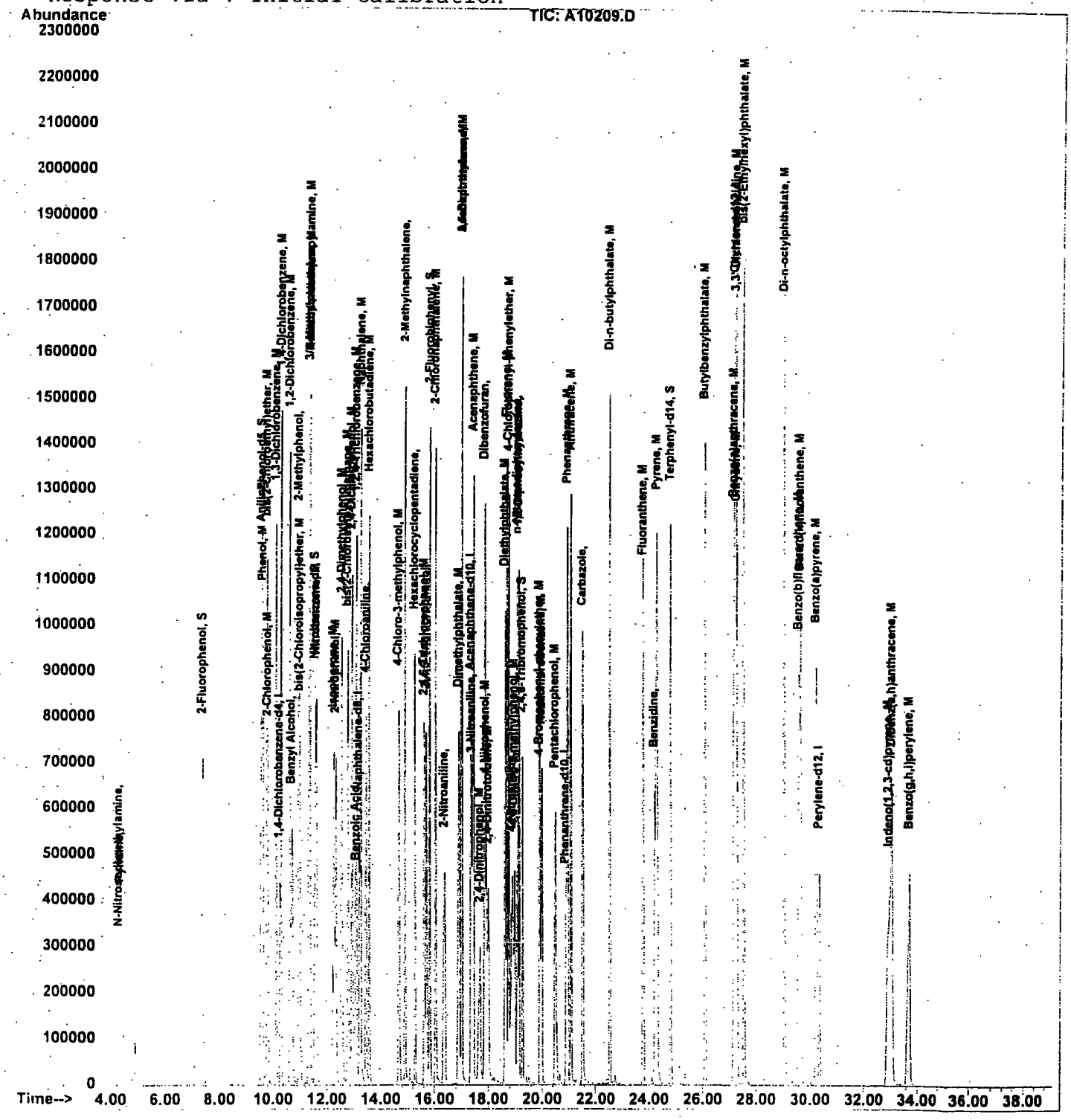
Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10209.D
Acq On : 2 Jan 2003 2:14 pm
Sample : 125PPM BNA SVQ-623.79B.1-2
Misc :
MS Integration Params: rteint.p
Quant Time: Jan 10 9:32 2003

Vial: 9
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Fri Jan 10 09:44:14 2003
Response via : Initial Calibration



Curve Validation Summary Report (Semi-Volatile)

Std. Lot ID : CVS-623.69A.0
Analytical Batch: A103003
Analysis Date : 01-03-03

Analyst Initials: TC
Method: 8270/625
Curve Analysis Date: 01-02-03

MS Multiplier: 1 1

Compound Name	Blank Conc. ug/L	Spike Added ug/L	LCS Spk Added ug/L	LCS Results ug/L	LCS Final ug/L	LCS %Rec		%Rec
bis(2-Chloroethyl)ether	0	100	100	98	98	98		80-120
2-Chlorophenol	0	100	100	90	90	90		80-120
Phenol	0	100	100	89	89	89		80-120
1,3-Dichlorobenzene	0	100	100	95	95	95		80-120
1,4-Dichlorobenzene	0	100	100	90	90	90		80-120
1,2-Dichlorobenzene	0	100	100	94	94	94		80-120
bis(2-Chloroisopropyl)ether	0	100	100	91	91	91		80-120
n-Nitroso-di-n-propylamine	0	100	100	105	105	105		80-120
Hexachloroethane	0	100	100	99	99	99		80-120
Nitrobenzene	0	100	100	100	100	100		80-120
Isophorone	0	100	100	104	104	104		80-120
2-Nitrophenol	0	100	100	91	91	91		80-120
2,4-Dimethylphenol	0	100	100	97	97	97		80-120
bis(2-Chloroethoxy)methane	0	100	100	97	97	97		80-120
1,2,4-Trichlorobenzene	0	100	100	95	95	95		80-120
2,4-Dichlorophenol	0	100	100	98	98	98		80-120
Naphthalene	0	100	100	96	96	96		80-120
Hexachlorobutadiene	0	100	100	102	102	102		80-120
4-Chloro-3-methylphenol	0	100	100	93	93	93		80-120
2,4,6-Trichlorophenol	0	100	100	93	93	93		80-120
2-Chloronaphthalene	0	100	100	91	91	91		80-120
Dimethylphthalate	0	100	100	86	86	86		80-120
Acenaphthylene	0	100	100	92	92	92		80-120
2,6-Dinitrotoluene	0	100	100	94	94	94		80-120
Acenaphthene	0	100	100	86	86	86		80-120
2,4-Dinitrotoluene	0	100	100	89	89	89		80-120
4-Nitrophenol	0	100	100	92	92	92		80-120
2,4-Dinitrophenol	0	100	100	87	87	87		80-120
Diethylphthalate	0	100	100	90	90	90		80-120
Fluorene	0	100	100	92	92	92		80-120
4-Chlorophenyl-phenylether	0	100	100	92	92	92		80-120
4,6-Dinitro-2-methylphenol	0	100	100	85	85	85		80-120
4-Bromophenyl-phenylether	0	100	100	80	80	80		80-120
Hexachlorobenzene	0	100	100	92	92	92		80-120
Pentachlorophenol	0	100	100	95	95	95		80-120
Phenanthrene	0	100	100	92	92	92		80-120
Anthracene	0	100	100	88	88	88		80-120
Di-n-butylphthalate	0	100	100	85	85	85		80-120
Fluoranthene	0	100	100	108	108	108		80-120
Pyrene	0	100	100	110	110	110		80-120
Butylbenzylphthalate	0	100	100	124	124	124	*	80-120
Benzo(a)anthracene	0	100	100	113	113	113		80-120
Chrysene	0	100	100	109	109	109		80-120
3,3'-Dichlorobenzidine	0	100	100	98	98	98		80-120
bis(2-Ethylhexyl)phthalate	0	100	100	109	109	109		80-120

Curve Validation Summary Report (Semi-Volatile)

Std. Lot ID : CVS-623.69A.0
Analytical Batch: A103003
Analysis Date : 01-03-03

Analyst Initials: TC
Method: 8270/625
Curve Analysis Date: 01-02-03

MS Multiplier: 1 1

Compound Name	Blank Conc. ug/L	Spike Added ug/L	LCS Spk Added ug/L	LCS Results ug/L	LCS Final ug/L	LCS %Rec		%Rec
Di-n-octylphthalate	0	100	100	113	113	**113**		80-120
Benzo(b)fluoranthene	0	100	100	100	100	**100**		80-120
Benzo(k)fluoranthene	0	100	100	101	101	**101**		80-120
Benzo(a)pyrene	0	100	100	94	94	**94**		80-120
Indeno(1,2,3-cd)pyrene	0	100	100	71	71	**71**	*	80-120
Dibenz(a,h)anthracene	0	100	100	75	75	**75**	*	80-120
Benzo(g,h,i)perylene	0	100	100	75	75	**75**	*	80-120

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10210.D Vial: 10
Acq On : 2 Jan 2003 3:04 pm Operator: AVL/TC
Sample : 100PPM BNA CVS-623.69A.0 Inst : Alpha
Misc : CURVE VALIDATION STANDARD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 3 8:10 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 15:12:31 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.27	152	156519	40.00 ng	0.04
19) Naphthalene-d8	13.18	136	614181	40.00 ng	0.00
34) Acenaphthene-d10	17.35	164	288496	40.00 ng	0.00
54) Phenanthrene-d10	20.90	188	461905	40.00 ng	0.00
66) Chyrsene-d12	27.22	240	314738	40.00 ng	-0.01
77) Perylene-d12	30.33	264	188751	40.00 ng	-0.03
System Monitoring Compounds					
4) 2-Fluorophenol	0.00	112	0	0.00 mg/L	
7) Phenol-d5	0.00	99	0	0.00 mg/L	
20) Nitrobenzene-d5	11.39	82	43971	8.12 mg/L	-0.13
38) 2-Fluorobiphenyl	0.00	172	0	0.00 mg/L	
58) 2,4,6-Tribromophenol	0.00	330	0	0.00 mg/L	
70) Terphenyl-d14	0.00	244	0	0.00 mg/L	
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.00	42		N.D.	
3) Pyridine	0.00	79		N.D.	
5) Aniline	0.00	93		N.D.	
6) bis(2-Chloroethyl)ether	9.78	93	471501	91.54 mg/L	99
8) 2-Chlorophenol	9.80	128	487887	90.64 mg/L	100
9) Phenol	9.61	94	609269	88.13 mg/L	93
10) 1,3-Dichlorobenzene	10.14	146	506006	90.50 mg/L	98
11) 1,4-Dichlorobenzene	10.32	146	517850	92.12 mg/L	96
12) 1,2-Dichlorobenzene	10.64	146	505019	97.23 mg/L	97
13) Benzyl Alcohol	10.64	108	2948	0.90 mg/L #	5
14) bis(2-Chloroisopropyl)ethe	10.97	45	746459	89.56 mg/L	97
15) 2-Methylphenol	10.63	107	2320	1.07 mg/L #	57
16) 3/4-Methylphenol	11.03	107	15009	4.03 mg/L #	1
17) n-Nitroso-di-n-propylamine	11.30	70	347441	111.33 mg/L	93
18) Hexachloroethane	11.39	117	209054	94.86 mg/L	89
21) Nitrobenzene	11.61	77	547562	100.40 mg/L	90
22) Isophorone	12.22	82	1092482	99.42 mg/L	98
23) 2-Nitrophenol	12.34	139	289681	83.77 mg/L	93
24) 2,4-Dimethylphenol	12.56	122	391340	91.96 mg/L	99
25) bis(2-Chloroethoxy)methane	12.78	93	569838	88.92 mg/L	99
26) Benzoic Acid	0.00	122		N.D.	
27) 1,2,4-Trichlorobenzene	13.08	180	358265	89.44 mg/L	99
28) 2,4-Dichlorophenol	12.93	162	357393	94.05 mg/L	97
29) Naphthalene	13.25	128	1287404	91.49 mg/L	99
30) 4-Chloroaniline	13.25	127	166017	27.04 mg/L #	26

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10210.D Vial: 10
Acq On : 2 Jan 2003 3:04 pm Operator: AVL/TC
Sample : 100PPM BNA CVS-623.69A.0 Inst : Alpha
Misc : CURVE VALIDATION STANDARD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 3 8:10 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 15:12:31 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
31)	Hexachlorobutadiene	13.57	225	209060	96.59 mg/L		100
32)	4-Chloro-3-methylphenol	14.66	107	401084	92.98 mg/L		86
33)	2-Methylnaphthalene	14.66	142	349437	38.95 mg/L	#	18
35)	Hexachlorocyclopentadiene	15.28	237	218148	95.15 mg/L		99
36)	2,4,6-Trichlorophenol	15.60	196	241821	88.12 mg/L		99
37)	2,4,5-Trichlorophenol	15.60	196	244930	81.85 mg/L		99
39)	2-Chloronaphthalene	16.04	162	751751	92.72 mg/L		99
40)	2-Nitroaniline	0.00	65		N.D.		
41)	Dimethylphthalate	16.87	163	853819	86.03 mg/L		100
42)	Acenaphthylene	17.01	152	1155435	87.89 mg/L		99
43)	2,6-Dinitrotoluene	16.99	165	200050	84.49 mg/L		98
44)	3-Nitroaniline	17.43	138	313	0.10 mg/L	#	1
45)	Acenaphthene	17.43	154	661251	88.78 mg/L		100
46)	Dibenzofuran	17.84	168	1374	0.13 mg/L	#	1
47)	2,4-Dinitrotoluene	17.94	165	333127	92.94 mg/L	#	82
48)	4-Nitrophenol	17.86	109	132690	91.41 mg/L	#	24
49)	2,4-Dinitrophenol	17.62	184	162934	90.73 mg/L		100
50)	Diethylphthalate	18.60	149	900940	86.49 mg/L		99
51)	Fluorene	18.69	166	769403	89.59 mg/L		100
52)	4-Chlorophenyl-phenylether	18.75	204	340393	85.59 mg/L		94
53)	4-Nitroaniline	18.75	138	1984	0.60 mg/L	#	1
55)	4,6-Dinitro-2-methylphenol	18.91	198	172901	82.62 mg/L		100
56)	n-Nitrosodiphenylamine	19.06	169	564947	96.11 mg/L		99
57)	1,2-Diphenylhydrazine	19.04	77	82609	7.13 mg/L	#	56
59)	4-Bromophenyl-phenylether	19.92	248	176237	80.60 mg/L	#	75
60)	Hexachlorobenzene	19.97	284	237859	89.66 mg/L	#	84
61)	Pentachlorophenol	20.48	266	168524	90.46 mg/L		99
62)	Phenanthrene	20.97	178	1077681	94.51 mg/L		99
63)	Anthracene	21.09	178	1045465	86.30 mg/L		98
64)	Carbazole	21.50	167	1112	0.09 mg/L	#	67
65)	Di-n-butylphthalate	22.55	149	1649756	89.58 mg/L		100
67)	Fluoranthene	23.80	202	1125896	112.92 mg/L		98
68)	Benzidine	24.22	184	253586	56.31 mg/L		99
69)	Pyrene	24.31	202	1184423	118.77 mg/L		98
71)	Butylbenzylphthalate	26.10	149	722995	114.61 mg/L		95
72)	Benzo(a)anthracene	27.20	228	951358	107.66 mg/L		99
73)	Chrysene	27.29	228	923865	117.52 mg/L		99
74)	3,3'-Dichlorobenzidine	27.24	252	330980	98.05 mg/L		99
75)	bis(2-Ethylhexyl)phthalate	27.56	149	997127	115.87 mg/L		97
76)	Di-n-octylphthalate	29.03	149	1771164	115.60 mg/L		100
78)	Benzo(b)fluoranthene	29.59	252	744966	98.23 mg/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10210.D Vial: 10
Acq On : 2 Jan 2003 3:04 pm Operator: AVL/TC
Sample : 100PPM BNA CVS-623.69A.0 Inst : Alpha
Misc : CURVE VALIDATION STANDARD Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 3 8:10 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Jan 02 15:12:31 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Benzo(k)fluoranthene	29.59	252	745045	-40.00 mg/L	98
80)	Benzo(a)pyrene	30.23	252	602254	92.13 mg/L	97
81)	Indeno(1,2,3-cd)pyrene	32.91	276	317291	56.80 mg/L	89
82)	Dibenz(a,h)anthracene	33.01	278	358405	64.09 mg/L	94
83)	Benzo(g,h,i)perylene	33.64	276	292651	59.82 mg/L	96

(#) = qualifier out of range (m) = manual integration

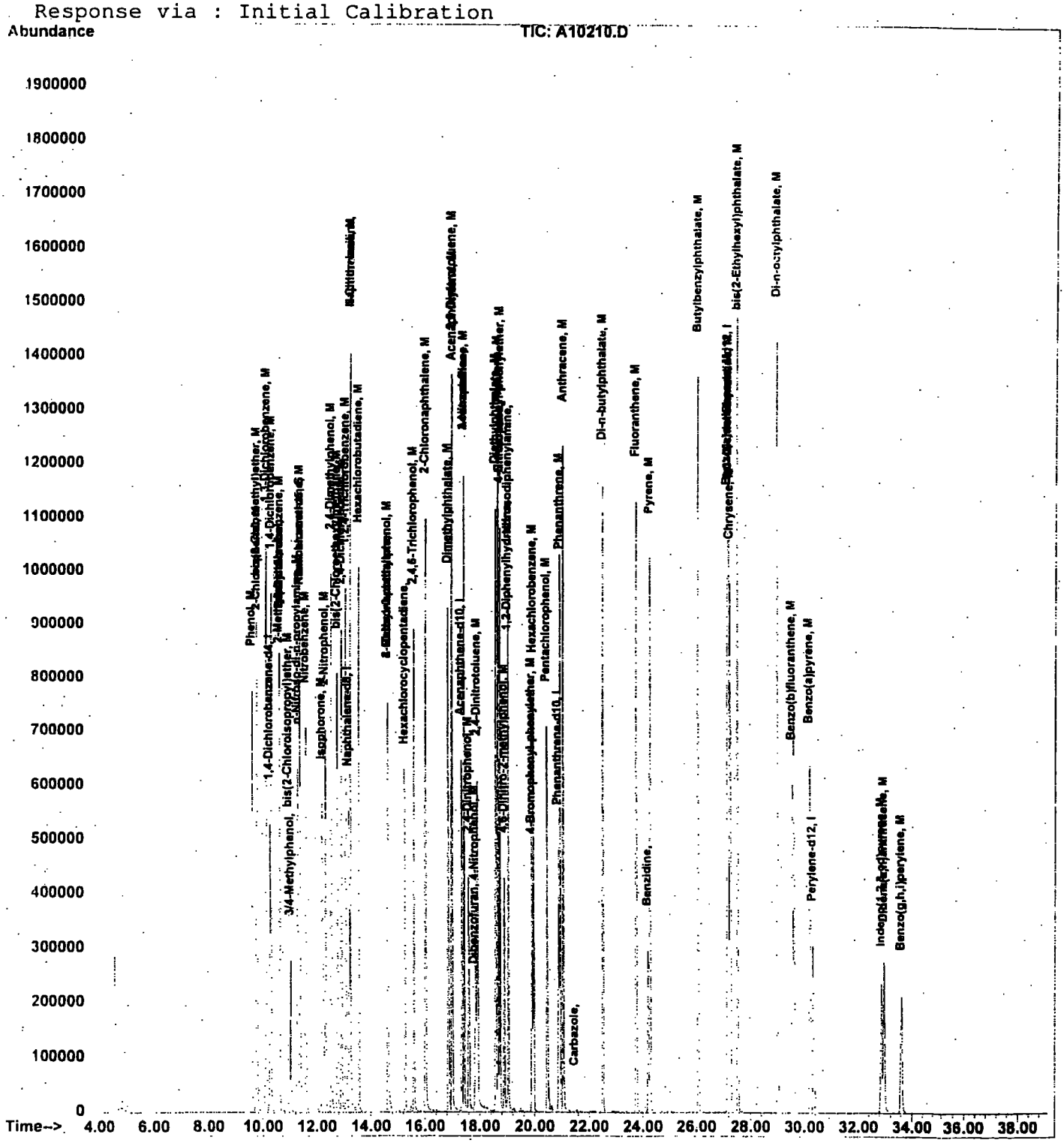
Quantitation Report

Data File : C:\HPCHEM\1\DATA\A1-02-03\A10210.D
Acq On : 2 Jan 2003 3:04 pm
Sample : 100PPM BNA CVS-623.69A.0
Misc : CURVE VALIDATION STANDARD
MS Integration Params: rteint.p
Quant Time: Jan 3 8:10 2003

