Click Here to Return to AR Index

fund Records Center
SITE:
BREAK:
OTHER: 5262

FINAL GSIP SCOPE OF WORK
Volume 4
DOWNGRADIENT TRANSPORT DRAFT REPORT

Part II of III
Appendices A through F

INDUSTRI-PLEX SITE
WOBURN, MASSACHUSETTS

APRIL 1, 2002

Prepared for:

Industri-Plex Site Remedial Trust
Commerce Way
Woburn, Massachussetts

Prepared by:

ROUX ASSOCIATES, INC.
25 Corporate Drive, Suite 230
Burlington, Massachusetts 01803

ROUX

FINAL GSIP SCOPE OF WORK
Volume 4
DOWNGRADIENT TRANSPORT DRAFT REPORT

Part II of III
Appendices A through F

INDUSTRI-PLEX SITE
WOBURN, MASSACHUSETTS

APRIL 1, 2002

Prepared for:

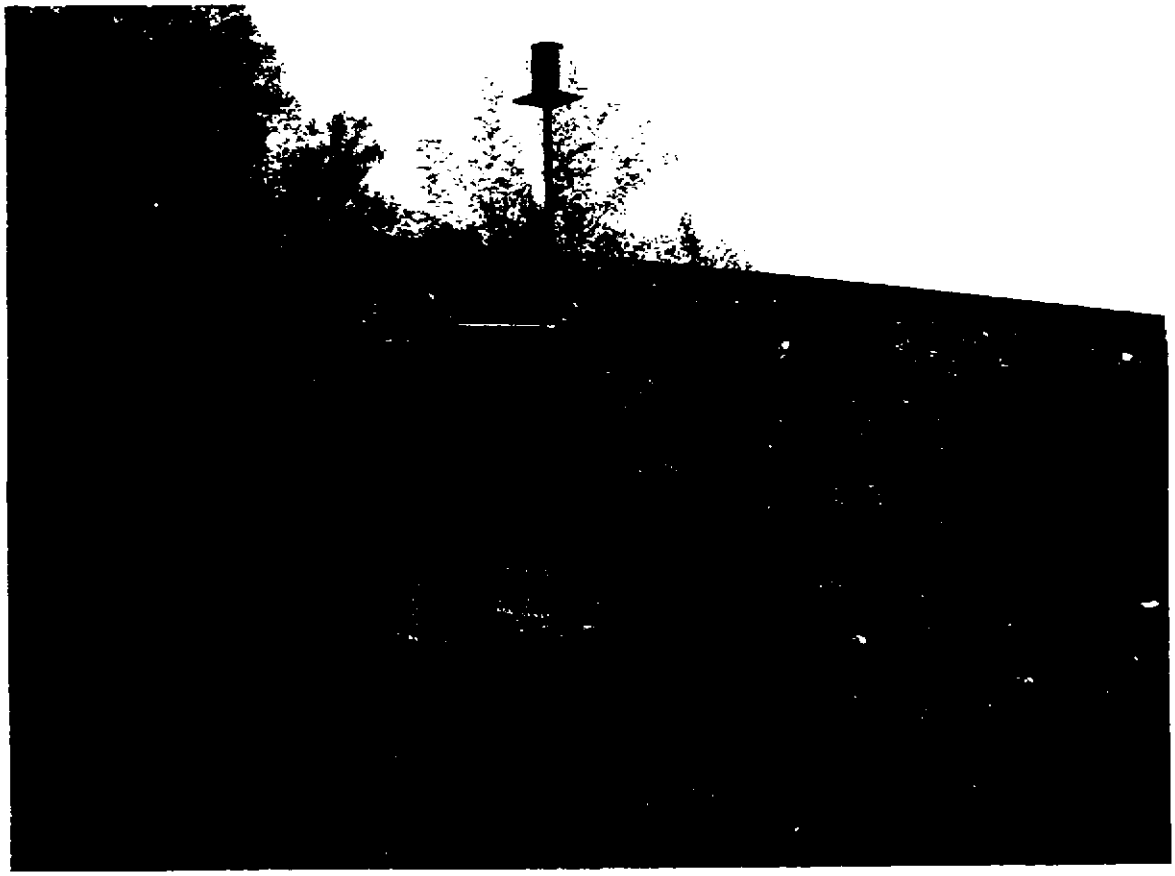
Industri-Plex Site Remedial Trust
Commerce Way
Woburn, Massachussetts

Prepared by:

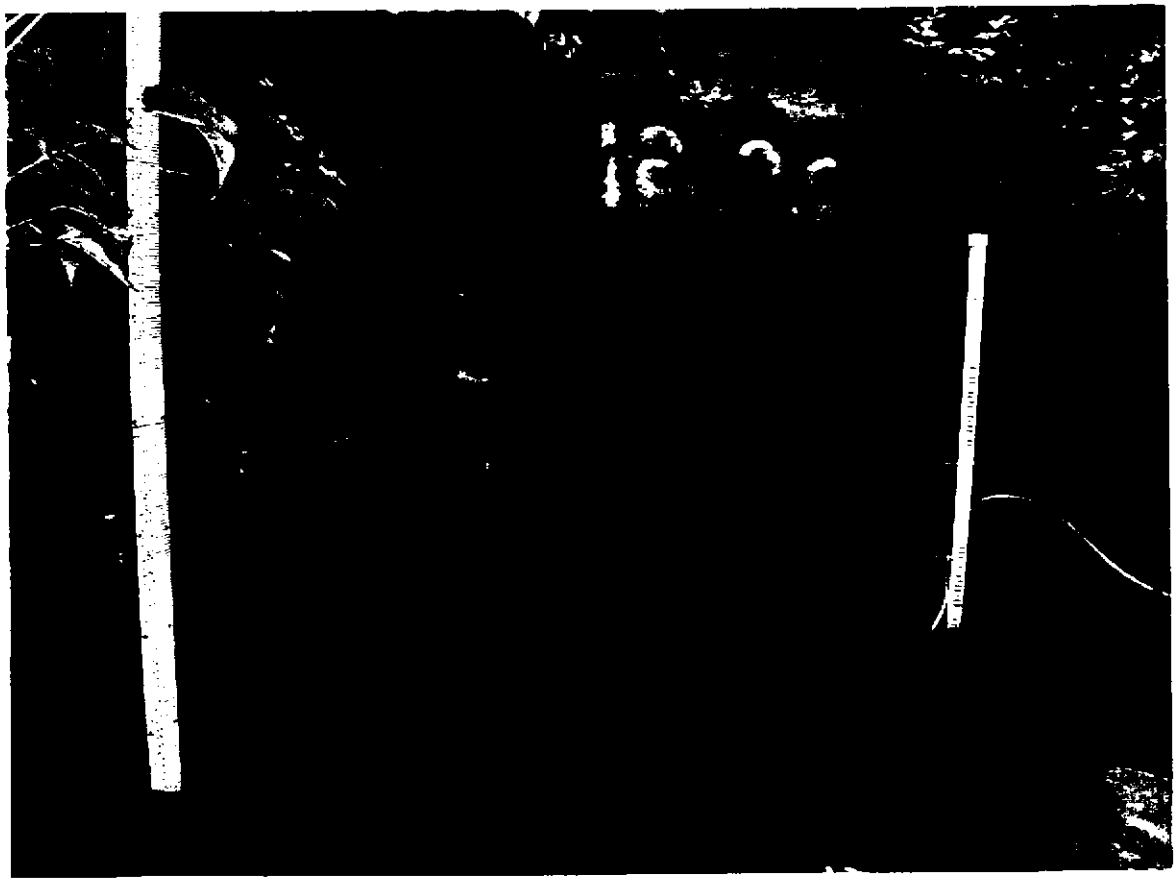
ROUX ASSOCIATES, INC.
25 Corporate Drive, Suite 230
Burlington, Massachusetts 01803

APPENDIX A

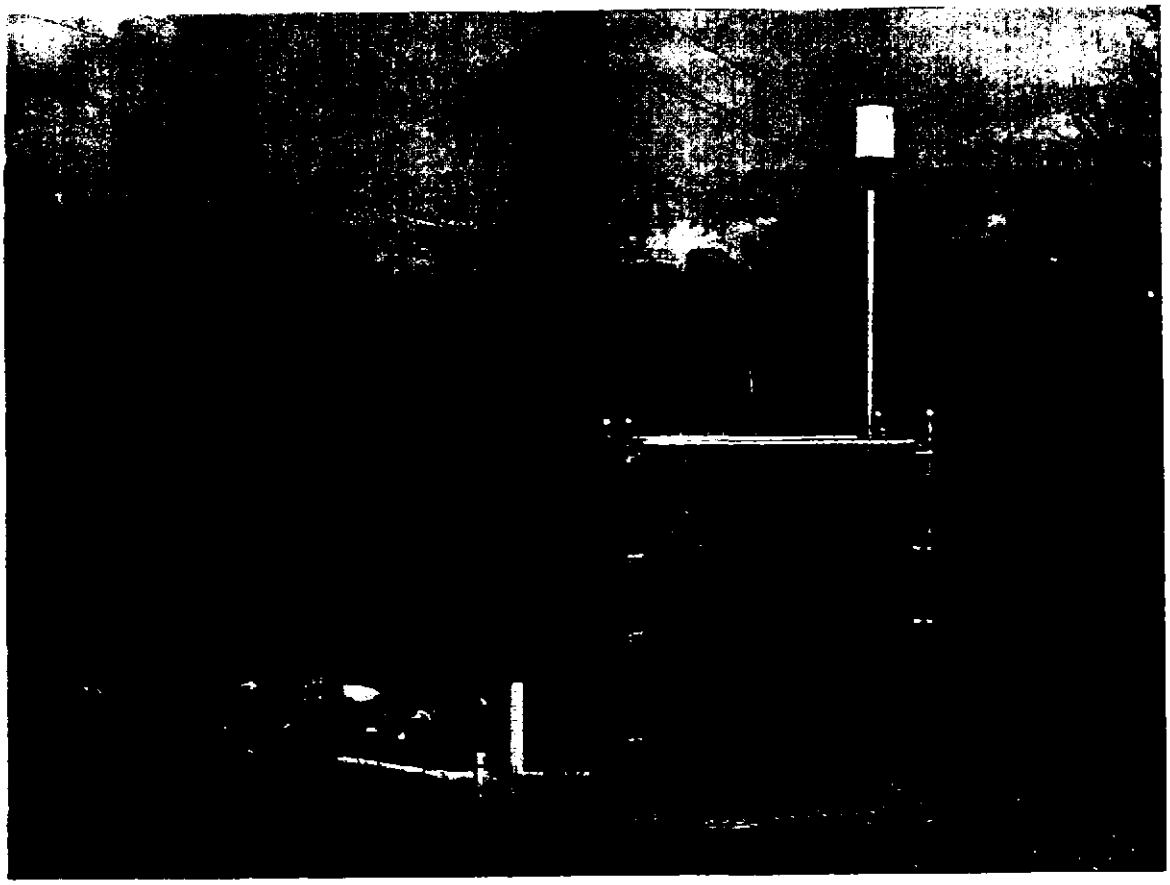
Monitoring Station Photos



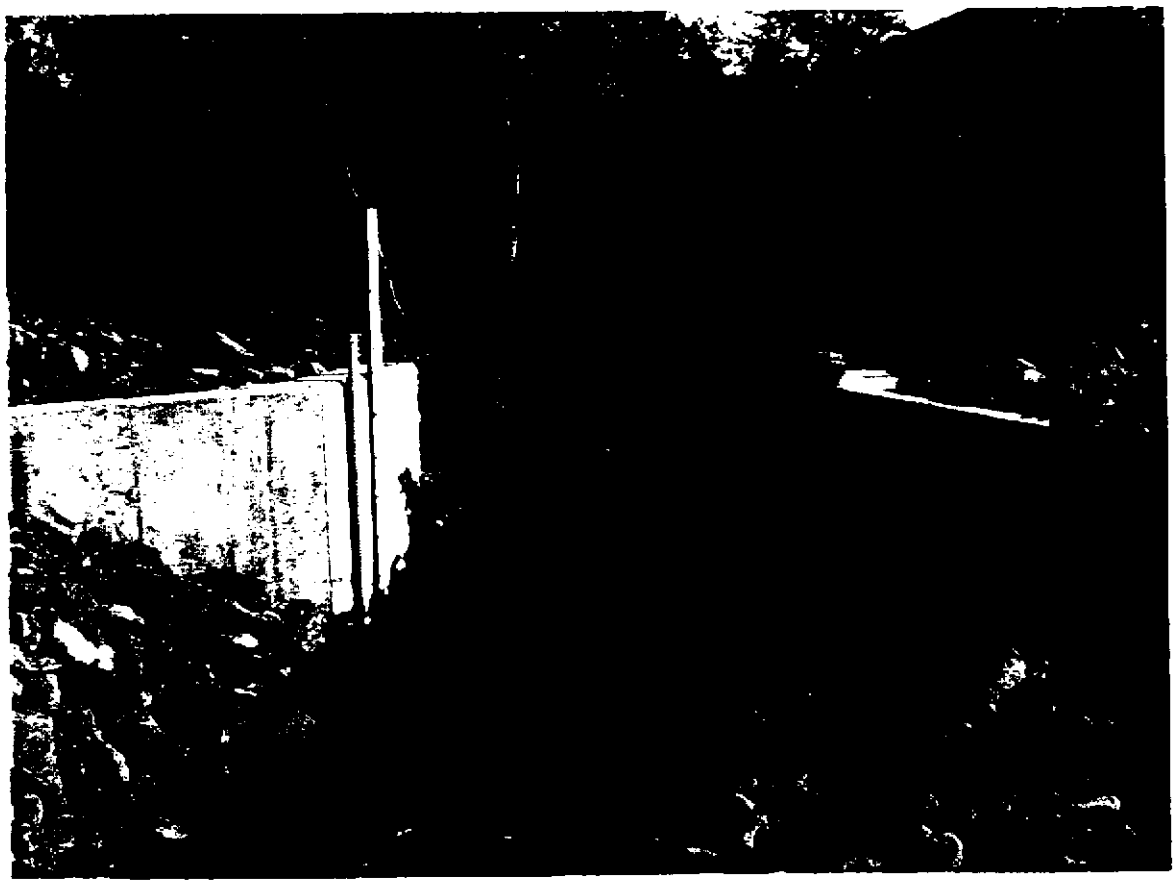
SW-01



Originals in color.



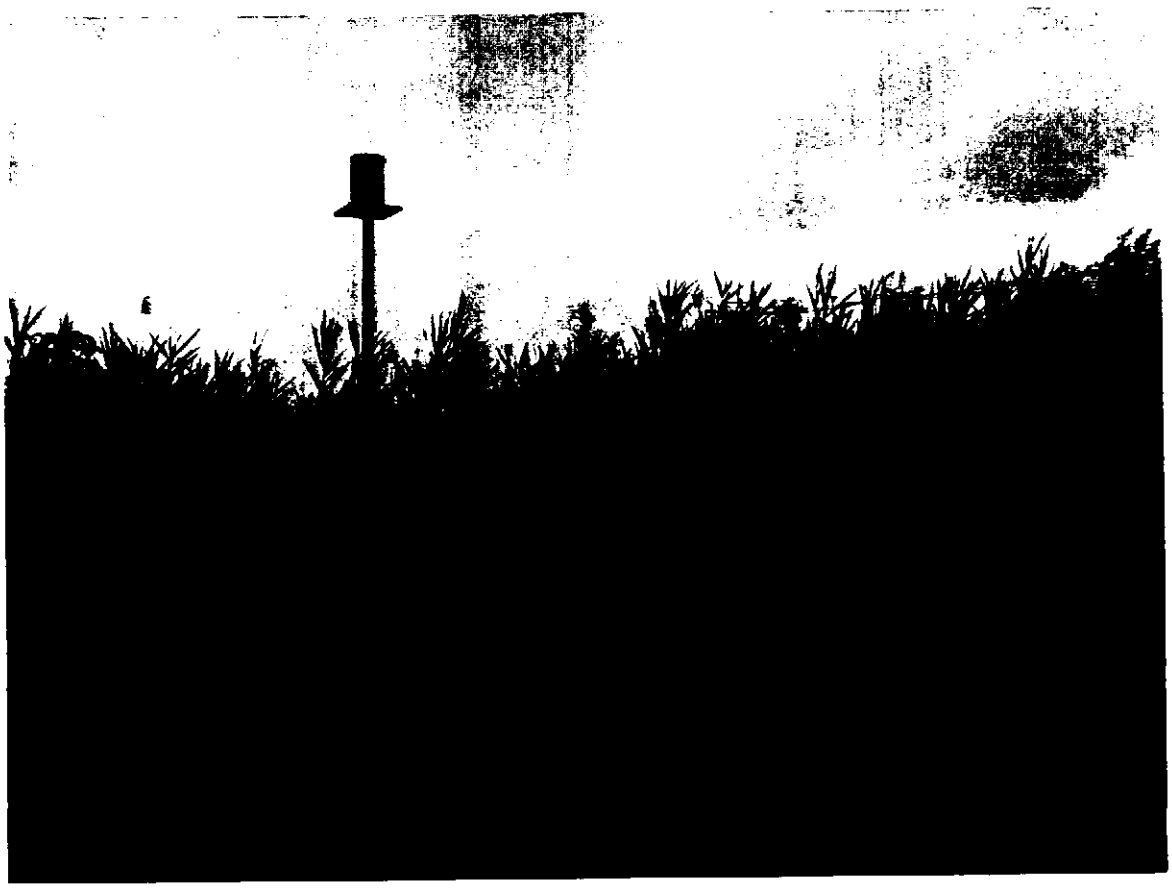
SW-02



Originals in color.

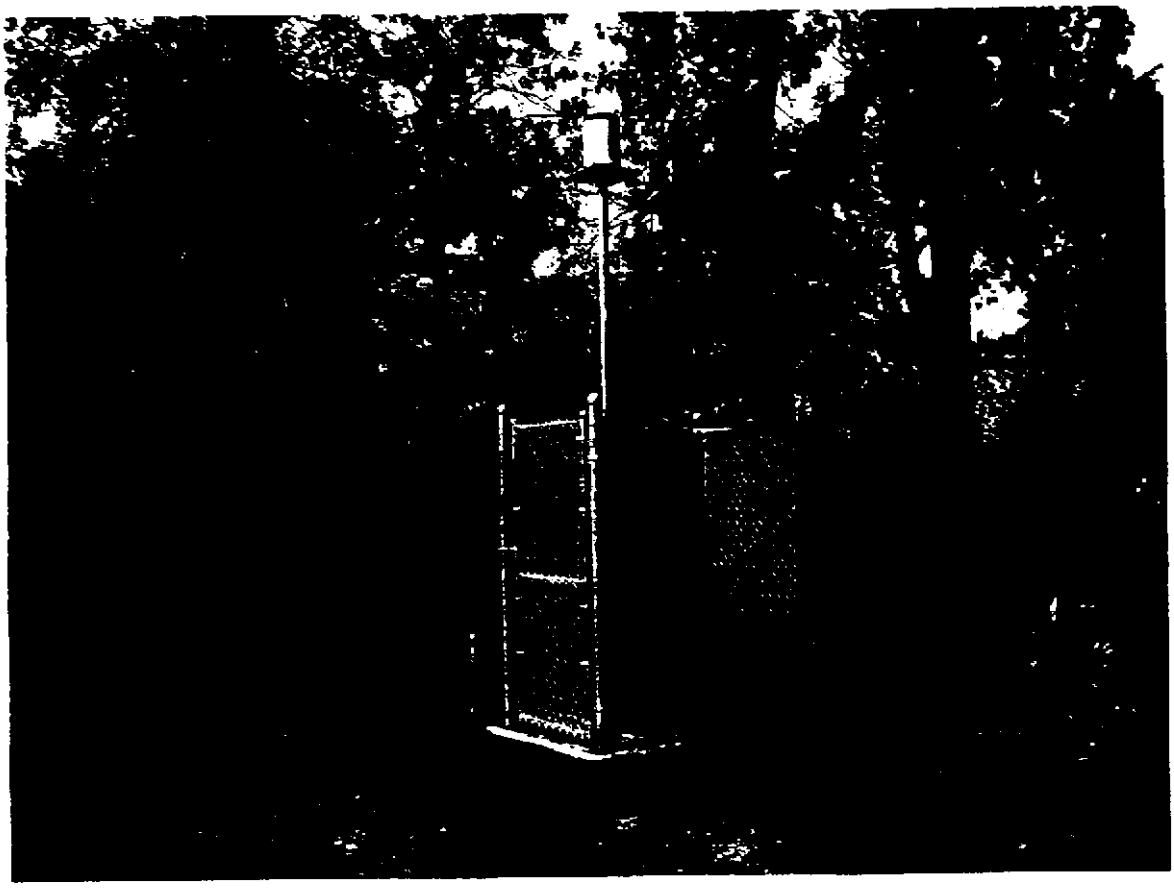
SW-03

Originals in color.

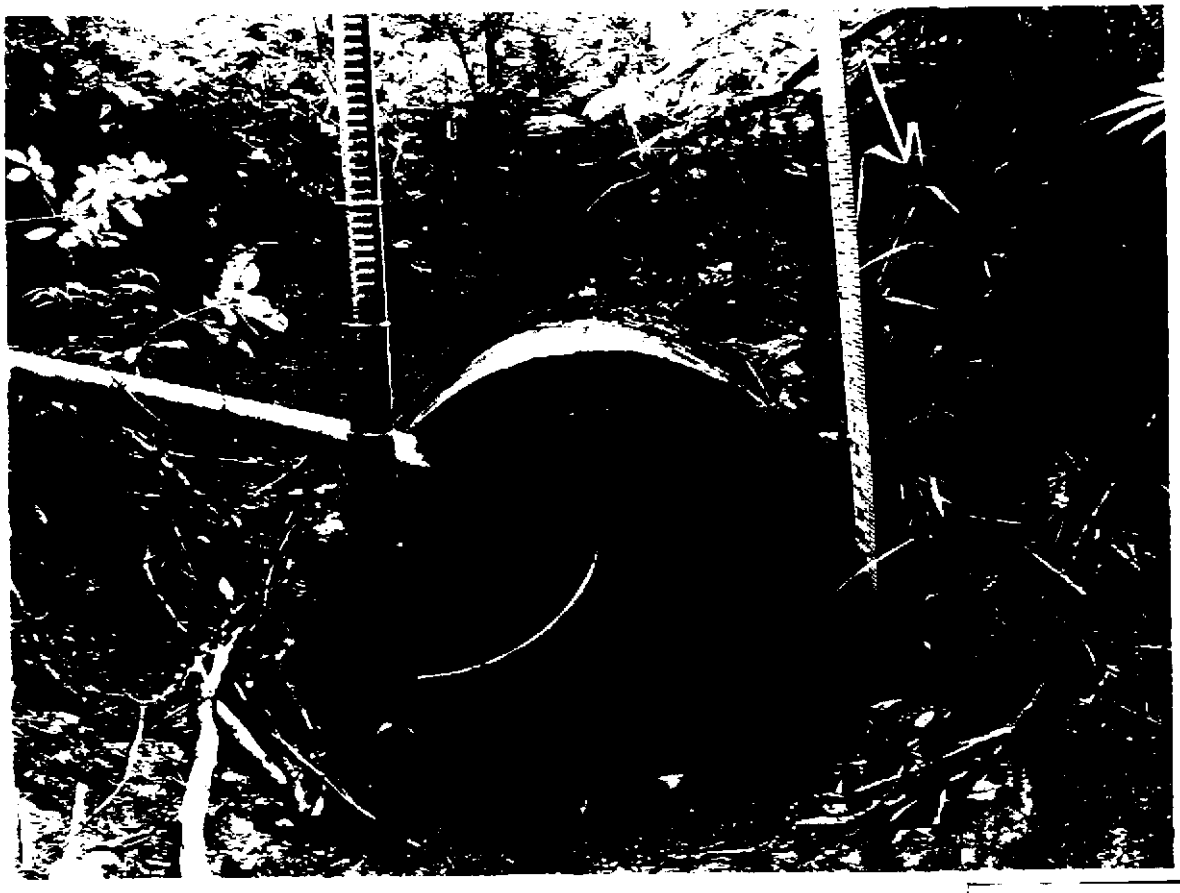


SW-04

Originals in color.



SW-05

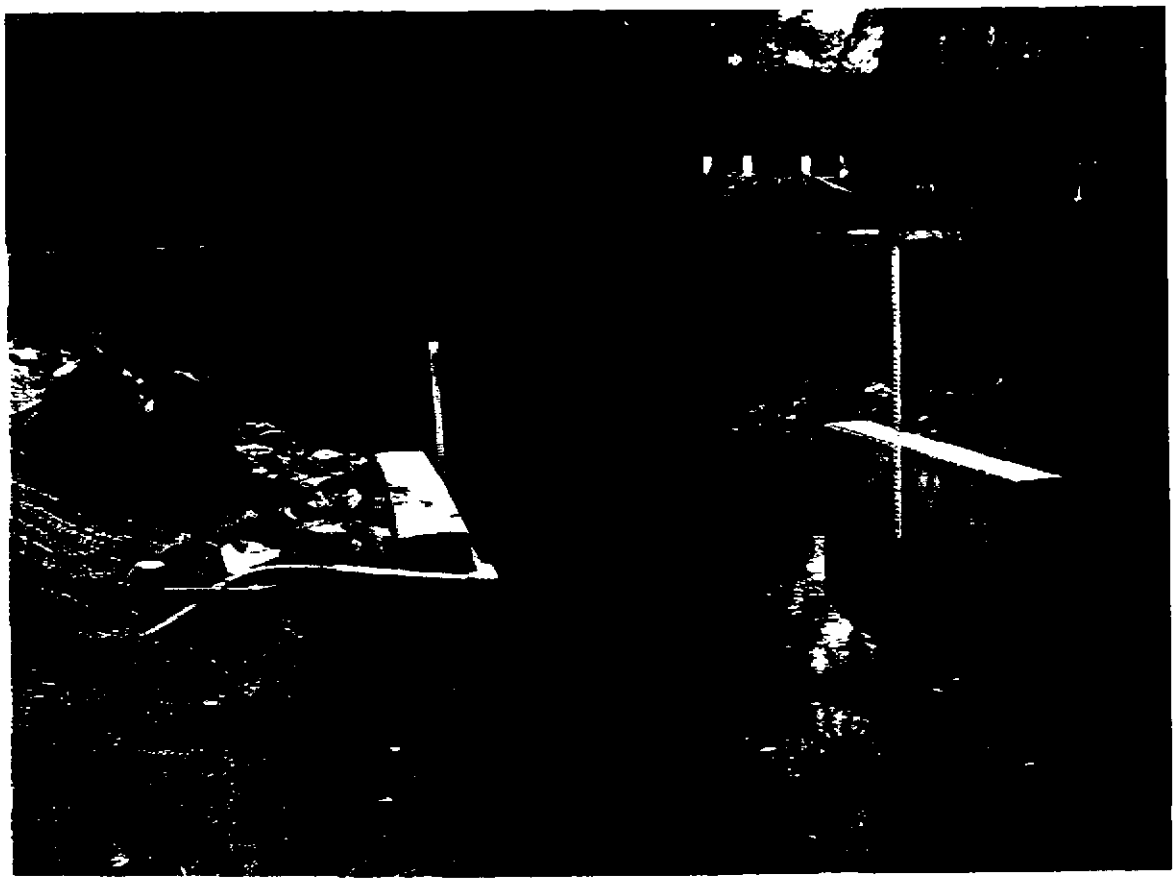


Originals in color.

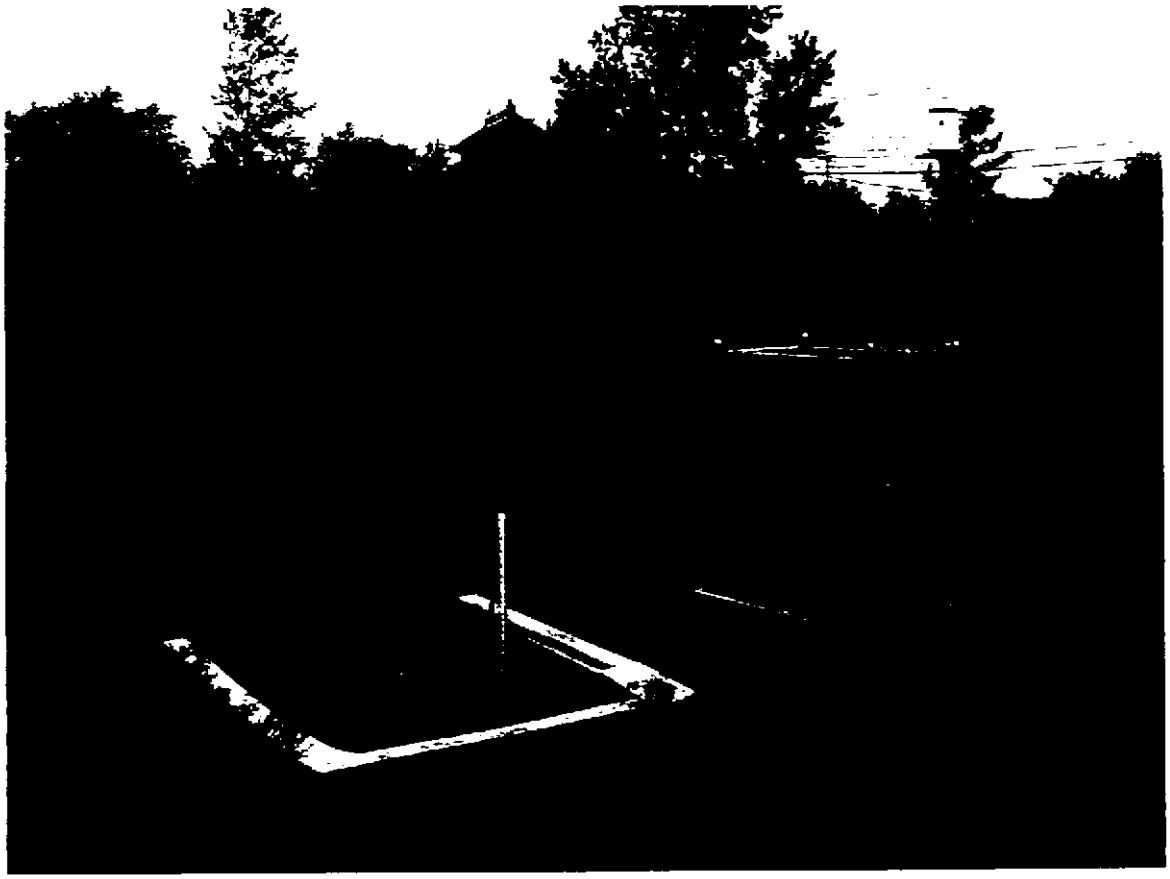
SW-06

Originals in color.

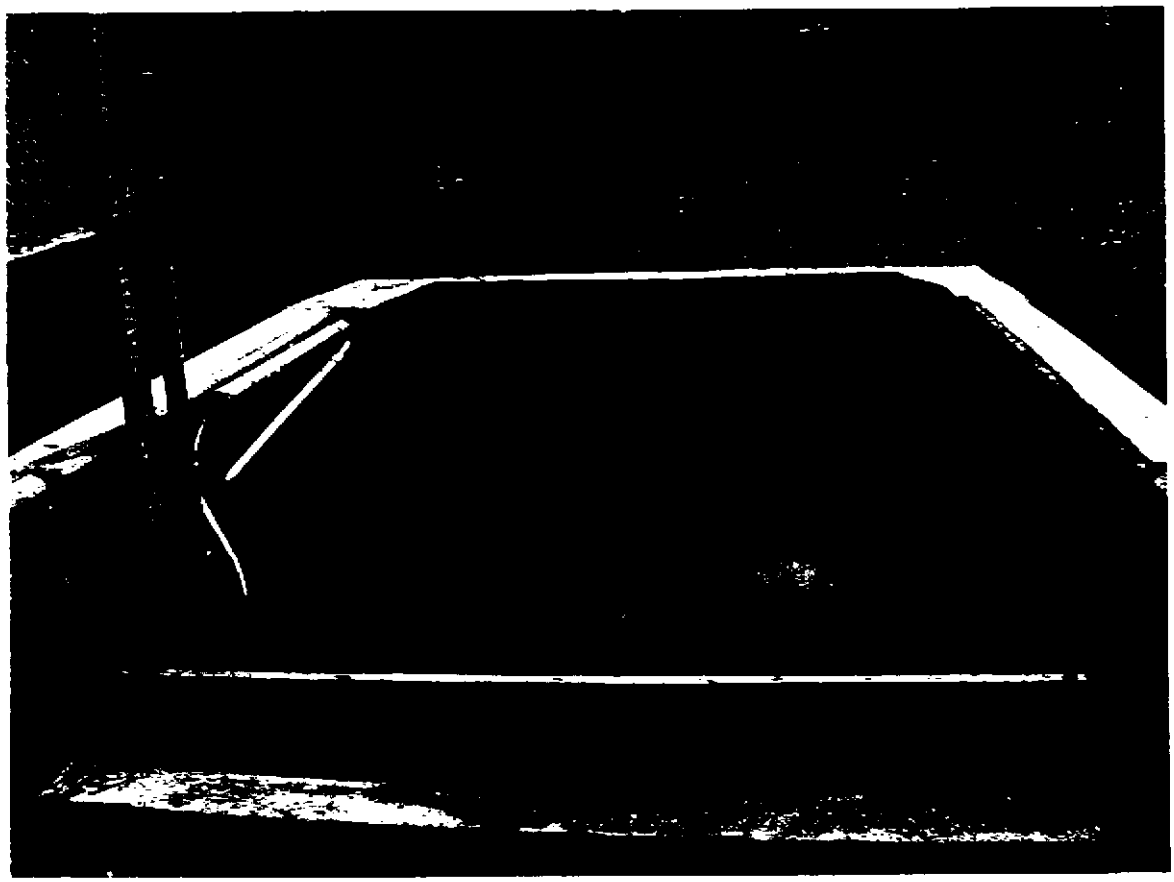
SW-07



Originals in color.

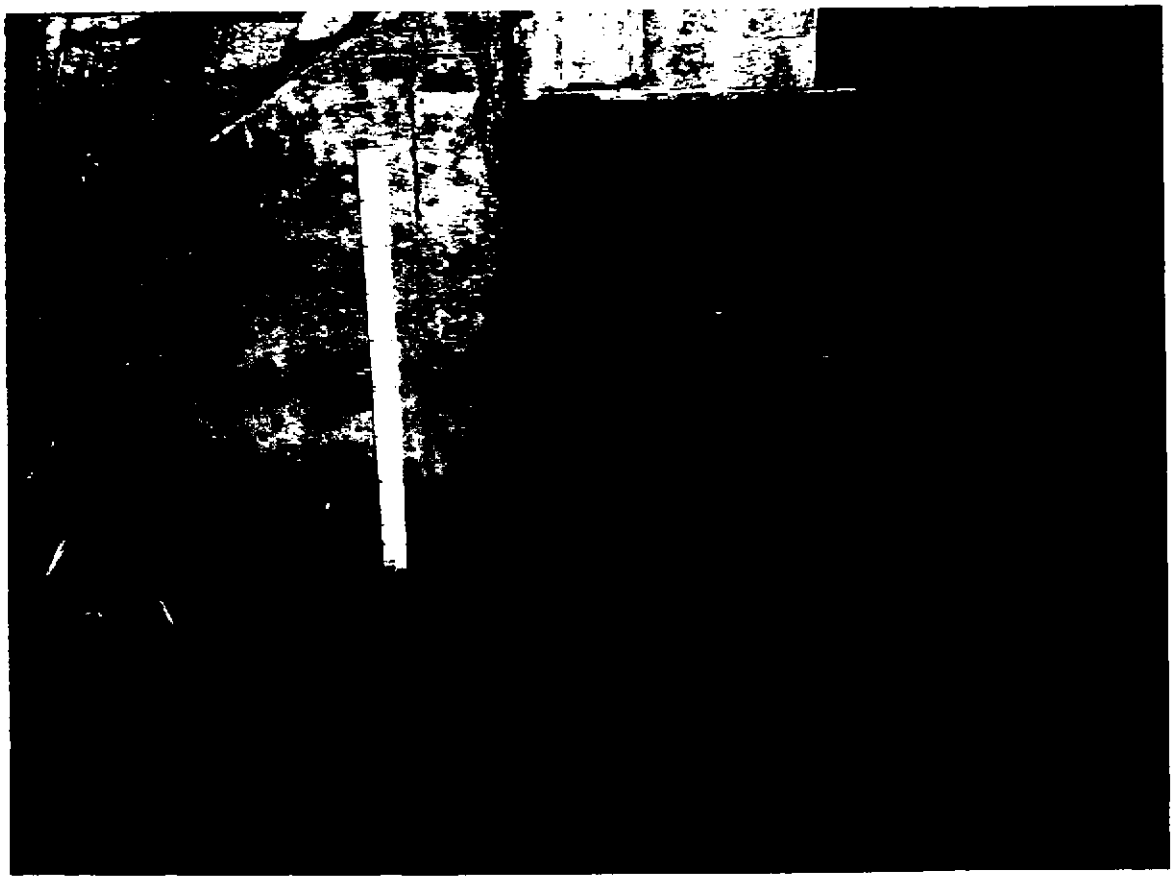


SW-08



Originals in color.

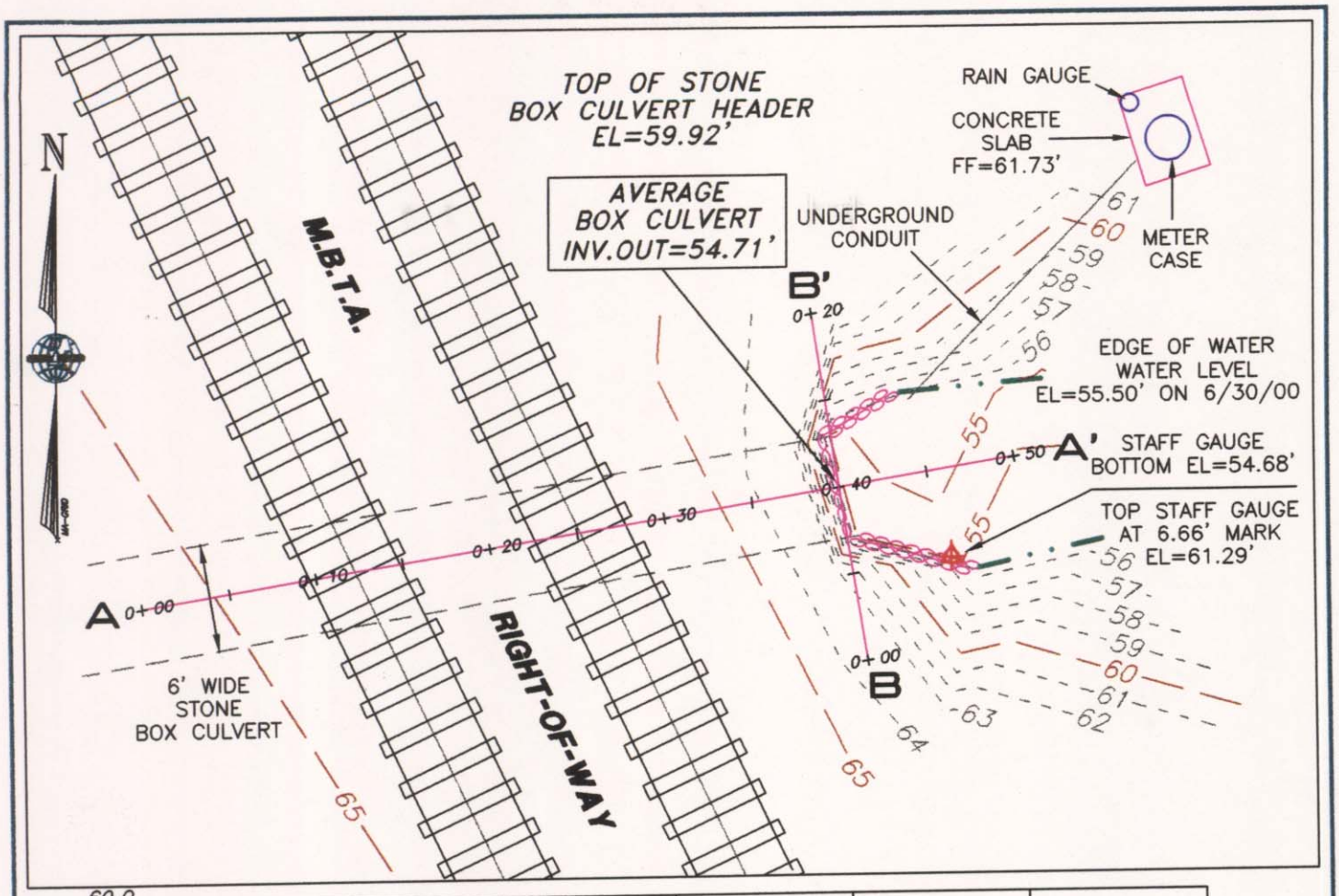
SW-09

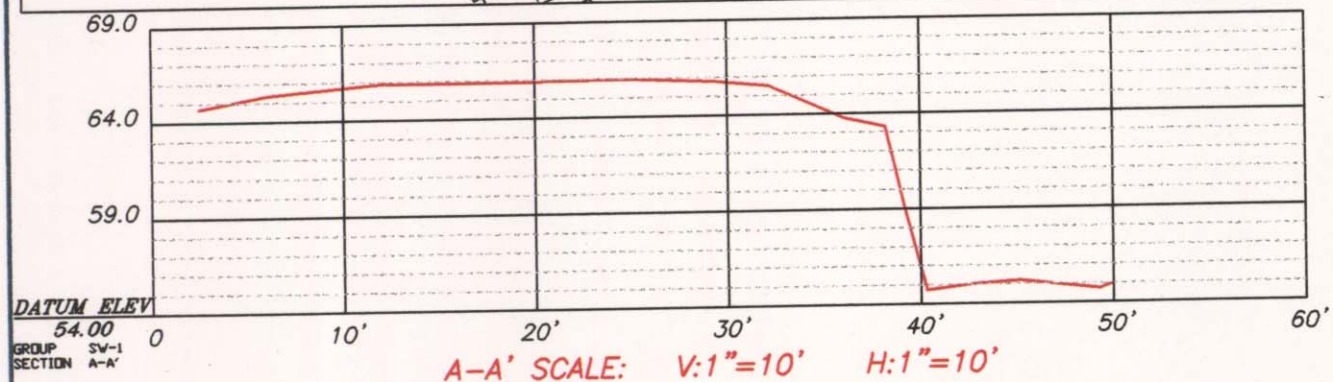


Originals in color.

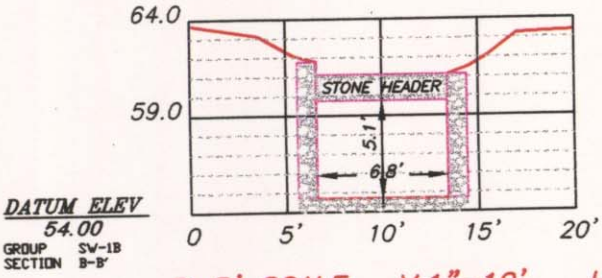
APPENDIX B

Survey Data





A–A' SCALE: V:1"=10' H:1"=10'



B–B' SCALE: V:1"=10' H:1"=10'

Original includes color coding.

TOPOGRAPHIC WORKSHEET
GSIP SEDIMENT TRANSPORT
INVESTIGATION SAMPLING LOCATIONS

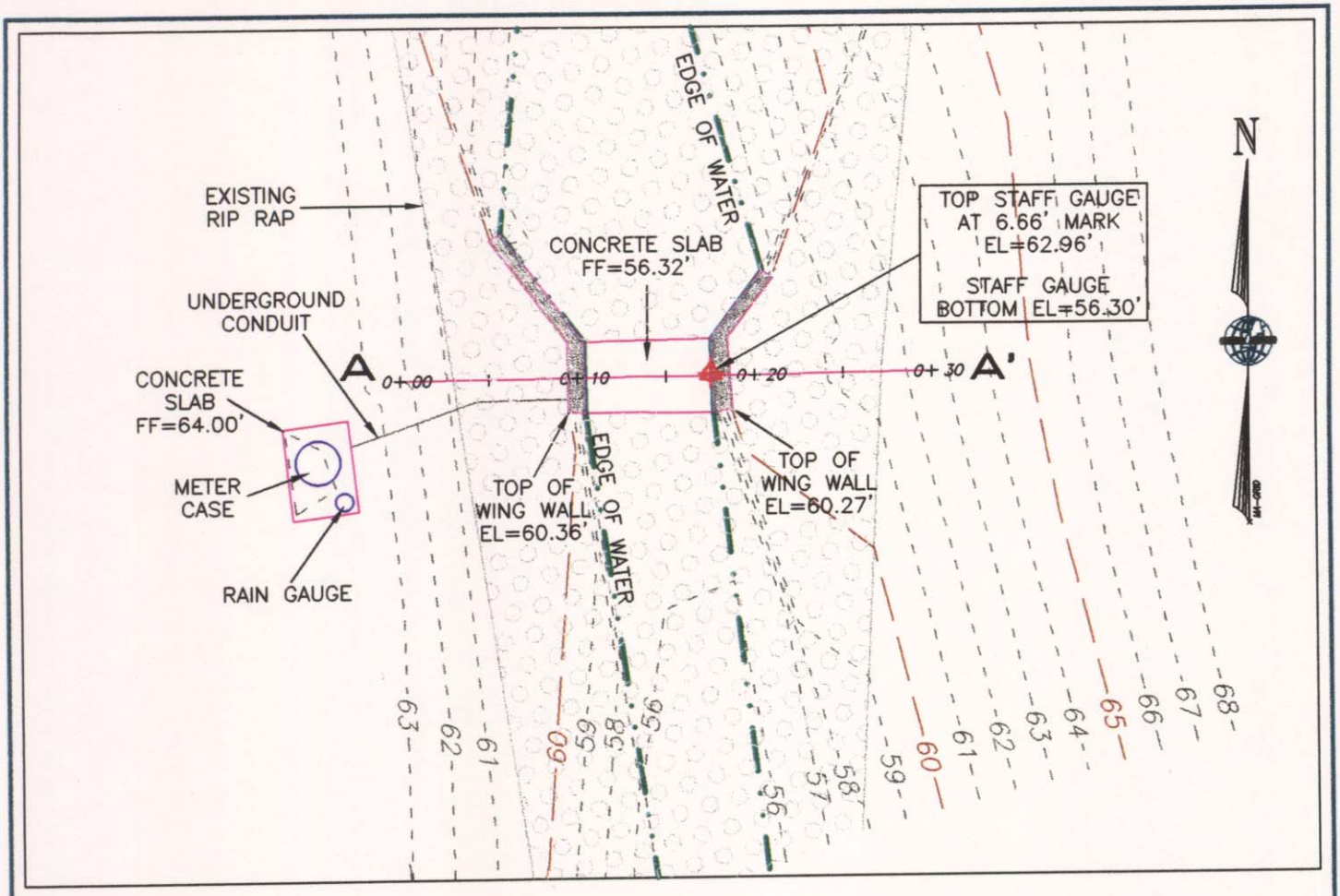
SW-1

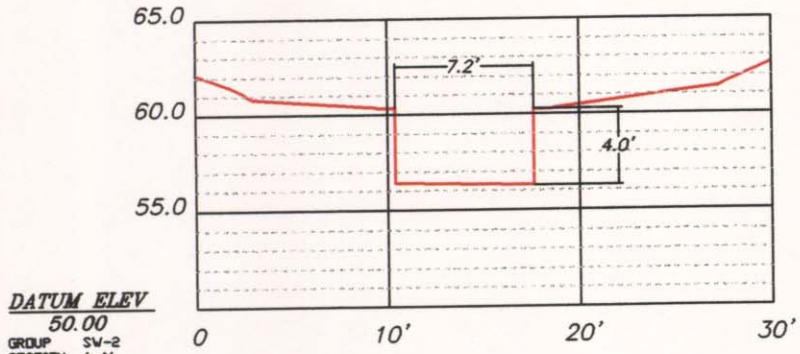
WOBURN, MASSACHUSETTS

SCALE: 1" = 10' AUGUAT 1, 2000

MERIDIAN
Land Services, Inc.
STREET ADDRESS: 31 OLD NASHUA RD. SUITE 2, AMHERST, N.H. 03031 TEL 603-673-1441 FAX 603-673-1584
MAILING ADDRESS: PO BOX 110, MILFORD, N.H. 03055-0110 EMAIL: MERIDIANLS@AOL.COM
ENGINEERS - LAND SURVEYORS - SCIENTISTS - LAND PLANNERS

FILE NO. 2900GSIP	PROJECT NO. 2900.00	SHEET NO. 1 OF 9





DATUM ELEV
50.00
GROUP SW-2
SECTION A-A'

A–A' SCALE: V:1"=10' H:1"=10'

Original includes color coding.

TOPOGRAPHIC WORKSHEET
GSIP SEDIMENT TRANSPORT
INVESTIGATION SAMPLING LOCATIONS

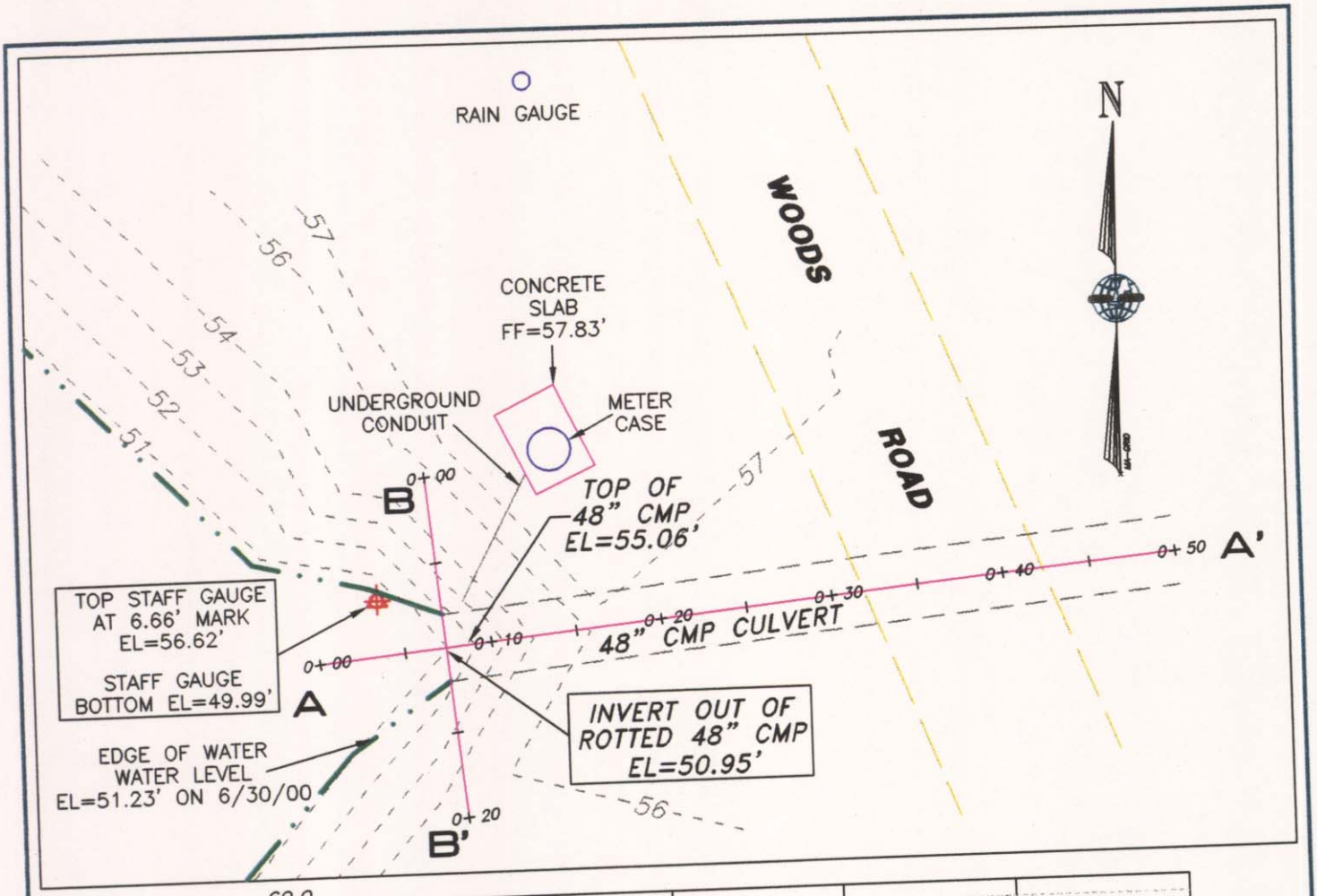
SW-2

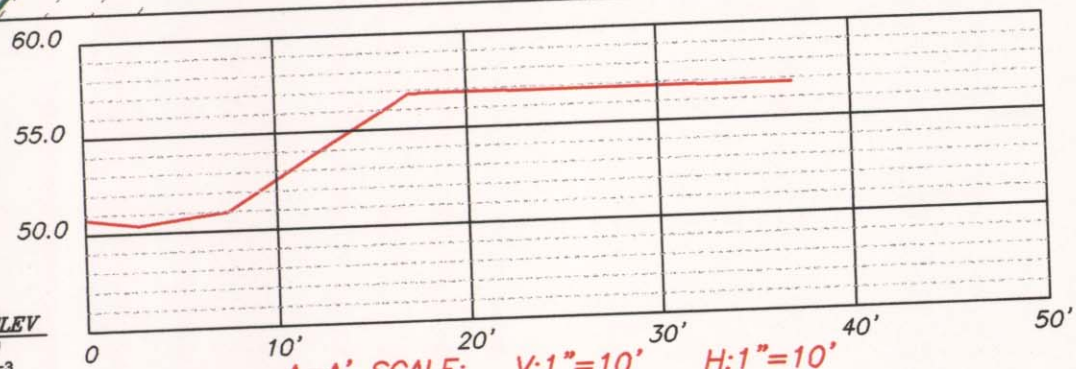
WOBURN, MASSACHUSETTS

SCALE: 1" = 10' AUGUST 1, 2000

MERIDIAN
Land Services, Inc.
STREET ADDRESS: 31 OLD NASHUA RD. SUITE 2, AMHERST, N.H. 03031 TEL 603-673-1441 FAX 603-673-1584
MAILING ADDRESS: PO BOX 80, MILFORD, N.H. 03055-0085 EMAIL: MERIDIANLS@AOL.COM
ENGINEERS - LAND SURVEYORS - SCIENTISTS - LAND PLANNERS

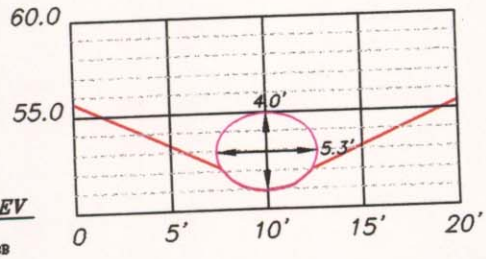
FILE NO. 2900GSIP	PROJECT NO. 2900.00	SHEET NO. 2 OF 9





DATUM ELEV
45.00
GROUP SW-3
SECTION A-A'

A–A' SCALE: V:1"=10' H:1"=10'



DATUM ELEV
50.00
GROUP SW-3B
SECTION B-B'

B–B' SCALE: V:1"=10' H:1"=10'

Original includes color coding.

TOPOGRAPHIC WORKSHEET
GSIP SEDIMENT TRANSPORT
INVESTIGATION SAMPLING LOCATIONS

SW-3

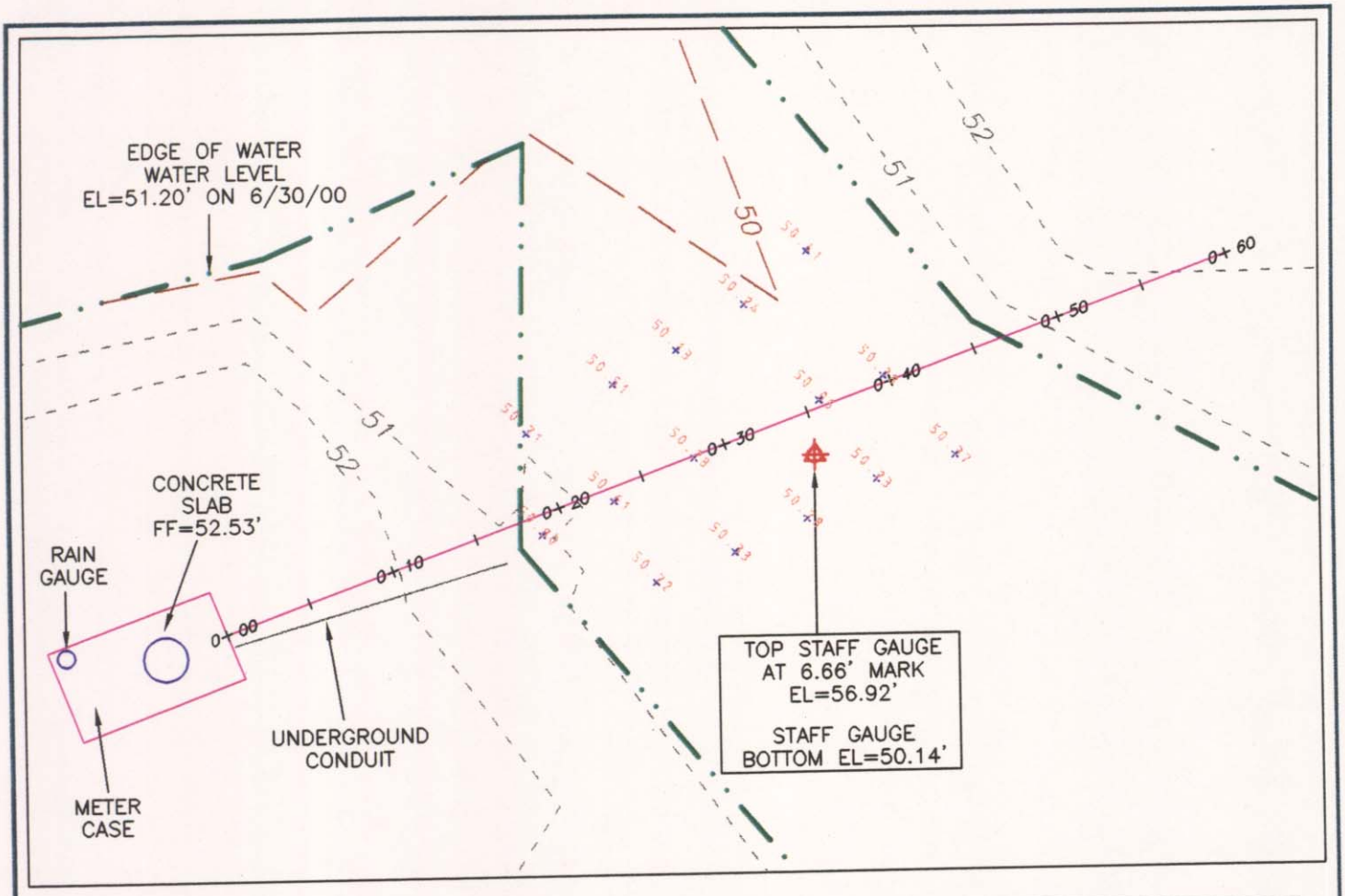
WOBURN, MASSACHUSETTS

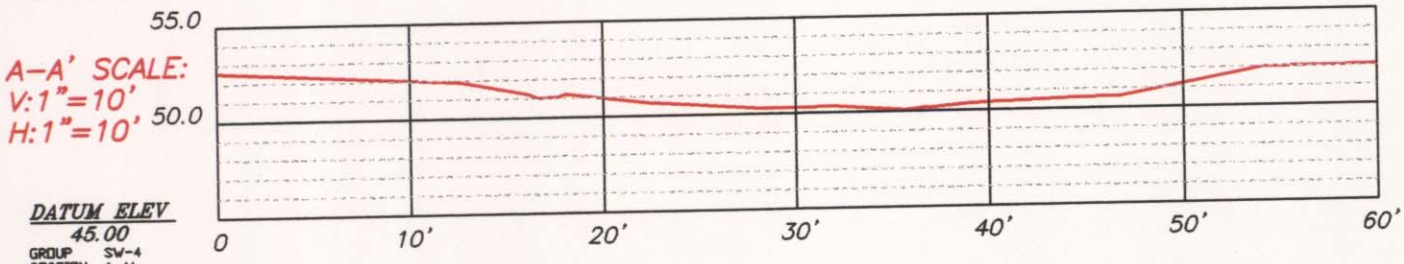
SCALE: 1" = 10'

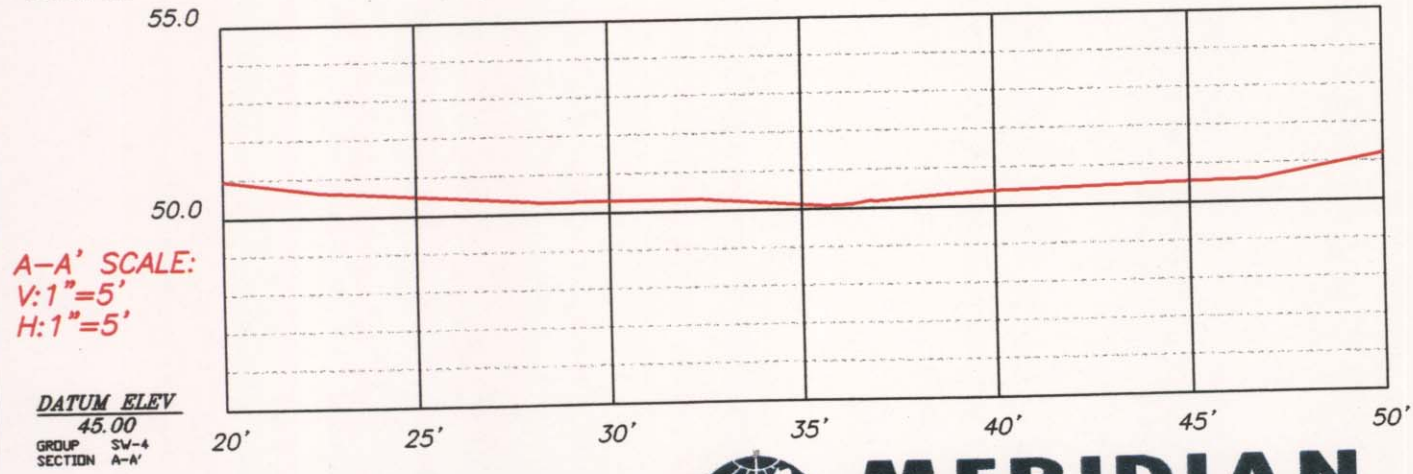
AUGUST 1, 2000

MERIDIAN
Land Services, Inc.
STREET ADDRESS: 31 OLD NASHUA RD. SUITE 2, AMHERST, N.H. 03031 TEL 603-673-1441 FAX 603-673-1584
MAILING ADDRESS: PO BOX 118, MILFORD, N.H. 03055-0118 EMAIL: MERIDIANLS@AOL.COM
ENGINEERS - LAND SURVEYORS - SCIENTISTS - LAND PLANNERS

FILE NO. 2900GSIP	PROJECT NO. 2900.00	SHEET NO. 3 OF 9







TOPOGRAPHIC WORKSHEET
GSIP SEDIMENT TRANSPORT
INVESTIGATION SAMPLING LOCATIONS

SW-4

WOBURN, MASSACHUSETTS

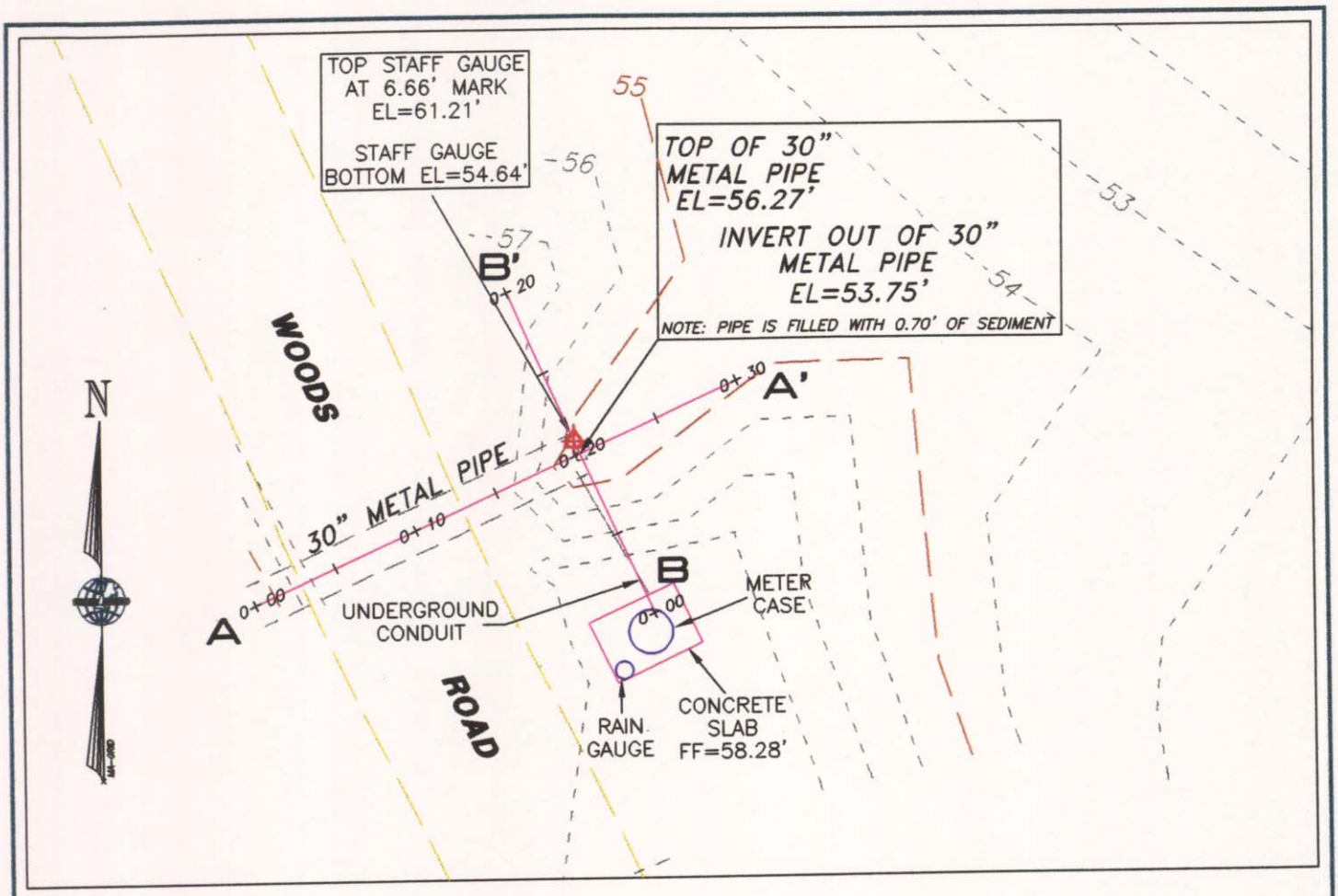
SCALE: 1" = 10'

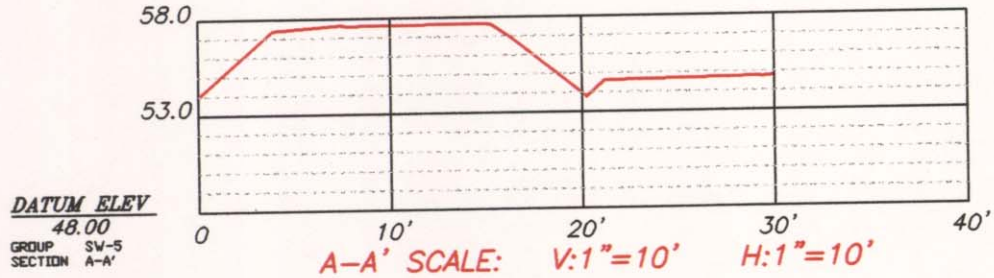
JULY 31, 2000

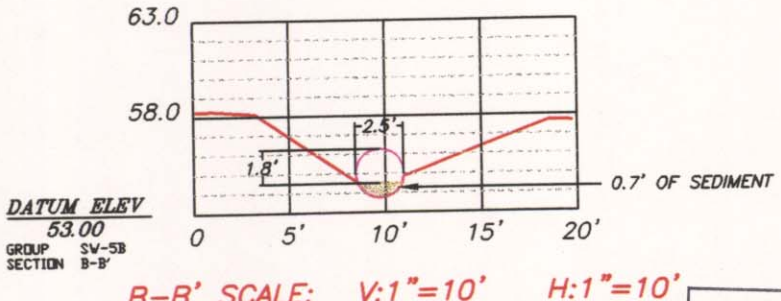
MERIDIAN
Land Services, Inc.
STREET ADDRESS: 31 OLD NASHUA RD. SUITE 2, AMHERST, N.H. 03031 TEL 603-673-1441 FAX 603-673-1584
MAILING ADDRESS: PO BOX 88, MILFORD, N.H. 03055-088 EMAIL: MERIDIANLS@AOL.COM
ENGINEERS - LAND SURVEYORS - SCIENTISTS - LAND PLANNERS

FILE NO. 2900GSIP	PROJECT NO. 2900.00	SHEET NO. 4 OF 9

Original includes color coding.







Original includes color coding.

TOPOGRAPHIC WORKSHEET
GSIP SEDIMENT TRANSPORT
INVESTIGATION SAMPLING LOCATIONS

SW-5

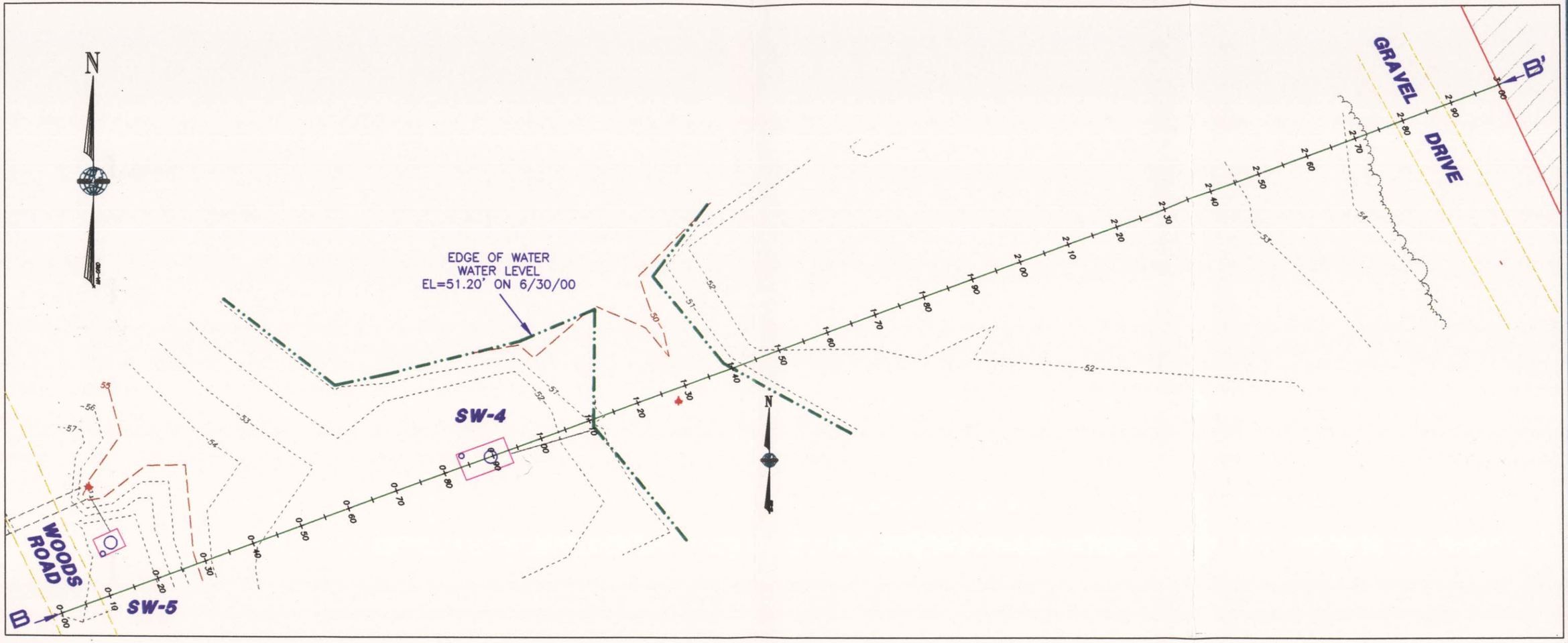
WOBURN, MASSACHUSETTS

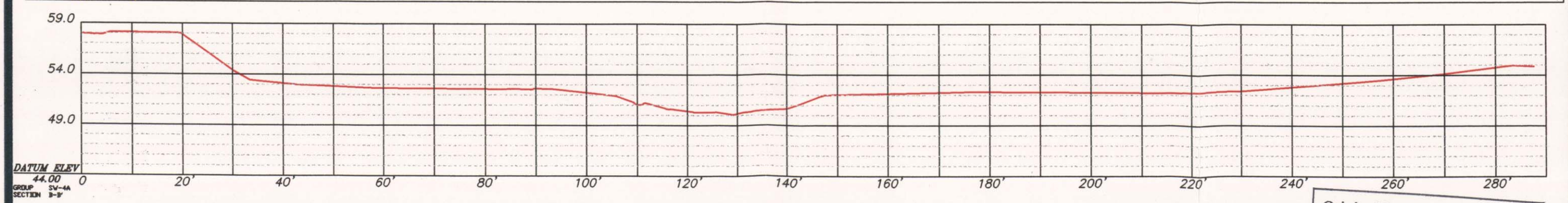
SCALE: 1" = 10'

AUGUST 1, 2000

MERIDIAN
Land Services, Inc.
STREET ADDRESS: 31 OLD NASHUA RD. SUITE 2, AMHERST, N.H. 03031 TEL. 603-673-1441 FAX 603-673-1584
MAILING ADDRESS: PO BOX 118, MILFORD, N.H. 03055-0118 EMAIL: MERIDIANLS@AOL.COM
ENGINEERS - LAND SURVEYORS - SCIENTISTS - LAND PLANNERS

FILE NO. 2900GSIP	PROJECT NO. 2900.00	SHEET NO. 5 OF 9





B–B' SCALE: V:1"=10' H:1"=20'

Original includes color coding.

GRAPHIC SCALE

20 10 0 20 40 60

TOPOGRAPHIC WORKSHEET
GSIP SEDIMENT TRANSPORT
INVESTIGATION SAMPLING LOCATIONS

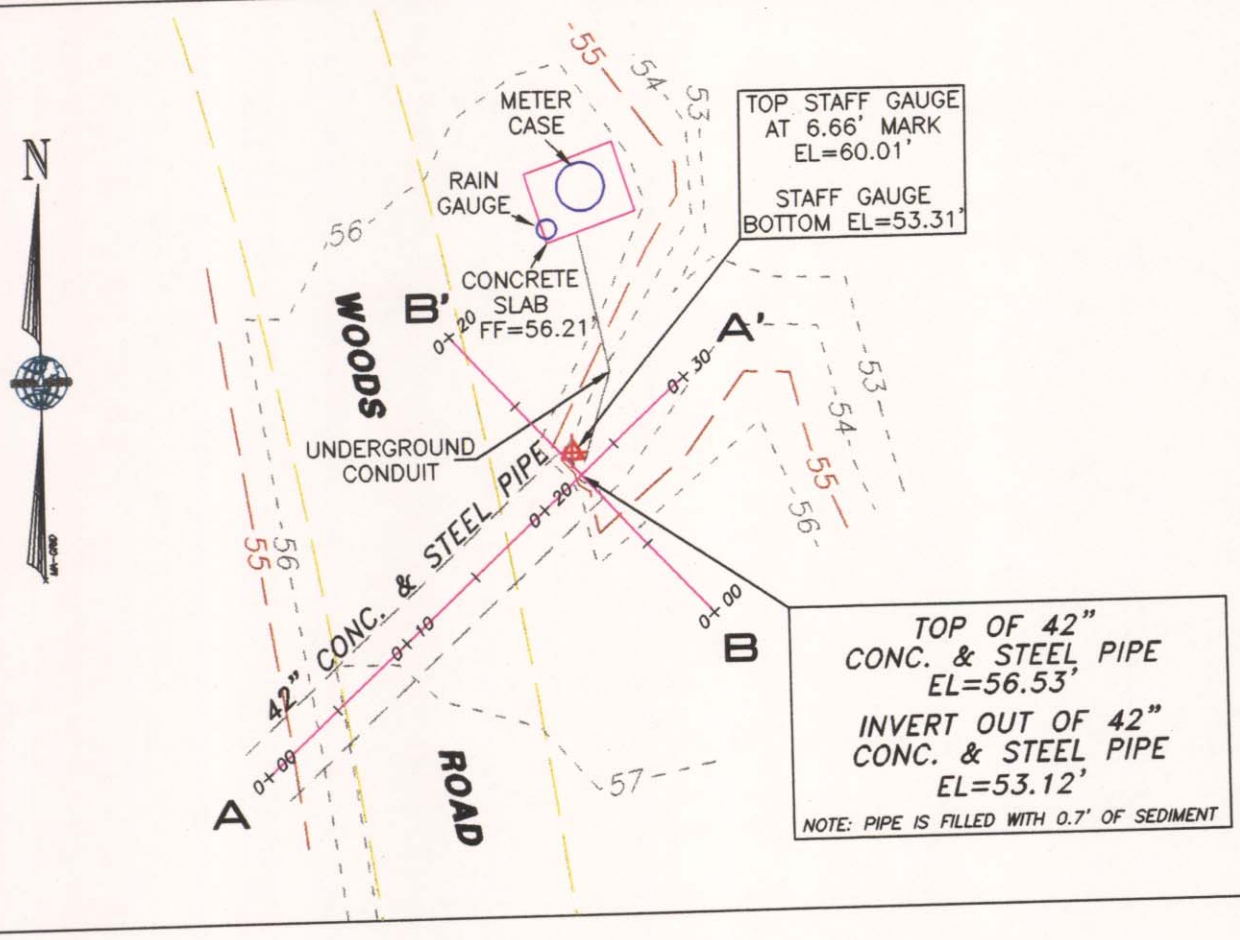
SW-4 & SW-5

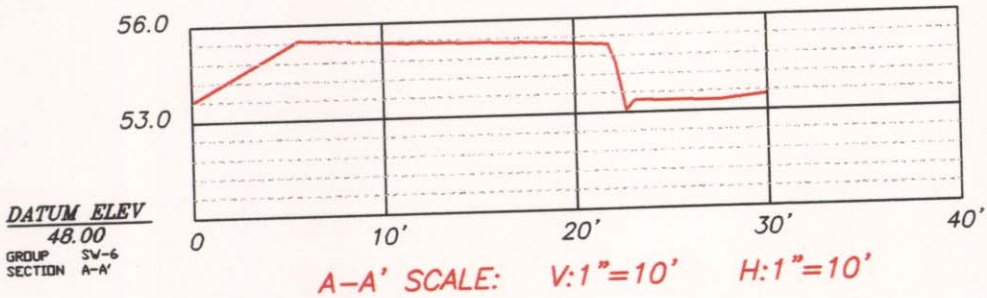
WOBURN, MASSACHUSETTS

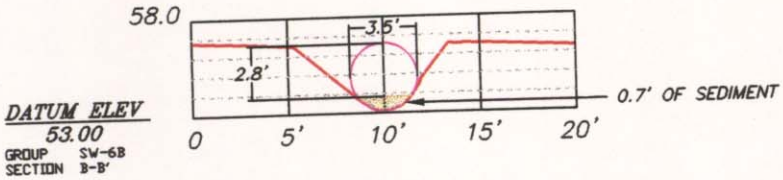
SCALE: 1" = 20' AUGUST 1, 2000

MERIDIAN
Land Services, Inc.
STREET ADDRESS: 31 OLD NASHUA RD. SUITE 2, AMHERST, N.H. 03031 TEL 603-673-1441 FAX 603-673-1584
MAILING ADDRESS: PO BOX 88, MILFORD, N.H. 03055-088 EMAIL: MERIDIANLS@AOL.COM
ENGINEERS - LAND SURVEYORS - SCIENTISTS - LAND PLANNERS

FILE NO. 2900GSIP	PROJECT NO. 2900.00	SHEET NO. 1 OF 1







Original includes color coding.

TOPOGRAPHIC WORKSHEET
GSIP SEDIMENT TRANSPORT
INVESTIGATION SAMPLING LOCATIONS

SW-6

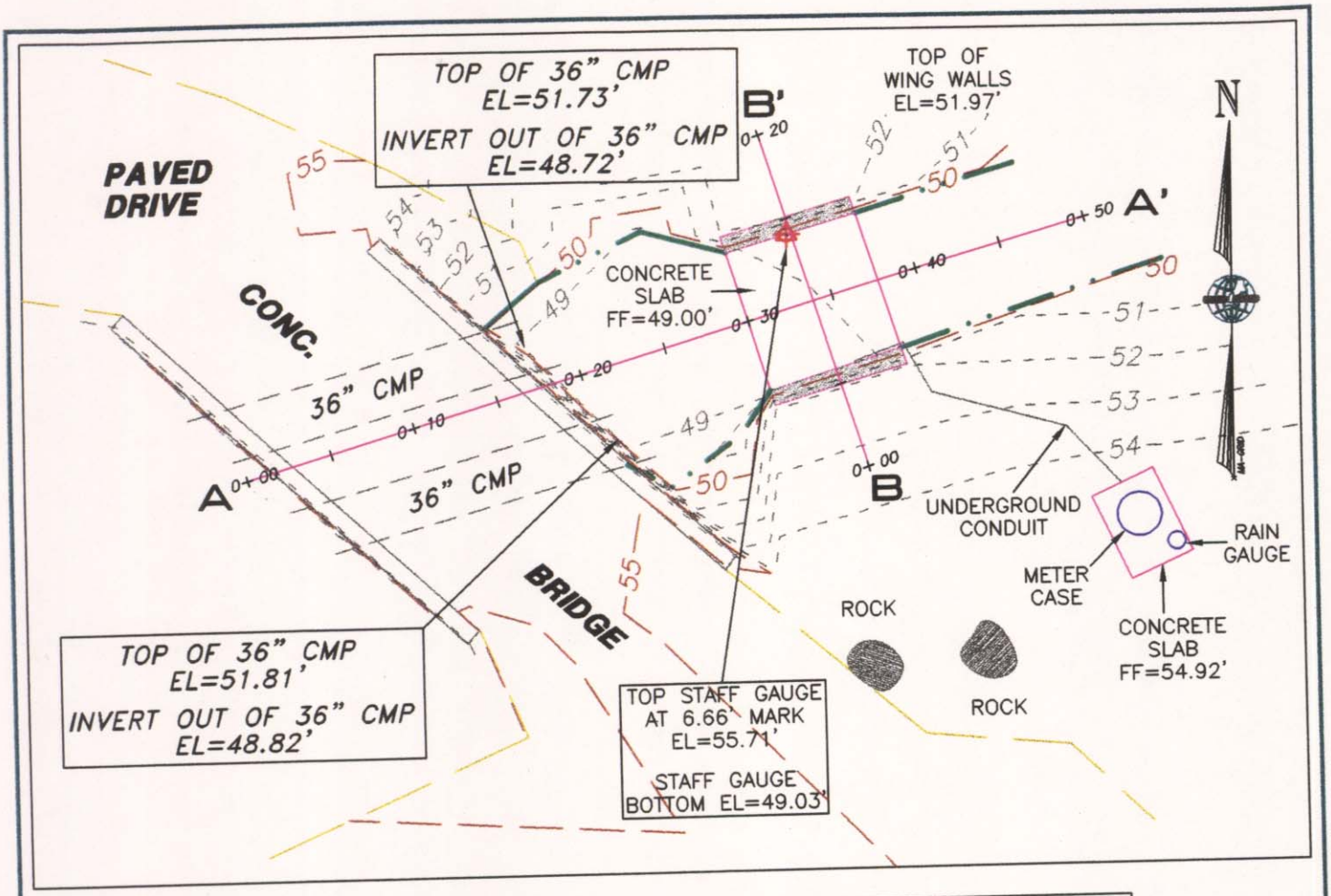
WOBURN, MASSACHUSETTS

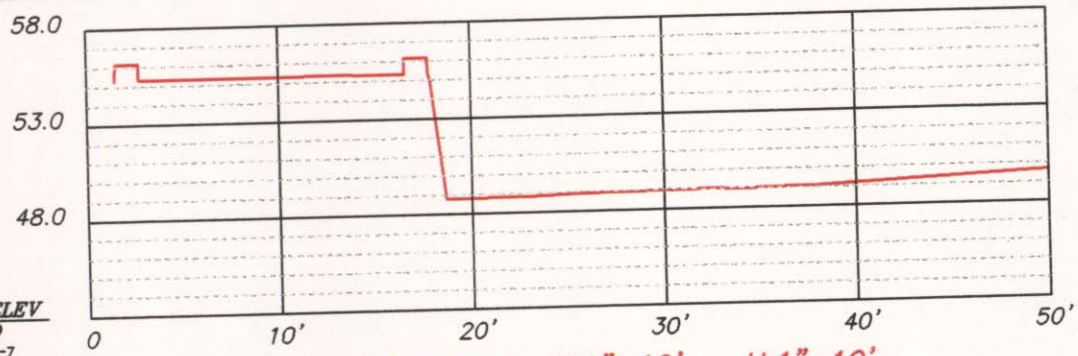
SCALE: 1" = 10'

AUGUST 1, 2000

MERIDIAN
Land Services, Inc.
STREET ADDRESS: 31 OLD NASHUA RD. SUITE 2, AMHERST, N.H. 03031 TEL 603-673-1441 FAX 603-673-1584
MAILING ADDRESS: PO BOX 80, MILFORD, N.H. 03055-0080 EMAIL: MERIDIANLS@AOL.COM
ENGINEERS - LAND SURVEYORS - SCIENTISTS - LAND PLANNERS

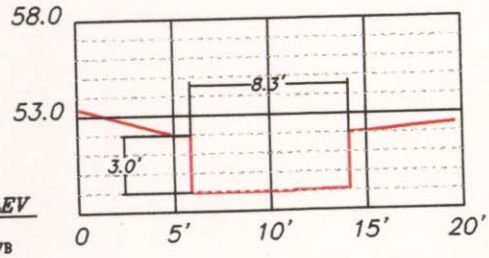
FILE NO. 2900GSIP	PROJECT NO. 2900.00	SHEET NO. 6 OF 9





DATUM ELEV
43.00
GROUP SW-7
SECTION A-A'

A–A' SCALE: V:1"=10' H:1"=10'



DATUM ELEV
48.00
GROUP SW-7B
SECTION B-B'

B–B' SCALE: V:1"=10' H:1"=10'

Original includes color coding.

TOPOGRAPHIC WORKSHEET
GSIP SEDIMENT TRANSPORT
INVESTIGATION SAMPLING LOCATIONS

SW-7

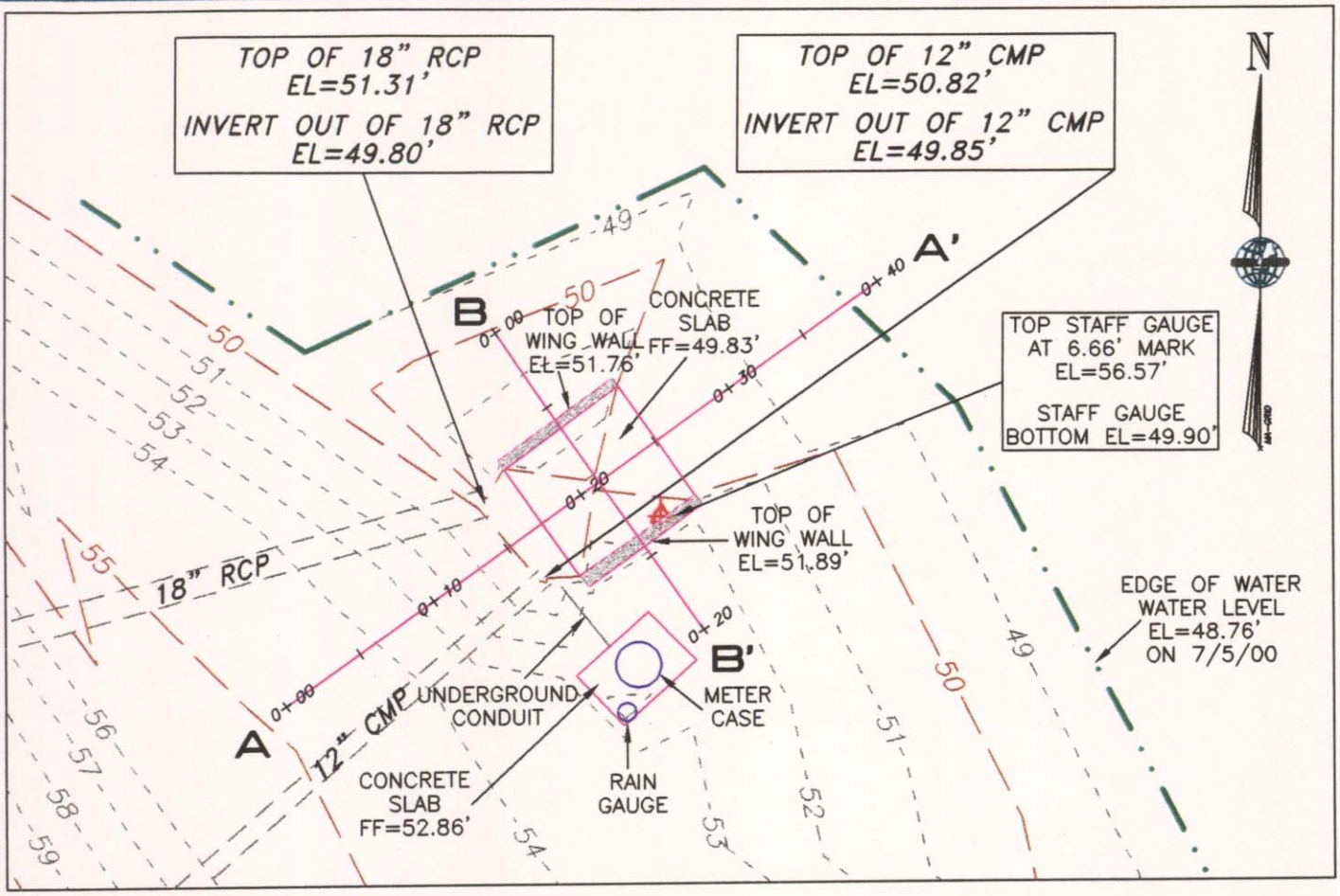
WOBURN, MASSACHUSETTS

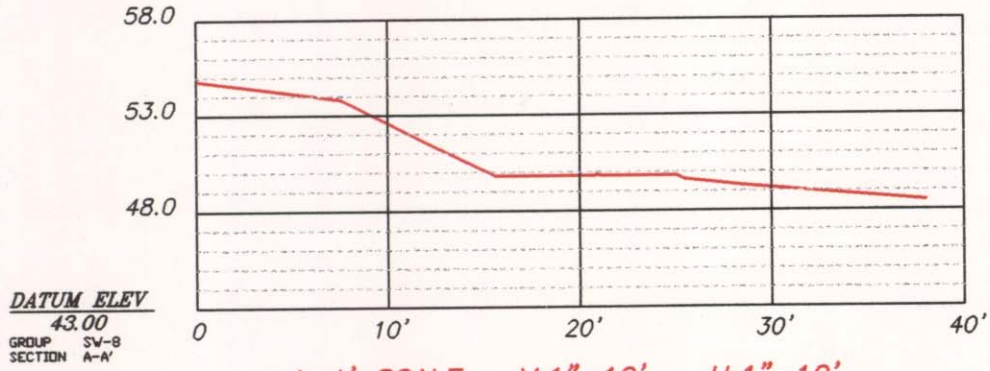
SCALE: 1" = 10'

AUGUST 1, 2000

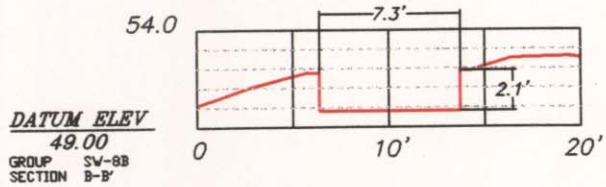
MERIDIAN
Land Services, Inc.
STREET ADDRESS: 31 OLD NASHUA RD. SUITE 2, AMHERST, N.H. 03031 TEL. 603-673-1441 FAX 603-673-1584
MAILING ADDRESS: PO BOX 80, MILFORD, N.H. 03055-0080 EMAIL: MERIDIANLS@AOL.COM
ENGINEERS - LAND SURVEYORS - SCIENTISTS - LAND PLANNERS

FILE NO. 2900GSIP	PROJECT NO. 2900.00	SHEET NO. 7 OF 9





A–A' SCALE: V:1"=10' H:1"=10'



Original includes color coding.

B–B' SCALE: V:1"=10' H:1"=10'

TOPOGRAPHIC WORKSHEET
GSIP SEDIMENT TRANSPORT
INVESTIGATION SAMPLING LOCATIONS

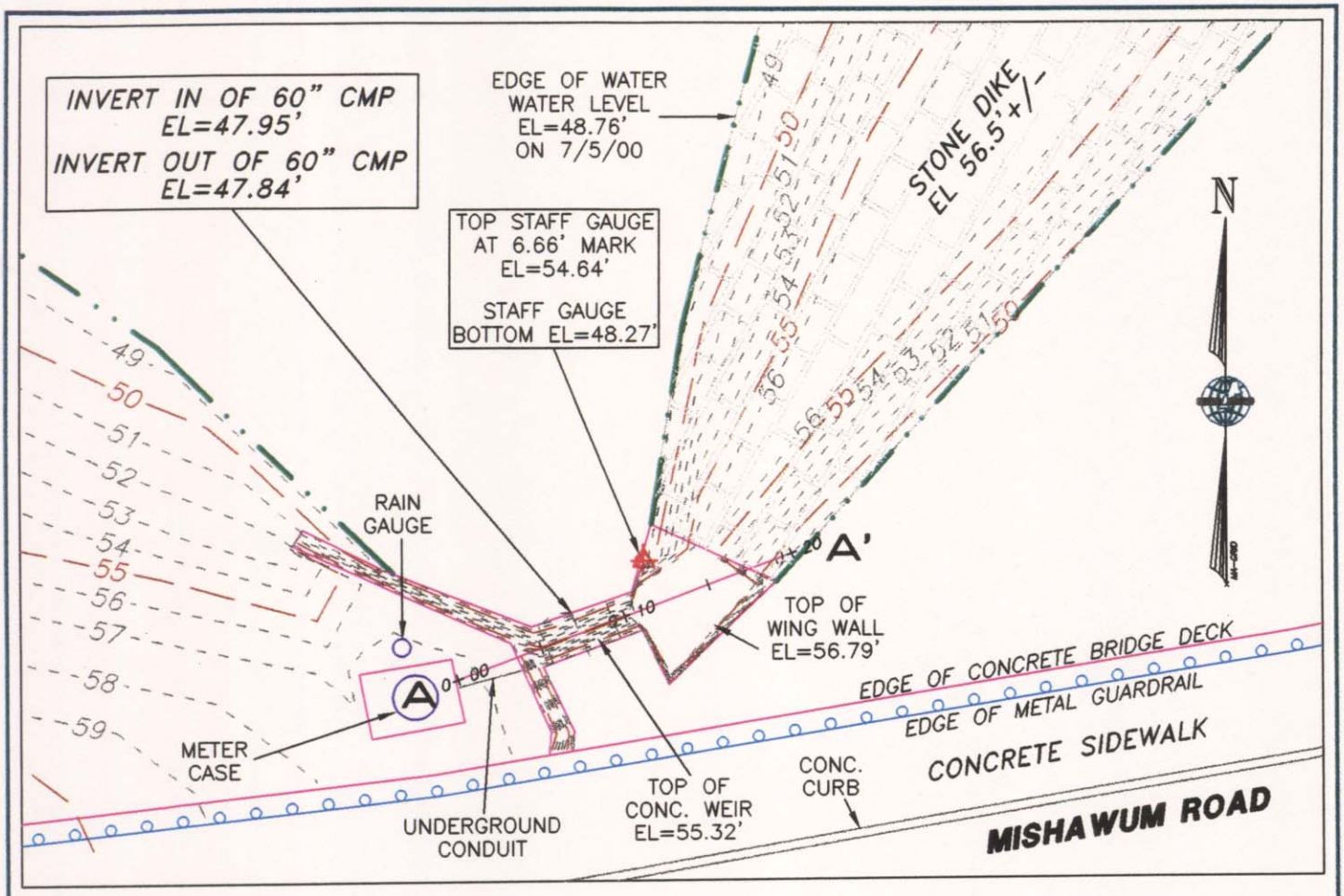
SW-8

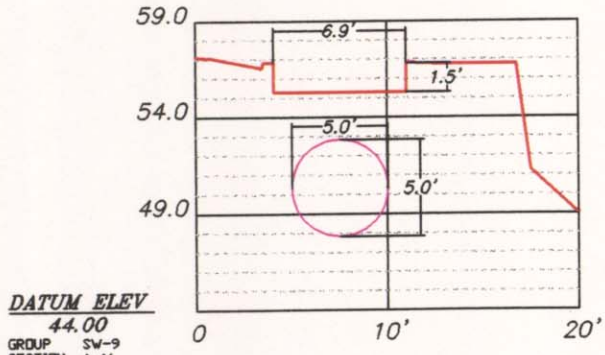
WOBURN, MASSACHUSETTS

SCALE: 1" = 10' AUGUST 1, 2000

MERIDIAN
Land Services, Inc.
STREET ADDRESS: 31 OLD NASHUA RD. SUITE 2, AMHERST, N.H. 03031 TEL 603-673-1441 FAX 603-673-1584
MAILING ADDRESS: PO BOX 80, MILFORD, N.H. 03055-0080 EMAIL: MERIDIANLS@AOL.COM
ENGINEERS - LAND SURVEYORS - SCIENTISTS - LAND PLANNERS

FILE NO. 2900GSIP	PROJECT NO. 2900.00	SHEET NO. 8 OF 9





DATUM ELEV
44.00
GROUP SW-9
SECTION A-A'

A-A' SCALE: V:1"=10' H:1"=10'

Original includes color coding.

TOPOGRAPHIC WORKSHEET
QSIP SEDIMENT TRANSPORT
INVESTIGATION SAMPLING LOCATIONS

SW-9

WOBURN, MASSACHUSETTS

SCALE: 1" = 10' AUGUST 1, 2000

MERIDIAN
Land Services, Inc.
STREET ADDRESS: 31 OLD NASHUA RD. SUITE 2, AMHERST, N.H. 03031 TEL 603-673-1441 FAX 603-673-1584
MAILING ADDRESS: PO BOX 88, MILFORD, N.H. 03055-0088 EMAIL: MERIDIANLS@AOL.COM
ENGINEERS - LAND SURVEYORS - SCIENTISTS - LAND PLANNERS

FILE NO. 2900GSIP	PROJECT NO. 2900.00	SHEET NO. 9 OF 9

APPENDIX C

TSS Lab Report

RECEIVED AUG 4 2000

SEVERN TRENT SERVICES

STL Westfield
Westfield Executive Park
53 Southampton Road
Westfield, MA 01085

Tel: 413 572 4000
Fax: 413 572 3707
www.stl-inc.com

August 01, 2000

Mr. Dave Woodhouse

Roux Associates
25 Corporate Drive

Burlington, MA 01803

Report Number : 23693

Dear Mr. Woodhouse,

The analysis of your sample(s) submitted on 7/28/00 is now complete and the appropriate analytical report is enclosed. The samples were prepared and analyzed according to EPA established methodologies and protocols. If you have any questions regarding the report or any part of our service, please do not hesitate to contact us. Thank you for using Severn Trent Laboratories, and we look forward to receiving your next samples.

SEVERN TRENT LABORATORIES

Michael F. Wheeler, Ph.D.
Laboratory Director

SEVERN TRENT LABORATORIES (MA)
DATA REPORTING QUALIFIERS AND TERMINOLOGY

A number of data qualifiers are widely used within the environmental testing industry and may be utilized in our data reports. The following definitions of these qualifiers are included as a service to our clientele. The majority of the qualifiers have evolved from the EPA contract laboratory program (CLP).

ORGANIC QUALIFIERS

U - Indicates that the compound was analyzed for but not detected. The sample detection limit is corrected for dilution and percent moisture. This detection limit is not necessarily the instrument detection limit.

J - Indicates an estimated value. This qualifier is used when mass spectral data indicates the presence of a compound that meets the identification criteria and the result is less than the specified quantitation limit but no less than one-half the quantitation limit.

B - Indicates that the analyte was found in both the sample and its associated laboratory blank. It indicates possible/probable blank contamination and warns the data user to use caution when applying the results of this analyte. Common laboratory contaminants in applicable method blanks are reported with J qualifiers to one-tenth the quantitation limit.

E - This qualifier indicates compounds whose concentrations exceed the calibration range of the instrument for the specific analysis.

D - Indicates all compounds identified in an analysis at a secondary dilution factor.

RE - This suffix indicates a re-analyzed sample and is appended to the sample number on the result form.

RR - This suffix indicates a re-extracted and re-analyzed sample and is appended to the sample number on the result form.

INORGANICS

U - Indicates that the analyte was analyzed for but not detected.

E - Indicates an estimated value because of the presence of interference.

SEVERN TRENT SERVICES

MADEP MA014
RIDOH57
CTDPH 0494
NY DOH 10843
NH DES 2539

149 Rangeway Rd.
N. Billerica, MA 01862
Tel: (978) 667-1400
Fax: (978) 667-7871

53 Southampton Rd.
Westfield, MA 01085
Tel: (413) 572-4000
Fax: (413) 572-3707

Inorganics Analysis Data Sheet

Client Name : Roux Associates
Project Name : Solutia-Industriplex
Matrix Name : Surfacewater

Report No : 23693
Date Collected : 7/28/00
Date Received : 7/28/00

Sample No.	Client ID	Analyte	Result	Units	Method	Date Analyzed	By
153221	SW-02/ISCO	Solids, total suspended	5U	mg/L	EPA 160.2	7/31/00	GRB
153222	SW-02/DH-40	Solids, total suspended	5U	mg/L	EPA 160.2	7/31/00	GRB
153223	SW-01/ISCO	Solids, total suspended	5U	mg/L	EPA 160.2	7/31/00	GRB
153224	SW-01/DH-40	Solids, total suspended	5U	mg/L	EPA 160.2	7/31/00	GRB
153225	SW-04/ISCO	Solids, total suspended	6.5	mg/L	EPA 160.2	7/31/00	GRB
153226	SW-04/DH-40	Solids, total suspended	7.0	mg/L	EPA 160.2	7/31/00	GRB
153227	SW-09/ISCO	Solids, total suspended	8.0	mg/L	EPA 160.2	7/31/00	GRB
153228	SW-09/DH-40	Solids, total suspended	6.5	mg/L	EPA 160.2	7/31/00	GRB

ROUX CHAIN OF CUSTODY

№ 04799 Y

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

~~1377 MOTOR PARKWAY~~ 25 Corporate Dr Suite 230
~~ISLANDIA, NEW YORK 11788~~ Burlington, MA 01803
~~(516) 232-2600 FAX (516) 232-9898~~ 781-270-6600 781-270-9066 (FAX)

ANALYSES

PAGE 1 OF 1

PROJECT NAME: SOLUTIA - INDUSTRIPLEX

PROJECT NUMBER: 06626M31

PROJECT LOCATION: WOBURN, MA

PROJECT MANAGER: L. McTiernan

SAMPLER(S): Chris Milone

SAMPLE DESIGNATION / LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	TSS					TOTAL BOTTLES	NOTES
SW-02/ISCO	7/28/00	12:40	SW	X					1	
SW-02/DH-40	7/28/00	12:45	SW	X					1	
SW-01/ISCO	7/28/00	12:55	SW	X					1	
SW-01/DH-40	7/28/00	13:05	SW	X					1	
SW-04/ISCO	7/28/00	13:30	SW	X					1	
SW-04/DH-40	7/28/00	13:40	SW	X					1	
SW-03/ISCO	7/28/00	14:30	SW	X					1	
SW-03/DH-40	7/28/00	14:35	SW	X					1	

RELINQUISHED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N
Chris Milone	ROUX	7/28/00	1510		[illegible]		7/28/00	3:10	
RELINQUISHED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N
					[illegible]	STL	7/31/00	0500	
RELINQUISHED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N

DELIVERY METHOD: HAND

ANALYTICAL LABORATORY: STL.

COMMENTS: * 48 HOUR TAT

CHAINF.CDR

APPENDIX D

Preliminary Stage - Response Evaluation Data

Summary of Preliminary HBHA Stage Response Data: July 10-31, 2000 ISRT Downgradient Sediment Transport Investigation, Woburn, Massachusetts

Station No.	Storm No.	Storm Date	Rainfall Depth (in)	Max Stage (ft)	Max Velocity (fps)	Peak Q (cfs)	Runoff Duration (hrs)	Total Runoff (cf)	Samp Collect Interval (2) (cf)	Sample Vol. (ml)	Max. No. Samples (3)	Max. Vol. Runoff Sampled (cf)
SW -01	1	7/16 - 7/16	1.14	1.887	3.41	44.92	24	2,608,593	23,800	100	180	4,284,000
	2	7/21 - 7/22	0.63	1.429	2.27	22.70	24	1,428,259				
	3	7/26 - 7/27	1.36	1.863	3.50	44.92	39	4,190,249				
SW -02	1	7/16 - 7/16	1.20	0.444	2.55	7.54	5	364,477	10,500	125	72	756,000
	2	7/21 - 7/22	0.44	0.258	1.84	2.70	5	250,809				
	3	7/26 - 7/27	1.44	0.727	2.21	11.09	11	575,237				
SW -03	1	7/16 - 7/16	1.10	1.103	5.40	26.63	6	567,255	12,500	100	90	1,125,000
	2	7/21 - 7/22	0.41	0.515	4.54	15.69	5	375,261				
	3	7/26 - 7/27	1.40	1.199	4.58	17.39	22	1,592,523				
SW - 04	1	7/16 - 7/16	0.14 (1)	1.966	1.78	24.46	12	1,247,520	31,400	75	120	3,768,000
	2	7/21 - 7/22	0.42	1.194	0.60	4.23	27	1,259,564				
	3	7/26 - 7/27	1.33	2.171	0.72	10.94	27	2,141,306				
SW - 05	1	7/16 - 7/16	0.88 (1)	1.193	3.48	29.06	6	271,980	8,200	150	60	492,000
	2	7/21 - 7/22	0.38 (1)	1.010	1.60	11.34	5	163,211				
	3	7/26 - 7/27	0.71 (1)	0.971	1.28	8.63	8	393,377				
SW - 06	1	7/16 - 7/16	0.04 (1)	1.015	1.89	12.89	4	230,202	6,800	200	45	306,000
	2	7/21 - 7/22	0.41	0.674	1.30	6.13	3	102,204				
	3	7/26 - 7/27	1.09	0.715	1.38	6.89	7	258,335				
SW - 07	1	7/16 - 7/16	1.22	2.837	3.08	60.68	5	561,596	11,200	175	51	571,000
	2	7/21 - 7/22	0.41	2.636	1.50	25.18	2	167,666				
	3	7/26 - 7/27	1.30	2.604	1.31	21.76	8	862,643				
SW - 08	1	7/16 - 7/16	1.28	0.165	3.91	4.09	5	93,401	4,100	200	45	184,500
	2	7/21 - 7/22	0.38	0.602	0.43	1.58	5	56,446				
	3	7/26 - 7/27	1.34	0.522	1.08	3.51	7	189,002				
SW - 09	1	7/16 - 7/16	0.02 (1)	1.370	4.95	47.10	57	8,962,104	31,000	50	360	11,600,000
	2	7/21 - 7/22	0.41	0.903	3.58	21.33	28	3,724,779				
	3	7/26 - 7/27	1.29	1.564 (1)	5.21 (1)	56.18 (1)	32 (1)	6,421,791 (1)				

Notes:

(1) Partial Record

(2) Flow Proportioned to storm No.2 runoff and minimum required sample collection volume of 3,000 ml. (Laboratory analytical requirements).

(3) Maximum number of samples based on ISCO compositing bottle capacity of 9,000 ml.

APPENDIX E

Geotechnical Lab Report

J&L TESTING COMPANY, INC.
GEOTECHNICAL AND GEOSYNTHETICS MATERIALS TESTING AND RESEARCH

May 21, 2001
01S2685-01

Roux Associates, Inc.
25 Corporate Drive, Suite 230
Burlington, MA 01803

RECEIVED

Attn: Martin Haines

RE: GEOTECHNICAL TESTING OF SEDIMENT SAMPLES
ROUX PROJECT No. 06626M34

Dear Mr. Haines:

J&L Testing Company, Inc. (JLT) is pleased to submit the results of geotechnical testing performed on nine (9) jar samples of sediment for the ISRT Project, Woburn, Massachusetts.

Using the sample in the "as-received" condition, fluid density and dry bulk density were determined using the volumetric-weight method as presented on the enclosed data sheet. The oven dried samples were then used for the remaining tests. Specific gravity was determined per ASTM D-854 and grain size was determined per ASTM D-422.

Results of specific gravity determination are presented on the Specific Gravity data sheet. It is noted that the computed specific gravity values represent a composite value of the particles passing the No. 10 sieve. These particles consist of a mixture of organics and soil grains which yield a weighted average of the mixture. Specific gravity of the various particle components can range from values of less than 1 to 2.7±. Therefore, the results should be used with caution.

The attached grain size curves represent the grain size distribution of the oven dried mass based on the weight retained on each sieve. It is noted that "woody" particles of the samples mass have a large volume to mass ratio as compared to the soil particles which are denser and smaller. The extreme differences in specific gravity/density of the individual particles can skew the results. Thus, large volumes of woody fragments exhibit low weight but consume a large volume of the composite mass. Therefore, caution should be used when interpreting these results.

Due to the high organic content of the samples, hydrometer tests (D-422) were not performed because the preponderance of the material does not fulfill the assumptions used in Stokes Equation which defines this test method. Specifically, organics have large volumes, low specific gravities and particle shapes which do not fit into the basic assumptions of Stokes Law. In general, these organics float and do not settle like a rigid spherical particle, as assumed in the equation.

938 South Central Avenue • Canonsburg, Pennsylvania 15317 Tel: (724) 746-4441 Fax: (724) 745-4261

The last tests requested were grain size shape factor and terminal velocity. Since the materials contained a mixture of fine sand, organics of various sizes and shapes and, possibly, other materials, shape factor evaluations were not valid using standard geotechnical test methods such as ASTM D-2488, Section 10. To document the variation of particle shapes and the agglomeration of particles, enclosed are nine (9) macro photographs of the oven dry materials. With respect to terminal velocity, see Attachment 1. This attachment will assist you in determining the terminal velocity of targeted particles based on the particle's density and shape factor specific to your project requirements.

These samples have been preserved in the event that you elect to ship them to a specialized laboratory to perform other tests to satisfy your specific project objectives.

We sincerely appreciate the opportunity to provide our services and look forward to working with you again. Should you have any questions, comments or require additional information, please call. Thank you.

Sincerely,

J&L TESTING COMPANY, INC.

John Boschuk, Jr., P.E., REP
Technical Consultant

Enclosures
JB/rdo
\wp9\letter\01125

ATTACHMENT 1
TERMINAL PARTICLE VELOCITY

The terminal velocity of a particle falling through a Newtonian fluid was first defined by George G. Stokes in 1851 as follows:

$$F = 3\pi\mu V/d \qquad (General\ Equation)$$

For particles with an arbitrary shape, the terminal velocity is given by:

$$V = \sqrt{\frac{2gm_p(p_p - p)}{pp_pA_pC_D}}$$

g = acceleration of gravity
m_p = particle mass
A_p = projected particle area in direction of motion
P_p = particle density
p = fluid density
C_D = drag coefficient

For rigid spherical particles, d_p, velocity is given by:

$$V = \sqrt{\frac{4gd_p(p_p - p)}{(3pC_D)}}$$

Stokes equation assumes the following:

1) Flow is laminar under the sole influence of gravity.
2) Particles are single rigid spheres.
3) Particles free fall without any influence by other particles in the fluid.
4) The walls of the containing vessel do not exert an appreciable retarding effect.
5) The particle is large enough so that Brownian and molecular mean free path effects do not apply.

Assuming all of these criteria are fulfilled, the following four (4) properties are required to determine the terminal falling velocity of a particle.

1) Diameter of particle
2) Density of particle
3) Density of fluid
4) Dynamic viscosity of fluid

Your Materials

As shown in the accompanying nine (9) photographs, the results of grain size analyses and specific gravity test results, one readily sees the following:

1) Particles greatly range in size and shape.
2) Each sample contains different types of materials ranging from sand to particles of wood fragments.
3) The density or specific gravity of the various particles range from less than 1 to about 2.7.
4) The results of specific gravity testing reflect a composite value of the materials tested (- No. 10 sieve).

Consequently, it is not possible to accurately calculate a terminal velocity for each specimen. To calculate a meaningful value, one would have to know the following:

1) Density, temperature and viscosity of the fluid in which the actual material is falling.
2) The target density, shape and diameter of the particle size for which you seek the terminal velocity.

To assist you in making these decisions, enclosed are two (2) references which discuss terminal velocity. In addition, attached is a page from a website which calculates the terminal velocity of a rigid particle. To access this website, the address is:

www.processassociates.com/process/separate/termvel.htm

Terminal Settling Velocity

The drag force acting on a particle which moves in a fluid increases with increasing velocity between particle and fluid. A particle falling in a fluid under the action of gravity is accelerated until the gravitational force downward is balanced by the drag force upward. The particle velocity which is reached when both forces balance each other is called terminal settling velocity. Equations for the calculation of terminal settling velocities are indispensable for the design of processes where solid particles are involved, e.g., sedimentation and fluidized beds.

For a particle with arbitrary shape the terminal settling velocity w_0 is given by

$$w_0 = \sqrt{\frac{2gm_p(\rho_p - \rho)}{\rho\rho_p A_p C_D}} \qquad (1)$$

where

g = acceleration of gravity
m_p = particle mass
A_p = projected particle area in direction of motion
ρ_p = particle density
ρ = fluid density
C_D = drag coefficient

For rigid spherical particles with diameter d_p eq. (1) becomes

$$w_0 = \sqrt{\frac{4gd_p(\rho_p - \rho)}{3\rho C_D}} \qquad (2)$$

The crucial point in evaluating eq. (2) is the determination of the drag coefficient C_D. It depends on the particle Reynolds number

$$\mathrm{Re}_p = \frac{\rho w d_p}{\mu} \qquad (3)$$

where

w = relative velocity between particle and fluid
μ = fluid dynamic viscosity

At low Reynolds numbers $\mathrm{Re}_p < 0.2$ the drag coefficient can be calculated from Stokes' Law:

$$C_D = \frac{24}{\mathrm{Re}_p} \qquad (4)$$

and the terminal settling velocity is

$$w_0 = \frac{gd_p^2(\rho_p - \rho)}{18\mu} \qquad (5)$$

For the range $0.2 < \mathrm{Re}_p < 2 \times 10^5$ many approximate equations have been proposed. For engineering applications a simple correlation proposed by Martin (Martin, H: Heat and mass transfer in fluidized beds, Chemie-Ingenieur-Technik 52 (1980), pp. 199-209, in German) is usually sufficient:

$$C_D = \frac{1}{3}\left[\sqrt{\frac{72}{\mathrm{Re}_p}} + 1\right]^2 \qquad (6)$$

Using eq. (6) and the Archimedes number

$$\mathrm{Ar} = \frac{gd_p^3\rho(\rho_p - \rho)}{\mu^2} \qquad (7)$$

the terminal settling velocity for the range $0.2 < \mathrm{Re}_p < 2 \times 10^5$ is

$$w_0 = \frac{18\mu}{\rho d_p}\left[\sqrt{1 + \frac{\sqrt{\mathrm{Ar}}}{9}} - 1\right]^2 \qquad (8)$$

In engineering applications particle concentrations are often so high that the motion of individual particles is influenced by the motion of the other particles and of the upward motion of displaced fluid (hindered settling). As a result the terminal settling velocity decreases. For volumetric particle concentrations below 0.1 % the terminal settling velocity is reduced by less than 1 %.

Manual of Soil Laboratory Testing

Volume 1: Soil Classification and Compaction Tests

K. H. Head, *MA(Cantab), C.Eng, FICE*

Engineering Laboratory Equipment Limited

A HALSTED PRESS BOOK

4.7.3 Stokes' Law

According to Stokes' Law, the terminal velocity v of a spherical particle falling freely in a fluid is given by

$$v = \frac{D^2 g(\rho_s - \rho_L)}{18\,\eta} \tag{4.5}$$

where D = diameter of particle; ρ_s = mass density of the solid particle; ρ_L = mass density of the fluid (liquid); η = dynamic viscosity of the fluid; g = acceleration due to gravity.

The application of Stokes' Law to the process of sedimentation is based on the following simplifying assumptions.

Table 4.8. TERMINAL VELOCITIES OF PARTICLES IN SUSPENSION

Particle	*Terminal velocity (mm/s)*	*Approximate diameter (μm)*
Coarse silt	1	35
Medium silt	0.1	12
Fine silt	0.01	3.5
Clay	0.001	1.2

Table 4.9. SYMBOLS, UNITS AND CONVERSION FACTORS FOR SEDIMENTATION FORMULA

Quantity	*Symbol*	*Coherent unit*	*Practical unit*	*Multiplying factor*
Viscosity of water (see Note (1))	η	Ns/m^2	mNs/m^2 (= mPa s)	$\frac{1}{1000}$
Height of fall	H	m	mm	$\frac{1}{1000}$
Acceleration due to gravity	g	m/s^2	m/s^2	1
Time	T	s	min	60
Densities (see Note (2))	ρ_s, ρ_w	kg/m^3	Mg/m^3	1000
Particle diameter	D	m	mm	$\frac{1}{1000}$

(1) *Viscosity.* The practical SI unit of dynamic viscosity in mPa s (millipascal second) or mN s m^{-2} (millinewton second per square metre), which is equal to the traditional metric unit cP (centipoise).
(2) *Densities.* The density of water (ρ_w) may be taken here as 1.000 Mg/m^3 exactly, at the usual test temperature, because th3 SG of particles (G_s) is related to the same temperature.

(1) The condition of viscous flow in a still liquid is maintained.
(2) There is no turbulence — that is, the concentration of particles is such that they do not interfere with one another.
(3) The temperature of the liquid remains constant.
(4) Particles are small spheres.
(5) Their terminal velocity is small.
(6) All particles have the same density.
(7) A uniform distribution of particles of all sizes is formed within the liquid.

Equation (4.5) can be re-written

$$D = \left\{\frac{18\,\eta}{g} \cdot \frac{v}{(\rho_s - \rho_L)}\right\}^{1/2} \tag{4.6}$$

If the particle falls a distance H in time T, its mean velocity $= H/T$.
If the liquid is water, we may write

$$\rho_L = \rho_w$$

Equation (4.6) then becomes

$$D = \left\{\frac{18\,\eta}{g} \cdot \frac{H}{T(\rho_s - \rho_w)}\right\}^{1/2} \tag{4.7}$$

Using the practical units given in Table 4.9, and writing t (min) for T, Eq. (4.7) can be written as

$$\frac{D}{1000} = \left\{\frac{18 \times \eta}{1000\,g}\,\frac{H}{1000 \times t \times 60(\rho_s - \rho_w) \times 1000}\right\}^{1/2}$$

Table 4.10. VISCOSITY AND DENSITY OF WATER

Temperature (°C)	*Dynamic viscosity*, η (*mPa s*)	*Density*, ρ_w (Mg/m^3)
0	1.7865	0.999 84
5	1.5138	0.999 95
10	1.3037	0.999 70
15	1.1369	0.999 09
20	1.0019	0.998 20
25	0.8909	0.997 04
30	0.7982	0.995 65
40	0.6540	0.992 22

Based on Kaye and Laby (1973).

or

$$D = \left\{ \frac{3 \times 10^{-4} \times \eta}{g} \cdot \frac{H}{t(\rho_s - \rho_w)} \right\}^{1/2} \tag{4.8}$$

Putting $g = 9.807\,\mathrm{m/s^2}$, $\rho_w = 1.000\,\mathrm{Mg/m^3}$ and $\rho_s = G_s$ (specific gravity of particles), this equation becomes

$$D = \left\{ \frac{30.59 \times 10^{-6} \times \eta H}{t(G_s - 1)} \right\}^{1/2}$$

or

$$D = 0.005\,531 \left\{ \frac{\eta H}{t(G_s - 1)} \right\}^{1/2} \tag{4.9}$$

Equation (4.9) provides the basis for the derivation of sampling times for the pipette test (Table 4.13), and of the nomographic chart for the hydrometer method (Fig. 4.40). Values of η and ρ_w for water temperatures from 0–40°C are given in Table 4.10. Intermediate values may be obtained by interpolation, either arithmetically or graphically.

PROCESS
ASSOCIATES OF AMERICA

Terminal Velocity of a Rigid Particle

Important Notices:

- This procedure calculates the terminal velocity of a single rigid particle falling in a Newtonian fluid under the influence of gravity and is applicable to the laminar, transitional, and turbulent flow regimes. The procedure assumes:
  - Free settling, i.e. the particle is not affected by the presence of other particles in the fluid.
  - Walls of the containing vessel do not exert an appreciable retarding effect.
  - The particle is large enough so that Brownian and molecular mean free path effects do not apply.

  A Souders & Brown "equivalent K" factor is reported with the hope that engineers will **stop** using it! Rigid particle diameter corresponding to a specified terminal velocity is treated elsewhere.

- A more comprehensive and powerful version of this procedure is available **online** through the clients gateway (password required). The full version of this procedure is part of our Process Designer® line of intelligent software.

Particle

Diameter [ ] micron

Density [ ] g/cm³

Surrounding Fluid

Density [ ] g/cm³

Viscosity [ ] cP

Report:

Terminal Velocity in cm/s

Calculate | Reset All Fields

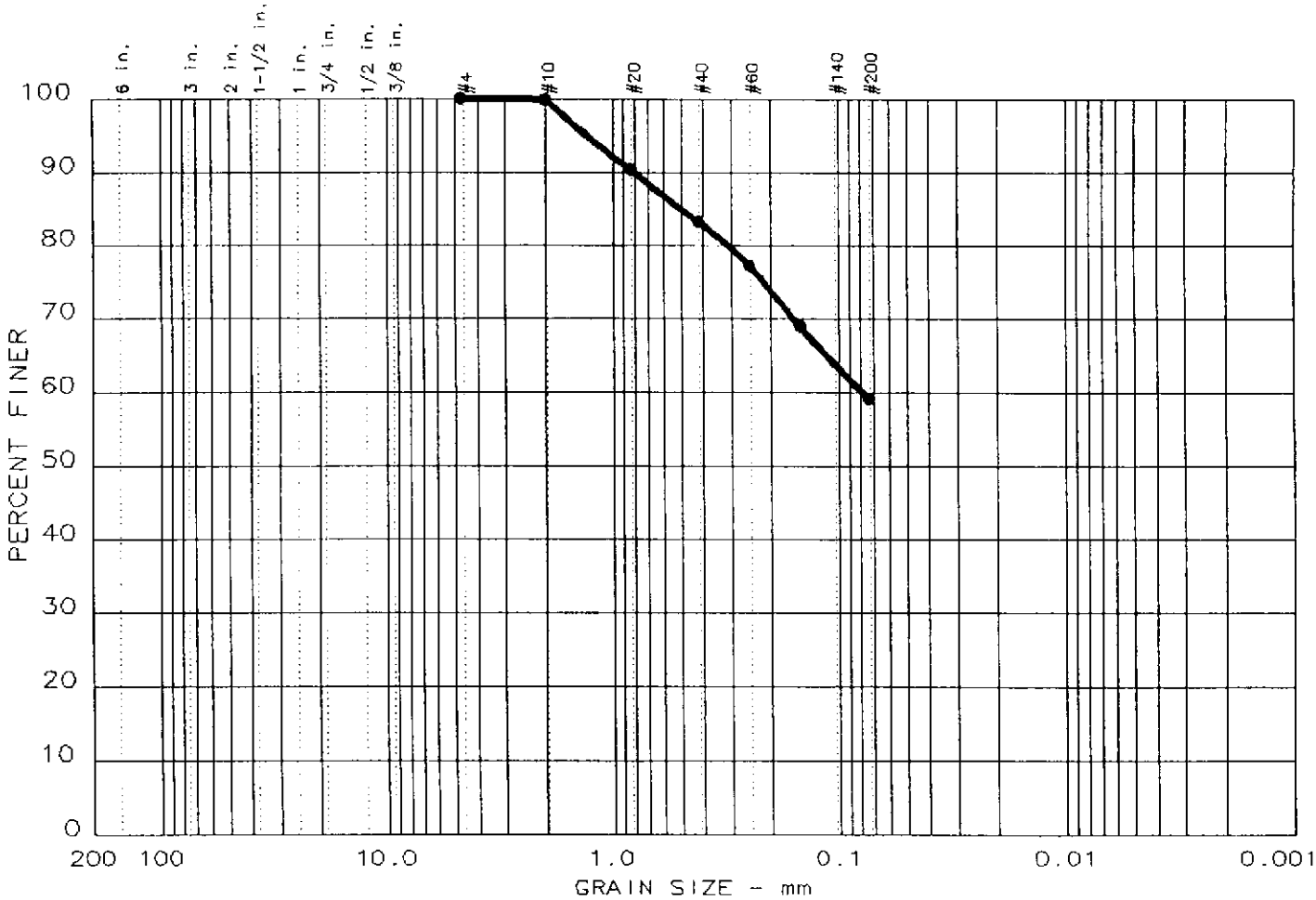
Use of this site indicates you accept the Terms of Use
Copyright © 1995-2000, Process Associates of America. All Rights Reserved.

GRAIN SIZE ANALYSIS
ASTM D-422

The standard ASTM procedure for grain size analysis requires the material to be soaked and then washed through the No. 200 sieve. Once washed, the +200 material is oven dried and then processed through stacked sieves to determine the gradation of the +200 material.

In the case of your material, most of the sediment is organic and breaks down during the washing process which results in a final product that is structurally stable for a sieve analysis. Therefore, the grain size curves presented are representative of the structurally sound material and not that of the initial material received.

PARTICLE SIZE DISTRIBUTION TEST REPORT



	Test	%+75 mm	% GRAVEL	% SAND	% SILT	% CLAY	USCS
●	16	0.0	0.0	40.9	59.1		ML

SIEVE inches size	PERCENT FINER ●		
	GRAIN SIZE		
D_{60} D_{30} D_{10}	0.08		
	COEFFICIENTS		
C_c C_u			

SIEVE number size	PERCENT FINER ●		
4	100.0		
10	99.8		
20	90.4		
40	83.1		
60	77.2		
100	69.0		
200	59.1		

Sample information:

● SED-1

ISRT - SEDIMENT

Remarks:

ASTM D-422

J & L TESTING CO., INC.

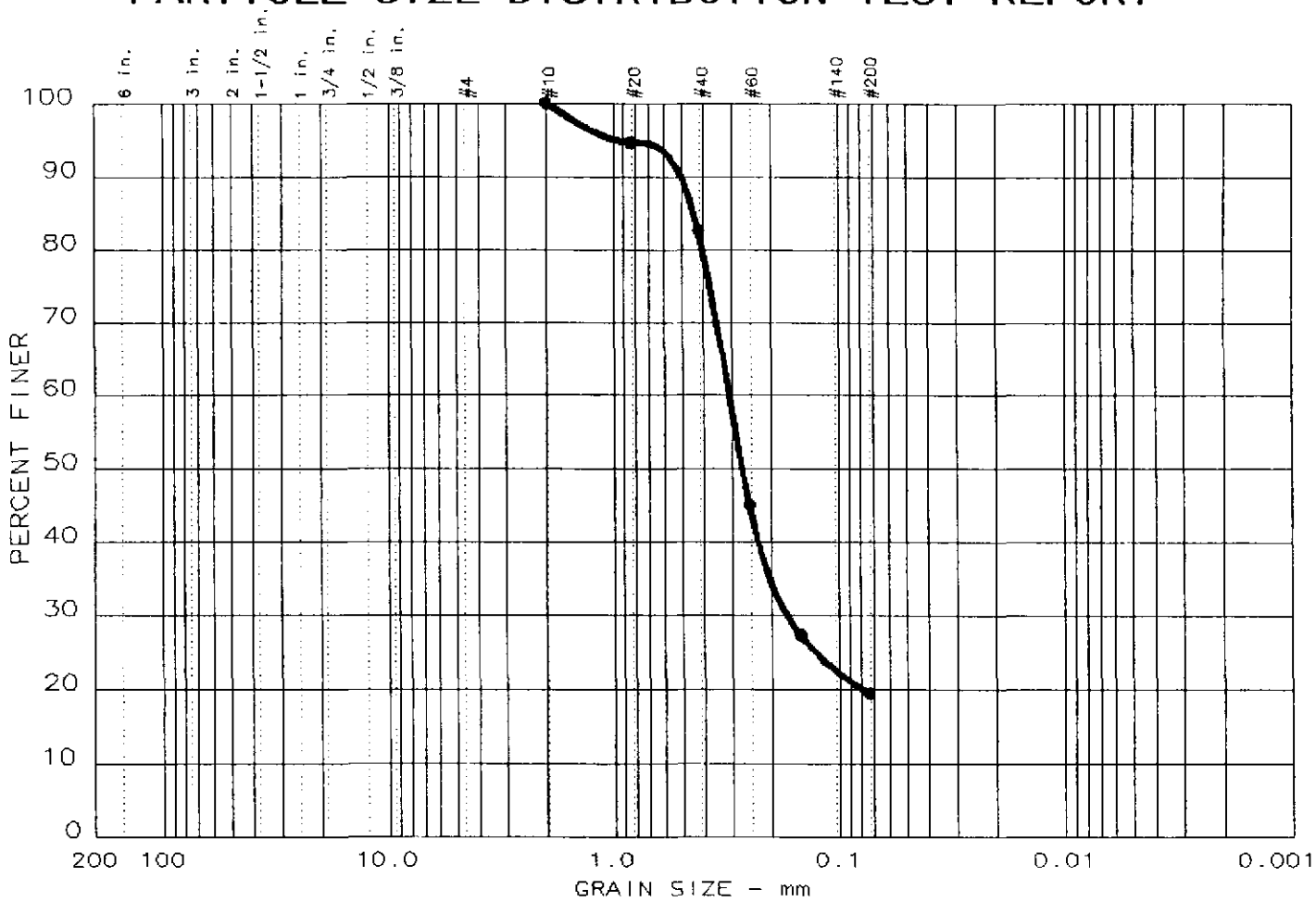
Project No.: 01S2685-01

Project: ROUX ASSOCIATES, INC.

Date: 5/21/01

Data Sheet No. 1

PARTICLE SIZE DISTRIBUTION TEST REPORT



	Test	%+75 mm	% GRAVEL	% SAND	% SILT	% CLAY	USCS
●	17	0.0	0.0	80.6	19.4		SM

SIEVE inches size	PERCENT FINER ●		
	GRAIN SIZE		
D_{60}	0.31		
D_{30}	0.17		
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ●		
10	100.0		
20	94.6		
40	82.7		
60	45.1		
100	27.3		
200	19.4		

Sample information:

● SED-2

ISRT - SEDIMENT

Remarks:

ASTM D-422

J & L TESTING CO., INC.

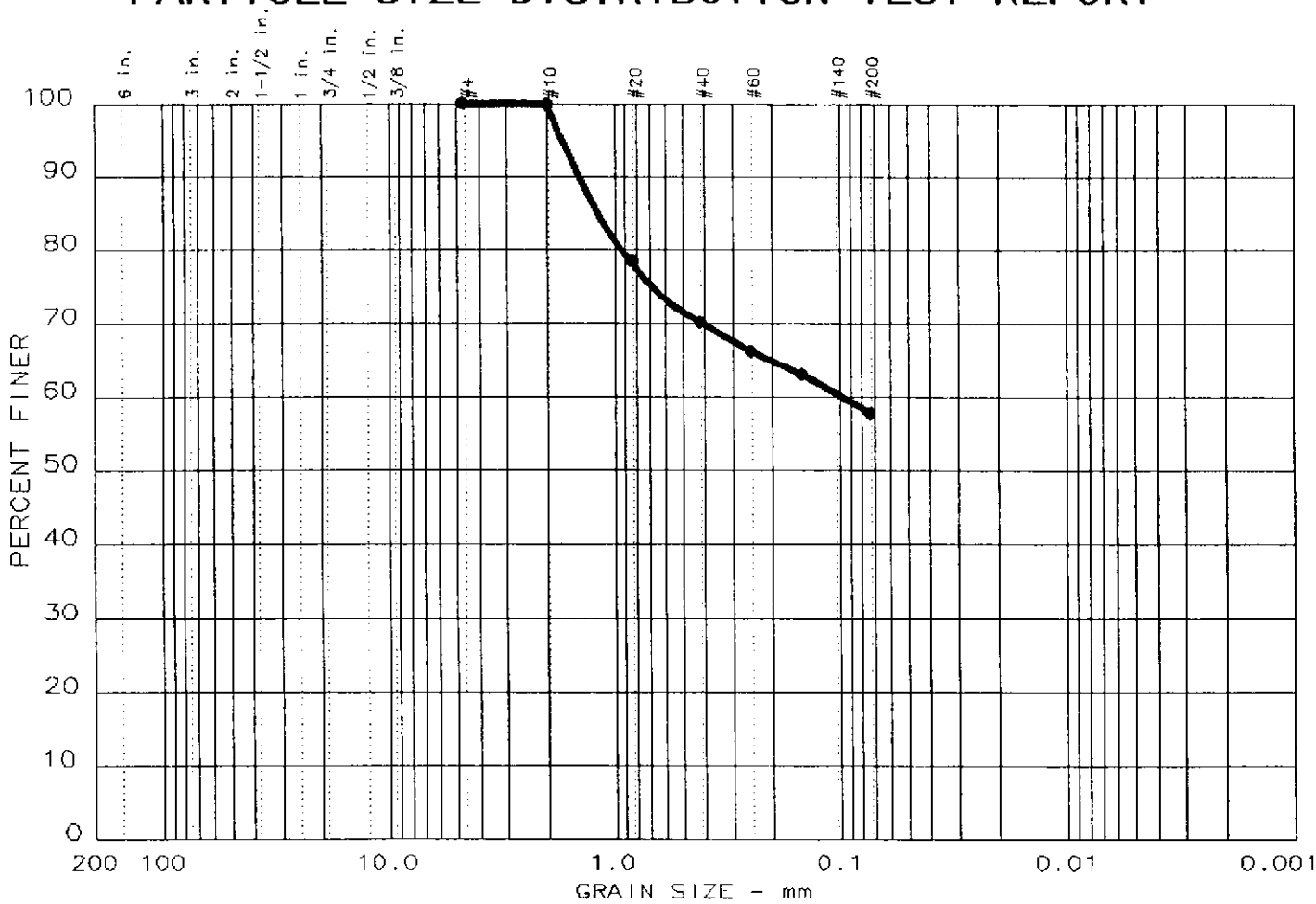
Project No.: 01S2685-01

Project: ROUX ASSOCIATES, INC.

Date: 5/21/01

Data Sheet No. 2

PARTICLE SIZE DISTRIBUTION TEST REPORT



	Test	%+75 mm	% GRAVEL	% SAND	% SILT	% CLAY	USCS
●	1	0.0	0.0	42.3	57.7		ML

SIEVE inches size	PERCENT FINER ●		
	GRAIN SIZE		
D_{60}	0.10		
D_{30}			
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ●		
4	100.0		
10	99.9		
20	78.4		
40	70.1		
60	66.2		
100	63.0		
200	57.7		

Sample information:

● SED-3

ISRT - SEDIMENT

Remarks:

ASTM D-422

J & L TESTING CO., INC.

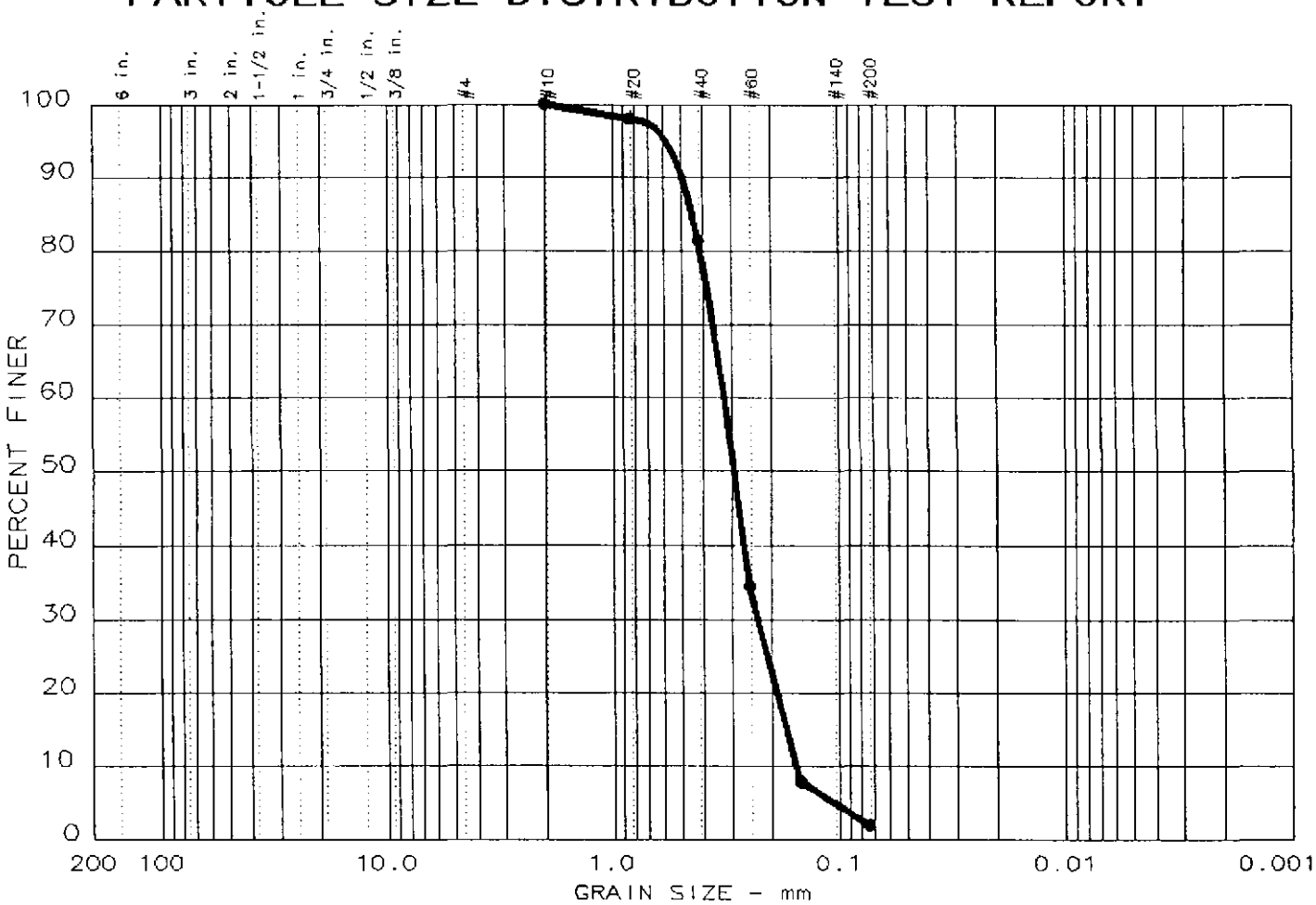
Project No.: 01S2685-01

Project: ROUX ASSOCIATES, INC.

Date: 5/21/01

Data Sheet No. 3

PARTICLE SIZE DISTRIBUTION TEST REPORT



	Test	%+75 mm	% GRAVEL	% SAND	% SILT	% CLAY	USCS
●	16	0.0	0.0	98.1	1.9		SP

SIEVE inches size	PERCENT FINER ●		
	GRAIN SIZE		
D_{60}	0.32		
D_{30}	0.23		
D_{10}	0.15		
	COEFFICIENTS		
C_c	1.05		
C_u	2.1		

SIEVE number size	PERCENT FINER ●		
10	100.0		
20	98.0		
40	81.3		
60	34.5		
100	7.9		
200	1.9		

Sample information:

● SED-4

ISRT - SEDIMENT

Remarks:

ASTM D-422

J & L TESTING CO., INC.

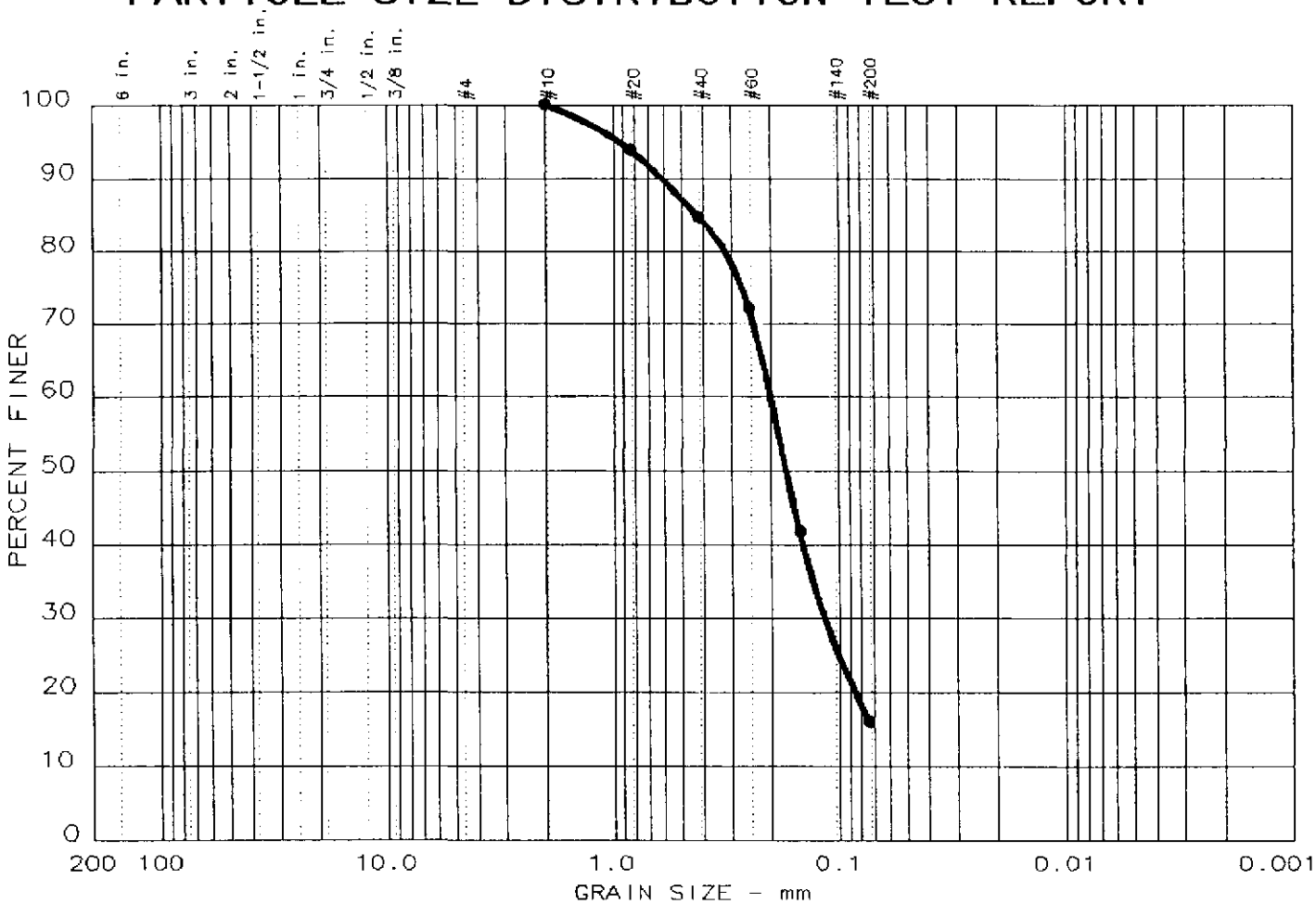
Project No.: 01S2685-01

Project: ROUX ASSOCIATES, INC.

Date: 5/21/01

Data Sheet No. 4

PARTICLE SIZE DISTRIBUTION TEST REPORT



	Test	%+75 mm	% GRAVEL	% SAND	% SILT	% CLAY	USCS
●	17	0.0	0.0	83.9	16.1		SM

SIEVE inches size	PERCENT FINER ●		
	GRAIN SIZE		
D_{60}	0.20		
D_{30}	0.12		
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ●		
10	100.0		
20	93.8		
40	84.7		
60	72.1		
100	41.7		
200	16.1		

Sample information:

● SED-5

ISRT - SEDIMENT

Remarks:

ASTM D-422

J & L TESTING CO., INC.

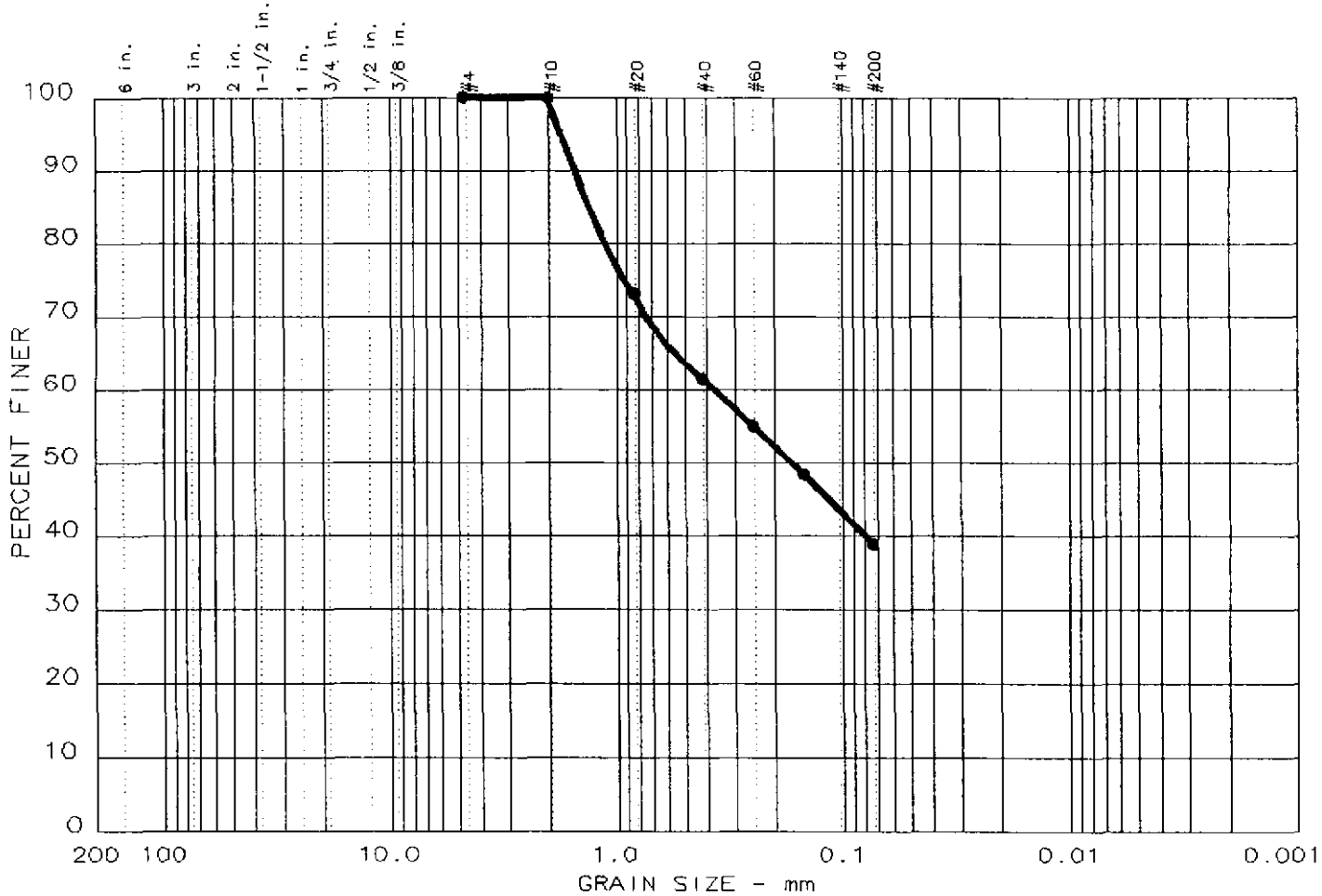
Project No.: 01S2685-01

Project: ROUX ASSOCIATES, INC.

Date: 5/21/01

Data Sheet No. 5

PARTICLE SIZE DISTRIBUTION TEST REPORT



	Test	%+75 mm	% GRAVEL	% SAND	% SILT	% CLAY	USCS
●	18	0.0	0.0	61.1	38.9		SM

SIEVE inches size	PERCENT FINER ●		
	GRAIN SIZE		
D_{60}	0.37		
D_{30}			
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ●		
4	100.0		
10	99.9		
20	73.0		
40	61.4		
60	54.9		
100	48.3		
200	38.9		

Sample information:

● SED-6

ISRT - SEDIMENT

Remarks:

ASTM D-422

J & L TESTING CO., INC.

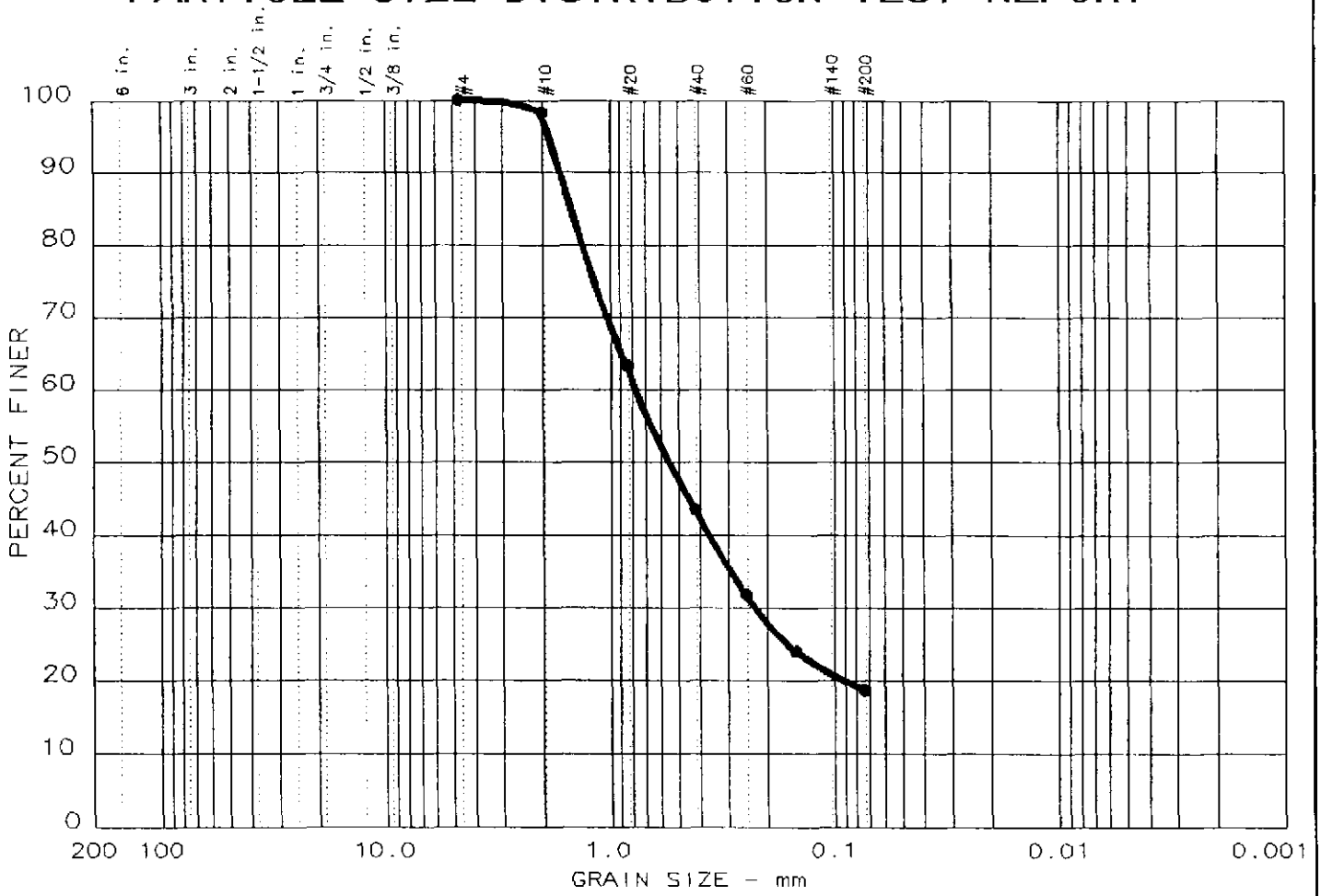
Project No.: 01S2685-01

Project: ROUX ASSOCIATES, INC.

Date: 5/21/01

Data Sheet No. 6

PARTICLE SIZE DISTRIBUTION TEST REPORT



	Test	%+75 mm	% GRAVEL	% SAND	% SILT	% CLAY	USCS
●	19	0.0	0.0	81.3	18.7		SM

SIEVE inches size	PERCENT FINER ●		
	GRAIN SIZE		
D_{60}	0.77		
D_{30}	0.23		
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ●		
4	100.0		
10	98.3		
20	63.2		
40	43.4		
60	31.7		
100	24.0		
200	18.7		

Sample information:

● SED-7

ISRT - SEDIMENT

Remarks:

ASTM D-422

J & L TESTING CO., INC.

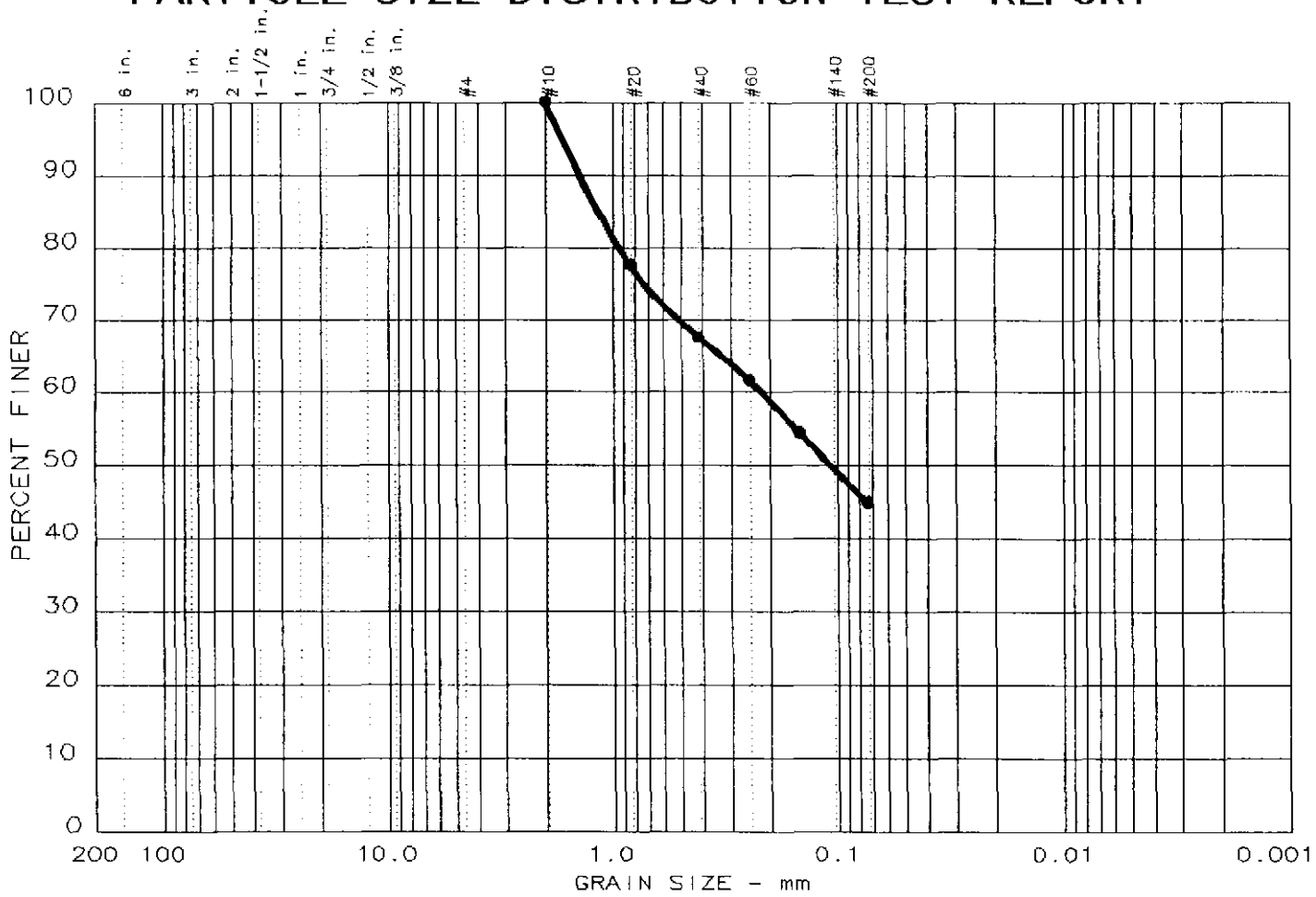
Project No.: 01S2685-01

Project: ROUX ASSOCIATES, INC.

Date: 5/21/01

Data Sheet No. 7

PARTICLE SIZE DISTRIBUTION TEST REPORT



	Test	%+75 mm	% GRAVEL	% SAND	% SILT	% CLAY	USCS
●	20	0.0	0.0	55.2	44.8		SM

SIEVE inches size	PERCENT FINER ●		
	GRAIN SIZE		
D_{60}	0.22		
D_{30}			
D_{10}			
	COEFFICIENTS		
C_c			
C_u			

SIEVE number size	PERCENT FINER ●		
10	100.0		
20	77.6		
40	67.6		
60	61.5		
100	54.3		
200	44.8		

Sample information:

● SED-8

ISRT - SEDIMENT

Remarks:

ASTM D-422

J & L TESTING CO., INC.

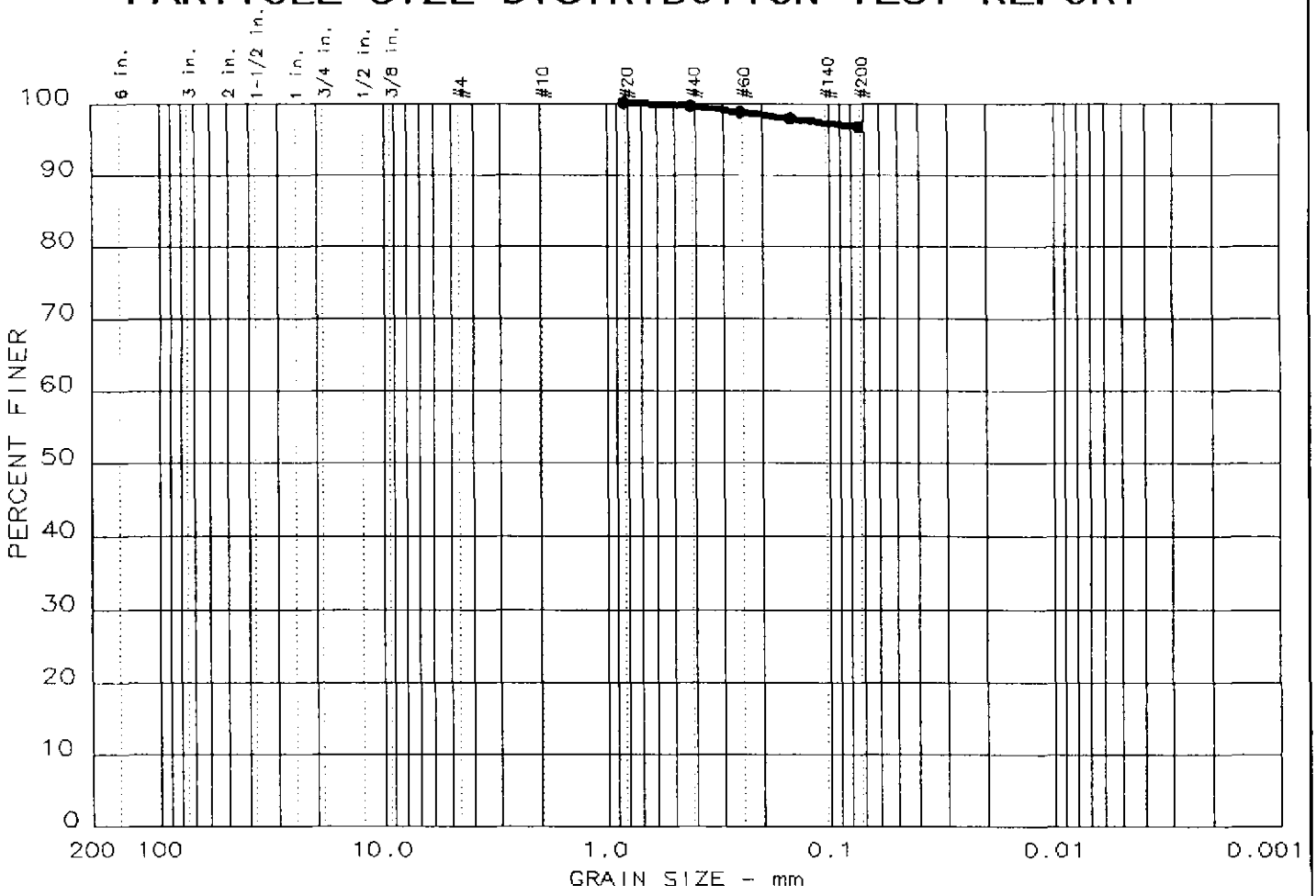
Project No.: 01S2685-01

Project: ROUX ASSOCIATES, INC.