Vial: 10
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Fri Jan 10 09:44:14 2003
Response via : Initial Calibration



Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21708.D Vial: 8
Acq On : 17 Feb 2003 5:52 pm Operator: AVL/TC
Sample : DB116-02 DIL=10 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 18:31 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integratcr)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.13	152	200244	40.00 ng	-0.02
19) Naphthalene-d8	13.06	136	767561	40.00 ng	-0.04
34) Acenaphthene-d10	17.22	164	354196	40.00 ng	-0.04
54) Phenanthrene-d10	20.75	188	530988	40.00 ng	-0.07
66) Chyrsene-d12	27.06	240	493031	40.00 ng	-0.09
77) Perylene-d12	30.21	264	334972	40.00 ng	-0.07
System Monitoring Compounds					
4) 2-Fluorophenol	7.25	112	3874	0.62 mg/L	0.01
7) Phenol-d5	9.42	99	5555	0.73 mg/L	-0.02
20) Nitrobenzene-d5	11.40	82	6237	0.92 mg/L	-0.04
38) 2-Fluorobiphenyl	15.68	172	9720	0.92 mg/L	-0.06
58) 2,4,6-Tribromophenol	19.12	330	595	0.38 mg/L	-0.06
70) Terphenyl-d14	24.67	244	8491	0.92 mg/L	-0.06
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.00	42		N.D.	
3) Pyridine	0.00	79		N.D.	
5) Aniline	0.00	93		N.D.	
6) bis(2-Chloroethyl)ether	0.00	93		N.D.	
8) 2-Chlorophenol	0.00	128		N.D.	
9) Phenol	9.47	94	841	0.10 mg/L #	37
10) 1,3-Dichlorobenzene	0.00	146		N.D.	
11) 1,4-Dichlorobenzene	0.00	146		N.D.	
12) 1,2-Dichlorobenzene	0.00	146		N.D.	
13) Benzyl Alcohol	0.00	108		N.D.	
14) bis(2-Chloroisopropyl)ethe	10.62	45	496	0.05 mg/L #	66
15) 2-Methylphenol	0.00	107		N.D.	
16) 3/4-Methylphenol	0.00	107		N.D.	
17) n-Nitroso-di-n-propylamine	11.18	70	364	0.09 mg/L #	30
18) Hexachloroethane	11.42	117	730	0.26 mg/L #	13
21) Nitrobenzene	11.28	77	336	0.05 mg/L #	36
22) Isophorone	11.94	82	1794	0.13 mg/L #	61
23) 2-Nitrophenol	0.00	139		N.D.	
24) 2,4-Dimethylphenol	0.00	122		N.D.	
25) bis(2-Chloroethoxy)methane	0.00	93		N.D.	
26) Benzoic Acid	0.00	122		N.D.	
27) 1,2,4-Trichlorobenzene	0.00	180		N.D.	
28) 2,4-Dichlorophenol	0.00	162		N.D.	
29) Naphthalene	13.09	128	4878	0.28 mg/L #	85
30) 4-Chloroaniline	13.23	127	1465	0.19 mg/L #	70

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21708.D Vial: 8
Acq On : 17 Feb 2003 5:52 pm Operator: AVL/TC
Sample : DB116-02 DIL=10 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 18:31 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Hexachlorobutadiene	0.00	225		N.D.	
32)	4-Chloro-3-methylphenol	14.26	107	440	0.08 mg/L #	19
33)	2-Methylnaphthalene	14.75	142	14518	1.29 mg/L	97
35)	Hexachlorocyclopentadiene	0.00	237		N.D.	
36)	2,4,6-Trichlorophenol	0.00	196		N.D.	
37)	2,4,5-Trichlorophenol	0.00	196		N.D.	
39)	2-Chloronaphthalene	0.00	162		N.D.	
40)	2-Nitroaniline	16.06	65	647	0.16 mg/L #	2
41)	Dimethylphthalate	16.73	163	356	0.03 mg/L #	76
42)	Acenaphthylene	17.11	152	15626	0.97 mg/L #	68
43)	2,6-Dinitrotoluene	16.84	165	401	0.14 mg/L #	33
44)	3-Nitroaniline	0.00	138		N.D.	
45)	Acenaphthene	17.34	154	428	0.05 mg/L #	7
46)	Dibenzofuran	17.72	168	397	0.03 mg/L #	56
47)	2,4-Dinitrotoluene	17.77	165	326	0.07 mg/L #	45
48)	4-Nitrophenol	17.75	109	191	0.11 mg/L #	1
49)	2,4-Dinitrophenol	0.00	184		N.D.	
50)	Diethylphthalate	18.43	149	2255	0.18 mg/L #	63
51)	Fluorene	18.53	166	1462	0.14 mg/L #	66
52)	4-Chlorophenyl-phenylether	0.00	204		N.D.	
53)	4-Nitroaniline	0.00	138		N.D.	
55)	4,6-Dinitro-2-methylphenol	0.00	198		N.D.	
56)	n-Nitrosodiphenylamine	19.02	169	987	0.15 mg/L #	26
57)	1,2-Diphenylhydrazine	19.04	77	93	0.01 mg/L #	1
59)	4-Bromophenyl-phenylether	0.00	248		N.D.	
60)	Hexachlorobenzene	0.00	284		N.D.	
61)	Pentachlorophenol	0.00	266		N.D.	
62)	Phenanthrene	20.93	178	345	0.03 mg/L #	1
63)	Anthracene	20.93	178	345	0.02 mg/L #	1
64)	Carbazole	0.00	167		N.D.	
65)	Di-n-butylphthalate	22.39	149	1780	0.08 mg/L #	16
67)	Fluoranthene	0.00	202		N.D.	
68)	Benzidine	24.28	184	3559	0.50 mg/L #	1
69)	Pyrene	24.15	202	993	0.06 mg/L #	1
71)	Butylbenzylphthalate	25.94	149	2041	0.21 mg/L #	1
72)	Benzo(a)anthracene	27.06	228	1464	0.11 mg/L #	32
73)	Chrysene	0.00	228		N.D.	
74)	3,3'-Dichlorobenzidine	0.00	252		N.D.	
75)	bis(2-Ethylhexyl)phthalate	27.48	149	217	0.02 mg/L #	58
76)	Di-n-octylphthalate	29.03	149	1829	0.08 mg/L #	21
78)	Benzo(b)fluoranthene	0.00	252		N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

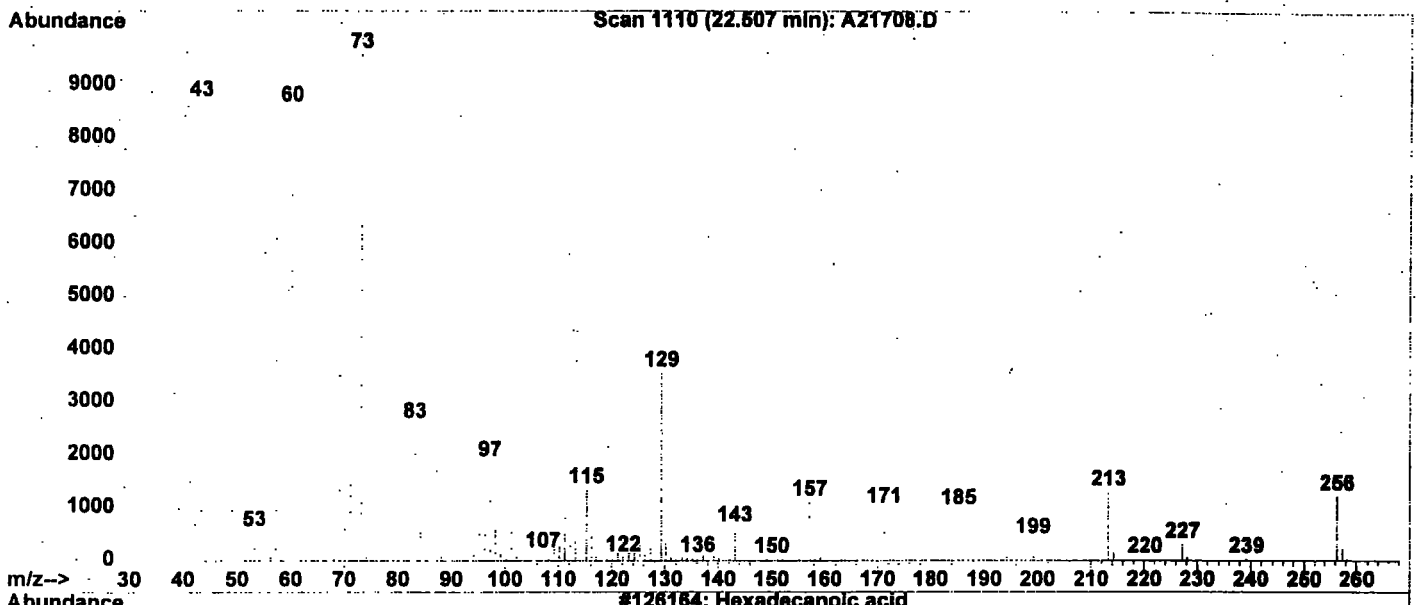
Data File : C:\HPCHEM\1\DATA\A2-17-03\A21708.D Vial: 8
Acq On : 17 Feb 2003 5:52 pm Operator: AVL/TC
Sample : DB116-02 DIL=10 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 18:31 2003 Quant Results File: DBNA.RES

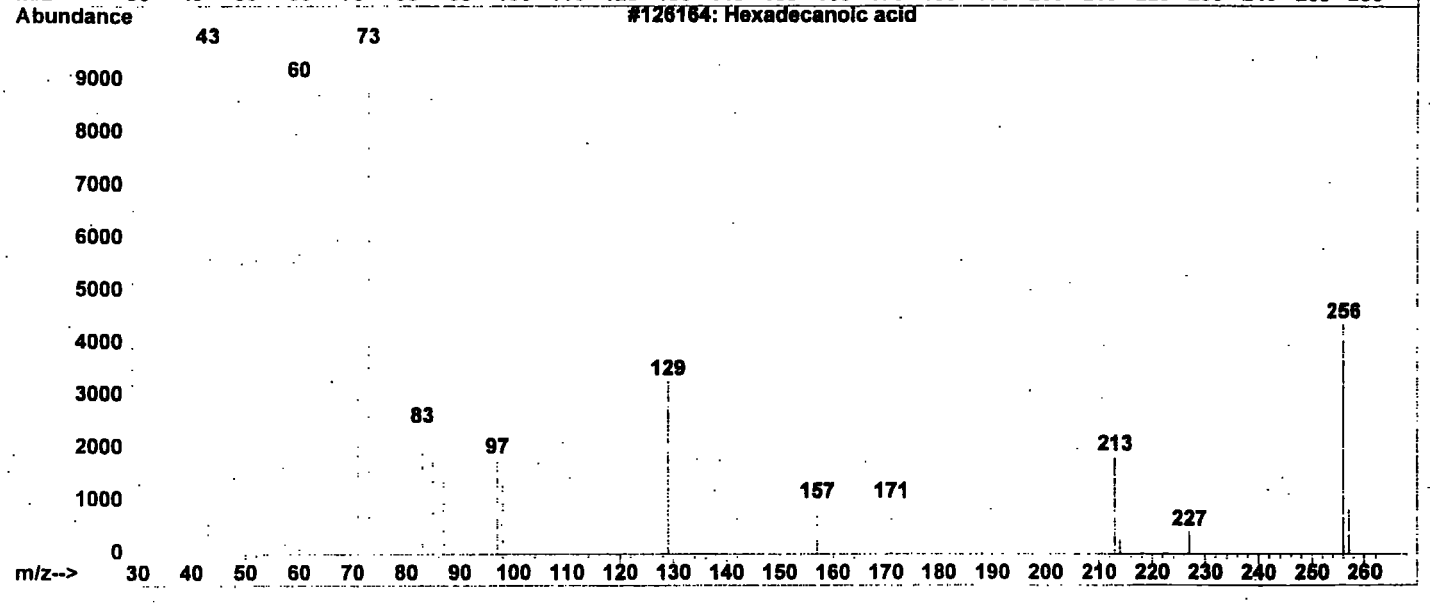
Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Benzo(k)fluoranthene	0.00	252		N.D.	
80)	Benzo(a)pyrene	30.21	252	1622	0.14 mg/L #	1
81)	Indeno(1,2,3-cd)pyrene	0.00	276		N.D.	
82)	Dibenz(a,h)anthracene	0.00	278		N.D.	
83)	Benzo(g,h,i)perylene	0.00	276		N.D.	

(#) = qualifier out of range (m) = manual integration

Library Searched : C:\DATABASE\WILEY.L
Quality : 98
ID : Hexadecanoic acid



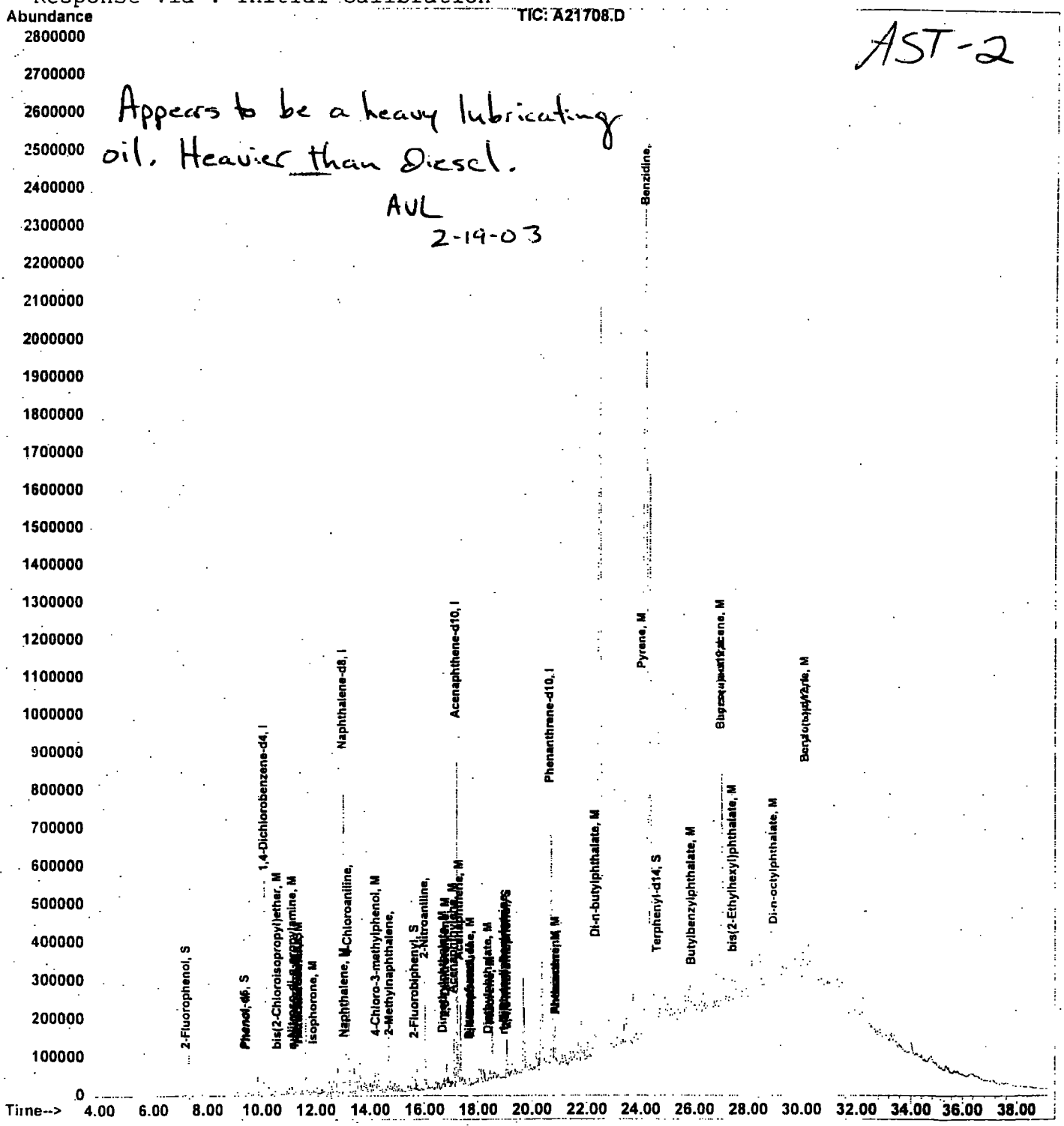


Quantitation Report

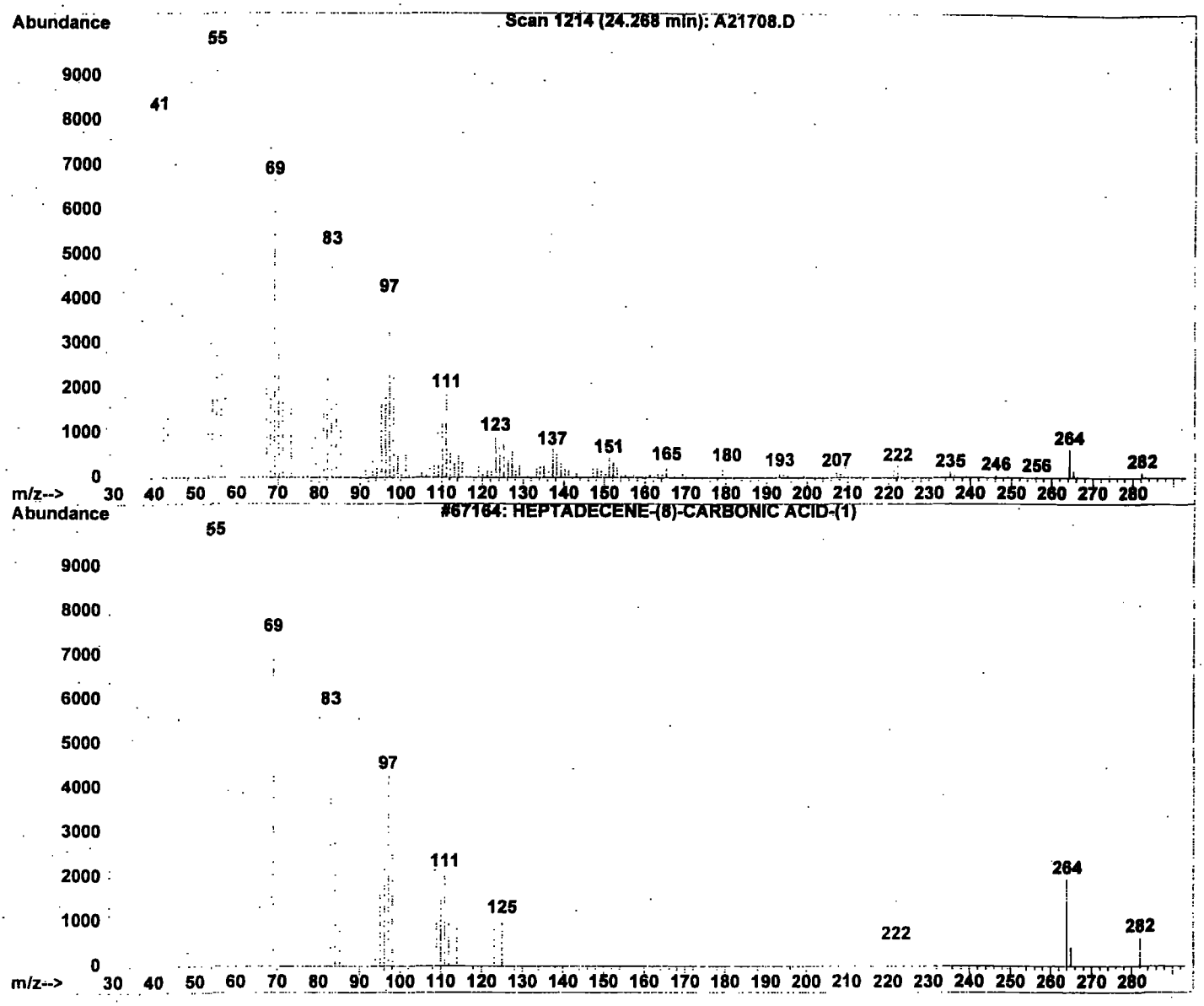
Data File : C:\HPCHEM\1\DATA\A2-17-03\A21708.D Vial: 8
Acq On : 17 Feb 2003 5:52 pm Operator: AVL/TC
Sample : DB116-02 DIL=10 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 18:31 2003 Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration

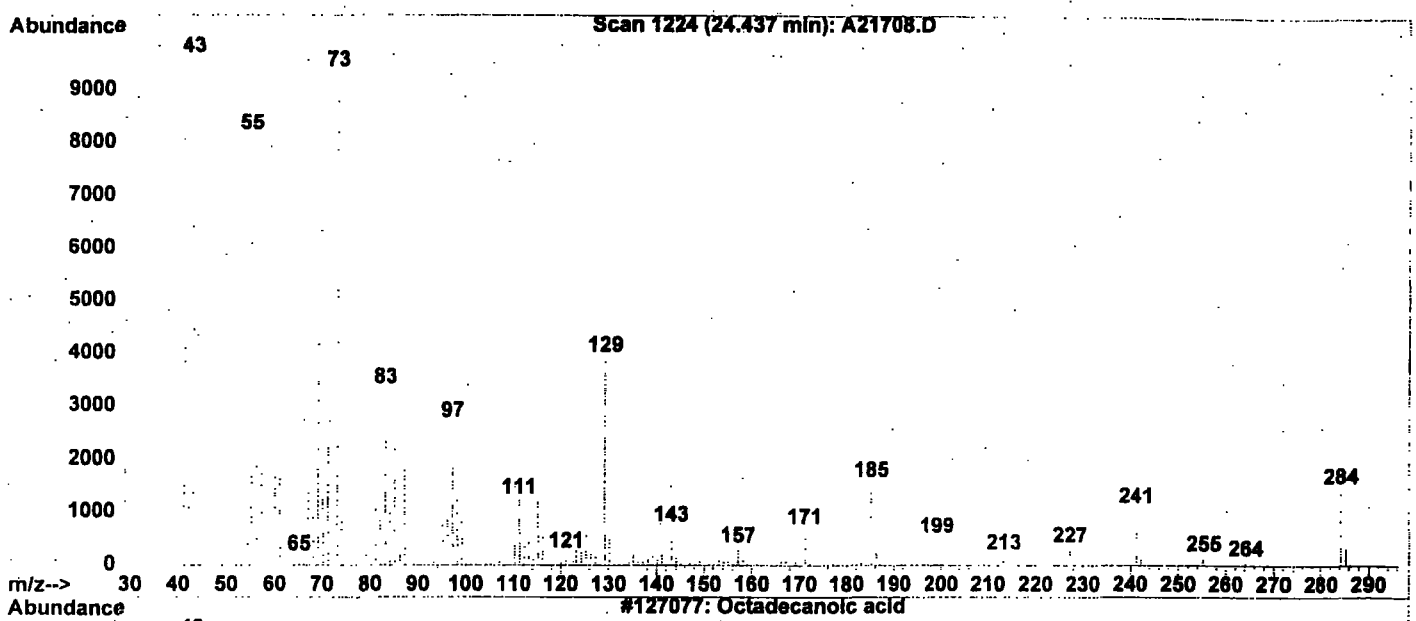
AST-2

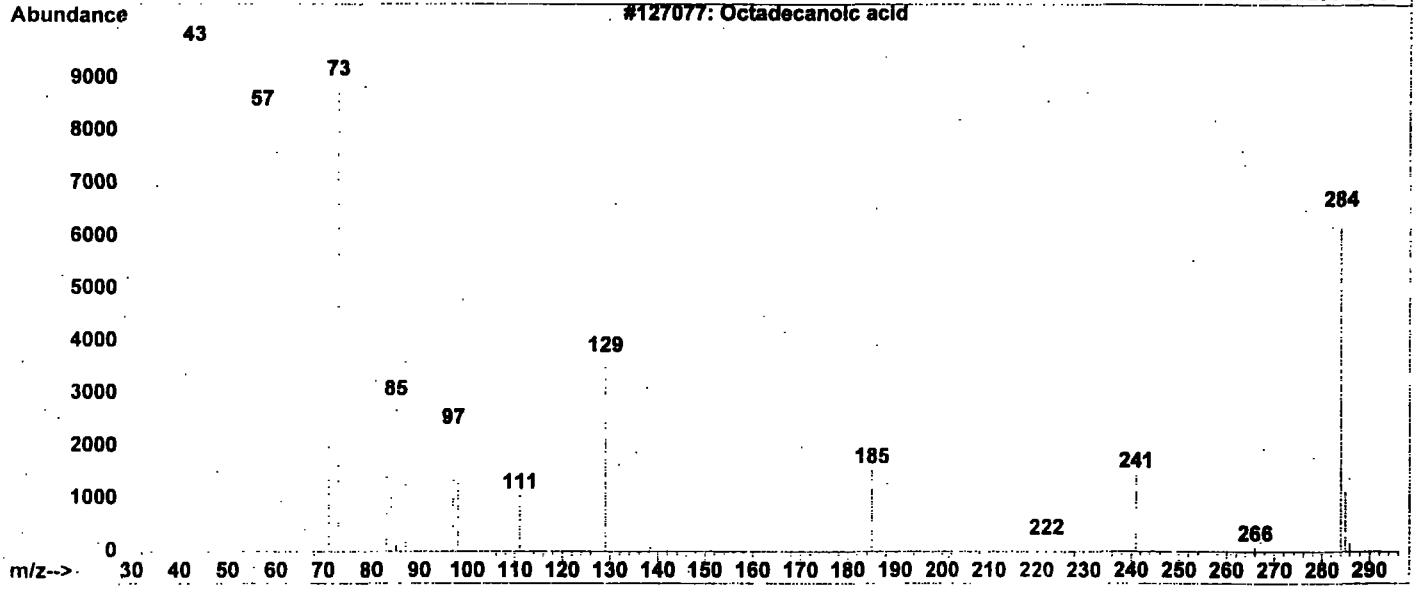


Library Searched : C:\DATABASE\WILEY.L
Quality : 99
ID : HEPTADECENE-(8)-CARBONIC ACID-(1)



Library Searched : C:\DATABASE\WILEY.L
Quality : 98
ID : Octadecanoic acid





Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D
Acq On : 17 Feb 2003 5:02 pm
Sample : DB116-01 DIL=10 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003

Vial: 7
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00
Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.13	152	203261	40.00 ng	-0.02
19) Naphthalene-d8	13.06	136	792345	40.00 ng	-0.04
34) Acenaphthene-d10	17.22	164	347673	40.00 ng	-0.04
54) Phenanthrene-d10	20.76	188	532107	40.00 ng	-0.06
66) Chyrsene-d12	27.06	240	486038	40.00 ng	-0.09
77) Perylene-d12	30.21	264	312038	40.00 ng	-0.07
System Monitoring Compounds					
4) 2-Fluorophenol	7.25	112	4233	0.66 mg/L	0.01
7) Phenol-d5	9.42	99	5242	0.68 mg/L	-0.02
20) Nitrobenzene-d5	11.40	82	5877	0.84 mg/L	-0.04
38) 2-Fluorobiphenyl	15.68	172	9857	0.95 mg/L	-0.06
58) 2,4,6-Tribromophenol	19.12	330	644	0.42 mg/L	-0.06
70) Terphenyl-d14	24.67	244	8652	0.95 mg/L	-0.06
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.00	42		N.D.	
3) Pyridine	0.00	79		N.D.	
5) Aniline	0.00	93		N.D.	
6) bis(2-Chloroethyl)ether	0.00	93		N.D.	
8) 2-Chlorophenol	0.00	128		N.D.	
9) Phenol	9.47	94	908	0.10 mg/L #	37
10) 1,3-Dichlorobenzene	0.00	146		N.D.	
11) 1,4-Dichlorobenzene	0.00	146		N.D.	
12) 1,2-Dichlorobenzene	0.00	146		N.D.	
13) Benzyl Alcohol	0.00	108		N.D.	
14) bis(2-Chloroisopropyl)ethe	11.04	45	307	0.03 mg/L #	66
15) 2-Methylphenol	0.00	107		N.D.	
16) 3/4-Methylphenol	0.00	107		N.D.	
17) n-Nitroso-di-n-propylamine	11.20	70	1846	0.46 mg/L #	87
18) Hexachloroethane	11.42	117	991	0.35 mg/L #	13
21) Nitrobenzene	11.38	77	715	0.10 mg/L #	36
22) Isophorone	11.94	82	2287	0.16 mg/L #	61
23) 2-Nitrophenol	0.00	139		N.D.	
24) 2,4-Dimethylphenol	0.00	122		N.D.	
25) bis(2-Chloroethoxy)methane	0.00	93		N.D.	
26) Benzoic Acid	0.00	122		N.D.	
27) 1,2,4-Trichlorobenzene	0.00	180		N.D.	
28) 2,4-Dichlorophenol	0.00	162		N.D.	
29) Naphthalene	13.09	128	6305	0.35 mg/L #	82
30) 4-Chloroaniline	13.23	127	1669	0.21 mg/L #	67

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D
Acq On : 17 Feb 2003 5:02 pm
Sample : DB116-01 DIL=10 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003

Vial: 7
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00
Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Hexachlorobutadiene	0.00	225		N.D.	
32)	4-Chloro-3-methylphenol	14.28	107	686	0.12 mg/L #	19
33)	2-Methylnaphthalene	14.75	142	17350	1.50 mg/L	96
35)	Hexachlorocyclopentadiene	0.00	237		N.D.	
36)	2,4,6-Trichlorophenol	0.00	196		N.D.	
37)	2,4,5-Trichlorophenol	0.00	196		N.D.	
39)	2-Chloronaphthalene	0.00	162		N.D.	
40)	2-Nitroaniline	16.43	65	386	0.10 mg/L #	2
41)	Dimethylphthalate	16.73	163	391	0.03 mg/L #	76
42)	Acenaphthylene	17.11	152	17145	1.08 mg/L #	68
43)	2,6-Dinitrotoluene	16.83	165	1138	0.40 mg/L #	33
44)	3-Nitroaniline	0.00	138		N.D.	
45)	Acenaphthene	17.34	154	652	0.07 mg/L #	7
46)	Dibenzofuran	17.71	168	466	0.04 mg/L #	74
47)	2,4-Dinitrotoluene	17.87	165	306	0.07 mg/L #	45
48)	4-Nitrophenol	17.71	109	507	0.29 mg/L #	1
49)	2,4-Dinitrophenol	0.00	184		N.D.	
50)	Diethylphthalate	18.46	149	2403	0.19 mg/L #	63
51)	Fluorene	18.53	166	1549	0.15 mg/L #	55
52)	4-Chlorophenyl-phenylether	0.00	204		N.D.	
53)	4-Nitroaniline	0.00	138		N.D.	
55)	4,6-Dinitro-2-methylphenol	0.00	198		N.D.	
56)	n-Nitrosodiphenylamine	19.02	169	1230	0.18 mg/L #	26
57)	1,2-Diphenylhydrazine	19.09	77	1430	0.11 mg/L #	21
59)	4-Bromophenyl-phenylether	0.00	248		N.D.	
60)	Hexachlorobenzene	0.00	284		N.D.	
61)	Pentachlorophenol	0.00	266		N.D.	
62)	Phenanthrene	20.80	178	3823	0.29 mg/L #	82
63)	Anthracene	20.95	178	1134	0.08 mg/L #	1
64)	Carbazole	21.44	167	695	0.05 mg/L #	1
65)	Di-n-butylphthalate	22.47	149	1417	0.07 mg/L #	1
67)	Fluoranthene	0.00	202		N.D.	
68)	Benzidine	24.22	184	1986	0.29 mg/L #	1
69)	Pyrene	24.15	202	1755	0.11 mg/L #	1
71)	Butylbenzylphthalate	26.08	149	1085	0.11 mg/L #	1
72)	Benzo(a)anthracene	27.08	228	1774	0.13 mg/L #	28
73)	Chrysene	0.00	228		N.D.	
74)	3,3'-Dichlorobenzidine	0.00	252		N.D.	
75)	bis(2-Ethylhexyl)phthalate	27.40	149	5120	0.39 mg/L #	72
76)	Di-n-octylphthalate	28.89	149	1699	0.07 mg/L #	26
78)	Benzo(b)fluoranthene	0.00	252		N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D Vial: 7
Acq On : 17 Feb 2003 5:02 pm Operator: AVL/TC
Sample : DB116-01 DIL=10 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Benzo(k)fluoranthene	29.60	252	316	0.02 mg/L #	1
80)	Benzo(a)pyrene	30.21	252	1477	0.14 mg/L #	1
81)	Indeno(1,2,3-cd)pyrene	0.00	276		N.D.	
82)	Dibenz(a,h)anthracene	0.00	278		N.D.	
83)	Benzo(g,h,i)perylene	0.00	276		N.D.	

(#) = qualifier out of range (m) = manual integration

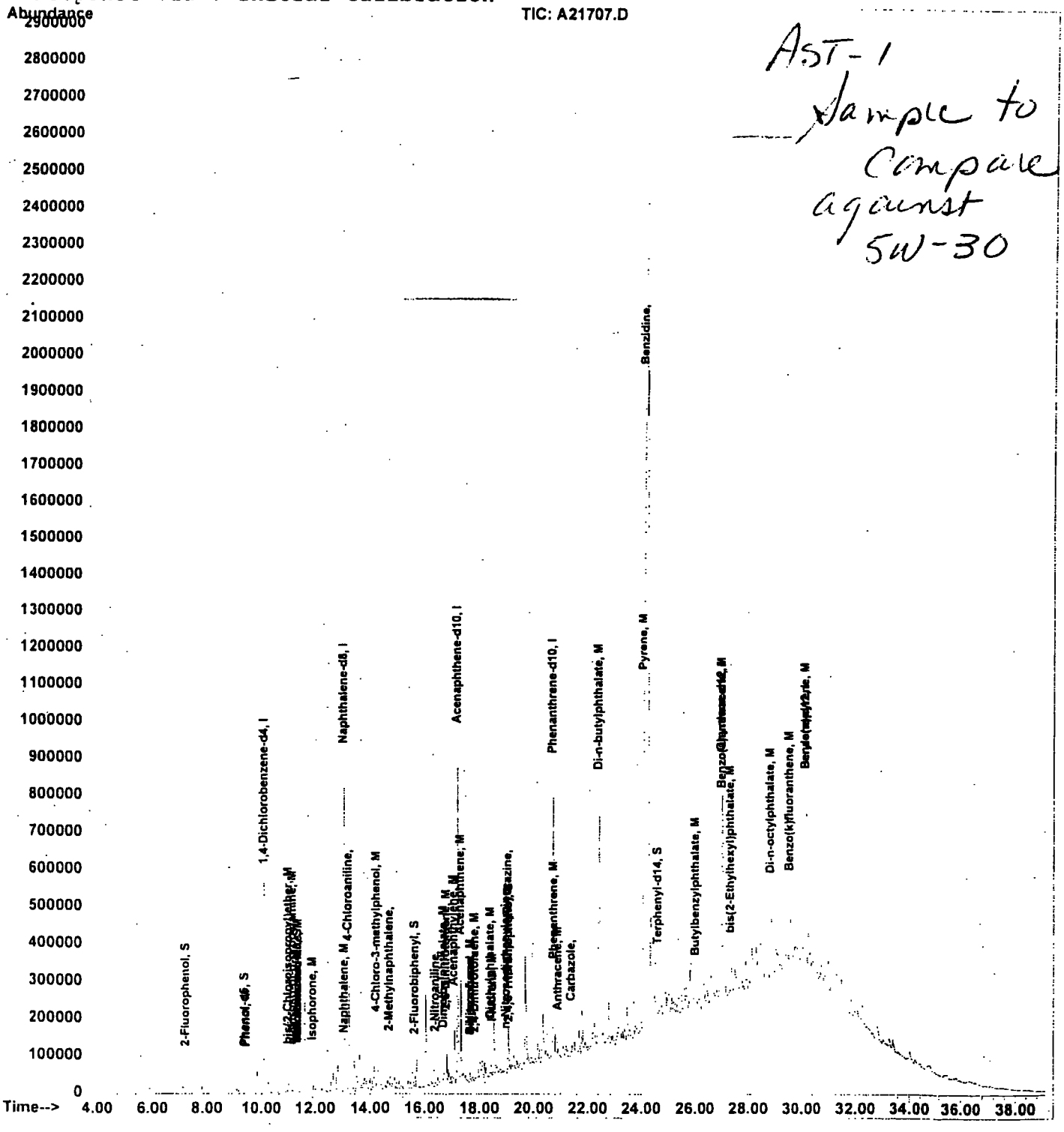
Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D
Acq On : 17 Feb 2003 5:02 pm
Sample : DB116-01 DIL=10 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003

Vial: 7
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

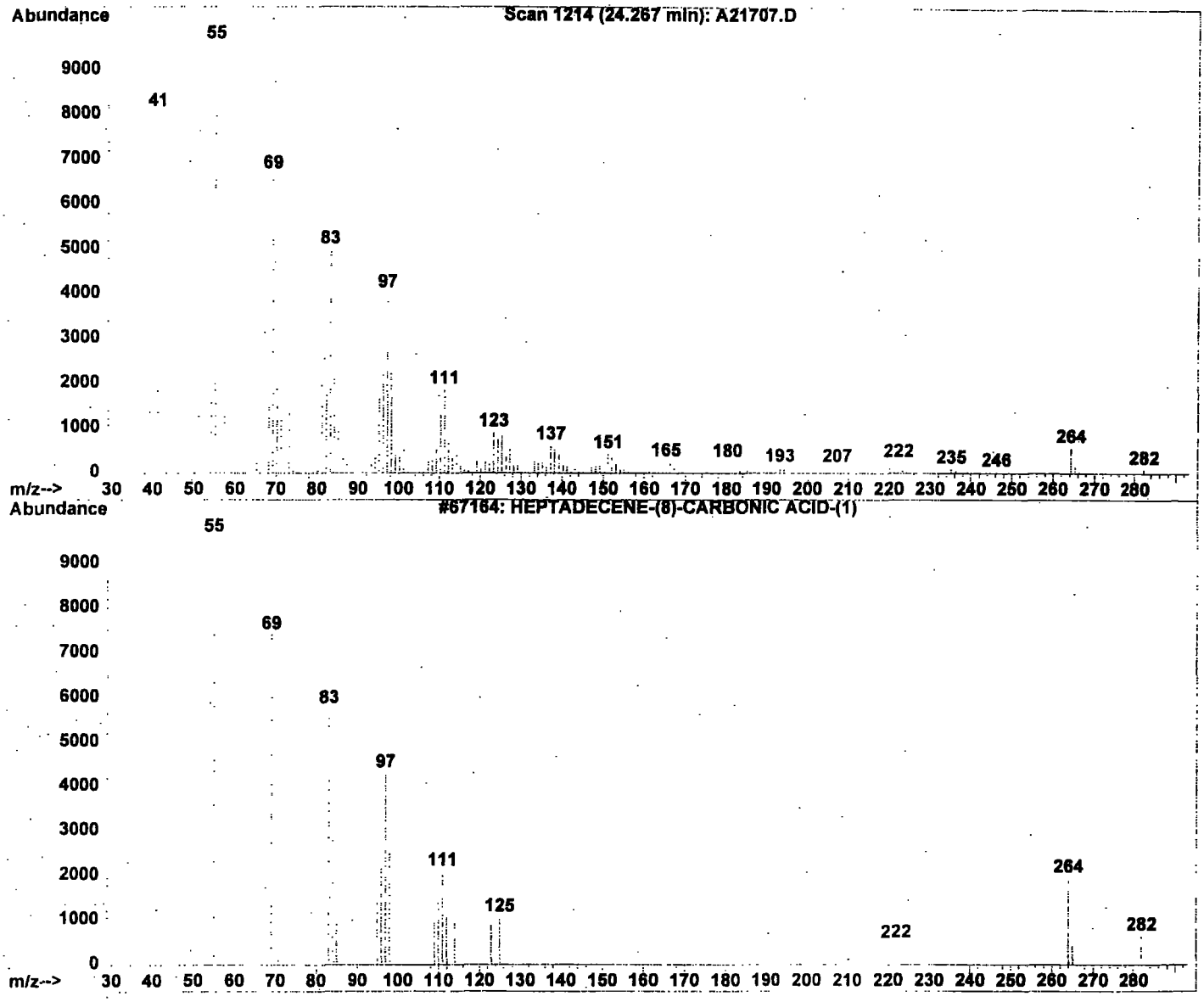
Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration



AST-1
Sample to
Compare
against
SW-30

Library Searched : C:\DATABASE\WILEY.L
Quality : 99
ID : HEPTADECENE-(8)-CARBONIC ACID-(1)



Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21704.D Vial: 4
Acq On : 17 Feb 2003 2:33 pm Operator: AVL/TC
Sample : OB021401 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 15:12 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.13	152	172271	40.00 ng	-0.02
19) Naphthalene-d8	13.06	136	629915	40.00 ng	-0.04
34) Acenaphthene-d10	17.22	164	283730	40.00 ng	-0.04
54) Phenanthrene-d10	20.75	188	450281	40.00 ng	-0.07
66) Chyrsene-d12	27.06	240	403370	40.00 ng	-0.09
77) Perylene-d12	30.19	264	271372	40.00 ng	-0.09
System Monitoring Compounds					
4) 2-Fluorophenol	7.25	112	48367	8.95 mg/L	0.01
7) Phenol-d5	9.42	99	59145	9.07 mg/L	-0.02
20) Nitrobenzene-d5	11.40	82	50547	9.10 mg/L	-0.04
38) 2-Fluorobiphenyl	15.70	172	79679	9.43 mg/L	-0.04
58) 2,4,6-Tribromophenol	19.12	330	10030	7.64 mg/L	-0.06
70) Terphenyl-d14	24.66	244	71918	9.56 mg/L	-0.07
Target Compounds					Qvalue
2) N-Nitrosodimethylamine	0.00	42		N.D.	
3) Pyridine	0.00	79		N.D.	
5) Aniline	0.00	93		N.D.	
6) bis(2-Chloroethyl)ether	0.00	93		N.D.	
8) 2-Chlorophenol	0.00	128		N.D.	
9) Phenol	0.00	94		N.D.	
10) 1,3-Dichlorobenzene	0.00	146		N.D.	
11) 1,4-Dichlorobenzene	0.00	146		N.D.	
12) 1,2-Dichlorobenzene	0.00	146		N.D.	
13) Benzyl Alcohol	0.00	108		N.D.	
14) bis(2-Chloroisopropyl)ethe	0.00	45		N.D.	
15) 2-Methylphenol	0.00	107		N.D.	
16) 3/4-Methylphenol	0.00	107		N.D.	
17) n-Nitroso-di-n-propylamine	0.00	70		N.D.	
18) Hexachloroethane	0.00	117		N.D.	
21) Nitrobenzene	0.00	77		N.D.	
22) Isophorone	0.00	82		N.D.	
23) 2-Nitrophenol	0.00	139		N.D.	
24) 2,4-Dimethylphenol	0.00	122		N.D.	
25) bis(2-Chloroethoxy)methane	0.00	93		N.D.	
26) Benzoic Acid	0.00	122		N.D.	
27) 1,2,4-Trichlorobenzene	0.00	180		N.D.	
28) 2,4-Dichlorophenol	0.00	162		N.D.	
29) Naphthalene	0.00	128		N.D.	
30) 4-Chloroaniline	0.00	127		N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21704.D Vial: 4
Acq On : 17 Feb 2003 2:33 pm Operator: AVL/TC
Sample : OB021401 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 15:12 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Hexachlorobutadiene	0.00	225		N.D.	
32)	4-Chloro-3-methylphenol	0.00	107		N.D.	
33)	2-Methylnaphthalene	0.00	142		N.D.	
35)	Hexachlorocyclopentadiene	0.00	237		N.D.	
36)	2,4,6-Trichlorophenol	0.00	196		N.D.	
37)	2,4,5-Trichlorophenol	0.00	196		N.D.	
39)	2-Chloronaphthalene	0.00	162		N.D.	
40)	2-Nitroaniline	0.00	65		N.D.	
41)	Dimethylphthalate	0.00	163		N.D.	
42)	Acenaphthylene	0.00	152		N.D.	
43)	2,6-Dinitrotoluene	0.00	165		N.D.	
44)	3-Nitroaniline	0.00	138		N.D.	
45)	Acenaphthene	17.22	154	542	0.07 mg/L #	7
46)	Dibenzofuran	0.00	168		N.D.	
47)	2,4-Dinitrotoluene	0.00	165		N.D.	
48)	4-Nitrophenol	0.00	109		N.D.	
49)	2,4-Dinitrophenol	0.00	184		N.D.	
50)	Diethylphthalate	0.00	149		N.D.	
51)	Fluorene	0.00	166		N.D.	
52)	4-Chlorophenyl-phenylether	0.00	204		N.D.	
53)	4-Nitroaniline	0.00	138		N.D.	
55)	4,6-Dinitro-2-methylphenol	0.00	198		N.D.	
56)	n-Nitrosodiphenylamine	0.00	169		N.D.	
57)	1,2-Diphenylhydrazine	0.00	77		N.D.	
59)	4-Bromophenyl-phenylether	0.00	248		N.D.	
60)	Hexachlorobenzene	0.00	284		N.D.	
61)	Pentachlorophenol	0.00	266		N.D.	
62)	Phenanthrene	0.00	178		N.D.	
63)	Anthracene	0.00	178		N.D.	
64)	Carbazole	0.00	167		N.D.	
65)	Di-n-butylphthalate	0.00	149		N.D.	
67)	Fluoranthene	0.00	202		N.D.	
68)	Benzidine	0.00	184		N.D.	
69)	Pyrene	0.00	202		N.D.	
71)	Butylbenzylphthalate	0.00	149		N.D.	
72)	Benzo(a)anthracene	27.06	228	745	0.07 mg/L #	52
73)	Chrysene	0.00	228		N.D.	
74)	3,3'-Dichlorobenzidine	0.00	252		N.D.	
75)	bis(2-Ethylhexyl)phthalate	0.00	149		N.D.	
76)	Di-n-octylphthalate	0.00	149		N.D.	
78)	Benzo(b)fluoranthene	0.00	252		N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21704.D Vial: 4
Acq On : 17 Feb 2003 2:33 pm Operator: AVL/TC
Sample : OB021401 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 15:12 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79)	Benzo(k)fluoranthene	0.00	252		N.D.	
80)	Benzo(a)pyrene	30.19	252	736	0.08 mg/L #	56
81)	Indeno(1,2,3-cd)pyrene	0.00	276		N.D.	
82)	Dibenz(a,h)anthracene	0.00	278		N.D.	
83)	Benzo(g,h,i)perylene	0.00	276		N.D.	

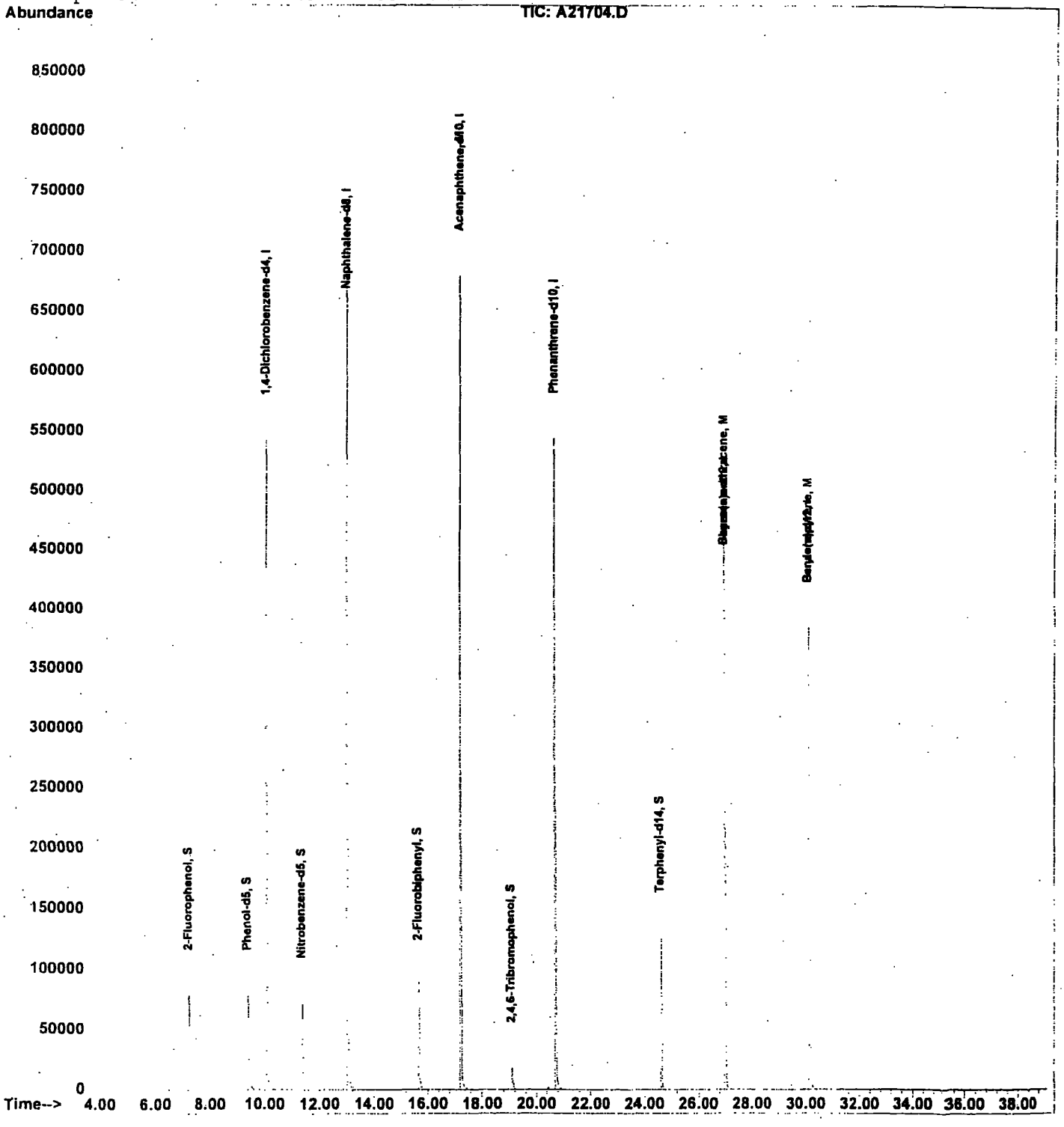
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21704.D
Acq On : 17 Feb 2003 2:33 pm
Sample : OB021401 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 15:12 2003

Vial: 4
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00
Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21705.D Vial: 5
Acq On : 17 Feb 2003 3:22 pm Operator: AVL/TC
Sample : OS021401 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 16:02 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.13	152	196443	40.00	ng	-0.02
19) Naphthalene-d8	13.06	136	770900	40.00	ng	-0.04
34) Acenaphthene-d10	17.22	164	359387	40.00	ng	-0.04
54) Phenanthrene-d10	20.75	188	528372	40.00	ng	-0.07
66) Chyrsene-d12	27.04	240	507718	40.00	ng	-0.11
77) Perylene-d12	30.19	264	343160	40.00	ng	-0.09
System Monitoring Compounds						
4) 2-Fluorophenol	7.29	112	55571	9.02	mg/L	0.05
7) Phenol-d5	9.44	99	72867	9.79	mg/L	0.00
20) Nitrobenzene-d5	11.40	82	59550	8.76	mg/L	-0.04
38) 2-Fluorobiphenyl	15.68	172	102657	9.59	mg/L	-0.06
58) 2,4,6-Tribromophenol	19.10	330	14369	9.33	mg/L	-0.07
70) Terphenyl-d14	24.66	244	86965	9.19	mg/L	-0.07

Target Compounds						Qvalue
2) N-Nitrosodimethylamine	0.00	42		N.D.		
3) Pyridine	0.00	79		N.D.		
5) Aniline	0.00	93		N.D.		
6) bis(2-Chloroethyl)ether	9.66	93	1915	0.30	mg/L #	1
8) 2-Chlorophenol	9.66	128	131881	19.52	mg/L	95
9) Phenol	9.45	94	158469	18.26	mg/L	98
10) 1,3-Dichlorobenzene	0.00	146		N.D.		
11) 1,4-Dichlorobenzene	10.16	146	72304	10.25	mg/L	99
12) 1,2-Dichlorobenzene	0.00	146		N.D.		
13) Benzyl Alcohol	0.00	108		N.D.		
14) bis(2-Chloroisopropyl)ethe	0.00	45		N.D.		
15) 2-Methylphenol	0.00	107		N.D.		
16) 3/4-Methylphenol	0.00	107		N.D.		
17) n-Nitroso-di-n-propylamine	11.15	70	38666	9.87	mg/L	95
18) Hexachloroethane	0.00	117		N.D.		
21) Nitrobenzene	0.00	77		N.D.		
22) Isophorone	0.00	82		N.D.		
23) 2-Nitrophenol	0.00	139		N.D.		
24) 2,4-Dimethylphenol	0.00	122		N.D.		
25) bis(2-Chloroethoxy)methane	0.00	93		N.D.		
26) Benzoic Acid	0.00	122		N.D.		
27) 1,2,4-Trichlorobenzene	12.94	180	53186	10.58	mg/L	98
28) 2,4-Dichlorophenol	0.00	162		N.D.		
29) Naphthalene	0.00	128		N.D.		
30) 4-Chloroaniline	0.00	127		N.D.		

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21705.D
Acq On : 17 Feb 2003 3:22 pm
Sample : OS021401 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 16:02 2003

Vial: 5
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
31)	Hexachlorobutadiene	0.00	225		N.D.	
32)	4-Chloro-3-methylphenol	14.53	107	98951	18.28 mg/L	94
33)	2-Methylnaphthalene	14.53	142	84395	7.49 mg/L #	18
35)	Hexachlorocyclopentadiene	0.00	237		N.D.	
36)	2,4,6-Trichlorophenol	0.00	196		N.D.	
37)	2,4,5-Trichlorophenol	0.00	196		N.D.	
39)	2-Chloronaphthalene	0.00	162		N.D.	
40)	2-Nitroaniline	0.00	65		N.D.	
41)	Dimethylphthalate	0.00	163		N.D.	
42)	Acenaphthylene	17.29	152	45508	2.78 mg/L #	1
43)	2,6-Dinitrotoluene	0.00	165		N.D.	
44)	3-Nitroaniline	0.00	138		N.D.	
45)	Acenaphthene	17.29	154	91736	9.89 mg/L	98
46)	Dibenzofuran	0.00	168		N.D.	
47)	2,4-Dinitrotoluene	17.78	165	32794	7.34 mg/L	91
48)	4-Nitrophenol	17.73	109	24667	13.64 mg/L #	19
49)	2,4-Dinitrophenol	0.00	184		N.D.	
50)	Diethylphthalate	0.00	149		N.D.	
51)	Fluorene	0.00	166		N.D.	
52)	4-Chlorophenyl-phenylether	0.00	204		N.D.	
53)	4-Nitroaniline	0.00	138		N.D.	
55)	4,6-Dinitro-2-methylphenol	0.00	198		N.D.	
56)	n-Nitrosodiphenylamine	0.00	169		N.D.	
57)	1,2-Diphenylhydrazine	0.00	77		N.D.	
59)	4-Bromophenyl-phenylether	0.00	248		N.D.	
60)	Hexachlorobenzene	0.00	284		N.D.	
61)	Pentachlorophenol	20.34	266	36305	17.04 mg/L	99
62)	Phenanthrene	0.00	178		N.D.	
63)	Anthracene	0.00	178		N.D.	
64)	Carbazole	0.00	167		N.D.	
65)	Di-n-butylphthalate	0.00	149		N.D.	
67)	Fluoranthene	24.13	202	144184	8.96 mg/L #	86
68)	Benzidine	0.00	184		N.D.	
69)	Pyrene	24.13	202	150878	9.38 mg/L	96
71)	Butylbenzylphthalate	0.00	149		N.D.	
72)	Benzo(a)anthracene	27.04	228	861	0.06 mg/L #	52
73)	Chrysene	0.00	228		N.D.	
74)	3,3'-Dichlorobenzidine	0.00	252		N.D.	
75)	bis(2-Ethylhexyl)phthalate	0.00	149		N.D.	
76)	Di-n-octylphthalate	0.00	149		N.D.	
78)	Benzo(b)fluoranthene	0.00	252		N.D.	

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21705.D Vial: 5
Acq On : 17 Feb 2003 3:22 pm Operator: AVL/TC
Sample : OS021401 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 16:02 2003 Quant Results File: DBNA.RES

Quant Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration
DataAcq Meth : DBNA

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
79) Benzo(k)fluoranthene	0.00	252		N.D.	
80) Benzo(a)pyrene	30.19	252	923	0.08 mg/L #	56
81) Indeno(1,2,3-cd)pyrene	0.00	276		N.D.	
82) Dibenz(a,h)anthracene	0.00	278		N.D.	
83) Benzo(g,h,i)perylene	0.00	276		N.D.	

(#) = qualifier out of range (m) = manual integration

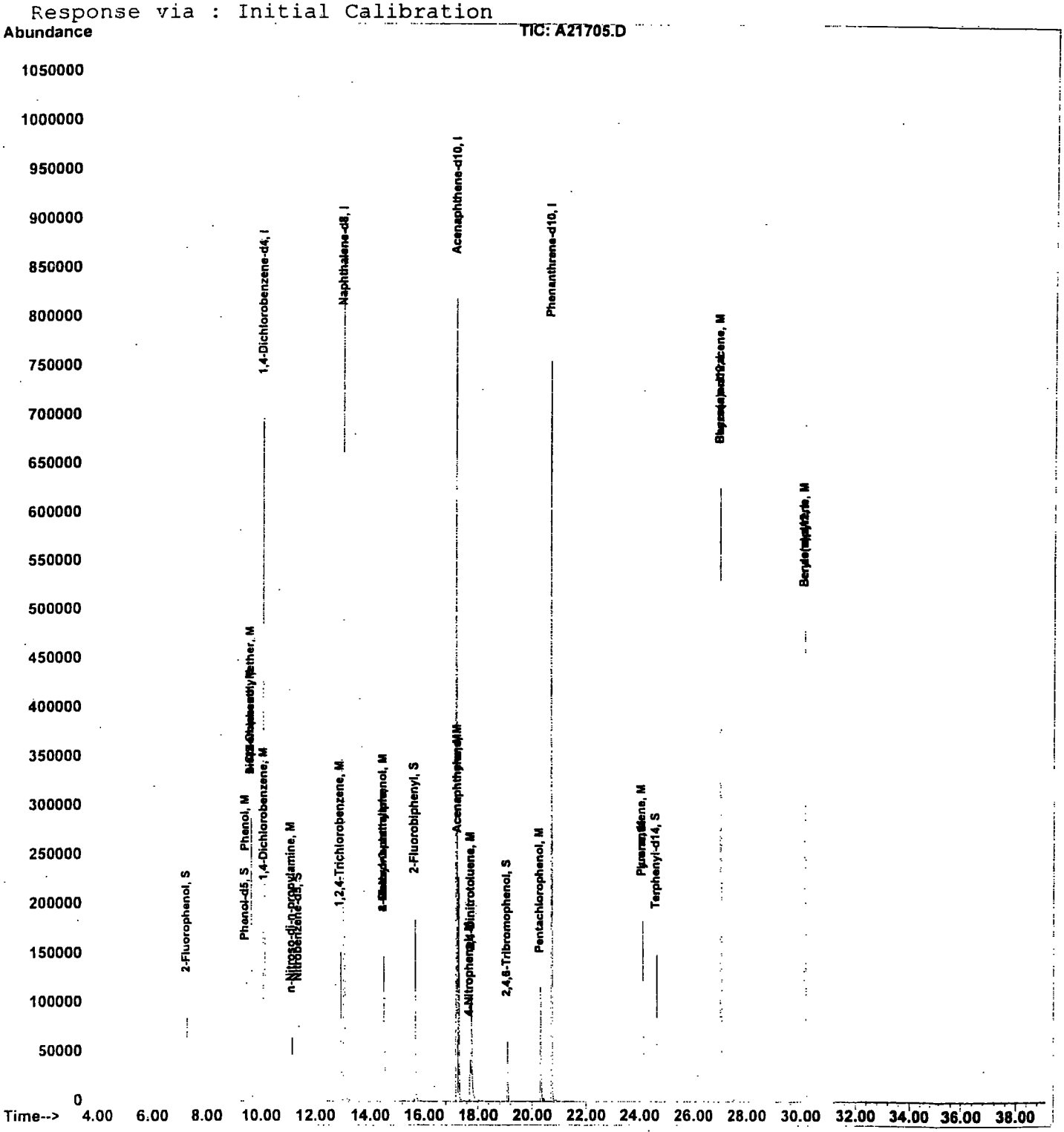
Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21705.D
Acq On : 17 Feb 2003 3:22 pm
Sample : OS021401 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 16:02 2003