Date: 5/21/01

Data Sheet No. 8

PARTICLE SIZE DISTRIBUTION TEST REPORT



	Test	%+75 mm	% GRAVEL	% SAND	% SILT	% CLAY	USCS
●	1	0.0	0.0	3.3	96.7		ML

SIEVE inches size	PERCENT FINER ●		
GRAIN SIZE			
D_{60}			
D_{30}			
D_{10}			
COEFFICIENTS			
C_c			
C_u			

SIEVE number size	PERCENT FINER ●		
20	100.0		
40	99.6		
60	98.8		
100	97.9		
200	96.7		

Sample information:

● SED-9

ISRT - SEDIMENT

Remarks:

ASTM D-422

J & L TESTING CO., INC.

Project No.: 01S2685-01

Project: ROUX ASSOCIATES, INC.

Date: 5/21/01

Data Sheet No. 9

SPECIFIC GRAVITY OF SOILS (Solid Particles)

ASTM D-854

JLT

Client: Roux Associates, Inc.
Project: ISRT (Project No. 06626M34)
Material: Sediment

Job Number: 01S2685-01
Date: 05/18/01
Tested By: DB
Checked By: JB

PROCEDURE A: [ ] Oven Dry Specimen

PROCEDURE B: [X] Use for Specimens with organic soils and highly plastic fine-grained soils

PARTICLE SIZE: - #10 Sieve

WATER: De-aired, Distilled Water

$$SpG @ 20°C = K * M_o / [M_o + (M_a - M_b)]$$

MATERIAL I.D.		Sed - 1	Sed - 2	Sed - 3
MASS OF OVEN DRY SAMPLE, Mo	grams	75.0	75.0	75.0
MASS OF PYCNOMETER & WATER, Ma	grams	352.2	345.4	345.0
MASS OF PYCNOMETER, SOIL, WATER, Mb	grams	391.3	384.5	385.2
TEMPERATURE OF TEST FOR Mb , Tb	deg C	20.0	20.5	20.4
TEMPERATURE CORRECTION FACTOR, K		1.0000	0.9999	0.9999
SPECIFIC GRAVITY AT 20 deg C		2.089	2.089	2.155

MATERIAL I.D.		Sed - 4	Sed - 5	Sed - 6
MASS OF OVEN DRY SAMPLE, Mo	grams	75.0	75.0	75.0
MASS OF PYCNOMETER & WATER, Ma	grams	347.1	352.2	345.4
MASS OF PYCNOMETER, SOIL, WATER, Mb	grams	394.3	396.0	385.5
TEMPERATURE OF TEST FOR Mb	deg C	18.5	19.6	19.9
TEMPERATURE CORRECTION FACTOR, K		1.0003	1.0001	1.0000
SPECIFIC GRAVITY AT 20 deg C		2.699	2.404	2.149

MATERIAL I.D.		Sed - 7	Sed - 8	Sed - 9
MASS OF OVEN DRY SAMPLE, Mo	grams	60.0	75.0	75.0
MASS OF PYCNOMETER & WATER, Ma	grams	345.0	347.1	352.2
MASS OF PYCNOMETER, SOIL, WATER, Mb	grams	341.6	386.9	393.6
TEMPERATURE OF TEST FOR Mb	deg C	21.4	20.0	19.7
TEMPERATURE CORRECTION FACTOR, K		0.9997	1.0000	1.0001
SPECIFIC GRAVITY AT 20 deg C		0.946	2.131	2.232

J&L Testing Company, Inc. 938 S. Central Avenue, Canonsburg, PA 15317 * Tel: (724) 746-4441 / Fax: (724) 745-4261

DENSITY OF SEMI-FLUID MATERIALS
(Volumetric-Weight Method)

JLT

Client: Roux Associates, Inc.
Project: ISRT - Sediment
Woburn, Mass.
Roux Project No. 06626M34

Date: 05/16/01
Job Number: 01S2685-01
Performed By: DL
Checked By: JB

SAMPLE I.D.		1	2	3	4	5	6	7	8	9
VOLUME	ml	820	835	882	758	835	910	741	880	880
WEIGHT	grams	851.1	970.7	929.9	1369.3	944.1	980.4	745.8	959.6	896.7
FLUID DENSITY	grams/ml	1.0379	1.1625	1.0543	1.8065	1.1307	1.0774	1.0065	1.0905	1.0190
FLUID DENSITY	pcf	64.7978	72.5758	65.8205	112.7776	70.5870	67.2597	62.8344	68.0771	63.6148
DRY WEIGHT DETERMINATION (*)										
TARE I.D.		127	X701	X702	X703	X704	X705	X706	X707	X708
DRY WEIGHT + TARE	grams	215.3	363.4	213.7	1088.4	303.8	234.9	185.2	269.9	280.6
TARE	grams	102.6	102.6	101.9	100.5	100.2	101.8	101.8	103.8	101.2
DRY WEIGHT of SOLIDS	grams	112.7	260.8	111.8	987.9	203.6	133.1	83.4	166.1	179.4
SOLIDS DENSITY (1)	grams/ml	0.1374	0.3123	0.1268	1.3033	0.2438	0.1463	0.1126	0.1888	0.2039
SOLIDS DENSITY (1)	pcf	8.5799	19.4982	7.9131	81.3610	15.2217	9.1308	7.0262	11.7831	12.7266

* *Due to high organic content, all samples were dried at 90 deg C for two days to minimize organic losses. Standard ASTM D-2216 temperature is 105 deg C.*

(1) *Dry Weight of solids divided by the volume of the fluid sample.*

Ex: Sample 1: Solids Density = 112.7 grs/820 ml = 0.1374 grs/ml or 8.58 lbs/cu.ft

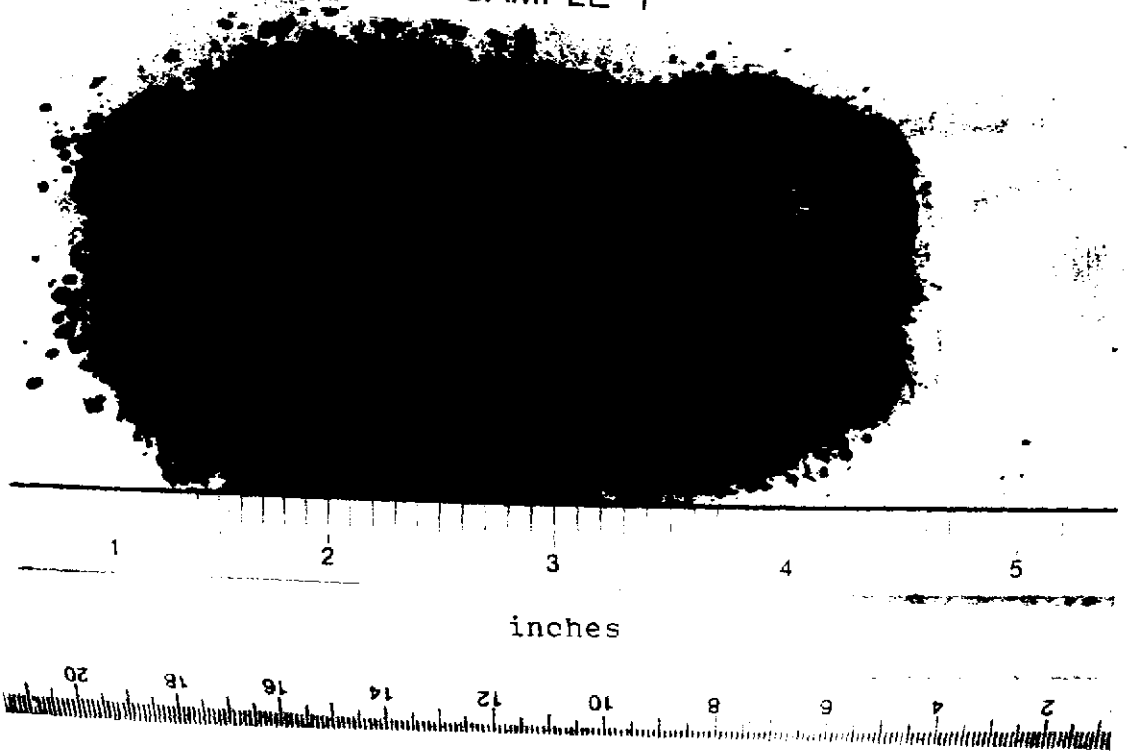
J&L Testing Company, Inc. 938 S. Central Avenue, Canonsburg, PA 15317 * Tel: (724) 746-4441 / (724) 745-4261

Roux Associates, Inc.
ISRT - Sediment Samples
Woburn, Mass.

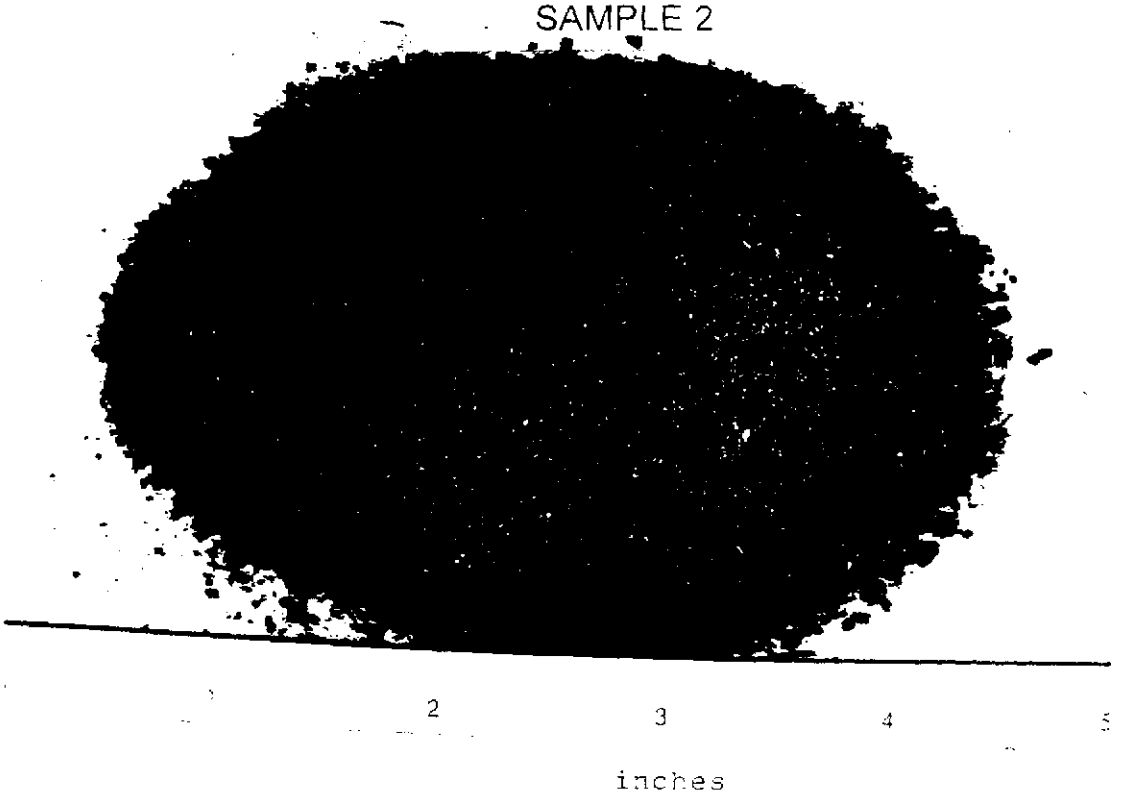
Roux Project: 06626M34
J&L Project: 01S2685-01

All samples dried at 90° C for two days
to prevent degradation of organics

SAMPLE 1



SAMPLE 2



Originals in color.

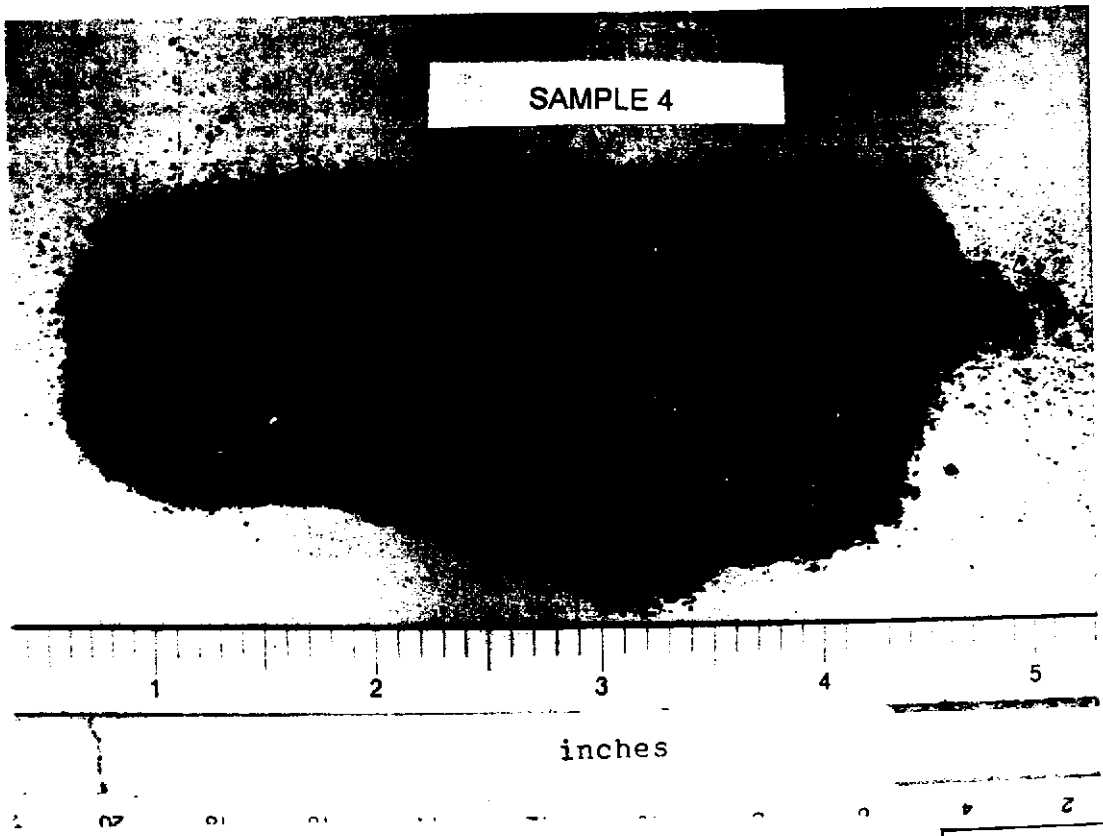
Roux Associates, Inc.
ISRT - Sediment Samples
Woburn, Mass.

Roux Project: 06626M34
J&L Project: 01S2685-01

All samples dried at 90° C for two days
to prevent degradation of organics

SAMPLE 3

SAMPLE 4



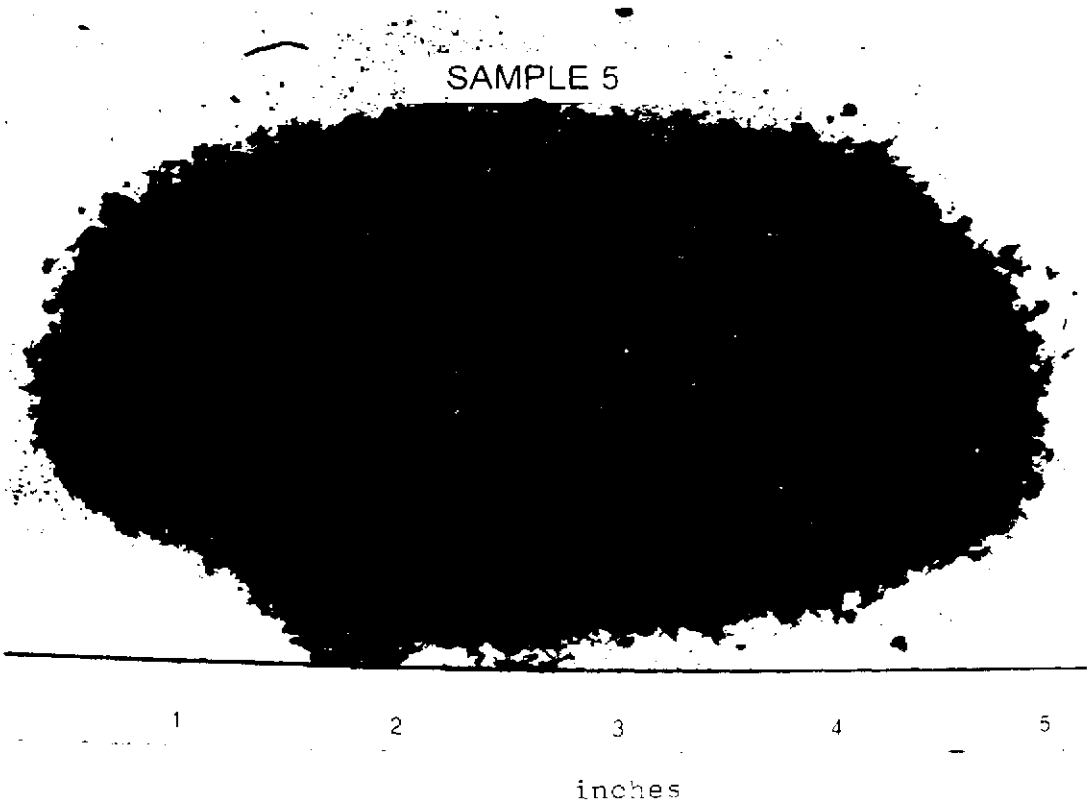
Originals in color.

Roux Associates, Inc.
ISRT - Sediment Samples
Woburn, Mass.

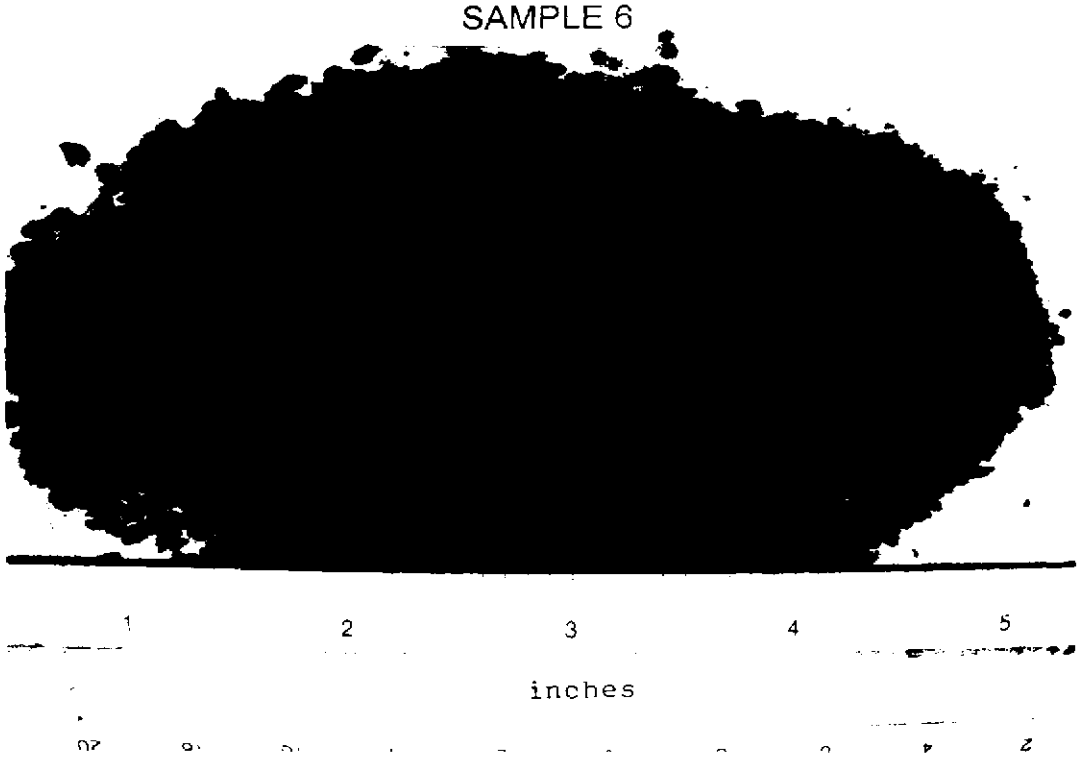
Roux Project: 06626M34
J&L Project: 01S2685-01

All samples dried at 90° C for two days
to prevent degradation of organics

SAMPLE 5



SAMPLE 6



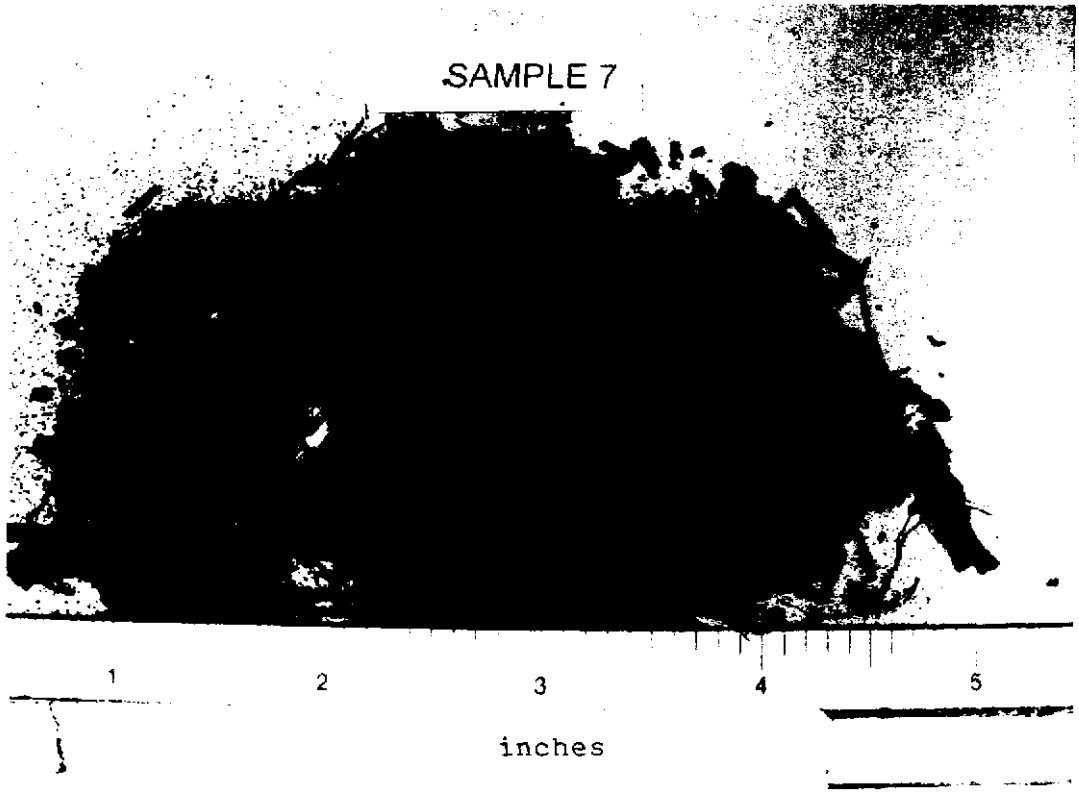
Originals in color.

Roux Associates, Inc.
ISRT - Sediment Samples
Woburn, Mass.

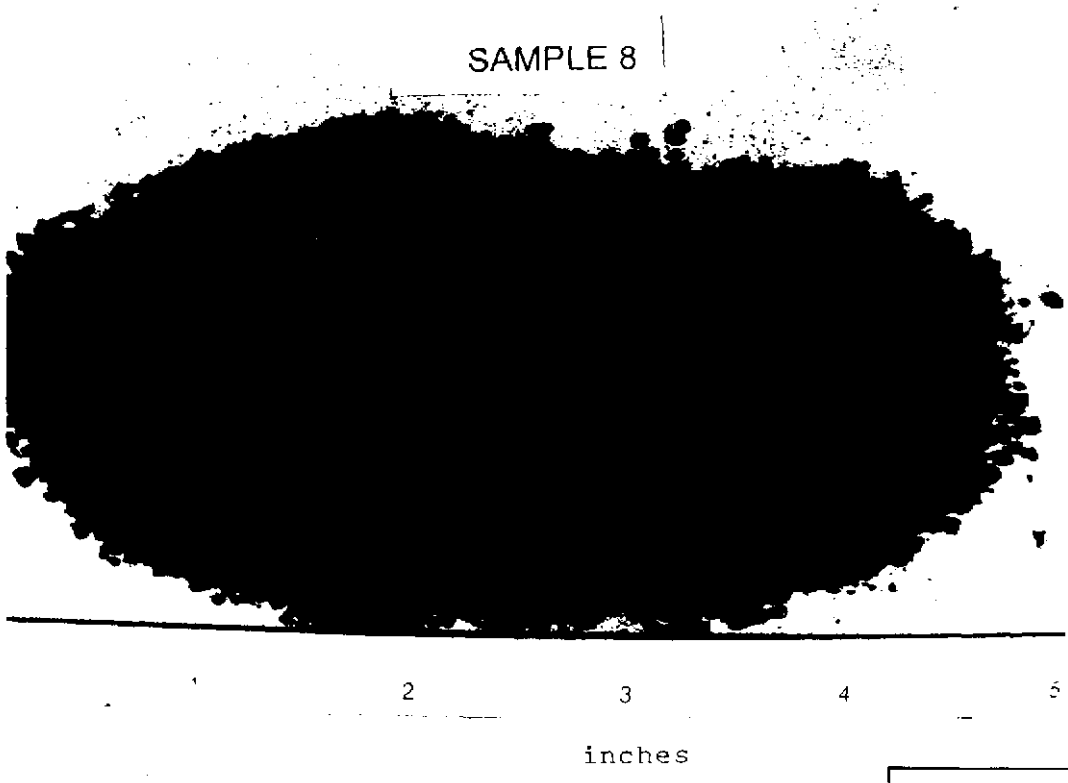
Roux Project: 06626M34
J&L Project: 01S2685-01

All samples dried at 90° C for two days
to prevent degradation of organics

SAMPLE 7



SAMPLE 8

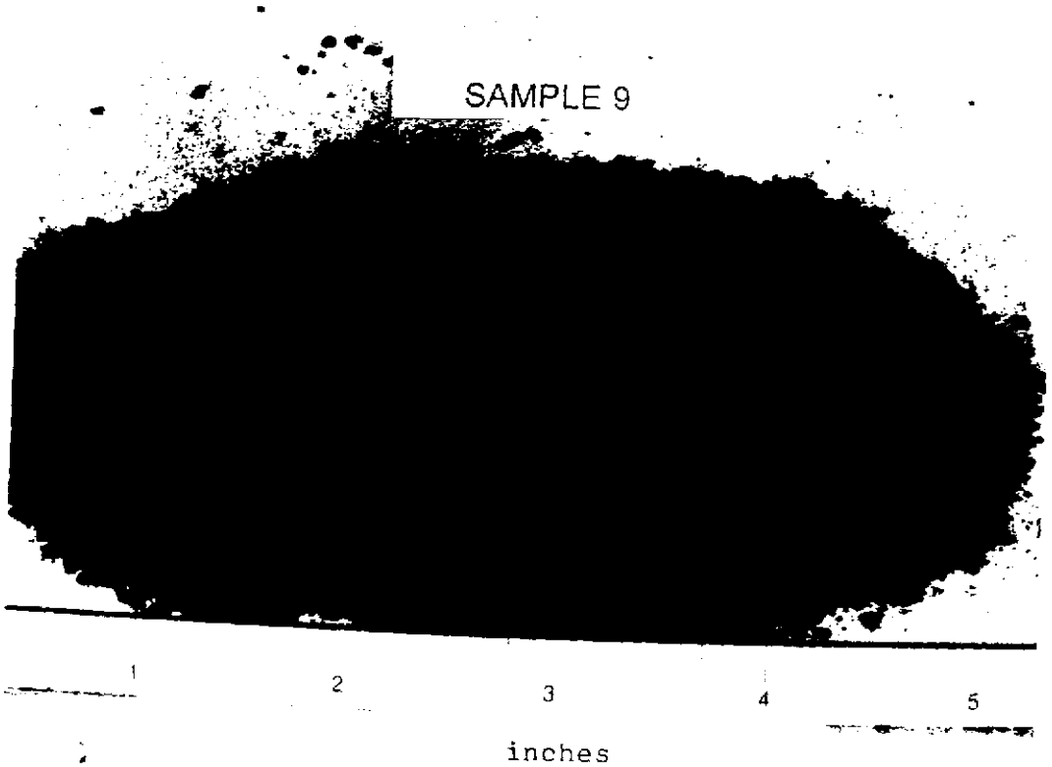


Originals in color.

Roux Associates, Inc.
ISRT - Sediment Samples
Woburn, Mass.

Roux Project: 06626M34
J&L Project: 01S2685-01

All samples dried at 90° C for two days
to prevent degradation of organics



Originals in color.

APPENDIX F

Analytical Lab Reports

Summer Baseflow

Committed To *Your* Success

September 18, 2000

Severn Trent Laboratories
128 Long Hill Cross Road
Shelton CT 06484

Tel: (203) 929-8140
Fax: (203) 929-8142
www.stl-inc.com

Mr. Larry Mctiernan
ROUX ASSOCIATES-MA
25 Corporate Drive
Suite 230
Burlington, MA 01803

Dear Mr. Mctiernan :

Please find enclosed the analytical results of 11 sample(s) received at our laboratory on August 31, 2000. This report contains sections addressing the following information at a minimum:

- sample summary
- analytical methodology
- state certifications
- definition of data qualifiers and terminology
- analytical results
- chain-of-custody

STL Report #7000-1915A	Purchase Order #06626M32
Project ID: INDUSTRIALPLEX	

Copies of this analytical report and supporting data are maintained in our files for a minimum of five years unless special arrangements have been made. Unless specifically indicated, all analytical testing was performed at this laboratory location and no portion of the testing was subcontracted.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (203) 929-8140 for any additional information. Thank you for utilizing our services; we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Very truly yours,

Jeffrey C. Curran
Laboratory Manager

JCC

7000-1915A
ROUX ASSOCIATES

Case Narrative

Sample Receipt – All samples were received in good condition and at proper temperature.

Semi-Volatile Organics - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS using guidance provided in Methods 3510C/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

All samples were extracted, concentrated and analyzed without any apparent problems.

During analysis, it was noted that the non-TCL compound cyclohexanone was present at very high levels in several of the samples. The client was contacted and instructed the lab to report the cyclohexanone results, which are above the calibration level.

The spike recovery for the compound, 2,4-dinitrotoluene, was above recovery limits for SW-09MS and SW-09MSD.

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. No analytical problems were encountered.

Analyte	Method	Reference
TSS	160.2	1

References:

1. Methods of Chemical Analysis of Water and Wastes, EPA 600, 1983.

Metals – ICAP metals were determined using a JA61E trace ICAP; mercury was determined by cold vapor technique using a Leeman Labs mercury analyzer; following guidance provided in SW846 according to methods: ICAP – 3010A/6010B; mercury-7470A.

No problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

TABLE SV-1.0
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	SW-04	SW-40	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCS	001915A-02	001915A-03	
Method Blank I.D.	SBLKCS	SBLKCS	SBLKCS	
Quant. Factor	1.00	1.22	1.10	
Cyclohexanone	U	260E	250E	10
Phenol	U	7J	6J	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
bis(2-Chloroisopropyl)ether	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U	U	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Date Received		08/31/00	08/31/00	
Date Extracted	09/01/00	09/01/00	09/01/00	
Date Analyzed	09/06/00	09/06/00	09/06/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	Method Blank	SW-04	SW-40	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCS	001915A-02	001915A-03	
Method Blank I.D.	SBLKCS	SBLKCS	SBLKCS	
Quant. Factor	1.00	1.22	1.10	
Acenaphthene	U	U	U	10
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	U	U	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	50
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	U	U	50
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Di-n-butylphthalate	U	U	U	10
Fluoranthene	U	U	U	10
Pyrene	U	U	U	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	U	U	U	10
Di-n-octylphthalate	U	U	U	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U	U	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received		08/31/00	08/31/00	
Date Extracted	09/01/00	09/01/00	09/01/00	
Date Analyzed	09/06/00	09/06/00	09/06/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	SW-09	SW-09 MS	SW-09 MSD	Quant. Limits with no Dilution
Lab Sample I.D.	001915A-04	001915A-04MS	001915A-04 MSD	
Method Blank I.D.	SBLKCS	SBLKCS	SBLKCS	
Quant. Factor	1.10	1.06	1.09	
Cyclohexanone	100E	100E	100E	10
Phenol	U	40X	41X	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	75X	74X	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	32X	33X	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
bis(2-Chloroisopropyl)ether	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	41X	41X	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	36X	37X	10
Naphthalene	U	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	93EX	95EX	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U	U	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Date Received	08/31/00	08/31/00	08/31/00	
Date Extracted	09/01/00	09/01/00	09/01/00	
Date Analyzed	09/06/00	09/06/00	09/06/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	SW-09	SW-09 MS	SW-09 MSD	Quant. Limits with no Dilution
Lab Sample I.D.	001915A-04	001915A-04MS	001915A-04 MSD	
Method Blank I.D.	SBLKCS	SBLKCS	SBLKCS	
Quant. Factor	1.10	1.06	1.09	
Acenaphthene	U	43X	43X	10
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	54X	57X	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	54X	55X	10
Diethylphthalate	U	U	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	50
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	79X	83X	50
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Di-n-butylphthalate	U	U	U	10
Fluoranthene	U	U	U	10
Pyrene	U	40X	42X	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	U	U	U	10
Di-n-octylphthalate	U	U	U	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U	U	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	08/31/00	08/31/00	08/31/00	
Date Extracted	09/01/00	09/01/00	09/01/00	
Date Analyzed	09/06/00	09/06/00	09/06/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	FIELD BLANK			Quant. Limits with no Dilution
Lab Sample I.D.	001915A-05			
Method Blank I.D.	SBLKCS			
Quant. Factor	1.06			
Cyclohexanone	6J			10
Phenol	U			10
bis(2-Chloroethyl)ether	U			10
2-Chlorophenol	U			10
1,3-Dichlorobenzene	U			10
1,4-Dichlorobenzene	U			10
Benzyl alcohol	U			10
1,2-Dichlorobenzene	U			10
2-Methylphenol	U			10
bis(2-Chloroisopropyl)ether	U			10
4-Methylphenol	U			10
N-Nitroso-di-n-propylamine	U			10
Hexachloroethane	U			10
Nitrobenzene	U			10
Isophorone	U			10
2-Nitrophenol	U			10
2,4-Dimethylphenol	U			10
Benzoic acid	U			50
bis(2-Chloroethoxy)methane	U			10
2,4-Dichlorophenol	U			10
1,2,4-Trichlorobenzene	U			10
Naphthalene	U			10
4-Chloroaniline	U			10
Hexachlorobutadiene	U			10
4-Chloro-3-methylphenol	U			10
2-Methylnaphthalene	U			10
Hexachlorocyclopentadiene	U			10
2,4,6-Trichlorophenol	U			10
2,4,5-Trichlorophenol	U			50
2-Chloronaphthalene	U			10
2-Nitroaniline	U			50
Dimethylphthalate	U			10
Acenaphthylene	U			10
2,6-Dinitrotoluene	U			10
3-Nitroaniline	U			50
Date Received	08/31/00			
Date Extracted	09/01/00			
Date Analyzed	09/06/00			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	FIELD BLANK			Quant. Limits with no Dilution
Lab Sample I.D.	001915A-05			
Method Blank I.D.	SBLKCS			
Quant. Factor	1.06			
Acenaphthene	U			10
2,4-Dinitrophenol	U			50
4-Nitrophenol	U			50
Dibenzofuran	U			10
2,4-Dinitrotoluene	U			10
Diethylphthalate	U			10
4-Chlorophenyl-phenylether	U			10
Fluorene	U			10
4-Nitroaniline	U			50
4,6-Dinitro-2-methylphenol	U			50
N-Nitrosodiphenylamine (1)	U			10
4-Bromophenyl-phenylether	U			10
Hexachlorobenzene	U			10
Pentachlorophenol	U			50
Phenanthrene	U			10
Anthracene	U			10
Di-n-butylphthalate	U			10
Fluoranthene	U			10
Pyrene	U			10
Butylbenzylphthalate	U			10
3,3'-Dichlorobenzidine	U			20
Benzo(a)anthracene	U			10
Chrysene	U			10
bis(2-Ethylhexyl)phthalate	47			10
Di-n-octylphthalate	2J			10
Benzo(b)fluoranthene	U			10
Benzo(k)fluoranthene	U			10
Benzo(a)pyrene	U			10
Indeno(1,2,3-cd)pyrene	U			10
Dibenzo(a,h)anthracene	U			10
Benzo(g,h,i)perylene	U			10
Date Received	08/31/00			
Date Extracted	09/01/00			
Date Analyzed	09/06/00			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE SV-2.0
7000-1915A
ROUX ASSOCIATES-MA
MISCELLANEOUS SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	Method Blank	SW-01		Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCS	001915A-01		
Method Blank I.D.	SBLKCS	SBLKCS		
Quant. Factor	1.00	1.24		
4-Methylphenol	U	U		10
Naphthalene	U	U		10
2-Methylnaphthalene	U	U		10
Acenaphthylene	U	U		10
Acenaphthene	U	U		10
Fluorene	U	U		10
Diethylphthalate	U	U		10
Phenanthrene	U	U		10
Anthracene	U	U		10
Fluoranthene	U	U		10
Pyrene	U	U		10
Benzo(a)anthracene	U	U		10
Chrysene	U	U		10
bis(2-Ethylhexyl)phthalate	U	U		10
Benzo(b)fluoranthene	U	U		10
Benzo(k)fluoranthene	U	U		10
Benzo(a)pyrene	U	U		10
Indeno(1,2,3-cd)pyrene	U	U		10
Dibenzo(a,h)anthracene	U	U		10
Benzo(g,h,i)perylene	U	U		10
Date Received		08/31/00		
Date Extracted	09/01/00	09/01/00		
Date Analyzed	09/06/00	09/06/00		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE AS-1.0
7000-1915A
ROUX ASSOCIATES-MA
TAL METALS (Dissolved)

All values are ug/L.

Client Sample I.D.	SW-01	SW-04	SW-40	SW-09
Lab Sample I.D.	001915A-01	001915A-02	001915A-03	001915A-04
Aluminum	NR	NR	NR	NR
Antimony	NR	NR	NR	NR
Arsenic	3.1U	3.1U	6.2B	3.1U
Barium	NR	NR	NR	NR
Beryllium	NR	NR	NR	NR
Cadmium	NR	NR	NR	NR
Calcium	NR	NR	NR	NR
Chromium	NR	NR	NR	NR
Cobalt	NR	NR	NR	NR
Copper	NR	NR	NR	NR
Iron	NR	NR	NR	NR
Lead	NR	NR	NR	NR
Magnesium	NR	NR	NR	NR
Manganese	NR	NR	NR	NR
Mercury	NR	NR	NR	NR
Nickel	NR	NR	NR	NR
Potassium	NR	NR	NR	NR
Selenium	NR	NR	NR	NR
Silver	NR	NR	NR	NR
Sodium	NR	NR	NR	NR
Thallium	NR	NR	NR	NR
Vanadium	NR	NR	NR	NR
Zinc	NR	NR	NR	NR

See Appendix for qualifier definitions

Aqueous

TABLE AS-1.1
7000-1915A
ROUX ASSOCIATES-MA
TAL METALS (Dissolved)

All values are ug/L.

Client Sample I.D.	SW-09 D	SW-09 S	FIELD BLANK	
Lab Sample I.D.	001915A-04D	001915A-04S	001915A-05	
Aluminum	NR	NR	NR	
Antimony	NR	NR	NR	
Arsenic	3.5B	46.2	3.1U	
Barium	NR	NR	NR	
Beryllium	NR	NR	NR	
Cadmium	NR	NR	NR	
Calcium	NR	NR	NR	
Chromium	NR	NR	NR	
Cobalt	NR	NR	NR	
Copper	NR	NR	NR	
Iron	NR	NR	NR	
Lead	NR	NR	NR	
Magnesium	NR	NR	NR	
Manganese	NR	NR	NR	
Mercury	NR	NR	NR	
Nickel	NR	NR	NR	
Potassium	NR	NR	NR	
Selenium	NR	NR	NR	
Silver	NR	NR	NR	
Sodium	NR	NR	NR	
Thallium	NR	NR	NR	
Vanadium	NR	NR	NR	
Zinc	NR	NR	NR	

See Appendix for qualifier definitions

Aqueous

TABLE AS-1.2
7000-1915A
ROUX ASSOCIATES-MA
TAL METALS (Total)

All values are ug/L.

Client Sample I.D.	SW-01	SW-04	SW-40	SW-09
Lab Sample I.D.	001915A-01	001915A-02	001915A-03	001915A-04
Aluminum	NR	57.7B	57.7B	172.B
Antimony	NR	2.1U	2.1U	2.1U
Arsenic	3.6B	21.1	21.0	23.5
Barium	NR	27.0B	27.3B	31.5B
Beryllium	NR	0.20U	0.20U	0.20U
Cadmium	NR	3.4B	3.4B	0.20U
Calcium	NR	45500	46000	43400
Chromium	3.5B	1.8B	1.6B	6.2B
Cobalt	NR	1.4B	1.9B	1.2B
Copper	NR	11.8B	7.3B	13.0B
Iron	NR	1150	1170	2770
Lead	3.3	1.3U	1.3U	2.3B
Magnesium	NR	6950	7030	6920
Manganese	NR	408.	413.	488.
Mercury	0.10U	0.10U	0.10U	0.10U
Nickel	NR	1.6B	1.2B	1.9B
Potassium	NR	8280	8450	8090
Selenium	NR	7.3	3.7B	6.6
Silver	NR	0.32B	0.30U	0.30U
Sodium	NR	45000	45300	45800
Thallium	NR	5.3U	5.3U	5.3U
Vanadium	NR	0.30U	0.30U	0.63B
Zinc	NR	262.	264.	115.

See Appendix for qualifier definitions

Aqueous

TABLE AS-1.3
7000-1915A
ROUX ASSOCIATES-MA
TAL METALS (Total)

All values are ug/L.

Client Sample I.D.	SW-09 D	SW-09 S	FIELD BLANK	
Lab Sample I.D.	001915A-04D	001915A-04S	001915A-05	
Aluminum	167.B	2070	55.2B	
Antimony	2.1U	500.	2.1U	
Arsenic	23.1	63.4	3.1U	
Barium	31.8B	1910	2.4B	
Beryllium	0.20U	49.6	0.23B	
Cadmium	0.20U	5.1	0.69B	
Calcium	44100	NR	14800	
Chromium	6.1B	194.	0.30U	
Cobalt	1.6B	464.	0.47B	
Copper	9.1B	243.	0.30U	
Iron	2810	3570	13.6B	
Lead	2.8B	22.5	1.3U	
Magnesium	7000	NR	1870B	
Manganese	495.	950.	2.9B	
Mercury	0.10U	1.2	0.10U	
Nickel	1.4B	473.	0.40U	
Potassium	8170	NR	412.B	
Selenium	3.5B	16.1	3.7B	
Silver	0.32B	48.3	0.30U	
Sodium	45900	NR	2290B	
Thallium	5.3U	50.5	5.3U	
Vanadium	0.64B	469.	0.30U	
Zinc	116.	610.	41.1	

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

SW-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: 001915A-01

% Solids: 0 Date Received: 08/31/00

CAS No.	Analyte	Concentration	C	Units	Q	M
	TSS	8.0		mg/L		G

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

SW-04

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: 001915A-02

% Solids: 0 Date Received: 08/31/00

CAS No.	Analyte	Concentration	C	Units	Q	M
	TSS	5.0	U	mg/L		G

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

SW-40

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: 001915A-03

% Solids: 0 Date Received: 08/31/00

CAS No.	Analyte	Concentration	C	Units	Q	M
	TSS	5.0	U	mg/L		G

Comments:

FORM I - WC

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

SW-09

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: 001915A-04

% Solids: 0 Date Received: 08/31/00

CAS No.	Analyte	Concentration	C	Units	Q	M
	TSS	8.5		mg/L		G

Comments:

FORM I - WC

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FIELD BLANK

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: 001915A-05

% Solids: 0 Date Received: 08/31/00

CAS No.	Analyte	Concentration	C	Units	Q	M
	TSS	5.0	U	mg/L		G

Comments:

FORM I - WC

STL
Committed To Your Success

ORGANICS APPENDIX

U - Indicates that the compound was analyzed for but not detected.

J - Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B - This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N - Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S - Estimated due to surrogate outliers.

X - Matrix spike compound.

(1) - Cannot be separated.

(2) - Decomposes to azobenzene. Measured and calibrated as azobenzene.

A - This flag indicates that a TIC is a suspected aldol condensation product.

E - Indicates that it exceeds calibration curve range.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C - Confirmed by GC/MS.

T - Compound present in TCLP blank.

P - This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

STL
Committed To Your Success

INORGANICS APPENDIX

C - Concentration qualifiers

U - Indicates analyte was not detected at method reporting limit.

B - Indicates analyte result between IDL and contract required detection limit (CRDL)

Q - QC qualifiers

E - Reported value is estimated because of the presence of interference

M - Duplicate injection precision not met

N - Spiked sample recovery not within control limits

S - The reported value was determined by the method of standard additions (MSA)

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance

* - Duplicate analysis not within control limit

+ - Correlation coefficient for MSA is less than 0.995

M - Method codes

P - ICP

A - Flame AA

F - Furnace AA

CV - Cold vapor AA (manual)

C - Cyanide

NR - Not Required

NC - Not Calculated as per protocols

STATE CERTIFICATIONS

In some instances it may be necessary for environmental data to be reported to a regulatory authority with reference to a certified laboratory. For your convenience, the laboratory identification numbers for the STL-Connecticut laboratory are provided in the following table. Many states certify laboratories for specific parameters or tests within a category (i.e. method 325.2 for wastewater). The information in the following table indicates the lab is certified in a general category of testing such as drinking water or wastewater analysis. The laboratory should be contacted directly if parameter-specific certification information is required.

STL-Connecticut
Certification Summary (as of April 2000)

State	Responsible Agency	Certification Area	Lab Number
Connecticut	Department of Health Services	Drinking Water, Wastewater	PH-0497
Maine	Department of Health and Environmental Services	Drinking Water, Wastewater/Solid, Hazardous Waste	CT023
Massachusetts	Department of Environmental Protection	Potable/Non-Potable Water	CT023
New Hampshire	Department of Environmental Services	Drinking Water, Wastewater	2528
New Jersey	Department of Environmental Protection	Drinking Water, Wastewater	46410
New York	Department of Health	CLP, Drinking Water, Wastewater, Solid/ Hazardous Waste	10602
North Carolina	Division of Environmental Management	Wastewater	388
Rhode Island	Department of Health	Chemistry...Non-Potable Water and Wastewater	A43
Washington	Department of Ecology	Wastewater/Hazardous Waste	C231
Wisconsin	Department of Natural Resources	Wastewater	998355710

7000-1915A
ROUX ASSOCIATES-MA
SAMPLE SUMMARY

CLIENT ID	LAB ID	MATRIX	DATE COLLECTED	DATE RECEIVED
SW-01	001915A-01	WATER	08/29/00	08/31/00
SW-04	001915A-02	WATER	08/29/00	08/31/00
SW-04	001915A-02DL	WATER	08/29/00	08/31/00
SW-40	001915A-03	WATER	08/29/00	08/31/00
SW-09	001915A-04	WATER	08/29/00	08/31/00
SW-09	001915A-04D	WATER	08/29/00	08/31/00
SW-09	001915A-04DL	WATER	08/29/00	08/31/00
SW-09	001915A-04MS	WATER	08/29/00	08/31/00
SW-09	001915A-04MSD	WATER	08/29/00	08/31/00
SW-09	001915A-04S	WATER	08/29/00	08/31/00
FIELD BLANK	001915A-05	WATER	08/29/00	08/31/00

STL CT ANALYTICAL SUMMARY

Client ID: FIELD BLANK, SW-01, SW-04, SW-09, SW-40
Job Number: 7000-1915A

Date: 9/19/100

Qty	Matrix	Analysis	Description
1	None	DISK	Diskette Prep.
1	WATER	AS-SW846	Arsenic
7	WATER	AS-SW846-D	Arsenic (Dissolved)
2	WATER	BNA-8270C-MISC	Miscellaneous Semi-V
1	WATER	BNA-8270C-MISC	Miscellaneous Semi-V
6	WATER	BNA-8270C-TCL	TCL Semi-Volatile Or
1	WATER	CR-SW846	Chromium
1	WATER	HG-SW846	Mercury
1	WATER	MET-PREP-ICAP	Metals ICAP Prep
7	WATER	MET-PREP-ICAP-D	Metals ICAP Prep (Di
6	WATER	MET-SW846-TAL	TAL Metals
1	WATER	PB-SW846	Lead
6	WATER	TSS-160.2	Total Suspended Soli

Committed To *Your* Success

September 21, 2000

Severn Trent Laboratories
128 Long Hill Cross Road
Shelton CT 06484

Tel: (203) 929-8140
Fax: (203) 929-8142
www.stl-inc.com

Mr. Larry Mctiernan
ROUX ASSOCIATES-MA
25 Corporate Drive
Suite 230
Burlington, MA 01803

Dear Mr. Mctiernan :

Please find enclosed the analytical results of 11 sample(s) received at our laboratory on August 31, 2000. This report contains sections addressing the following information at a minimum:

- sample summary
- analytical methodology
- state certifications
- definition of data qualifiers and terminology
- analytical results
- chain-of-custody

STL Report #7000-1915A	Purchase Order #06626M32
Project ID: INDUSTRIALPLEX	

Copies of this analytical report and supporting data are maintained in our files for a minimum of five years unless special arrangements have been made. Unless specifically indicated, all analytical testing was performed at this laboratory location and no portion of the testing was subcontracted.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (203) 929-8140 for any additional information. Thank you for utilizing our services; we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Very truly yours,

Jeffrey C. Curran
Laboratory Manager

JCC

Committed To Your Success

7000-1915A Addendum
ROUX ASSOCIATES

Case Narrative

Semi-Volatile Organics - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS using guidance provided in Methods 3510C/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

All samples were extracted, concentrated and analyzed without any apparent problems.

The spike recovery for the compound, 2,4-dinitrotoluene, was above recovery limits for SW-09MS and SW-09MSD.

Samples SW-04 and SW-09 were re-analyzed at 1:2 and 1:4 dilutions respectively at the client's request to quantitate cyclohexanone.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Chris Casella for
Jeffrey C. Curran
Laboratory Manager

Sept 21, 2000
Date

TABLE SV-1.0
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	Method Blank	SW-04	SW-04 DL	Quant Limit with Dilut
Lab Sample I.D.	SBLKCS	001915A-02	001915A-02DL	
Method Blank I.D.	SBLKCS	SBLKCS	SBLKCS	
Quant. Factor	1.00	1.22	4.88	
Cyclohexanone	U	260E	280D	10
Phenol	U	7J	6JD	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
bis(2-Chloroisopropyl)ether	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	1
2,4-Dichlorophenol	U	U	U	1
1,2,4-Trichlorobenzene	U	U	U	1
Naphthalene	U	U	U	1
4-Chloroaniline	U	U	U	1
Hexachlorobutadiene	U	U	U	1
4-Chloro-3-methylphenol	U	U	U	1
2-Methylnaphthalene	U	U	U	1
Hexachlorocyclopentadiene	U	U	U	1
2,4,6-Trichlorophenol	U	U	U	1
2,4,5-Trichlorophenol	U	U	U	5
2-Chloronaphthalene	U	U	U	1
2-Nitroaniline	U	U	U	5
Dimethylphthalate	U	U	U	1
Acenaphthylene	U	U	U	1
2,6-Dinitrotoluene	U	U	U	1
3-Nitroaniline	U	U	U	5
Date Received		08/31/00	08/31/00	
Date Extracted	09/01/00	09/01/00	09/01/00	
Date Analyzed	09/06/00	09/06/00	09/15/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation fact
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	SW-04	SW-04 DL	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCS	001915A-02	001915A-02DL	
Method Blank I.D.	SBLKCS	SBLKCS	SBLKCS	
Quant. Factor	1.00	1.22	4.88	
Acenaphthene	U	U	U	10
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	U	U	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	50
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	U	U	50
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Di-n-butylphthalate	U	U	U	10
Fluoranthene	U	U	U	10
Pyrene	U	U	U	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	U	U	U	10
Di-n-octylphthalate	U	U	U	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U	U	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received		08/31/00	08/31/00	
Date Extracted	09/01/00	09/01/00	09/01/00	
Date Analyzed	09/06/00	09/06/00	09/15/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	SW-40	SW-09	SW-09 DL	Quant Limit with Dilut
Lab Sample I.D.	001915A-03	001915A-04	001915A-04DL	
Method Blank I.D.	SBLKCS	SBLKCS	SBLKCS	
Quant. Factor	1.10	1.10	2.20	
Cyclohexanone	250E	100E	100D	1
Phenol	6J	U	U	1
bis(2-Chloroethyl)ether	U	U	U	1
2-Chlorophenol	U	U	U	1
1,3-Dichlorobenzene	U	U	U	1
1,4-Dichlorobenzene	U	U	U	1
Benzyl alcohol	U	U	U	1
1,2-Dichlorobenzene	U	U	U	1
2-Methylphenol	U	U	U	1
bis(2-Chloroisopropyl)ether	U	U	U	1
4-Methylphenol	U	U	U	1
N-Nitroso-di-n-propylamine	U	U	U	1
Hexachloroethane	U	U	U	1
Nitrobenzene	U	U	U	1
Isophorone	U	U	U	1
2-Nitrophenol	U	U	U	1
2,4-Dimethylphenol	U	U	U	1
Benzoic acid	U	U	U	5
bis(2-Chloroethoxy)methane	U	U	U	1
2,4-Dichlorophenol	U	U	U	1
1,2,4-Trichlorobenzene	U	U	U	1
Naphthalene	U	U	U	1
4-Chloroaniline	U	U	U	1
Hexachlorobutadiene	U	U	U	1
4-Chloro-3-methylphenol	U	U	U	1
2-Methylnaphthalene	U	U	U	1
Hexachlorocyclopentadiene	U	U	U	1
2,4,6-Trichlorophenol	U	U	U	1
2,4,5-Trichlorophenol	U	U	U	1
2-Chloronaphthalene	U	U	U	1
2-Nitroaniline	U	U	U	1
Dimethylphthalate	U	U	U	1
Acenaphthylene	U	U	U	1
2,6-Dinitrotoluene	U	U	U	1
3-Nitroaniline	U	U	U	1
Date Received	08/31/00	08/31/00	08/31/00	
Date Extracted	09/01/00	09/01/00	09/01/00	
Date Analyzed	09/06/00	09/06/00	09/15/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation fac
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture an sample dilution.

TABLE SV-1.1
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	SW-40	SW-09	SW-09 DL	Quant. Limits with no Dilution
Lab Sample I.D.	001915A-03	001915A-04	001915A-04DL	
Method Blank I.D.	SBLKCS	SBLKCS	SBLKCS	
Quant. Factor	1.10	1.10	2.20	
Acenaphthene	U	U	U	10
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	U	U	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	50
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	U	U	50
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Di-n-butylphthalate	U	U	U	10
Fluoranthene	U	U	U	10
Pyrene	U	U	U	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	U	U	U	10
Di-n-octylphthalate	U	U	U	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U	U	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	08/31/00	08/31/00	08/31/00	
Date Extracted	09/01/00	09/01/00	09/01/00	
Date Analyzed	09/06/00	09/06/00	09/15/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	SW-09 MS	SW-09 MSD	FIELD BLANK	Quant. Limits with no Dilution
Lab Sample I.D.	001915A-04MS	001915A-04 MSD	001915A-05	
Method Blank I.D.	SBLKCS	SBLKCS	SBLKCS	
Quant. Factor	1.06	1.09	1.06	
Cyclohexanone	100E	100E	6J	10
Phenol	40X	41X	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	75X	74X	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	32X	33X	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
bis(2-Chloroisopropyl)ether	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	41X	41X	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	36X	37X	U	10
Naphthalene	U	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	93EX	95EX	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U	U	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Date Received	08/31/00	08/31/00	08/31/00	
Date Extracted	09/01/00	09/01/00	09/01/00	
Date Analyzed	09/06/00	09/06/00	09/06/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7000-1915A
ROUX ASSOCIATES-MA
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	SW-09 MS	SW-09 MSD	FIELD BLANK	Quant. Limits with no Dilution
Lab Sample I.D.	001915A-04MS	001915A-04 MSD	001915A-05	
Method Blank I.D.	SBLKCS	SBLKCS	SBLKCS	
Quant. Factor	1.06	1.09	1.06	
Acenaphthene	43X	43X	U	10
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	54X	57X	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	54X	55X	U	10
Diethylphthalate	U	U	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	50
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	79X	83X	U	50
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Di-n-butylphthalate	U	U	U	10
Fluoranthene	U	U	U	10
Pyrene	40X	42X	U	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	U	U	47	10
Di-n-octylphthalate	U	U	2J	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U	U	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	08/31/00	08/31/00	08/31/00	
Date Extracted	09/01/00	09/01/00	09/01/00	
Date Analyzed	09/06/00	09/06/00	09/06/00	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

STL
Committed To Your Success

ORGANICS APPENDIX

U - Indicates that the compound was analyzed for but not detected.

J - Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B - This flag is used when the analyte is found in the blanks as well as the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte.

N - Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S - Estimated due to surrogate outliers.

X - Matrix spike compound.

(1) - Cannot be separated.

(2) - Decomposes to azobenzene. Measured and calibrated as azobenzene.

A - This flag indicates that a TIC is a suspected aldol condensation product.

E - Indicates that it exceeds calibration curve range.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C - Confirmed by GC/MS.

T - Compound present in TCLP blank.

P - This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

STATE CERTIFICATIONS

In some instances it may be necessary for environmental data to be reported to a regulatory authority with reference to a certified laboratory. For your convenience, the laboratory identification numbers for the STL-Connecticut laboratory are provided in the following table. Many states certify laboratories for specific parameters or tests within a category (i.e. method 325.2 for wastewater). The information in the following table indicates the lab is certified in a general category of testing such as drinking water or wastewater analysis. The laboratory should be contacted directly if parameter-specific certification information is required.

STL-Connecticut
Certification Summary (as of April 2000)

State	Regulatory Agency	Certification Area	Lab Number
Connecticut	Department of Health Services	Drinking Water, Wastewater	PH-0497
Maine	Department of Health and Environmental Services	Drinking Water, Wastewater/Solid, Hazardous Waste	CT023
Massachusetts	Department of Environmental Protection	Potable/Non-Potable Water	CT023
New Hampshire	Department of Environmental Services	Drinking Water, Wastewater	2528
New Jersey	Department of Environmental Protection	Drinking Water, Wastewater	46410
New York	Department of Health	CLP, Drinking Water, Wastewater, Solid/ Hazardous Waste	10602
North Carolina	Division of Environmental Management	Wastewater	388
Rhode Island	Department of Health	Chemistry...Non-Potable Water and Wastewater	A43
Washington	Department of Ecology	Wastewater/Hazardous Waste	C231
Wisconsin	Department of Natural Resources	Wastewater	998355710

7000-1915A
ROUX ASSOCIATES-MA
SAMPLE SUMMARY

CLIENT ID	LAB ID	MATRIX	DATE COLLECTED	DATE RECEIVED
SW-01	001915A-01	WATER	08/29/00	08/31/00
SW-04	001915A-02	WATER	08/29/00	08/31/00
SW-04	001915A-02DL	WATER	08/29/00	08/31/00
SW-40	001915A-03	WATER	08/29/00	08/31/00
SW-09	001915A-04	WATER	08/29/00	08/31/00
SW-09	001915A-04D	WATER	08/29/00	08/31/00
SW-09	001915A-04DL	WATER	08/29/00	08/31/00
SW-09	001915A-04MS	WATER	08/29/00	08/31/00
SW-09	001915A-04MSD	WATER	08/29/00	08/31/00
SW-09	001915A-04S	WATER	08/29/00	08/31/00
FIELD BLANK	001915A-05	WATER	08/29/00	08/31/00

STL CT ANALYTICAL SUMMARY

Client ID: FIELD BLANK, SW-01, SW-04, SW-09, SW-40
Job Number: 7000-1915A

Date: 9/22/100

Qty	Matrix	Analysis	Description
1	None	DISK	Diskette Prep.
1	WATER	AS-SW846	Arsenic
7	WATER	AS-SW846-D	Arsenic (Dissolved)
2	WATER	BNA-8270C-MISC	Miscellaneous Semi-V
1	WATER	BNA-8270C-MISC	Miscellaneous Semi-V
6	WATER	BNA-8270C-TCL	TCL Semi-Volatile Or
1	WATER	CR-SW846	Chromium
1	WATER	HG-SW846	Mercury
1	WATER	MET-PREP-ICAP	Metals ICAP Prep
7	WATER	MET-PREP-ICAP-D	Metals ICAP Prep (Di
6	WATER	MET-SW846-TAL	TAL Metals
1	WATER	PB-SW846	Lead
6	WATER	TSS-160.2	Total Suspended Soli

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

0012

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKCS	72	74	67	36	47	78			0
02	SBLKCSFMS	83	80	81	36	50	81			0
03	SW-01	78	79	70	42	54	81			0
04	SW-04	71	72	65	38	53	77			0
05	SW-40	68	70	65	34	48	76			0
06	SW-09	75	76	68	39	54	77			0
07	SW-09MS	71	76	67	35	49	76			0
08	SW-09MSD	72	75	69	34	49	75			0
09	FIELD BLANK	68	70	66	34	45	73			0
10	SW-04DL	68	79	100	34	50	84			0
11	SW-09DL	71	79	96	35	49	87			0
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 (35-114)
S2 (FBP) = 2-Fluorobiphenyl (43-116)
S3 (TPH) = Terphenyl-d14 (33-141)
S4 (PHL) = Phenol-d5 (10-110)
S5 (2FP) = 2-Fluorophenol (21-110)
S6 (TBP) = 2,4,6-Tribromophenol (10-123)
S7 (2CP) = 2-Chlorophenol-d4 (-) (advisory)
S8 (DCB) = 1,2-Dichlorobenzene-d4 (-) (advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM II SV-1

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKCS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Lab File ID: >S0836 Lab Sample ID: SBLKCS

Instrument ID: HP5972S Date Extracted:09/01/00

Matrix: (soil/water) WATER Date Analyzed: 09/06/00

Level:(low/med) LOW Time Analyzed:1108

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLKCSFMS	SBLKCSFMS	>S0837	09/06/00
02	SW-01	001915A-01	>S0838	09/06/00
03	SW-04	001915A-02	>S0839	09/06/00
04	SW-40	001915A-03	>S0840	09/06/00
05	SW-09	001915A-04	>S0841	09/06/00
06	SW-09MS	001915A-04MS	>S0842	09/06/00
07	SW-09MSD	001915A-04MSD	>S0843	09/06/00
08	FIELD BLANK	001915A-05	>S0844	09/06/00
09	SW-04DL	001915A-02DL	>S0898	09/15/00
10	SW-09DL	001915A-04DL	>S0899	09/15/00
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS: _____

FORM IV SV

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Lab File ID: S0884 DFTPP Injection Date:09/15/00

Instrument ID: HP5972S DFTPP Injection Time:1252

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	45.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	60.3
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	45.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	22.1
365	Greater than 1.0% of mass 198	1.84
441	Present, but less than mass 443	10.5
442	40.0 - 100.0% of mass 198	65.8
443	17.0 - 23.0% of mass 442	12.8 (19.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050U5	SSTD050U5	>S0884	09/15/00	1252
02	SW-04DL	001915A-02DL	>S0898	09/15/00	2312
03	SW-09DL	001915A-04DL	>S0899	09/15/00	2356
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V SV

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Lab File ID: (Standard): >S0884 Date Analyzed:09/15/00

Instrument ID: HP5972S Time Analyzed:1252

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	165305	10.37	601770	13.34	297807	17.24
	UPPER LIMIT	330610	10.87	1203540	13.84	595614	17.74
	LOWER LIMIT	82652	9.87	300885	12.84	148904	16.74
	EPA SAMPLE NO.						
01	SW-04DL	137386	10.36	504877	13.32	266173	17.23
02	SW-09DL	155491	10.35	578047	13.33	297014	17.23
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV-1

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Lab File ID: (Standard): >S0884 Date Analyzed:09/15/00

Instrument ID: HP5972S Time Analyzed:1252

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	440974	20.34	270111	25.82	198540	29.11
	UPPER LIMIT	881948	20.84	540222	26.32	397080	29.61
	LOWER LIMIT	220487	19.84	135056	25.32	99270	28.61
	EPA SAMPLE NO.						
01	SW-04DL	434502	20.33	267837	25.82	195467	29.10
02	SW-09DL	478500	20.32	293137	25.81	212469	29.11
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV-2

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-04DL

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-02DL

Sample wt/vol: 820 (g/mL) ML Lab File ID: >S0898

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/00

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-94-1	Cyclohexanone	280	D
108-95-2	Phenol	6	JD
111-44-4	bis(2-Chloroethyl)ether	49	U
95-57-8	2-Chlorophenol	49	U
541-73-1	1,3-Dichlorobenzene	49	U
106-46-7	1,4-Dichlorobenzene	49	U
100-51-6	Benzyl alcohol	49	U
95-50-1	1,2-Dichlorobenzene	49	U
95-48-7	2-Methylphenol	49	U
108-60-1	bis(2-Chloroisopropyl)ether	49	U
106-44-5	4-Methylphenol	49	U
621-64-7	N-Nitroso-di-n-propylamine	49	U
67-72-1	Hexachloroethane	49	U
98-95-3	Nitrobenzene	49	U
78-59-1	Isophorone	49	U
88-75-5	2-Nitrophenol	49	U
105-67-9	2,4-Dimethylphenol	49	U
65-85-0	Benzoic acid	240	U
111-91-1	bis(2-Chloroethoxy)methane	49	U
120-83-2	2,4-Dichlorophenol	49	U
120-82-1	1,2,4-Trichlorobenzene	49	U
91-20-3	Naphthalene	49	U
106-47-8	4-Chloroaniline	49	U
87-68-3	Hexachlorobutadiene	49	U
59-50-7	4-Chloro-3-methylphenol	49	U
91-57-6	2-Methylnaphthalene	49	U
77-47-4	Hexachlorocyclopentadiene	49	U
88-06-2	2,4,6-Trichlorophenol	49	U
95-95-4	2,4,5-Trichlorophenol	240	U
91-58-7	2-Chloronaphthalene	49	U
88-74-4	2-Nitroaniline	240	U
131-11-3	Dimethylphthalate	49	U
208-96-8	Acenaphthylene	49	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-04DL

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-02DL

Sample wt/vol: 820 (g/mL) ML Lab File ID: >S0898

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/00

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
606-20-2	2,6-Dinitrotoluene	49	U
99-09-2	3-Nitroaniline	240	U
83-32-9	Acenaphthene	49	U
51-28-5	2,4-Dinitrophenol	240	U
100-02-7	4-Nitrophenol	240	U
132-64-9	Dibenzofuran	49	U
121-14-2	2,4-Dinitrotoluene	49	U
84-66-2	Diethylphthalate	49	U
7005-72-3	4-Chlorophenyl-phenylether	49	U
86-73-7	Fluorene	49	U
100-01-6	4-Nitroaniline	240	U
534-52-1	4,6-Dinitro-2-methylphenol	240	U
86-30-6	N-Nitrosodiphenylamine (1)	49	U
101-55-3	4-Bromophenyl-phenylether	49	U
118-74-1	Hexachlorobenzene	49	U
87-86-5	Pentachlorophenol	240	U
85-01-8	Phenanthrene	49	U
120-12-7	Anthracene	49	U
84-74-2	Di-n-butylphthalate	49	U
206-44-0	Fluoranthene	49	U
129-00-0	Pyrene	49	U
85-68-7	Butylbenzylphthalate	49	U
91-94-1	3,3'-Dichlorobenzidine	98	U
56-55-3	Benzo(a)anthracene	49	U
218-01-9	Chrysene	49	U
117-81-7	bis(2-Ethylhexyl)phthalate	49	U
117-84-0	Di-n-octylphthalate	49	U
205-99-2	Benzo(b)fluoranthene	49	U
207-08-9	Benzo(k)fluoranthene	49	U
50-32-8	Benzo(a)pyrene	49	U
193-39-5	Indeno(1,2,3-cd)pyrene	49	U
53-70-3	Dibenzo(a,h)anthracene	49	U
191-24-2	Benzo(g,h,i)perylene	49	U

(1) - Cannot be separated from Diphenylamine

Quantitation Report (QT Reviewed)

0019

Data File : C:\HPCHEM\MSS_NT\S0898.D
Acq On : 15 Sep 2000 11:12 pm
Sample : 001915A-02
Misc : SW-04 ; SWC ; 4 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 15 23:48 2000

Vial: 14
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 2.44
Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Fri Sep 15 13:51:26 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.36	152	137386	40.00	ug	0.00
20) Naphthalene-d8	13.32	136	504877	40.00	ug	-0.02
35) Acenaphthene-d10	17.23	164	266173	40.00	ug	0.00
57) Phenanthrene-d10	20.33	188	434502	40.00	ug	0.00
70) Chrysene-d12	25.82	240	267837	40.00	ug	0.00
79) Perylene-d12	29.11	264	195467	40.00	ug	0.00
System Monitoring Compounds						
2) 2-Fluorophenol	7.59	112	93042	24.76	ug	0.01
Spiked Amount 200.000	Range 21 - 110		Recovery = 12.38%#			
3) Phenol-d5	9.61	99	85943	17.26	ug	-0.02
Spiked Amount 200.000	Range 10 - 110		Recovery = 8.63%#			
21) Nitrobenzene-d5	11.71	82	76551	17.12	ug	-0.02
Spiked Amount 100.000	Range 35 - 114		Recovery = 17.12%#			
40) 2-Fluorobiphenyl	15.74	172	139255	19.74	ug	-0.02
Spiked Amount 100.000	Range 43 - 116		Recovery = 19.74%#			
56) 2,4,6-Tribromophenol	18.92	330	52874	42.39	ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 21.20%			
73) Terphenyl-d14	23.59	244	138474	24.91	ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 24.91%#			
Target Compounds						Qvalue
6) Cyclohexanone	8.03	42	255051	285.30	ug	93
7) Phenol	9.64	94	12184	5.86	ug	96

All spectra and manual integrations for this sample have been reviewed and approved.

By: EMartin Date: 09/18/00

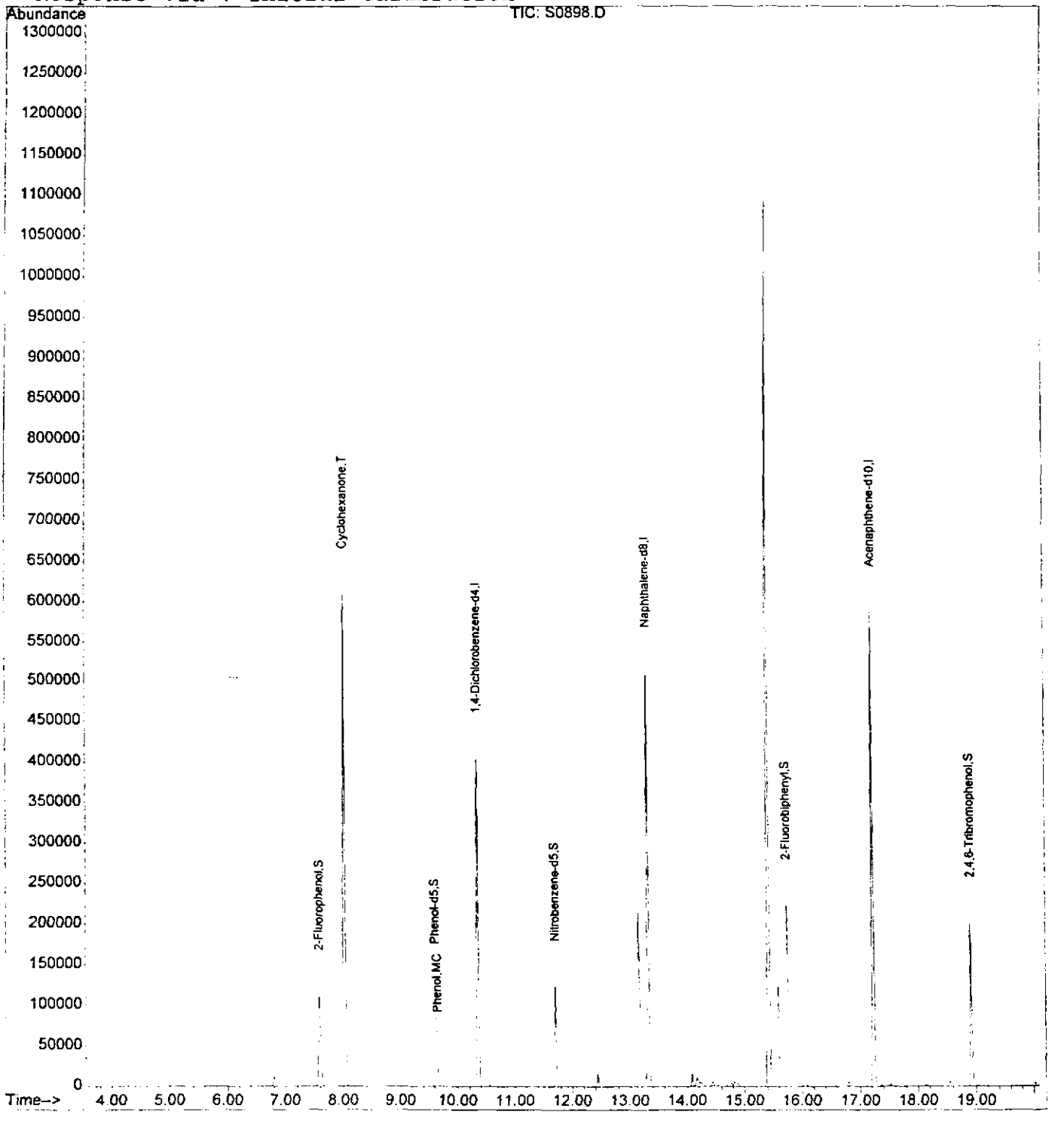
Secondary review: ARhodes Date: 9/18/00

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

Data File : C:\HPCHEM\MSS_NT\S0898.D
Acq On : 15 Sep 2000 11:12 pm
Sample : 001915A-02
Misc : SW-04 ; SWC ; 4 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 15 23:48 2000

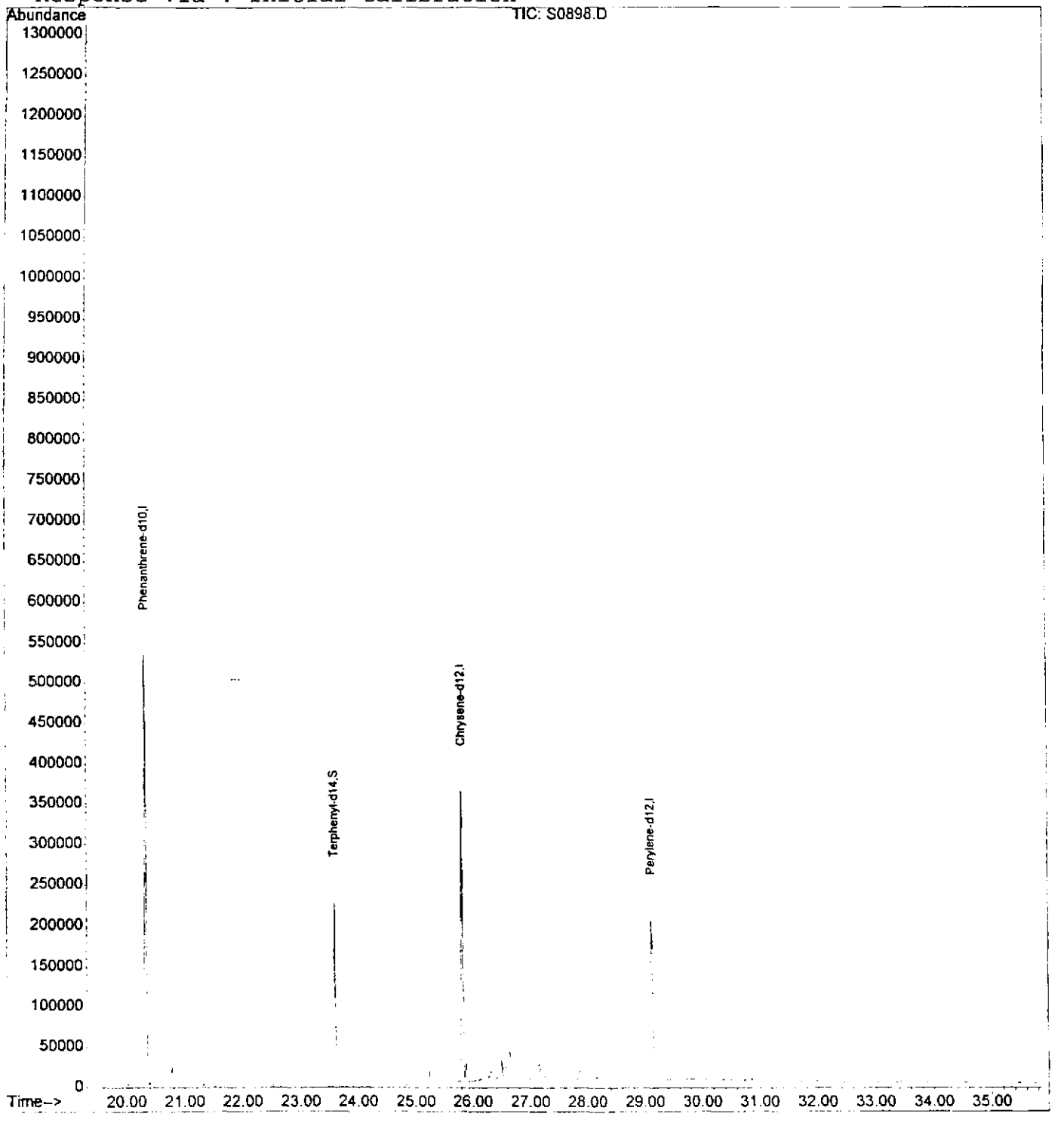
Vial: 14
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 2.44
Quant Results File: MSSSOCNT.RES

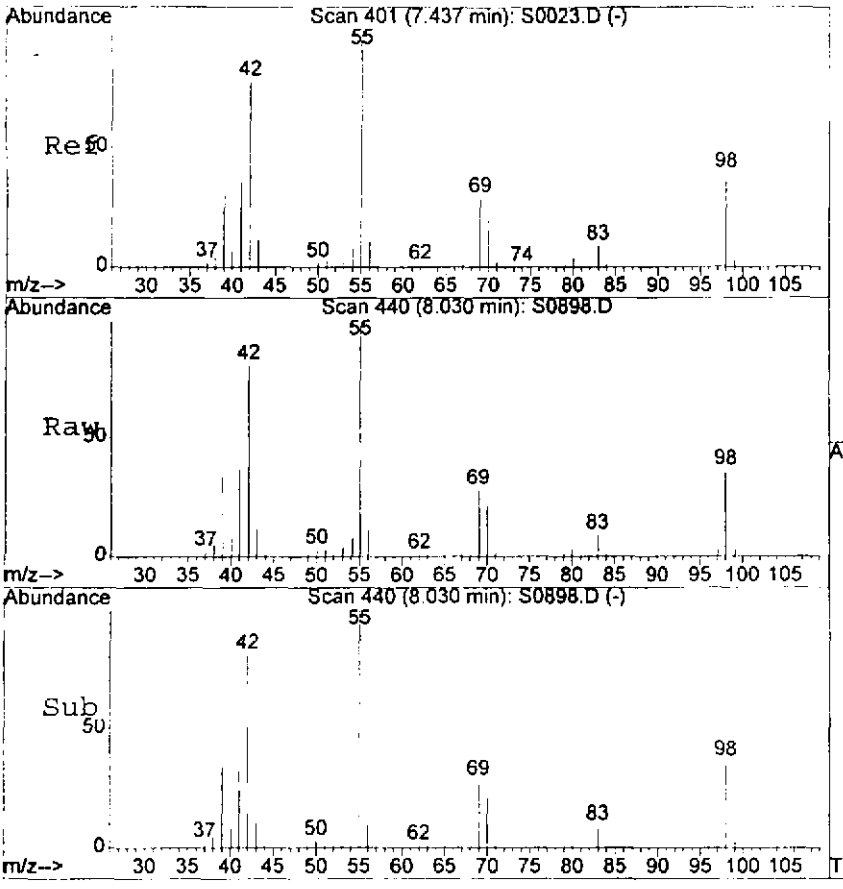
Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Sep 18 15:09:02 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0898.D Vial: 14
Acq On : 15 Sep 2000 11:12 pm Operator: E. MARTIN
Sample : 001915A-02 Inst : HP5972:S
Misc : SW-04 ; SWC ; 4 ; LLW ; WATER Multiplr: 2.44
MS Integration Params: RTEINT.P
Quant Time: Sep 15 23:48 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Sep 18 15:09:02 2000
Response via : Initial Calibration

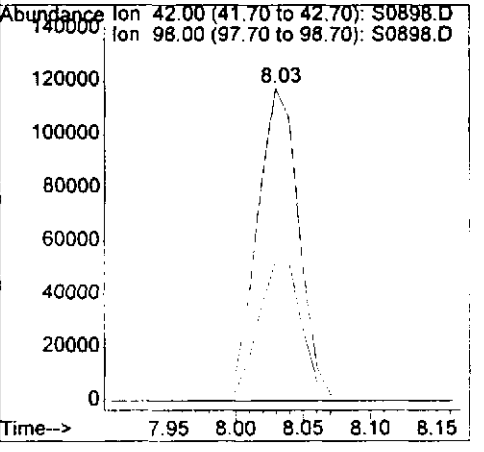


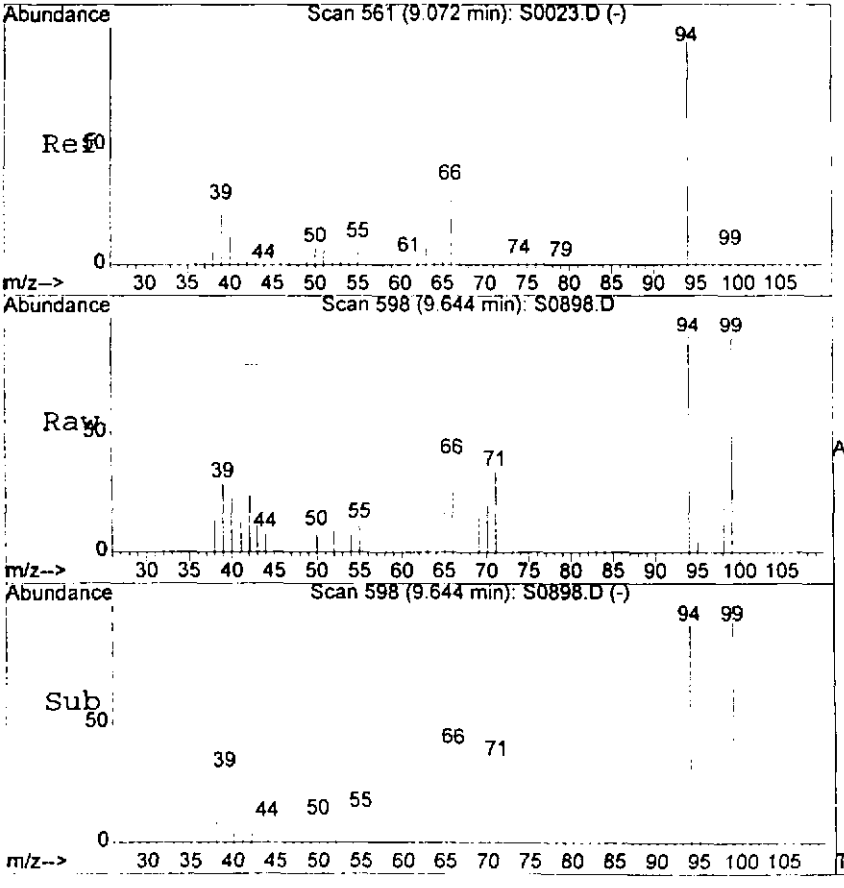


#6
Cyclohexanone
Concen: 285.30 ug
RT: 8.03 min Scan# 440
Delta R.T. -0.01 min
Lab File: S0898.D
Acq: 15 Sep 2000 11:12 pm

Tgt Ion: 42 Resp: 255051

Ion	Ratio	Lower	Upper
42	100		
98	44.9	20.3	60.3

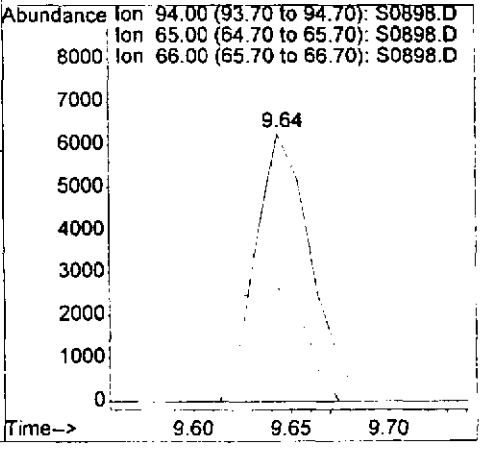




#7
Phenol
Concen: 5.86 ug
RT: 9.64 min Scan# 598
Delta R.T. -0.02 min
Lab File: S0898.D
Acq: 15 Sep 2000 11:12 pm

Tgt Ion: 94 Resp: 12184

Ion	Ratio	Lower	Upper
94	100		
65	30.8	9.5	49.5
66	42.1	18.7	58.7



1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SW-09DL

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-04DL

Sample wt/vol: 910 (g/mL) ML Lab File ID: >S0899

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/00

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-94-1	Cyclohexanone	100	D
108-95-2	Phenol	22	U
111-44-4	bis(2-Chloroethyl)ether	22	U
95-57-8	2-Chlorophenol	22	U
541-73-1	1,3-Dichlorobenzene	22	U
106-46-7	1,4-Dichlorobenzene	22	U
100-51-6	Benzyl alcohol	22	U
95-50-1	1,2-Dichlorobenzene	22	U
95-48-7	2-Methylphenol	22	U
108-60-1	bis(2-Chloroisopropyl)ether	22	U
106-44-5	4-Methylphenol	22	U
621-64-7	N-Nitroso-di-n-propylamine	22	U
67-72-1	Hexachloroethane	22	U
98-95-3	Nitrobenzene	22	U
78-59-1	Isophorone	22	U
88-75-5	2-Nitrophenol	22	U
105-67-9	2,4-Dimethylphenol	22	U
65-85-0	Benzoic acid	110	U
111-91-1	bis(2-Chloroethoxy)methane	22	U
120-83-2	2,4-Dichlorophenol	22	U
120-82-1	1,2,4-Trichlorobenzene	22	U
91-20-3	Naphthalene	22	U
106-47-8	4-Chloroaniline	22	U
87-68-3	Hexachlorobutadiene	22	U
59-50-7	4-Chloro-3-methylphenol	22	U
91-57-6	2-Methylnaphthalene	22	U
77-47-4	Hexachlorocyclopentadiene	22	U
88-06-2	2,4,6-Trichlorophenol	22	U
95-95-4	2,4,5-Trichlorophenol	110	U
91-58-7	2-Chloronaphthalene	22	U
88-74-4	2-Nitroaniline	110	U
131-11-3	Dimethylphthalate	22	U
208-96-8	Acenaphthylene	22	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-09DL

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-04DL

Sample wt/vol: 910 (g/mL) ML Lab File ID: >S0899

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/00

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
606-20-2	2,6-Dinitrotoluene	22	U
99-09-2	3-Nitroaniline	110	U
83-32-9	Acenaphthene	22	U
51-28-5	2,4-Dinitrophenol	110	U
100-02-7	4-Nitrophenol	110	U
132-64-9	Dibenzofuran	22	U
121-14-2	2,4-Dinitrotoluene	22	U
84-66-2	Diethylphthalate	22	U
7005-72-3	4-Chlorophenyl-phenylether	22	U
86-73-7	Fluorene	22	U
100-01-6	4-Nitroaniline	110	U
534-52-1	4,6-Dinitro-2-methylphenol	110	U
86-30-6	N-Nitrosodiphenylamine (1)	22	U
101-55-3	4-Bromophenyl-phenylether	22	U
118-74-1	Hexachlorobenzene	22	U
87-86-5	Pentachlorophenol	110	U
85-01-8	Phenanthrene	22	U
120-12-7	Anthracene	22	U
84-74-2	Di-n-butylphthalate	22	U
206-44-0	Fluoranthene	22	U
129-00-0	Pyrene	22	U
85-68-7	Butylbenzylphthalate	22	U
91-94-1	3,3'-Dichlorobenzidine	44	U
56-55-3	Benzo(a)anthracene	22	U
218-01-9	Chrysene	22	U
117-81-7	bis(2-Ethylhexyl)phthalate	22	U
117-84-0	Di-n-octylphthalate	22	U
205-99-2	Benzo(b)fluoranthene	22	U
207-08-9	Benzo(k)fluoranthene	22	U
50-32-8	Benzo(a)pyrene	22	U
193-39-5	Indeno(1,2,3-cd)pyrene	22	U
53-70-3	Dibenzo(a,h)anthracene	22	U
191-24-2	Benzo(g,h,i)perylene	22	U

(1) - Cannot be separated from Diphenylamine

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\MSS_NT\S0899.D Vial: 15
Acq On : 15 Sep 2000 11:56 pm Operator: E. MARTIN
Sample : 001915A-04 Inst : HP5972:S
Misc : SW-09 ; SWC ; 2 ; LLW ; WATER Multiplr: 1.10
MS Integration Params: RTEINT.P
Quant Time: Sep 16 0:32 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Fri Sep 15 13:51:26 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.35	152	155491	40.00 ug	-0.01
20) Naphthalene-d8	13.33	136	578047	40.00 ug	-0.01
35) Acenaphthene-d10	17.23	164	297014	40.00 ug	-0.01
57) Phenanthrene-d10	20.32	188	478500	40.00 ug	-0.01
70) Chrysene-d12	25.81	240	293137	40.00 ug	-0.01
79) Perylene-d12	29.11	264	212469	40.00 ug	0.00

System Monitoring Compounds					
2) 2-Fluorophenol	7.58	112	207778	48.85 ug	0.00
Spiked Amount 200.000	Range 21 - 110		Recovery = 24.43%		
3) Phenol-d5	9.62	99	199758	35.44 ug	-0.01
Spiked Amount 200.000	Range 10 - 110		Recovery = 17.72%		
21) Nitrobenzene-d5	11.71	82	181041	35.36 ug	-0.01
Spiked Amount 100.000	Range 35 - 114		Recovery = 35.36%		
40) 2-Fluorobiphenyl	15.75	172	312322	39.68 ug	-0.01
Spiked Amount 100.000	Range 43 - 116		Recovery = 39.68%#		
56) 2,4,6-Tribromophenol	18.92	330	121259	87.13 ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 43.56%		
73) Terphenyl-d14	23.59	244	291602	47.92 ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 47.92%		

Target Compounds					Qvalue
6) Cyclohexanone	8.03	42	231357	103.09 ug	87

All spectra and manual integrations for this sample have been reviewed and approved.

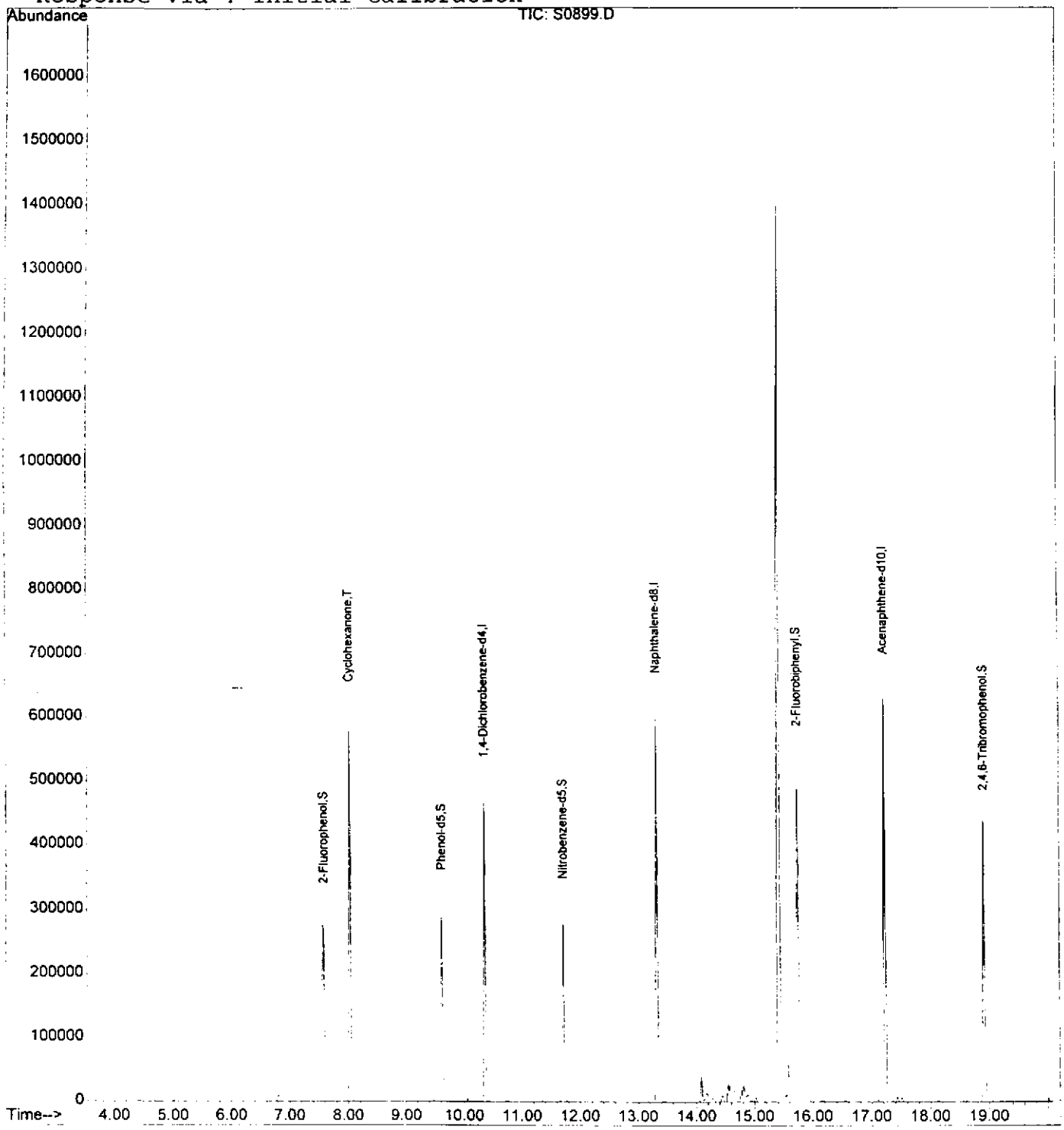
By: EMartin Date: 09/18/00
Secondary review: AWhodes Date: 9/18/00

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

Data File : C:\HPCHEM\MSS_NT\S0899.D
Acq On : 15 Sep 2000 11:56 pm
Sample : 001915A-04
Misc : SW-09 ; SWC ; 2 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 16 0:32 2000

Vial: 15
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 1.10
Quant Results File: MSSSOCNT.RES

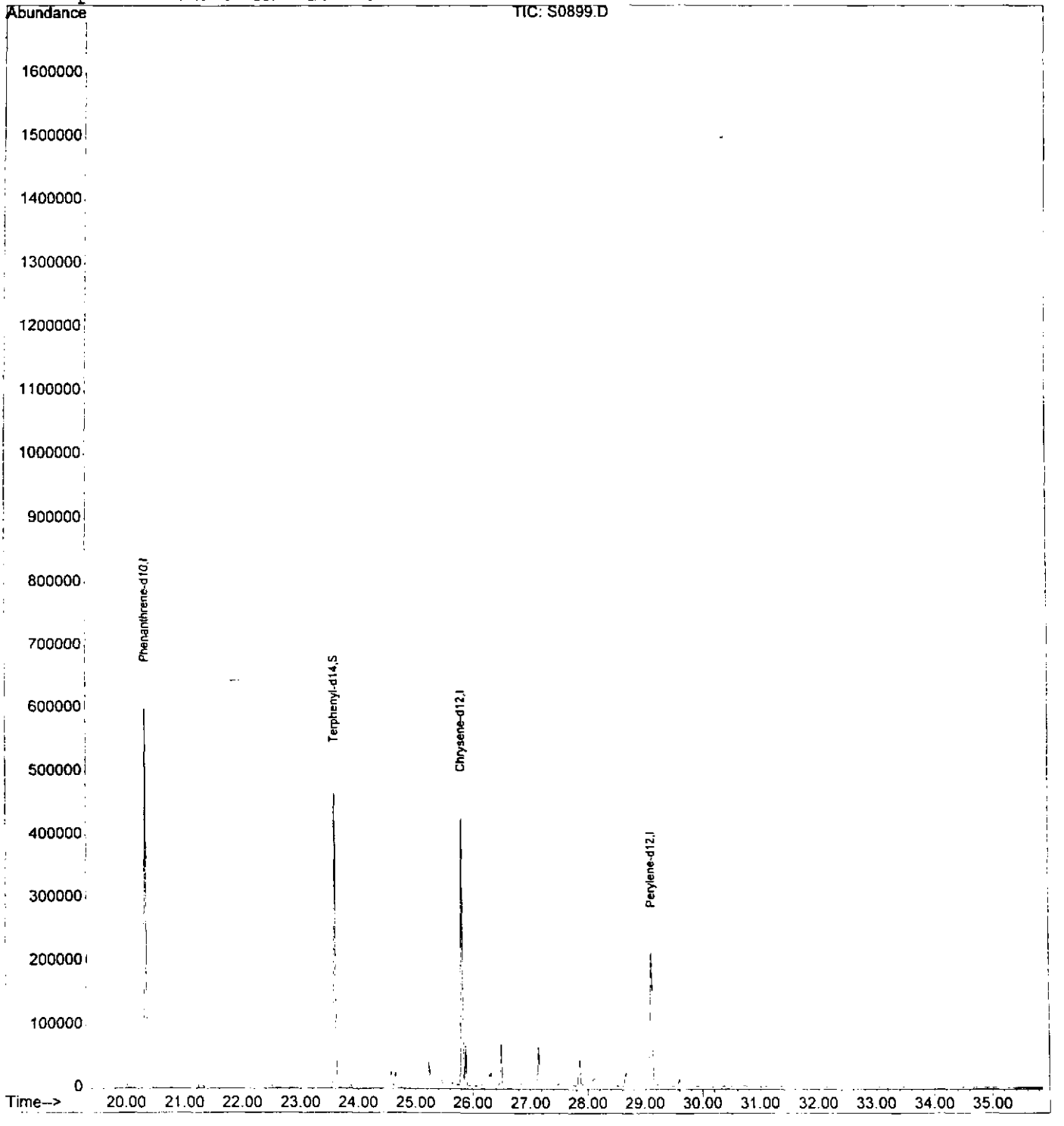
Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Sep 18 15:09:02 2000
Response via : Initial Calibration

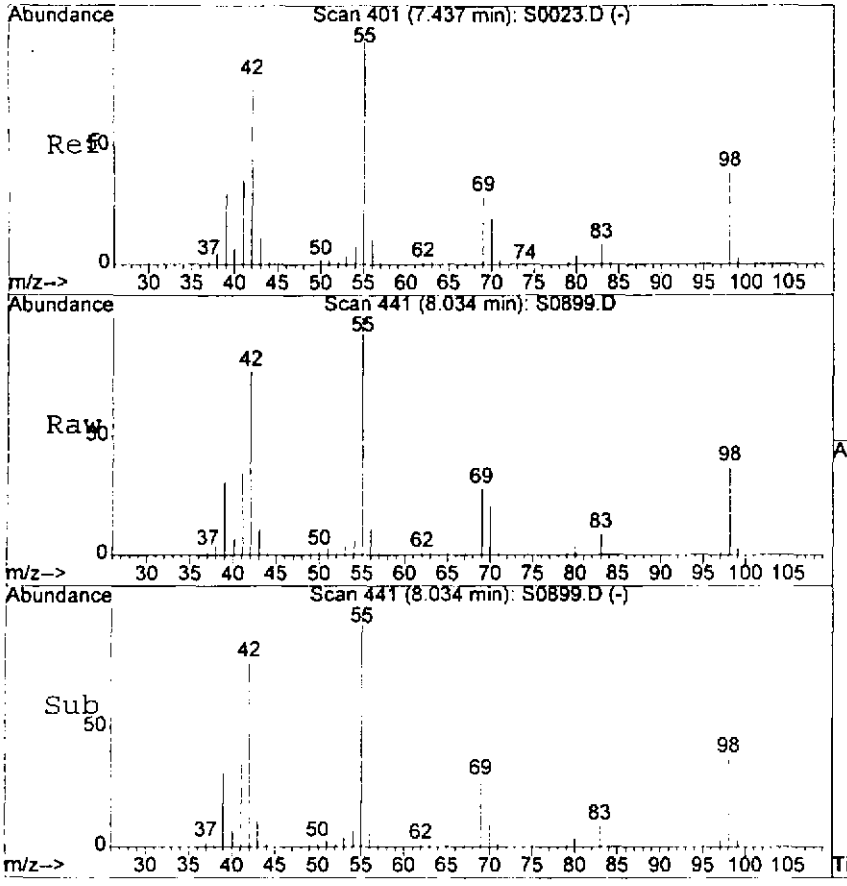


Data File : C:\HPCHEM\MSS_NT\S0899.D
Acq On : 15 Sep 2000 11:56 pm
Sample : 001915A-04
Misc : SW-09 ; SWC ; 2 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 16 0:32 2000

Vial: 15
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 1.10
Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Mon Sep 18 15:09:02 2000
Response via : Initial Calibration

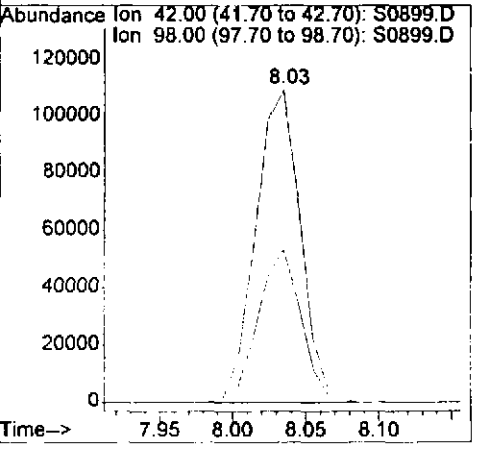




#6
Cyclohexanone
Concen: 103.09 ug
RT: 8.03 min Scan# 441
Delta R.T. -0.00 min
Lab File: S0899.D
Acq: 15 Sep 2000 11:56 pm

Tgt Ion: 42 Resp: 231357

Ion	Ratio	Lower	Upper
42	100		
98	48.6	20.3	60.3



7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Instrument ID: HP5972S Calibration Date: 09/15/00 Time: 1252

Lab File ID: >S0884 Init. Calib. Date(s): 08/31/00 _____

Init. Calib. Times: 1137 1441

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.478	1.425		-3.6	20.0
bis(2-Chloroethyl)ether	1.012	0.926		-8.5	
2-Chlorophenol	1.212	1.152		-5.0	
1,3-Dichlorobenzene	1.266	1.233		-2.6	
1,4-Dichlorobenzene	1.281	1.242		-3.0	20.0
Benzyl alcohol	0.775	0.728		-6.1	
1,2-Dichlorobenzene	1.169	1.163		-0.5	
2-Methylphenol	1.011	0.977		-3.4	
2,2'-oxybis(1-Chloropropane)	2.046	1.967		-3.9	
4-Methylphenol	0.977	0.951		-2.7	
N-Nitroso-di-n-propylamine	0.901	0.836	0.050	-7.2	
Hexachloroethane	0.528	0.506		-4.2	
Nitrobenzene	0.361	0.334		-7.5	
Isophorone	0.651	0.590		-9.4	
2-Nitrophenol	0.203	0.190		-6.4	20.0
2,4-Dimethylphenol	0.284	0.273		-3.9	
Benzoic acid	0.236	0.192		-18.6	
bis(2-Chloroethoxy)methane	0.416	0.380		-8.6	
2,4-Dichlorophenol	0.273	0.259		-5.1	20.0
1,2,4-Trichlorobenzene	0.281	0.265		-5.7	
Naphthalene	0.826	0.797		-3.5	
4-Chloroaniline	0.367	0.348		-5.2	
Hexachlorobutadiene	0.141	0.141		0.0	20.0
4-Chloro-3-methylphenol	0.262	0.238		-9.2	20.0
2-Methylnaphthalene	0.470	0.446		-5.1	
Hexachlorocyclopentadiene	0.332	0.278	0.050	-16.3	
2,4,6-Trichlorophenol	0.375	0.340		-9.3	20.0
2,4,5-Trichlorophenol	0.393	0.374		-4.8	
2-Chloronaphthalene	1.038	0.983		-5.3	
2-Nitroaniline	0.378	0.335		-11.4	
Dimethylphthalate	1.241	1.119		-9.8	
Acenaphthylene	1.538	1.485		-3.4	
2,6-Dinitrotoluene	0.315	0.283		-10.2	
3-Nitroaniline	0.347	0.305		-12.1	
Acenaphthene	0.940	0.888		-5.5	20.0
2,4-Dinitrophenol	0.219	0.178	0.050	-18.7	
4-Nitrophenol	0.156	0.128	0.050	-17.9	

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Instrument ID: HP5972S Calibration Date: 09/15/00 Time: 1252

Lab File ID: >S0884 Init. Calib. Date(s): 08/31/00 _____

Init. Calib. Times: 1137 1441

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dibenzofuran	1.372	1.273		-7.2	
2,4-Dinitrotoluene	0.430	0.371		-13.7	
Diethylphthalate	1.213	1.090		-10.1	
4-Chlorophenyl-Phenyl Ether	0.481	0.465		-3.3	
Fluorene	1.002	0.943		-5.9	
4-Nitroaniline	0.335	0.295		-11.9	
4,6-Dinitro-2-methylphenol	0.163	0.151		-7.4	
N-Nitrosodiphenylamine	0.492	0.466		-5.3	20.0
4-Bromophenyl-phenylether	0.189	0.185		-2.1	
Hexachlorobenzene	0.208	0.215		3.4	
Pentachlorophenol	0.145	0.126		-13.1	20.0
Phenanthrene	0.868	0.809		-6.8	
Anthracene	0.895	0.835		-6.7	
Carbazole	0.815	0.742		-9.0	
Di-n-butylphthalate	1.155	1.088		-5.8	
Fluoranthene	0.776	0.719		-7.3	20.0
Pyrene	1.199	1.137		-5.2	
Butylbenzylphthalate	0.652	0.620		-4.9	
3,3'-Dichlorobenzidine	0.279	0.301		7.9	
Benzo(a)anthracene	0.919	0.843		-8.3	
Chrysene	0.836	0.778		-6.9	
bis(2-Ethylhexyl)phthalate	0.817	0.834		2.1	
Di-n-octylphthalate	1.978	1.833		-7.3	20.0
Benzo(b)fluoranthene	1.047	0.946		-9.6	
Benzo(k)fluoranthene	0.953	0.904		-5.1	
Benzo(a)pyrene	0.948	0.870		-8.2	20.0
Indeno(1,2,3-cd)pyrene	1.284	1.110		-13.6	
Dibenz(a,h)anthracene	1.007	0.911		-9.5	
Benzo(g,h,i)perylene	1.260	1.040		-17.5	
Cyclohexanone	0.635	0.767		20.8	
Nitrobenzene-D5	0.354	0.325		-8.2	
2-Fluorobiphenyl	1.060	1.030		-2.8	
Terphenyl-D14	0.830	0.838		1.0	
Phenol-D5	1.450	1.363		-6.0	
2-Fluorophenol	1.094	1.020		-6.8	
2,4,6-Tribromophenol	0.188	0.182		-3.2	

(1) Cannot be separated from Diphenylamine

0031

Data File : C:\HPCHEM\MSS_NT\S0884.D Vial: 26
Acq On : 15 Sep 2000 12:52 pm Operator: E. MARTIN
Sample : SSTD050U5 Inst : HP5972:S
Misc : SSTD050U5 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 15 13:50 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EM 09/15/00

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.37	152	165305	40.00 ug	-0.10
20) Naphthalene-d8	13.34	136	601770	40.00 ug	-0.09
35) Acenaphthene-d10	17.24	164	297807	40.00 ug	-0.09
57) Phenanthrene-d10	20.34	188	440974	40.00 ug	-0.09
70) Chrysene-d12	25.82	240	270111	40.00 ug	-0.10
79) Perylene-d12	29.11	264	198540	40.00 ug	-0.16
System Monitoring Compounds					
2) 2-Fluorophenol	7.58	112	210667	46.59 ug	-0.12
Spiked Amount 200.000	Range 21 - 110		Recovery = 23.30%		
3) Phenol-d5	9.63	99	281719	47.01 ug	-0.12
Spiked Amount 200.000	Range 10 - 110		Recovery = 23.50%		
21) Nitrobenzene-d5	11.73	82	244798	45.92 ug	-0.10
Spiked Amount 100.000	Range 35 - 114		Recovery = 45.92%		
40) 2-Fluorobiphenyl	15.76	172	383606	48.60 ug	-0.09
Spiked Amount 100.000	Range 43 - 116		Recovery = 48.60%		
56) 2,4,6-Tribromophenol	18.93	330	67904	48.66 ug	-0.10
Spiked Amount 200.000	Range 10 - 123		Recovery = 24.33%		
73) Terphenyl-d14	23.60	244	282975	50.47 ug	-0.10
Spiked Amount 100.000	Range 33 - 114		Recovery = 50.47%		

Target Compounds					Qvalue
4) Pyridine	4.37	52	200780	45.64 ug	90
5) N-Nitrosodimethylamine	4.39	42	143825	46.02 ug	90
6) Cyclohexanone	8.04	42	158548	60.41 ug	91
7) Phenol	9.66	94	294439	48.20 ug	97
8) Aniline	9.72	93	348015	51.02 ug	96
9) bis(2-Chloroethyl)ether	9.84	63	191354	45.74 ug	94
10) 2-Chlorophenol	9.97	128	238109	47.55 ug	96
11) 1,3-Dichlorobenzene	10.28	146	254828	48.71 ug	99
12) 1,4-Dichlorobenzene	10.41	146	256667	48.48 ug	99
13) Benzyl alcohol	10.72	108	150512	46.96 ug	99
14) 1,2-Dichlorobenzene	10.84	146	240251	49.75 ug	99
15) bis(2-Chloroisopropyl)ethe	11.06	45	406519	48.08 ug	96
16) 2-Methylphenol	11.01	108	201958	48.33 ug	100
17) Hexachloroethane	11.54	117	104494	47.88 ug	97
18) N-Nitroso-di-n-propylamine	11.40	70	172706	46.39 ug	93
19) 4-Methylphenol	11.34	108	196535	48.67 ug	99
22) Nitrobenzene	11.77	77	251617	46.34 ug	97
23) Isophorone	12.29	82	443991	45.34 ug	98
24) 2-Nitrophenol	12.51	139	142705	46.80 ug	88
25) 2,4-Dimethylphenol	12.57	107	205017	47.99 ug	98

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

Data File : C:\HPCHEM\MSS_NT\S0884.D Vial: 26
Acq On : 15 Sep 2000 12:52 pm Operator: E. MARTIN
Sample : SSTD050U5 Inst : HP5972:S
Misc : SSTD050U5 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 15 13:50 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EH 09/15/00

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	12.85	122	144818m	40.81 ug	
27)	bis(2-Chloroethoxy)methane	12.79	93	286180	45.74 ug	100
28)	2,4-Dichlorophenol	13.03	162	194634	47.37 ug	98
29)	1,2,4-Trichlorobenzene	13.24	180	199005	47.08 ug	99
30)	Naphthalene	13.38	128	599720	48.30 ug	100
31)	4-Chloroaniline	13.55	127	262011	47.43 ug	100
32)	Hexachlorobutadiene	13.77	225	106249	49.97 ug	99
33)	4-Chloro-3-methylphenol	14.63	107	179121	45.44 ug	93
34)	2-Methylnaphthalene	14.92	142	335524	47.47 ug	99
36)	2,4,5-Trichlorotoluene	14.91	159	149044	48.99 ug	99
37)	Hexachlorocyclopentadiene	15.41	237	103569	41.95 ug	99
38)	2,4,6-Trichlorophenol	15.61	196	126518	45.31 ug	99
39)	2,4,5-Trichlorophenol	15.70	196	139395	47.59 ug	98
41)	2-Chloronaphthalene	16.00	162	365897	47.36 ug	96
42)	2-Nitroaniline	16.30	65	124723	44.33 ug	93
43)	Acenaphthylene	16.92	152	552721	48.28 ug	99
44)	Dimethylphthalate	16.71	163	416690	45.11 ug	100
45)	2,6-Dinitrotoluene	16.88	165	105465	45.00 ug	96
46)	Acenaphthene	17.31	153	330403	47.19 ug	99
47)	3-Nitroaniline	17.19	138	113669	44.01 ug	85
48)	2,4-Dinitrophenol	17.41	184	66345	40.76 ug	84
49)	Dibenzofuran	17.64	168	474043	46.41 ug	94
50)	2,4-Dinitrotoluene	17.72	165	138146	43.16 ug	84
51)	4-Nitrophenol	17.52	109	47715	41.11 ug	86
52)	Fluorene	18.37	166	351044	47.07 ug	99
53)	4-Chlorophenyl-phenylether	18.34	204	172988	48.31 ug	95
54)	Diethylphthalate	18.18	149	405910	44.94 ug	99
55)	4-Nitroaniline	18.51	138	109846	43.99 ug	89
58)	4,6-Dinitro-2-methylphenol	18.57	198	83119	46.21 ug	100
59)	N-Nitrosodiphenylamine (1)	18.61	169	257089	47.43 ug	99
60)	1,2-Diphenylhydrazine	18.67	77	440667m	45.02 ug	
61)	4-Bromophenyl-phenylether	19.36	248	101979	48.99 ug	99
62)	Hexachlorobenzene	19.69	284	118565	51.63 ug	97
63)	Pentachlorophenol	20.06	266	69577	43.43 ug	100
64)	Phenanthrene	20.38	178	446170	46.61 ug	100
65)	Carbazole	20.81	167	409306	45.58 ug	98
66)	Anthracene	20.47	178	460509	46.69 ug	100
67)	Di-n-butylphthalate	21.52	149	599488	47.08 ug	99
68)	Fluoranthene	22.86	202	396364	46.34 ug	95
69)	Kepone	24.71	272	12326m	27.36 ug	
71)	Benzidine	23.11	184	100101	50.90 ug	100

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

Data File : C:\HPCHEM\MSS_NT\S0884.D
Acq On : 15 Sep 2000 12:52 pm
Sample : SSTD050U5
Misc : SSTD050U5 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 15 13:50 2000

Vial: 26
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 1.00

Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
72) Pyrene	23.33	202	383790	47.40 ug	97
74) Butylbenzylphthalate	24.61	149	209443	47.54 ug	95
75) 3,3'-Dichlorobenzidine	25.72	252	101646	53.88 ug	99
76) Benzo(a)anthracene	25.78	228	284519	45.86 ug	99
77) Chrysene	25.87	228	262828	46.56 ug	99
78) bis(2-Ethylhexyl)phthalate	25.74	149	281460	50.99 ug	99
80) Di-n-octylphthalate	26.95	149	454820	46.33 ug	99
81) Benzo(b)fluoranthene	28.10	252	234850	45.18 ug	96
82) Benzo(k)fluoranthene	28.16	252	224395	47.44 ug	97
83) Benzo(a)pyrene	28.96	252	215833	45.88 ug	96
84) Indeno(1,2,3-cd)pyrene	32.61	276	275581m	43.24 ug	
85) Dibenzo(a,h)anthracene	32.62	278	226134m	45.25 ug	
86) Benzo(g,h,i)perylene	33.68	276	257994m	41.26 ug	

All spectra and manual integrations for this sample have been reviewed and approved.

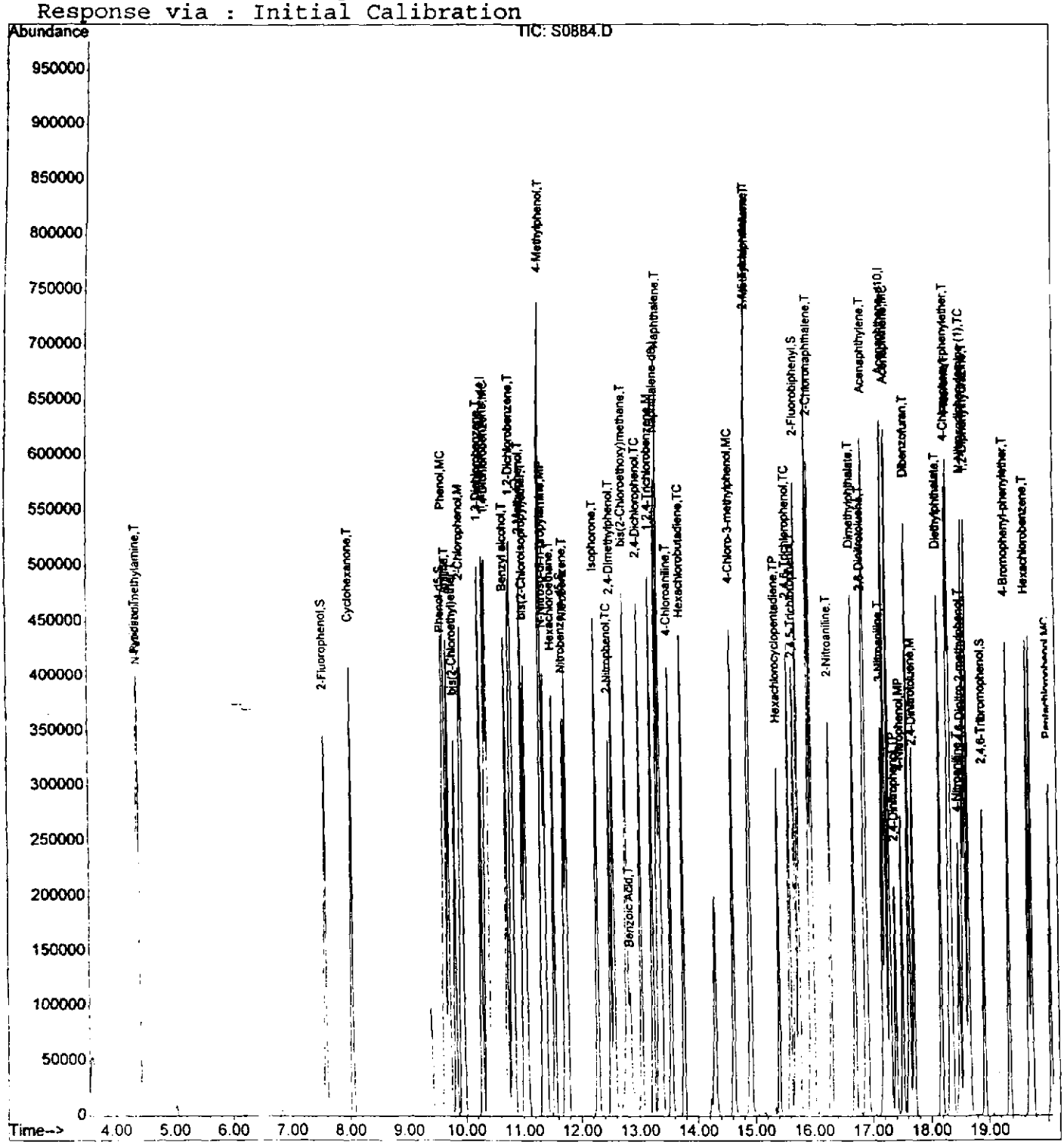
By: EMartin Date: 09/15/00

Secondary review: HRhodes Date: 9/18/00

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

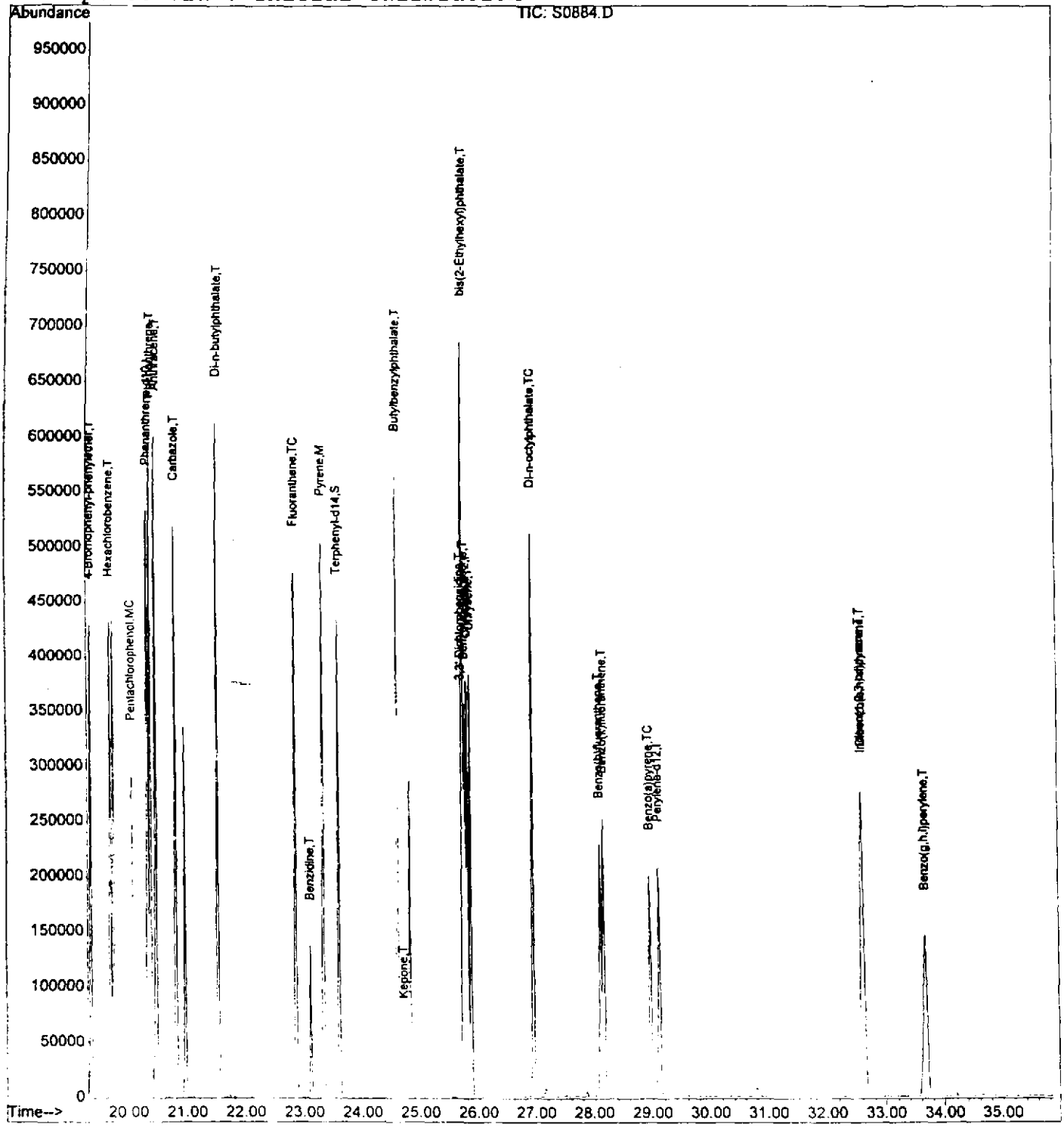
Data File : C:\HPCHEM\MSS_NT\S0884.D Vial: 26 0034
Acq On : 15 Sep 2000 12:52 pm Operator: E. MARTIN
Sample : SSTD050U5 Inst : HP5972:S
Misc : SSTD050U5 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 15 13:50 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Fri Sep 15 13:51:26 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0884.D Vial: 26
Acq On : 15 Sep 2000 12:52 pm Operator: E. MARTIN
Sample : SSTD050U5 Inst : HP5972:S
Misc : SSTD050U5 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 15 13:50 2000 Quant Results File: MSSSOCNT.RES

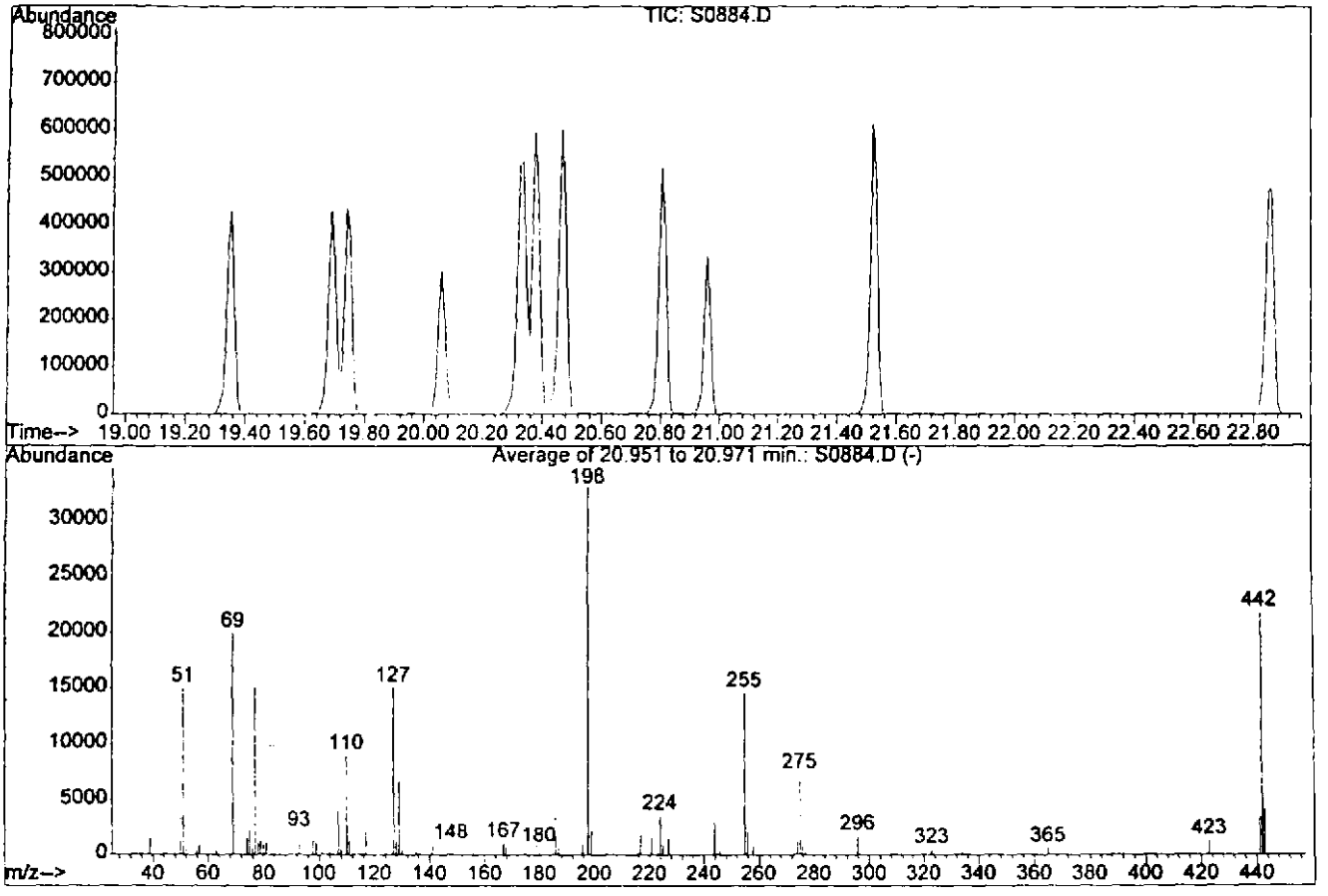
Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Fri Sep 15 13:51:26 2000
Response via : Initial Calibration



DFTPP Method 8270

Data File : C:\HPCHEM\MSS_NT\S0884.D
Acq On : 15 Sep 2000 12:52 pm
Sample : SSTD050U5
Misc : SSTD050U5 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration

Vial: 26
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 1.00



Spectrum Information: Average of 20.951 to 20.971 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.4	15008	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.10	100	60.3	19911	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	45.6	15054	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	33032	PASS
199	198	5	9	6.8	2240	PASS
275	198	10	30	22.1	7300	PASS
365	198	1	100	1.8	609	PASS
441	443	0.10	100	82.4	3482	PASS
442	198	40	100	65.8	21748	PASS
443	442	17	23	19.4	4226	PASS

Committed To Your Success

SAMPLE DATA PACKAGE

Client:	ROUX ASSOCIATES
P.O.	INDUSTRIPLEX
CASE#:	06626M32
SDG #:	A1915
STL ID:	7000-1915A

Committed To Your Success

7000-1915A
ROUX ASSOCIATES

Case Narrative

Sample Receipt – All samples were received in good condition and at proper temperature.

Semi-Volatile Organics - Semi-volatile organic samples were extracted and analyzed by capillary GC/MS using guidance provided in Methods 3510C/8270C. The instrumentation used was a Hewlett-Packard Gas Chromatograph interfaced with a Mass Selective Detector.

All samples were extracted, concentrated and analyzed without any apparent problems.

During analysis, it was noted that the non-TCL compound cyclohexanone was present at very high levels in several of the samples. The client was contacted and instructed the lab to report the cyclohexanone results, which are above the calibration level.

The spike recovery for the compound, 2,4-dinitrotoluene, was above recovery limits for SW-09MS and SW-09MSD.

Classical Chemistry - Listed below are the wet chemistry analyte methods and references for the samples analyzed in this SDG. No analytical problems were encountered.

Analyte	Method	Reference
TSS	160.2	1

References:

1. Methods of Chemical Analysis of Water and Wastes, EPA 600, 1983.

Metals – ICAP metals were determined using a JA61E trace ICAP; mercury was determined by cold vapor technique using a Leeman Labs mercury analyzer; following guidance provided in SW846 according to methods: ICAP – 3010A/6010B; mercury-7470A.

No problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Chf Ac Cascua for

Jeffrey C. Curran
Laboratory Manager

Sept 18, 2000
Date

SDG NARRATIVE

Client:	ROUX ASSOCIATES
P.O.	INDUSTRIPLEX
CASE#:	06626M32
SDG #:	A1915
STL ID:	7000-1915A

CLIENT CHAINS OF CUSTODY

Client:	ROUX ASSOCIATES
P.O.	INDUSTRIPLEX
CASE#:	06626M32
SDG #:	A1915
STL ID:	7000-1915A

7000-1915A

ROUX CHAIN OF CUSTODY

№ 04818 Y

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

~~1377 MOTOR PARKWAY~~ 25 CORPORATE DR. STE. 230
~~ISLANDIA, NEW YORK 11788~~ BURLINGTON, MA 01803
~~(516) 232-2600~~ ~~FAX (516) 232-0908~~ PH: 781-270-6600 FAX: 781-270-9066

ANALYSES

PAGE 1 OF 1

PROJECT NAME: INDUSTRIPLEX

PROJECT NUMBER: 06626M

PROJECT LOCATION: WOBURN, MA

PROJECT MANAGER: Larry McTiernan

SAMPLER(S): Chris Milone

6°

SAMPLE DESIGNATION / LOCATION	DATE COLLECTED	TIME COLLECTED	SAMPLE MATRIX	TSS (160.2)	DISSOLVED ARSENIC (6010B)	TOTAL ARSENIC, CHROMIUM, LEAD AND MERCURY (6010B/7470A)	TAL METALS (TOTAL) (6010B/7470A)	PAH, DIETHYLPHTHALATE, 4-METHYLPHENOL AND BIS 2-ETHYLHEXYL PTHALATE (8270C)	TCL SVOCS (8270C)	TOTAL BOTTLES	NOTES
SW-01	8/29/00	01	SW	1	1	1		2		5	
SW-04	8/29/00	02	SW	1	1		1		2	5	
SW-40	8/29/00	03	SW	1	1		1		2	5	
SW-09	8/29/00	04	SW	3	3		3		6	15	TRIPLE VOLUME FOR MS/MSD
Field Blank	8/29/00	05	—	1	1		1		2	5	

PASSED RAD SCREEN

RELINQUISHED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N
Christopher J. Milone	ROUX	8/29/00	1300		James L. Conner	STL	8/29/00	18:00	
RELINQUISHED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N
				Y OR N	[illegible]	STL-CS	8/31/00	9:25	
RELINQUISHED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N	RECEIVED BY: (SIGNATURE)	FOR	DATE	TIME	SEAL INTACT Y OR N

DELIVERY METHOD: HAND

ANALYTICAL LABORATORY: STL

COMMENTS: Level 4 Deliverables (Tier III Data Validation)

00005

FedEx

FedEx Tracking Number 818837628550

Form I.D. No. 0200

00006

From 8/30/00

Sender's Name Phone 978 667-1400

Company STL Billerica

Address 149 Rangeway Rd. Dept./Floor/Suite/Room

City N. Billerica State MA ZIP 01862

Your Internal Billing Reference

To Recipient's Name Simple Rev Phone 203 929-5140

Company STL-Conn

Address 128 Long Hill Cross Rd

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

To "HOLD" at FedEx location, print FedEx address here

City Shelton State CT ZIP 06484

8188 3762 8550

4a Express Package Service — *Packages up to 150 lbs.* Delivery commitment may be later in some areas

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day* — Second business day
- [ ] FedEx Express Saver* — Third business day

* FedEx Letter Rate not available. Minimum charge: One-pound rate

4b Express Freight Service — *Packages over 150 lbs.* Delivery commitment may be later in some areas

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation.

5 Packaging — * Declared value limit $500

- [ ] FedEx Letter*
- [ ] FedEx Pak*
- [x] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg

6 Special Handling

- [ ] Saturday Delivery — Available for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] Sunday Delivery — Available for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous Goods cannot be shipped in FedEx packaging.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [ ] Obtain Recip. Acct. No.
- [ ] Sender — Acct. No. in Section 1 will be billed
- [x] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	70 lbs	$ .00	Credit Card Auth

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature *Sign to authorize delivery without obtaining signature*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Call 1·800·Go·FedEx® (800-463-3339)

360

FedEx

FedEx Tracking Number 818837628539

Form I.D. No. 0200

From Date 8/30/00

Sender's Name STL Billerica Phone 978 667-1400

Company STL

Address 149 Rangeway Rd Dept./Floor/Suite/Room

City N Billerica State MA ZIP 01862

Your Internal Billing Reference

To Recipient's Name Simple Rev. Phone 203 929-5140

Company STL-Conn

Address 128 Long Hill Cross Rd

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

at FedEx location, print here

City Shelton State CT ZIP 06484

8188 3762 8539

4a Express Package Service — *Packages up to 150 lbs.* Delivery commitment may be later in some areas

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day* — Second business day
- [ ] FedEx Express Saver* — Third business day

* FedEx Letter Rate not available. Minimum charge: One-pound rate

4b Express Freight Service — *Packages over 150 lbs.* Delivery commitment may be later in some areas

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation.

5 Packaging — * Declared value limit $500

- [ ] FedEx Letter*
- [ ] FedEx Pak*
- [x] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg

6 Special Handling

- [ ] Saturday Delivery — Available for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] Sunday Delivery — Available for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous Goods cannot be shipped in FedEx packaging.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [ ] Obtain Recip. Acct. No.
- [x] Sender — Acct. No. in Section 1 will be billed
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	51 lbs	$ .00	Credit Card Auth

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature *Sign to authorize delivery without obtaining signature*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Call 1·800·Go·FedEx® (800-463-3339)

Visit our Web site at www.fedex.com

360

Severn Trent Connecticut
Internal Chain-of-Custody

Client: ROUX

STL Job #: 7000-1915A

Custody Seal: present / absent
Tamper Evident / Non Tamper Evident
intact / not intact

Airbill# FE

Field C-O-C: present / absent

Date Received: 8-31-00

Sample #s: 01-05

Locations: 96

Laboratory Sample #	Relinquished by	Accepted by	Date	Time	Reason	Relinquished by	Accepted by	Date	Time
1-4	Re	SI	8/31	17:30	TSS	SI	Re	8/31	
1-5	Re	JNL	9/1	7:00	BNA	used			
5	Re	SI	9/1	[illegible]	TSS	SI	Re	9/1	
1-5	Re	[illegible]	9/1	[illegible]	MTL's				

STL Form# SMF00504.CT

000007

STL GC-GC/MS Extract Chain of Custody

Fraction: (BNA) Pesticide-PCB / Herbicide / O/P Pesticide / DRO / Other (Circle one)

CLIENT: Roux

JOB NO: 1915A

SAMPLE IN (Extractions)					SAMPLE IN (Extractions)				
Sample(s)	Date	Time	Sign.	Location	Sample(s)	Date	Time	Sign.	Location
01-05 4QC	09/01/00	14:45	SBN	29					

SAMPLE OUT					SAMPLE IN			
Sample(s)	Date	Time	Code	Sign.	Date	Time	Location	Sign.
01-05; 04QC	09/06/00	1120	AN	EM	09/06/00	1220	29	EM
	—							
	—							

Codes: SC = Screening AN = Analysis

Verified By: A Rhodes

Date: 9/7/00

Lab Form: SMF01201.CT

Severn Trent Laboratori
128 Longhill Cross
Shelton, CT 06484
Tel (203) 929-8140
Fax (203)

Committed To *Your* Success

CHAIN OF CUSTODY
ATOMIC SPECTROSCOPY DEPARTMENT

Job Number 7000-1915A Sample Numbers 1-5 (T.F)

WATER - SOIL - SLUDGE - EPTOX/TCLP

I confirm that I have performed the preparation below following SOP guidelines and authorize the release of this preparation:

	Chemist	Date(s)	
Sample Prep	Darlyn Colon	9/8/00	ICP/FLME
			FURN
			MERCURY

I confirm that I have performed the analysis below following SOP guidelines and authorize the release of all associated data:

	Chemist	Date(s)	
Analysis	Water Petroleum	9/13/00	ICP
			FLAME
			FURN
			MERCURY

I have reviewed and authorize the release of this job:

Complete [signature] Supervisor 9/15/00 Date

Batch Assignment _____

00010

Severn Trent Laboratories
128 Long Hill Cross
Shelton, CT 06484
Tel (203) 929-8140
Fax (203)

Committed To *Your* Success

CHAIN OF CUSTODY
ATOMIC SPECTROSCOPY DEPARTMENT

Job Number 1515A Sample Numbers 01-05

WATER - SOIL - SLUDGE - EPTOX/TCLP

I confirm that I have performed the preparation below following SOP guidelines and authorize the release of this preparation:

Sample Prep			
			ICP/FLME
			FURN
	Gende Bao (Chemist)	09/08/00 (Date(s))	MERCURY

I confirm that I have performed the analysis below following SOP guidelines and authorize the release of all associated data:

Analysis			ICP
			FLAME
			FURN
	[illegible] (Chemist)	09/22/00 (Date(s))	MERCURY

I have reviewed and authorize the release of this job:

Complete [illegible] (Supervisor) 9/15/00 (Date)

Batch Assignment

SEMI-VOLATILE DATA

Client:	ROUX ASSOCIATES
P.O.	INDUSTRIPLEX
CASE#:	06626M32
SDG #:	A1915
STL ID:	7000-1915A

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLKCS	72	74	67	36	47	78			0
02	SBLKCSFMS	83	80	81	36	50	81			0
03	SW-01	78	79	70	42	54	81			0
04	SW-04	71	72	65	38	53	77			0
05	SW-40	68	70	65	34	48	76			0
06	SW-09	75	76	68	39	54	77			0
07	SW-09MS	71	76	67	35	49	76			0
08	SW-09MSD	72	75	69	34	49	75			0
09	FIELD BLANK	68	70	66	34	45	73			0
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl-d14	(33-141)
S4 (PHL)	= Phenol-d5	(10-110)
S5 (2FP)	= 2-Fluorophenol	(21-110)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)
S7 (2CP)	= 2-Chlorophenol-d4	(-) (advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(-) (advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM II SV-1

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix Spike - EPA Sample No.: SW-09

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	110	0	40	36	12-110
2-Chlorophenol	110	0	75	68	27-123
1,4-Dichlorobenzene	53	0	32	60	36- 97
N-Nitroso-di-n-prop.(1)	53	0	41	77	41-116
1,2,4-Trichlorobenzene	53	0	36	68	39- 98
4-Chloro-3-methylphenol	110	0	93	84	23- 97
Acenaphthene	53	0	43	81	46-118
4-Nitrophenol	110	0	54	49	10- 80
2,4-Dinitrotoluene	53	0	54	102*	24- 96
Pentachlorophenol	110	0	79	72	9-103
Pyrene	53	0	40	75	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	110	41	37	3	42	12-110
2-Chlorophenol	110	74	67	2	40	27-123
1,4-Dichlorobenzene	54	33	61	2	28	36- 97
N-Nitroso-di-n-prop.(1)	54	41	76	1	38	41-116
1,2,4-Trichlorobenzene	54	37	68	0	28	39- 98
4-Chloro-3-methylphenol	110	95	86	2	42	23- 97
Acenaphthene	54	43	80	1	31	46-118
4-Nitrophenol	110	57	52	6	50	10- 80
2,4-Dinitrotoluene	54	55	102*	0	38	24- 96
Pentachlorophenol	110	83	75	4	50	9-103
Pyrene	54	42	78	4	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits.

RPD: 0 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix Spike - EPA Sample No.: SBLKCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
Phenol	40	0	16	40	24-57
bis(2-Chloroethyl)ether	40	0	34	85	49-133
2-Chlorophenol	40	0	35	88	60-112
1,3-Dichlorobenzene	40	0	23	58	18-143
1,4-Dichlorobenzene	40	0	24	60	21-138
Benzyl alcohol	40	0	33	82	39-117
1,2-Dichlorobenzene	40	0	27	68	21-143
2-Methylphenol	40	0	34	85	49-91
bis(2-Chloroisopropyl)ether	40	0	35	88	54-130
4-Methylphenol	40	0	34	85	48-95
N-Nitroso-di-n-propylamine	40	0	37	92	46-129
Hexachloroethane	40	0	22	55	8-144
Nitrobenzene	40	0	34	85	46-141
Isophorone	40	0	38	95	52-140
2-Nitrophenol	40	0	36	90	69-123
2,4-Dimethylphenol	40	0	34	85	62-121
Benzoic acid	120	0	0	0	0-25
bis(2-Chloroethoxy)methane	40	0	37	92	53-142
2,4-Dichlorophenol	40	0	37	92	66-122
1,2,4-Trichlorobenzene	40	0	28	70	30-142
Naphthalene	40	0	32	80	43-144
4-Chloroaniline	40	0	39	98	48-150
Hexachlorobutadiene	40	0	27	68	5-169
4-Chloro-3-methylphenol	40	0	40	100	63-119
2-Methylnaphthalene	40	0	35	88	37-137
Hexachlorocyclopentadiene	40	0	15	38	1-139
2,4,6-Trichlorophenol	40	0	37	92	70-121
2,4,5-Trichlorophenol	40	0	39	98	71-124
2-Chloronaphthalene	40	0	40	100	52-163
2-Nitroaniline	40	0	41	102	60-139

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 65 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix Spike - EPA Sample No.: SBLKCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
Dimethylphthalate	40	0	39	98	64-137
Acenaphthylene	40	0	34	85	52-132
2,6-Dinitrotoluene	40	0	40	100	60-142
3-Nitroaniline	40	0	44	110	65-162
Acenaphthene	40	0	36	90	56-144
2,4-Dinitrophenol	40	0	46	115	70-139
4-Nitrophenol	40	0	19	48	21-65
Dibenzofuran	40	0	38	95	57-136
2,4-Dinitrotoluene	40	0	40	100	57-131
Diethylphthalate	40	0	40	100	62-132
4-Chlorophenyl-phenylether	40	0	37	92	55-136
Fluorene	40	0	39	98	59-131
4-Nitroaniline	40	0	48	120	67-155
4,6-Dinitro-2-methylphenol	40	0	44	110	77-164
N-Nitrosodiphenylamine (1)	40	0	37	92	67-149
4-Bromophenyl-phenylether	40	0	37	92	57-150
Hexachlorobenzene	40	0	39	98	53-153
Pentachlorophenol	40	0	38	95	63-125
Phenanthrene	40	0	40	100	83-124
Anthracene	40	0	39	98	66-138
Di-n-butylphthalate	40	0	40	100	65-146
Fluoranthene	40	0	43	108	63-145
Pyrene	40	0	39	98	66-152
Butylbenzylphthalate	40	0	41	102	64-158
3,3'-Dichlorobenzidine	40	0	38	95	69-159
Benzo(a)anthracene	40	0	39	98	62-151
Chrysene	40	0	40	100	72-141
bis(2-Ethylhexyl)phthalate	40	0	35	88	63-148
Di-n-octylphthalate	40	0	38	95	65-154
Benzo(b)fluoranthene	40	0	39	98	42-172

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 65 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE SPIKE/SPIKE DUPLICATE RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix Spike - EPA Sample No.: SBLKCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
Benzo(k)fluoranthene	40	0	37	92	55-150
Benzo(a)pyrene	40	0	40	100	68-147
Indeno(1,2,3-cd)pyrene	40	0	35	88	52-157
Dibenzo(a,h)anthracene	40	0	34	85	25-159
Benzo(g,h,i)perylene	40	0	36	90	56-166
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 65 outside limits

COMMENTS: _____

FORM III SV-1

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKCS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Lab File ID: >S0836 Lab Sample ID: SBLKCS

Instrument ID: HP5972S Date Extracted: 09/01/00

Matrix: (soil/water) WATER Date Analyzed: 09/06/00

Level: (low/med) LOW Time Analyzed: 1108

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLKCSFMS	SBLKCSFMS	>S0837	09/06/00
02	SW-01	001915A-01	>S0838	09/06/00
03	SW-04	001915A-02	>S0839	09/06/00
04	SW-40	001915A-03	>S0840	09/06/00
05	SW-09	001915A-04	>S0841	09/06/00
06	SW-09MS	001915A-04MS	>S0842	09/06/00
07	SW-09MSD	001915A-04MSD	>S0843	09/06/00
08	FIELD BLANK	001915A-05	>S0844	09/06/00
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS: _____

FORM IV SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

00018

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Lab File ID: S0776 DFTPP Injection Date:08/31/00

Instrument ID: HP5972S DFTPP Injection Time:1038

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	47.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	61.7
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	46.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	21.0
365	Greater than 1.0% of mass 198	1.82
441	Present, but less than mass 443	8.6
442	40.0 - 100.0% of mass 198	53.9
443	17.0 - 23.0% of mass 442	10.8 (20.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020X8	SSTD020X8	>S0777	08/31/00	1137
02	SSTD050X9	SSTD050X9	>S0778	08/31/00	1223
03	SSTD080Y1	SSTD080Y1	>S0779	08/31/00	1309
04	SSTD120Y2	SSTD120Y2	>S0780	08/31/00	1355
05	SSTD160Y3	SSTD160Y3	>S0781	08/31/00	1441
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

00019

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Lab File ID: S0835 DFTPP Injection Date:09/06/00

Instrument ID: HP5972S DFTPP Injection Time:1011

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	45.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	59.6
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	45.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	22.3
365	Greater than 1.0% of mass 198	2.35
441	Present, but less than mass 443	10.5
442	40.0 - 100.0% of mass 198	65.9
443	17.0 - 23.0% of mass 442	12.8 (19.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050Z1	SSTD050Z1	>S0835	09/06/00	1011
02	SBLKCS	SBLKCS	>S0836	09/06/00	1108
03	SBLKCSFMS	SBLKCSFMS	>S0837	09/06/00	1151
04	SW-01	001915A-01	>S0838	09/06/00	1235
05	SW-04	001915A-02	>S0839	09/06/00	1319
06	SW-40	001915A-03	>S0840	09/06/00	1403
07	SW-09	001915A-04	>S0841	09/06/00	1446
08	SW-09MS	001915A-04MS	>S0842	09/06/00	1530
09	SW-09MSD	001915A-04MSD	>S0843	09/06/00	1614
10	FIELD BLANK	001915A-05	>S0844	09/06/00	1657
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V SV

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Lab File ID: (Standard): >S0835 Date Analyzed:09/06/00

Instrument ID: HP5972S Time Analyzed:1011

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	124830	10.51	486929	13.48	265829	17.39
	UPPER LIMIT	249660	11.01	973858	13.98	531658	17.89
	LOWER LIMIT	62415	10.01	243464	12.98	132914	16.89
	EPA SAMPLE NO.						
01	SBLKCS	116655	10.51	445062	13.48	238621	17.39
02	SBLKCSFMS	123123	10.51	462611	13.48	249645	17.39
03	SW-01	114767	10.51	426259	13.48	232073	17.39
04	SW-04	111358	10.52	418303	13.48	228101	17.39
05	SW-40	116190	10.51	438348	13.48	240790	17.38
06	SW-09	122979	10.51	464219	13.48	252355	17.39
07	SW-09MS	118874	10.51	459222	13.49	246224	17.39
08	SW-09MSD	120835	10.52	461812	13.49	250121	17.39
09	FIELD BLANK	114944	10.52	434441	13.48	240077	17.38
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV-1

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Lab File ID: (Standard): >S0835 Date Analyzed:09/06/00

Instrument ID: HP5972S Time Analyzed:1011

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	440455	20.50	344460	25.99	280746	29.40
	UPPER LIMIT	880910	21.00	688920	26.49	561492	29.90
	LOWER LIMIT	220228	20.00	172230	25.49	140373	28.90
	EPA SAMPLE NO.						
01	SBLKCS	407475	20.48	348064	25.99	302113	29.39
02	SBLKCSFMS	411019	20.50	284570	25.99	223742	29.40
03	SW-01	402251	20.48	326168	25.99	267777	29.39
04	SW-04	393017	20.49	325587	25.98	261987	29.39
05	SW-40	415148	20.49	343215	25.99	267307	29.39
06	SW-09	432970	20.49	354052	25.99	280709	29.39
07	SW-09MS	435495	20.50	343396	25.99	270013	29.40
08	SW-09MSD	428170	20.49	334216	25.99	253622	29.39
09	FIELD BLANK	415086	20.49	344098	25.99	269238	29.39
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-01

Sample wt/vol: 805 (g/mL) ML Lab File ID: >S0838

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
106-44-5	4-Methylphenol	12	U
91-20-3	Naphthalene	12	U
91-57-6	2-Methylnaphthalene	12	U
208-96-8	Acenaphthylene	12	U
83-32-9	Acenaphthene	12	U
86-73-7	Fluorene	12	U
84-66-2	Diethylphthalate	12	U
85-01-8	Phenanthrene	12	U
120-12-7	Anthracene	12	U
206-44-0	Fluoranthene	12	U
129-00-0	Pyrene	12	U
56-55-3	Benzo(a)anthracene	12	U
218-01-9	Chrysene	12	U
117-81-7	bis(2-Ethylhexyl)phthalate	12	U
205-99-2	Benzo(b)fluoranthene	12	U
207-08-9	Benzo(k)fluoranthene	12	U
50-32-8	Benzo(a)pyrene	12	U
193-39-5	Indeno(1,2,3-cd)pyrene	12	U
53-70-3	Dibenzo(a,h)anthracene	12	U
191-24-2	Benzo(g,h,i)perylene	12	U

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\MSS_NT\S0838.D
Acq On : 6 Sep 2000 12:35 pm
Sample : 001915A-01
Misc : SW-01 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:15 2000

Vial: 3 00023
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.62

Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.51	152	114767	40.00 ug	0.00
20) Naphthalene-d8	13.48	136	426259	40.00 ug	0.00
35) Acenaphthene-d10	17.39	164	232073	40.00 ug	0.00
57) Phenanthrene-d10	20.48	188	402251	40.00 ug	-0.01
70) Chrysene-d12	25.99	240	326168	40.00 ug	0.00
79) Perylene-d12	29.39	264	267777	40.00 ug	0.00

System Monitoring Compounds					
2) 2-Fluorophenol	7.74	112	341472	108.78 ug	0.00
Spiked Amount 200.000	Range 21 - 110		Recovery = 54.39%		
3) Phenol-d5	9.79	99	354449	85.19 ug	0.00
Spiked Amount 200.000	Range 10 - 110		Recovery = 42.59%		
21) Nitrobenzene-d5	11.87	82	293647	77.77 ug	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery = 77.77%		
40) 2-Fluorobiphenyl	15.91	172	483744	78.65 ug	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery = 78.65%		
56) 2,4,6-Tribromophenol	19.09	330	175832	161.69 ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 80.84%		
73) Terphenyl-d14	23.76	244	471338	69.62 ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 69.62%		

Target Compounds

Qvalue

All spectra and manual integrations for this sample have been reviewed and approved.

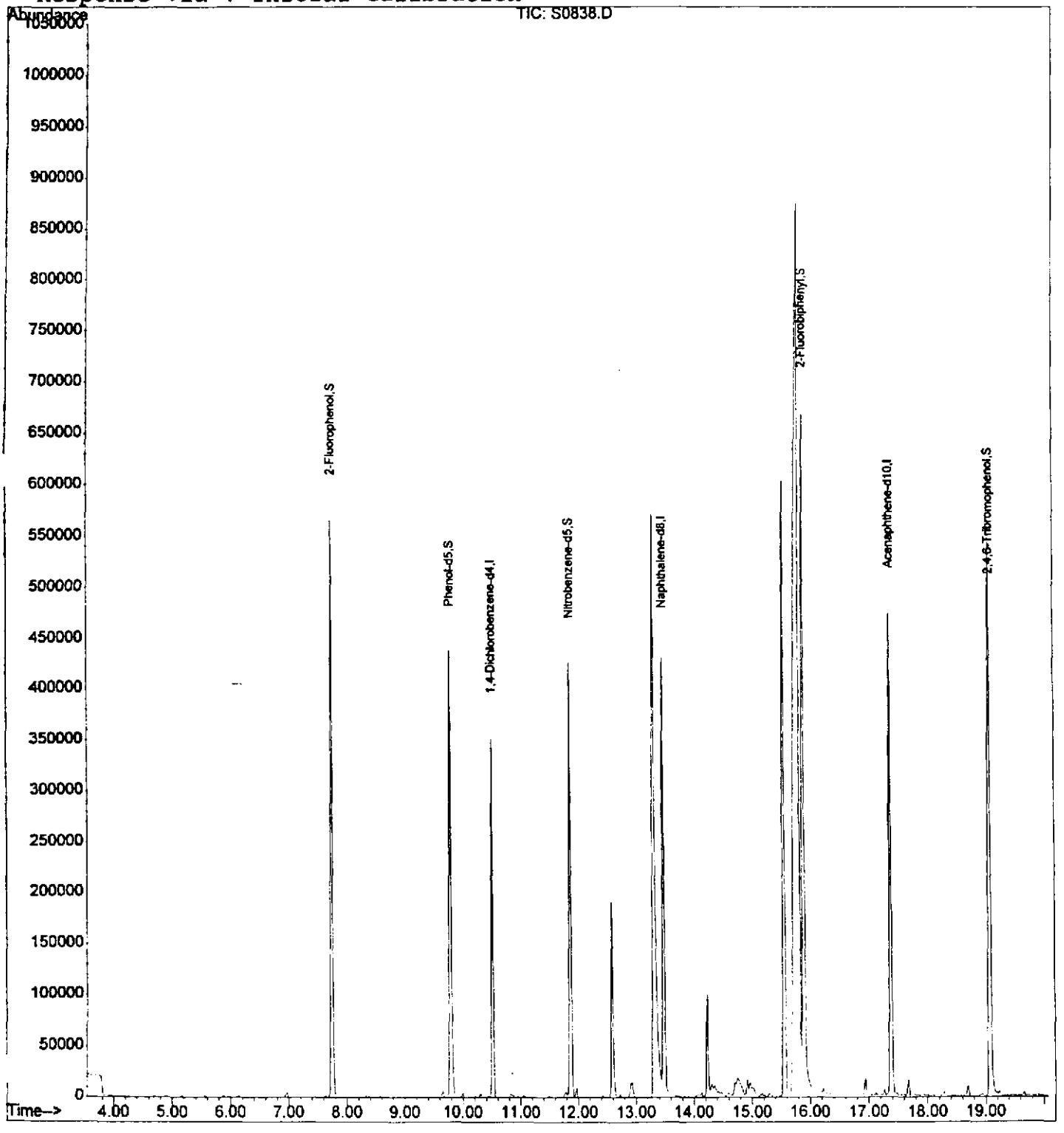
By: EMartin Date: 09/07/00

Secondary review: CHRhodes Date: 9/8/00

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

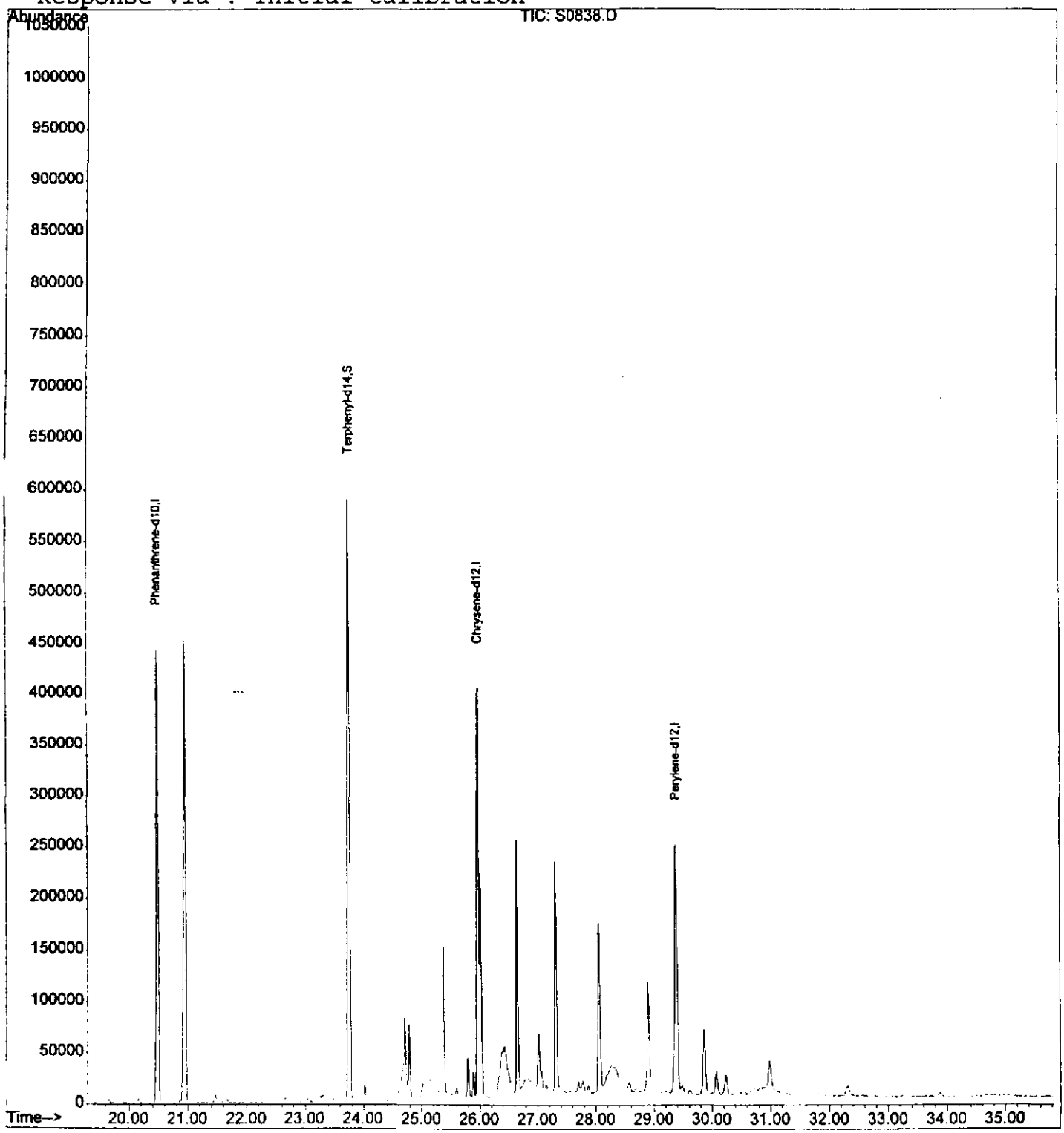
Data File : C:\HPCHEM\MSS_NT\S0838.D Vial: 3
Acq On : 6 Sep 2000 12:35 pm Operator: E. MARTIN
Sample : 001915A-01 Inst : HP5972:S
Misc : SW-01 ; SWC ; 1 ; LLW ; WATER Multiplr: 0.62
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:15 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0838.D Vial: 3
Acq On : 6 Sep 2000 12:35 pm Operator: E. MARTIN
Sample : 001915A-01 Inst : HP5972:S
Misc : SW-01 ; SWC ; 1 ; LLW ; WATER Multiplr: 0.62
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:15 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-04

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-02

Sample wt/vol: 820 (g/mL) ML Lab File ID: >S0839

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-94-1	Cyclohexanone	260	E
108-95-2	Phenol	7	J
111-44-4	bis(2-Chloroethyl)ether	12	U
95-57-8	2-Chlorophenol	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
100-51-6	Benzyl alcohol	12	U
95-50-1	1,2-Dichlorobenzene	12	U
95-48-7	2-Methylphenol	12	U
108-60-1	bis(2-Chloroisopropyl)ether	12	U
106-44-5	4-Methylphenol	12	U
621-64-7	N-Nitroso-di-n-propylamine	12	U
67-72-1	Hexachloroethane	12	U
98-95-3	Nitrobenzene	12	U
78-59-1	Isophorone	12	U
88-75-5	2-Nitrophenol	12	U
105-67-9	2,4-Dimethylphenol	12	U
65-85-0	Benzoic acid	61	U
111-91-1	bis(2-Chloroethoxy)methane	12	U
120-83-2	2,4-Dichlorophenol	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
91-20-3	Naphthalene	12	U
106-47-8	4-Chloroaniline	12	U
87-68-3	Hexachlorobutadiene	12	U
59-50-7	4-Chloro-3-methylphenol	12	U
91-57-6	2-Methylnaphthalene	12	U
77-47-4	Hexachlorocyclopentadiene	12	U
88-06-2	2,4,6-Trichlorophenol	12	U
95-95-4	2,4,5-Trichlorophenol	61	U
91-58-7	2-Chloronaphthalene	12	U
88-74-4	2-Nitroaniline	61	U
131-11-3	Dimethylphthalate	12	U
208-96-8	Acenaphthylene	12	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-04

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-02

Sample wt/vol: 820 (g/mL) ML Lab File ID: >S0839

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
606-20-2	2,6-Dinitrotoluene	12	U
99-09-2	3-Nitroaniline	61	U
83-32-9	Acenaphthene	12	U
51-28-5	2,4-Dinitrophenol	61	U
100-02-7	4-Nitrophenol	61	U
132-64-9	Dibenzofuran	12	U
121-14-2	2,4-Dinitrotoluene	12	U
84-66-2	Diethylphthalate	12	U
7005-72-3	4-Chlorophenyl-phenylether	12	U
86-73-7	Fluorene	12	U
100-01-6	4-Nitroaniline	61	U
534-52-1	4,6-Dinitro-2-methylphenol	61	U
86-30-6	N-Nitrosodiphenylamine (1)	12	U
101-55-3	4-Bromophenyl-phenylether	12	U
118-74-1	Hexachlorobenzene	12	U
87-86-5	Pentachlorophenol	61	U
85-01-8	Phenanthrene	12	U
120-12-7	Anthracene	12	U
84-74-2	Di-n-butylphthalate	12	U
206-44-0	Fluoranthene	12	U
129-00-0	Pyrene	12	U
85-68-7	Butylbenzylphthalate	12	U
91-94-1	3,3'-Dichlorobenzidine	24	U
56-55-3	Benzo(a)anthracene	12	U
218-01-9	Chrysene	12	U
117-81-7	bis(2-Ethylhexyl)phthalate	12	U
117-84-0	Di-n-octylphthalate	12	U
205-99-2	Benzo(b)fluoranthene	12	U
207-08-9	Benzo(k)fluoranthene	12	U
50-32-8	Benzo(a)pyrene	12	U
193-39-5	Indeno(1,2,3-cd)pyrene	12	U
53-70-3	Dibenzo(a,h)anthracene	12	U
191-24-2	Benzo(g,h,i)perylene	12	U

(1) - Cannot be separated from Diphenylamine

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\MSS_NT\S0839.D
Acq On : 6 Sep 2000 1:19 pm
Sample : 001915A-02
Misc : SW-04 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 6 13:55 2000

Vial: 4 00028
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.61

Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.52	152	111358	40.00 ug	0.00
20) Naphthalene-d8	13.48	136	418303	40.00 ug	0.00
35) Acenaphthene-d10	17.39	164	228101	40.00 ug	0.00
57) Phenanthrene-d10	20.49	188	393017	40.00 ug	0.00
70) Chrysene-d12	25.99	240	325587	40.00 ug	0.00
79) Perylene-d12	29.39	264	261987	40.00 ug	0.00

System Monitoring Compounds					
2) 2-Fluorophenol	7.81	112	324234	106.45 ug	0.06
Spiked Amount 200.000	Range 21 - 110		Recovery = 53.23%		
3) Phenol-d5	9.79	99	303312	75.13 ug	0.00
Spiked Amount 200.000	Range 10 - 110		Recovery = 37.56%		
21) Nitrobenzene-d5	11.87	82	261396	70.55 ug	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery = 70.55%		
40) 2-Fluorobiphenyl	15.91	172	437246	72.33 ug	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery = 72.33%		
56) 2,4,6-Tribromophenol	19.09	330	165444	154.79 ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 77.39%		
73) Terphenyl-d14	23.77	244	441335	65.30 ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 65.30%		

Target Compounds					Qvalue
6) Cyclohexanone	8.22	42	739499	255.14 ug	E 94
7) Phenol	9.82	94	44892	6.66 ug	97

All spectra and manual integrations for this sample have been reviewed and approved.