Vial: 5
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



BNA OIL & OTHER EXT. LOG

EXT. REC'D BY: RVB DATE: 2/14/03 TIME: 4:30

DATE: 2-14-03 REVIEWED BY: DATE:

BATCH:BNA 021401 O EXTRACTION METHOD: (WASTE DIL. 3580)

	SAMPLE #	INITIAL WEIGHT	FINAL VOLUME	TECH INT.	COMMENTS
OB	021401	-	10 mls	JP	
OS	021401	-	↓	↓	
OSD	021401	-	↓	↓	
MS	-	-	↓	↓	
MSD	.	-	↓	↓	
1	DB116-01	1.03 g	↓	↓	
2	↓ -02	1.08 g	↓	↓	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

SURR SOLN #/AMT. SPIKED: 1mL - SVS 726.61B.10

SPIKE SOLN #//AMT. SPIKED: 2mL SVS-726.43B.7

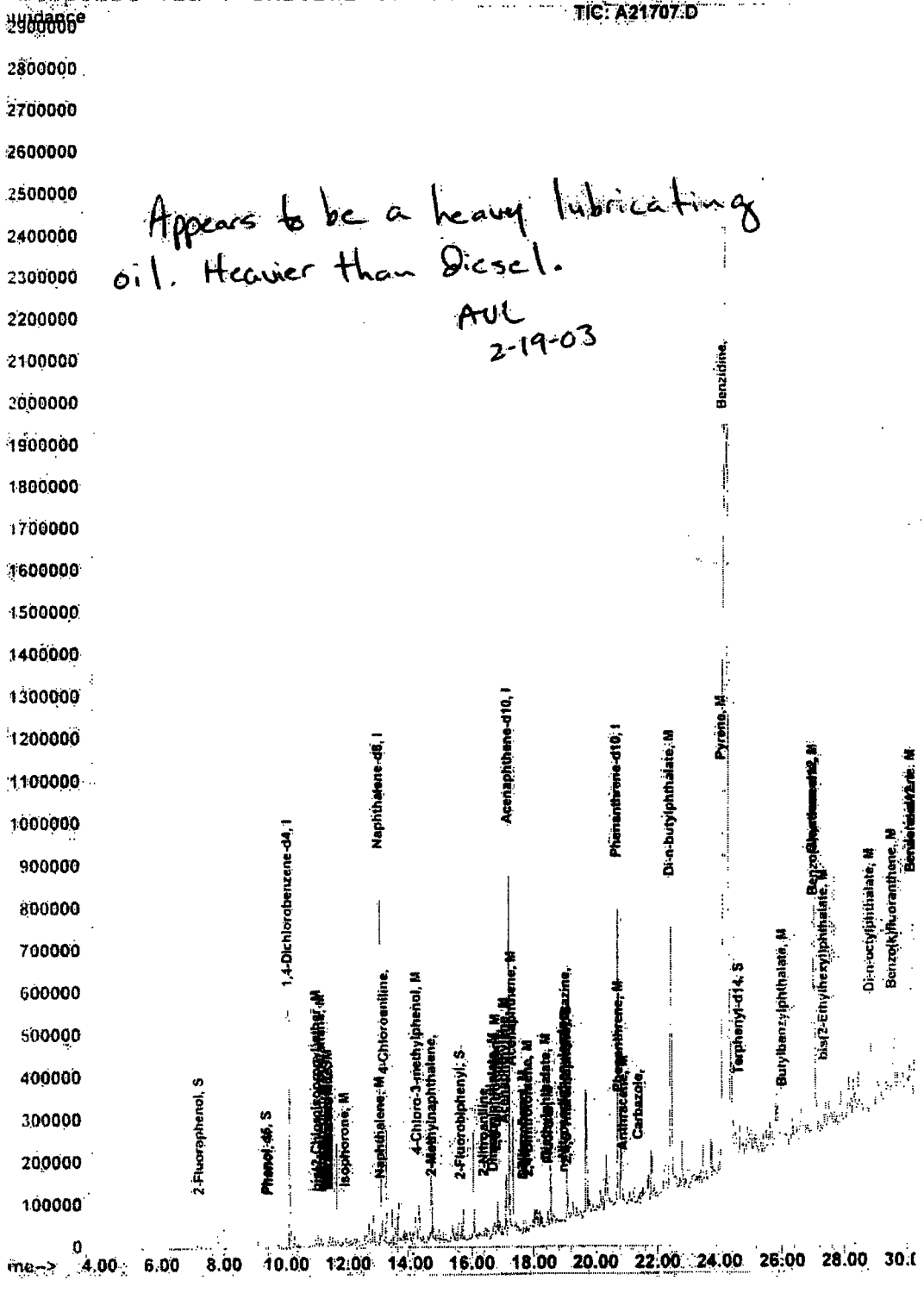
EXT. SOLVENTS/ LOT#s: 023755 / MeCl2 / Fisher

EXT. SOLVENTS/ LOT#s:

TRACE ANALYTICAL LABORATORIES, INC.

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D
Acq On : 17 Feb 2003 5:02 pm
Sample : DB116-01 DIL=10 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003 Quant Results F

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



Appears to be a heavy lubricating oil. Heavier than Diesel.

AUL
2-19-03

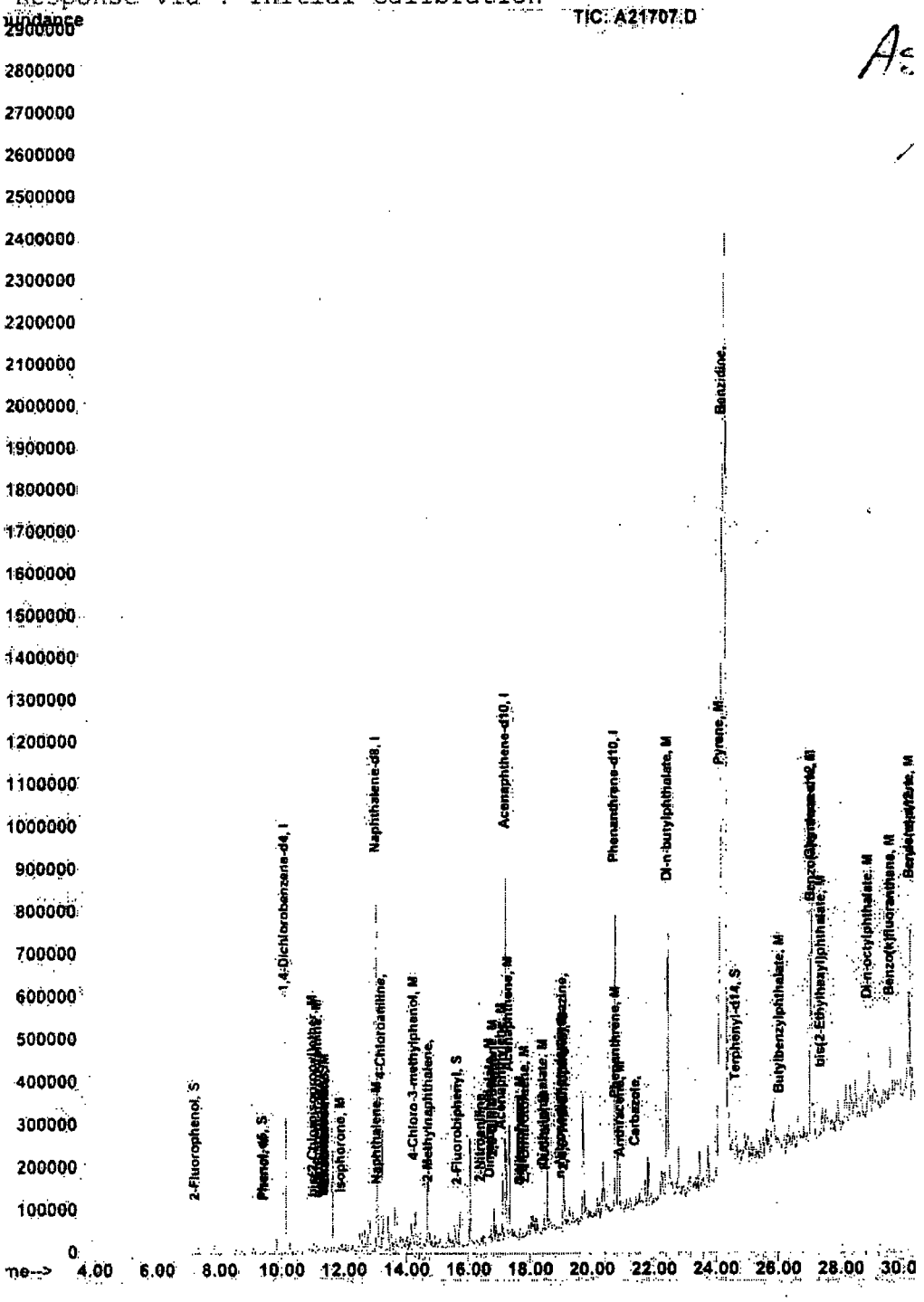
21707.D DBNA.M Mon Feb 17 17:42:23 2003

Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D
Acq On : 17 Feb 2003 5:02 pm
Sample : DB116-01 DIL=10 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003

Quant Results F

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration



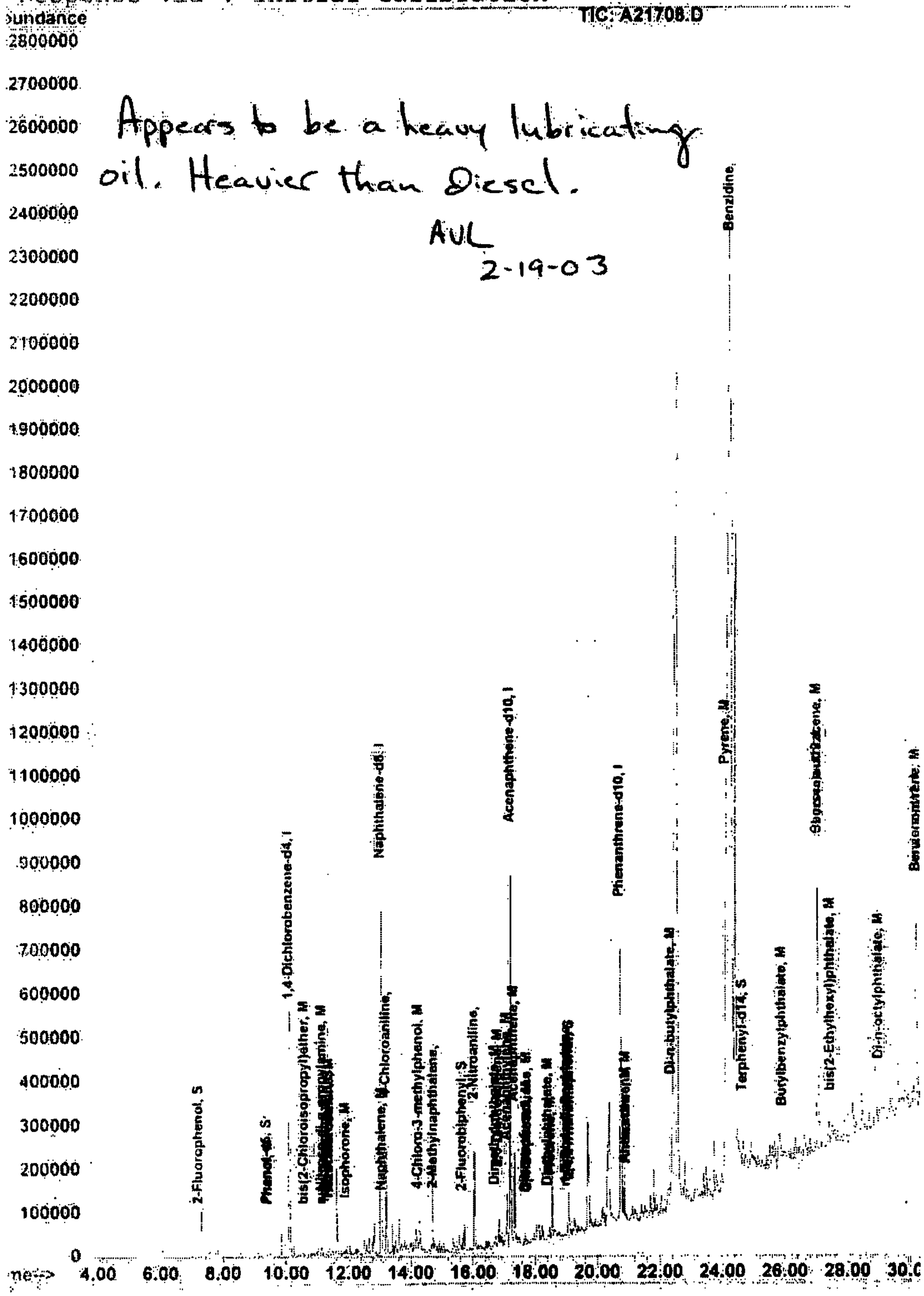
21707.D DBNA.M Wed Feb 19 14:58:34 2003

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21708.D
Acq On : 17 Feb 2003 5:52 pm
Sample : DB116-02 DIL=10 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 18:31 2003

Opera
Inst
Multi

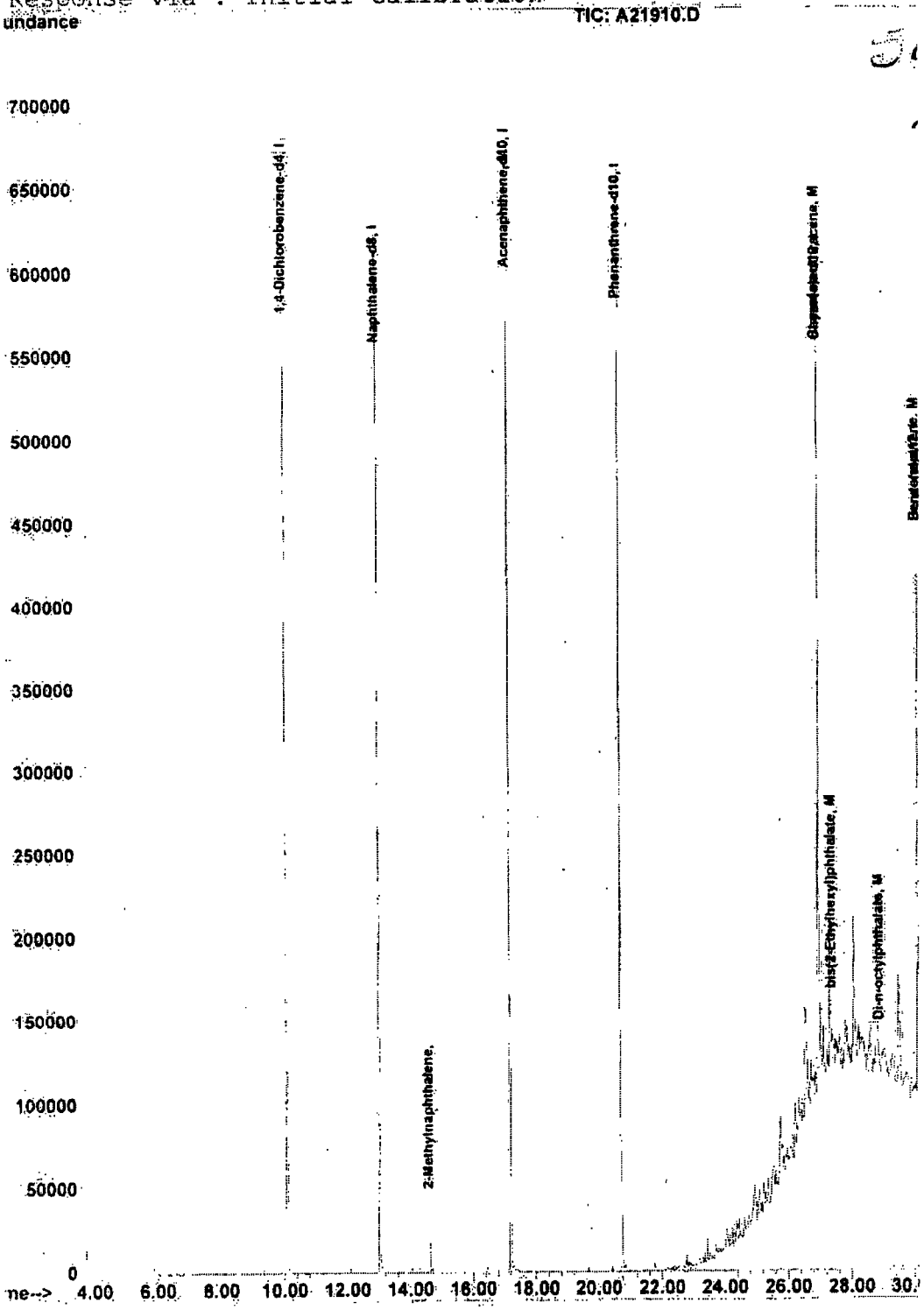
Quant Results F

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\A2-19-03\A21910.D
Acq On : 19 Feb 2003 2:38 pm
Sample : MOTOR OIL (5W30)
Misc :
MS Integration Params: rteint.p
Quant Time: Feb 19 15:17 2003

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



21910.D DBNA.M Wed Feb 19 15:18:00 2003

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE

the science of compliance

February 24, 2003
Mr. Dan Capone
Project : Sybill

CROSS REFERENCE TABLE

WESTON SOLUTIONS ID	TRACE ID
AST-1	DB116-01
AST-2	DB116-02

231-773-8537 Muskegon, MI 49444-2973
traceanalytical@mail.acisnet.com

TRACE
Assurance
Accuracy
Accountability

To: Rebecca Fax: 313-8982581

From: K.M Date: 2.25.03

Re: Pages: 27

CC:

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Rebecca,
Here is a copy of
Weston Solutions Results
Trace ID-D3116.

Chain of Custody

2/21

2241 Black Creek Rd
Muskegon, MI 49444-2673

Project Number: W.O.# 12634.001.001.0309.00

Firm Name: Weston Solutions of MI, Inc.