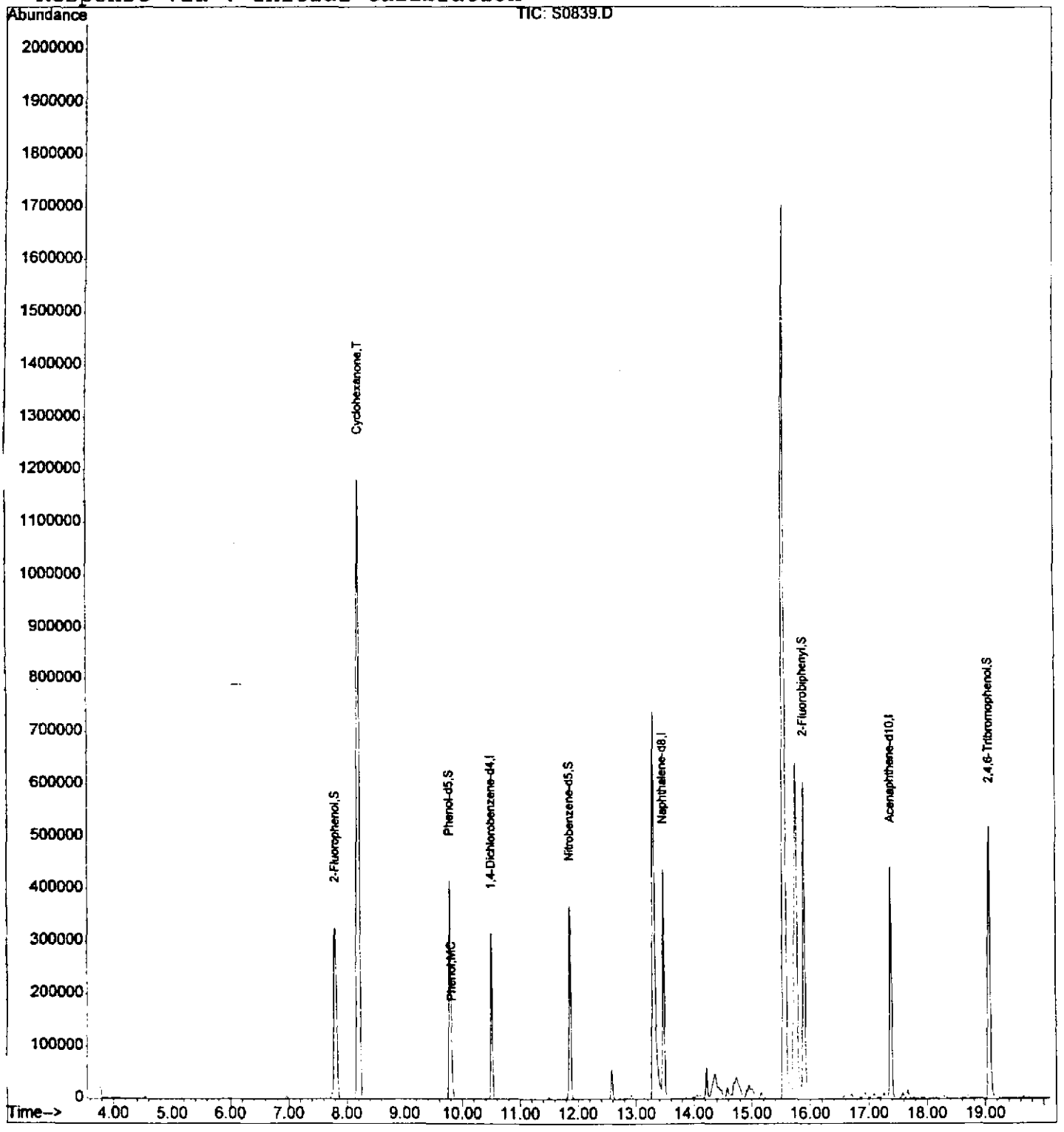
By: EMartin Date: 09/07/00

Secondary review: ARhodes Date: 9/8/00

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

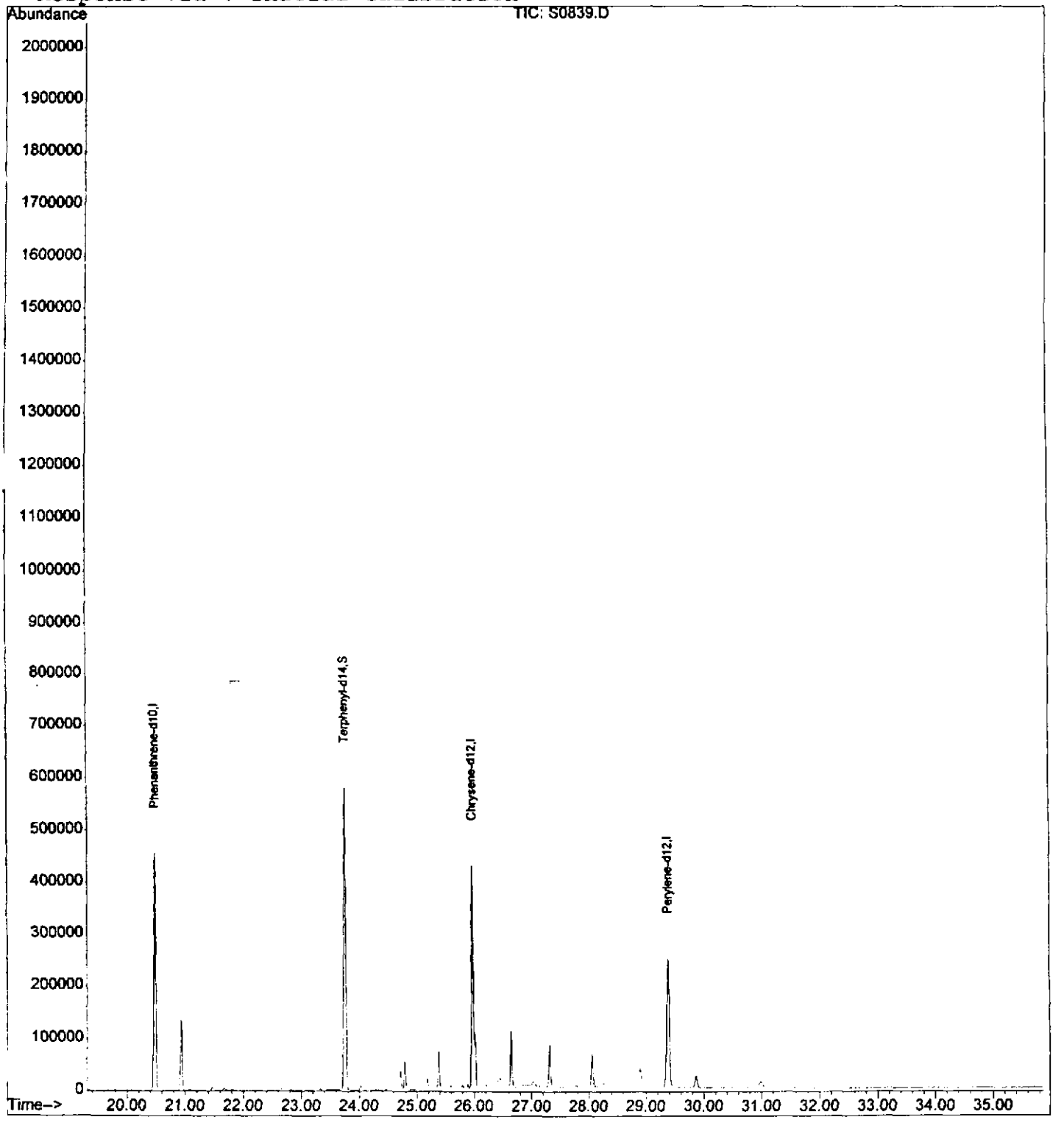
Data File : C:\HPCHEM\MSS_NT\S0839.D Vial: 4
Acq On : 6 Sep 2000 1:19 pm Operator: E. MARTIN
Sample : 001915A-02 Inst : HP5972:S
Misc : SW-04 ; SWC ; 1 ; LLW ; WATER Multiplr: 0.61
MS Integration Params: RTEINT.P
Quant Time: Sep 6 13:55 2000 Quant Results File: MSSSOCNT.RES

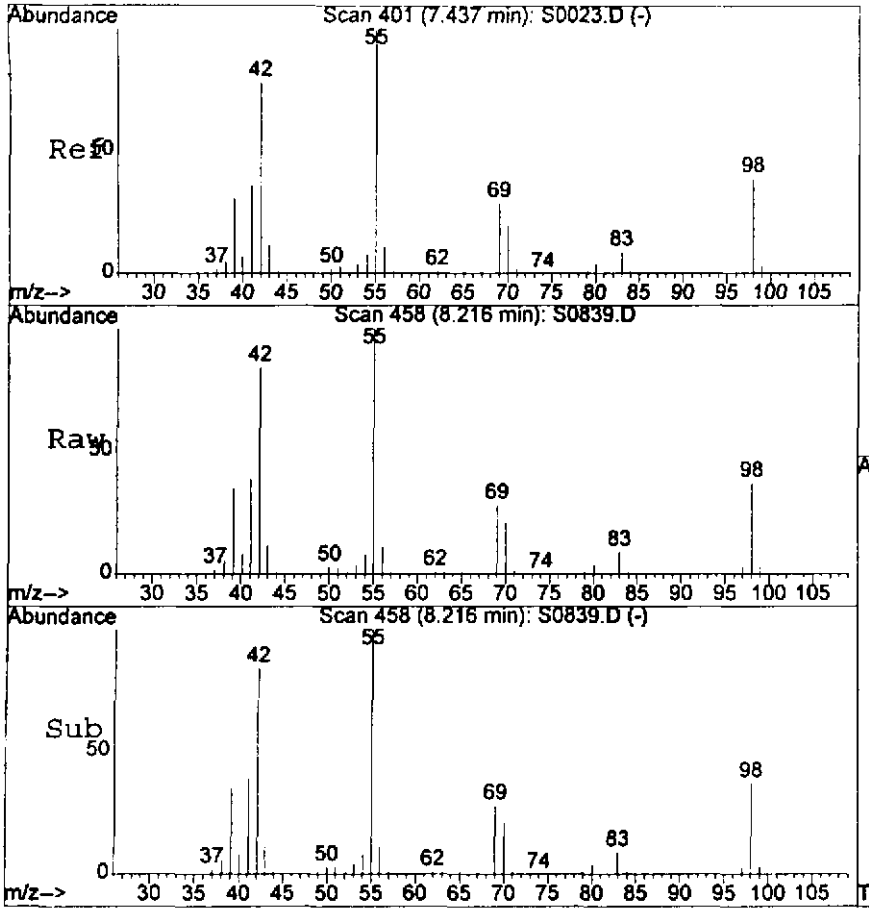
Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0839.D Vial: 4
Acq On : 6 Sep 2000 1:19 pm Operator: E. MARTIN
Sample : 001915A-02 Inst : HP5972:S
Misc : SW-04 ; SWC ; 1 ; LLW ; WATER Multiplr: 0.61
MS Integration Params: RTEINT.P
Quant Time: Sep 6 13:55 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration

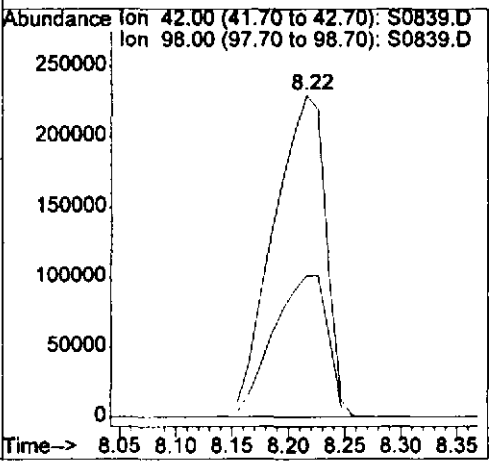


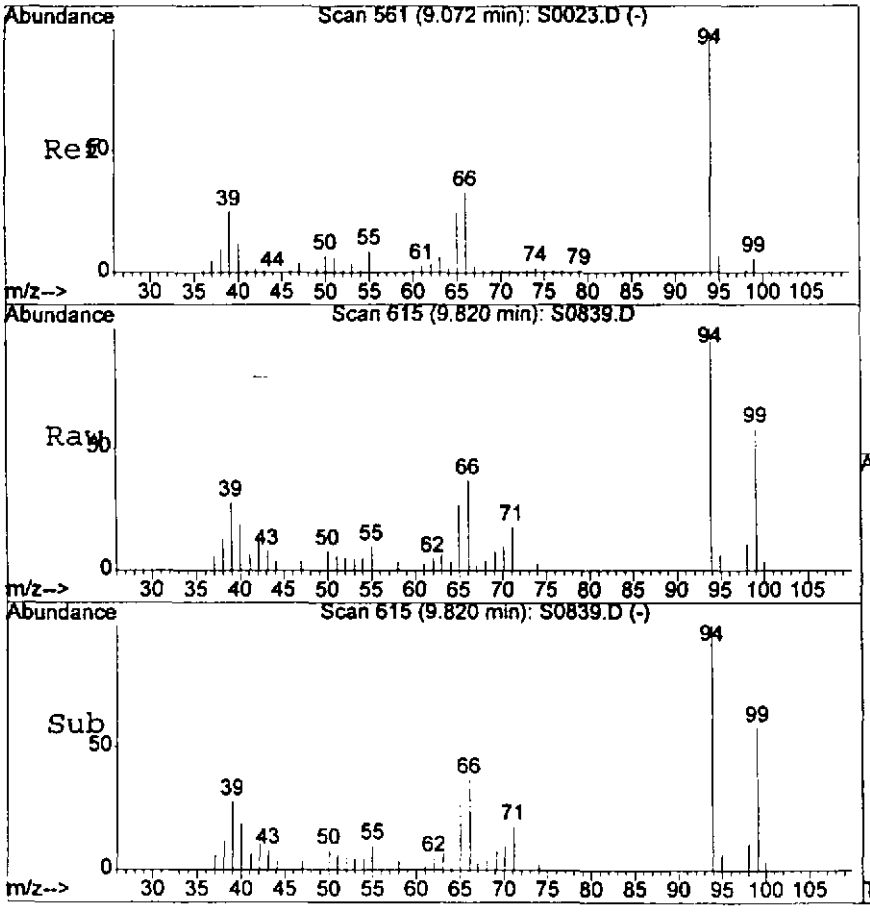


#6
Cyclohexanone
Concen: 255.14 ug
RT: 8.22 min Scan# 458
Delta R.T. 0.02 min
Lab File: S0839.D
Acq: 6 Sep 2000 1:19 pm

Tgt Ion: 42 Resp: 739499

Ion	Ratio	Lower	Upper
42	100		
98	44.1	20.3	60.3

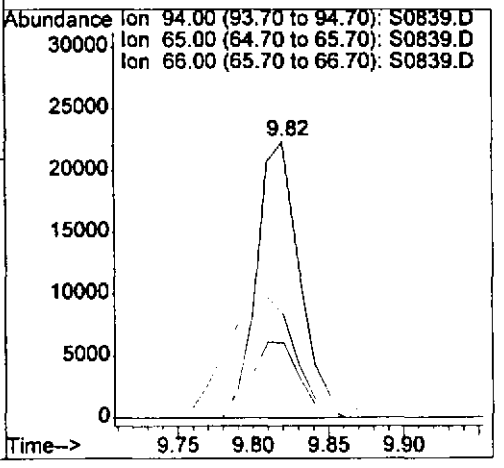




#7
Phenol
Concen: 6.66 ug
RT: 9.82 min Scan# 615
Delta R.T. 0.00 min
Lab File: S0839.D
Acq: 6 Sep 2000 1:19 pm

Tgt Ion: 94 Resp: 44892

Ion	Ratio	Lower	Upper
94	100		
65	27.2	9.5	49.5
66	37.4	18.7	58.7



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SW-40

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-03

Sample wt/vol: 910 (g/mL) ML Lab File ID: >S0840

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-94-1	Cyclohexanone	250	E
108-95-2	Phenol	6	J
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
100-51-6	Benzyl alcohol	11	U
95-50-1	1,2-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	bis(2-Chloroisopropyl)ether	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
65-85-0	Benzoic acid	55	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	55	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	55	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-40

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-03

Sample wt/vol: 910 (g/mL) ML Lab File ID: >S0840

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
606-20-2	2,6-Dinitrotoluene	11	U
99-09-2	3-Nitroaniline	55	U
83-32-9	Acenaphthene	11	U
51-28-5	2,4-Dinitrophenol	55	U
100-02-7	4-Nitrophenol	55	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	55	U
534-52-1	4,6-Dinitro-2-methylphenol	55	U
86-30-6	N-Nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	55	U
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	11	U
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	22	U
56-55-3	Benzo(a)anthracene	11	U
218-01-9	Chrysene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	11	U
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

Quantitation Report (QT Reviewed)

0

Data File : C:\HPCHEM\MSS_NT\S0840.D
Acq On : 6 Sep 2000 2:03 pm
Sample : 001915A-03
Misc : SW-40 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:16 2000

Vial: 5
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.55
Quant Results File: MSSSOCNT.

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Mi
1) 1,4-Dichlorobenzene-d4	10.51	152	116190	40.00 ug	0.
20) Naphthalene-d8	13.48	136	438348	40.00 ug	0.
35) Acenaphthene-d10	17.39	164	240790	40.00 ug	0.
57) Phenanthrene-d10	20.49	188	415148	40.00 ug	0.
70) Chrysene-d12	25.99	240	343215	40.00 ug	0.
79) Perylene-d12	29.39	264	267307	40.00 ug	0.
System Monitoring Compounds					
2) 2-Fluorophenol	7.81	112	306460m	96.43 ug	0.
Spiked Amount 200.000	Range 21 - 110		Recovery = 48.22%		
3) Phenol-d5	9.79	99	283383	67.28 ug	0.
Spiked Amount 200.000	Range 10 - 110		Recovery = 33.64%		
21) Nitrobenzene-d5	11.87	82	264965	68.24 ug	0.
Spiked Amount 100.000	Range 35 - 114		Recovery = 68.24%		
40) 2-Fluorobiphenyl	15.91	172	448897	70.35 ug	0.
Spiked Amount 100.000	Range 43 - 116		Recovery = 70.35%		
56) 2,4,6-Tribromophenol	19.09	330	173207	153.51 ug	0.
Spiked Amount 200.000	Range 10 - 123		Recovery = 76.75%		
73) Terphenyl-d14	23.77	244	460735	64.67 ug	0
Spiked Amount 100.000	Range 33 - 114		Recovery = 64.67%		
Target Compounds					Qvalu
6) Cyclohexanone	8.22	42	828408	246.99 ug	E
7) Phenol	9.81	94	48610	6.23 ug	

All spectra and manual integrations for this sample have been reviewed and approved.

By: EMartin Date: 09/07/00

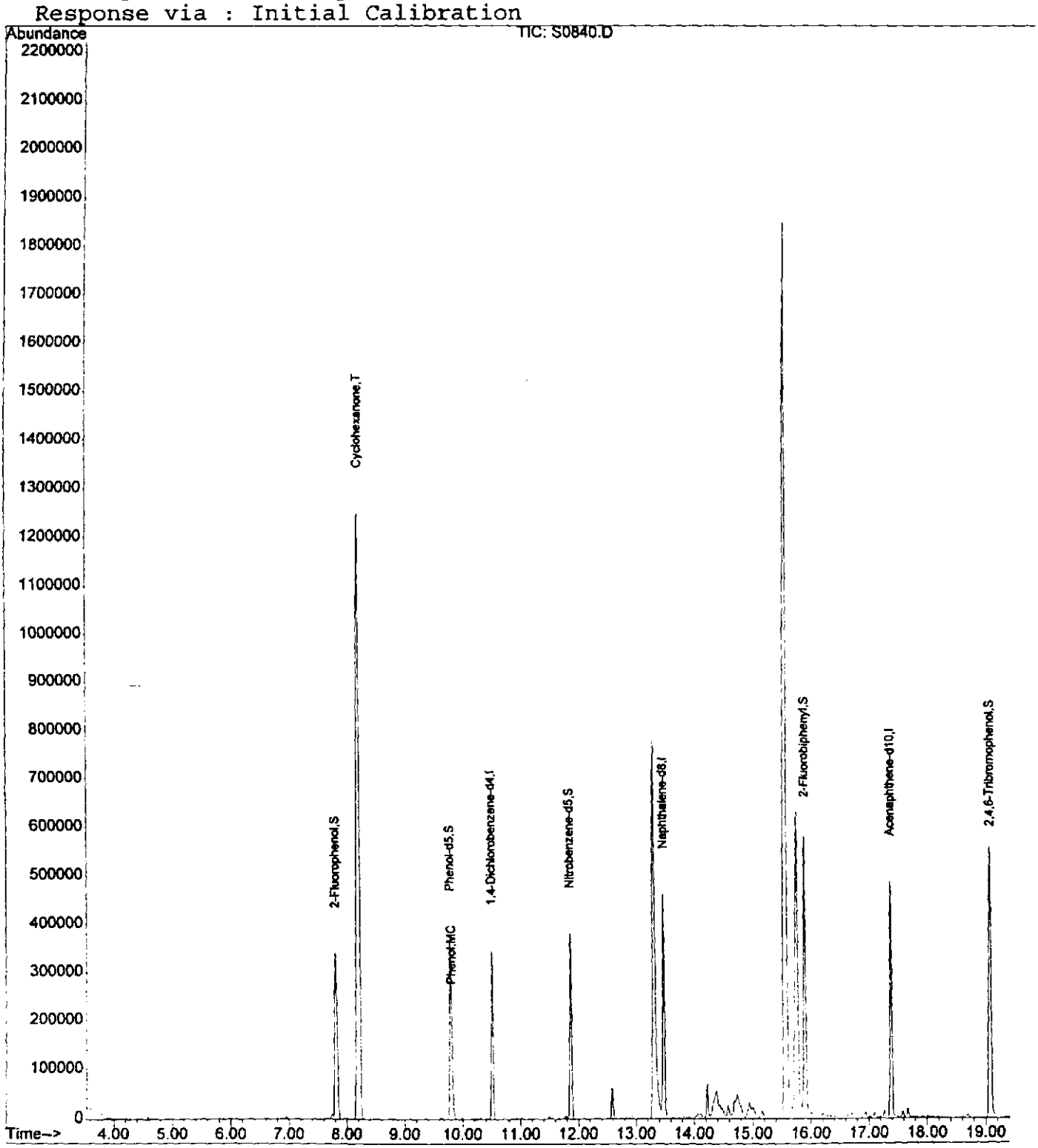
Secondary review: HRhodes Date: 9/8/00

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

Quantitation Report

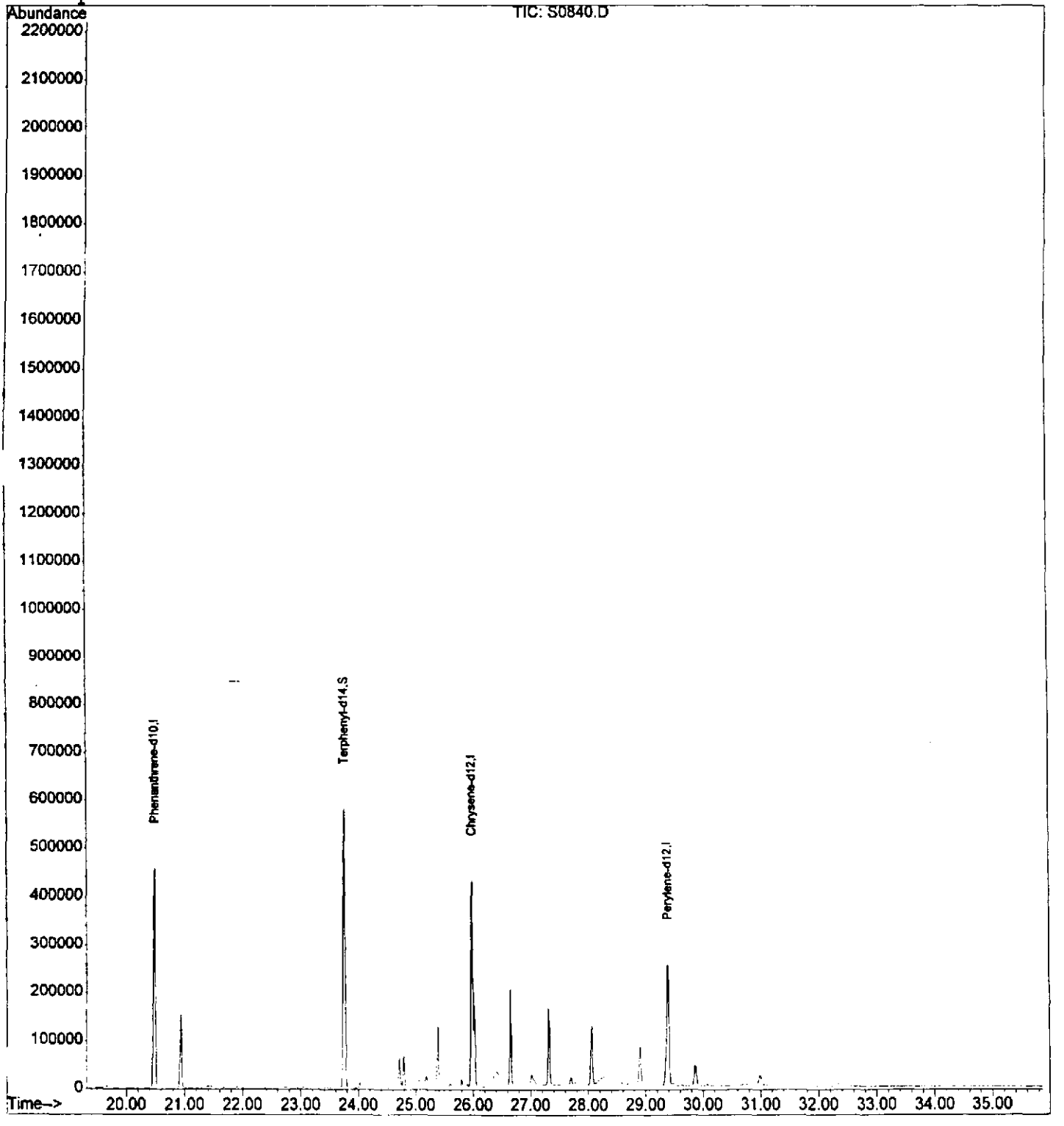
Data File : C:\HPCHEM\MSS_NT\S0840.D Vial: 5 0
Acq On : 6 Sep 2000 2:03 pm Operator: E. MART
Sample : 001915A-03 Inst : HP5972:
Misc : SW-40 ; SWC ; 1 ; LLW ; WATER Multiplr: 0.55
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:16 2000 Quant Results File: MSSSOCN

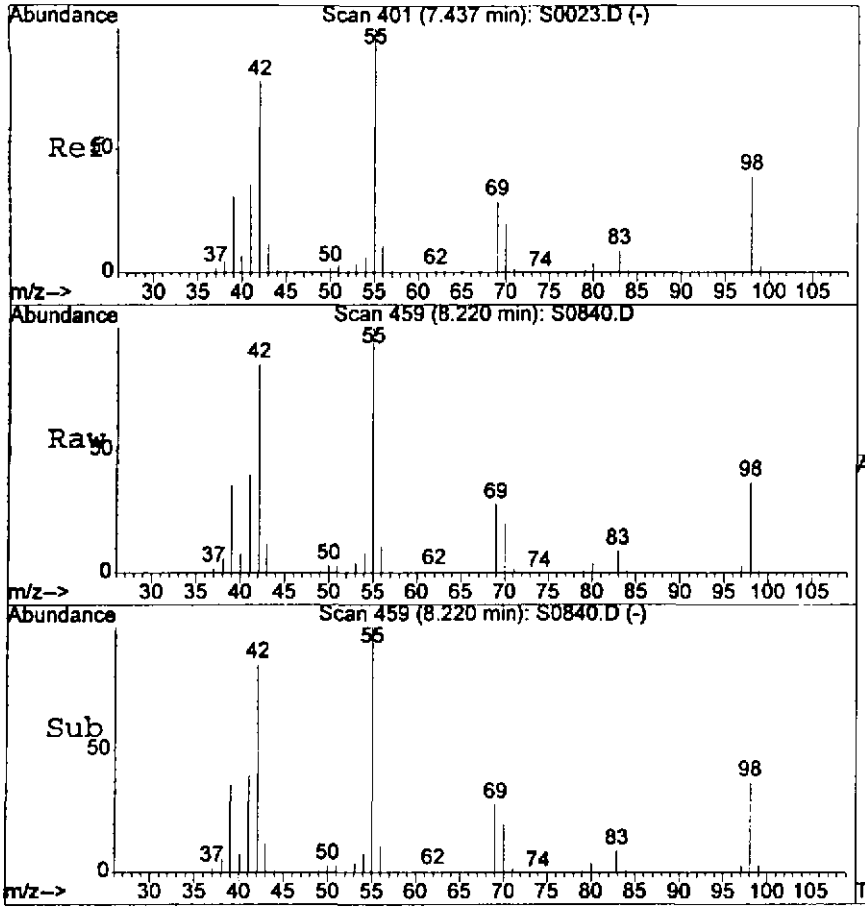
Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0840.D Vial: 5 00036
Acq On : 6 Sep 2000 2:03 pm Operator: E. MARTIN
Sample : 001915A-03 Inst : HP5972:S
Misc : SW-40 ; SWC ; 1 ; LLW ; WATER Multiplr: 0.55
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:16 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration

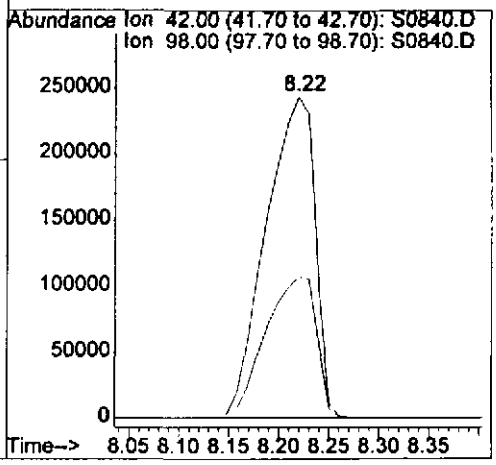


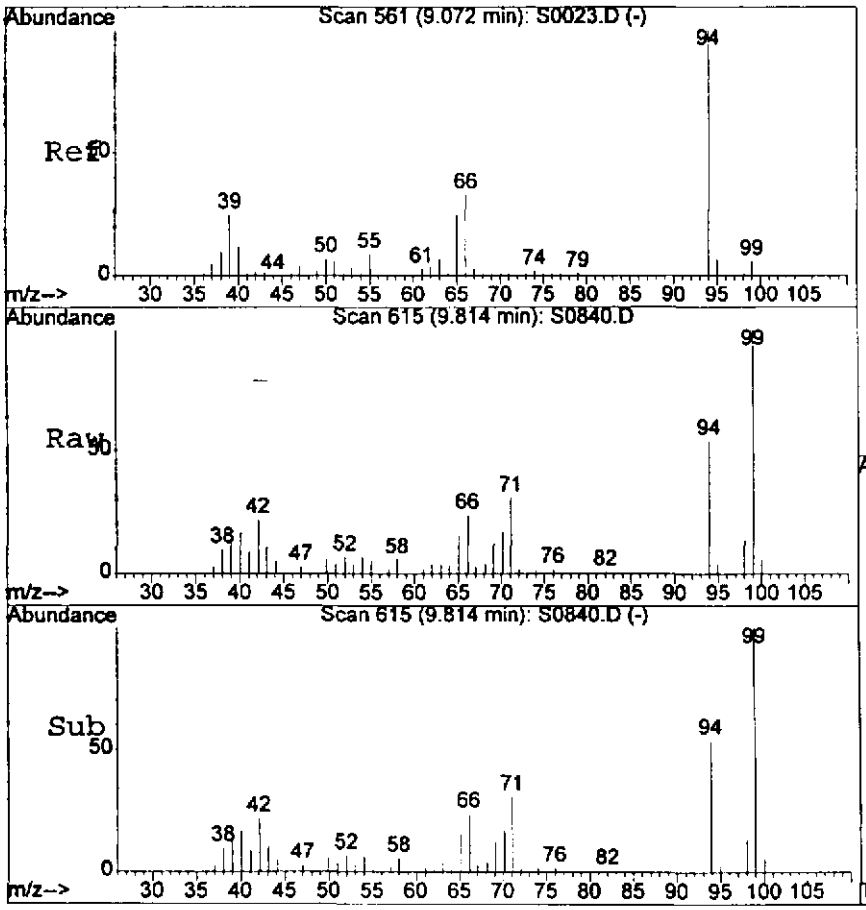


#6
Cyclohexanone
Concen: 246.99 ug
RT: 8.22 min Scan# 459
Delta R.T. 0.03 min
Lab File: S0840.D
Acq: 6 Sep 2000 2:03 pm

Tgt Ion: 42 Resp: 828408

Ion	Ratio	Lower	Upper
42	100		
98	44.1	20.3	60.3

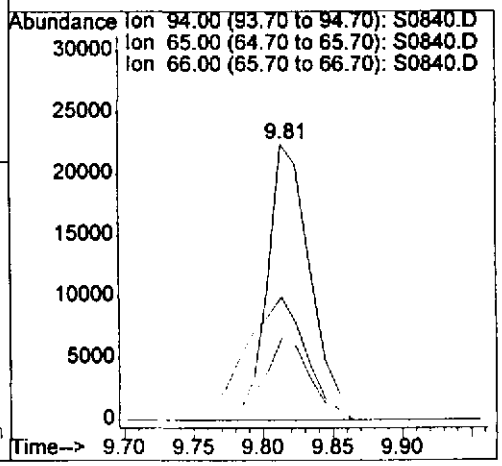




#7
Phenol
Concen: 6.23 ug
RT: 9.81 min Scan# 615
Delta R.T. -0.00 min
Lab File: S0840.D
Acq: 6 Sep 2000 2:03 pm

Tgt Ion: 94 Resp: 48610

Ion	Ratio	Lower	Upper
94	100		
65	29.7	9.5	49.5
66	44.5	18.7	58.7



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-09

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-04

Sample wt/vol: 910 (g/mL) ML Lab File ID: >S0841

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-94-1	Cyclohexanone	100	E
108-95-2	Phenol	11	U
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
100-51-6	Benzyl alcohol	11	U
95-50-1	1,2-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	bis(2-Chloroisopropyl)ether	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
65-85-0	Benzoic acid	55	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	55	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	55	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: SW-09

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-04

Sample wt/vol: 910 (g/mL) ML Lab File ID: >S0841

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
606-20-2	2,6-Dinitrotoluene	11	U
99-09-2	3-Nitroaniline	55	U
83-32-9	Acenaphthene	11	U
51-28-5	2,4-Dinitrophenol	55	U
100-02-7	4-Nitrophenol	55	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	55	U
534-52-1	4,6-Dinitro-2-methylphenol	55	U
86-30-6	N-Nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	55	U
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	11	U
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	22	U
56-55-3	Benzo(a)anthracene	11	U
218-01-9	Chrysene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	11	U
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

Quantitation Report (QT Reviewed)

00040

Data File : C:\HPCHEM\MSS_NT\S0841.D
Acq On : 6 Sep 2000 2:46 pm
Sample : 001915A-04
Misc : SW-09 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 6 15:22 2000

Vial: 6
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.55
Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.51	152	122979	40.00 ug	0.00
20) Naphthalene-d8	13.48	136	464219	40.00 ug	0.00
35) Acenaphthene-d10	17.39	164	252355	40.00 ug	0.00
57) Phenanthrene-d10	20.49	188	432970	40.00 ug	0.00
70) Chrysene-d12	25.99	240	354052	40.00 ug	0.00
79) Perylene-d12	29.39	264	280709	40.00 ug	0.00
System Monitoring Compounds					
2) 2-Fluorophenol	7.76	112	361570	107.49 ug	0.02
Spiked Amount 200.000	Range 21 - 110		Recovery = 53.74%		
3) Phenol-d5	9.79	99	350483	78.62 ug	0.00
Spiked Amount 200.000	Range 10 - 110		Recovery = 39.31%		
21) Nitrobenzene-d5	11.87	82	307190	74.70 ug	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery = 74.70%		
40) 2-Fluorobiphenyl	15.90	172	507861	75.94 ug	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery = 75.94%		
56) 2,4,6-Tribromophenol	19.09	330	182758	154.55 ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 77.28%		
73) Terphenyl-d14	23.77	244	499391	67.95 ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 67.95%		
Target Compounds					Qvalue
6) Cyclohexanone	8.21	42	371302	104.59 ug	E 89

All spectra and manual integrations for this sample have been reviewed and approved.

By: EMartin Date: 09/07/00

Secondary review: HRhodes Date: 9/8/00

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

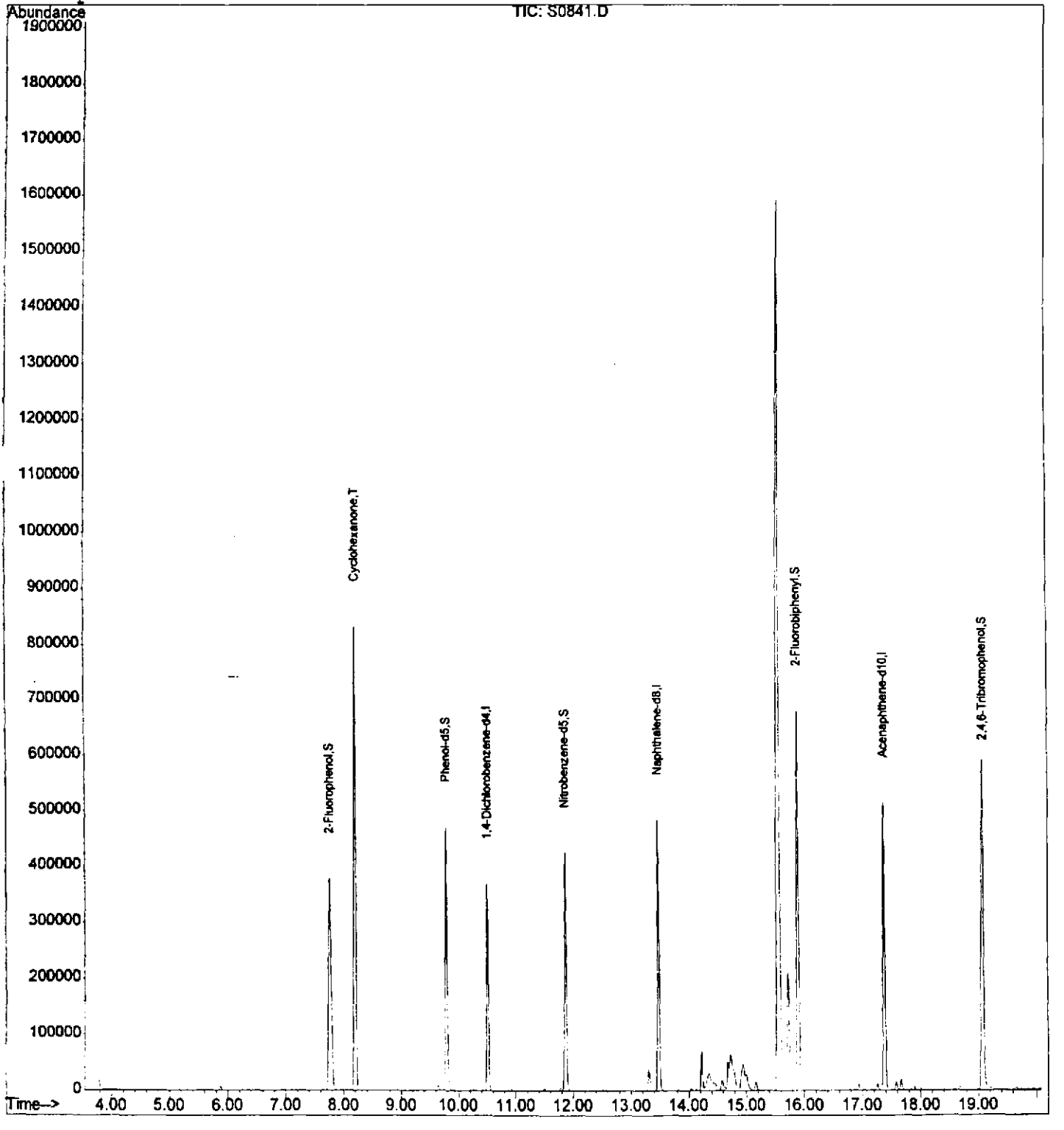
Quantitation Report

00041

Data File : C:\HPCHEM\MSS_NT\S0841.D
Acq On : 6 Sep 2000 2:46 pm
Sample : 001915A-04
Misc : SW-09 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 6 15:22 2000

Vial: 6
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.55
Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



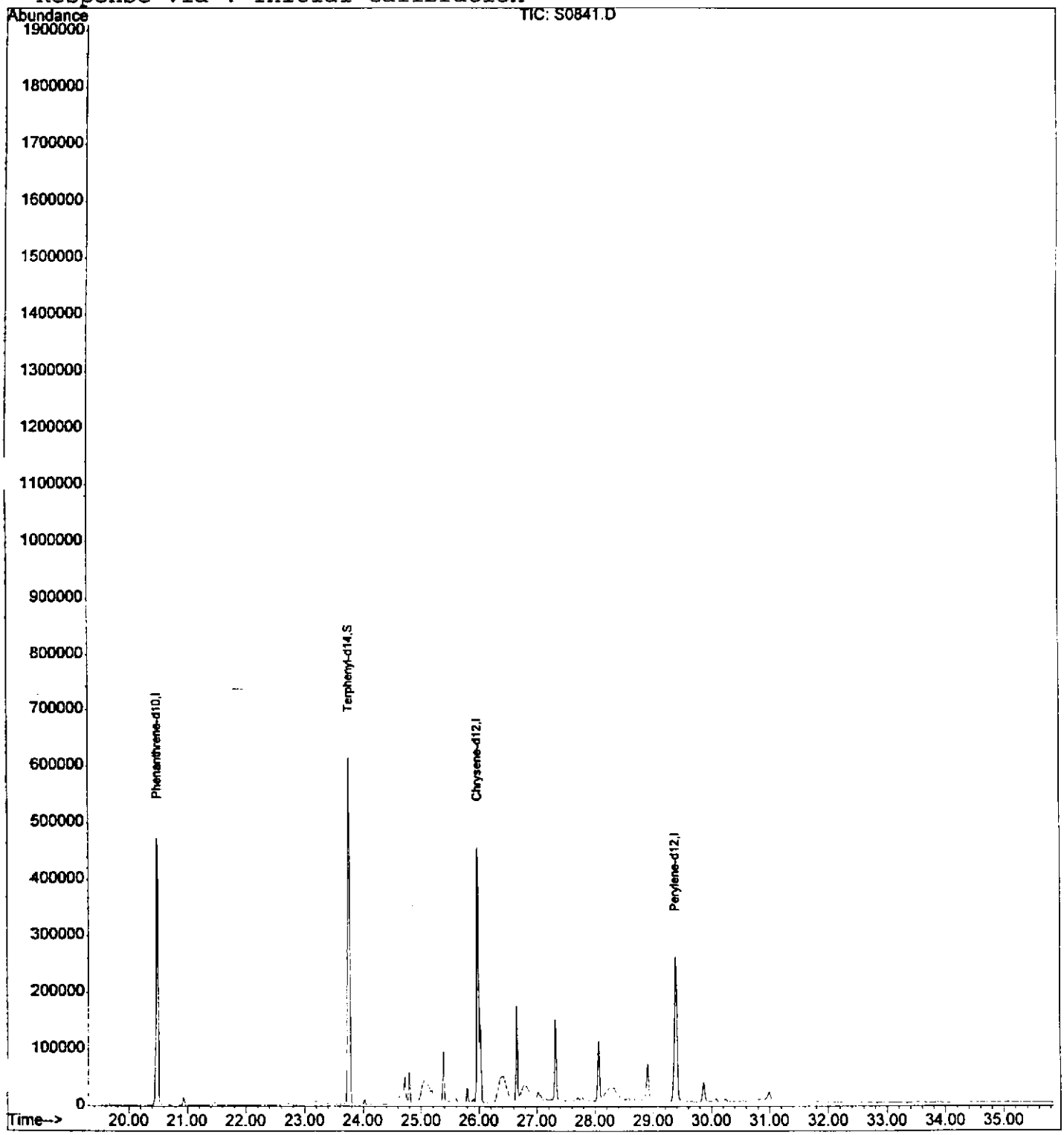
Quantitation Report

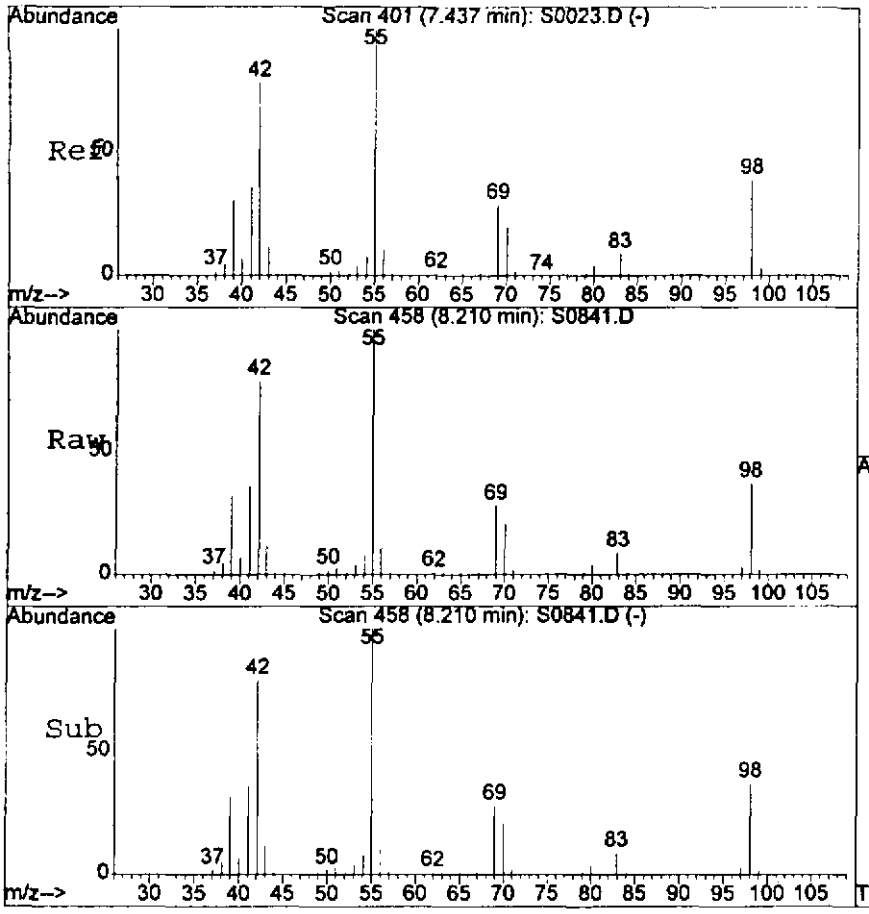
00042

Data File : C:\HPCHEM\MSS_NT\S0841.D
Acq On : 6 Sep 2000 2:46 pm
Sample : 001915A-04
Misc : SW-09 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 6 15:22 2000

Vial: 6
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.55
Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration





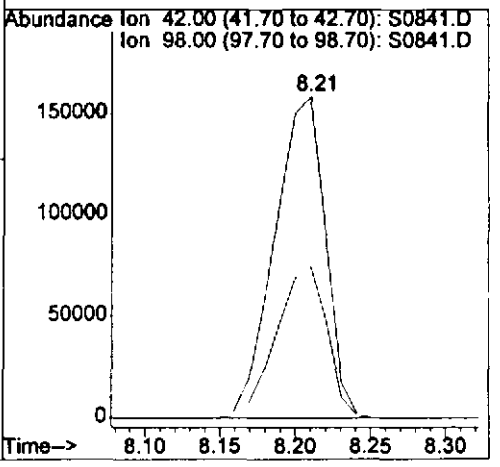
#6
Cyclohexanone

00043

Concen: 104.59 ug
RT: 8.21 min Scan# 458
Delta R.T. 0.02 min
Lab File: S0841.D
Acq: 6 Sep 2000 2:46 pm

Tgt Ion: 42 Resp: 371302

Ion	Ratio	Lower	Upper
42	100		
98	47.0	20.3	60.3



1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD BLANK

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-05

Sample wt/vol: 940 (g/mL) ML Lab File ID: >S0844

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-94-1	Cyclohexanone	6	J
108-95-2	Phenol	11	U
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
100-51-6	Benzyl alcohol	11	U
95-50-1	1,2-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	bis(2-Chloroisopropyl)ether	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
65-85-0	Benzoic acid	53	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	53	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	53	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD BLANK

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-05

Sample wt/vol: 940 (g/mL) ML Lab File ID: >S0844

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
606-20-2	2,6-Dinitrotoluene	11	U
99-09-2	3-Nitroaniline	53	U
83-32-9	Acenaphthene	11	U
51-28-5	2,4-Dinitrophenol	53	U
100-02-7	4-Nitrophenol	53	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	53	U
534-52-1	4,6-Dinitro-2-methylphenol	53	U
86-30-6	N-Nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	53	U
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	11	U
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	21	U
56-55-3	Benzo(a)anthracene	11	U
218-01-9	Chrysene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	47	
117-84-0	Di-n-octylphthalate	2	J
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

Quantitation Report (QT Reviewed)

00046

Data File : C:\HPCHEM\MSS_NT\S0844.D
Acq On : 6 Sep 2000 4:57 pm
Sample : 001915A-05
Misc : FIELD BLANK ; SWC ; 1 ; LLW ; WATER
'S Integration Params: RTEINT.P
Quant Time: Sep 6 17:33 2000

Vial: 9
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.53

Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.52	152	114944	40.00	ug	0.00
20) Naphthalene-d8	13.48	136	434441	40.00	ug	0.00
35) Acenaphthene-d10	17.39	164	240077	40.00	ug	0.00
57) Phenanthrene-d10	20.49	188	415086	40.00	ug	0.00
70) Chrysene-d12	25.99	240	344098	40.00	ug	0.00
79) Perylene-d12	29.39	264	269238	40.00	ug	0.00

System Monitoring Compounds						
2) 2-Fluorophenol	7.75	112	281852	89.65	ug	0.00
Spiked Amount 200.000	Range 21 - 110		Recovery = 44.83%			
3) Phenol-d5	9.79	99	280101	67.22	ug	0.00
Spiked Amount 200.000	Range 10 - 110		Recovery = 33.61%			
21) Nitrobenzene-d5	11.88	82	260682	67.74	ug	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery = 67.74%			
40) 2-Fluorobiphenyl	15.90	172	448103	70.43	ug	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery = 70.43%			
56) 2,4,6-Tribromophenol	19.09	330	165850	147.43	ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 73.72%			
73) Terphenyl-d14	23.77	244	468528	65.60	ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 65.60%			

Target Compounds						Qvalue
6) Cyclohexanone	8.19	42	21738	6.31	ug	88
78) bis(2-Ethylhexyl)phthalate	25.91	149	625374	47.14	ug	100
80) Di-n-octylphthalate	27.11	149	48884	1.95	ug	100

All spectra and manual integrations for this sample have been reviewed and approved.

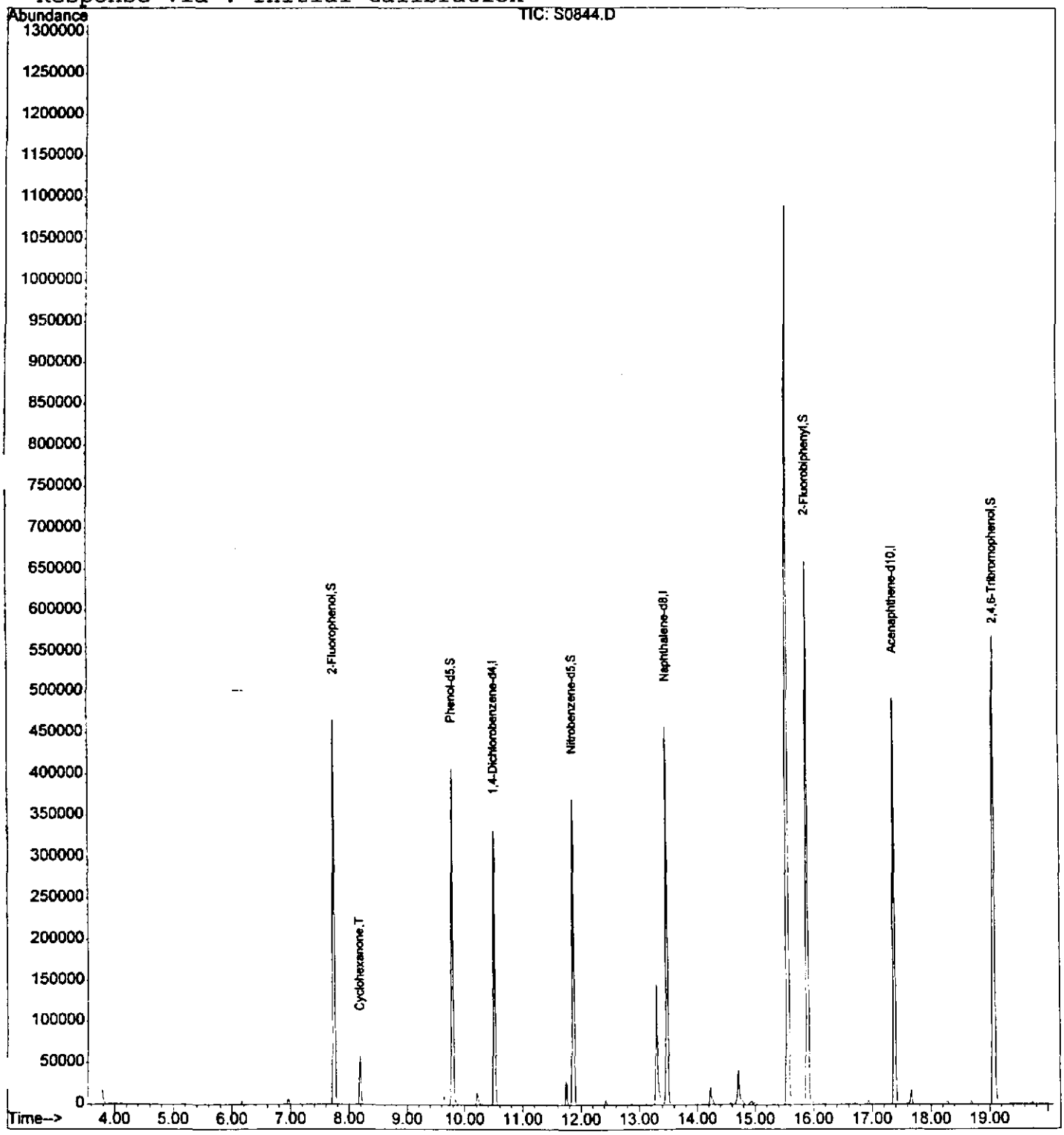
By: EMartin Date: 09/07/00

Secondary review: CMoodus Date: 9/8/00

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

Data File : C:\HPCHEM\MSS_NT\S0844.D Vial: 9
Acq On : 6 Sep 2000 4:57 pm Operator: E. MARTIN
Sample : 001915A-05 Inst : HP5972:S
Misc : FIELD BLANK ; SWC ; 1 ; LLW ; WATER Multiplr: 0.53
MS Integration Params: RTEINT.P
Quant Time: Sep 6 17:33 2000 Quant Results File: MSSSOCNT.RES

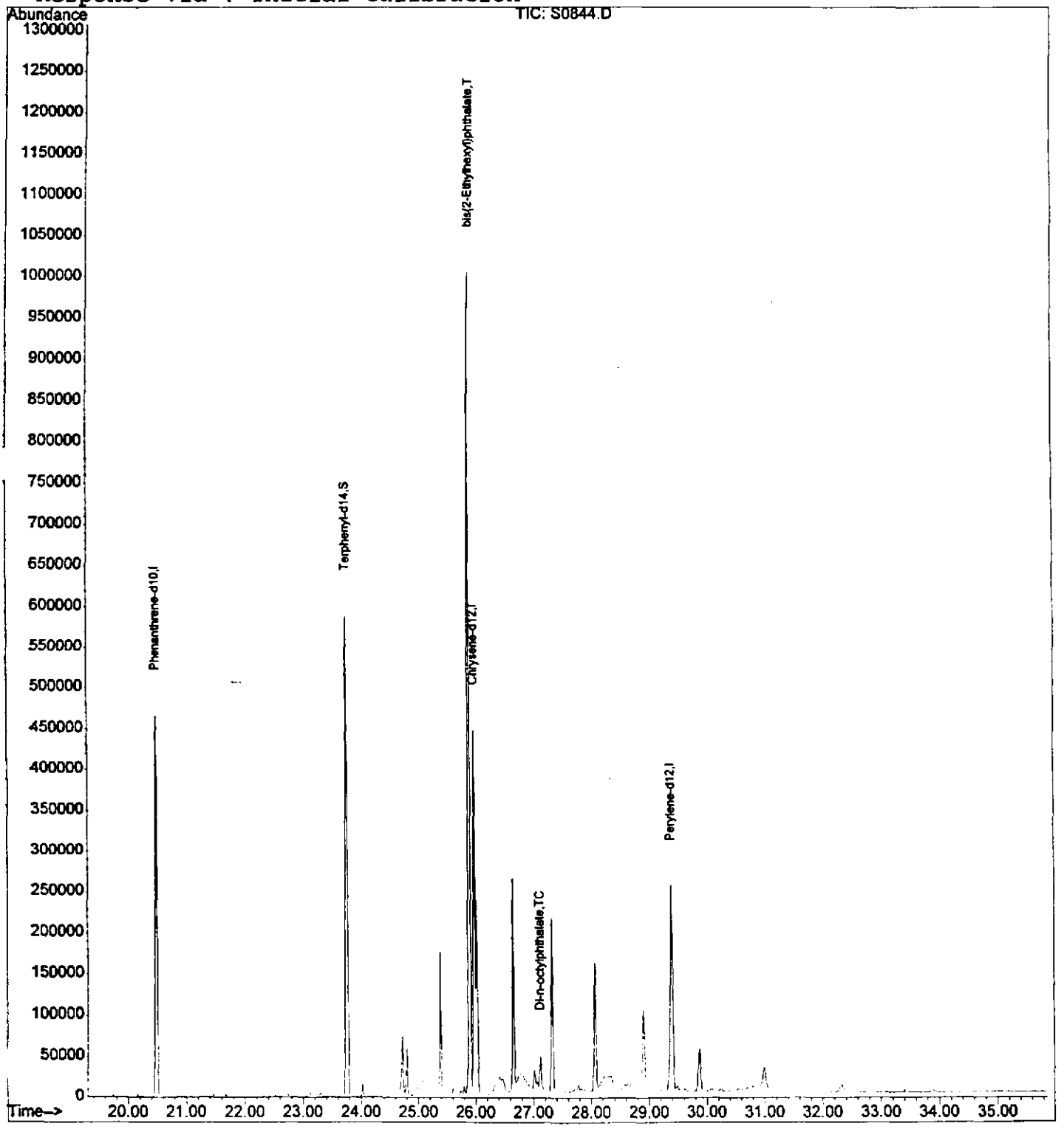
Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration

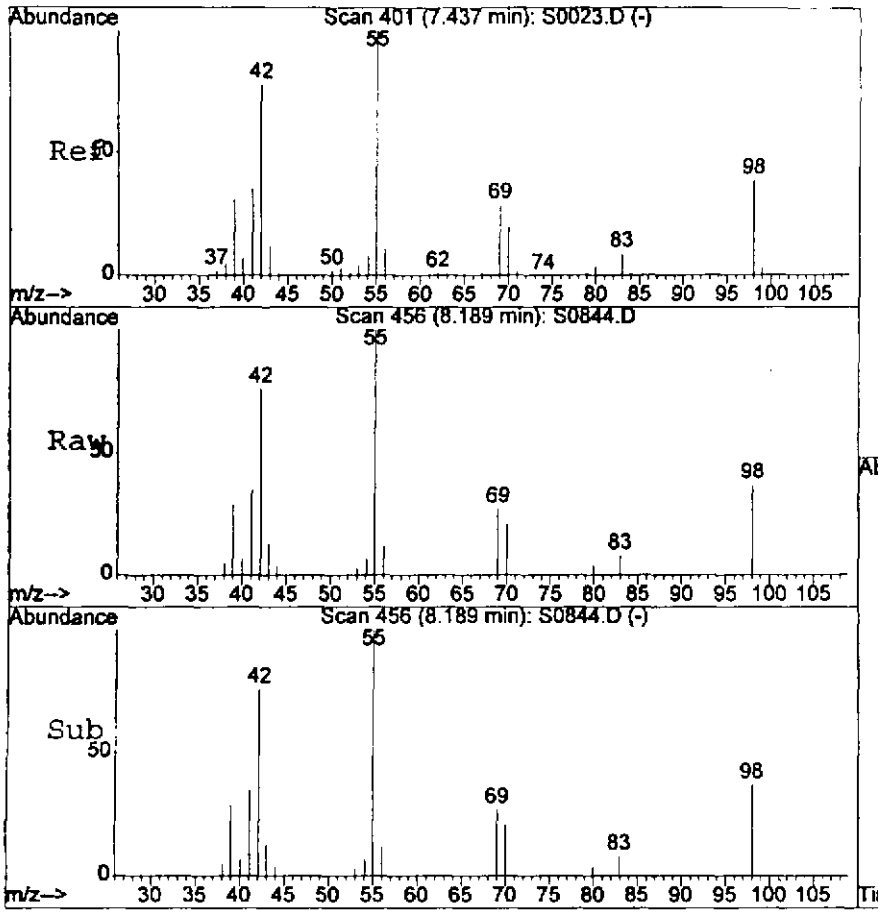


Quantitation Report

Data File : C:\HPCHEM\MSS_NT\S0844.D Vial: 9
Acq On : 6 Sep 2000 4:57 pm Operator: E. MARTIN
Sample : 001915A-05 Inst : HP5972:S
Misc : FIELD BLANK ; SWC ; 1 ; LLW ; WATER Multiplr: 0.53
MS Integration Params: RTEINT.P
Quant Time: Sep 6 17:33 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration

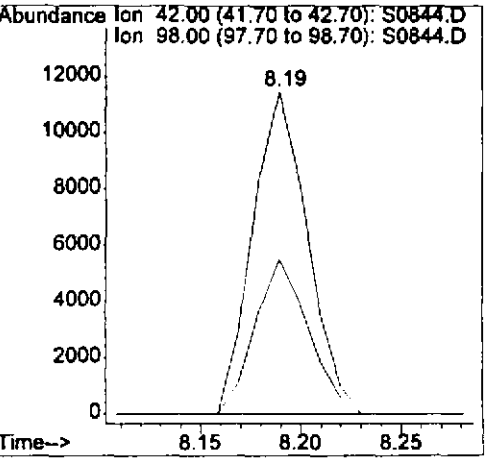


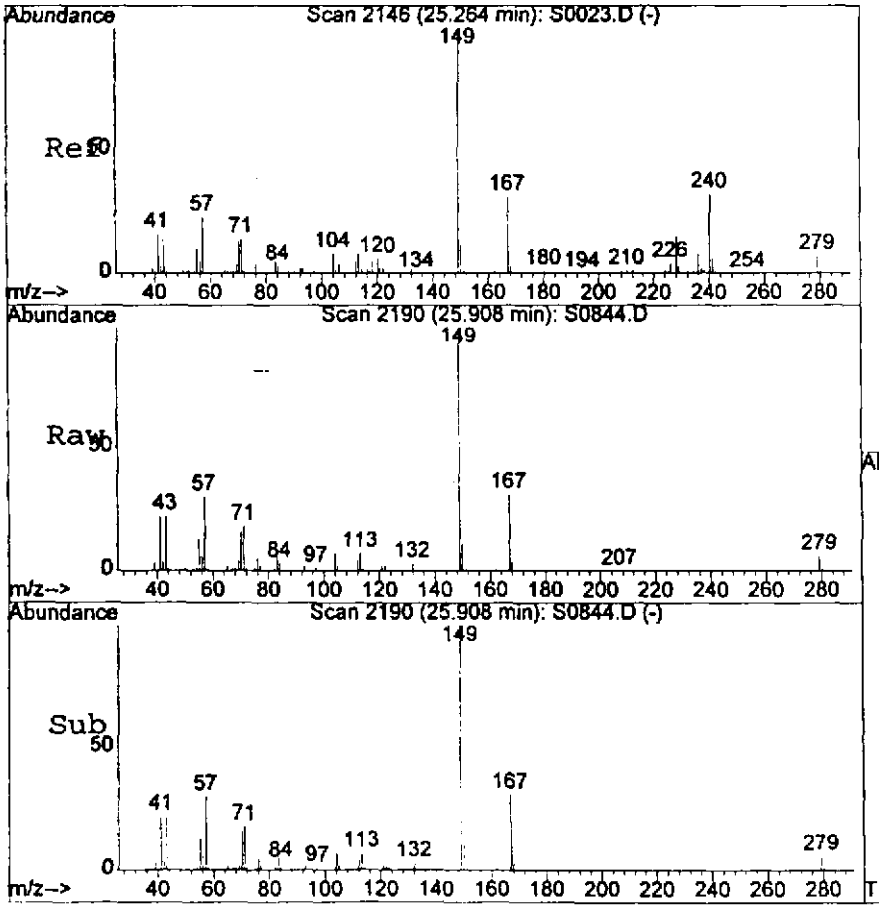


#6
Cyclohexanone
Concen: 6.31 ug
RT: 8.19 min Scan# 456
Delta R.T. -0.00 min
Lab File: S0844.D
Acq: 6 Sep 2000 4:57 pm

Tgt Ion: 42 Resp: 21738

Ion	Ratio	Lower	Upper
42	100		
98	48.0	20.3	60.3

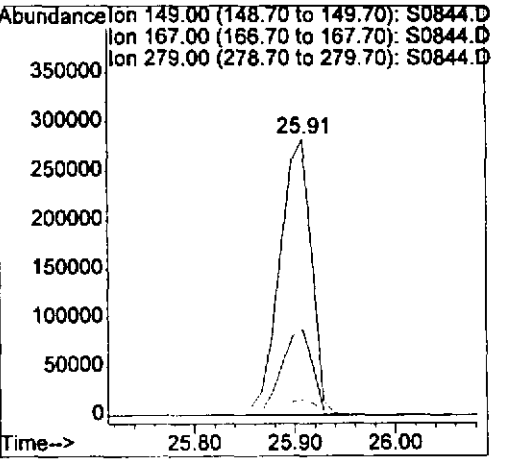


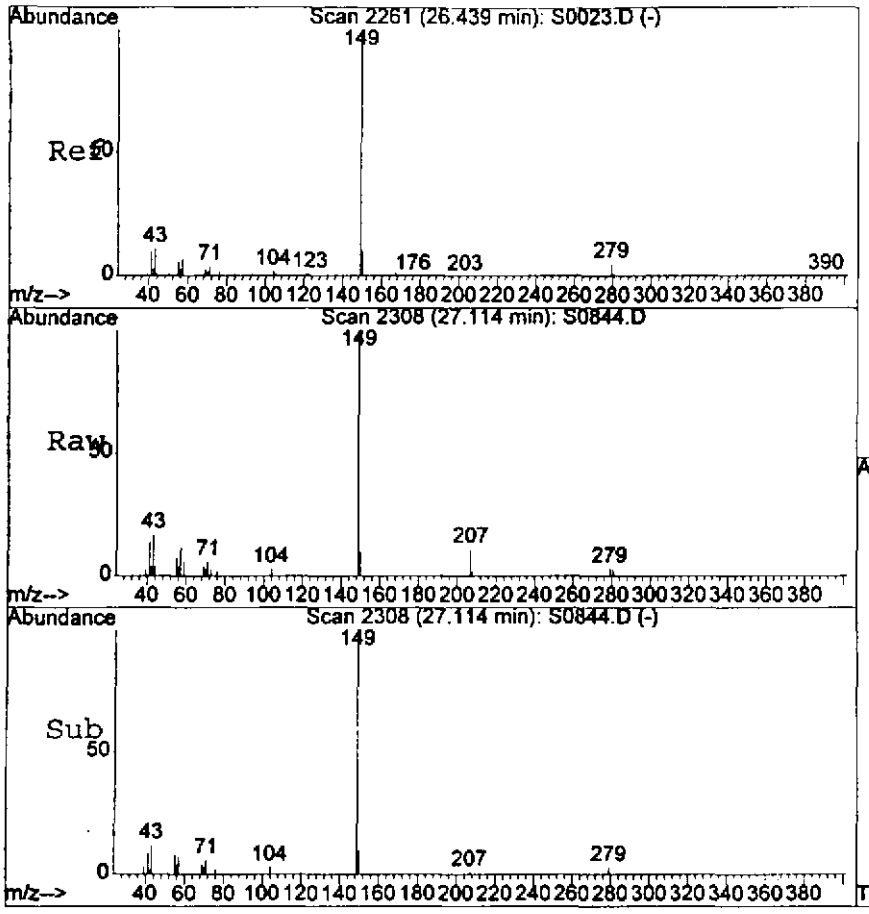


#78
bis(2-Ethylhexyl)phthalate
Concen: 47.14 ug
RT: 25.91 min Scan# 2190
Delta R.T. 0.01 min
Lab File: S0844.D
Acq: 6 Sep 2000 4:57 pm

Tgt Ion:149 Resp: 625374

Ion	Ratio	Lower	Upper
149	100		
167	31.3	11.3	51.3
279	5.6	0.0	25.5

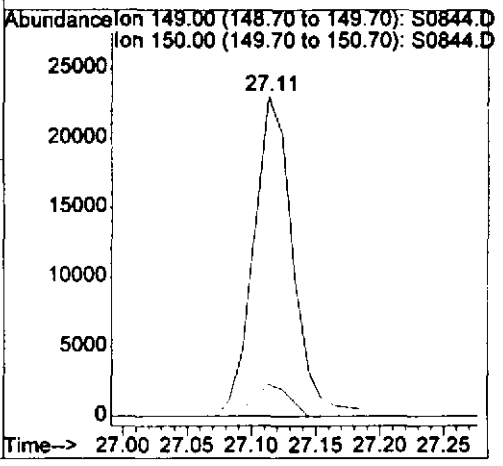




#80
Di-n-octylphthalate
Concen: 1.95 ug
RT: 27.11 min Scan# 2308
Delta R.T. -0.00 min
Lab File: S0844.D
Acq: 6 Sep 2000 4:57 pm

Tgt Ion:149 Resp: 48884

Ion	Ratio	Lower	Upper
149	100		
150	9.9	0.0	30.0



6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Instrument ID: HP5972S Calibration Date(s):08/31/00 _____

Calibration Times: 1137 1441

LAB FILE ID: RRF20 = >S0777 RRF50 = >S0778
RRF80 = >S0779 RRF120= >S0780 RRF160= >S0781

COMPOUND		RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD	
Phenol	*	1.735	1.584	1.477	1.348	1.245	1.478	13.0	*
bis(2-Chloroethyl)ether	*	1.143	1.063	1.010	0.944	0.902	1.012	9.4	*
2-Chlorophenol	*	1.385	1.298	1.218	1.114	1.044	1.212	11.3	*
1,3-Dichlorobenzene	*	1.461	1.358	1.280	1.164	1.066	1.266	12.3	*
1,4-Dichlorobenzene	*	1.526	1.381	1.287	1.161	1.050	1.281	14.5	*
Benzyl alcohol	*	0.824	0.802	0.770	0.751	0.730	0.775	4.9	*
1,2-Dichlorobenzene	*	1.417	1.295	1.186	1.035	0.910	1.169	17.2	*
2-Methylphenol	*	1.148	1.086	1.014	0.939	0.868	1.011	11.1	*
2,2'-oxybis(1-Chloropropane)	*	2.444	2.235	2.073	1.824	1.653	2.046	15.4	*
4-Methylphenol	*	1.218	1.084	0.959	0.842	0.782	0.977	18.2	*
N-Nitroso-di-n-propylamine	*	1.036	0.959	0.889	0.823	0.798	0.901	10.9	*
Hexachloroethane	*	0.598	0.564	0.533	0.489	0.456	0.528	10.8	*
Nitrobenzene	*	0.410	0.375	0.358	0.338	0.323	0.361	9.4	*
Isophorone	*	0.741	0.666	0.624	0.616	0.608	0.651	8.4	*
2-Nitrophenol	*	0.218	0.209	0.204	0.196	0.186	0.203	6.0	*
2,4-Dimethylphenol	*	0.301	0.300	0.279	0.275	0.265	0.284	5.6	*
Benzoic acid	*	0.222	0.216	0.241	0.249	0.251	0.236	6.7	*
bis(2-Chloroethoxy)methane	*	0.472	0.434	0.412	0.390	0.372	0.416	9.4	*
2,4-Dichlorophenol	*	0.304	0.284	0.271	0.260	0.247	0.273	8.0	*
1,2,4-Trichlorobenzene	*	0.322	0.298	0.281	0.262	0.242	0.281	11.0	*
Naphthalene	*	1.022	0.889	0.812	0.736	0.669	0.826	16.6	*
4-Chloroaniline	*	0.443	0.402	0.349	0.331	0.311	0.367	14.8	*
Hexachlorobutadiene	*	0.168	0.150	0.143	0.129	0.116	0.141	14.1	*
4-Chloro-3-methylphenol	*	0.288	0.275	0.256	0.251	0.241	0.262	7.2	*
2-Methylnaphthalene	*	0.624	0.521	0.453	0.399	0.353	0.470	22.6	*
Hexachlorocyclopentadiene	*	0.363	0.351	0.340	0.314	0.290	0.332	8.9	*
2,4,6-Trichlorophenol	*	0.409	0.386	0.372	0.356	0.352	0.375	6.2	*
2,4,5-Trichlorophenol	*	0.442	0.427	0.402	0.370	0.326	0.393	11.8	*
2-Chloronaphthalene	*	1.228	1.123	1.043	0.940	0.854	1.038	14.2	*
2-Nitroaniline	*	0.409	0.390	0.370	0.362	0.358	0.378	5.6	*
Dimethylphthalate	*	1.424	1.294	1.218	1.155	1.112	1.241	9.9	*
Acenaphthylene	*	1.865	1.685	1.525	1.365	1.250	1.538	16.0	*
2,6-Dinitrotoluene	*	0.350	0.336	0.314	0.297	0.278	0.315	9.2	*
3-Nitroaniline	*	0.396	0.355	0.332	0.331	0.320	0.347	8.7	*
Acenaphthene	*	1.138	0.996	0.930	0.844	0.794	0.940	14.4	*
2,4-Dinitrophenol	*	0.197	0.215	0.218	0.230	0.234	0.219	6.6	*
4-Nitrophenol	*	0.160	0.157	0.152	0.154	0.157	0.156	2.0	*

* Compounds with required minimum RRF and maximum %RSD values.

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Instrument ID: HP5972S Calibration Date(s): 08/31/00 _____

Calibration Times: 1137 1441

LAB FILE ID: RRF20 = >S0777 RRF50 = >S0778
RRF80 = >S0779 RRF120= >S0780 RRF160= >S0781

COMPOUND		RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD	
Dibenzofuran	*	1.642	1.466	1.354	1.240	1.157	1.372	13.9	*
2,4-Dinitrotoluene	*	0.467	0.440	0.417	0.419	0.407	0.430	5.6	*
Diethylphthalate	*	1.434	1.270	1.180	1.127	1.053	1.213	12.1	*
4-Chlorophenyl-phenyl Ether	*	0.601	0.529	0.476	0.424	0.374	0.481	18.4	*
Fluorene	*	1.241	1.090	0.991	0.887	0.801	1.002	17.2	*
4-Nitroaniline	*	0.382	0.355	0.314	0.316	0.310	0.335	9.5	*
4,6-Dinitro-2-methylphenol	*	0.170	0.170	0.167	0.161	0.148	0.163	5.7	*
N-Nitrosodiphenylamine	*	0.584	0.538	0.508	0.443	0.385	0.492	16.0	*
4-Bromophenyl-phenylether	*	0.224	0.201	0.191	0.172	0.157	0.189	13.7	*
Hexachlorobenzene	*	0.259	0.226	0.211	0.183	0.162	0.208	18.1	*
Pentachlorophenol	*	0.153	0.147	0.149	0.142	0.134	0.145	5.0	*
Phenanthrene	*	1.059	0.923	0.860	0.782	0.717	0.868	15.2	*
Anthracene	*	1.119	0.961	0.886	0.791	0.717	0.895	17.4	*
Carbazole	*	1.000	0.860	0.792	0.736	0.685	0.815	15.0	*
Di-n-butylphthalate	*	1.460	1.239	1.128	1.014	0.934	1.155	17.8	*
Fluoranthene	*	1.000	0.824	0.754	0.678	0.624	0.776	18.8	*
Pyrene	*	1.382	1.269	1.183	1.112	1.050	1.199	10.9	*
Butylbenzylphthalate	*	0.775	0.694	0.645	0.592	0.556	0.652	13.2	*
3,3'-Dichlorobenzidine	*	0.382	0.296	0.274	0.232	0.212	0.279	23.8	*
Benzo(a)anthracene	*	1.093	0.956	0.917	0.836	0.791	0.919	12.8	*
Chrysene	*	1.014	0.891	0.833	0.752	0.689	0.836	15.0	*
bis(2-Ethylhexyl)phthalate	*	1.052	0.888	0.797	0.698	0.652	0.817	19.6	*
Di-n-octylphthalate	*	2.332	2.259	2.018	1.762	1.518	1.978	17.2	*
Benzo(b)fluoranthene	*	1.212	1.107	1.027	1.002	0.888	1.047	11.6	*
Benzo(k)fluoranthene	*	1.114	1.064	0.983	0.828	0.777	0.953	15.4	*
Benzo(a)pyrene	*	1.018	0.984	0.955	0.917	0.865	0.948	6.3	*
Indeno(1,2,3-cd)pyrene	*	0.950	1.150	1.373	1.452	1.495	1.284	17.8	*
Dibenz(a,h)anthracene	*	0.814	0.945	1.080	1.090	1.106	1.007	12.5	*
Benzo(g,h,i)perylene	*	0.808	1.075	1.368	1.494	1.554	1.260	24.8	*
Nitrobenzene-D5	*	0.391	0.363	0.352	0.340	0.325	0.354	7.0	*
2-Fluorobiphenyl	*	1.256	1.134	1.078	0.962	0.870	1.060	14.1	*
Terphenyl-D14	*	1.018	0.898	0.815	0.735	0.686	0.830	15.9	*
Phenol-D5	*	1.623	1.533	1.447	1.354	1.293	1.450	9.2	*
2-Fluorophenol	*	1.173	1.120	1.100	1.057	1.021	1.094	5.3	*
2,4,6-Tribromophenol	*	0.216	0.198	0.185	0.175	0.164	0.188	10.8	*

(1) Cannot be separated from Diphenylamine
* Compounds with required minimum RRF and maximum %RSD values.

Data File : C:\HPCHEM\MSS_NT\S0777.D Vial: 1
Acq On : 31 Aug 2000 11:37 am Operator: E. MARTIN
Sample : SSTD020X8 Inst : HP5972:S
Misc : SSTD020X8 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
uant Time: Aug 31 14:22 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EM 08/31/00

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.71	152	131689	40.00 ug	0.00
20) Naphthalene-d8	13.68	136	473920	40.00 ug	0.00
35) Acenaphthene-d10	17.58	164	243412	40.00 ug	0.00
57) Phenanthrene-d10	20.68	188	380342	40.00 ug	0.00
70) Chrysene-d12	26.17	240	273419	40.00 ug	0.00
79) Perylene-d12	29.68	264	200910	40.00 ug	0.00

System Monitoring Compounds					
2) 2-Fluorophenol	7.93	112	77222	18.35 ug	0.00
Spiked Amount 200.000	Range 21 - 110		Recovery = 9.18%#		
3) Phenol-d5	9.97	99	106848	19.17 ug	-0.02
Spiked Amount 200.000	Range 10 - 110		Recovery = 9.59%#		
21) Nitrobenzene-d5	12.06	82	92634	17.56 ug	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery = 17.56%#		
40) 2-Fluorobiphenyl	16.09	172	152862	19.69 ug	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery = 19.69%#		
56) 2,4,6-Tribromophenol	19.27	330	26231	22.99 ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 11.49%		
73) Terphenyl-d14	23.94	244	139130	18.38 ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 18.38%#		

Target Compounds					Qvalue
4) Pyridine	4.76	52	74964	14.40 ug	93
5) N-Nitrosodimethylamine	4.75	42	54794	14.59 ug	89
6) Cyclohexanone	8.38	42	58987	16.50 ug	90
7) Phenol	10.00	94	114263m	19.83 ug	
8) Aniline	10.06	93	125107	19.39 ug	97
9) bis(2-Chloroethyl)ether	10.16	63	75259	16.66 ug	94
10) 2-Chlorophenol	10.31	128	91219	19.55 ug	96
11) 1,3-Dichlorobenzene	10.63	146	96190	19.36 ug	99
12) 1,4-Dichlorobenzene	10.75	146	100476	19.79 ug	99
13) Benzyl alcohol	11.06	108	54224	20.52 ug	99
14) 1,2-Dichlorobenzene	11.18	146	93311	19.83 ug	100
15) bis(2-Chloroisopropyl)ethe	11.39	45	160900	14.74 ug	99
16) 2-Methylphenol	11.35	108	75590	19.61 ug	99
17) Hexachloroethane	11.90	117	39350	17.31 ug	98
18) N-Nitroso-di-n-propylamine	11.72	70	68198	18.31 ug	91
19) 4-Methylphenol	11.67	108	80190	19.89 ug	100
22) Nitrobenzene	12.10	77	97031	17.86 ug	96
23) Isophorone	12.61	82	175526	19.38 ug	100
24) 2-Nitrophenol	12.85	139	51676	19.35 ug	89
25) 2,4-Dimethylphenol	12.90	107	71414	18.55 ug	94

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

Data File : C:\HPCHEM\MSS_NT\S0777.D Vial: 1 00054
Acq On : 31 Aug 2000 11:37 am Operator: E. MARTIN
Sample : SSTD020X8 Inst : HP5972:S
Misc : SSTD020X8 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:22 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EM 08/31/00

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	13.11	122	52557m	22.16 ug	
27)	bis(2-Chloroethoxy)methane	13.11	93	111805	18.74 ug	99
28)	2,4-Dichlorophenol	13.37	162	72054	21.29 ug	100
29)	1,2,4-Trichlorobenzene	13.57	180	76349	20.41 ug	98
30)	Naphthalene	13.72	128	242170	20.59 ug	99
31)	4-Chloroaniline	13.88	127	104873	21.53 ug	99
32)	Hexachlorobutadiene	14.10	225	39867	20.13 ug	99
33)	4-Chloro-3-methylphenol	14.94	107	68121	20.97 ug	93
34)	2-Methylnaphthalene	15.26	142	147743	21.54 ug	99
36)	2,4,5-Trichlorotoluene	15.24	159	60829	18.28 ug	99
37)	Hexachlorocyclopentadiene	15.74	237	44212	16.57 ug	100
38)	2,4,6-Trichlorophenol	15.93	196	49749	19.80 ug	99
39)	2,4,5-Trichlorophenol	16.03	196	53759	20.21 ug	98
41)	2-Chloronaphthalene	16.33	162	149423	19.43 ug	94
42)	2-Nitroaniline	16.62	65	49793	16.29 ug	96
43)	Acenaphthylene	17.25	152	226990	20.14 ug	99
44)	Dimethylphthalate	17.03	163	173262	21.54 ug	99
45)	2,6-Dinitrotoluene	17.21	165	42535	21.03 ug	90
46)	Acenaphthene	17.64	153	138534	20.11 ug	99
47)	3-Nitroaniline	17.52	138	48251	21.92 ug	82
48)	2,4-Dinitrophenol	17.72	184	23949	21.33 ug	86
49)	Dibenzofuran	17.97	168	199803	21.24 ug	93
50)	2,4-Dinitrotoluene	18.04	165	56798	23.54 ug	86
51)	4-Nitrophenol	17.84	109	19408	20.90 ug	82
52)	Fluorene	18.70	166	150993	21.23 ug	99
53)	4-Chlorophenyl-phenylether	18.66	204	73164	21.10 ug	94
54)	Diethylphthalate	18.50	149	174555	21.80 ug	99
55)	4-Nitroaniline	18.83	138	46557	24.08 ug	88
58)	4,6-Dinitro-2-methylphenol	18.89	198	32323	20.77 ug	100
59)	N-Nitrosodiphenylamine (1)	18.93	169	111040	19.76 ug	100
60)	1,2-Diphenylhydrazine	18.99	77	187729	16.13 ug	100
61)	4-Bromophenyl-phenylether	19.68	248	42537	19.21 ug	98
62)	Hexachlorobenzene	20.03	284	49294	19.99 ug	95
63)	Pentachlorophenol	20.40	266	29173	21.08 ug	99
64)	Phenanthrene	20.73	178	201431	20.35 ug	99
65)	Carbazole	21.15	167	190098	21.60 ug	96
66)	Anthracene	20.81	178	212810	21.00 ug	98
67)	Di-n-butylphthalate	21.85	149	277737	21.34 ug	98
68)	Fluoranthene	23.20	202	190137	23.35 ug	99
71)	Benzidine	23.45	184	44649	14.87 ug	100
72)	Pyrene	23.68	202	188952	17.71 ug	98

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

Data File : C:\HPCHEM\MSS_NT\S0777.D
Acq On : 31 Aug 2000 11:37 am
Sample : SSTD020X8
Misc : SSTD020X8 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:22 2000

Vial: 1
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 1.00
Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
74)	Butylbenzylphthalate	24.94	149	105950	18.12 ug	96
75)	3,3'-Dichlorobenzidine	26.07	252	52253	19.06 ug	99
76)	Benzo(a)anthracene	26.13	228	149458	20.57 ug	99
77)	Chrysene	26.22	228	138652	20.46 ug	98
78)	bis(2-Ethylhexyl)phthalate	26.07	149	143884	18.51 ug	99
80)	Di-n-octylphthalate	27.31	149	234275	22.24 ug	99
81)	Benzo(b)fluoranthene	28.58	252	121732	20.66 ug	96
82)	Benzo(k)fluoranthene	28.65	252	111890	20.40 ug	96
83)	Benzo(a)pyrene	29.50	252	102223	18.47 ug	96
84)	Indeno(1,2,3-cd)pyrene	33.43	276	95419	11.00 ug	92
85)	Dibenzo(a,h)anthracene	33.45	278	81794	11.49 ug	96
86)	Benzo(g,h,i)perylene	34.59	276	81118	10.13 ug	93

All spectra and manual integrations for this sample have been reviewed and approved.

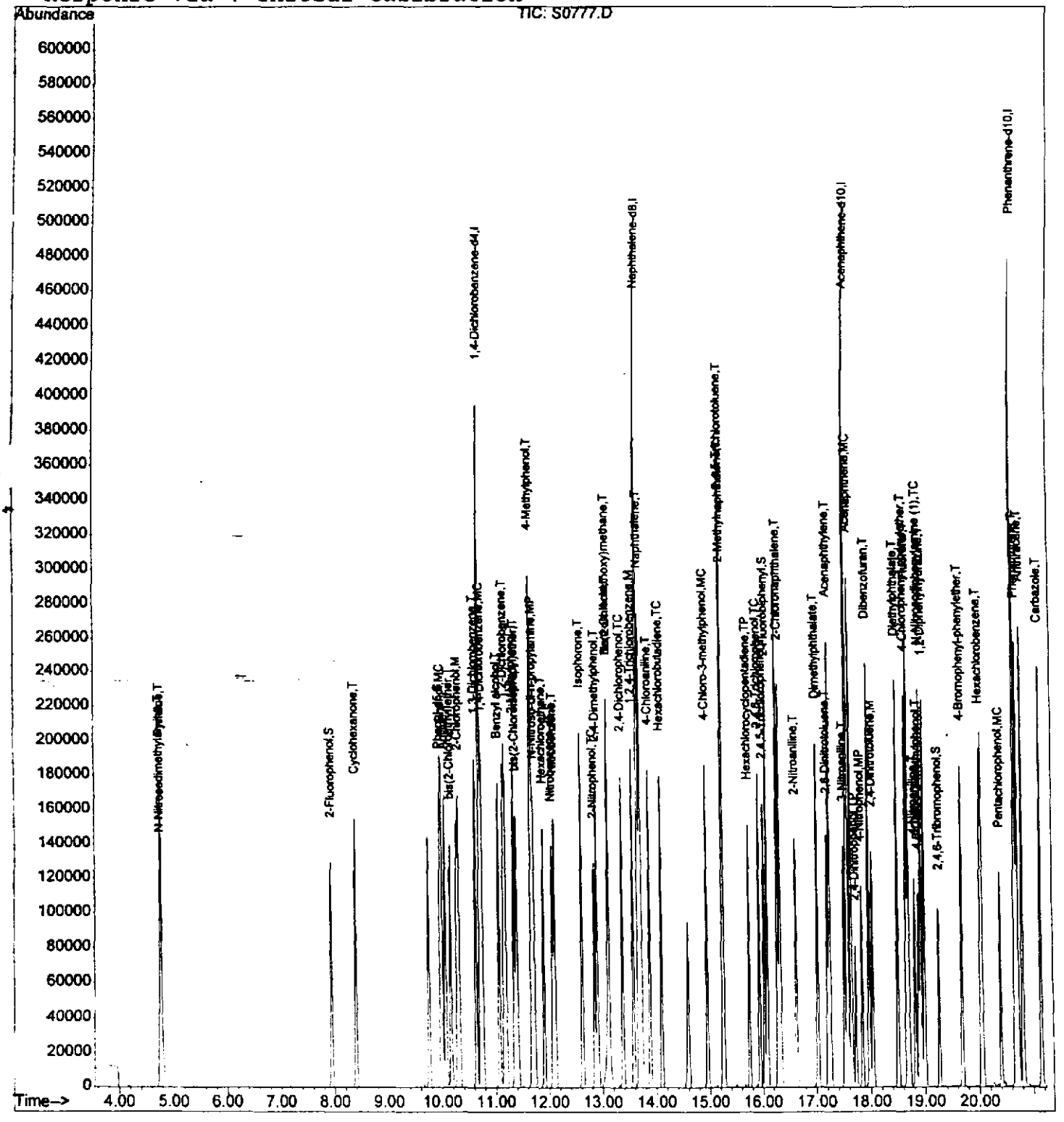
By: EMartin Date 08,31,00

Secondary review: HRhodes Date: 9,6,00

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

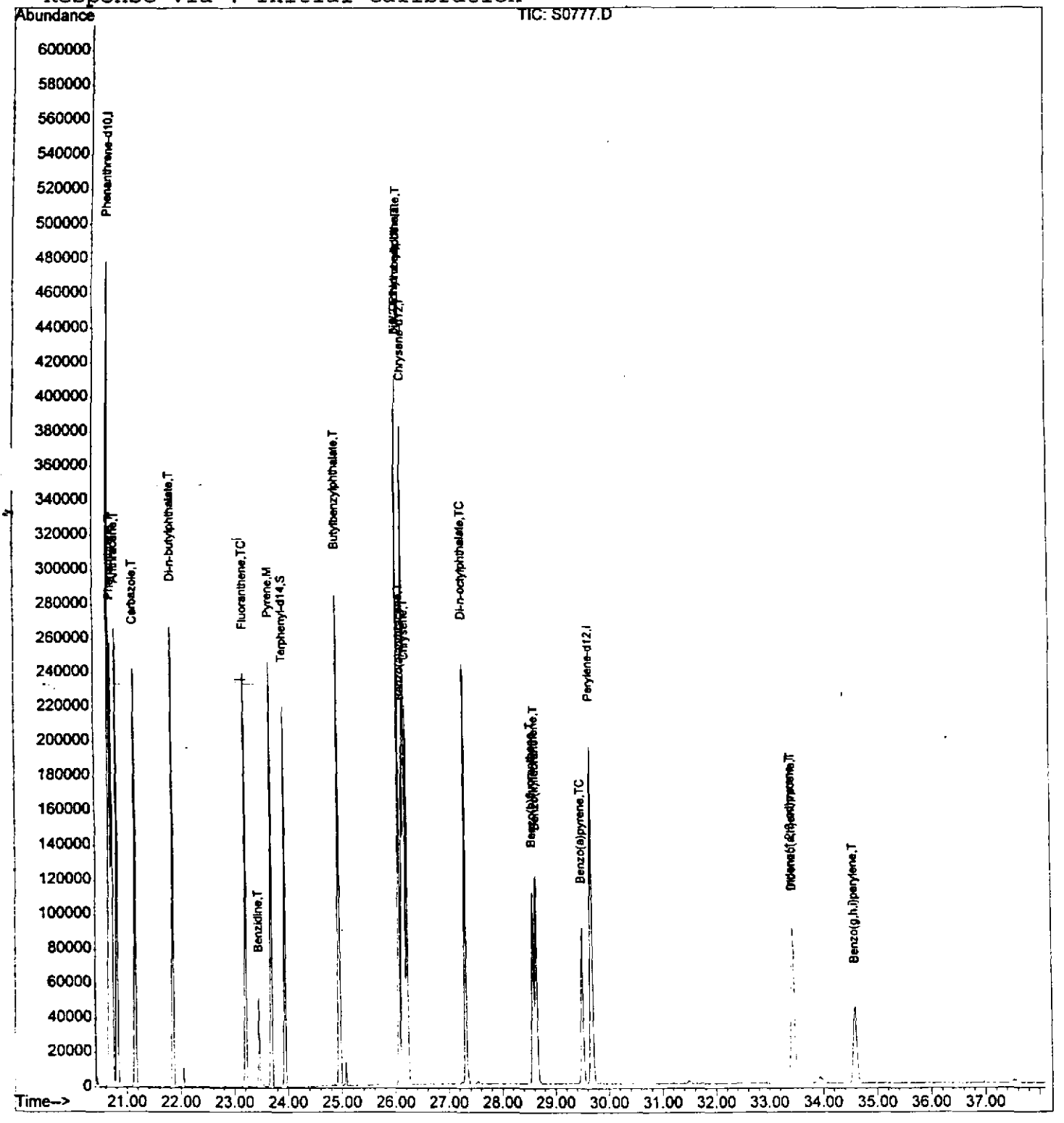
Data File : C:\HPCHEM\MSS_NT\S0777.D Vial: 1
Acq On : 31 Aug 2000 11:37 am Operator: E. MARTIN
Sample : SSTD020X8 Inst : HP5972:S
Misc : SSTD020X8 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:22 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 15:38:41 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0777.D Vial: 1
Acq On : 31 Aug 2000 11:37 am Operator: E. MARTIN
Sample : SSTD020X8 Inst : HP5972:S
Misc : SSTD020X8 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:22 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 15:38:41 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0778.D Vial: 2 00058
Acq On : 31 Aug 2000 12:23 pm Operator: E. MARTIN
Sample : SSTD050X9 Inst : HP5972:S
Misc : SSTD050X9 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:24 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EM 08/31/00

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.72	152	134631	40.00 ug	0.00
20) Naphthalene-d8	13.68	136	495490	40.00 ug	0.00
35) Acenaphthene-d10	17.57	164	249872	40.00 ug	0.00
57) Phenanthrene-d10	20.68	188	380889	40.00 ug	0.00
70) Chrysene-d12	26.18	240	244516	40.00 ug	0.00
79) Perylene-d12	29.68	264	167382	40.00 ug	0.00
System Monitoring Compounds					
2) 2-Fluorophenol	7.94	112	188576	43.83 ug	0.00
Spiked Amount 200.000	Range 21 - 110		Recovery = 21.91%		
3) Phenol-d5	9.98	99	257924	45.27 ug	0.00
Spiked Amount 200.000	Range 10 - 110		Recovery = 22.64%		
21) Nitrobenzene-d5	12.08	82	225084	40.81 ug	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery = 40.81%		
40) 2-Fluorobiphenyl	16.08	172	354210	44.46 ug	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery = 44.46%		
56) 2,4,6-Tribromophenol	19.27	330	61768	52.74 ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 26.37%		
73) Terphenyl-d14	23.94	244	274511	40.55 ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 40.55%		

Target Compounds					Qvalue
4) Pyridine	4.74	52	183016	34.38 ug	92
5) N-Nitrosodimethylamine	4.76	42	129664	33.78 ug	87
6) Cyclohexanone	8.39	42	143292	39.20 ug	89
7) Phenol	10.00	94	266657	45.27 ug	98
8) Aniline	10.06	93	310984	47.15 ug	97
9) bis(2-Chloroethyl)ether	10.17	63	178955	38.74 ug	98
10) 2-Chlorophenol	10.32	128	218415	45.79 ug	97
11) 1,3-Dichlorobenzene	10.64	146	228558	45.00 ug	99
12) 1,4-Dichlorobenzene	10.75	146	232398	44.78 ug	99
13) Benzyl alcohol	11.08	108	135030	49.99 ug	100
14) 1,2-Dichlorobenzene	11.19	146	217919	45.30 ug	99
15) bis(2-Chloroisopropyl)ethe	11.39	45	376179	33.71 ug	98
16) 2-Methylphenol	11.35	108	182847	46.39 ug	100
17) Hexachloroethane	11.90	117	94911	40.84 ug	92
18) N-Nitroso-di-n-propylamine	11.74	70	161339	42.36 ug	93
19) 4-Methylphenol	11.68	108	182473	44.26 ug	99
22) Nitrobenzene	12.12	77	232402	40.91 ug	94
23) Isophorone	12.63	82	412272	43.53 ug	98
24) 2-Nitrophenol	12.85	139	129686	46.46 ug	89
25) 2,4-Dimethylphenol	12.90	107	185686	46.13 ug	96

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

Data File : C:\HPCHEM\MSS_NT\S0778.D Vial: 2
Acq On : 31 Aug 2000 12:23 pm Operator: E. MARTIN
Sample : SSTD050X9 Inst : HP5972:S
Misc : SSTD050X9 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00 00059
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:24 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EH 08/31/00

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	13.19	122	133704	53.93 ug	93
27)	bis(2-Chloroethoxy)methane	13.12	93	268671	43.07 ug	99
28)	2,4-Dichlorophenol	13.37	162	175832	49.68 ug	100
29)	1,2,4-Trichlorobenzene	13.58	180	184339	47.12 ug	99
30)	Naphthalene	13.72	128	550684	44.79 ug	100
31)	4-Chloroaniline	13.89	127	249170	48.92 ug	100
32)	Hexachlorobutadiene	14.10	225	93203	45.01 ug	100
33)	4-Chloro-3-methylphenol	14.95	107	170351	50.15 ug	95
34)	2-Methylnaphthalene	15.27	142	322449	44.96 ug	99
36)	2,4,5-Trichlorotoluene	15.24	159	136526	39.97 ug	100
37)	Hexachlorocyclopentadiene	15.75	237	109583	40.01 ug	99
38)	2,4,6-Trichlorophenol	15.94	196	120591	46.76 ug	98
39)	2,4,5-Trichlorophenol	16.03	196	133345	48.84 ug	99
41)	2-Chloronaphthalene	16.34	162	350734	44.42 ug	95
42)	2-Nitroaniline	16.63	65	121825	38.83 ug	94
43)	Acenaphthylene	17.26	152	526258	45.48 ug	100
44)	Dimethylphthalate	17.03	163	404144	48.95 ug	99
45)	2,6-Dinitrotoluene	17.22	165	104837	50.49 ug	91
46)	Acenaphthene	17.65	153	310930	43.97 ug	99
47)	3-Nitroaniline	17.52	138	110962	49.10 ug	85
48)	2,4-Dinitrophenol	17.73	184	67121	58.24 ug	90
49)	Dibenzofuran	17.97	168	458038	47.42 ug	95
50)	2,4-Dinitrotoluene	18.04	165	137413	55.49 ug	88
51)	4-Nitrophenol	17.85	109	48988	51.40 ug	87
52)	Fluorene	18.71	166	340297	46.61 ug	98
53)	4-Chlorophenyl-phenylether	18.67	204	165304	46.44 ug	95
54)	Diethylphthalate	18.50	149	396847	48.29 ug	99
55)	4-Nitroaniline	18.84	138	110875	55.86 ug	90
58)	4,6-Dinitro-2-methylphenol	18.90	198	81126	52.06 ug	100
59)	N-Nitrosodiphenylamine (1)	18.94	169	256398	45.55 ug	100
60)	1,2-Diphenylhydrazine	19.00	77	425763m	36.53 ug	
61)	4-Bromophenyl-phenylether	19.69	248	95658	43.15 ug	98
62)	Hexachlorobenzene	20.04	284	107832	43.66 ug	98
63)	Pentachlorophenol	20.40	266	70193	50.65 ug	99
64)	Phenanthrene	20.73	178	439541	44.33 ug	100
65)	Carbazole	21.15	167	409334	46.45 ug	98
66)	Anthracene	20.82	178	457459	45.08 ug	99
67)	Di-n-butylphthalate	21.85	149	589736	45.24 ug	99
68)	Fluoranthene	23.21	202	392383	48.12 ug	93
69)	Kepone	25.06	272	15594	43.76 ug	99
71)	Benzidine	23.45	184	98375	36.64 ug	100

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

Data File : C:\HPCHEM\MSS_NT\S0778.D
Acq On : 31 Aug 2000 12:23 pm
Sample : SSTD050X9
Misc : SSTD050X9 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:24 2000

Vial: 2
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 1.00

00060

Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
72) Pyrene	23.69	202	387806	40.65 ug	99
74) Butylbenzylphthalate	24.94	149	212132	40.56 ug	96
75) 3,3'-Dichlorobenzidine	26.08	252	90563	36.93 ug	99
76) Benzo(a)anthracene	26.14	228	292343	44.99 ug	99
77) Chrysene	26.23	228	272314	44.93 ug	99
78) bis(2-Ethylhexyl)phthalate	26.07	149	271389	39.03 ug	99
80) Di-n-octylphthalate	27.31	149	472623	53.86 ug	100
81) Benzo(b)fluoranthene	28.59	252	231542	47.17 ug	96
82) Benzo(k)fluoranthene	28.65	252	222562	48.70 ug	97
83) Benzo(a)pyrene	29.51	252	205855	44.65 ug	97
84) Indeno(1,2,3-cd)pyrene	33.46	276	240737	33.31 ug	94
85) Dibenzo(a,h)anthracene	33.47	278	197657	33.33 ug	97
86) Benzo(g,h,i)perylene	34.63	276	224851	33.72 ug	93

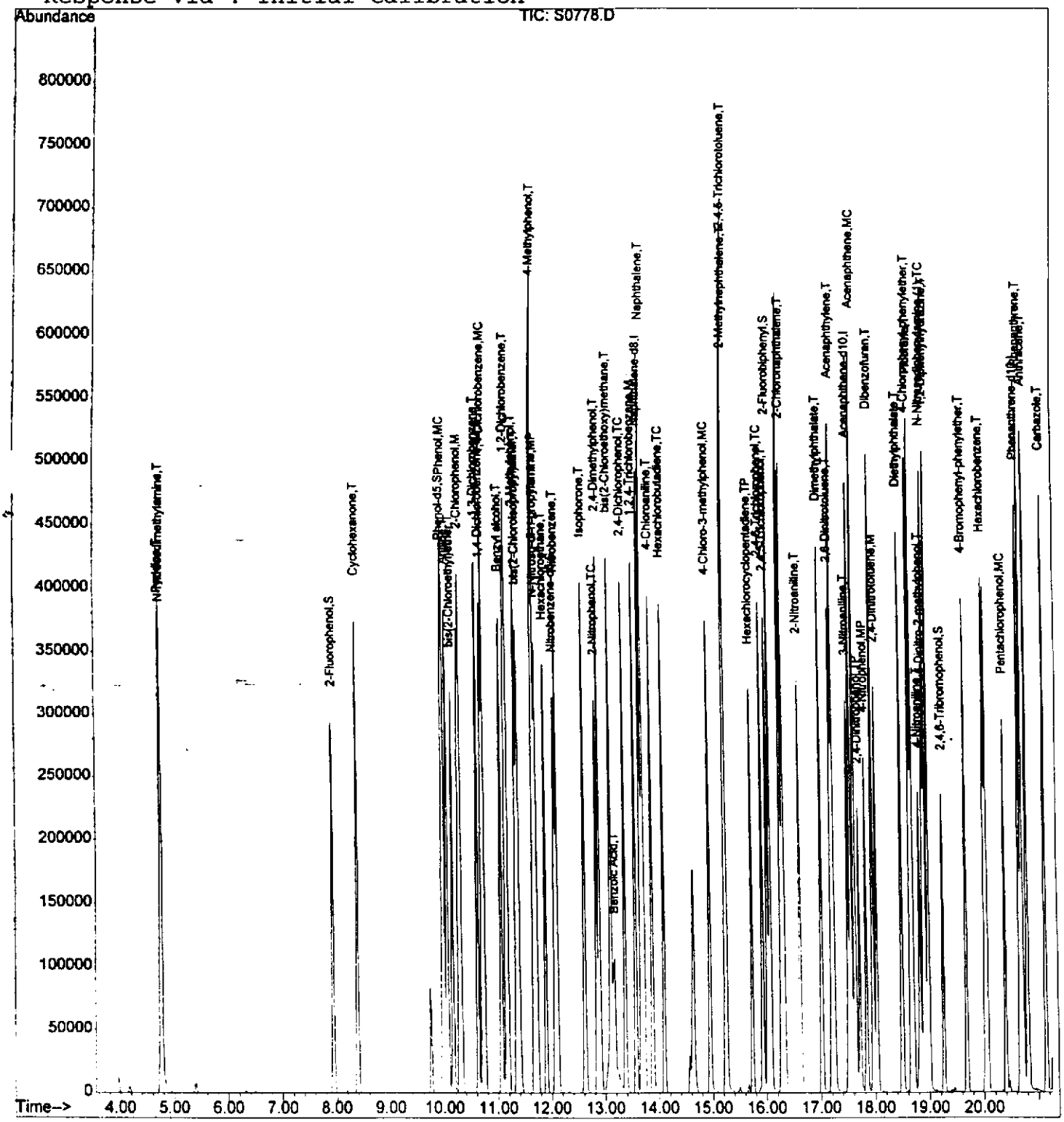
All spectra and manual integrations for this sample have been reviewed and approved.

By: EMartin Date: 08/31/00

Secondary review: AWhodes Date: 9/6/00

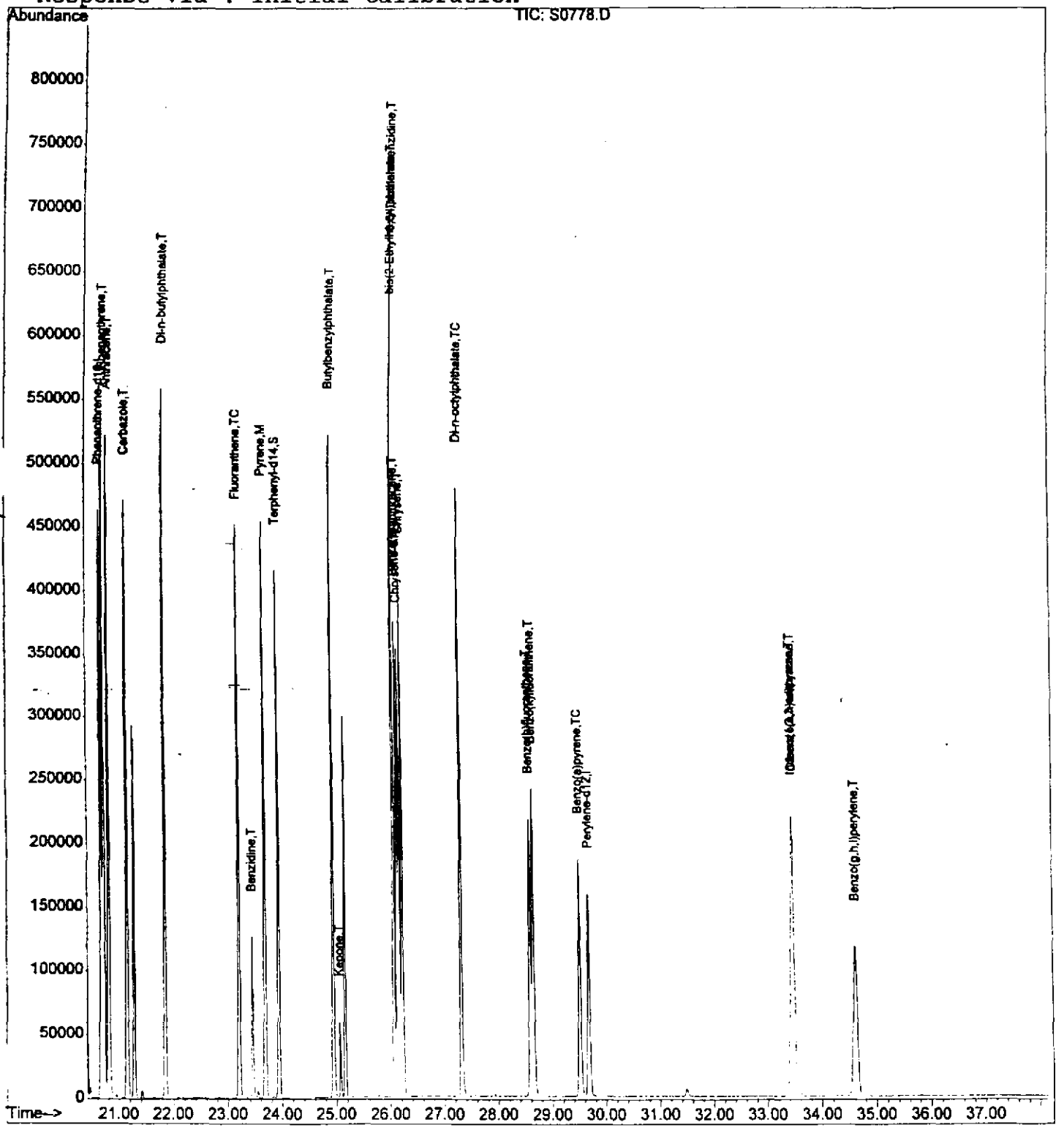
Data File : C:\HPCHEM\MSS_NT\S0778.D Vial: 2
Acq On : 31 Aug 2000 12:23 pm Operator: E. MARTIN
Sample : SSTD050X9 Inst : HP5972:S
Misc : SSTD050X9 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00 00061
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:24 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 15:38:41 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0778.D Vial: 2
Acq On : 31 Aug 2000 12:23 pm Operator: E. MARTIN
Sample : SSTD050X9 Inst : HP5972:S
Misc : SSTD050X9 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00 00062
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:24 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 15:38:41 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0779.D Vial: 3
Acq On : 31 Aug 2000 1:09 pm Operator: E. MARTIN
Sample : SSTD080Y1 Inst : HP5972:S
Misc : SSTD080Y1 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00 0006
MS Integration Params: RTEINT.P
uant Time: Aug 31 14:27 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EM 08/31/00

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.71	152	128492	40.00 ug	0.00
20) Naphthalene-d8	13.68	136	467215	40.00 ug	0.00
35) Acenaphthene-d10	17.58	164	229165	40.00 ug	0.00
57) Phenanthrene-d10	20.68	188	337781	40.00 ug	0.00
70) Chrysene-d12	26.18	240	213065	40.00 ug	0.00
79) Perylene-d12	29.68	264	159015	40.00 ug	0.00
System Monitoring Compounds					
2) 2-Fluorophenol	7.93	112	282580	68.81 ug	0.00
Spiked Amount 200.000	Range 21 - 110		Recovery = 34.41%		
3) Phenol-d5	9.99	99	371948	68.40 ug	0.00
Spiked Amount 200.000	Range 10 - 110		Recovery = 34.20%		
21) Nitrobenzene-d5	12.08	82	329373	63.34 ug	0.01
Spiked Amount 100.000	Range 35 - 114		Recovery = 63.34%		
40) 2-Fluorobiphenyl	16.09	172	494276	67.64 ug	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery = 67.64%		
56) 2,4,6-Tribromophenol	19.28	330	84716	78.87 ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 39.44%		
73) Terphenyl-d14	23.95	244	347474	58.90 ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 58.90%		

Target Compounds					Qvalue
4) Pyridine	4.75	52	268679	52.89 ug	92
5) N-Nitrosodimethylamine	4.78	42	189386	51.70 ug	88
6) Cyclohexanone	8.39	42	148828	42.66 ug	89
7) Phenol	10.02	94	379573m	67.52 ug	
8) Aniline	10.07	93	399925	63.53 ug	95
9) bis(2-Chloroethyl)ether	10.17	63	259701	58.91 ug	97
10) 2-Chlorophenol	10.33	128	313055	68.76 ug	97
11) 1,3-Dichlorobenzene	10.64	146	329036	67.88 ug	99
12) 1,4-Dichlorobenzene	10.75	146	330793	66.78 ug	99
13) Benzyl alcohol	11.08	108	197988	76.81 ug	98
14) 1,2-Dichlorobenzene	11.19	146	304815	66.39 ug	99
15) bis(2-Chloroisopropyl)ethe	11.40	45	532802	50.03 ug	96
16) 2-Methylphenol	11.37	108	260573	69.27 ug	100
17) Hexachloroethane	11.90	117	137019	61.77 ug	97
18) N-Nitroso-di-n-propylamine	11.76	70	228411	62.84 ug	92
19) 4-Methylphenol	11.69	108	246549	62.66 ug	99
22) Nitrobenzene	12.12	77	334737	62.49 ug	96
23) Isophorone	12.63	82	583300	65.32 ug	98
24) 2-Nitrophenol	12.86	139	190358	72.32 ug	89
25) 2,4-Dimethylphenol	12.91	107	260630	68.66 ug	97

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

Data File : C:\HPCHEM\MSS_NT\S0779.D Vial: 3
Acq On : 31 Aug 2000 1:09 pm Operator: E. MARTIN
Sample : SSTD080Y1 Inst : HP5972:S 00064
Misc : SSTD080Y1 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:27 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EH 08/31/00

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	13.23	122	225399m	96.41 ug	
27)	bis(2-Chloroethoxy)methane	13.13	93	384516	65.37 ug	99
28)	2,4-Dichlorophenol	13.39	162	253213	75.88 ug	98
29)	1,2,4-Trichlorobenzene	13.58	180	262304	71.11 ug	98
30)	Naphthalene	13.73	128	758350	65.41 ug	100
31)	4-Chloroaniline	13.89	127	326324	67.95 ug	100
32)	Hexachlorobutadiene	14.10	225	133374	68.31 ug	99
33)	4-Chloro-3-methylphenol	14.96	107	239107	74.65 ug	94
34)	2-Methylnaphthalene	15.27	142	423243	62.59 ug	98
36)	2,4,5-Trichlorotoluene	15.25	159	184868	59.01 ug	99
37)	Hexachlorocyclopentadiene	15.74	237	155860	62.05 ug	99
38)	2,4,6-Trichlorophenol	15.95	196	170464	72.07 ug	100
39)	2,4,5-Trichlorophenol	16.04	196	184059	73.50 ug	98
41)	2-Chloronaphthalene	16.34	162	478047	66.01 ug	96
42)	2-Nitroaniline	16.64	65	169537	58.92 ug	94
43)	Acenaphthylene	17.26	152	698867	65.86 ug	99
44)	Dimethylphthalate	17.04	163	558399	73.74 ug	100
45)	2,6-Dinitrotoluene	17.22	165	143773	75.50 ug	92
46)	Acenaphthene	17.65	153	426267	65.73 ug	99
47)	3-Nitroaniline	17.53	138	152298	73.48 ug	84
48)	2,4-Dinitrophenol	17.73	184	99837	94.45 ug	89
49)	Dibenzofuran	17.98	168	620836	70.09 ug	96
50)	2,4-Dinitrotoluene	18.05	165	191021	84.11 ug	89
51)	4-Nitrophenol	17.86	109	69419	79.42 ug	88
52)	Fluorene	18.71	166	454281	67.84 ug	100
53)	4-Chlorophenyl-phenylether	18.67	204	218273	66.86 ug	98
54)	Diethylphthalate	18.51	149	540730	71.74 ug	100
55)	4-Nitroaniline	18.86	138	143710	78.94 ug	88
58)	4,6-Dinitro-2-methylphenol	18.92	198	112844	81.66 ug	100
59)	N-Nitrosodiphenylamine (1)	18.95	169	342969	68.71 ug	99
60)	1,2-Diphenylhydrazine	19.01	77	607602m	58.78 ug	
61)	4-Bromophenyl-phenylether	19.70	248	128732	65.47 ug	98
62)	Hexachlorobenzene	20.04	284	142432	65.03 ug	98
63)	Pentachlorophenol	20.41	266	100724	81.96 ug	99
64)	Phenanthrene	20.74	178	581156	66.10 ug	99
65)	Carbazole	21.16	167	535232	68.48 ug	98
66)	Anthracene	20.83	178	598348	66.49 ug	99
67)	Di-n-butylphthalate	21.85	149	762338	65.95 ug	99
68)	Fluoranthene	23.21	202	509282	70.42 ug	97
69)	Kepone	25.07	272	26747	84.63 ug	98
71)	Benzidine	23.46	184	109313	46.72 ug	100

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

Data File : C:\HPCHEM\MSS_NT\S0779.D
Acq On : 31 Aug 2000 1:09 pm
Sample : SSTD080Y1
Misc : SSTD080Y1 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:27 2000

Vial: 3
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 1.00

00065

Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
72) Pyrene	23.69	202	504032	60.64 ug	97
74) Butylbenzylphthalate	24.95	149	274914	60.32 ug	94
75) 3,3'-Dichlorobenzidine	26.08	252	116863	54.69 ug	99
76) Benzo(a)anthracene	26.14	228	390876	69.04 ug	99
77) Chrysene	26.24	228	354914	67.20 ug	99
78) bis(2-Ethylhexyl)phthalate	26.07	149	339631	56.06 ug	99
80) Di-n-octylphthalate	27.32	149	641704	76.97 ug	99
81) Benzo(b)fluoranthene	28.60	252	326732	70.06 ug	97
82) Benzo(k)fluoranthene	28.67	252	312491	71.98 ug	95
83) Benzo(a)pyrene	29.53	252	303683	69.33 ug	96
84) Indeno(1,2,3-cd)pyrene	33.49	276	436633	63.60 ug	94
85) Dibenzo(a,h)anthracene	33.51	278	343332	60.94 ug	97
86) Benzo(g,h,i)perylene	34.67	276	435090	68.68 ug	94

All spectra and manual integrations for this sample have been reviewed and approved.

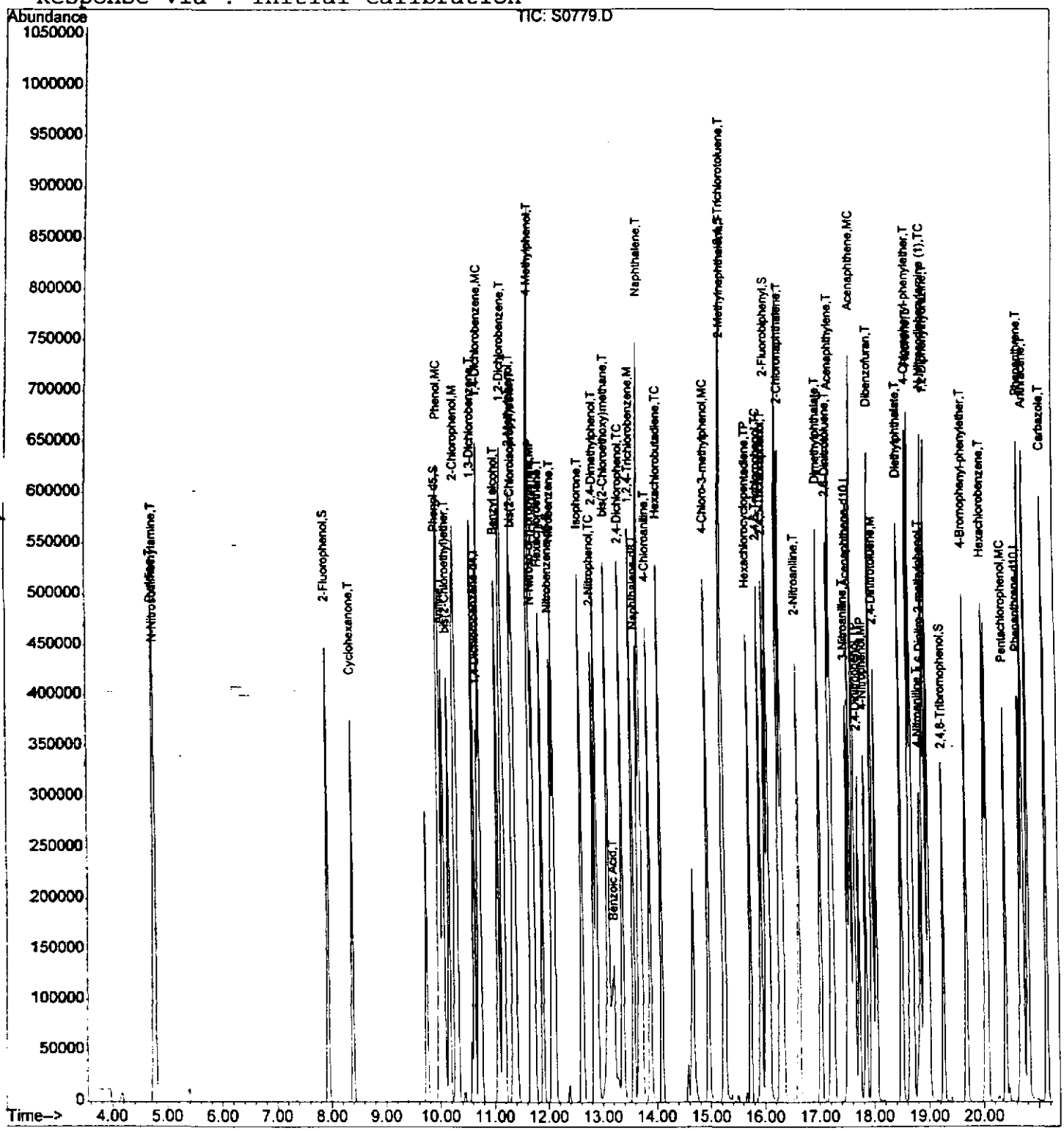
By: EMartin Date 08/31/00

Secondary review: HRhodes Date 9/6/00

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

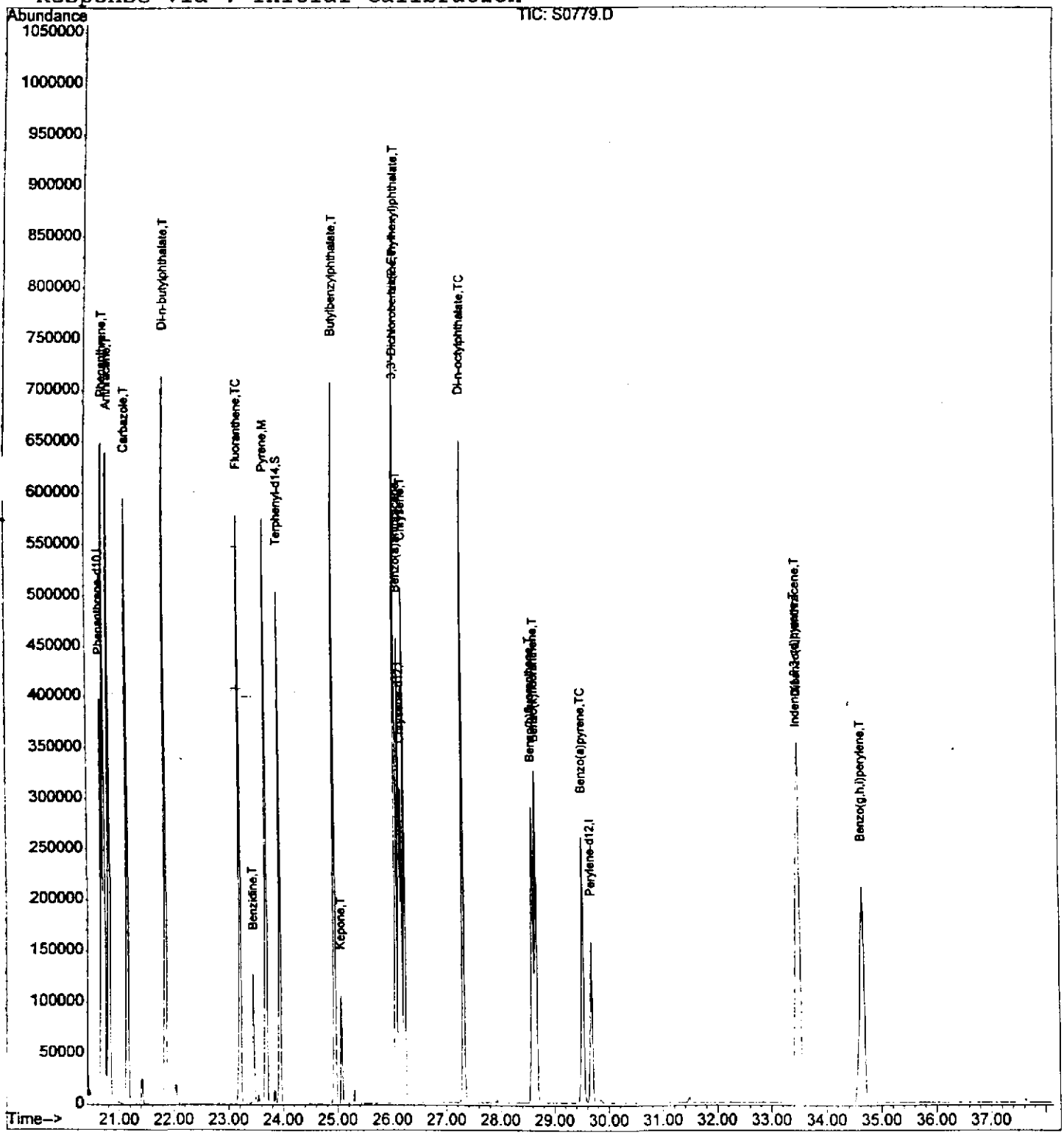
Data File : C:\HPCHEM\MSS_NT\S0779.D Vial: 3
Acq On : 31 Aug 2000 1:09 pm Operator: E. MARTIN
Sample : SSTD080Y1 Inst : HP5972:S
Misc : SSTD080Y1 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P 0)066
Quant Time: Aug 31 14:27 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 15:38:41 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0779.D Vial: 3
Acq On : 31 Aug 2000 1:09 pm Operator: E. MARTIN
Sample : SSTD080Y1 Inst : HP5972:S
Misc : SSTD080Y1 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00 0)067
MS Integration Params: RTEINT.P
Quant Time: Aug 31 14:27 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 15:38:41 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0780.D Vial: 4
Acq On : 31 Aug 2000 1:55 pm Operator: E. MARTIN
Sample : SSTD120Y2 Inst : HP5972:S
Misc : SSTD120Y2 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
uant Time: Aug 31 15:21 2000 Quant Results File: MSSSOCNT.RES

00068

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EM 08/31/00

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.72	152	130870	40.00 ug	0.00
20) Naphthalene-d8	13.68	136	470499	40.00 ug	0.00
35) Acenaphthene-d10	17.59	164	233116	40.00 ug	0.01
57) Phenanthrene-d10	20.68	188	353319	40.00 ug	0.00
70) Chrysene-d12	26.19	240	213800	40.00 ug	0.01
79) Perylene-d12	29.68	264	168915	40.00 ug	0.01
System Monitoring Compounds					
2) 2-Fluorophenol	7.95	112	414905	99.20 ug	0.01
Spiked Amount 200.000	Range 21 - 110		Recovery = 49.60%		
3) Phenol-d5	10.00	99	531694	96.00 ug	0.02
Spiked Amount 200.000	Range 10 - 110		Recovery = 48.00%		
21) Nitrobenzene-d5	12.09	82	479897	91.64 ug	0.02
Spiked Amount 100.000	Range 35 - 114		Recovery = 91.64%		
40) 2-Fluorobiphenyl	16.09	172	672900	90.52 ug	0.01
Spiked Amount 100.000	Range 43 - 116		Recovery = 90.52%		
56) 2,4,6-Tribromophenol	19.28	330	122598	112.21 ug	0.01
Spiked Amount 200.000	Range 10 - 123		Recovery = 56.10%		
73) Terphenyl-d14	23.95	244	471257	79.61 ug	0.01
Spiked Amount 100.000	Range 33 - 114		Recovery = 79.61%		

Target Compounds					Qvalue
4) Pyridine	4.75	52	404822	78.24 ug	90
5) N-Nitrosodimethylamine	4.79	42	285320	76.47 ug	90
6) Cyclohexanone	8.40	42	184163	51.83 ug	87
7) Phenol	10.03	94	529215m	92.42 ug	
8) Aniline	10.09	93	583558	91.01 ug	93
9) bis(2-Chloroethyl)ether	10.19	63	370416	82.50 ug	93
10) 2-Chlorophenol	10.34	128	437360	94.32 ug	96
11) 1,3-Dichlorobenzene	10.65	146	457185	92.60 ug	99
12) 1,4-Dichlorobenzene	10.76	146	455675	90.32 ug	99
13) Benzyl alcohol	11.10	108	294999	112.36 ug	99
14) 1,2-Dichlorobenzene	11.20	146	406530	86.93 ug	99
15) bis(2-Chloroisopropyl)ethe	11.40	45	716021	66.02 ug	95
16) 2-Methylphenol	11.37	108	368706	96.23 ug	100
17) Hexachloroethane	11.90	117	192005	84.99 ug	97
18) N-Nitroso-di-n-propylamine	11.77	70	323046	87.25 ug	95
19) 4-Methylphenol	11.70	108	330367	82.44 ug	99
22) Nitrobenzene	12.14	77	477272	88.48 ug	95
23) Isophorone	12.65	82	869746	96.72 ug	98
24) 2-Nitrophenol	12.87	139	276294	104.23 ug	93
25) 2,4-Dimethylphenol	12.92	107	388094	101.53 ug	98

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

Data File : C:\HPCHEM\MSS_NT\S0780.D Vial: 4 00063
Acq On : 31 Aug 2000 1:55 pm Operator: E. MARTIN
Sample : SSTD120Y2 Inst : HP5972:S
Misc : SSTD120Y2 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
uant Time: Aug 31 15:21 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EH 08/31/00

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	13.27	122	351565m	149.33 ug	
27)	bis(2-Chloroethoxy)methane	13.13	93	550033	92.86 ug	99
28)	2,4-Dichlorophenol	13.40	162	366838	109.16 ug	99
29)	1,2,4-Trichlorobenzene	13.58	180	370360	99.71 ug	99
30)	Naphthalene	13.73	128	1038515	88.95 ug	100
31)	4-Chloroaniline	13.90	127	466919	96.55 ug	100
32)	Hexachlorobutadiene	14.10	225	181985	92.56 ug	99
33)	4-Chloro-3-methylphenol	14.98	107	353784	109.68 ug	96
34)	2-Methylnaphthalene	15.28	142	563771	82.79 ug	98
36)	2,4,5-Trichlorotoluene	15.26	159	255889	80.30 ug	99
37)	Hexachlorocyclopentadiene	15.75	237	219418	85.88 ug	98
38)	2,4,6-Trichlorophenol	15.95	196	249281	103.60 ug	99
39)	2,4,5-Trichlorophenol	16.05	196	259068	101.70 ug	100
41)	2-Chloronaphthalene	16.35	162	657769	89.29 ug	98
42)	2-Nitroaniline	16.65	65	253364	86.55 ug	94
43)	Acenaphthylene	17.27	152	954375	88.41 ug	99
44)	Dimethylphthalate	17.04	163	808075	104.90 ug	99
45)	2,6-Dinitrotoluene	17.23	165	207864	107.30 ug	96
46)	Acenaphthene	17.66	153	590119	89.46 ug	98
47)	3-Nitroaniline	17.55	138	231171	109.65 ug	85
48)	2,4-Dinitrophenol	17.75	184	160922	149.66 ug	85
49)	Dibenzofuran	17.98	168	866846	96.20 ug	99
50)	2,4-Dinitrotoluene	18.07	165	292783	126.73 ug	87
51)	4-Nitrophenol	17.87	109	107978	121.44 ug	93
52)	Fluorene	18.72	166	620367	91.08 ug	99
53)	4-Chlorophenyl-phenylether	18.68	204	296645	89.32 ug	97
54)	Diethylphthalate	18.53	149	788493	102.84 ug	99
55)	4-Nitroaniline	18.87	138	221035	119.36 ug	91
58)	4,6-Dinitro-2-methylphenol	18.94	198	170495	117.96 ug	100
59)	N-Nitrosodiphenylamine (1)	18.97	169	469537	89.93 ug	99
60)	1,2-Diphenylhydrazine	19.02	77	920093	85.10 ug	100
61)	4-Bromophenyl-phenylether	19.70	248	182374	88.68 ug	94
62)	Hexachlorobenzene	20.05	284	194183	84.76 ug	94
63)	Pentachlorophenol	20.42	266	150638	117.19 ug	99
64)	Phenanthrene	20.74	178	828989	90.14 ug	100
65)	Carbazole	21.16	167	779888	95.40 ug	99
66)	Anthracene	20.84	178	838610	89.10 ug	99
67)	Di-n-butylphthalate	21.86	149	1074604	88.87 ug	100
68)	Fluoranthene	23.23	202	718696	95.01 ug	94
69)	Kepone	25.08	272	48028	145.29 ug	97
71)	Benzidine	23.45	184	178956	76.23 ug	100

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

Data File : C:\HPCHEM\MSS_NT\S0780.D
Acq On : 31 Aug 2000 1:55 pm
Sample : SSTD120Y2
Misc : SSTD120Y2 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Aug 31 15:21 2000

Vial: 4 00070
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 1.00

Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
72) Pyrene	23.70	202	713262	85.52 ug	96
74) Butylbenzylphthalate	24.95	149	379767	83.04 ug	96
75) 3,3'-Dichlorobenzidine	26.10	252	148755	69.38 ug	97
76) Benzo(a)anthracene	26.15	228	535996	94.34 ug	99
77) Chrysene	26.24	228	482381	91.02 ug	99
78) bis(2-Ethylhexyl)phthalate	26.08	149	447740	73.65 ug	100
80) Di-n-octylphthalate	27.32	149	892993	100.83 ug	100
81) Benzo(b)fluoranthene	28.61	252	508053	102.56 ug	96
82) Benzo(k)fluoranthene	28.67	252	419498	90.96 ug	97
83) Benzo(a)pyrene	29.54	252	464771	99.89 ug	96
84) Indeno(1,2,3-cd)pyrene	33.52	276	736050	100.93 ug	87
85) Dibenzo(a,h)anthracene	33.57	278	552168	92.26 ug	96
86) Benzo(g,h,i)perylene	34.73	276	757265	112.53 ug	93

All spectra and manual integrations for this sample have been reviewed and approved.

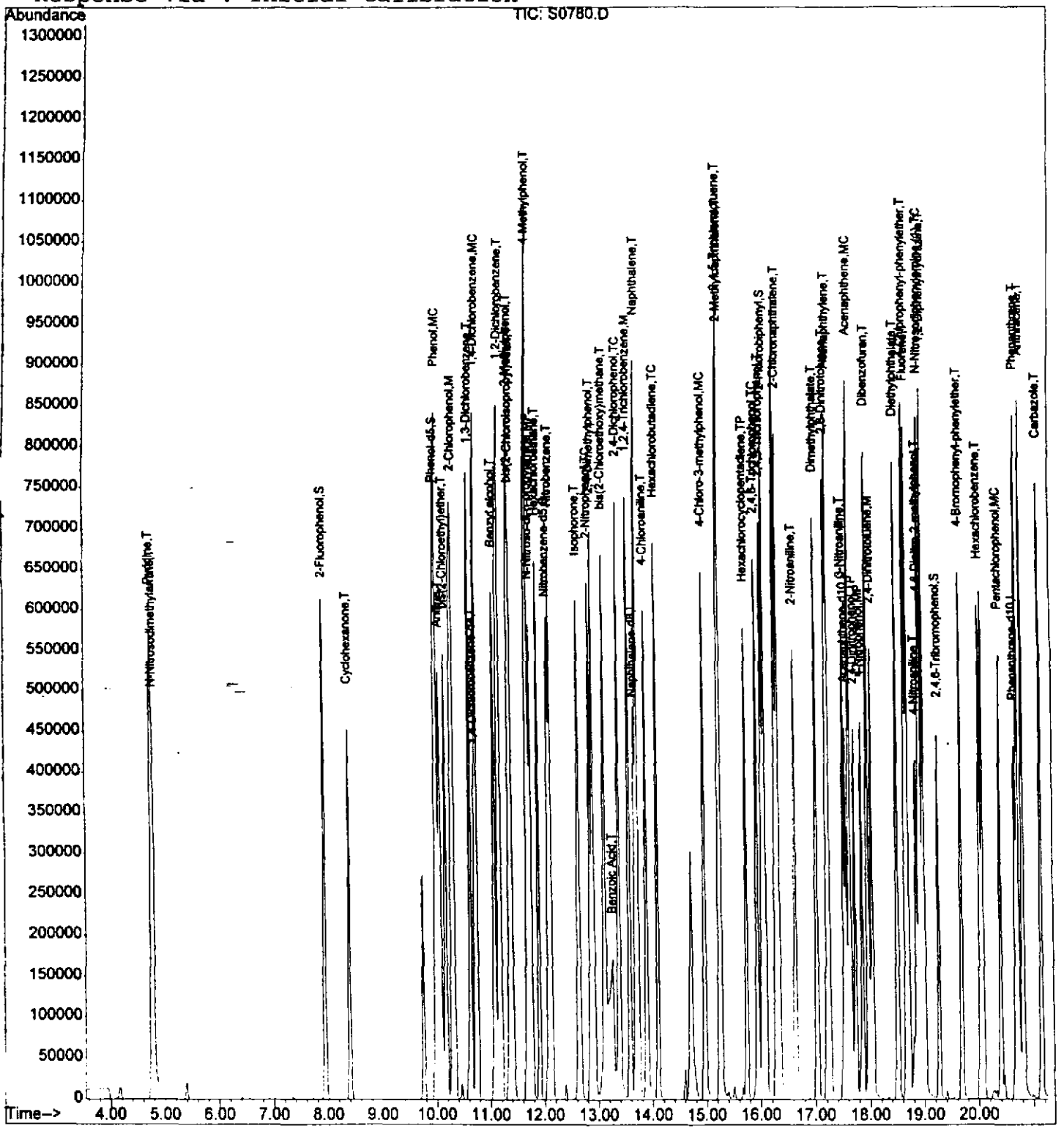
By: EMartin Date: 08/31/00

Secondary review: HRhodes Date: 9/6/00

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

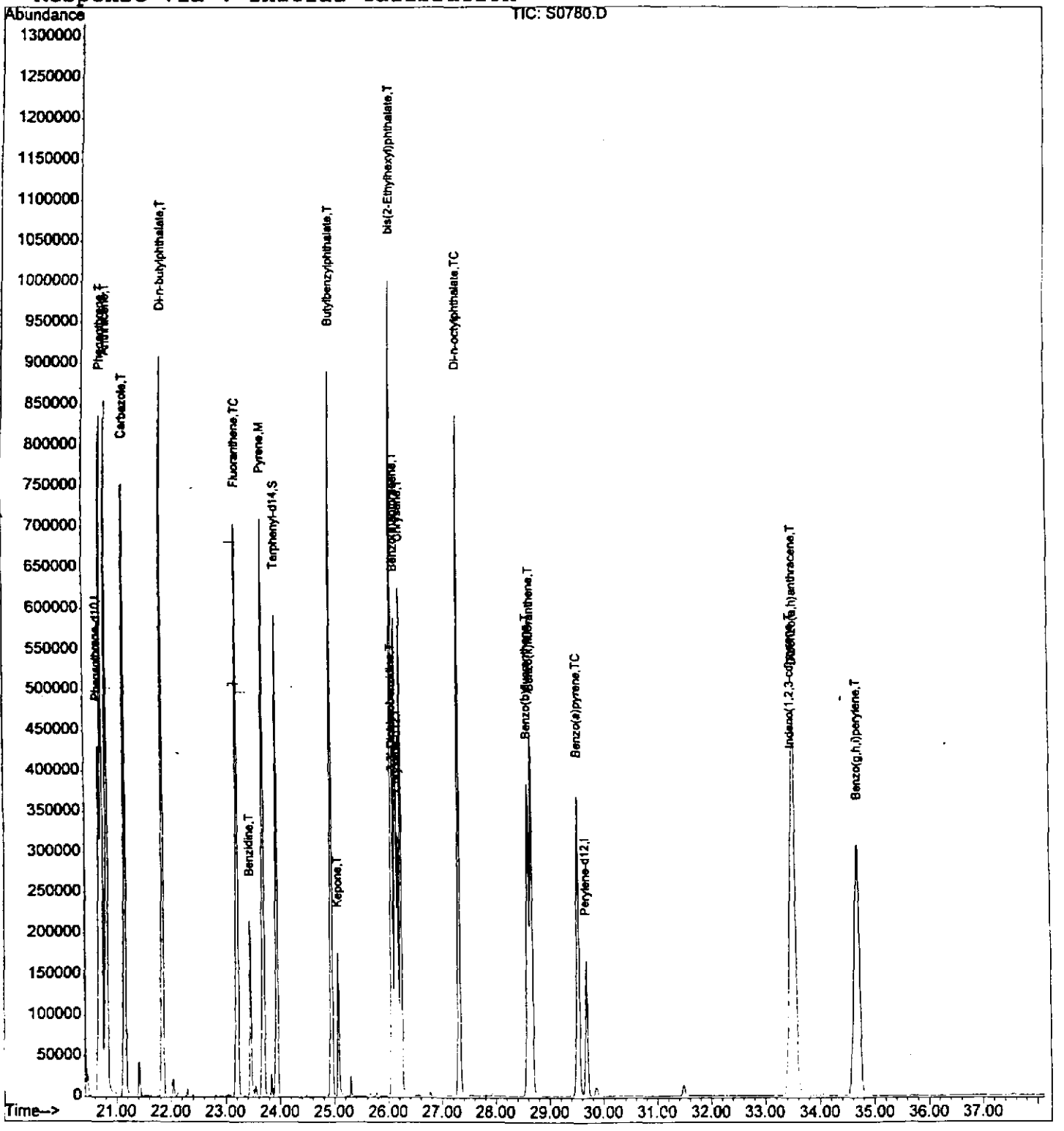
Data File : C:\HPCHEM\MSS_NT\S0780.D Vial: 4
Acq On : 31 Aug 2000 1:55 pm Operator: E. MARTIN
Sample : SSTD120Y2 Inst : HP5972:S
Misc : SSTD120Y2 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 15:21 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 15:38:41 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0780.D Vial: 4
Acq On : 31 Aug 2000 1:55 pm Operator: E. MARTIN
Sample : SSTD120Y2 Inst : HP5972:S
Misc : SSTD120Y2 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 15:21 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 15:38:41 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0781.D Vial: 5
Acq On : 31 Aug 2000 2:41 pm Operator: E. MARTIN
Sample : SSTD160Y3 Inst : HP5972:S
Misc : SSTD160Y3 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 15:36 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EM 08/31/00

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.72	152	129348	40.00 ug	0.00
20) Naphthalene-d8	13.69	136	467143	40.00 ug	0.00
35) Acenaphthene-d10	17.59	164	226932	40.00 ug	0.02
57) Phenanthrene-d10	20.69	188	348363	40.00 ug	0.00
70) Chrysene-d12	26.18	240	201606	40.00 ug	0.00
79) Perylene-d12	29.69	264	176529	40.00 ug	0.02
System Monitoring Compounds					
2) 2-Fluorophenol	7.96	112	528106	127.75 ug	0.02
Spiked Amount 200.000	Range 21 - 110		Recovery = 63.88%		
3) Phenol-d5	10.02	99	669184	122.25 ug	0.04
Spiked Amount 200.000	Range 10 - 110		Recovery = 61.12%		
21) Nitrobenzene-d5	12.10	82	606878	116.72 ug	0.04
Spiked Amount 100.000	Range 35 - 114		Recovery = 116.72%#		
40) 2-Fluorobiphenyl	16.11	172	789418	109.09 ug	0.03
Spiked Amount 100.000	Range 43 - 116		Recovery = 109.09%		
56) 2,4,6-Tribromophenol	19.29	330	148631	139.74 ug	0.02
Spiked Amount 200.000	Range 10 - 123		Recovery = 69.87%		
73) Terphenyl-d14	23.96	244	552773	99.03 ug	0.02
Spiked Amount 100.000	Range 33 - 114		Recovery = 99.03%		

Target Compounds					Qvalue
4) Pyridine	4.77	52	527676	103.18 ug	90
5) N-Nitrosodimethylamine	4.81	42	369948	100.32 ug	91
6) Cyclohexanone	8.40	42	196534	55.96 ug	90
7) Phenol	10.05	94	644367m	113.86 ug	
8) Aniline	10.10	93	756575m	119.39 ug	
9) bis(2-Chloroethyl)ether	10.20	63	466429	105.10 ug	93
10) 2-Chlorophenol	10.35	128	539995	117.83 ug	98
11) 1,3-Dichlorobenzene	10.65	146	551662	113.06 ug	99
12) 1,4-Dichlorobenzene	10.77	146	543367	108.97 ug	99
13) Benzyl alcohol	11.11	108	377675	145.54 ug	99
14) 1,2-Dichlorobenzene	11.21	146	470612	101.82 ug	100
15) bis(2-Chloroisopropyl)ethe	11.42	45	855198	79.77 ug	93
16) 2-Methylphenol	11.39	108	449326	118.65 ug	99
17) Hexachloroethane	11.91	117	236129	105.75 ug	96
18) N-Nitroso-di-n-propylamine	11.79	70	412781	112.80 ug	94
19) 4-Methylphenol	11.72	108	404723	102.18 ug	98
22) Nitrobenzene	12.14	77	604271	112.83 ug	96
23) Isophorone	12.67	82	1135904	127.22 ug	98
24) 2-Nitrophenol	12.87	139	348349	132.36 ug	96
25) 2,4-Dimethylphenol	12.93	107	494784	130.37 ug	98

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

Data File : C:\HPCHEM\MSS_NT\S0781.D Vial: 5
Acq On : 31 Aug 2000 2:41 pm Operator: E. MARTIN
Sample : SSTD160Y3 Inst : HP5972:S
Misc : SSTD160Y3 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 15:36 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EH
08/31/00

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
26)	Benzoic Acid	13.31	122	469544m	200.88 ug	m E	
27)	bis(2-Chloroethoxy)methane	13.14	93	695989	118.34 ug		99
28)	2,4-Dichlorophenol	13.40	162	460796	138.11 ug		100
29)	1,2,4-Trichlorobenzene	13.60	180	452021	122.57 ug		99
30)	Naphthalene	13.74	128	1249454	107.78 ug		99
31)	4-Chloroaniline	13.90	127	580945	120.99 ug		100
32)	Hexachlorobutadiene	14.11	225	217245	111.29 ug		99
33)	4-Chloro-3-methylphenol	15.00	107	450501	140.67 ug		96
34)	2-Methylnaphthalene	15.29	142	659056	97.48 ug		97
36)	2,4,5-Trichlorotoluene	15.26	159	305807	98.58 ug		98
37)	Hexachlorocyclopentadiene	15.75	237	263466	105.93 ug		98
38)	2,4,6-Trichlorophenol	15.96	196	319691	136.49 ug		99
39)	2,4,5-Trichlorophenol	16.06	196	296233	119.46 ug		99
41)	2-Chloronaphthalene	16.35	162	775544	108.14 ug		99
42)	2-Nitroaniline	16.66	65	325137	114.10 ug		92
43)	Acenaphthylene	17.27	152	1134395	107.95 ug		99
44)	Dimethylphthalate	17.06	163	1009445	134.62 ug		99
45)	2,6-Dinitrotoluene	17.24	165	252352	133.82 ug		99
46)	Acenaphthene	17.66	153	720864	112.25 ug		99
47)	3-Nitroaniline	17.56	138	290398	141.49 ug		81
48)	2,4-Dinitrophenol	17.75	184	212076	202.61 ug	E	87
49)	Dibenzofuran	18.00	168	1050471	119.75 ug		100
50)	2,4-Dinitrotoluene	18.07	165	369759	164.40 ug	E	92
51)	4-Nitrophenol	17.89	109	142802	164.98 ug	E	94
52)	Fluorene	18.73	166	726800	109.61 ug		98
53)	4-Chlorophenyl-phenylether	18.68	204	339258	104.94 ug		93
54)	Diethylphthalate	18.53	149	956196	128.11 ug		99
55)	4-Nitroaniline	18.90	138	281090m	155.92 ug		
58)	4,6-Dinitro-2-methylphenol	18.95	198	205690m	144.33 ug		
59)	N-Nitrosodiphenylamine (1)	18.97	169	536834	104.28 ug		98
60)	1,2-Diphenylhydrazine	19.02	77	1101386	103.31 ug		100
61)	4-Bromophenyl-phenylether	19.71	248	218590	107.80 ug		91
62)	Hexachlorobenzene	20.05	284	225406	99.78 ug		86
63)	Pentachlorophenol	20.42	266	187479	147.92 ug		99
64)	Phenanthrene	20.75	178	998713	110.14 ug		99
65)	Carbazole	21.18	167	955028	118.49 ug		99
66)	Anthracene	20.84	178	999165	107.66 ug		99
67)	Di-n-butylphthalate	21.86	149	1300825	109.11 ug		100
68)	Fluoranthene	23.23	202	869132	116.53 ug		94
69)	Kepone	25.08	272	63810	195.78 ug	E	98
71)	Benzidine	23.46	184	219575	99.19 ug		100

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

Data File : C:\HPCHEM\MSS_NT\S0781.D Vial: 5
Acq On : 31 Aug 2000 2:41 pm Operator: E. MARTIN
Sample : SSTD160Y3 Inst : HP5972:S
Misc : SSTD160Y3 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 15:36 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 14:20:28 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
72)	Pyrene	23.71	202	846722	107.66 ug	93
74)	Butylbenzylphthalate	24.96	149	448135	103.92 ug	99
75)	3,3'-Dichlorobenzidine	26.10	252	171024	84.59 ug	97
76)	Benzo(a)anthracene	26.15	228	637584	119.01 ug	99
77)	Chrysene	26.25	228	555862	111.23 ug	99
78)	bis(2-Ethylhexyl)phthalate	26.07	149	525378	91.65 ug	99
80)	Di-n-octylphthalate	27.33	149	1071811	115.80 ug	100
81)	Benzo(b)fluoranthene	28.63	252	626935	121.10 ug	95
82)	Benzo(k)fluoranthene	28.69	252	548521	113.81 ug	96
83)	Benzo(a)pyrene	29.55	252	610709	125.59 ug	97
84)	Indeno(1,2,3-cd)pyrene	33.55	276	1055613m	138.50 ug	
85)	Dibenzo(a,h)anthracene	33.61	278	781228m	124.90 ug	
86)	Benzo(g,h,i)perylene	34.78	276	1097157m	156.01 ug	

All spectra and manual integrations for this sample have been reviewed and approved.