Turn around time: 5 business days

Date: 2/13/03

Date Due:

Firm Address: 2501 Jolly Rd Suite 100

Project Name: USEPA - Sybelle St

City, State, Zip: Okemos, MI 48864-3515

State Samples Taken From: AST #2 EPA Sybelle St

Phone: 517 381-5132

Fax: 517 381-5921

Contact Person: Dan Cl[illegible]

Item No.	Lab I.D.	Client Sample Number	Date Taken	Time Taken	Sample Description (sample type: water, soil, other)	Number of Containers	TPH 418.1	DRO 8015	GC/MS Fingerprint 8270						Remarks
01		AST-1	2/13/03	1420	0-3' water only	3-8oz	X	X	X						
02		AST-2	2/13/03	1445	18' sludge material	3 8oz	X	X	X						
3															
4															
5															
6															
7															
8															
9															
10															

Released by	Received by	Date	Time
[illegible]	[illegible]	2-14-03	10:10
FED-Ex			

Laboratory use only

5 day TAT

☐ Blue Ice ____°

☐ Regular Ice

☐ No Coolant

Quote 5806

Level III Data Pkg

FEB-25-2003 11:02 FROM-TRACE ANALYTICAL LABS 231-779-8587 T-214 P.002/024 F-988

Date: 2-14-03 Client Name: Lucestani # of Coolers: 1

HPN #: Project Name: Sybil Site Cooler #s: Clients

Project #: DBILC Logged in by: [illegible] Cooler #s:

Cooler Receipt

Cooler/samples delivered by: Trace courier [ ] Hand delivered [ ] Commercial courier [✓] Name of delivery person: Name of courier service: FED EX

Did cooler come with a bill of lading? No [✓] Yes [ ] Way Bill or Tracking #:

COC Seals present and intact on cooler? No [ ] Yes [✓] Custody seals signed by: See BACK

Client COC number:

Type of packing in cooler:

Coolant and Temperature

Type of Coolant Used

	Yes	No
Slurry w/ crushed, cubed, or chip ice?	[ ]	[ ]
Multiple bags of ice around samples?	[X]	[ ]
Ice Packs/ Blue Ice :	[ ]	[ ]
No Coolant Present:		[ ]

Temperature (as taken in Cooler)

Date: 2-14-03 Time: 10:10

Temperature Blank: °C

Range of 3 samples: 4-6 °C

Melt Water: °C

Ice still present upon receipt: [✓] Yes [ ] No

General

	Yes	No	NA
COC taped to inside of cooler lid?	[ ]	[✓]	[ ]
All bottles arrived unbroken with labels in good condition?	[✓]	[ ]	[ ]
Each sample is in a sealed plastic bag?	[✓]	[ ]	[ ]
Labels filled out completely?	[✓]	[ ]	[ ]
All bottle labels agree with Chain of Custody (COC)?	[✓]	[ ]	[ ]
Sufficient sample to run tests requested?	[✓]	[ ]	[ ]
pH checked and samples at correct pH?	[ ]	[ ]	[✓]
Correct preservative added to samples?	[ ]	[ ]	[✓]
Soil volatiles received and appropriate check in form completed?	[ ]	[ ]	[✓]
Air bubbles absent from VOAs?	[ ]	[✓]	[✓]
COC filled out properly and signed by client?	[✓]	[ ]	[ ]
COC signed in by TRACE sample custodian?	[✓]	[ ]	[ ]
Was project manager called and samples discussed?	[ ]	[ ]	[ ]

Contact: Date:

Notes:

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
traceanalytical@mad.scientist.com

TRACE
Assurance
Accuracy
Accountability

Custody Seal
Shen Hwo 2/13/03

Custody Seal
Shen Hwo 2/13/03

Sample Results

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

TRACE ID:	DB116-01
REPORT DATE:	02/24/03
ANALYSIS DATE:	02/17/03
EXTRACTION DATE:	02/14/03
ANALYST:	tml
SAMPLE DATE:	02/13/03
SAMPLE RECEIVED:	02/14/03
SAMPLE TYPE:	Oil
SAMPLER:	NA

Mr. Dan Capone
Weston Solutions Inc.

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
SAMPLE ID: AST-1 (0-3' Water-Oily)
BATCH ID: DRO021401S

PARAMETER	RESULT mg/kg	REPORTING LIMIT mg/kg	METHOD NUMBER
Diesel Range Organics	390000	41000	EPA 8015 Mod.

SURROGATE PERFORMANCE	RECOVERY %	CONTROL LIMIT %
Triacontane	89	50 - 118

U = Undetected at reporting limits

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

TRACE ID:	DB116-02
REPORT DATE:	02/24/03
ANALYSIS DATE:	02/17/03
EXTRACTION DATE:	02/14/03
ANALYST:	tml
SAMPLE DATE:	02/13/03
SAMPLE RECEIVED:	02/14/03
SAMPLE TYPE:	Oil
SAMPLER:	NA

Mr. Dan Capone
Weston Solutions Inc.

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
SAMPLE ID: AST-2 (18' Sludge-Material
BATCH ID: DRO021401S

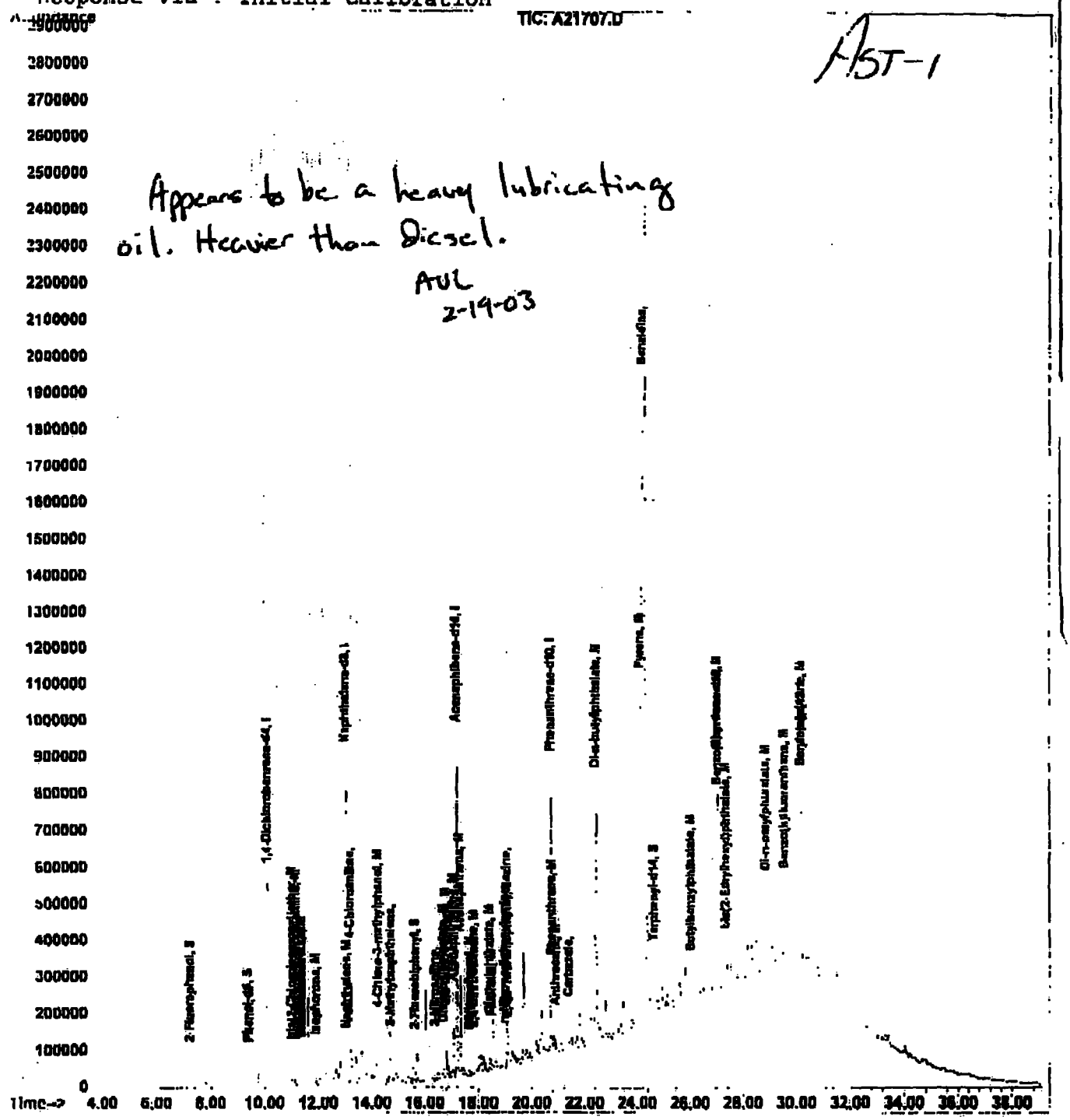
PARAMETER	RESULT mg/kg	REPORTING LIMIT mg/kg	METHOD NUMBER
Diesel Range Organics	420000	44000	EPA 8015 Mod.

SURROGATE PERFORMANCE	RECOVERY %	CONTROL LIMIT %
Triacontane	91	50 - 118

U = Undetected at reporting limits

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D Vial: 7
Acq On : 17 Feb 2003 5:02 pm Operator: AVL/TC
Sample : DB116-01 DIL=10 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003 Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



AST-1

Appears to be a heavy lubricating oil. Heavier than Diesel.
AVL
2-19-03

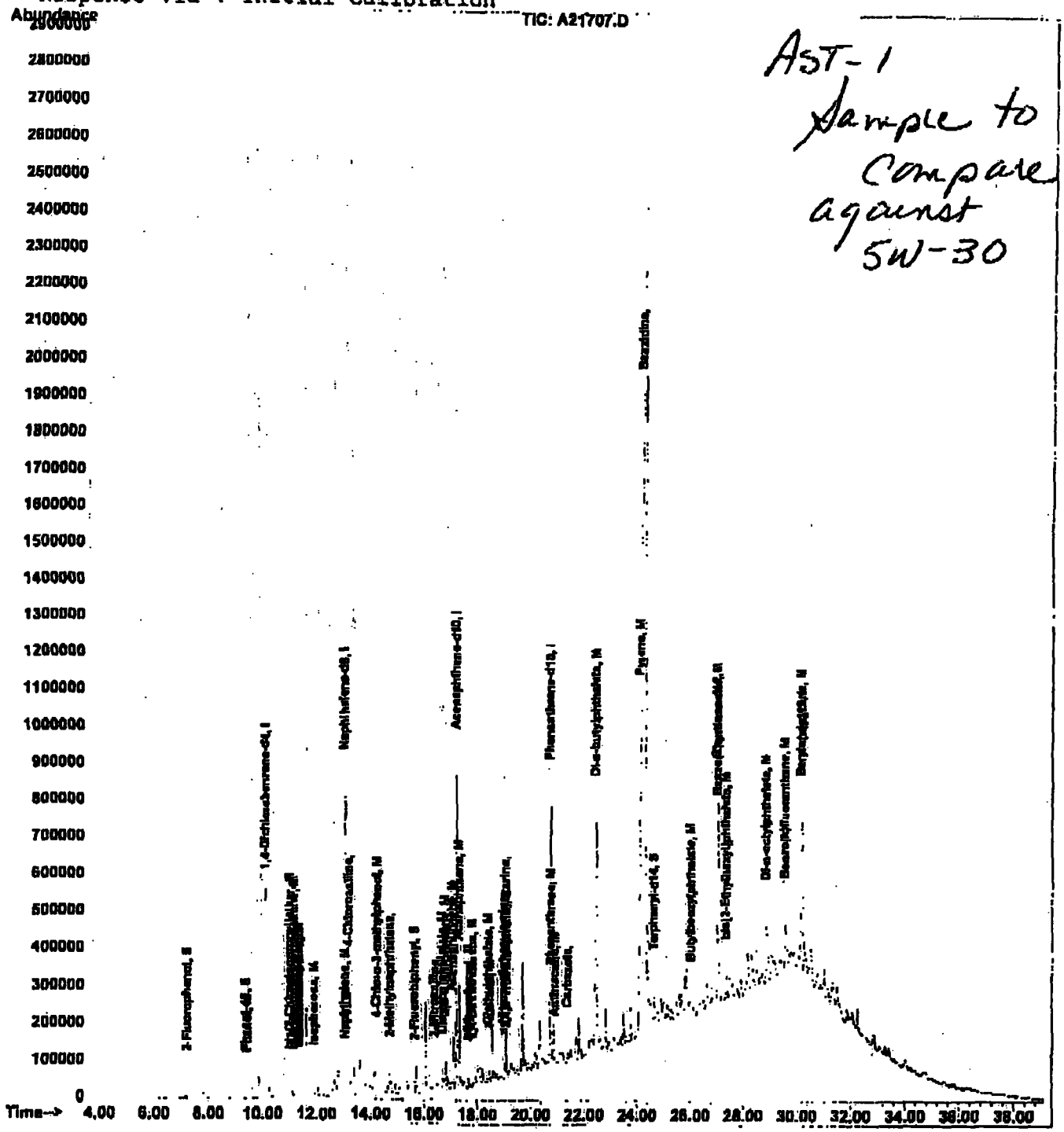
Quantitation Report

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D
Acq On : 17 Feb 2003 5:02 pm
Sample : DB116-01 DIL=10 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003

Vial: 7
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\A2-17-03\A21708.D
Acq On : 17 Feb 2003 5:52 pm
Sample : DB116-02 DIL=10 BNA
Misc : WASTE DILUTION
MS Integration Params: rteint.p
Quant Time: Feb 17 18:31 2003

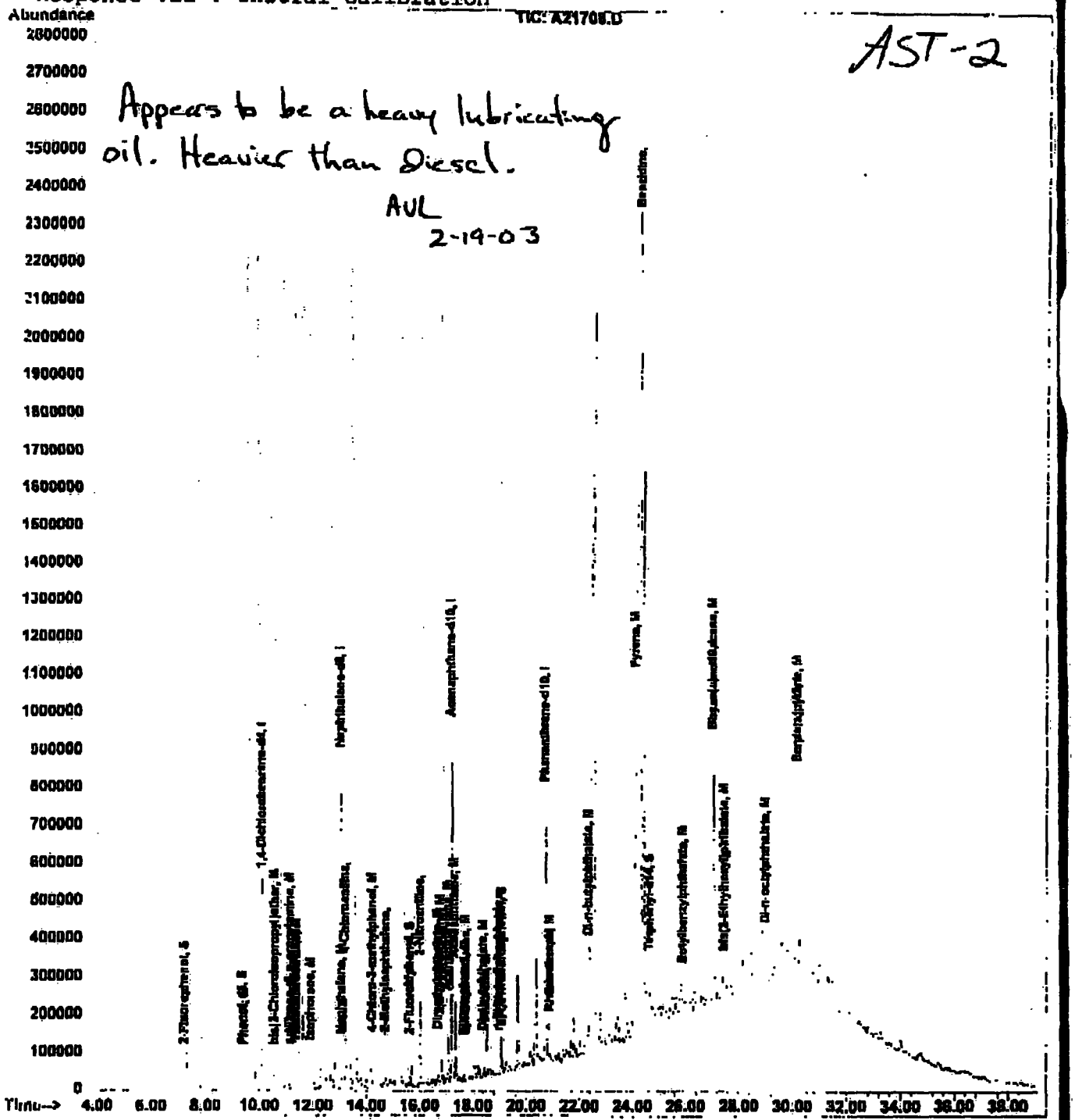
Vial: 8
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration

AST-2

Appears to be a heavy lubricating oil. Heavier than Diesel.
AVL
2-19-03

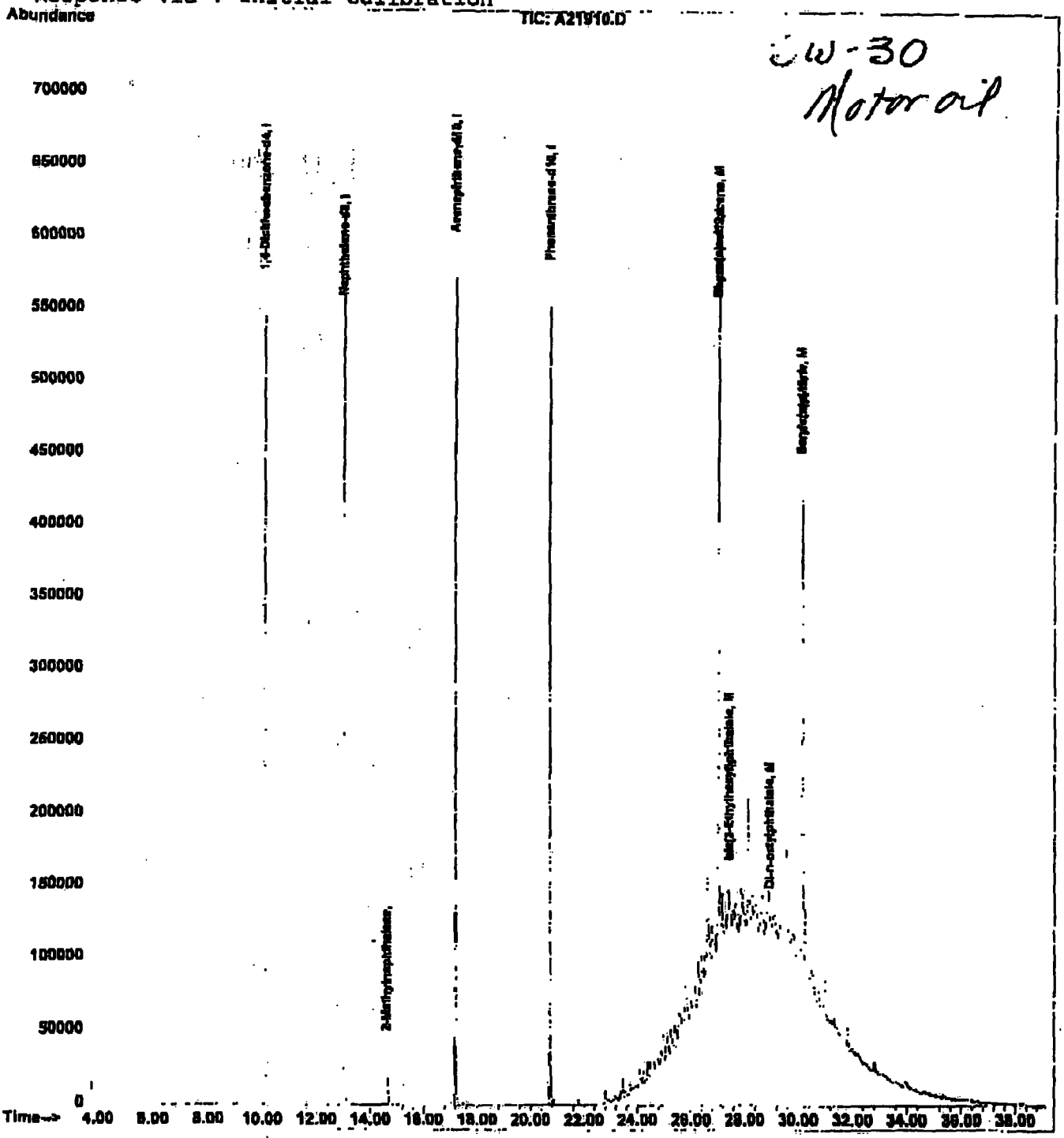


Data File : C:\HPCHEM\1\DATA\A2-19-03\A21910.D
Acq On : 19 Feb 2003 2:38 pm
Sample : MOTOR OIL (5W30)
Misc :
MS Integration Params: rteint.p
Quant Time: Feb 19 15:17 2003

Vial: 10
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



phone 231-773-5998
toll-free 800-733-5998
fax 231-773-6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-3673
www.trace-labs.com

TRACE
the science of compliance

Mr. Dan Capone
Weston Solutions Inc.