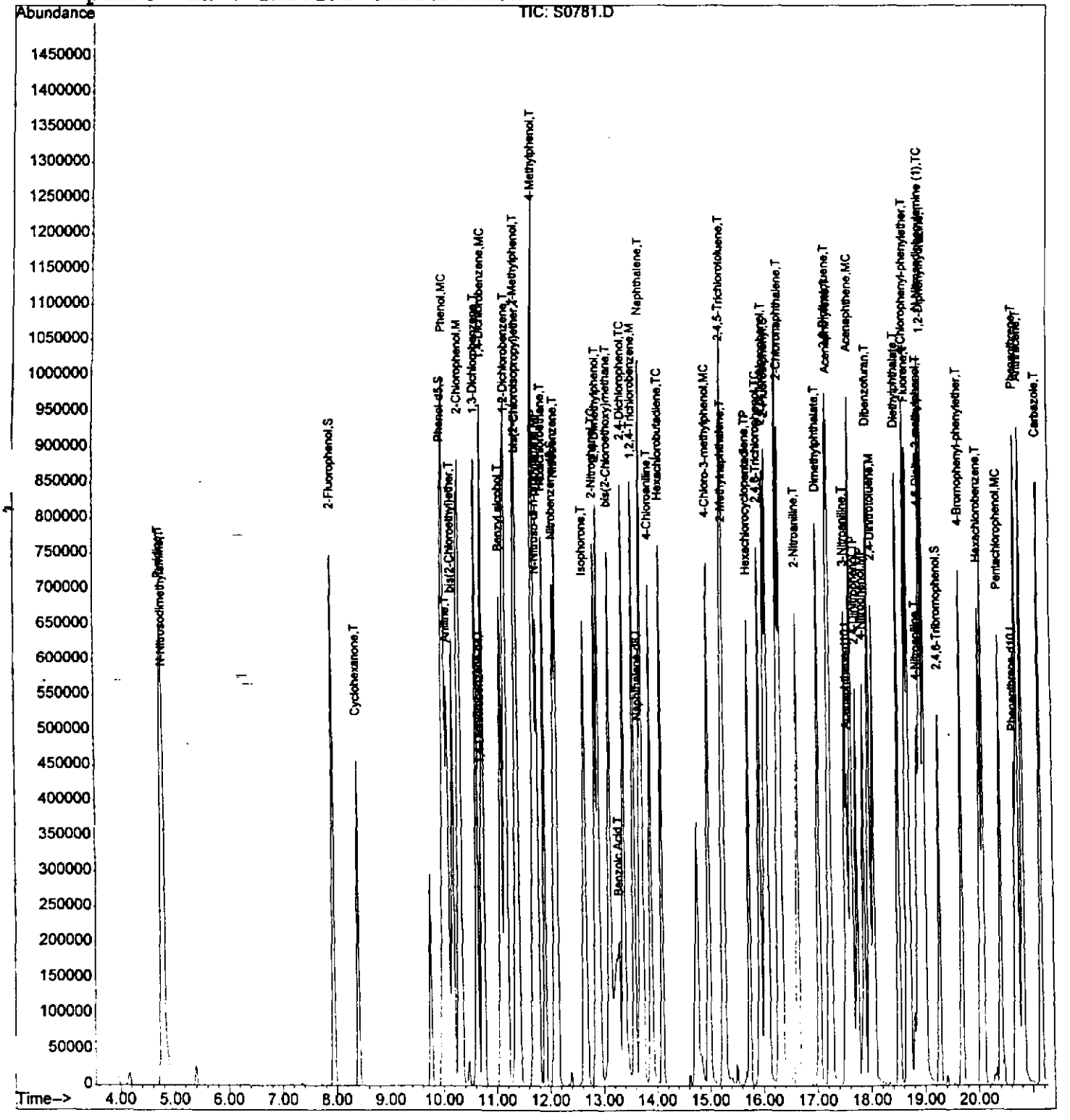
By: EMartin Date: 08/31/00

Secondary review: HRhodes Date: 09/6/00
HR 9/6/00

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

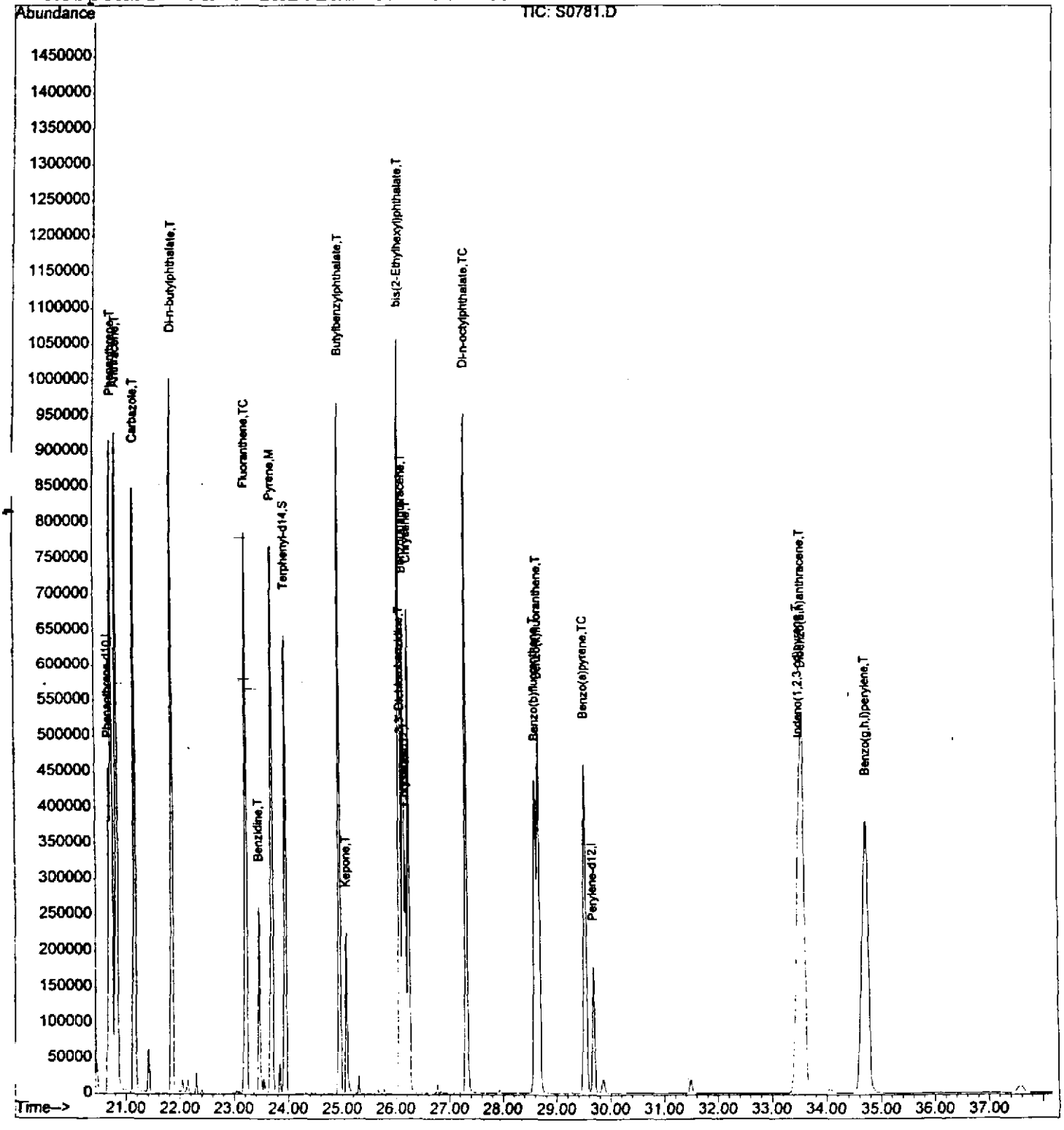
Data File : C:\HPCHEM\MSS_NT\S0781.D Vial: 5
Acq On : 31 Aug 2000 2:41 pm Operator: E. MARTIN
Sample : SSTD160Y3 Inst : HP5972:S
Misc : SSTD160Y3 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 15:36 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 15:38:41 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0781.D Vial: 5
Acq On : 31 Aug 2000 2:41 pm Operator: E. MARTIN
Sample : SSTD160Y3 Inst : HP5972:S
Misc : SSTD160Y3 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Aug 31 15:36 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Aug 31 15:38:41 2000
Response via : Initial Calibration



7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Instrument ID: HP5972S Calibration Date: 09/06/00 Time: 1011

Lab File ID: >S0835 Init. Calib. Date(s): 08/31/00 _____

Init. Calib. Times: 1137 1441

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.478	1.554		5.1	20.0
bis(2-Chloroethyl)ether	1.012	1.014		0.2	
2-Chlorophenol	1.212	1.269		4.7	
1,3-Dichlorobenzene	1.266	1.302		2.8	
1,4-Dichlorobenzene	1.281	1.342		4.8	20.0
Benzyl alcohol	0.775	0.726		-6.3	
1,2-Dichlorobenzene	1.169	1.234		5.6	
2-Methylphenol	1.011	1.077		6.5	
2,2'-oxybis(1-Chloropropane)	2.046	2.164		5.8	
4-Methylphenol	0.977	1.110		13.6	
N-Nitroso-di-n-propylamine	0.901	0.965	0.050	7.1	
Hexachloroethane	0.528	0.538		1.9	
Nitrobenzene	0.361	0.358		-0.8	
Isophorone	0.651	0.663		1.8	
2-Nitrophenol	0.203	0.206		1.5	20.0
2,4-Dimethylphenol	0.284	0.290		2.1	
Benzoic acid	0.236	0.215		-8.9	
bis(2-Chloroethoxy)methane	0.416	0.417		0.2	
2,4-Dichlorophenol	0.273	0.275		0.7	20.0
1,2,4-Trichlorobenzene	0.281	0.278		-1.1	
Naphthalene	0.826	0.848		2.7	
4-Chloroaniline	0.367	0.410		11.7	
Hexachlorobutadiene	0.141	0.142		0.7	20.0
4-Chloro-3-methylphenol	0.262	0.278		6.1	20.0
2-Methylnaphthalene	0.470	0.520		10.6	
Hexachlorocyclopentadiene	0.332	0.217	0.050	-34.6	
2,4,6-Trichlorophenol	0.375	0.353		-5.9	20.0
2,4,5-Trichlorophenol	0.393	0.392		-0.2	
2-Chloronaphthalene	1.038	1.018		-1.9	
2-Nitroaniline	0.378	0.379		0.3	
Dimethylphthalate	1.241	1.270		2.3	
Acenaphthylene	1.538	1.559		1.4	
2,6-Dinitrotoluene	0.315	0.326		3.5	
3-Nitroaniline	0.347	0.379		9.2	
Acenaphthene	0.940	0.953		1.4	20.0
2,4-Dinitrophenol	0.219	0.222	0.050	1.4	
4-Nitrophenol	0.156	0.161	0.050	3.2	

7C
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Instrument ID: HP5972S Calibration Date: 09/06/00 Time: 1011

Lab File ID: >S0835 Init. Calib. Date(s): 08/31/00 _____

Init. Calib. Times: 1137 1441

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Dibenzofuran	1.372	1.395		1.7	
2,4-Dinitrotoluene	0.430	0.452		5.1	
Diethylphthalate	1.213	1.280		5.5	
4-Chlorophenyl-Phenyl Ether	0.481	0.501		4.2	
Fluorene	1.002	1.057		5.5	
4-Nitroaniline	0.335	0.392		17.0	
4,6-Dinitro-2-methylphenol	0.163	0.168		3.1	
N-Nitrosodiphenylamine	0.492	0.491		-0.2	20.0
4-Bromophenyl-phenylether	0.189	0.182		-3.7	
Hexachlorobenzene	0.208	0.212		1.9	
Pentachlorophenol	0.145	0.136		-6.2	20.0
Phenanthrene	0.868	0.874		0.7	
Anthracene	0.895	0.912		1.9	
Carbazole	0.815	0.878		7.7	
Di-n-butylphthalate	1.155	1.241		7.4	
Fluoranthene	0.776	0.859		10.7	20.0
Pyrene	1.199	1.098		-8.4	
Butylbenzylphthalate	0.652	0.623		-4.4	
3,3'-Dichlorobenzidine	0.279	0.295		5.7	
Benzo(a)anthracene	0.919	0.902		-1.8	
Chrysene	0.836	0.845		1.1	
bis(2-Ethylhexyl)phthalate	0.817	0.779		-4.6	
Di-n-octylphthalate	1.978	1.872		-5.4	20.0
Benzo(b)fluoranthene	1.047	1.091		4.2	
Benzo(k)fluoranthene	0.953	0.878		-7.9	
Benzo(a)pyrene	0.948	0.929		-2.0	20.0
Indeno(1,2,3-cd)pyrene	1.284	0.947		-26.2	
Dibenz(a,h)anthracene	1.007	0.796		-21.0	
Benzo(g,h,i)perylene	1.260	0.830		-34.1	
Nitrobenzene-D5	0.354	0.350		-1.1	
2-Fluorobiphenyl	1.060	1.046		-1.3	
Terphenyl-D14	0.830	0.781		-5.9	
Phenol-D5	1.450	1.517		4.6	
2-Fluorophenol	1.094	1.069		-2.3	
2,4,6-Tribromophenol	0.188	0.199		5.8	

(1) Cannot be separated from Diphenylamine

00080

Data File : C:\HPCHEM\MSS_NT\S0835.D Vial: 26
Acq On : 6 Sep 2000 10:11 am Operator: C.LOMBARDI
Sample : SSTD050Z1 Inst : HP5972:S
Misc : SSTD050Z1 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
Integration Params: RTEINT.P
Quant Time: Sep 6 11:18 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Sep 05 11:49:33 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EMCalibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.51	152	124830	40.00 ug	-0.06
20) Naphthalene-d8	13.49	136	486929	40.00 ug	-0.06
35) Acenaphthene-d10	17.39	164	265829	40.00 ug	-0.06
57) Phenanthrene-d10	20.50	188	440455	40.00 ug	-0.05
70) Chrysene-d12	25.99	240	344460	40.00 ug	-0.05
79) Perylene-d12	29.40	264	280746	40.00 ug	-0.07

System Monitoring Compounds					
2) 2-Fluorophenol	7.74	112	166746	48.84 ug	-0.06
Spiked Amount 200.000	Range 21 - 110		Recovery = 24.42%		
3) Phenol-d5	9.80	99	236739	52.31 ug	-0.05
Spiked Amount 200.000	Range 10 - 110		Recovery = 26.16%		
21) Nitrobenzene-d5	11.87	82	212843	49.35 ug	-0.06
Spiked Amount 100.000	Range 35 - 114		Recovery = 49.35%		
40) 2-Fluorobiphenyl	15.91	172	347512	49.33 ug	-0.05
Spiked Amount 100.000	Range 43 - 116		Recovery = 49.33%		
56) 2,4,6-Tribromophenol	19.09	330	65994	52.98 ug	-0.05
Spiked Amount 200.000	Range 10 - 123		Recovery = 26.49%		
73) Terphenyl-d14	23.77	244	336154	47.01 ug	-0.04
Spiked Amount 100.000	Range 33 - 114		Recovery = 47.01%		

Target Compounds					Qvalue
4) Pyridine	4.53	52	164337	49.47 ug	89
5) N-Nitrosodimethylamine	4.54	42	116710	49.45 ug	86
6) Cyclohexanone	8.19	42	127146	64.15 ug	87
7) Phenol	9.82	94	242407m	52.55 ug	
8) Aniline	9.87	93	288576	56.02 ug	97
9) bis(2-Chloroethyl)ether	9.97	63	158312	50.11 ug	95
10) 2-Chlorophenol	10.12	128	198079	52.38 ug	96
11) 1,3-Dichlorobenzene	10.43	146	203205	51.43 ug	99
12) 1,4-Dichlorobenzene	10.55	146	209482	52.40 ug	99
13) Benzyl alcohol	10.88	108	113268	46.80 ug	99
14) 1,2-Dichlorobenzene	10.99	146	192498	52.78 ug	99
15) bis(2-Chloroisopropyl)ethe	11.21	45	337603	52.88 ug	96
16) 2-Methylphenol	11.17	108	168025	53.24 ug	100
17) Hexachloroethane	11.70	117	84020	50.99 ug	98
18) N-Nitroso-di-n-propylamine	11.54	70	150586	53.57 ug	92
19) 4-Methylphenol	11.49	108	173130	56.78 ug	99
22) Nitrobenzene	11.92	77	218108	49.65 ug	94
23) Isophorone	12.43	82	403751	50.95 ug	98
24) 2-Nitrophenol	12.66	139	125677	50.94 ug	90
25) 2,4-Dimethylphenol	12.72	107	176435	51.04 ug	98

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

00081

Data File : C:\HPCHEM\MSS_NT\S0835.D Vial: 26
Acq On : 6 Sep 2000 10:11 am Operator: C.LOMBARDI
Sample : SSTD050Z1 Inst : HP5972:S
Misc : SSTD050Z1 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
'S Integration Params: RTEINT.P
uant Time: Sep 6 11:18 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Sep 05 11:49:33 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Sy 09/12/00

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
26)	Benzoic Acid	13.01	122	131122m	45.67 ug	
27)	bis(2-Chloroethoxy)methane	12.93	93	253587	50.09 ug	100
28)	2,4-Dichlorophenol	13.19	162	167538	50.40 ug	99
29)	1,2,4-Trichlorobenzene	13.38	180	169482	49.55 ug	99
30)	Naphthalene	13.54	128	516126	51.37 ug	99
31)	4-Chloroaniline	13.70	127	249363	55.79 ug	99
32)	Hexachlorobutadiene	13.90	225	86113	50.05 ug	99
33)	4-Chloro-3-methylphenol	14.78	107	169227	53.05 ug	93
34)	2-Methylnaphthalene	15.07	142	316237	55.29 ug	100
36)	2,4,5-Trichlorotoluene	15.06	159	131379	48.38 ug	100
37)	Hexachlorocyclopentadiene	15.56	237	72072	32.70 ug	100
38)	2,4,6-Trichlorophenol	15.75	196	117150	47.00 ug	99
39)	2,4,5-Trichlorophenol	15.85	196	130366	49.86 ug	99
41)	2-Chloronaphthalene	16.14	162	338105	49.03 ug	97
42)	2-Nitroaniline	16.45	65	126079	50.20 ug	93
43)	Acenaphthylene	17.07	152	517920	50.68 ug	99
44)	Dimethylphthalate	16.86	163	422112	51.19 ug	100
45)	2,6-Dinitrotoluene	17.03	165	108335	51.78 ug	94
46)	Acenaphthene	17.46	153	316762	50.69 ug	99
47)	3-Nitroaniline	17.35	138	126086	54.69 ug	80
48)	2,4-Dinitrophenol	17.55	184	73605	50.65 ug	87
49)	Dibenzofuran	17.79	168	463616	50.85 ug	95
50)	2,4-Dinitrotoluene	17.87	165	150036	52.52 ug	88
51)	4-Nitrophenol	17.69	109	53513	51.65 ug	87
52)	Fluorene	18.52	166	351180	52.75 ug	99
53)	4-Chlorophenyl-phenylether	18.48	204	166590	52.12 ug	96
54)	Diethylphthalate	18.33	149	425209	52.74 ug	99
55)	4-Nitroaniline	18.67	138	130153	58.40 ug	88
58)	4,6-Dinitro-2-methylphenol	18.73	198	92308	51.37 ug	100
59)	N-Nitrosodiphenylamine (1)	18.76	169	270430	49.95 ug	99
60)	1,2-Diphenylhydrazine	18.82	77	452459m	46.28 ug	
61)	4-Bromophenyl-phenylether	19.51	248	100291	48.24 ug	95
62)	Hexachlorobenzene	19.85	284	116940	50.98 ug	98
63)	Pentachlorophenol	20.22	266	74636	46.64 ug	98
64)	Phenanthrene	20.55	178	481498	50.36 ug	99
65)	Carbazole	20.98	167	483363	53.89 ug	97
66)	Anthracene	20.63	178	502301	50.98 ug	99
67)	Di-n-butylphthalate	21.68	149	683323	53.73 ug	99
68)	Fluoranthene	23.02	202	473164	55.38 ug	99
71)	Benzidine	23.28	184	177252	70.67 ug	100
72)	Pyrene	23.50	202	472800	45.78 ug	98

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

00082

Data File : C:\HPCHEM\MSS_NT\S0835.D
Acq On : 6 Sep 2000 10:11 am
Sample : SSTD050Z1
Misc : SSTD050Z1 ; SWC ; 1 ; LLW ; WATER
Integration Params: RTEINT.P
Quant Time: Sep 6 11:18 2000

Vial: 26
Operator: C.LOMBARDI
Inst : HP5972:S
Multiplr: 1.00
Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Tue Sep 05 11:49:33 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
74)	Butylbenzylphthalate	24.77	149	268193	47.74 ug	97
75)	3,3'-Dichlorobenzidine	25.89	252	127000	52.79 ug	100
76)	Benzo(a)anthracene	25.95	228	388218	49.07 ug	100
77)	Chrysene	26.04	228	363762	50.54 ug	100
78)	bis(2-Ethylhexyl)phthalate	25.90	149	335555	47.67 ug	100
80)	Di-n-octylphthalate	27.12	149	657056	47.33 ug	100
81)	Benzo(b)fluoranthene	28.34	252	382805	52.08 ug	96
82)	Benzo(k)fluoranthene	28.40	252	308280	46.09 ug	97
83)	Benzo(a)pyrene	29.23	252	326163	49.04 ug	97
84)	Indeno(1,2,3-cd)pyrene	33.03	276	332361	36.88 ug	95
85)	Dibenzo(a,h)anthracene	33.04	278	279245	39.51 ug	97
86)	Benzo(g,h,i)perylene	34.15	276	291137	32.93 ug	94

All spectra and manual integrations for this sample have been reviewed and approved.

By: EMartin Date: 09/06/00

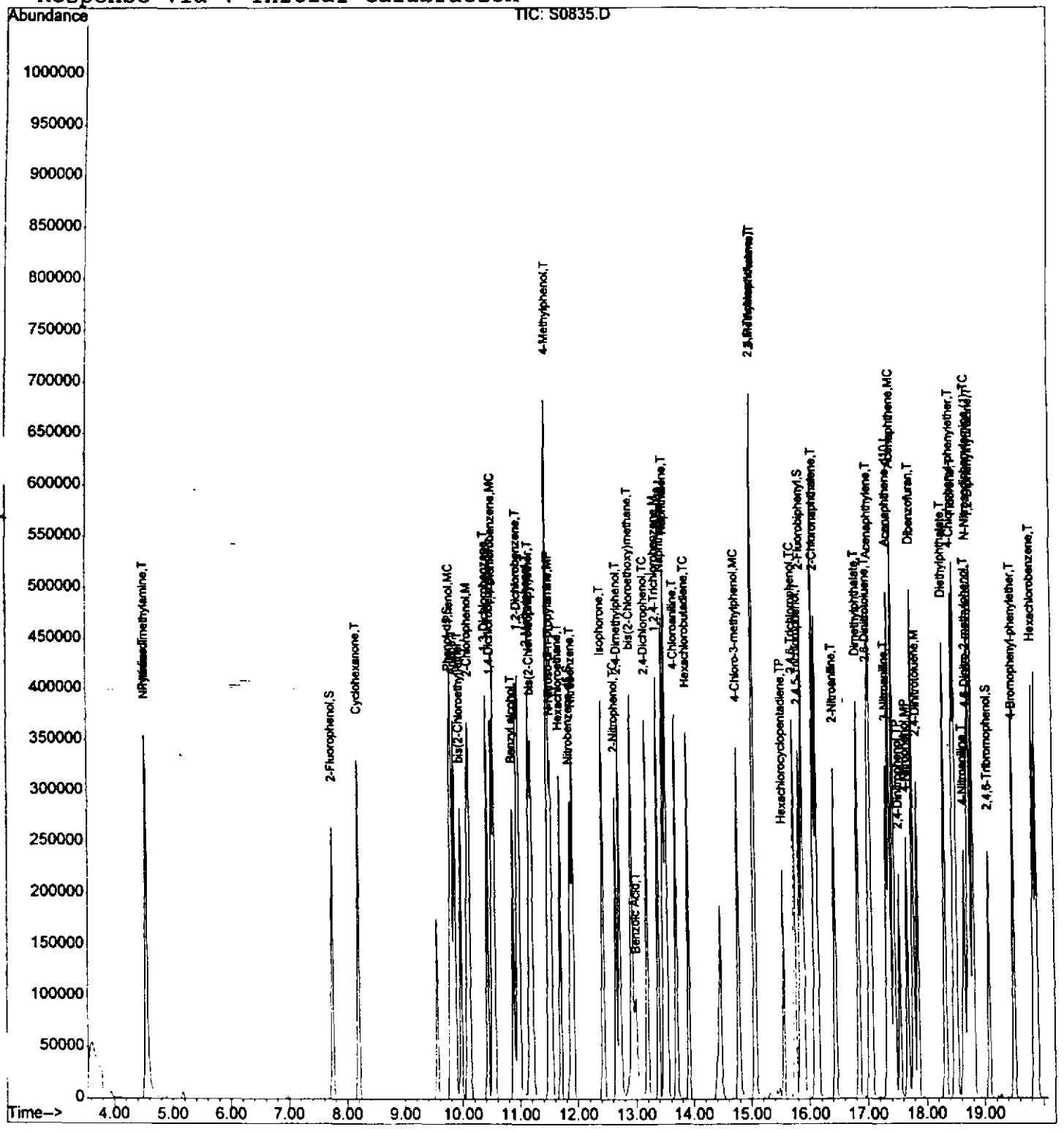
Secondary review: CMRhodes Date: 9/8/00

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

00083

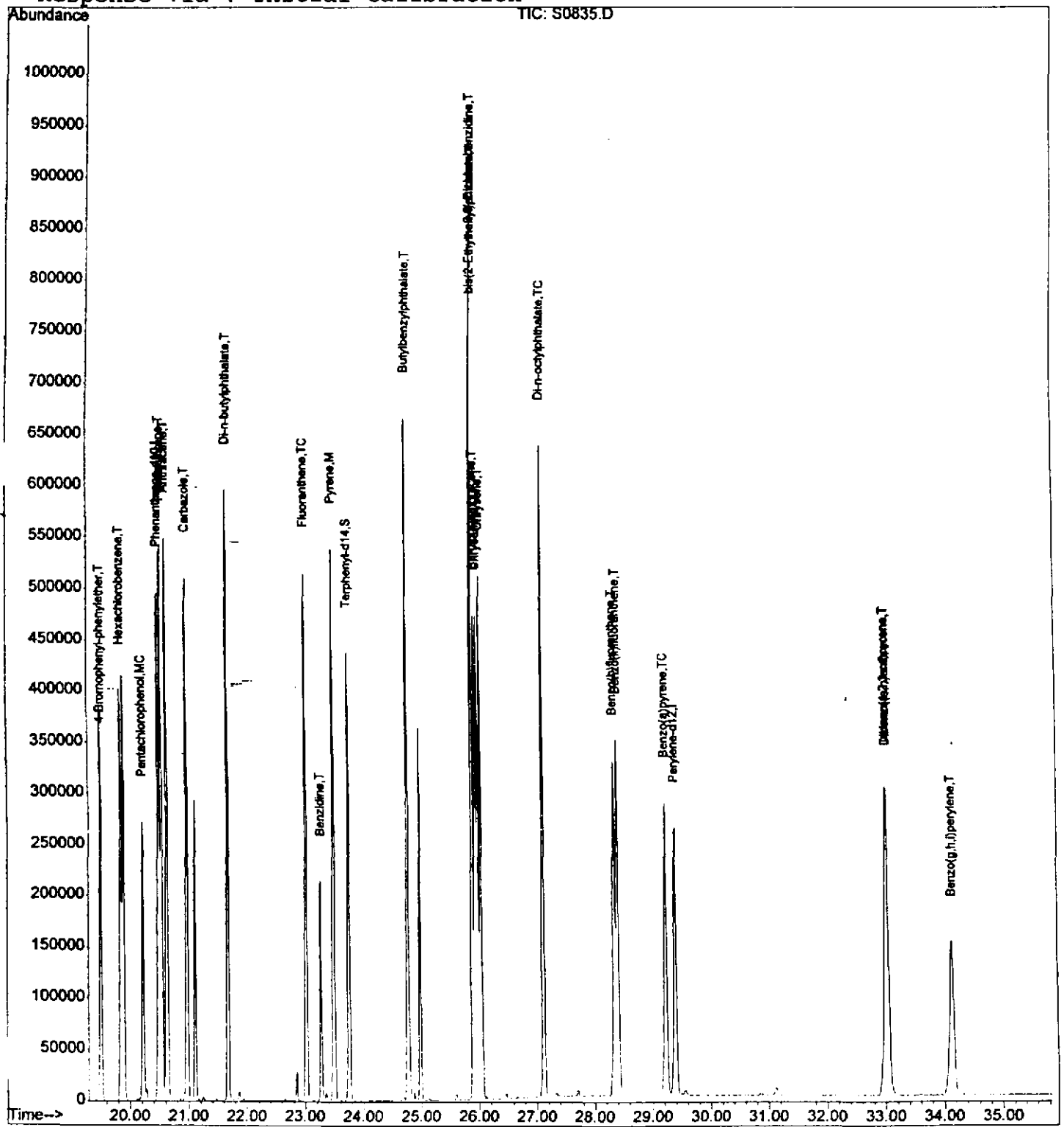
Data File : C:\HPCHEM\MSS_NT\S0835.D Vial: 26
Acq On : 6 Sep 2000 10:11 am Operator: C.LOMBARDI
Sample : SSTD050Z1 Inst : HP5972:S
Misc : SSTD050Z1 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 6 11:18 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration



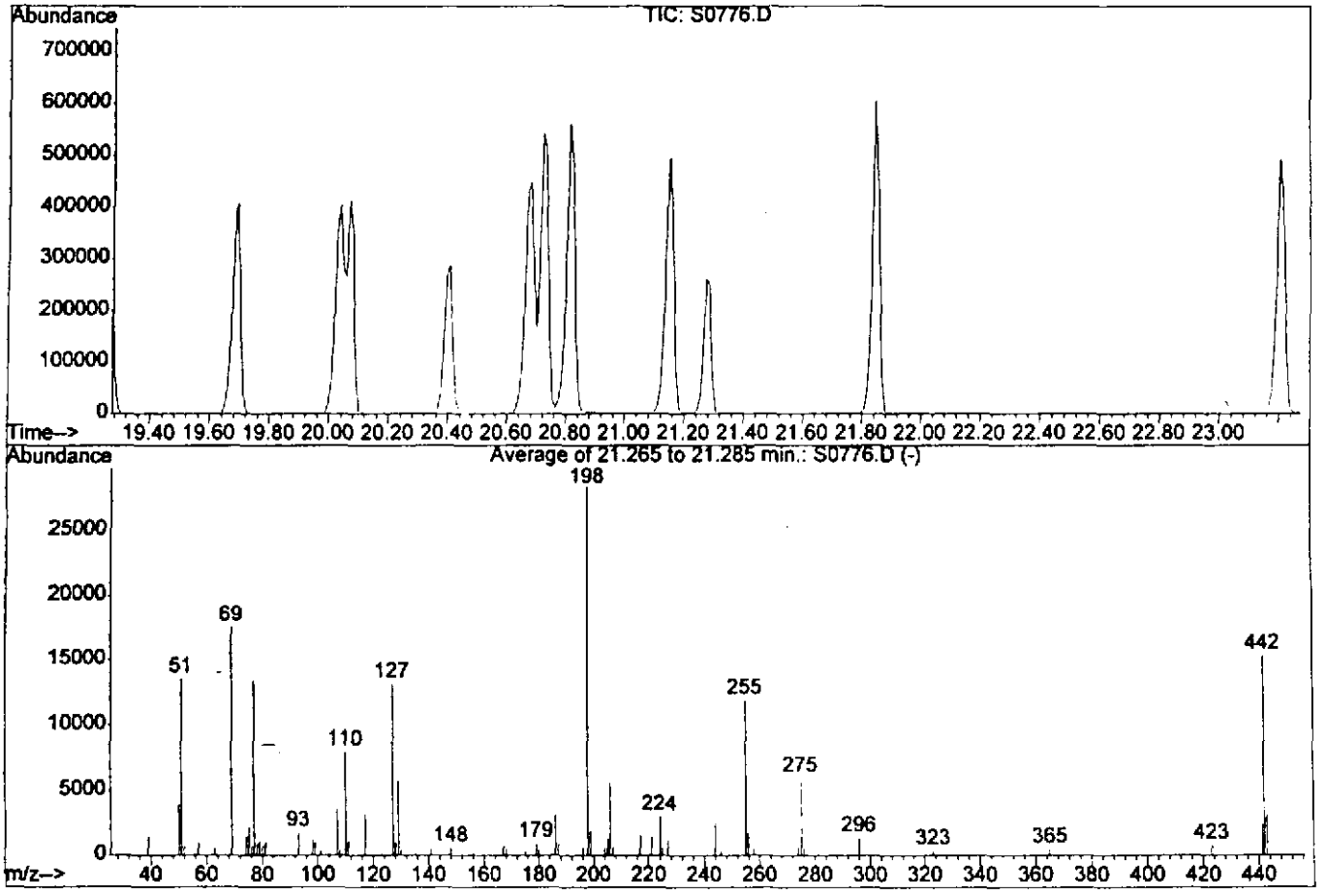
Data File : C:\HPCHEM\MSS_NT\S0835.D Vial: 26
Acq On : 6 Sep 2000 10:11 am Operator: C.LOMBARDI
Sample : SSTD050Z1 Inst : HP5972:S
Misc : SSTD050Z1 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 6 11:18 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration



DFTPP Method 8270

Data File : C:\HPCHEM\MSS_NT\S0776.D Vial: 26
Acq On : 31 Aug 2000 10:38 am Operator: J.Bennett
Sample : SSTD050X7 Inst : HP5972:S
Misc : SSTD050X7 ; SWC ; 1 ; LLW ; WATER Multiplr: 1.00
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration



Spectrum Information: Average of 21.265 to 21.285 min.

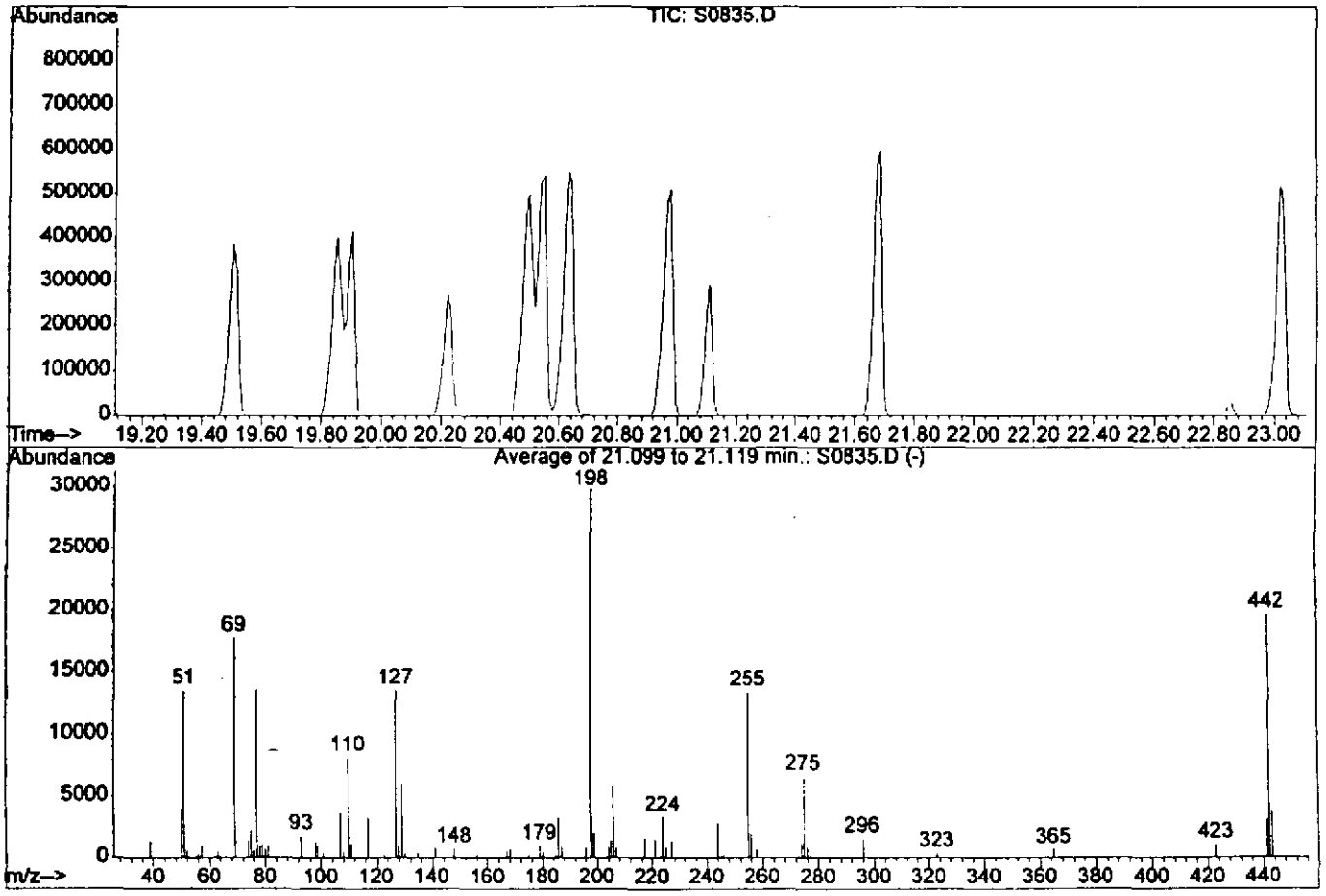
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	47.7	13563	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.10	100	61.7	17557	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	46.3	13177	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	28436	PASS
199	198	5	9	6.9	1950	PASS
275	198	10	30	21.0	5977	PASS
365	198	1	100	1.8	518	PASS
441	443	0.10	100	78.9	2435	PASS
442	198	40	100	53.9	15334	PASS
443	442	17	23	20.1	3088	PASS

S0776.D MSSSOCNT.M Thu Aug 31 14:16:50 2000 MSS

DFTPP Method 8270

Data File : C:\HPCHEM\MSS_NT\S0835.D
Acq On : 6 Sep 2000 10:11 am
Sample : SSTD050Z1
Misc : SSTD050Z1 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration

Vial: 26
Operator: C.LOMBARDI
Inst : HP5972:S
Multiplr: 1.00



Spectrum Information: Average of 21.099 to 21.119 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.3	13544	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.10	100	59.6	17806	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	45.3	13553	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	29899	PASS
199	198	5	9	6.8	2020	PASS
275	198	10	30	22.3	6663	PASS
365	198	1	100	2.3	702	PASS
441	443	0.10	100	81.8	3131	PASS
442	198	40	100	65.9	19709	PASS
443	442	17	23	19.4	3826	PASS

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKCS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: SBLKCS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >S0836

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-94-1	Cyclohexanone	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKCS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: SBLKCS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >S0836

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

Quantitation Report (QT Reviewed)

00089

Data File : C:\HPCHEM\MSS_NT\S0836.D
Acq On : 6 Sep 2000 11:08 am
Sample : 090100-B01
Misc : SBLKCS ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 6 11:44 2000

Vial: 1
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.50
Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.51	152	116655	40.00 ug	0.00
20) Naphthalene-d8	13.48	136	445062	40.00 ug	0.00
35) Acenaphthene-d10	17.39	164	238621	40.00 ug	0.00
57) Phenanthrene-d10	20.48	188	407475	40.00 ug	-0.01
70) Chrysene-d12	25.99	240	348064	40.00 ug	0.00
79) Perylene-d12	29.39	264	302113	40.00 ug	0.00

System Monitoring Compounds					
2) 2-Fluorophenol	7.74	112	302610	94.84 ug	0.00
Spiked Amount 200.000	Range 21 - 110		Recovery = 47.42%		
3) Phenol-d5	9.79	99	300330	71.02 ug	-0.01
Spiked Amount 200.000	Range 10 - 110		Recovery = 35.51%		
21) Nitrobenzene-d5	11.87	82	284381	72.13 ug	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery = 72.13%		
40) 2-Fluorobiphenyl	15.91	172	469961	74.32 ug	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery = 74.32%		
56) 2,4,6-Tribromophenol	19.09	330	174169	155.77 ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 77.89%		
73) Terphenyl-d14	23.76	244	484500	67.06 ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 67.06%		

Target Compounds Qvalue

All spectra and manual integrations for this sample have been reviewed and approved.

By: EMartin Date: 09/07/00

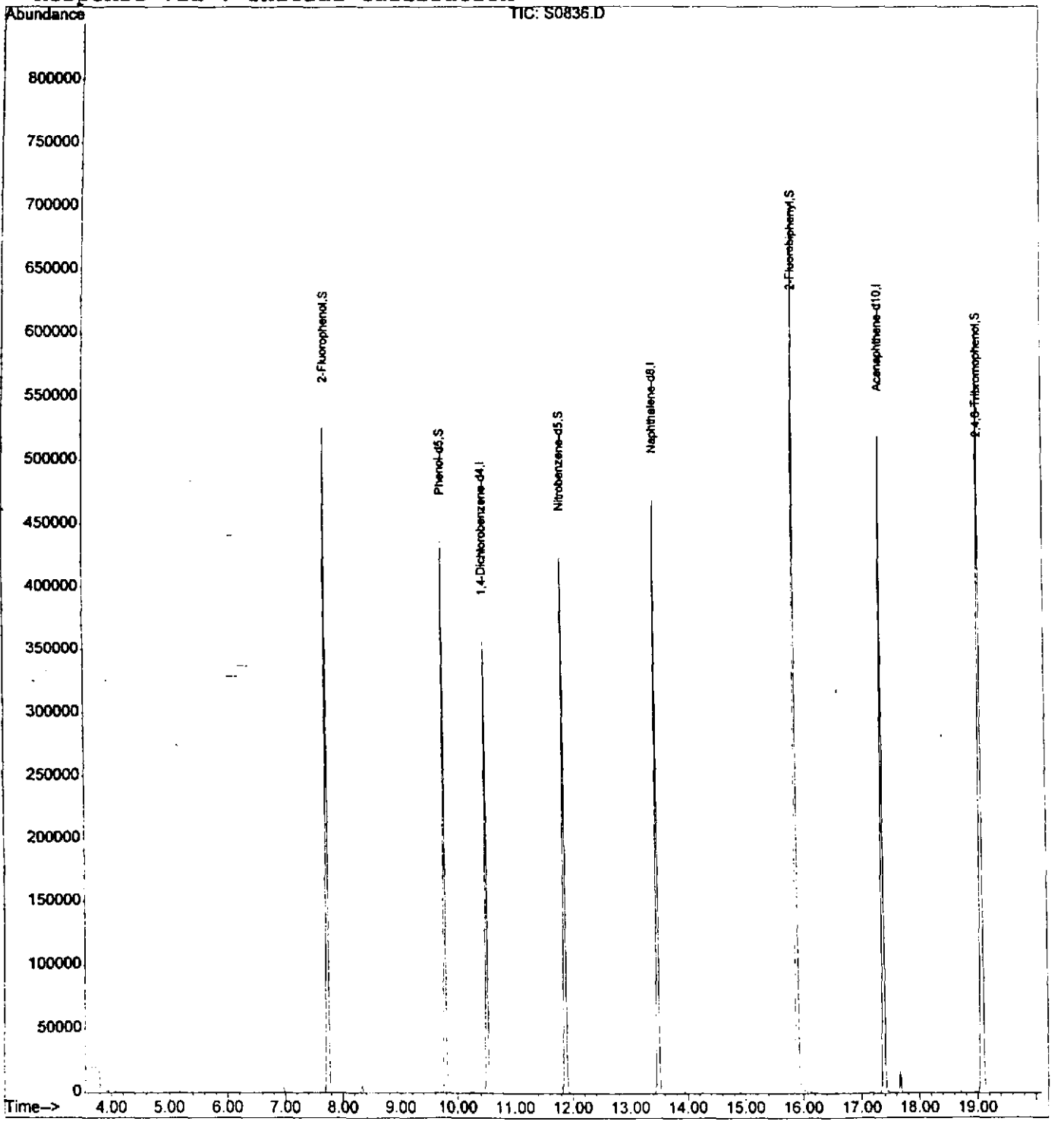
Secondary review: CNRhodes Date: 9/8/00

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

Quantitation Report

Data File : C:\HPCHEM\MSS_NT\S0836.D Vial: 1
Acq On : 6 Sep 2000 11:08 am Operator: E. MARTIN
Sample : 090100-B01 Inst : HP5972:S
Misc : SBLKCS ; SWC ; 1 ; LLW ; WATER Multiplr: 0.50
MS Integration Params: RTEINT.P
Quant Time: Sep 6 11:44 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration

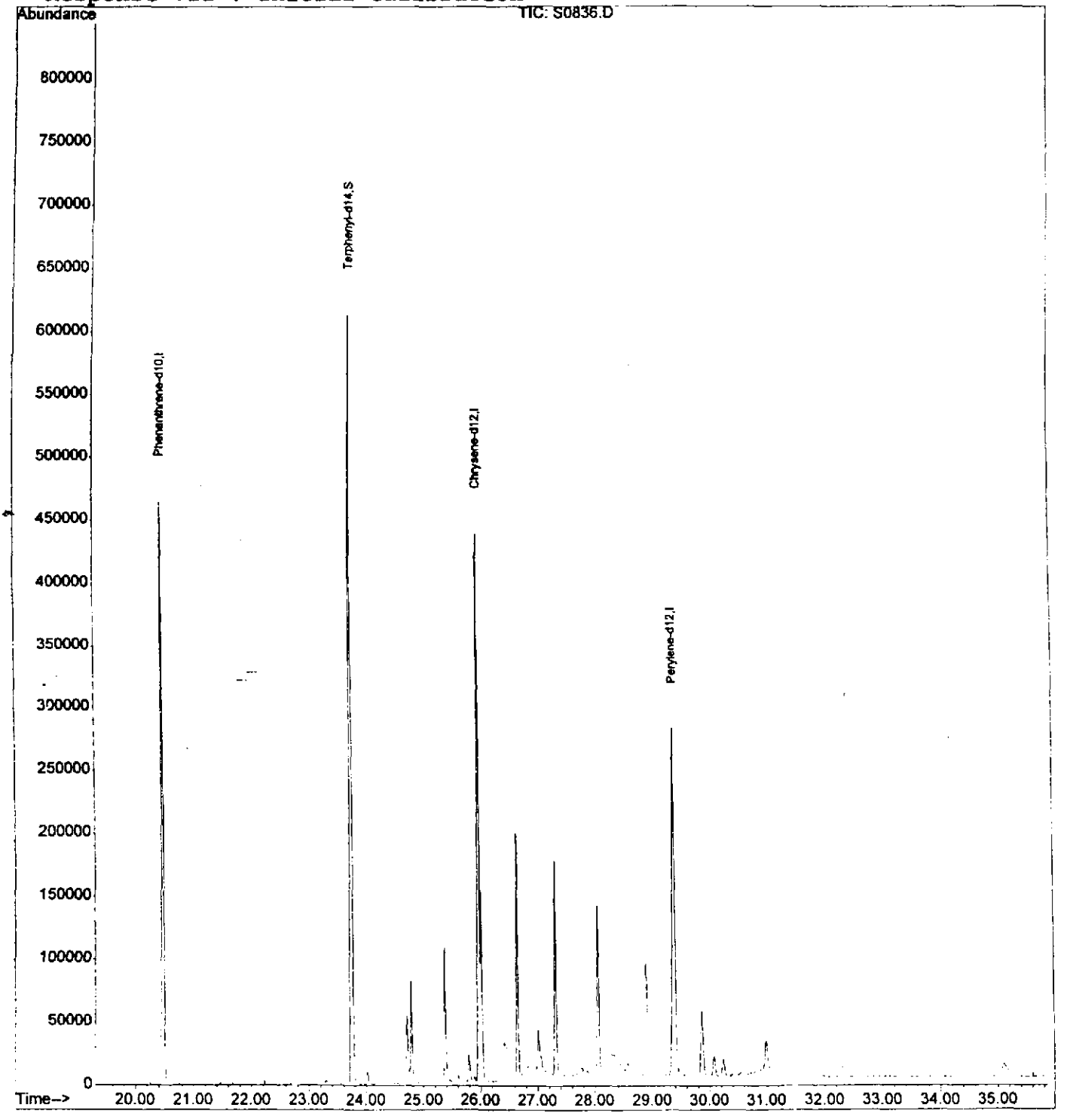


00091

Data File : C:\HPCHEM\MSS_NT\S0836.D
Acq On : 6 Sep 2000 11:08 am
Sample : 090100-B01
Misc : SBLKCS ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 6 11:44 2000

Vial: 1
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.50
Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKCSFMS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: SBLKCSFMS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >S0837

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-94-1	Cyclohexanone	10	U
108-95-2	Phenol	16	
111-44-4	bis(2-Chloroethyl)ether	34	
95-57-8	2-Chlorophenol	35	
541-73-1	1,3-Dichlorobenzene	23	
106-46-7	1,4-Dichlorobenzene	24	
100-51-6	Benzyl alcohol	33	
95-50-1	1,2-Dichlorobenzene	27	
95-48-7	2-Methylphenol	34	
108-60-1	bis(2-Chloroisopropyl)ether	35	
106-44-5	4-Methylphenol	34	
621-64-7	N-Nitroso-di-n-propylamine	37	
67-72-1	Hexachloroethane	22	
98-95-3	Nitrobenzene	34	
78-59-1	Isophorone	38	
88-75-5	2-Nitrophenol	36	
105-67-9	2,4-Dimethylphenol	34	
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	37	
120-83-2	2,4-Dichlorophenol	37	
120-82-1	1,2,4-Trichlorobenzene	28	
91-20-3	Naphthalene	32	
106-47-8	4-Chloroaniline	39	
87-68-3	Hexachlorobutadiene	27	
59-50-7	4-Chloro-3-methylphenol	40	
91-57-6	2-Methylnaphthalene	35	
77-47-4	Hexachlorocyclopentadiene	15	
88-06-2	2,4,6-Trichlorophenol	37	
95-95-4	2,4,5-Trichlorophenol	39	J
91-58-7	2-Chloronaphthalene	40	
88-74-4	2-Nitroaniline	41	J
131-11-3	Dimethylphthalate	39	
208-96-8	Acenaphthylene	34	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKCSFMS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: SBLKCSFMS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >S0837

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
606-20-2	2,6-Dinitrotoluene	40	
99-09-2	3-Nitroaniline	44	J
83-32-9	Acenaphthene	36	
51-28-5	2,4-Dinitrophenol	46	J
100-02-7	4-Nitrophenol	19	J
132-64-9	Dibenzofuran	38	
121-14-2	2,4-Dinitrotoluene	40	
84-66-2	Diethylphthalate	40	
7005-72-3	4-Chlorophenyl-phenylether	37	
86-73-7	Fluorene	39	
100-01-6	4-Nitroaniline	48	J
534-52-1	4,6-Dinitro-2-methylphenol	44	J
86-30-6	N-Nitrosodiphenylamine (1)	37	
101-55-3	4-Bromophenyl-phenylether	37	
118-74-1	Hexachlorobenzene	39	
87-86-5	Pentachlorophenol	38	J
85-01-8	Phenanthrene	40	
120-12-7	Anthracene	39	
84-74-2	Di-n-butylphthalate	40	
206-44-0	Fluoranthene	43	
129-00-0	Pyrene	39	
85-68-7	Butylbenzylphthalate	41	
91-94-1	3,3'-Dichlorobenzidine	38	
56-55-3	Benzo(a)anthracene	39	
218-01-9	Chrysene	40	
117-81-7	bis(2-Ethylhexyl)phthalate	35	
117-84-0	Di-n-octylphthalate	38	
205-99-2	Benzo(b)fluoranthene	39	
207-08-9	Benzo(k)fluoranthene	37	
50-32-8	Benzo(a)pyrene	40	
193-39-5	Indeno(1,2,3-cd)pyrene	35	
53-70-3	Dibenzo(a,h)anthracene	34	
191-24-2	Benzo(g,h,i)perylene	36	

(1) - Cannot be separated from Diphenylamine

Data File : C:\HPCHEM\MSS_NT\S0837.D Vial: 2
Acq On : 6 Sep 2000 11:51 am Operator: E. MARTIN
Sample : 090100-B01FMS Inst : HP5972:S
Misc : SBLKCSFMS ; SWC ; 1 ; LLW ; WATER Multiplr: 0.50
IS Integration Params: RTEINT.P
Quant Time: Sep 7 10:12 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EM 09/07/00

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.51	152	123123	40.00 ug	0.00
20) Naphthalene-d8	13.49	136	462611	40.00 ug	0.00
35) Acenaphthene-d10	17.39	164	249645	40.00 ug	0.00
57) Phenanthrene-d10	20.50	188	411019	40.00 ug	0.00
70) Chrysene-d12	25.99	240	284570	40.00 ug	0.00
79) Perylene-d12	29.40	264	223742	40.00 ug	0.00
System Monitoring Compounds					
2) 2-Fluorophenol	7.75	112	340705	101.17 ug	0.01
Spiked Amount 200.000	Range 21 - 110		Recovery = 50.59%		
3) Phenol-d5	9.80	99	317059	71.03 ug	0.00
Spiked Amount 200.000	Range 10 - 110		Recovery = 35.52%		
21) Nitrobenzene-d5	11.88	82	339141	82.76 ug	0.01
Spiked Amount 100.000	Range 35 - 114		Recovery = 82.76%		
40) 2-Fluorobiphenyl	15.91	172	532395	80.47 ug	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery = 80.47%		
56) 2,4,6-Tribromophenol	19.10	330	190831	163.13 ug	0.01
Spiked Amount 200.000	Range 10 - 123		Recovery = 81.56%		
73) Terphenyl-d14	23.77	244	478455	81.00 ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 81.00%		

Target Compounds					Qvalue
4) Pyridine	4.54	52	148190	22.61 ug	92
5) N-Nitrosodimethylamine	4.54	42	104381	22.42 ug	88
7) Phenol	9.83	94	147713m	16.23 ug	
8) Aniline	9.87	93	353687	34.81 ug	97
9) bis(2-Chloroethyl)ether	9.97	63	214049	34.34 ug	96
10) 2-Chlorophenol	10.12	128	258200	34.61 ug	97
11) 1,3-Dichlorobenzene	10.43	146	182864	23.46 ug	99
12) 1,4-Dichlorobenzene	10.55	146	192842	24.45 ug	99
13) Benzyl alcohol	10.89	108	156480m	32.78 ug	
14) 1,2-Dichlorobenzene	10.99	146	192399	26.74 ug	99
15) bis(2-Chloroisopropyl)ethe	11.21	45	442826	35.16 ug	97
16) 2-Methylphenol	11.18	108	213355	34.27 ug	100
17) Hexachloroethane	11.70	117	71023	21.85 ug	96
18) N-Nitroso-di-n-propylamine	11.55	70	205346	37.03 ug	93
19) 4-Methylphenol	11.50	108	206184	34.28 ug	100
22) Nitrobenzene	11.92	77	283359	33.94 ug	95
23) Isophorone	12.44	82	573062	38.06 ug	98
24) 2-Nitrophenol	12.66	139	168603	35.97 ug	93
25) 2,4-Dimethylphenol	12.72	107	225036	34.26 ug	96
27) bis(2-Chloroethoxy)methane	12.93	93	355306	36.94 ug	99

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

Data File : C:\HPCHEM\MSS_NT\S0837.D Vial: 2
Acq On : 6 Sep 2000 11:51 am Operator: E. MARTIN
Sample : 090100-B01FMS Inst : HP5972:S
Misc : SBLKCSFMS ; SWC ; 1 ; LLW ; WATER Multiplr: 0.50
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:12 2000 Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

EM 09/07/00

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
28)	2,4-Dichlorophenol	13.20	162	234578	37.14 ug	98
29)	1,2,4-Trichlorobenzene	13.38	180	184202	28.34 ug	99
30)	Naphthalene	13.54	128	616923	32.31 ug	99
31)	4-Chloroaniline	13.70	127	330532	38.92 ug	99
32)	Hexachlorobutadiene	13.90	225	87982	26.91 ug	99
33)	4-Chloro-3-methylphenol	14.77	107	243665	40.20 ug	97
34)	2-Methylnaphthalene	15.08	142	381227	35.08 ug	98
36)	2,4,5-Trichlorotoluene	15.06	159	178703	35.04 ug	99
37)	Hexachlorocyclopentadiene	15.56	237	62851	15.18 ug	100
38)	2,4,6-Trichlorophenol	15.76	196	171868	36.71 ug	99
39)	2,4,5-Trichlorophenol	15.85	196	190904	38.88 ug	99
41)	2-Chloronaphthalene	16.15	162	511797	39.51 ug	96
42)	2-Nitroaniline	16.46	65	191915	40.68 ug	92
43)	Acenaphthylene	17.07	152	660603	34.41 ug	99
44)	Dimethylphthalate	16.86	163	608878	39.32 ug	99
45)	2,6-Dinitrotoluene	17.04	165	157696	40.13 ug	96
46)	Acenaphthene	17.46	153	417086	35.53 ug	99
47)	3-Nitroaniline	17.36	138	190614	44.02 ug	80
48)	2,4-Dinitrophenol	17.57	184	127069	46.56 ug	84
49)	Dibenzofuran	17.80	168	643657	37.59 ug	95
50)	2,4-Dinitrotoluene	17.88	165	215200	40.11 ug	88
51)	4-Nitrophenol	17.71	109	37545	19.29 ug	87
52)	Fluorene	18.53	166	491889	39.34 ug	99
53)	4-Chlorophenyl-phenylether	18.49	204	222347	37.04 ug	97
54)	Diethylphthalate	18.34	149	613194	40.50 ug	99
55)	4-Nitroaniline	18.68	138	200993	48.02 ug	90
58)	4,6-Dinitro-2-methylphenol	18.74	198	146556	43.70 ug	100
59)	N-Nitrosodiphenylamine (1)	18.77	169	378494	37.46 ug	99
60)	1,2-Diphenylhydrazine	18.82	77	624346m	34.22 ug	
61)	4-Bromophenyl-phenylether	19.51	248	144262	37.18 ug	99
62)	Hexachlorobenzene	19.85	284	165386	38.64 ug	97
63)	Pentachlorophenol	20.24	266	114827	38.45 ug	99
64)	Phenanthrene	20.55	178	705749	39.55 ug	100
65)	Carbazole	20.98	167	689210	41.17 ug	98
66)	Anthracene	20.64	178	714499	38.86 ug	100
67)	Di-n-butylphthalate	21.68	149	945642	39.84 ug	99
68)	Fluoranthene	23.03	202	685724	43.00 ug	96
71)	Benzidine	23.28	184	226515	54.66 ug	100
72)	Pyrene	23.51	202	664191	38.93 ug	95
74)	Butylbenzylphthalate	24.78	149	383506	41.31 ug	91
75)	3,3'-Dichlorobenzidine	25.90	252	153181	38.54 ug	99

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

Data File : C:\HPCHEM\MSS_NT\S0837.D
Acq On : 6 Sep 2000 11:51 am
Sample : 090100-B01FMS
Misc : SBLKCSFMS ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:12 2000

Vial: 2
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.50
Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
76) Benzo(a)anthracene	25.95	228	506886	38.78 ug	99
77) Chrysene	26.05	228	472681	39.74 ug	99
78) bis(2-Ethylhexyl)phthalate	25.90	149	405416	34.86 ug	98
80) Di-n-octylphthalate	27.13	149	834617	37.72 ug	100
81) Benzo(b)fluoranthene	28.35	252	459338	39.21 ug	97
82) Benzo(k)fluoranthene	28.43	252	394292	36.99 ug	97
83) Benzo(a)pyrene	29.24	252	422812	39.88 ug	97
84) Indeno(1,2,3-cd)pyrene	33.08	276	503314	35.03 ug	95
85) Dibenzo(a,h)anthracene	33.08	278	381051	33.83 ug	96
86) Benzo(g,h,i)perylene	34.19	276	505579	35.88 ug	94

All spectra and manual integrations for this sample have been reviewed and approved.

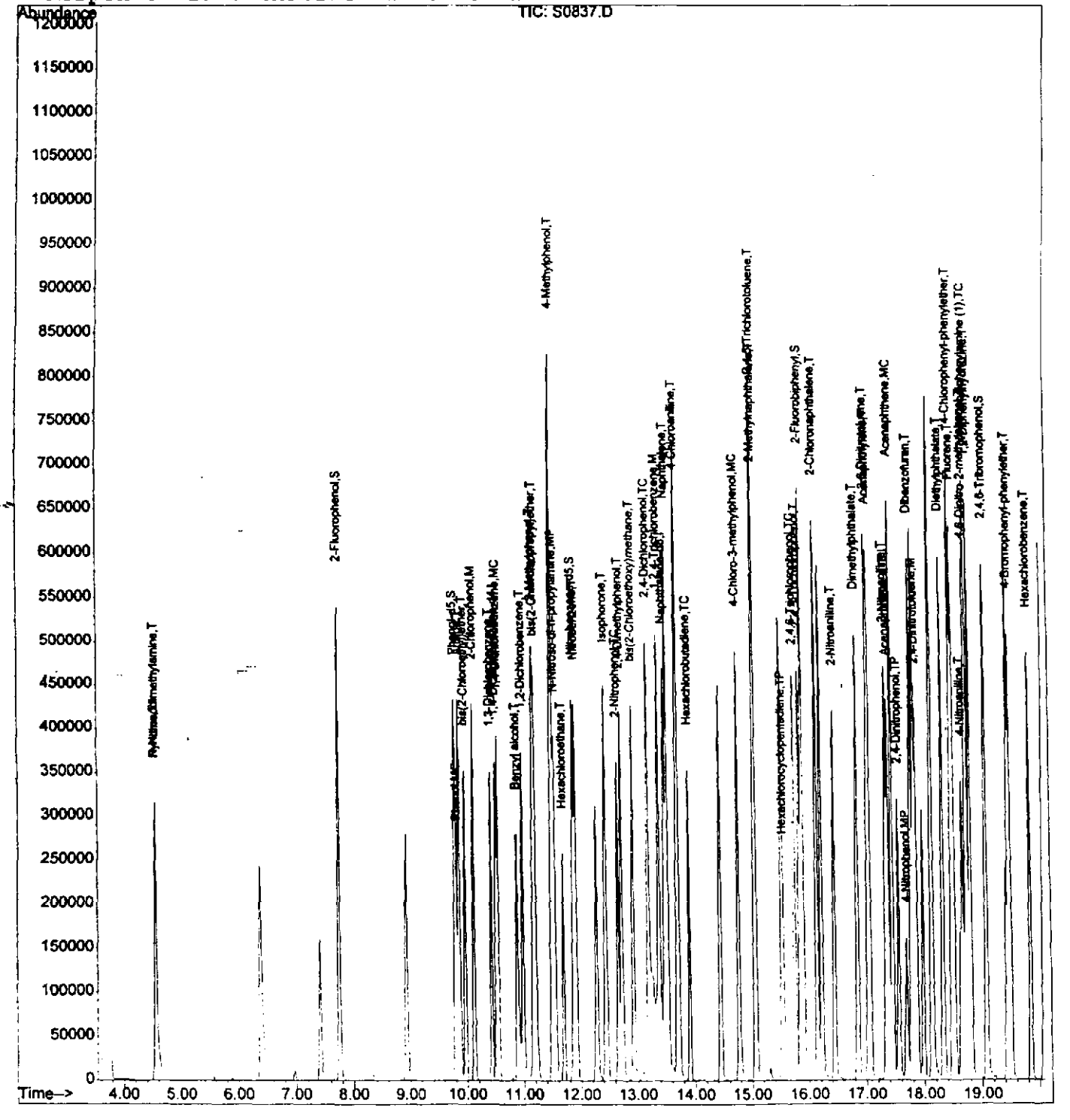
By: EMarton Date: 09/07/00

Secondary review: [illegible] Date: 9/8/00

00097

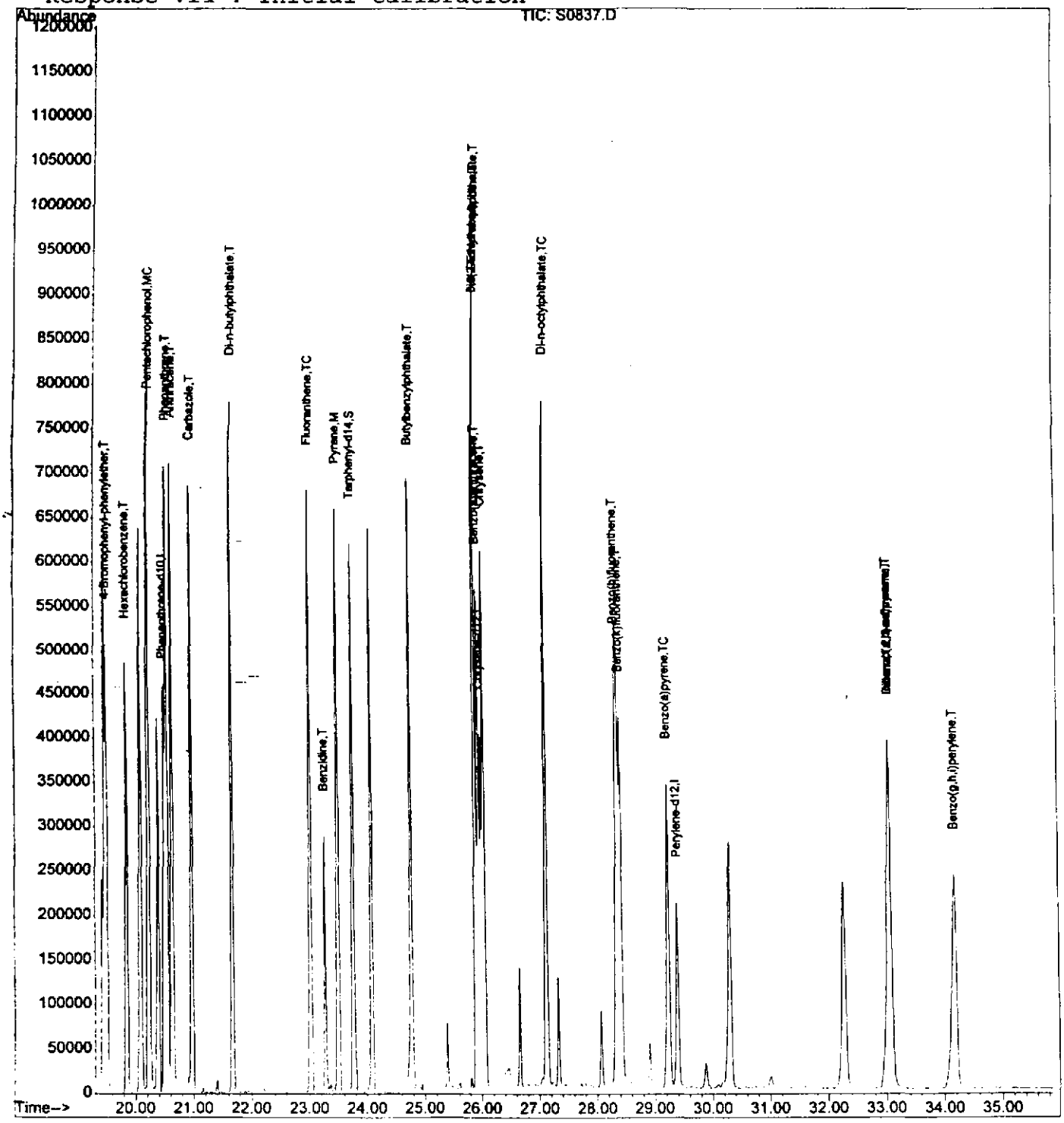
Data File : C:\HPCHEM\MSS_NT\S0837.D Vial: 2
Acq On : 6 Sep 2000 11:51 am Operator: E. MARTIN
Sample : 090100-B01FMS Inst : HP5972:S
Misc : SBLKCSFMS ; SWC ; 1 ; LLW ; WATER Multiplr: 0.50
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:12 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0837.D Vial: 2
Acq On : 6 Sep 2000 11:51 am Operator: E. MARTIN
Sample : 090100-B01FMS Inst : HP5972:S
Misc : SBLKCSFMS ; SWC ; 1 ; LLW ; WATER Multiplr: 0.50
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:12 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-09MS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-04MS

Sample wt/vol: 940 (g/mL) ML Lab File ID: >S0842

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-94-1	Cyclohexanone	100	E
108-95-2	Phenol	40	
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	75	
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	32	
100-51-6	Benzyl alcohol	11	U
95-50-1	1,2-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	bis(2-Chloroisopropyl)ether	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	41	
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
65-85-0	Benzoic acid	53	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	36	
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	93	E
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	53	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	53	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-09MS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-04MS

Sample wt/vol: 940 (g/mL) ML Lab File ID: >S0842

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
606-20-2	2,6-Dinitrotoluene	11	U
99-09-2	3-Nitroaniline	53	U
83-32-9	Acenaphthene	43	
51-28-5	2,4-Dinitrophenol	53	U
100-02-7	4-Nitrophenol	54	
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	54	
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	53	U
534-52-1	4,6-Dinitro-2-methylphenol	53	U
86-30-6	N-Nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	79	
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	40	
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	21	U
56-55-3	Benzo(a)anthracene	11	U
218-01-9	Chrysene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	11	U
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

Quantitation Report (QT Reviewed)

00101

Data File : C:\HPCHEM\MSS_NT\S0842.D
Acq On : 6 Sep 2000 3:30 pm
Sample : 001915A-04MS
Misc : SW-09 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:19 2000

Vial: 7
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.53

Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.51	152	118874	40.00 ug	0.00
20) Naphthalene-d8	13.49	136	459222	40.00 ug	0.00
35) Acenaphthene-d10	17.39	164	246224	40.00 ug	0.00
57) Phenanthrene-d10	20.50	188	435495	40.00 ug	0.00
70) Chrysene-d12	25.99	240	343396	40.00 ug	0.00
79) Perylene-d12	29.40	264	270013	40.00 ug	0.00

System Monitoring Compounds					
2) 2-Fluorophenol	7.75	112	319531	98.27 ug	0.01
Spiked Amount 200.000	Range 21 - 110		Recovery = 49.13%		
3) Phenol-d5	9.80	99	298691	69.31 ug	0.00
Spiked Amount 200.000	Range 10 - 110		Recovery = 34.66%		
21) Nitrobenzene-d5	11.87	82	290174	71.33 ug	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery = 71.33%		
40) 2-Fluorobiphenyl	15.91	172	498091	76.33 ug	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery = 76.33%		
56) 2,4,6-Tribromophenol	19.09	330	175760	152.34 ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 76.17%		
73) Terphenyl-d14	23.77	244	477933	67.05 ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 67.05%		

Target Compounds						Qvalue
6) Cyclohexanone	8.20	42	371843	104.42 ug	E	90
7) Phenol	9.83	94	333330	40.22 ug		98
10) 2-Chlorophenol	10.13	128	506408	74.53 ug		98
12) 1,4-Dichlorobenzene	10.55	146	230178	32.05 ug		100
18) N-Nitroso-di-n-propylamine	11.54	70	205123	40.61 ug		94
29) 1,2,4-Trichlorobenzene	13.39	180	219536	36.07 ug		100
33) 4-Chloro-3-methylphenol	14.78	107	527462	92.93 ug	E	99
46) Acenaphthene	17.46	153	469696	43.01 ug		99
50) 2,4-Dinitrotoluene	17.87	165	269449	53.97 ug		91
51) 4-Nitrophenol	17.70	109	98322	54.30 ug		90
63) Pentachlorophenol	20.23	266	234965	78.71 ug		99
72) Pyrene	23.51	202	772102	39.75 ug		97

All spectra and manual integrations for this sample have been reviewed and approved.

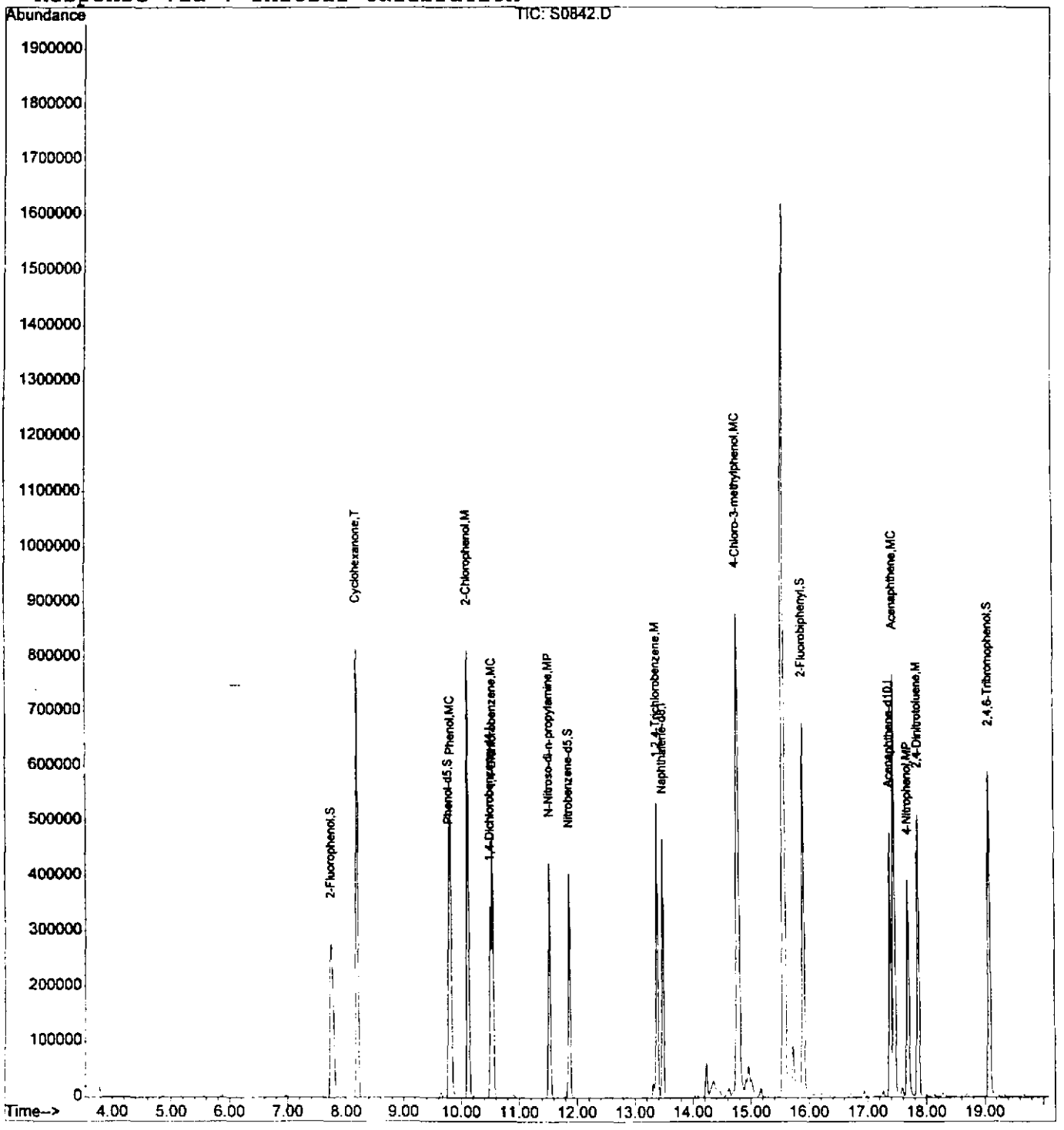
By: EMartin Date: 09 09 00

Secondary review: [illegible] Date: 9, 8, 00

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

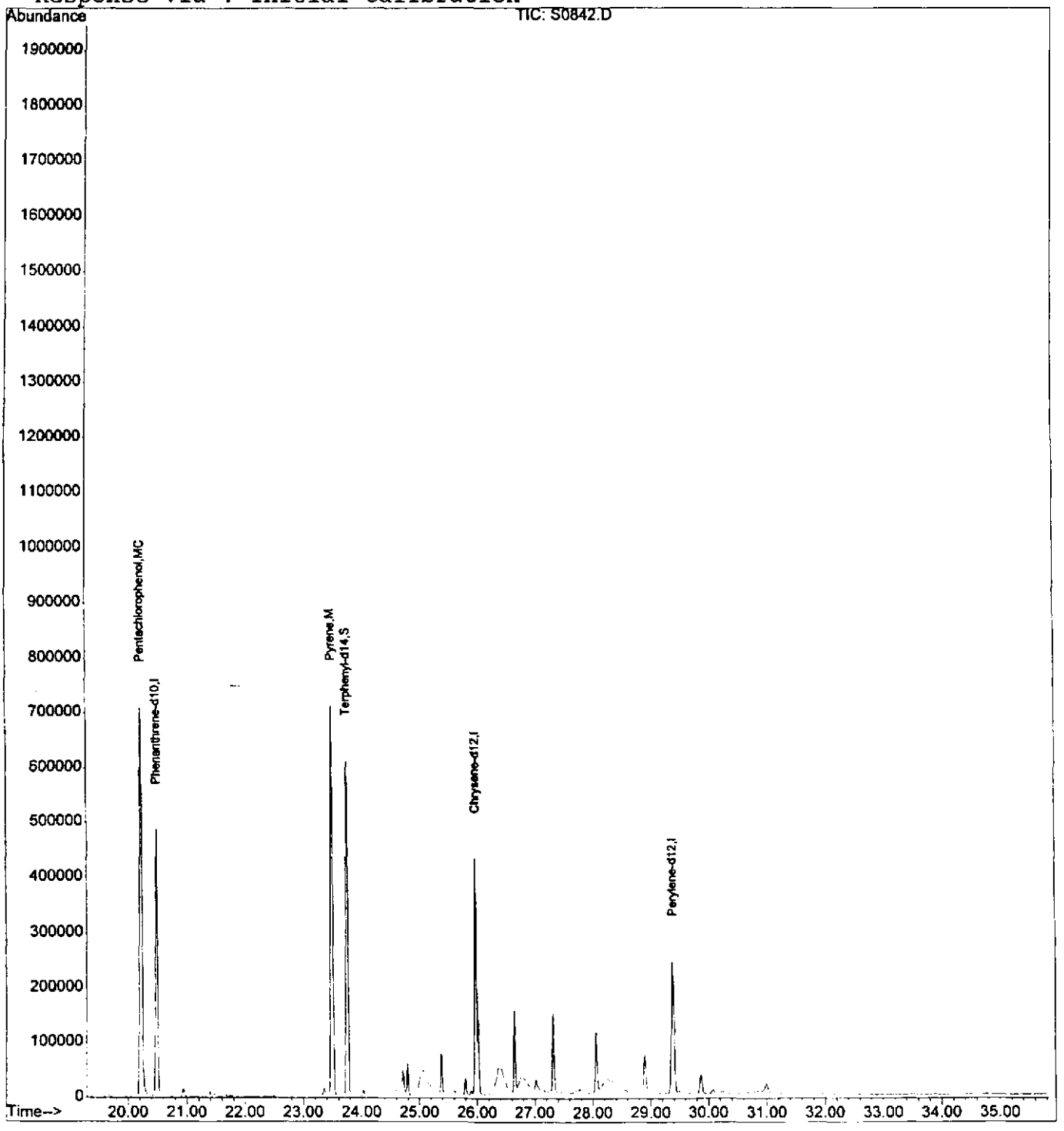
Data File : C:\HPCHEM\MSS_NT\S0842.D Vial: 7
Acq On : 6 Sep 2000 3:30 pm Operator: E. MARTIN
Sample : 001915A-04MS Inst : HP5972:S
Misc : SW-09 ; SWC ; 1 ; LLW ; WATER Multiplr: 0.53
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:19 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0842.D Vial: 7
Acq On : 6 Sep 2000 3:30 pm Operator: E. MARTIN
Sample : 001915A-04MS Inst : HP5972:S
Misc : SW-09 ; SWC ; 1 ; LLW ; WATER Multiplr: 0.53
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:19 2000 Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-09MSD

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-04MSD

Sample wt/vol: 920 (g/mL) ML Lab File ID: >S0843

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-94-1	Cyclohexanone	100	E
108-95-2	Phenol	41	
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	74	
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	33	
100-51-6	Benzyl alcohol	11	U
95-50-1	1,2-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	bis(2-Chloroisopropyl)ether	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	41	
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
65-85-0	Benzoic acid	54	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	37	
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	95	E
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	54	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	54	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	11	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-09MSD

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: (soil/water) WATER Lab Sample ID: 001915A-04MSD

Sample wt/vol: 920 (g/mL) ML Lab File ID: >S0843

Level: (low/med) LOW Date Received: 08/31/00

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/01/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/06/00

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
606-20-2	2,6-Dinitrotoluene	11	U
99-09-2	3-Nitroaniline	54	U
83-32-9	Acenaphthene	43	
51-28-5	2,4-Dinitrophenol	54	U
100-02-7	4-Nitrophenol	57	
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	55	
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	54	U
534-52-1	4,6-Dinitro-2-methylphenol	54	U
86-30-6	N-Nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	83	
85-01-8	Phenanthrene	11	U
120-12-7	Anthracene	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	42	
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	22	U
56-55-3	Benzo(a)anthracene	11	U
218-01-9	Chrysene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	11	U
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

Quantitation Report (QT Reviewed)

00106

Data File : C:\HPCHEM\MSS_NT\S0843.D
Acq On : 6 Sep 2000 4:14 pm
Sample : 001915A-04MSD
Misc : SW-09 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:21 2000

Vial: 8
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.54

Quant Results File: MSSSOCNT.RES

Quant Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Wed Sep 06 11:19:21 2000
Response via : Initial Calibration
DataAcq Meth : MSSSOCNT

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	10.52	152	120835	40.00 ug	0.00
20) Naphthalene-d8	13.49	136	461812	40.00 ug	0.00
35) Acenaphthene-d10	17.39	164	250121	40.00 ug	0.00
57) Phenanthrene-d10	20.49	188	428170	40.00 ug	0.00
70) Chrysene-d12	25.99	240	334216	40.00 ug	0.00
79) Perylene-d12	29.39	264	253622	40.00 ug	0.00

System Monitoring Compounds					
2) 2-Fluorophenol	7.76	112	324853	98.29 ug	0.01
Spiked Amount 200.000	Range 21 - 110		Recovery = 49.15%		
3) Phenol-d5	9.80	99	300320	68.56 ug	0.00
Spiked Amount 200.000	Range 10 - 110		Recovery = 34.28%		
21) Nitrobenzene-d5	11.87	82	295057	72.13 ug	0.00
Spiked Amount 100.000	Range 35 - 114		Recovery = 72.13%		
40) 2-Fluorobiphenyl	15.91	172	496287	74.87 ug	0.00
Spiked Amount 100.000	Range 43 - 116		Recovery = 74.87%		
56) 2,4,6-Tribromophenol	19.09	330	177006	151.03 ug	0.00
Spiked Amount 200.000	Range 10 - 123		Recovery = 75.52%		
73) Terphenyl-d14	23.77	244	477458	68.82 ug	0.00
Spiked Amount 100.000	Range 33 - 114		Recovery = 68.82%		

Target Compounds					Qvalue
6) Cyclohexanone	8.21	42	372171	104.76 ug	E 91
7) Phenol	9.83	94	336114	40.65 ug	98
10) 2-Chlorophenol	10.13	128	498217	73.49 ug	98
12) 1,4-Dichlorobenzene	10.56	146	232937	32.51 ug	99
18) N-Nitroso-di-n-propylamine	11.54	70	203536	40.39 ug	94
29) 1,2,4-Trichlorobenzene	13.39	180	220282	36.67 ug	99
33) 4-Chloro-3-methylphenol	14.79	107	530791	94.75 ug	E 100
46) Acenaphthene	17.46	153	466376	42.83 ug	99
50) 2,4-Dinitrotoluene	17.87	165	272429	54.73 ug	89
51) 4-Nitrophenol	17.70	109	102152	56.59 ug	92
63) Pentachlorophenol	20.23	266	236817	82.21 ug	98
72) Pyrene	23.51	202	765302	41.25 ug	96

All spectra and manual integrations for this sample have been reviewed and approved.