TRACE ID: DB116
REPORT DATE: 02/24/03
METHOD: EPA 418.1
ANALYST: cr
SAMPLE RECEIVED: 02/14/03
SAMPLE TYPE: Oil
SAMPLER: NA

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
BATCH ID: TPH021401W

TRACE SAMPLE NO.	SAMPLE DATE	SAMPLE ID	TOTAL PETROLEUM HYDROCARBONS	REPORTING LIMIT	ANALYZED
01	02/13/03	AST-1 (0-3' Water-Oily)	100%	0.0050%	02/20/03
02	02/13/03	AST-2 (18' Sludge-Material)	100%	0.0050%	02/20/03
Method Blank		SB021401	U	0.0050%	02/20/03

U = Undetected at reporting limits

Quality Control Results

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2341 Black Creek Road
Muskegon, MI 49444-2873
www.trace-labs.com

TRACE
the science of compliance

Mr. Dan Capone
Weston Solutions Inc.

TRACE ID:	DB116
REPORT DATE:	02/24/03
ANALYSIS DATE:	02/17/03
EXTRACTION DATE:	02/14/03
ANALYST:	tc
D.L. MULTIPLIER:	1
SAMPLE DATE:	NA
SAMPLE RECEIVED:	NA
SAMPLE TYPE:	Oil
SAMPLER:	NA

CLIENT ID: Project #W.O. 12834.001.001.0309.00
USEPA-Sybill Site
SAMPLE ID: Method Blank OB021401
BATCH ID: BNA021401O

EPA 8270 MASS SPECTROMETRY SEMI-VOLATILE ORGANICS TARGET COMPOUND LIST	RESULT mg/kg	REPORTING LIMIT mg/kg
bis(2-Chloroethyl)ether	U	25
2-Chlorophenol	U	25
Phenol	U	25
1,3-Dichlorobenzene	U	25
1,4-Dichlorobenzene	U	25
1,2-Dichlorobenzene	U	25
Benzyl alcohol	U	25
bis(2-Chloroisopropyl)ether	U	25
2-Methylphenol	U	25
3/4-Methylphenol	U	25
N-Nitroso-di-n-propylamine	U	25
Hexachloroethane	U	25
Nitrobenzene	U	25
Isophorone	U	25
2-Nitrophenol	U	25
2,4-Dimethylphenol	U	25
bis(2-Chloroethoxy)methane	U	25
Benzoic acid	U	50
1,2,4-Trichlorobenzene	U	25
2,4-Dichlorophenol	U	25
Naphthalene	U	25
4-Chloroaniline	U	25
Hexachloro-1,3-butadiene	U	25
4-Chloro-3-methylphenol	U	25
2-Methylnaphthalene	U	25
Hexachlorocyclopentadiene	U	50
2,4,6-Trichlorophenol	U	25
2,4,5-Trichlorophenol	U	25
2-Chloronaphthalene	U	25
2-Nitroaniline	U	25
Dimethylphthalate	U	25
Acenaphthylene	U	25
2,6-Dinitrotoluene	U	25
3-Nitroaniline	U	25
Acenaphthene	U	25
Dibenzofuran	U	25
2,4-Dinitrotoluene	U	25
4-Nitrophenol	U	200
2,4-Dinitrophenol	U	200
Diethylphthalate	U	25
Fluorene	U	25

U = Undetected at reporting limits

phone 231.773.5998
toll-free 800.753.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.traceslabs.com

TRACE
the science of compliance

CLIENT: Weston Solutions Inc.
TRACE ID: DB116

EPA 8270 MASS SPECTROMETRY SEMI-VOLATILE ORGANICS TARGET COMPOUND LIST	RESULT mg/kg	REPORTING LIMIT mg/kg
4-Chlorophenyl-phenylether	U	25
4-Nitroaniline	U	25
4,6-Dinitro-2-methylphenol	U	50
N-Nitrosodiphenylamine	U	25
4-Bromophenyl-phenylether	U	25
Hexachlorobenzene	U	25
Pentachlorophenol	U	50
Phenanthrene	U	25
Anthracene	U	25
Carbazole	U	25
Di-n-butylphthalate	U	25
Fluoranthene	U	25
Pyrene	U	25
Butylbenzylphthalate	U	25
Benzo(a)anthracene	U	25
Chrysene	U	25
3,3'-Dichlorobenzidine	U	25
bis(2-Ethylhexyl)phthalate	U	25
Di-n-octylphthalate	U	25
Benzo(b)fluoranthene	U	25
Benzo(k)fluoranthene	U	25
Benzo(a)pyrene	U	25
Indeno(1,2,3-cd)pyrene	U	25
Dibenzo(a,h)anthracene	U	25
Benzo(g,h,i)perylene	U	25

SURROGATE PERFORMANCE	RECOVERY %	CONTROL LIMIT %
2-Fluorophenol	90	70 - 130
Phenol-D50	91	70 - 130
Nitrobenzene-D50	91	70 - 130
2-Fluorobiphenyl	94	70 - 130
2,4,6-Tribromophenol	76	70 - 130
p-Terphenyl-d14	96	70 - 130

U = Undetected at reporting limits

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2341 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

LCS Recovery and RPD Summary Report

Trace ID : OS021401/OSD021401
QC Batch ID: BNA 0214010
Analytical Batch: A217003
Extraction Date: 2-14-03
Analysis Date: 2-17-03

Analyst Initials: TC
Matrix: OTHER
Method Number: 8270
Client: R.F. WESTON
LCS Multiplier: 1.00
LCSD Multiplier: 1.00

Compound Name	Sample Conc. ug/l	LCS Spk Added ug/l	LCSD Spk Added ug/l	LCS Final ug/l	LCSD Final ug/l	LCS %Rec	LCSD %Rec	RPD	QC Limits RPD	QC Limits %Rec
2-Chlorophenol	0.0	200	200	200	190	100	95	5.1	30	40-160
Phenol	0.0	200	200	180	180	90	90	0.0	30	40-160
1,4-Dichlorobenzene	0.0	100	100	100	100	100	100	0.0	30	40-160
N-Nitroso-di-n-propylamine	0.0	100	100	99	97	99	97	2.0	30	40-160
1,2,4-Trichlorobenzene	0.0	100	100	110	100	110	100	9.5	30	40-160
4-Chloro-3-methylphenol	0.0	200	200	180	180	90	90	0.0	30	40-160
Acenaphthene	0.0	100	100	99	98	99	98	1.0	30	40-160
2,4-Dinitrotoluene	0.0	100	100	73	71	73	71	2.8	30	40-160
4-Nitrophenol	0.0	200	200	140	130	70	65	7.4	30	40-160
Pentachlorophenol	0.0	200	200	170	170	85	85	0.0	30	40-160
Pyrene	0.0	100	100	94	94	94	94	0.0	30	40-160

Surrogates	Amount Added	LCS Conc	LCSD Conc	LCS %Rec	LCSD %Rec	QC Limits % Rec
2-Fluorophenol	100	90	87	90	87	70-130
Phenol-d5	100	98	99	98	99	70-130
Nitrobenzene-d5	100	88	88	88	88	70-130
2-Fluorobiphenyl	100	96	95	96	95	70-130
2,4,6-Tribromophenol	100	93	93	93	93	70-130
p-Terphenyl-d14	100	92	95	92	95	70-130

phone 231-773-5998
toll-free 800-733-5998
fax 231-773-6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

Mr. Dan Capone
Weston Solutions Inc.

TRACE ID: DB116
REPORT DATE: 02/24/03
ANALYSIS DATE: 02/17/03
EXTRACTION DATE: 02/14/03
ANALYST: tml
SAMPLE DATE: NA
SAMPLE RECEIVED: NA
SAMPLE TYPE: Oil
SAMPLER: NA

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
SAMPLE ID: Method Blank OB021401
BATCH ID: DRO021401S

PARAMETER	RESULT mg/kg	REPORTING LIMIT mg/kg	METHOD NUMBER
Diesel Range Organics	U	1000	EPA 8015 Mod.

SURROGATE PERFORMANCE	RECOVERY %	CONTROL LIMIT %
Triacontane	88	50 - 118

U = Undetected at reporting limits

phone 231.773.5998
toll-free 800.733.5948
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2623
www.trace-labs.com

TRACE
the science of compliance

Laboratory Control Spike Recovery and RPD Summary Report

Trace ID: OS, OSD 021401
QC Batch ID: DR0021401S
Analytical Batch:
Extraction Date: 2-14-03
Analysis Date: 2-17-03

Analyst Initials: TML
Matrix: OIL
Method Number: Modified 8015
Client: Weston DB116

Multiplier: 1.0000

Compound Name	Blank Conc. mg/kg	LCS Spk Added mg/kg	LCSD Spk Added mg/kg	LCS Final mg/kg	LCSD Final mg/kg	LCS %Rec	LCSD %Rec	RPD	QC Limits RPD	QC Limits %Rec
Diesel Range Organics	0	500	500	432	443	86	89	2.5	25	66-120

Surrogates	Amount Added	LCS Conc	LCSD Conc	LCS %Rec	LCSD %Rec	QC Limits % Rec
Triacontane	200	181	176	91	88	50-118

* = see narrative below

TRACE
the artwork of compliance
phone 231-773-5998
toll-free 800-733-5998
fax 231-773-6537
Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

Quality Control Report for Wet Chemistry

TPH

Trace LCS ID:	SS/SSD021401
QC Batch ID:	TPH021401S
Analysis Date:	02/20/03
MS/MSD ID:	*
Method:	418.1

Parameter	Method Blank Result (mg/kg)	LCS Spk. Added (mg/kg)	LCSD Spk. Added (mg/kg)	LCS Result (mg/kg)	LCSD Result (mg/kg)	LCS % Recovery	LCSD % Recovery	RPD	Control Limits % Recovery	Control Limits RPD
TPH	U	809.8	809.8	858.7	845.1	106	104	1.9	49 - 154	6.9

*A matrix spike and matrix spike dipicate were not performed because of high hydrocarbon background concentrations of the samples in the batch.

Trace Analytical Laboratories, Inc. RVWORG.XLS Rev.3
Organics File Review 7/30/97
Trace Job No. DB116

PART 2: ORGANIC MANAGER REVIEW

	DB				
Appropriate SOPs have been followed	X				
Extraction date on benchsheet	X				
Analyst initials are on benchsheet	X				
Analysis date is on benchsheet	X				
Analysis in file matches request on COC, all requested analytes have been looked for	X				
Calibration data are scientifically sound, appropriate and documented	X				
Quantitative results and detection limits have been reviewed	X				
Detection limit multiplier is correct	X				
Qualitative results have been checked	X				
Quality control issues are explained on benchsheet and noted to report if necessary	X				
Significant figures are correct	X				
Transcriptions are correct from quantitation reports to benchsheets	X				
Extraction amounts on benchsheet match extraction log	X				
Extraction hold times were met	X				
Analyst review has been checked	X				
Analysis is approved for release to reporting	X				

Notations/Comments:

Signed/Date 2/18/03

Trace Analytical Laboratories, Inc.
Organics File Review
Trace Job No. DB116

RVWORG.XLS

Rev. 3
7/30/97

PART 1: ANALYST REVIEW

GC/MS Analysis	624	625	8260	8270
Appropriate SOP has been followed				✓
Sample preparation information is correct and complete				
BFB/DFTPP tune passes criteria				
SPCC and CCC compounds pass criteria				
All other compounds pass 40 % criteria				
Method blank and reagent blank frequency and QC criteria have been met				
All samples are analyzed within 12 hours of the tune				
All sample hold times are met for analysis				
Internal Standards QC criteria has been met or narrated				
Surrogate recoveries have met QC criteria or been qualified and narrated on benchsheet				
All compounds quantitated are within the calibration curve				
MS/MSD criteria has been met or qualified and narrated on benchsheet				
LCS data has been met or qualified and narrated on benchsheet				
Primary sample qualifiers have been added to benchsheet and explained if necessary				

Notations/Comments:

Signed/Date

Signed/Date

Signed/Date

Signed/Date [illegible] 7-12-03

Trace Analytical Laboratories, Inc.
Organics File Review
Trace Job No. D3116

RVWORG.XLS

Rev. 3
7/30/97

PART 1: ANALYST REVIEW

	8081	8150, 515.1	8015	601	8021	601/602
GC Analysis: Semi-Volatiles						
Appropriate SOP has been followed			✓			
Sample preparation information is correct and complete			✓			
DDT and Endrin breakdown passes QC criteria			—			
The CCV has been analyzed at the proper frequency			✓			
The ICV and all CCVs have passed QC criteria			✓			
Method blank and reagent blank criteria have been met			✓			
All samples have been analyzed within hold times			✓			
All surrogate recoveries are within QC limits			✓			
All quantitation is within the calibration curve			✓			
All single component pesticides & herbicides are confirmed on a second column			—			
All internal standard areas are within QC limits			—			
MS/MSD data has been met or			—			
LCS data has been checked against QC criteria			✓			
Qualifiers have been added to the benchsheets and explained			✓			
GC Analysis: Volatiles						
Appropriate SOP has been followed						
Sample preparation information is correct and complete						
The CCV has been analyzed at the proper frequency						
The CCV has passed QC criteria						
Method blank and reagent blank criteria have been met						
All samples have met hold times						
All surrogate recoveries are within QC limits						
All quantitations are within the calibration curve						
All internal standard areas are within QC limits						
MS/MSD data has been checked against QC criteria						
LCS data has been checked against QC criteria						
Qualifiers have been added to the benchsheets and explained						
Signature						

Notations/Comments:

Trace Analytical Laboratories, Inc.
Wet Chemistry File Review
Trace Job No. D6116

rwwwet.xls

Rev.4
7/30/97

Please enter method here → T214

PART 1: ANALYST REVIEW

Sample analyzed within hold time	☒							
Analysis in file matches COC	☒							
Sample preparation information is correct and complete	☒							
MS/MSD are within established control limits	☒							
Blanks are within established control limits	☒							
Laboratory control samples are within established control limits	☒							
Qualifiers have been added to benchsheet and explained correctly	☒							
Appropriate SOPs have been followed	☒							
Analyst initials are on benchsheet	☒							
Analysis date is on benchsheet	☒							
Quantitative results are correct and complete	☒							
All data is generated with a valid calibration curve	☒							
Reporting limits have been adjusted if necessary	☒							
Signed/Date	2-21-03 CR							

Notations/Comments:

Raw Data

WESTON SOLUTIONS
Restoring Resource Efficiency

Weston Solutions of Michigan, Inc.
2501 Jolly Road
Suite 100
Okemos, MI 48864
517-381-5920 • 517-381-5921
www.westonsolutions.com

FACSIMILE TRANSMITTAL

FAX 517-381-5921

To: Rebecca **Recipient's Facsimile #** _____

Recipient's Telephone # _____

From: Dan Capone **Originator's Telephone #** _____

Total Pages: 15 (Incl. cover sheet)

Date: 2-25-03 **W.O. #:** _____

Comments:

Rebecca —

Here's the Sy.S.I Data.

Dan

WESTON...Restoring Resource Efficiency

Our services encompass environmental remediation, redevelopment, and management and compliance.

Our emphasis on restoring resource efficiency to our clients' operations—including land, air, water, facilities, and staff—ensures that clients derive maximum value from their resources.

The documents accompanying this telecopy transmission contain confidential, privileged or proprietary information that either constitutes the property of Weston Solutions, Inc. (WESTON$_{SM}$) or, if the property of another, represents information that is within WESTON's care, custody and control. The information is intended to be for the use of the individual or entity named on the transmission sheet. If you are not the intended recipient, be aware that any disclosure, copying or use of the contents of this telecopied information is prohibited. If you have received this telecopy in error, please notify us by telephone immediately so that we can arrange for the retrieval of the original documents at no cost to you. Thank you for your assistance.

SAFETY PAYS!

phone 231-773-5998
toll-free 800-733-5998
fax 231-773-6537

Trace Analytical Laboratories, Inc.
2441 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

February 24, 2003

Mr. Dan Capone
Westin Solutions
2501 Jolly Rd. Suite 100
Okemos, MI 48864

RE: TRACE ID DB116
Weston Solutions
Project: Sybill

Dear Mr. Capone:

Enclosed are the analytical results for the above referenced project. The samples were received on February 14, 2003, in good condition, correctly labeled and properly preserved.

The analytical data associated with this project has been reviewed for accuracy, precision, and completeness. Methods used for analyses are indicated on analytical reports. Every practical effort was made to meet the quality control requirements of each analytical method, and the detection level specifications of the project. The GC/MS fingerprint data is included as the chromatogram off the instrument. Also included, is the fingerprint that was performed on 5W-30 motor oil. Perhaps this will facilitate a comparison to help determine the type of contaminant in the samples.

No problems were encountered during the handling and/or analyses of the samples, therefore, no Statement of Data Qualifications was required. Please note that narratives for quality control data which fell outside of specifications, but had no impact on the actual sample data, are included on the individual QC reports. If you have any questions or require further information, please do not hesitate to contact me at 1-800-733-5998 ext. 224.

Sincerely,

Ann L. Preston
Client Services Manager

Enclosures

phone 231.773.5998
toll-free 800.795.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
1241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

February 24, 2003
Mr. Dan Capone
Project : Sybill

CROSS REFERENCE TABLE

WESTON SOLUTIONS ID	TRACE ID
AST-1	DB116-01
AST-2	DB116-02

Chain of Custody Form(s)
Sample Log-in Checklist(s)

Chain of Custody

2/21

2241 Black Creek Rd
Muskegon, MI 49444-2673

Project Number: W.O.# 12634.001.001.0309.00

Date: 2/13/03

Date Due:

Firm Name: Weston Solutions of MI, Inc.

Turn around time: 5 business days

Firm Address: 2501 Jolly Rd Suite 100

Project Name: USEPA - Sylvill Site

City, State, Zip: Okemos, MI 48864-3515

State Samples Taken From: AST #2 EPA Sylvill Site

Phone: 517 381-5132

Fax: 517 381-5921

Contact Person: Dan Cl Dan

Item No.	Lab I.D.	Client Sample Number	Date Taken	Time Taken	Sample Description (sample type: water, soil, other)	Number of Containers	Analysis Desired (One per line) TPH 418.1	DRO 8015	GC/MS Fingerprint 8270M						Remarks
1		AST-1	2/13/03	1420	0-3' water only	3-8oz	X	X	X						
2		AST-2	2/13/03	1445	18' styrene product	3 8oz	X	X	X						
3															
4															
5															
6															
7															
8															
9															
10															

Relinquished by	Received by	Date	Time
[signature]	[signature]	2-14-03	10:10
FED-EX			

Laboratory use only

☐ Blue Ice ____°

☐ Regular Ice

☐ No Coolant

5 day TAT

Quote 5806

Level III Data Pkg

Date: 2-14-03 Client Name: Weston # of Coolers: 1
HPN #: Project Name: Sybil Site Cooler #s: Clients
Project #: DBICC Logged in by: DSmith Cooler #s:

Cooler Receipt

Cooler/samples delivered by: Trace courier ☐ Hand delivered ☐ Commercial courier ☑ Name of delivery person: Name of courier service: FED EX

Did cooler come with a bill of lading? No ☑ Yes ☐ Way Bill or Tracking #:

COC Seals present and intact on cooler? No ☐ Yes ☑ Custody seals signed by: See Back
Client COC number:
Type of packing in cooler:

Coolant and Temperature

Type of Coolant Used

	Yes	No
Slurry w/ crushed, cubed, or chip ice?	☐	☐
Multiple bags of ice around samples?	☒	☐
Ice Packs/ Blue Ice :	☐	☐
No Coolant Present:		☐

Temperature (as taken in Cooler)

Date: 2-14-03 Time: 10:10
Temperature Blank: °C
Range of 3 samples: 4-6 °C
Melt Water: °C
Ice still present upon receipt: ☑ Yes ☐ No

General

	Yes	No	NA
COC taped to inside of cooler lid?		☑	
All bottles arrived unbroken with labels in good condition?	☑		
Each sample is in a sealed plastic bag?	☑		
Labels filled out completely?	☑		
All bottle labels agree with Chain of Custody (COC)?	☑		
Sufficient sample to run tests requested?	☑		
pH checked and samples at correct pH?			☑
Correct preservative added to samples?			☑
Soil volatiles received and appropriate check in form completed?			☑
Air bubbles absent from VOAs?			☑
COC filled out properly and signed by client?	☑		
COC signed in by TRACE sample custodian?	☑		
Was project manager called and samples discussed?			

Contact: Date:

Notes:

phone 231.773.5998
toll-free 800.733.8098
fax 231-773-6537
Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
traceanalytical@mad.scientist.com

TRACE
Assurance
Accuracy
Accountability

Custody Seal
Shan Hmo 2/13/03

Custody Seal
Shan Hmo 2/13/03

Sample Results

phone 231.773.5998
toll-free 800.733.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2243 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

TRACE ID: DB116-01
REPORT DATE: 02/24/03
ANALYSIS DATE: 02/17/03
EXTRACTION DATE: 02/14/03
ANALYST: tml
SAMPLE DATE: 02/13/03
SAMPLE RECEIVED: 02/14/03
SAMPLE TYPE: Oil
SAMPLER: NA

Mr. Dan Capone
Weston Solutions Inc.

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
SAMPLE ID: AST-1 (0-3' Water-Oily)
BATCH ID: DRO021401S

PARAMETER	RESULT mg/kg	REPORTING LIMIT mg/kg	METHOD NUMBER
Diesel Range Organics	390000	41000	EPA 8015 Mod.
SURROGATE PERFORMANCE		RECOVERY %	CONTROL LIMIT %
Triacontane		89	50 - 118

U = Undetected at reporting limits

phone 231-773-5998
toll-free 800-755-5998
fax 231-773-8537
Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the artistry of compliance

TRACE ID:	DB116-02
REPORT DATE:	02/24/03
ANALYSIS DATE:	02/17/03
EXTRACTION DATE:	02/14/03
ANALYST:	tml
SAMPLE DATE:	02/13/03
SAMPLE RECEIVED:	02/14/03
SAMPLE TYPE:	Oil
SAMPLER:	NA

Mr. Dan Capone
Weston Solutions Inc.

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
SAMPLE ID: AST-2 (18' Sludge-Material
BATCH ID: DRO021401S

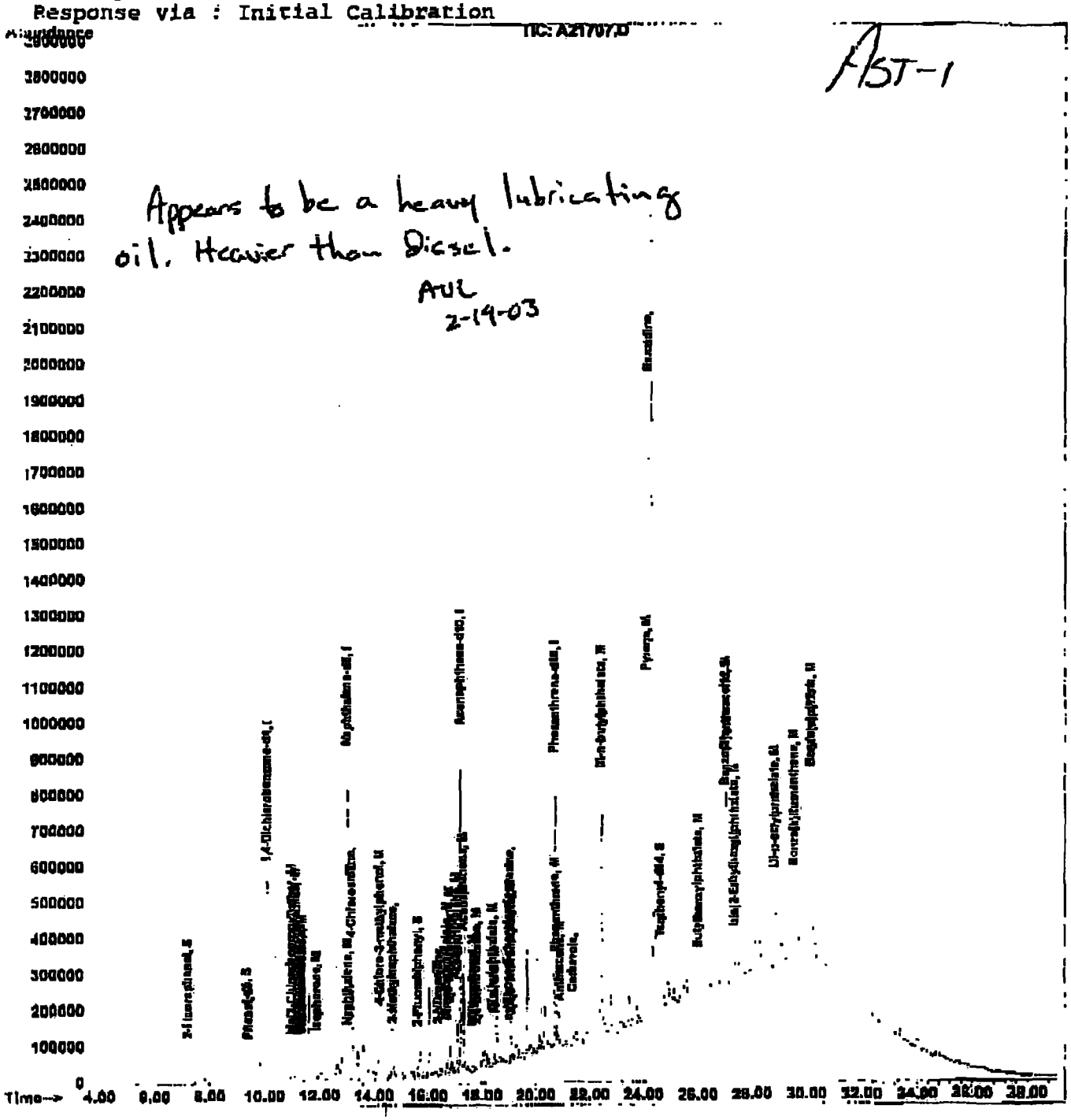
PARAMETER	RESULT mg/kg	REPORTING LIMIT mg/kg	METHOD NUMBER
Diesel Range Organics	420000	44000	EPA 8015 Mod.

SURROGATE PERFORMANCE	RECOVERY %	CONTROL LIMIT %
Triacontane	91	50 - 118

U = Undetected at reporting limits

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D Vial: 7
Acq On : 17 Feb 2003 5:02 pm Operator: AVL/TC
Sample : DB116-01 DIL=10 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003 Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration

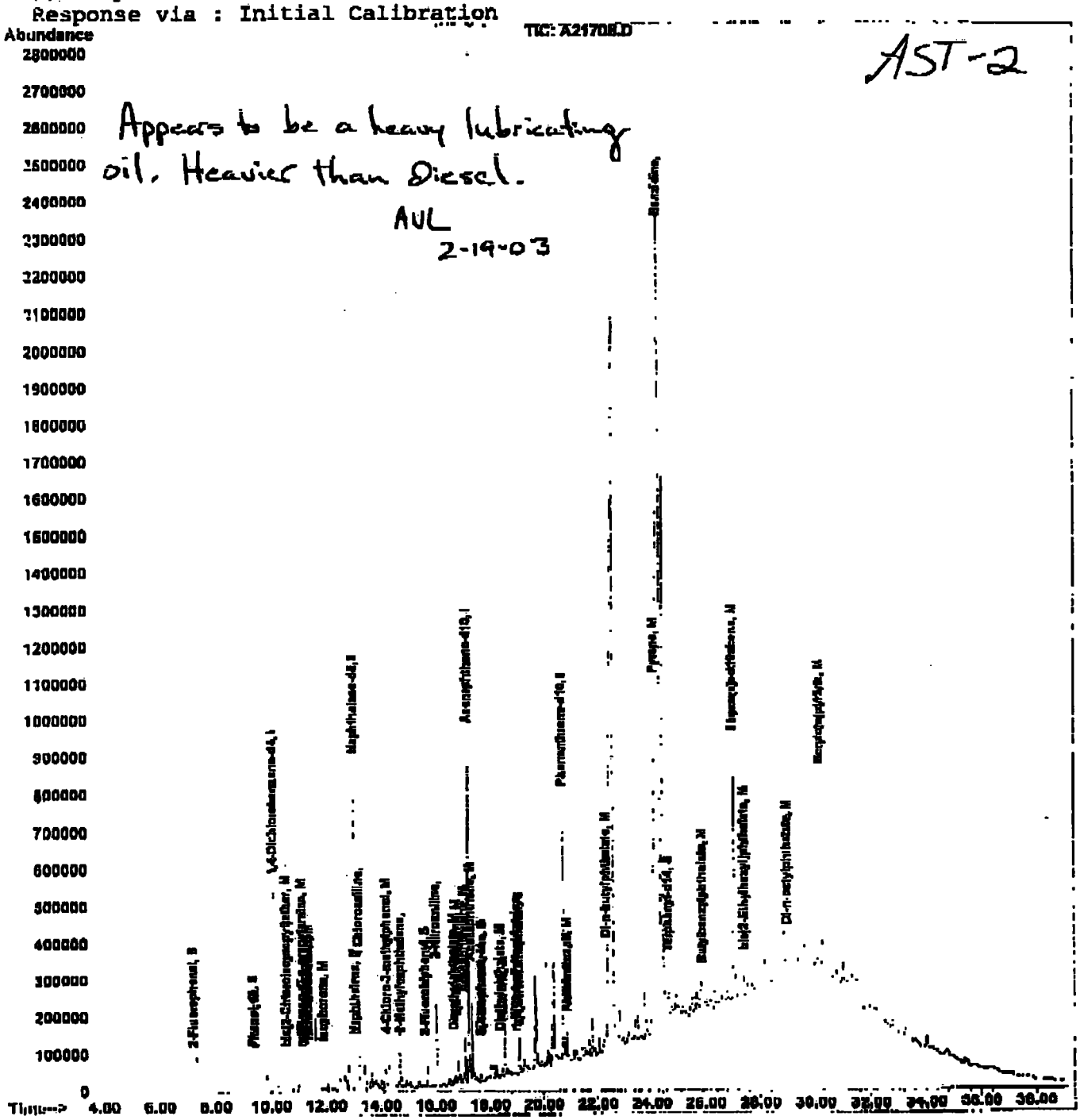


AST-1

Appears to be a heavy lubricating oil. Heavier than Diesel.
AVL
2-19-03

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21708.D Vial: 8
Acq On : 17 Feb 2003 5:52 pm Operator: AVL/TC
Sample : DB116-02 DIL=10 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 18:31 2003 Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



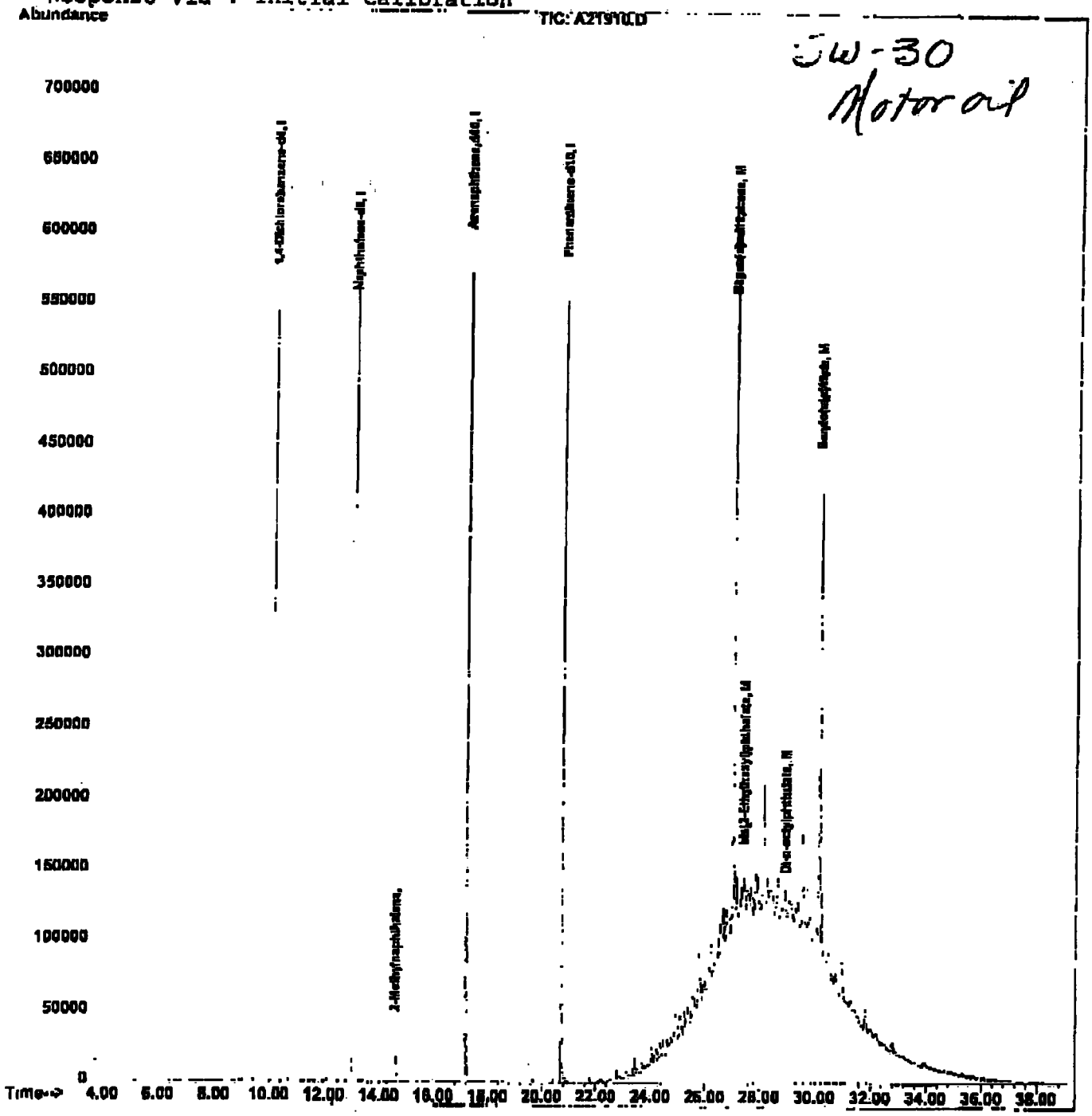
A21708.D DBNA.M Mon Feb 17 18:32:16 2003 Page 4

Data File : C:\HPCHEM\1\DATA\A2-19-03\A21910.D
Acq On : 19 Feb 2003 2:38 pm
Sample : MOTOR OIL (5W30)
Misc :
MS Integration Params: rteint.p
Quant Time: Feb 19 15:17 2003

Vial: 10
Operator: AVL/TC
Inst : Alpha
Multiplr: 1.00

Quant Results File: DBNA.RES

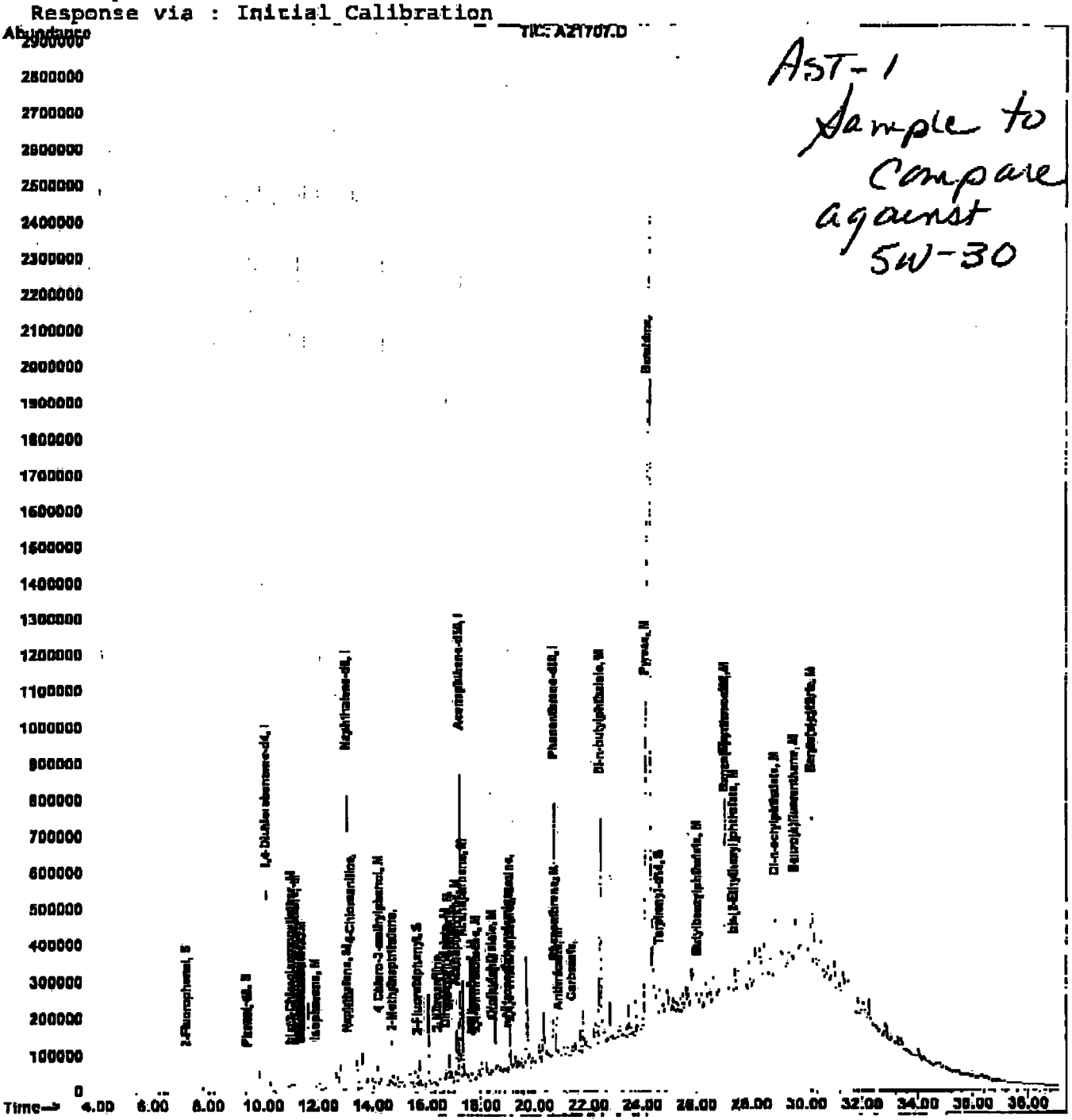
Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Thu Feb 13 15:12:14 2003
Response via : Initial Calibration



A21910.D DBNA.M Wed Feb 19 15:16:00 2003 Page 4

Data File : C:\HPCHEM\1\DATA\A2-17-03\A21707.D Vial: 7
Acq On : 17 Feb 2003 5:02 pm Operator: AVL/TC
Sample : DB116-01 DIL=10 BNA Inst : Alpha
Misc : WASTE DILUTION Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Feb 17 17:42 2003 Quant Results File: DBNA.RES

Method : C:\HPCHEM\1\METHODS\DBNA.M (RTE Integrator)
Title : bna
Last Update : Mon Feb 17 14:20:34 2003
Response via : Initial Calibration



AST-1 sample to compare against SW-30

phone 231.773.5998
toll-free 800.732.5998
fax 231.773.6537

Trace Analytical Laboratories, Inc.
2241 Black Creek Road
Muskegon, MI 49444-2673
www.trace-labs.com

TRACE
the science of compliance

Mr. Dan Capone
Weston Solutions Inc.

TRACE ID: DB116
REPORT DATE: 02/24/03
METHOD: EPA 418.1
ANALYST: cr
SAMPLE RECEIVED: 02/14/03
SAMPLE TYPE: Oil
SAMPLER: NA

CLIENT ID: Project #W.O. 12634.001.001.0309.00
USEPA-Sybill Site
BATCH ID: TPH021401W

TRACE SAMPLE NO.	SAMPLE DATE	SAMPLE ID	TOTAL PETROLEUM HYDROCARBONS	REPORTING LIMIT	ANALYZED
01	02/13/03	AST-1 (0-3' Water-Oily)	100%	0.0050%	02/20/03
02	02/13/03	AST-2 (18' Sludge-Material)	100%	0.0050%	02/20/03
Method Blank		SB021401	U	0.0050%	02/20/03

AST-1 1,150,000 mg/kg
AST-2 1,051,000 mg/kg

U = Undetected at reporting limits