By: EMartin Date: 09/07/00

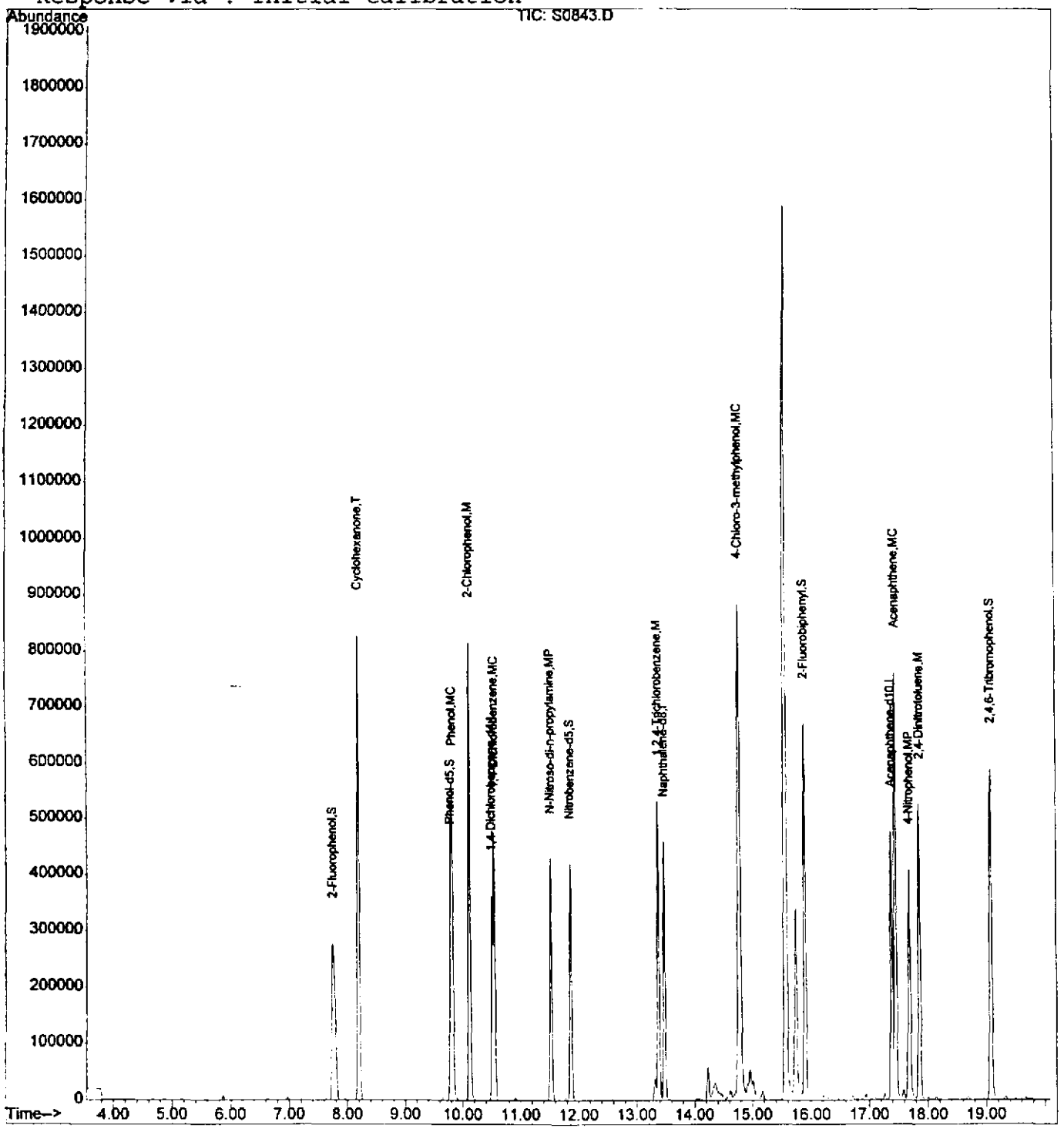
Secondary review: CRhodes Date: 9/8/00

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

Data File : C:\HPCHEM\MSS_NT\S0843.D
Acq On : 6 Sep 2000 4:14 pm
Sample : 001915A-04MSD
Misc : SW-09 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:21 2000

Vial: 8
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.54
Quant Results File: MSSSOCNT.RES

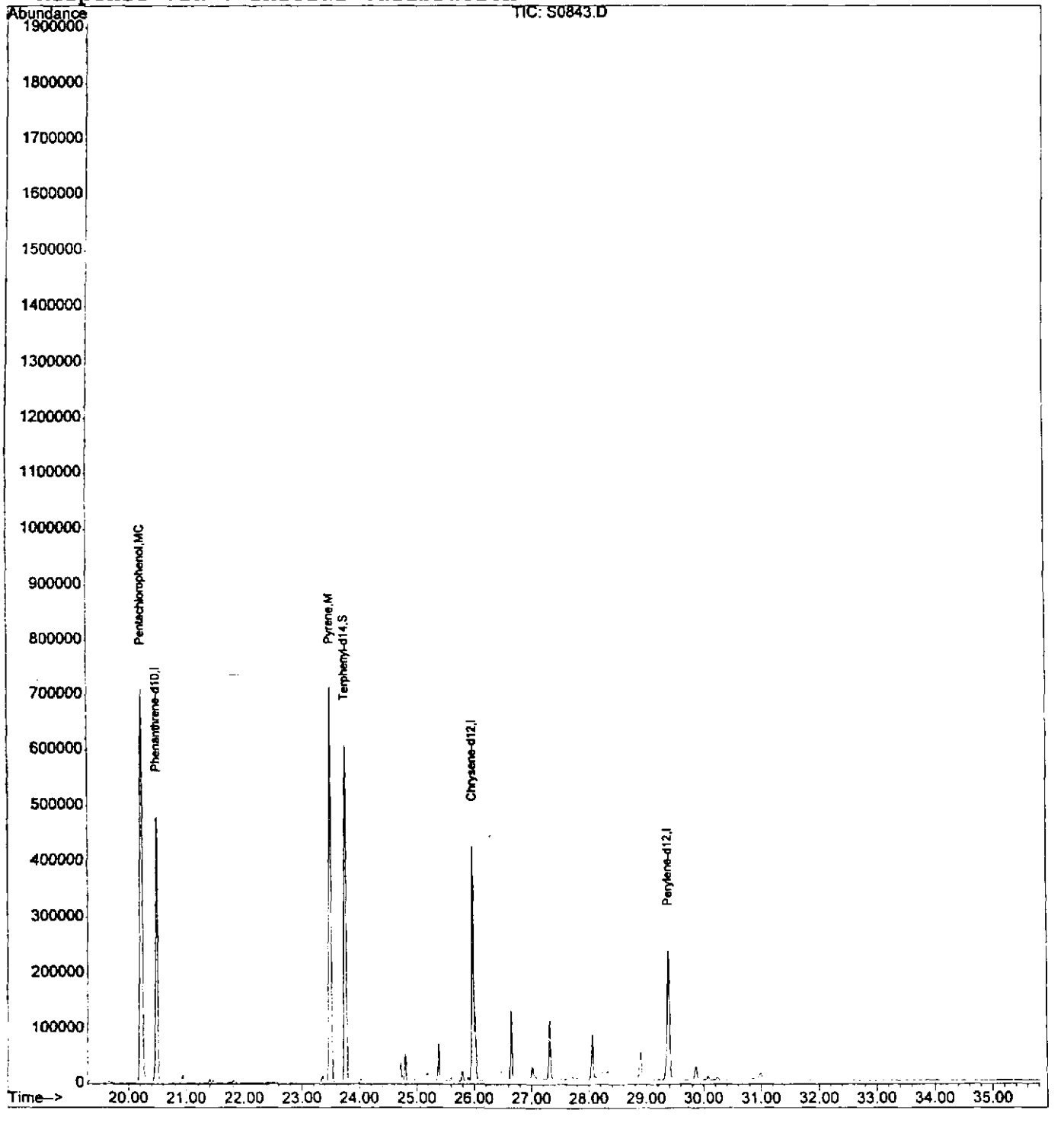
Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



Data File : C:\HPCHEM\MSS_NT\S0843.D
Acq On : 6 Sep 2000 4:14 pm
Sample : 001915A-04MSD
Misc : SW-09 ; SWC ; 1 ; LLW ; WATER
MS Integration Params: RTEINT.P
Quant Time: Sep 7 10:21 2000

Vial: 8
Operator: E. MARTIN
Inst : HP5972:S
Multiplr: 0.54
Quant Results File: MSSSOCNT.RES

Method : C:\HPCHEM\1\METHODS\MSSSOCNT.M (RTE Integrator)
Title : BNA Calibration
Last Update : Thu Sep 07 10:59:33 2000
Response via : Initial Calibration



Organic Sample Preparation Log

Parameter	SW846 SOIL BNA	Ext. Meth	SONC	Na2SO4 Lot #	T13624	Extraction Date	8/30/00
Corr. MS/MSD				Alumina Lot	—	Completion Date	8/30/00
Surrogate By	JNL			Reagent H2O Lot	—	Surrogate Code	0802 00:36:06
Spike By	JNL	MeCl2 Lot #	T	H2SO4 Lot #	—	Spike Code FMS	0816 00:36:2,3,4
Extracted By	JNL	Acetone Lot#		NaOH Lot #	—	Spike code	0308 00:25:01
Int. Conc By		1;1 MeCL2 Acet. Lot#	0828 00:36:01	Cont.EXT Start time			
Final Conc By	JNL			Cont. EXT Stop time		Witness	

Client	STLSample #	Sign Out COC	Init pH/Cl2	Vol/Wt Extracted Gms / MLs	Surr. Volume (ul)	Matrix Spike Volume (ul)	C/U	Final Extract Volume (ml)	Soil pH	% Solids Info: Tare Wt. (gms)	Wet Wt. (gms)	Dry Wt. (gms)	% Solids (dec)	Bottle letter	Comments
Blank	0830 00:B01	—	—	30.0	500	—	N/a	1ml		—	—	—			A
↓	-B01FMS	—		30.0		100x3		1ml		—	—	—			
↓	B03	—		30.0		—		1ml		—	—	—			
STN	1802A-17	JNL		30.3				2ml		1.30	13.17	11.71			
↓	-18			31.5				1ml		1.27	10.33	9.64			ROCKS
↓	-19			30.1				2ml		1.29	11.57	10.43			
STN	1802B-03			30.1				2ml		1.27	12.51	11.18			
	-04			30.3				2ml		1.32	13.05	11.69			
	-05			30.1				1ml		1.30	13.47	12.70			ROCKS
	-06			30.3		↓		2ml		1.29	12.79	11.63			
	-06ms			30.2		500		2ml		~~1.28~~	~~12.8~~	JC 8/31/00			
	-06msd			30.1		500		2ml		~~1.28~~	↓				
	-07			30.3		T		~~2ml~~	1ml	JC 8/30 1.28	12.45	11.24			
	-08			30.0				1ml		1.28	13.34	12.34			ROCKS
	-09			30.3				2ml		1.31	11.54	10.39			
	-10			30.3				2ml		1.28	12.09	10.80			
↓	-11			30.0				1ml		1.31	13.78	12.20			ROCKS
HLA	1814A-10	↓	↓	30.1	↓	↓	↓	1ml		1.28	12.73	10.64			
	1825A-01X	JNL	—	30.1	500	—		2ml		—	—	—			

METALS DATA

Client:	ROUX ASSOCIATES
P.O.	INDUSTRIPLEX
CASE#:	06626M32
SDG #:	A1915
STL ID:	7000-1915A

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

SOW No.: ILM04.0

Field Sample ID	Lab Sample ID.
SW-01	F001915A-01
SW-04	F001915A-02
SW-40	F001915A-03
SW-09D	F001915A-04D
SW-09S	F001915A-04S
SW-09	F001915A-04
FIELD BLANK	F001915A-05
SW-01	T001915A-01
SW-04	T001915A-02
SW-40	T001915A-03
SW-09D	T001915A-04D
SW-09S	T001915A-04S
SW-09	T001915A-04
FIELD BLANK	T001915A-05

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Daniel W. Helfrich Name: Daniel W. Helfrich

Date: 9/15/00 Title: Group Leader

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SW-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: F001915A-01

Level (low/med): LOW Date Received: 08/31/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Filtered Metals

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SW-04

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: F001915A-02

Level (low/med): LOW Date Received: 08/31/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Filtered Metals

113A

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SW-40

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: F001915A-03

Level (low/med): LOW Date Received: 08/31/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.2	B		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Filtered Metals

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SW-09

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: F001915A-04

Level (low/med): LOW Date Received: 08/31/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Filtered Metals

U.S. EPA - CLP

00115

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: F001915A-05

Level (low/med): LOW Date Received: 08/31/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Filtered Metals

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SW-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: T001915A-01

Level (low/med): LOW Date Received: 08/31/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.6	B		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	3.5	B		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Total Metals

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SW-04

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: T001915A-02

Level (low/med): LOW Date Received: 08/31/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	57.7	B		P
7440-36-0	Antimony	2.1	U		P
7440-38-2	Arsenic	21.1			P
7440-39-3	Barium	27.0	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	3.4	B		P
7440-70-2	Calcium	45500			P
7440-47-3	Chromium	1.8	B		P
7440-48-4	Cobalt	1.4	B		P
7440-50-8	Copper	11.8	B		P
7439-89-6	Iron	1150			P
7439-92-1	Lead	1.3	U		P
7439-95-4	Magnesium	6950			P
7439-96-5	Manganese	408.			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.6	B		P
7440-09-7	Potassium	8280			P
7782-49-2	Selenium	7.3			P
7440-22-4	Silver	0.32	B		P
7440-23-5	Sodium	45000			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	0.30	U		P
7440-66-6	Zinc	262.			P
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Total Metals

U.S. EPA - CLP

00118

1

EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

SW-40

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: T001915A-03

Level (low/med): LOW Date Received: 08/31/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	57.7	B		P
7440-36-0	Antimony	2.1	U		P
7440-38-2	Arsenic	21.0			P
7440-39-3	Barium	27.3	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	3.4	B		P
7440-70-2	Calcium	46000			P
7440-47-3	Chromium	1.6	B		P
7440-48-4	Cobalt	1.9	B		P
7440-50-8	Copper	7.3	B		P
7439-89-6	Iron	1170			P
7439-92-1	Lead	1.3	U		P
7439-95-4	Magnesium	7030			P
7439-96-5	Manganese	413.			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.2	B		P
7440-09-7	Potassium	8450			P
7782-49-2	Selenium	3.7	B		P
7440-22-4	Silver	0.30	U		P
7440-23-5	Sodium	45300			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	0.30	U		P
7440-66-6	Zinc	264.			P
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Total Metals

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SW-09

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: T001915A-04

Level (low/med): LOW Date Received: 08/31/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	172.	B		P
7440-36-0	Antimony	2.1	U		P
7440-38-2	Arsenic	23.5			P
7440-39-3	Barium	31.5	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium	43400			P
7440-47-3	Chromium	6.2	B		P
7440-48-4	Cobalt	1.2	B		P
7440-50-8	Copper	13.0	B		P
7439-89-6	Iron	2770			P
7439-92-1	Lead	2.3	B		P
7439-95-4	Magnesium	6920			P
7439-96-5	Manganese	488.			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	1.9	B		P
7440-09-7	Potassium	8090			P
7782-49-2	Selenium	6.6			P
7440-22-4	Silver	0.30	U		P
7440-23-5	Sodium	45800			P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	0.63	B		P
7440-66-6	Zinc	115.			P
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Total Metals

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: T001915A-05

Level (low/med): LOW Date Received: 08/31/00

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	55.2	B		P
7440-36-0	Antimony	2.1	U		P
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium	2.4	B		P
7440-41-7	Beryllium	0.23	B		P
7440-43-9	Cadmium	0.69	B		P
7440-70-2	Calcium	14800			P
7440-47-3	Chromium	0.30	U		P
7440-48-4	Cobalt	0.47	B		P
7440-50-8	Copper	0.30	U		P
7439-89-6	Iron	13.6	B		P
7439-92-1	Lead	1.3	U		P
7439-95-4	Magnesium	1870	B		P
7439-96-5	Manganese	2.9	B		P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	0.40	U		P
7440-09-7	Potassium	412.	B		P
7782-49-2	Selenium	3.7	B		P
7440-22-4	Silver	0.30	U		P
7440-23-5	Sodium	2290	B		P
7440-28-0	Thallium	5.3	U		P
7440-62-2	Vanadium	0.30	U		P
7440-66-6	Zinc	41.1			P
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
Total Metals

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Initial Calibration Source: INORG. VENT.

Continuing Calibration Source: INORG. VENT.

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	11000.0	11080.50	100.7	5500.0	5530.63	100.6	5591.62	101.7	P
Antimony	1000.0	1036.24	103.6	500.0	519.31	103.9	517.83	103.6	P
Arsenic	1000.0	1034.12	103.4	500.0	517.16	103.4	524.41	104.9	P
Barium	1000.0	1001.90	100.2	500.0	503.35	100.7	513.02	102.6	P
Beryllium	1000.0	1062.74	106.3	500.0	533.43	106.7	542.20	108.4	P
Cadmium	1000.0	1063.95	106.4	500.0	528.14	105.6	539.24	107.8	P
Calcium	27000.0	27793.33	102.9	26000.0	26673.99	102.6	27021.46	103.9	P
Chromium	1000.0	1049.83	105.0	500.0	524.97	105.0	532.81	106.6	P
Cobalt	1000.0	1042.61	104.3	500.0	520.13	104.0	525.74	105.1	P
Copper	1000.0	992.45	99.2	500.0	495.93	99.2	503.33	100.7	P
Iron	11000.0	11222.55	102.0	5500.0	5597.20	101.8	5689.71	103.4	P
Lead	1000.0	1062.54	106.2	500.0	529.92	106.0	537.33	107.5	P
Magnesium	27000.0	27457.79	101.7	26000.0	26275.27	101.0	26739.55	102.8	P
Manganese	1000.0	1038.95	103.9	500.0	518.55	103.7	530.39	106.1	P
Mercury	5.0	5.35	107.0	5.0	5.49	109.8	5.50	110.0	CV
Nickel	1000.0	1021.02	102.1	500.0	509.93	102.0	520.34	104.1	P
Potassium	31000.0	34865.74	112.5	30000.0	33290.08	111.0	34041.98	113.5	P
Selenium	1000.0	1012.76	101.3	500.0	515.21	103.0	528.01	105.6	P
Silver	100.0	100.16	100.2	50.0	50.25	100.5	50.93	101.9	P
Sodium	27000.0	27618.00	102.3	26000.0	26625.73	102.4	26532.91	102.0	P
Thallium	1000.0	1093.50	109.4	500.0	549.30	109.9	552.27	110.4	P
Vanadium	1000.0	1068.07	106.8	500.0	532.87	106.6	540.46	108.1	P
Zinc	1000.0	1056.71	105.7	500.0	530.23	106.0	540.16	108.0	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110 ; Cyanide 85-115;

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Initial Calibration Source: INORG. VENT.

Continuing Calibration Source: INORG. VENT.

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum				5500.0	5363.79	97.5	5313.20	96.6	P
Antimony				500.0	505.45	101.1	501.19	100.2	P
Arsenic				500.0	507.81	101.6	507.31	101.5	P
Barium				500.0	490.48	98.1	486.28	97.2	P
Beryllium				500.0	519.76	104.0	512.20	102.4	P
Cadmium				500.0	524.84	105.0	521.05	104.2	P
Calcium				26000.0	26072.40	100.3	25806.07	99.2	P
Chromium				500.0	515.05	103.0	510.10	102.0	P
Cobalt				500.0	504.21	100.8	496.14	99.2	P
Copper				500.0	477.73	95.5	471.60	94.3	P
Iron				5500.0	5561.88	101.1	5527.96	100.5	P
Lead				500.0	522.18	104.4	516.76	103.4	P
Magnesium				26000.0	25873.66	99.5	25657.25	98.7	P
Manganese				500.0	514.25	102.8	511.82	102.4	P
Mercury				5.0	4.79	95.8	5.04	100.8	CV
Nickel				500.0	500.78	100.2	498.23	99.6	P
Potassium				30000.0	32551.96	108.5	32533.09	108.4	P
Selenium				500.0	512.10	102.4	508.19	101.6	P
Silver				50.0	48.87	97.8	48.44	96.9	P
Sodium				26000.0	25674.07	98.7	25386.07	97.6	P
Thallium				500.0	544.71	108.9	544.30	108.9	P
Vanadium				500.0	518.88	103.8	511.83	102.4	P
Zinc				500.0	526.45	105.3	524.48	104.9	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110 ; Cyanide 85-115;

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Initial Calibration Source: INORG. VENT.

Continuing Calibration Source: INORG. VENT.

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum				5500.0	5312.50	96.6	5325.00	96.8	P
Antimony				500.0	510.54	102.1	518.23	103.6	P
Arsenic				500.0	510.05	102.0	510.43	102.1	P
Barium				500.0	486.64	97.3	493.01	98.6	P
Beryllium				500.0	512.78	102.6	507.14	101.4	P
Cadmium				500.0	528.01	105.6	525.60	105.1	P
Calcium				26000.0	25881.23	99.5	25598.21	98.4	P
Chromium				500.0	513.01	102.6	510.16	102.0	P
Cobalt				500.0	496.31	99.3	492.38	98.5	P
Copper				500.0	470.31	94.1	475.73	95.1	P
Iron				5500.0	5604.04	101.9	5627.39	102.3	P
Lead				500.0	523.41	104.7	519.81	104.0	P
Magnesium				26000.0	25760.00	99.1	25584.44	98.4	P
Manganese				500.0	517.72	103.5	517.88	103.6	P
Mercury				5.0	5.01	100.2	4.94	98.8	CV
Nickel				500.0	501.09	100.2	496.83	99.4	P
Potassium				30000.0	32667.60	108.9	33076.94	110.2	P
Selenium				500.0	508.68	101.7	511.42	102.3	P
Silver				50.0	49.03	98.1	48.89	97.8	P
Sodium				26000.0	25522.26	98.2	25626.02	98.6	P
Thallium				500.0	542.22	108.4	542.65	108.5	P
Vanadium				500.0	511.90	102.4	511.00	102.2	P
Zinc				500.0	529.91	106.0	529.22	105.8	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110 ; Cyanide 85-115;

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Initial Calibration Source: INORG. VENT.

Continuing Calibration Source: INORG. VENT.

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury				5.0	5.45	109.0	4.62	92.4	CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110 ; Cyanide 85-115;

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

AA CRDL Standard Source: INORG. VENT.

ICP CRDL Standard Source: INORG. VENT.

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R(1)	True	Initial Found	%R(1)	Final Found	%R(1)
Aluminum								
Antimony				120.0	124.94	104.1	125.38	104.5
Arsenic				20.0	18.49	92.4	17.97	89.9
Barium								
Beryllium				10.0	10.67	106.8	10.71	107.1
Cadmium				10.0	10.74	107.4	10.91	109.1
Calcium								
Chromium				20.0	21.77	108.9	21.70	108.5
Cobalt				100.0	108.02	108.0	104.52	104.5
Copper				50.0	50.86	101.7	48.42	96.8
Iron								
Lead				6.0	6.68	111.5	6.78	113.2
Magnesium								
Manganese				30.0	32.39	108.0	33.05	110.2
Mercury								
Nickel				80.0	85.43	106.8	85.10	106.4
Potassium								
Selenium				10.0	15.48	154.8	13.30	133.1
Silver				20.0	20.93	104.7	20.71	103.6
Sodium								
Thallium				20.0	10.34	51.7	16.67	83.4
Vanadium				100.0	106.38	106.4	104.05	104.0
Zinc				40.0	42.46	106.2	42.97	107.4
Cyanide								

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	14.8	B	16.6	B	20.0	B	33.4	B	23.855	B	P
Antimony	4.1	B	8.3	B	4.8	B	2.3	B	2.100	U	P
Arsenic	3.1	U	3.1	U	-3.2	B	3.1	U	3.100	U	P
Barium	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	P
Beryllium	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	P
Cadmium	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	P
Calcium	7.3	U	7.3	U	7.3	U	7.3	U	7.300	U	P
Chromium	0.3	U	0.3	U	0.3	U	0.3	U	0.300	U	P
Cobalt	0.3	U	0.3	U	0.3	U	0.3	U	0.401	B	P
Copper	-2.2	B	-2.1	B	-2.1	B	-2.4	B	0.300	U	P
Iron	7.2	U	7.2	U	7.2	U	7.2	U	7.200	U	P
Lead	-1.8	B	1.3	U	1.3	U	-1.5	B	1.300	U	P
Magnesium	2.3	U	2.3	U	2.3	U	2.3	U	2.300	U	P
Manganese	0.3	U	0.3	U	0.3	U	0.3	U	0.300	U	P
Mercury	0.1	U	-0.2	B	-0.1	B	-0.2	B	0.100	U	CV
Nickel	0.4	U	0.4	U	-0.6	B	0.4	U	0.400	U	P
Potassium	-34.5	B	32.0	U	32.0	U	32.0	U	32.000	U	P
Selenium	3.8	B	1.8	B	2.5	B	8.2		1.698	B	P
Silver	0.3	U	0.3	U	0.3	B	0.3	U	0.300	U	P
Sodium	8.3	B	8.5	B	12.7	B	7.4	B	8.501	B	P
Thallium	5.3	U	5.3	U	5.3	U	5.3	U	5.300	U	P
Vanadium	0.3	U	0.3	U	0.3	U	0.3	U	0.300	U	P
Zinc	1.2	U	1.2	U	1.2	U	1.2	U	1.200	U	P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			36.6	B	46.6	B	51.1	B			P
Antimony			2.5	B	2.8	B	5.8	B			P
Arsenic			3.1	U	3.1	U	3.1	U			P
Barium			0.1	U	0.1	B	0.1	U			P
Beryllium			0.2	U	0.3	B	0.3	B			P
Cadmium			0.2	U	0.2	U	0.2	U			P
Calcium			7.3	U	7.3	U	7.3	U			P
Chromium			0.3	B	0.3	B	0.3	U			P
Cobalt			0.3	U	0.3	U	0.5	B			P
Copper			-2.6	B	-2.7	B	-2.8	B			P
Iron			7.2	U	7.2	U	7.2	U			P
Lead			1.3	U	1.3	U	1.3	U			P
Magnesium			2.3	U	2.9	B	3.1	B			P
Manganese			0.3	U	0.3	U	0.3	U			P
Mercury			-0.1	B	0.1	U	-0.1	B			CV
Nickel			-0.4	B	-0.7	B	-0.4	B			P
Potassium			-35.5	B	32.0	U	32.0	U			P
Selenium			6.5		2.8	B	3.6	B			P
Silver			0.3	U	0.3	U	0.3	U			P
Sodium			13.8	B	19.7	B	14.0	B			P
Thallium			-7.9	B	5.3	U	-7.9	B			P
Vanadium			0.3	U	0.3	U	0.3	U			P
Zinc			1.2	U	1.2	U	1.2	U			P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury			-0.1	B	-0.1	B					CV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

ID Number: JA61E ICS Source: EPA-LV87

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	%R	Final Found Sol. A	Final Found Sol. AB	%R
Aluminum	500000	500000	476188	471852.0	94.3	455472	455417.6	91.0
Antimony		600	7	588.9	98.1	-3	603.6	100.6
Arsenic		100	-12	92.4	92.4	-9	93.2	93.2
Barium		500	1	474.7	94.9	1	469.1	93.8
Beryllium		500	0	475.1	95.0	0	459.2	91.8
Cadmium		1000	4	903.1	90.3	3	912.9	91.2
Calcium	500000	500000	433419	426331.4	85.2	414335	415654.4	83.1
Chromium		500	2	459.1	91.8	2	452.5	90.5
Cobalt		500	-3	449.0	89.8	-2	432.0	86.4
Copper		500	-1	494.3	98.8	-2	478.3	95.6
Iron	200000	200000	176557	174551.6	87.2	176886	178164.3	89.0
Lead		50	6	51.6	103.3	6	51.8	103.6
Magnesium	500000	500000	481435	473865.4	94.7	467248	467978.5	93.5
Manganese		500	-2	454.2	90.8	-2	460.7	92.1
Mercury								
Nickel		1000	1	878.2	87.8	1	872.8	87.2
Potassium	-		-103	-168.0		-214	-190.8	
Selenium		50	7	48.0	96.0	2	48.4	96.8
Silver		200	0	199.0	99.5	0	196.2	98.1
Sodium			22	17.7		18	21.6	
Thallium		100	-7	85.5	85.5	-7	96.8	96.8
Vanadium		500	-4	471.2	94.2	-3	457.0	91.4
Zinc		1000	4	977.4	97.7	3	991.5	99.1
Cyanide								

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

SW-09S

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic	75-125	46.2475		3.1000	U	40.00	115.6		P
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:
Filtered Metals

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

SW-09S

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	2068.1830		171.9213	B	2000.00	94.8		P
Antimony	75-125	500.4516		2.1000	U	500.00	100.1		P
Arsenic	75-125	63.3610		23.5034		40.00	99.6		P
Barium	75-125	1908.2530		31.5261	B	2000.00	93.8		P
Beryllium	75-125	49.6266		0.2000	U	50.00	99.2		P
Cadmium	75-125	5.1297		0.2000	U	5.00	102.6		P
Calcium				43441.0000		0.00	0.0		P
Chromium	75-125	193.9759		6.1886	B	200.00	93.9		P
Cobalt	75-125	464.2856		1.2524	B	500.00	92.6		P
Copper	75-125	242.6046		13.0245	B	250.00	91.8		P
Iron	75-125	3567.5500		2769.5460		1000.00	79.8		P
Lead	75-125	22.4856		2.2832	B	20.00	101.0		P
Magnesium				6925.9760		0.00	0.0		P
Manganese	75-125	950.4194		487.5242		500.00	92.6		P
Mercury	75-125	1.2100		0.1000	U	1.00	121.0		CV
Nickel	75-125	473.1792		1.8876	B	500.00	94.2		P
Potassium				8093.9430		0.00	0.0		P
Selenium	75-125	16.1123		6.6495		10.00	94.6		P
Silver	75-125	48.3131		0.3000	U	50.00	96.6		P
Sodium				45786.5900		0.00	0.0		P
Thallium	75-125	50.4893		5.3000	U	50.00	101.0		P
Vanadium	75-125	469.3777		0.6344	B	500.00	93.7		P
Zinc	75-125	609.9629		114.8476		500.00	99.0		P
Cyanide									NR

Comments:
Total Metals

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

SW-09D

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic		3.1000	U	3.5479	B	200.0		P
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead								NR
Magnesium								NR
Manganese								NR
Mercury								NR
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

Filtered Metals

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

SW-09D

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		171.9213	B	166.9211	B	3.0		P
Antimony		2.1000	U	2.1000	U			P
Arsenic	.0	23.5034		23.1467		1.5		P
Barium		31.5261	B	31.7666	B	0.8		P
Beryllium		0.2000	U	0.2000	U			P
Cadmium		0.2000	U	0.2000	U			P
Calcium		43441.0000		44063.4900		1.4		P
Chromium		6.1886	B	6.1027	B	1.4		P
Cobalt		1.2524	B	1.6112	B	25.1		P
Copper		13.0245	B	9.0874	B	35.6		P
Iron		2769.5460		2807.8340		1.4		P
Lead		2.2832	B	2.8581	B	22.4		P
Magnesium	.0	6925.9760		6998.5360		1.0		P
Manganese		487.5242		494.6730		1.4		P
Mercury		0.1000	U	0.1000	U			CV
Nickel		1.8876	B	1.3522	B	33.0		P
Potassium	.0	8093.9430		8166.2790		0.9		P
Selenium	.0	6.6495		3.4873	B	62.4		P
Silver		0.3000	U	0.3211	B	200.0		P
Sodium		45786.5900		45867.0600		0.2		P
Thallium		5.3000	U	5.3000	U			P
Vanadium		0.6344	B	0.6450	B	1.6		P
Zinc		114.8476		115.8988		0.9		P
Cyanide								NR

Total Metals

U.S. EPA - CLP

7
LABORATORY CONTROL SAMPLE

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Solid LCS Source: _____

Aqueous LCS Source: INORG. VENT.

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	3000.0	3081.28	102.7						
Antimony	1000.0	1102.58	110.2						
Arsenic	1000.0	1120.53	112.0						
Barium	300.0	318.79	106.3						
Beryllium	100.0	116.58	116.6						
Cadmium	300.0	330.87	110.3						
Calcium	15000.0	16188.71	107.9						
Chromium	300.0	330.61	110.2						
Cobalt	300.0	329.93	110.0						
Copper	300.0	313.84	104.6						
Iron	12500.0	13607.96	108.9						
Lead	1000.0	1105.90	110.6						
Magnesium	7500.0	7946.12	105.9						
Manganese	200.0	219.00	109.5						
Mercury	5.0	5.12	102.4						
Nickel	300.0	330.29	110.1						
Potassium	20000.0	21972.53	109.9						
Selenium	500.0	591.10	118.2						
Silver	300.0	319.57	106.5						
Sodium	2500.0	2616.21	104.6						
Thallium	1000.0	1142.42	114.2						
Vanadium	300.0	327.73	109.2						
Zinc	300.0	338.06	112.7						
Cyanide									

U.S. EPA - CLP

8
STANDARD ADDITION RESULTS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q

U.S. EPA - CLP

9

ICP SERIAL DILUTIONS

00136

EPA SAMPLE NO.

SW-09L

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix(soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	171.92	B	396.24	B	130.5		P
Antimony	2.10	U	10.50	U			P
Arsenic	23.50		15.50	U	100.0		P
Barium	31.53	B	32.28	B	2.4		P
Beryllium	0.20	U	1.02	B			P
Cadmium	0.20	U	1.00	U			P
Calcium	43441.00		42822.28		1.4		P
Chromium	6.19	B	6.17	B	0.2		P
Cobalt	1.25	B	1.88	B	50.2		P
Copper	13.02	B	1.50	U	100.0		P
Iron	2769.55		2782.53		0.5		P
Lead	2.28	B	6.50	U	100.0		P
Magnesium	6925.98		6817.50	B	1.6		P
Manganese	487.52		493.46		1.2		P
Mercury							NR
Nickel	1.89	B	2.00	U	100.0		P
Potassium	8093.94		5267.02	B	34.9		P
Selenium	6.65		23.18	B	248.6		P
Silver	0.30	U	1.50	U			P
Sodium	45786.59		41960.00		8.4		P
Thallium	5.30	U	26.50	U			P
Vanadium	0.63	B	1.50	U	100.0		P
Zinc	114.85		114.37		0.4		P
Cyanide							NR

U.S. EPA - CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

ICP ID Number: JA61E Date: 04/15/00

Flame AA ID Number: _____

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	208.20		200.0	7.3	P
Antimony	206.83		60.0	2.1	P
Arsenic	193.60		10.0	3.1	P
Barium	493.40		200.0	.1	P
Beryllium	234.86		5.0	.2	P
Cadmium	228.80		5.0	.2	P
Calcium	317.93		5000.0	7.3	P
Chromium	267.70		10.0	.3	P
Cobalt	228.61		50.0	.3	P
Copper	324.75		25.0	.3	P
Iron	271.44		100.0	7.2	P
Lead	220.35		3.0	1.3	P
Magnesium	279.07		5000.0	2.3	P
Manganese	257.61		15.0	.3	P
Mercury			.2		
Nickel	231.60		40.0	.4	P
Potassium	766.49		5000.0	32.0	P
Selenium	196.02		5.0	1.5	P
Silver	328.06		10.0	.3	P
Sodium	589.59		5000.0	6.0	P
Thallium	189.90		10.0	5.3	P
Vanadium	292.40		50.0	.3	P
Zinc	213.85		20.0	1.2	P

Comments:

U.S. EPA - CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

ICP ID Number: _____ Date: 04/15/00

Flame AA ID Number: HG4

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic			10.0		
Barium			200.0		
Beryllium			5.0		
Cadmium			5.0		
Calcium			5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead			3.0		
Magnesium			5000.0		
Manganese			15.0		
Mercury	253.70		.2	.1	CV
Nickel			40.0		
Potassium			5000.0		
Selenium			5.0		
Silver			10.0		
Sodium			5000.0		
Thallium			10.0		
Vanadium			50.0		
Zinc			20.0		

Comments:

U.S. EPA - CLP

11A
ICP Interelement correction Factors (Annually)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

ICP ID Number: JA61E Date: 06/05/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : Al	Ca	Fe	Mg	Ag
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.83	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic						
Barium	493.40	0.0000000	2.3516000	0.0000000	0.0000000	0.0000000
Beryllium	234.86	0.0000000	-2.1540000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	-.0014590	1.1105000	0.0000000	0.0000000	0.0000000
Calcium	317.93	.0086205	0.0000000	0.0000000	.0081618	0.0000000
Chromium	267.70	.0018652		-.0011680	-3.0940000	0.0000000
Cobalt	228.61	0.0000000		.0060000	-13.4160000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	-.4786330
Iron	271.44	.0033661	0.0000000	0.0000000	-.0291150	0.0000000
Lead	220.35	0.0000000	1.9097000	0.0000000	0.0000000	0.0000000
Magnesium	279.07	.0071408	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	-.1392250	.5557496
Mercury						
Nickel	231.60	-.0027450	3.1950000	0.0000000	0.0000000	-.1560630
Potassium	766.49	-.0079430	0.0000000	0.0000000	0.0000000	0.0000000
Selenium						
Silver	328.06	0.0000000		0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000		0.0000000	0.0000000	0.0000000
Thallium						
Vanadium	292.40	0.0000000	0.0000000	-.0040180	0.0000000	.4159166
Zinc	213.85	.0009443	8.7485000	0.0000000	0.0000000	0.0000000

Comments:

U.S. EPA - CLP

11B
ICP Interelement correction Factors (Annually)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

ICP ID Number: JA61E Date: 06/05/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : As	B	Ba	Be	Cd
Aluminum	308.21	3.9599940	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.83	.2221185	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic						
Barium	493.40	0.0000000	0.0000000	0.0000000	.0020452	0.0000000
Beryllium	234.86	2.2054610	0.0000000	3.3925410	0.0000000	.2991092
Cadmium	228.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	5.8517630	0.0000000
Chromium	267.70	-6.3830600	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	-.4015400	0.0000000	0.0000000	.0524210	.2877358
Copper	324.75	0.0000000	-14.5688000	0.0000000	0.0000000	0.0000000
Iron	271.44	-2.8353600	0.0000000	1.2696520	.0123381	-1.7637400
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.07	-1.9608300	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	.7548212	0.0000000	0.0000000	0.0000000	.0286714
Mercury						
Nickel	231.60	-.3004870	0.0000000	0.0000000	-.0254260	1.6268810
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium						
Silver	328.06	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium						
Vanadium	292.40	-1.4987800	0.0000000	0.0000000	.0845908	.0375521
Zinc	213.85	-1.3146900	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

11B
ICP Interelement correction Factors (Annually)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

ICP ID Number: JA61E Date: 06/05/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : Co	Cr	Cu	K	Mn
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0000000	.8822868
Antimony	206.83	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic						
Barium	493.40	.4458370	0.0000000	0.0000000	0.0000000	-.1513210
Beryllium	234.86	0.0000000	-.1224680	0.0000000	0.0000000	0.0000000
Cadmium	228.80	-2.0803500	-1.0195500	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	.9515125	0.0000000	0.0000000	0.0000000
Chromium	267.70	1.2502400	0.0000000	0.0000000	0.0000000	-.0417720
Cobalt	228.61	0.0000000	.0772782	0.0000000	0.0000000	-.0267550
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	-5.5184100	0.0000000	2.1567660	0.0000000	-3.4565100
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.07	0.0000000	1.3531870	0.0000000	.6270879	.1854641
Manganese	257.61	0.0000000	-.5727500	0.0000000	0.0000000	0.0000000
Mercury						
Nickel	231.60	-.0428020	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium						
Silver	328.06	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium						
Vanadium	292.40	0.0000000	.4646357	-.7459740	0.0000000	-.4539330
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

U.S. EPA - CLP

11B
ICP Interelement correction Factors (Annually)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

ICP ID Number: JA61E Date: 06/05/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : Mo	Na	Ni	Pb	Sb
Aluminum	308.21	0.0000000	0.0000000	0.0000000	7.4656990	.4182633
Antimony	206.83	0.0000000	.0959060	5.1763370	1.2997970	0.0000000
Arsenic						
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.86	0.0000000	0.0000000	-.0145800	0.0000000	-1.6234400
Cadmium	228.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	.0105777	0.0000000	0.0000000	-1.3041900
Chromium	267.70	1.5194300	0.0000000	.4416338	-.1202820	7.7030790
Cobalt	228.61	-.0124570	0.0000000	2.2201410	.6915992	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	-3.6280800	0.0000000
Iron	271.44	-1.3566400	0.0000000	.5093932	.5134977	1.1269720
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	-.5954890	2.3300000
Manganese	257.61	0.0000000	0.0000000	0.0000000	4.4615890	0.0000000
Mercury						
Nickel	231.60	5.5485240	0.0000000	0.0000000	-.2555120	2.1088370
Potassium	766.49	0.0000000	.1218416	0.0000000	0.0000000	0.0000000
Selenium						
Silver	328.06	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium						
Vanadium	292.40	.9487286	0.0000000	0.0000000	-1.4936400	-.4668710
Zinc	213.85	0.0000000	0.0000000	0.0000000	0.0000000	-.6141440

Comments:

U.S. EPA - CLP

11B
ICP Interelement correction Factors (Annually)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

ICP ID Number: JA61E Date: 06/05/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : Se	Sn	Ti	Tl	V
Aluminum	308.21	6.2168040	.3024854	0.0000000	0.0000000	0.0000000
Antimony	206.83	3.0897440	-.6053750	0.0000000	0.0000000	0.0000000
Arsenic						
Barium	493.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.86	0.0000000	.6761988	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	1.7640180	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.70	0.0000000	.2208577	.9567213	4.5557730	1.2170310
Cobalt	228.61	2.5668270	.4390100	-.0063100	-6.0023600	0.0000000
Copper	324.75	.0519865	0.0000000	0.0000000	0.0000000	0.0000000
Iron	271.44	-1.8581700	.0754601	0.0000000	0.0000000	0.0000000
Lead	220.35	.9428241	1.1606640	0.0000000	0.0000000	0.0000000
Magnesium	279.07	-.0000450	-.0000240	.0131000	0.0000000	-.0050000
Manganese	257.61	2.4119190	-.3639270	0.0000000	-1.1010300	.9414657
Mercury						
Nickel	231.60	0.0000000	-.7297880	0.0000000	0.0000000	0.0000000
Potassium	766.49	5.3734670	0.0000000	0.0000000	0.0000000	0.0000000
Selenium						
Silver	328.06	.5868963	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	3.1253820	0.0000000	0.0000000	0.0000000	0.0000000
Thallium						
Vanadium	292.40	-.0953390	-.3701520	0.0000000	2.6711040	0.0000000
Zinc	213.85	.1325478	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

U.S. EPA - CLP

11B
ICP Interelement correction Factors (Annually)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

ICP ID Number: JA61E Date: 06/05/00

Analyte	Wave-length (nm)	Interelement Correction Factors for : Zn	Zr			
Aluminum	308.21	0.0000000	0.0000000			
Antimony	206.83	-1.0792400	0.0000000			
Arsenic						
Barium	493.40	-.1870990	0.0000000			
Beryllium	234.86	0.0000000	0.0000000			
Cadmium	228.80	0.0000000	0.0000000			
Calcium	317.93	-.4802940	.8045480			
Chromium	267.70	0.0000000	-.0096980			
Cobalt	228.61	-1.6896500	1.0255960			
Copper	324.75	-1.9375200	0.0000000			
Iron	271.44	3.6036430	0.0000000			
Lead	220.35	0.0000000	0.0000000			
Magnesium	279.07	0.0000000	0.0000000			
Manganese	257.61	-.3086080	0.0000000			
Mercury						
Nickel	231.60	-4.4617100	0.0000000			
Potassium	766.49	0.0000000	0.0000000			
Selenium						
Silver	328.06	-1.8535700	0.0000000			
Sodium	589.59	-1.2720500	0.0000000			
Thallium						
Vanadium	292.40	-.1061740	0.0000000			
Zinc	213.85	0.0000000	0.0000000			

Comments:

U.S. EPA - CLP

12
ICP Linear Ranges (Quarterly)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

ICP ID Number: JA61E Date: 04/15/00

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum	6.00	500000.0	P
Antimony	6.00	10000.0	P
Arsenic	6.00	10000.0	P
Barium	6.00	10000.0	P
Beryllium	6.00	10000.0	P
Cadmium	6.00	10000.0	P
Calcium	6.00	200000.0	P
Chromium	6.00	200000.0	P
Cobalt	6.00	10000.0	P
Copper	6.00	100000.0	P
Iron	6.00	500000.0	P
Lead	6.00	500000.0	P
Magnesium	6.00	500000.0	P
Manganese	6.00	10000.0	P
Mercury			NR
Nickel	6.00	10000.0	P
Potassium	6.00	100000.0	P
Selenium	6.00	10000.0	P
Silver	6.00	10000.0	P
Sodium	6.00	500000.0	P
Thallium	6.00	100000.0	P
Vanadium	6.00	10000.0	P
Zinc	6.00	10000.0	P

Comments:

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
F001915A-01	09/08/00	100.00	100
F001915A-02	09/08/00	100.00	100
F001915A-03	09/08/00	100.00	100
F001915A-04	09/08/00	100.00	100
F001915A-04D	09/08/00	100.00	100
F001915A-04S	09/08/00	100.00	100
F001915A-05	09/08/00	100.00	100
LCSW1	09/08/00		100
PBW1	09/08/00		100
T001915A-01	09/08/00	100.00	100
T001915A-02	09/08/00	100.00	100
T001915A-03	09/08/00	100.00	100
T001915A-04	09/08/00	100.00	100
T001915A-04D	09/08/00	100.00	100
T001915A-04S	09/08/00	100.00	100
T001915A-05	09/08/00	100.00	100

U.S. EPA - CLP

13
PREPARATION LOG

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
001915A-01	09/08/00	25.00	25
001915A-02	09/08/00	25.00	25
001915A-03	09/08/00	25.00	25
001915A-04	09/08/00	25.00	25
001915A-04D	09/08/00	25.00	25
001915A-04S	09/08/00	25.00	25
001915A-05	09/08/00	25.00	25
LCSW1	09/08/00		25
LCSW2	09/08/00		25
LCSW3	09/08/00		25
LCSW4	09/08/00		25
PBW1	09/08/00		25
PBW2	09/08/00		25
PBW3	09/08/00		25
PBW4	09/08/00		25

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Instrument ID Number: JA61E Method: P

Start Date: 09/12/00 End Date: 09/12/00

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S1	1.00	1043		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
S7	1.00	1049			X	X	X	X	X		X	X	X		X		X		X	X	X	X		X	X	X	
S8	1.00	1055			X	X	X	X	X		X	X	X		X		X		X	X	X	X		X	X	X	
S4	1.00	1101		X		X	X	X	X		X	X	X		X		X		X	X	X	X		X	X	X	
S9	1.00	1106		X						X				X		X							X				
S6	1.00	1110		X						X				X		X							X				
S5	1.00	1114			X																						
S3	1.00	1118								X				X		X							X				
ICV1	1.00	1118		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB1	1.00	1124		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZ	1.00	1130																									
CRI1	1.00	1136			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
CRII	1.00	1136			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSAI	1.00	1142		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSABI	1.00	1148		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV1	1.00	1154		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB1	1.00	1201		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1207																									
ZZZZZZ	1.00	1213																									
ZZZZZZ	1.00	1219																									
ZZZZZZ	1.00	1225																									
ZZZZZZ	1.00	1231																									
ZZZZZZ	1.00	1237																									
ZZZZZZ	1.00	1243																									
PBW090900C	1.00	1249		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
PBW1	1.00	1249		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCSW1	1.00	1255		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1301																									
CCV2	1.00	1307		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB2	1.00	1313		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	5.00	1319																									
ZZZZZZ	5.00	1325																									
ZZZZZZ	1.00	1331																									

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Instrument ID Number: JA61E Method: P

Start Date: 09/12/00 End Date: 09/12/00

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	5.00	1337																									
ZZZZZZ	1.00	1343																									
ZZZZZZ	1.00	1349																									
ZZZZZZ	5.00	1355																									
ZZZZZZ	1.00	1401																									
ZZZZZZ	1.00	1407																									
ZZZZZZ	1.00	1413																									
CCV3	1.00	1419		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB3	1.00	1429		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1436																									
T001915A-01	1.00	1442				X					X				X												
F001915A-01	1.00	1448				X																					
T001915A-02	1.00	1454		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
F001915A-02	1.00	1500				X																					
T001915A-03	1.00	1506		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
F001915A-03	1.00	1512				X																					
T001915A-04	1.00	1518		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
F001915A-04	1.00	1524	[illegible]		~~X~~	X																					
T001915A-04D	1.00	1530		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV4	1.00	1536		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB4	1.00	1542		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
T001915A-04S	1.00	1548		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
T001915A-04A	1.00	1554																									
T001915A-04L	5.00	1600		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
F001915A-04D	1.00	1606				X																					
F001915A-04S	1.00	1612				X																					
F001915A-04A	1.00	1618																									
T001915A-05	1.00	1624		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
F001915A-05	1.00	1630				X																					
CCV5	1.00	1636		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB5	1.00	1642		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1648																									
CRI2	1.00	1654			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Instrument ID Number: JA61E Method: P

Start Date: 09/12/00 End Date: 09/12/00

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CRIF	1.00	1654			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSAF	1.00	1700		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSABF	1.00	1706		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV6	1.00	1712		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB6	1.00	1718		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Instrument ID Number: HG4 Method: CV

Start Date: 09/12/00 End Date: 09/12/00

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1126																X									
S0.2	1.00	1130																X									
S1.0	1.00	1132																X									
S2.0	1.00	1134																X									
S5.0	1.00	1137																X									
S10.0	1.00	1139																X									
ICV1	1.00	1147																X									
ICV1	1.00	1147																X									
ICV1	1.00	1147																X									
ICB1	1.00	1150																X									
ICB14	1.00	1150																X									
ICB3	1.00	1150																X									
CCV1	1.00	1152																X									
CCV37	1.00	1152																X									
CCV7	1.00	1152																X									
CCB1	1.00	1154																X									
CCB40	1.00	1154																X									
CCB7	1.00	1154																X									
PBW1	1.00	1156																X									
PBW2	1.00	1156																X									
LCSW1	1.00	1158																X									
LCSW2	1.00	1158																X									
ZZZZZZ	1.00	1200																									
ZZZZZZ	1.00	1202																									
ZZZZZZ	1.00	1204																									
ZZZZZZ	1.00	1206																									
ZZZZZZ	1.00	1208																									
ZZZZZZ	1.00	1210																									
ZZZZZZ	1.00	1212																									
ZZZZZZ	1.00	1215																									
CCV2	1.00	1240																X									
CCV38	1.00	1240																X									
CCV8	1.00	1240																X									

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Instrument ID Number: HG4 Method: CV

Start Date: 09/12/00 End Date: 09/12/00

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB2	1.00	1243																X									
CCB41	1.00	1243																X									
CCB8	1.00	1243																X									
ZZZZZZ	1.00	1247																									
ZZZZZZ	1.00	1249																									
ZZZZZZ	1.00	1251																									
ZZZZZZ	1.00	1253																									
ZZZZZZ	1.00	1255																									
ZZZZZZ	1.00	1257																									
ZZZZZZ	1.00	1259																									
ZZZZZZ	1.00	1302																									
ZZZZZZ	1.00	1304																									
ZZZZZZ	1.00	1306																									
CCV3	1.00	1308																X									
CCV39	1.00	1308																X									
CCV9	1.00	1308																X									
CCB3	1.00	1310																X									
CCB42	1.00	1310																X									
CCB9	1.00	1310																X									
ZZZZZZ	1.00	1312																									
ZZZZZZ	1.00	1314																									
ZZZZZZ	1.00	1316																									
ZZZZZZ	1.00	1318																									
ZZZZZZ	1.00	1321																									
ZZZZZZ	1.00	1323																									
ZZZZZZ	1.00	1325																									
ZZZZZZ	1.00	1327																									
ZZZZZZ	1.00	1329																									
ZZZZZZ	1.00	1331																									
CCV10	1.00	1333																X									
CCV4	1.00	1333																X									
CCV40	1.00	1333																X									
CCB10	1.00	1335																X									

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Instrument ID Number: HG4 Method: CV

Start Date: 09/12/00 End Date: 09/12/00

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB4	1.00	1335																X									
CCB43	1.00	1335																X									
ZZZZZZ	1.00	1338																									
ZZZZZZ	1.00	1340																									
ZZZZZZ	1.00	1342																									
ZZZZZZ	1.00	1344																									
ZZZZZZ	1.00	1346																									
ZZZZZZ	1.00	1348																									
ZZZZZZ	10.0	1350																									
ZZZZZ	1.00	1353																									
ZZZZZ	1.00	1355																									
ZZZZZZ	1.00	1357																									
CCV11	1.00	1359																X									
CCV41	1.00	1359																X									
CCV5	1.00	1359																X									
CCB11	1.00	1401																X									
CCB44	1.00	1401																X									
CCB5	1.00	1401																X									
ZZZZZZ	1.00	1403																									
ZZZZZZ	1.00	1406																									
ZZZZZZ	1.00	1408																									
ZZZZZZ	1.00	1410																									
ZZZZZZ	1.00	1412																									
ZZZZZZ	1.00	1414																									
ZZZZZZ	1.00	1416																									
ZZZZZZ	1.00	1419																									
ZZZZZZ	1.00	1424																									
ZZZZZZ	1.00	1426																									
CCV12	1.00	1428																X									
CCV42	1.00	1428																X									
CCV6	1.00	1428																X									
CCB12	1.00	1430																X									
CCB45	1.00	1430																X									

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A1915

Instrument ID Number: HG4 Method: CV

Start Date: 09/12/00 End Date: 09/12/00

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB6	1.00	1430																X									
ZZZZZZ	1.00	1432																									
ZZZZZZ	1.00	1435																									
ZZZZZZ	1.00	1437																									
ZZZZZZ	1.00	1439																									
ZZZZZZ	1.00	1441																									
ZZZZZZ	1.00	1443																									
ZZZZZZ	1.00	1445																									
ZZZZZZ	1.00	1448																									
ZZZZZZ	1.00	1450																									
ZZZZZZ	1.00	1452																									
CCV13	1.00	1454																X									
CCV43	1.00	1454																X									
CCV7	1.00	1454																X									
CCB13	1.00	1457																X									
CCB46	1.00	1457																X									
CCB7	1.00	1457																X									
ZZZZZZ	1.00	1459																									
ZZZZZZ	1.00	1501																									
ZZZZZZ	10.0	1503																									
T001915A-01	1.00	1505																X									
T001915A-02	1.00	1508																X									
T001915A-03	1.00	1510																X									
T001915A-04	1.00	1512																X									
T001915A-04D	1.00	1514																X									
T001915A-04S	1.00	1517																X									
T001915A-05	1.00	1519																X									
CCV44	1.00	1521																X									
CCV8	1.00	1521																X									
CCB47	1.00	1523																X									
CCB8	1.00	1523																X									

METALS RAW DATA

Client:	ROUX ASSOCIATES
P.O.	INDUSTRIPLEX
CASE#:	06626M32
SDG #:	A1915
STL ID:	7000-1915A

00156

Table Name: D091200 Autosampler Type: TYPE TJA
Sample Positions: 153/192 QC Positions: 0/19 # Sets: 1
Rinse Station location is rack -1, pos. -1.

--- Racks ---

Rack #	Type	Usage	#Pos Left	Analyses/Pos
1	Aux. (L) Rack	STD/QC/BLANK	0	10
2	Sample (16mm)	Samples	9	1
3	Sample (16mm)	Samples	48	1
4	Sample (16mm)	Samples	48	1
5	Sample (16mm)	Samples	37	1

--- Sample Sets ---

Set#	Type	Prepare?	Description	Method	#Pos	Rack#	StartPo
1	Normal	No		IEACT98	39	2	1

--- Preparation Info ---

Set#	Uptake	Uptake#2	Final	Dil.Factor

No Samples Prepared.

N.P. 9/13/00

Rack #1

Pos	Row	Col	Sample Name	Set #	#Used	Type
1	1	1	STD3	-NA-	1	Standard
2	1	2	STD5	-NA-	1	Standard
3	1	3	STD6	-NA-	1	Standard
4	1	4	STD9	-NA-	1	Standard
5	1	5	STD4	-NA-	1	Standard
6	1	6	STD8	-NA-	1	Standard
7	1	7	STD7	-NA-	1	Standard
8	1	8	STD1	-NA-	1	Standard
9	1	9	ICV1	-NA-	1	QC Standard
10	1	10	ICB1	-NA-	1	QC Standard
11	1	11	CRAI	-NA-	1	QC Standard
12	1	12	CRII	-NA-	1	QC Standard
13	1	13	ICSAI	-NA-	1	QC Standard
14	1	14	ICSABI	-NA-	1	QC Standard
15	1	15	CCV1	-NA-	1	QC Standard
16	1	16	CCB1	-NA-	1	QC Standard
17	1	17	CCV2	-NA-	1	QC Standard
18	1	18	CCB2	-NA-	1	QC Standard
19	1	19	CCV3	-NA-	1	QC Standard

00157

Rack #2

Pos	Row	Col	Sample Name	Set #	#Used	Type
1	1	1	1.0001.0001802B02	1	-NA-	Sample
2	1	2	1.0001.0001802B13	1	-NA-	Sample
3	1	3	1.0001.0001802B21	1	-NA-	Sample
4	1	4	1.0001.0001802C08	1	-NA-	Sample
5	1	5	1.0001.0001802C09	1	-NA-	Sample
6	1	6	1.0001.0001802D01	1	-NA-	Sample
7	1	7	1.0001.0001802C20	1	-NA-	Sample
8	1	8	1.0001.000PBW090900C	1	-NA-	Sample
9	1	9	1.0001.000LCSW09090C	1	-NA-	Sample
10	1	10	1.0001.0001635A01	1	-NA-	Sample
11	1	11	1.0005.0001815A10	1	-NA-	Sample
12	1	12	1.0005.0001815A14	1	-NA-	Sample
13	2	1	1.0001.0001794A01	1	-NA-	Sample
14	2	2	1.0005.0001794A01L	1	-NA-	Sample
15	2	3	1.0001.0001892A05	1	-NA-	Sample
16	2	4	1.0001.0001714A01	1	-NA-	Sample
17	2	5	1.0005.0001714A01L	1	-NA-	Sample
18	2	6	1.0001.0001714A02	1	-NA-	Sample
19	2	7	1.0001.0001714A03	1	-NA-	Sample
20	2	8	1.0001.0001714A04	1	-NA-	Sample
21	2	9	1.0001.0001714A06	1	-NA-	Sample
22	2	10	1.0001.000T1915A01	1	-NA-	Sample
23	2	11	1.0001.000F1915A01	1	-NA-	Sample
24	2	12	1.0001.000T1915A02	1	-NA-	Sample
25	3	1	1.0001.000F1915A02	1	-NA-	Sample
26	3	2	1.0001.000T1915A03	1	-NA-	Sample
27	3	3	1.0001.000F1915A03	1	-NA-	Sample
28	3	4	1.0001.000T1915A04	1	-NA-	Sample
29	3	5	1.0001.000F1915A04	1	-NA-	Sample
30	3	6	1.0001.000T1915A04D	1	-NA-	Sample
31	3	7	1.0001.000T1915A04S	1	-NA-	Sample
32	3	8	1.0001.000T1915A04A	1	-NA-	Sample
33	3	9	1.0005.000T1915A04L	1	-NA-	Sample
34	3	10	1.0001.000F1915A04D	1	-NA-	Sample
35	3	11	1.0001.000F1915A04S	1	-NA-	Sample
36	3	12	1.0001.000F1915A04A	1	-NA-	Sample
37	4	1	1.0001.000T1915A05	1	-NA-	Sample
38	4	2	1.0001.000F1915A05	1	-NA-	Sample
39	4	3	(empty)	1	-NA-	-NA-

(40...48 Not Used)

Rack #3

Pos	Row	Col	Sample Name	Set #	#Used	Type

(1...48 Not Used)

00158

Rack #4

Pos	Row	Col	Sample Name	Set #	#Used	Type
(1...48	Not Used)					

Rack #5

Pos	Row	Col	Sample Name	Set #	#Used	Type
(1...37	Not Used)					
38	4	2	CCB6	-NA-	1	QC Standard
39	4	3	CCV6	-NA-	1	QC Standard
40	4	4	ICSABF	-NA-	1	QC Standard
41	4	5	ICSAF	-NA-	1	QC Standard
42	4	6	CRIF	-NA-	1	QC Standard
43	4	7	CRAF	-NA-	1	QC Standard
44	4	8	CCB5	-NA-	1	QC Standard
45	4	9	CCV5	-NA-	1	QC Standard
46	4	10	CCB4	-NA-	1	QC Standard
47	4	11	CCV4	-NA-	1	QC Standard
48	4	12	CCB3	-NA-	1	QC Standard

Method: IEACT98 Standard: STD1
Run Time: 09/12/00 10:37:52

00159

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Avge	.00011	.02440	-.00075	-.00016	-.00009	.00131	.00031
SDev	.00031	.00052	.00015	.00049	.00004	.00004	.00008
%RSD	277.13	2.1339	19.745	315.90	43.301	2.9357	24.744
#1	-.00007	.02500	-.00070	.00040	-.00007	.00133	.00027
#2	-.00007	.02407	-.00091	-.00033	-.00007	.00127	.00027
#3	.00047	.02413	-.00063	-.00053	-.00013	.00133	.00040

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Avge	-.00013	-.00033	-.00031	.00742	.00024	.28651	.00033
SDev	.00012	.00024	.00004	.00237	.00014	.00117	.00007
%RSD	86.603	72.111	12.372	31.950	56.773	.40990	20.000
#1	.00000	-.00060	-.00033	.01013	.00040	.28520	.00027
#2	-.00020	-.00013	-.00033	.00640	.00013	.28687	.00033
#3	-.00020	-.00027	-.00027	.00573	.00020	.28747	.00040

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Sn1899	Tl1908
Avge	.00009	-.00000	.05933	.00020	.00104	-.00022	-.00040
SDev	.00008	.00018	.00037	.00018	.00034	.00020	.00027
%RSD	86.603	7273e6	.62559	88.192	32.755	91.652	66.667
#1	.00013	.00020	.05893	.00013	.00067	.00000	-.00013
#2	.00000	-.00007	.05940	.00007	.00133	-.00027	-.00067
#3	.00013	-.00013	.05967	.00040	.00113	-.00040	-.00040

Elem	Ti3349	V_2924	Zn2138	2203/1	2203/2	1960/1	1960/2
Avge	.00033	-.00013	.00000	.01558	-.00073	-.00858	.00251
SDev	.00044	.00000	.00007	.00643	.00037	.00060	.00224
%RSD	131.15	.00000	.00000	41.298	50.616	7.0522	89.337
#1	.00073	-.00013	.00000	.02300	-.00107	-.00927	.00160
#2	-.00013	-.00013	.00007	.01213	-.00033	-.00813	.00507
#3	.00040	-.00013	-.00007	.01160	-.00080	-.00833	.00087

Elem	Sr4215	Si2881	Zr3496
Avge	.00009	.00782	-.00262
SDev	.00008	.00014	.00027
%RSD	86.603	1.7741	10.275
#1	.00013	.00793	-.00267
#2	.00000	.00787	-.00287
#3	.00013	.00767	-.00233

00160

Method: IEACT98 Standard: STD7
Run Time: 09/12/00 10:43:52

Elem	Ag3280	As1890	B_2496	Ba4934	Be3130	Cd2265	Co2286
Avge	.02751	.07443	.22680	.79844	.35631	.70511	.17371
SDev	.00020	.00245	.00422	.01322	.00684	.01305	.00297
%RSD	.74032	3.2878	1.8588	1.6562	1.9205	1.8504	1.7087
#1	.02747	.07540	.23147	.81333	.36367	.71967	.17673
#2	.02773	.07625	.22567	.79393	.35513	.70120	.17360
#3	.02733	.07165	.22327	.78807	.35013	.69447	.17080

Elem	Cr2677	Cu3247	K_7664	Mn2576	Mo2020	Ni2316	Sb2068
Avge	.26580	.27036	1.3254	.20613	.04996	.18927	.05987
SDev	.00460	.00464	.0120	.00372	.00039	.00282	.00130
%RSD	1.7324	1.7173	.90293	1.8030	.78196	1.4898	2.1736
#1	.27080	.27567	1.3373	.21027	.05040	.19240	.06113
#2	.26487	.26833	1.3255	.20507	.04980	.18847	.05993
#3	.26173	.26707	1.3133	.20307	.04967	.18693	.05853

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Avge	.06480	.01236	.80618	.04938	.11218	.45336	.16113
SDev	.00047	.00037	.01200	.00081	.00176	.00962	.00113
%RSD	.72017	2.9717	1.4885	1.6499	1.5660	2.1232	.70335
#1	.06533	.01253	.81947	.05027	.11413	.46427	.16113
#2	.06460	.01260	.80293	.04920	.11167	.44973	.16227
#3	.06447	.01193	.79613	.04867	.11073	.44607	.16000

Elem	1960/1	1960/2	Sr4215	Si2881
Avge	.09620	.11400	1.6813	.02518
SDev	.00058	.00151	.0255	.00038
%RSD	.60415	1.3219	1.5142	1.5056
#1	.09647	.11273	1.7100	.02560
#2	.09553	.11567	1.6724	.02507
#3	.09660	.11360	1.6615	.02487

00161

Method: IEACT98 Standard: STD8
Run Time: 09/12/00 10:49:52

Elem	Ag3280	As1890	B_2496	Ba4934	Be3130	Cd2265	Co2286
Avge	.05393	.14994	.45533	1.6163	.69169	1.3700	.33818
SDev	.00024	.00131	.00151	.0072	.00238	.0058	.00164
%RSD	.44568	.87638	.33097	.44783	.34433	.42564	.48382
#1	.05373	.14880	.45360	1.6080	.69073	1.3667	.33720
#2	.05387	.14964	.45633	1.6215	.69440	1.3767	.34007
#3	.05420	.15138	.45607	1.6193	.68993	1.3666	.33727

Elem	Cr2677	Cu3247	K_7664	Mn2576	Mo2020	Ni2316	Sb2068
Avge	.51536	.54113	2.5890	.40309	.09804	.36747	.12038
SDev	.00174	.00253	.0151	.00131	.00074	.00077	.00226
%RSD	.33840	.46799	.58282	.32634	.75819	.20923	1.8734
#1	.51513	.53827	2.5716	.40220	.09720	.36673	.11953
#2	.51720	.54307	2.5979	.40460	.09833	.36827	.12293
#3	.51373	.54207	2.5975	.40247	.09860	.36740	.11867

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Avge	.12720	.02591	1.6064	.09813	.22151	.86911	.31518
SDev	.00094	.00025	.0050	.00044	.00052	.00797	.00085
%RSD	.73935	.97408	.31258	.44548	.23377	.91697	.26950
#1	.12620	.02620	1.6021	.09767	.22093	.87720	.31420
#2	.12807	.02573	1.6119	.09853	.22193	.86887	.31573
#3	.12733	.02580	1.6051	.09820	.22167	.86127	.31560

Elem	1960/1	1960/2	Sr4215	Si2881
Avge	.20351	.22847	3.3780	.04262
SDev	.00251	.00098	.0150	.00015
%RSD	1.2328	.42985	.44512	.36122
#1	.20633	.22900	3.3622	.04253
#2	.20153	.22733	3.3921	.04280
#3	.20267	.22907	3.3797	.04253

Method: IEACT98 Standard: STD4
Run Time: 09/12/00 10:55:53

00162

Elem	Ag3280	Al3082	As1890	Ba4934	Be3130	Cd2265	Co2286
Avge	.10664	.12122	.30332	3.2672	1.3989	2.7939	.68522
SDev	.00063	.00080	.00275	.0235	.0125	.0243	.00723
%RSD	.59415	.66071	.90807	.71834	.89534	.87076	1.0552
#1	.10600	.12040	.30105	3.2421	1.3847	2.7663	.67733
#2	.10667	.12127	.30254	3.2707	1.4034	2.8031	.68680
#3	.10727	.12200	.30639	3.2887	1.4085	2.8123	.69153

Elem	Cr2677	Cu3247	K_7664	Mn2576	Ni2316	Tl1908	V_2924
Avge	1.0414	1.0884	5.2988	.81213	.74271	.05447	.20144
SDev	.0086	.0084	.0372	.00572	.00729	.00081	.00185
%RSD	.83002	.76741	.70232	.70391	.98105	1.4840	.91972
#1	1.0319	1.0792	5.2573	.80573	.73440	.05373	.19933
#2	1.0438	1.0904	5.3097	.81393	.74573	.05433	.20220
#3	1.0487	1.0955	5.3293	.81673	.74800	.05533	.20280

Elem	Zn2138	2203/1	2203/2	1960/1	1960/2	Sr4215
Avge	.44958	1.7694	.64440	.41978	.46669	6.8366
SDev	.00362	.0068	.00805	.00350	.00781	.0522
%RSD	.80436	.38405	1.2497	.83288	1.6740	.76311
#1	.44560	1.7618	.63587	.42380	.45800	6.7793
#2	.45047	1.7748	.64547	.41747	.46893	6.8491
#3	.45267	1.7717	.65187	.41807	.47313	6.8814

Method: IEACT98 Standard: STD9
Run Time: 09/12/00 11:01:53

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na5889
Avge	.51400	7.8744	.19940	4.2830	19.399
SDev	.00232	.0966	.00237	.0355	.224
%RSD	.45098	1.2264	1.1887	.82941	1.1558
#1	.51187	7.7726	.19673	4.2482	19.140
#2	.51367	7.8858	.20020	4.2815	19.517
#3	.51647	7.9647	.20127	4.3192	19.539

Method: IEACT98 Standard: STD6
Run Time: 09/12/00 11:06:20

00164

Elem	Al3082	Ca3179	Fe2714	Mg2790	Na5889
Avge	1.0052	4.1075	.42456	2.1952	9.7493
SDev	.0027	.0277	.00182	.0097	.0926
%RSD	.26632	.67369	.42898	.44142	.95017
#1	1.0021	4.0776	.42253	2.1844	9.6454
#2	1.0066	4.1127	.42507	2.1981	9.8232
#3	1.0068	4.1322	.42607	2.2031	9.7794

00165

Method: IEACT98 Standard: STD5
Run Time: 09/12/00 11:10:47

Elem	B_2496	Mo2020	Sb2068	Sn1899	Ti3349	Si2881	Zr3496
Avge	.97204	.21144	.24973	.27296	3.3978	.08320	5.8345
SDev	.00797	.00288	.00144	.00343	.0259	.00074	.0528
%RSD	.81987	1.3617	.57812	1.2552	.76302	.89227	.90526
#1	.96420	.20873	.24807	.26900	3.3703	.08253	5.7770
#2	.97180	.21113	.25060	.27487	3.4011	.08307	5.8456
#3	.98013	.21447	.25053	.27500	3.4219	.08400	5.8809

00166

Method: IEACT98 Standard: STD3
Run Time: 09/12/00 11:14:28

Elem	Ca3179	Fe2714	Mg2790	Na5889
Avge	2.1212	.89040	1.1172	4.6167
SDev	.0136	.00502	.0061	.0223
%RSD	.64286	.56369	.54694	.48269
#1	2.1055	.88467	1.1102	4.6004
#2	2.1277	.89253	1.1199	4.6075
#3	2.1304	.89400	1.1215	4.6421

Method: IEACT98 Slope = Conc(SIR)/IR

00167

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardize
Ag3280	328.068	Multiple	Standards	918.749	-.104956	12/31/99 09:51:2
Al3082	308.215	Multiple	Standards	10.2197	-.239360	12/31/99 10:01:5
As1890	189.042	Multiple	Standards	3305.63	2.47150	12/31/99 09:51:2
B_2496	249.678	Multiple	Standards	1075.44	.226363	12/31/99 09:51:2
Ba4934	493.409	Multiple	Standards	309.451	.048791	12/31/99 09:51:2
Be3130	313.042	Multiple	Standards	714.492	-.956688	12/31/99 09:51:2
Ca3179	317.933	Multiple	Standards	6.10548	-.005333	12/31/99 10:01:5
Cd2265	226.502	Multiple	Standards	359.086	.033822	12/31/99 09:51:2
Co2286	228.616	Multiple	Standards	1457.59	.466602	12/31/99 09:51:2
Cr2677	267.716	Multiple	Standards	955.751	.272753	12/31/99 09:51:2
Cu3247	324.753	Multiple	Standards	937.386	-6.93158	12/31/99 09:51:2
Fe2714	271.441	Multiple	Standards	23.5947	-.003802	12/31/99 10:01:5
K_7664	766.491	Multiple	Standards	10.8867	-3.11039	12/31/99 09:51:2
Mg2790	279.078	Multiple	Standards	11.4167	-.005743	12/31/99 10:01:5
Mn2576	257.610	Multiple	Standards	1228.23	-.126197	12/31/99 09:51:2
Mo2020	202.030	Multiple	Standards	4938.94	.043865	12/31/99 09:51:2
Na5889	588.995	Multiple	Standards	2.63358	-.153201	12/31/99 10:01:5
Ni2316	231.604	Multiple	Standards	1340.84	-.289655	12/31/99 09:51:2
Sb2068	206.838	Multiple	Standards	4131.97	-4.26197	12/31/99 09:51:2
Pb2203	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Se1960	196.026	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
Sn1899	189.989	Multiple	Standards	3793.11	.880033	12/31/99 09:51:2
Tl1908	190.864	Multiple	Standards	18932.5	7.63955	12/31/99 09:51:2
Ti3349	334.941	Multiple	Standards	305.086	-.058204	12/31/99 09:51:2
V_2924	292.402	Multiple	Standards	4991.96	.668668	12/31/99 09:51:2
Zn2138	213.856	Multiple	Standards	2250.06	-.001039	12/31/99 09:51:2
2203/1	220.351	Multiple	Standards	575.889	-8.96758	12/31/99 09:51:2
2203/2	220.352	Multiple	Standards	1556.49	1.13941	12/31/99 09:51:2
1960/1	196.021	Multiple	Standards	2362.03	20.2608	12/31/99 09:51:2
1960/2	196.022	Multiple	Standards	2199.79	-5.48846	12/31/99 09:51:2
Sr4215	421.552	Multiple	Standards	147.653	.001535	12/31/99 09:51:2
Si2881	288.158	Multiple	Standards	14269.3	-111.552	12/31/99 09:51:2
Zr3496	349.621	STD5	STD1	171.318	.449233	09/12/00 11:14:2

Method: IEACT98 Sample Name: ICV1 Operator:
Run Time: 09/12/00 11:18:55
Comment:
Mode: CONC Corr. Factor: 1

00168

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	100.1679	11.08050	1034.120	1063.908	1001.902	1062.745	27.79333
SDev	.6078	.07917	13.438	7.908	5.521	8.520	.26730
%RSD	.6067959	.7144597	1.299483	.7432783	.5510072	.8016672	.9617361
#1	99.46603	10.98976	1021.877	1054.815	995.5280	1053.056	27.48846
#2	100.5181	11.13543	1031.985	1067.736	1005.038	1066.112	27.90404
#3	100.5195	11.11631	1048.498	1069.174	1005.141	1069.066	27.98749
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	100.0000	11.00000	1000.000	1000.000	1000.000	1000.000	27.00000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	1063.959	1042.614	1049.838	992.4565	11.22255	Q34.86574	27.45779
SDev	7.461	8.000	7.843	5.4365	.09029	.25062	.22946
%RSD	.7012066	.7672870	.7471065	.5477777	.8045160	.7188119	.8356906
#1	1055.419	1033.566	1040.808	986.2496	11.12002	Q34.58075	27.19419
#2	1067.250	1045.526	1053.747	996.3729	11.25744	Q35.05178	27.56638
#3	1069.208	1048.749	1054.958	994.7471	11.29018	Q34.96469	27.61281
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass
Value	1000.000	1000.000	1000.000	1000.000	11.00000	31.00000	27.00000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	1038.951	1054.892	27.61800	1021.020	1036.248	1062.540	1012.765
SDev	7.587	10.742	.29696	8.813	7.454	11.171	1.488
%RSD	.7302324	1.018293	1.075234	.8631704	.7193000	1.051390	.1469204
#1	1030.224	1043.148	27.27692	1010.902	1027.737	1049.656	1013.641
#2	1042.661	1057.306	27.75799	1025.138	1041.612	1069.527	1011.047
#3	1043.970	1064.221	27.81909	1027.021	1039.396	1068.438	1013.607
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1000.000	1000.000	27.00000	1000.000	1000.000	1000.000	1000.000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1068.911	1093.500	1043.760	1068.079	1056.719	1068.447	1059.591
SDev	12.804	19.208	6.825	7.267	6.473	6.413	13.571
%RSD	1.197832	1.665075	.6538426	.6803920	.6125676	.6001998	1.280793
#1	1054.133	1073.300	1035.900	1059.728	1049.489	1061.136	1043.925
#2	1076.678	Q1108.648	1047.202	1071.546	1058.690	1073.118	1067.735
#3	1075.923	1098.552	1048.178	1072.964	1061.977	1071.087	1067.115
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: ICB1 Operator: 00169
Run Time: 09/12/00 11:24:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	Q.1806323	Q.0147668	Q.2100724	3.954658	Q.0831688	Q.0755494	Q-.003298
SDev	.2155672	.0024484	5.536320	.798892	.0118818	.0272992	.000705
%RSD	119.3403	16.58060	2635.434	20.20130	14.28639	36.13428	21.37861
#1	Q.3853275	Q.0168013	Q2.267113	4.815027	Q.0900414	Q.0911595	Q-.002484
#2	Q.2009393	Q.0154498	Q4.423430	3.812661	Q.0900161	Q.0914613	Q-.003705
#3	Q-.044370	Q.0120494	Q-6.06033	3.236285	Q.0694489	Q.0440275	Q-.003705
Errors	QC Fail	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000		.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000		10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	Q.0336416	Q.1773105	Q.2939459	Q-2.22399	Q.0014251	Q-.034537	Q-.000669
SDev	.1910229	.2602956	.3270526	.15715	.0078957	.005080	.001915
%RSD	567.8170	146.8021	111.2629	7.066143	554.0457	14.70988	286.1804
#1	Q-.038303	Q.3754812	Q.6551143	Q-2.05753	Q.0024521	Q-.030908	Q.0011066
#2	Q-.110962	Q.2739292	Q.2089201	Q-2.36978	Q.0087570	Q-.032360	Q-.000416
#3	Q.2501900	Q-.117479	Q.0178032	Q-2.24466	Q-.006934	Q-.040343	Q-.002699
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	Q.0102316	.9218991	Q.0082670	Q-.139823	Q4.093689	Q-1.78089	Q3.832656
SDev	.0945793	1.330699	.0016313	.135404	6.467713	.83731	2.524547
%RSD	924.3801	144.3433	19.73323	96.83971	157.9923	47.01614	65.86940
#1	Q.1194423	2.348704	Q.0100812	Q-.287494	Q11.45169	Q-1.46467	Q3.368141
#2	Q-.044490	.7023906	Q.0077988	Q-.110476	Q-.692649	Q-1.14775	Q6.557203
#3	Q-.044258	-.285397	Q.0069209	Q-.021499	Q1.522028	Q-2.73026	Q1.572623
Errors	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000		.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000		10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3746460	-4.56109	.1044879	Q-.207250	Q-.098380	-5.00542	-.171046
SDev	1.658231	6.22640	.0203637	.525072	.172633	1.69091	.785426
%RSD	442.6128	136.5113	19.48900	253.3522	175.4747	33.78165	459.1896
#1	2.144763	-8.76858	.1044285	Q.3654161	Q.0019813	-3.36741	-.514723
#2	-1.14267	2.591504	.0841540	Q-.321127	Q.0005953	-4.90416	.7276410
#3	.1218426	-7.50620	.1248812	Q-.666038	Q-.297718	-6.74469	-.726056
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK

Analysis Report QC Standard 09/12/00 11:36:52 AM page 1

Method: IEACT98 Sample Name: CRAI Operator: 00170
Run Time: 09/12/00 11:30:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	10.54913	.0119765	10.52355	3.112210	.0969215	5.385587	-.004247
SDev	.28961	.0007858	.10282	.189213	.0119216	.054892	.000235
%RSD	2.745371	6.561017	.9770190	6.079685	12.30023	1.019240	5.532753
#1	10.22226	.0124311	10.42339	3.255257	.1106873	5.353935	-.004519
#2	10.65136	.0110692	10.62884	2.897667	.0900322	5.448971	-.004112
#3	10.77375	.0124292	10.51843	3.183707	.0900449	5.353856	-.004112
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	10.00000		10.00000			5.000000	
Range	50.00000		50.00000			50.00000	

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	5.481324	54.00241	10.99144	24.11155	.0015976	.0235254	-.002699
SDev	.113009	.25647	.16867	.07211	.0031249	.0038403	.000761
%RSD	2.061712	.4749291	1.534517	.2990773	195.5943	16.32421	28.20042
#1	5.393972	53.71189	10.80019	24.06980	-.001518	.0206224	-.002699
#2	5.441046	54.09785	11.05522	24.07003	.0047319	.0220739	-.003460
#3	5.608954	54.19747	11.11892	24.19481	.0015790	.0278800	-.001938
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	5.000000	50.00000	10.00000	25.00000			
Range	50.00000	50.00000	50.00000	50.00000			

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	16.28638	-.285397	.0093789	42.42430	63.63497	2.999804	Q10.51247
SDev	.12510	.570300	.0008046	.74393	4.88504	1.085556	5.46512
%RSD	.7681038	199.8265	8.578503	1.753541	7.676659	36.18755	51.98701
#1	16.17719	.0438652	.0085010	42.18583	66.85869	1.749311	Q7.677963
#2	16.42287	-.943923	.0095545	41.82885	66.03176	3.550002	Q16.81251
#3	16.25907	.0438652	.0100812	43.25822	58.01445	3.700098	7.046920
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Fail
Value	15.00000			40.00000	60.00000	3.000000	5.000000
Range	50.00000			50.00000	50.00000	50.00000	50.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.56415	7.522415	.0763260	52.91408	20.91029	1.005944	3.995239
SDev	2.04387	1.262194	.0469545	.32655	.29711	1.357063	1.267455
%RSD	130.6699	16.77910	61.51839	.6171249	1.420900	134.9043	31.72415
#1	-.384260	7.522982	.0221076	52.58550	20.61196	.0210247	2.612159
#2	-.383979	8.784325	.1034484	53.23856	20.91273	.4429094	5.101219
#3	-3.92421	6.259937	.1034221	52.91817	21.20617	2.553899	4.272338
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: CRII Operator: 00171
Run Time: 09/12/00 11:36:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	20.93844	.0157645	18.49125	12.01975	.0556691	10.67961	-.003976
SDev	.09365	.0015749	2.31274	.32901	.0118964	.02743	.000470
%RSD	.4472818	9.990399	12.50720	2.737272	21.36981	.2568499	11.82070
#1	20.91786	.0175830	20.98909	11.73247	.0488194	10.66381	-.003705
#2	20.85679	.0148574	16.42420	11.94810	.0487822	10.71129	-.004519
#3	21.04067	.0148530	18.06046	12.37869	.0694059	10.66374	-.003705
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	20.00000		20.00000			10.00000	
Range	40.00000		40.00000			40.00000	

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	10.74573	108.0253	21.77393	50.86351	-.000346	-.018812	-.001430
SDev	.24845	.7591	.22966	.18034	.005881	.015333	.000439
%RSD	2.312035	.7026746	1.054766	.3545490	1697.772	81.50929	30.72025
#1	10.46733	107.1505	21.96495	50.75935	-.007076	-.026553	-.001938
#2	10.94489	108.5101	21.83773	50.75944	.0022272	-.028731	-.001177
#3	10.82496	108.4153	21.51911	51.07175	.0038094	-.001151	-.001177
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	10.00000	100.0000	20.00000	50.00000			
Range	40.00000	40.00000	40.00000	40.00000			

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	32.39877	-.175643	.0101982	85.43596	124.9448	6.689059	Q15.48340
SDev	.14176	.502957	.0007096	.27351	2.7447	.343057	.10381
%RSD	.4375498	286.3515	6.957726	.3201341	2.196713	5.128627	.6704608
#1	32.23508	-.285397	.0093789	85.37445	122.2845	6.486573	Q15.60325
#2	32.48063	-.614660	.0106079	85.19844	124.7832	7.085154	Q15.42525
#3	32.48060	.3731279	.0106079	85.73498	127.7668	6.495450	Q15.42170
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Fail
Value	30.00000			80.00000	120.0000	6.000000	10.00000
Range	40.00000			40.00000	40.00000	40.00000	40.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.468365	Q10.34916	.0752311	106.3848	42.46666	4.980732	7.541942
SDev	3.201773	4.77908	.0587331	.1933	.23041	1.176507	.489964
%RSD	683.6060	46.17843	78.07014	.1816736	.5425672	23.62116	6.496517
#1	.1215543	12.45350	.0413202	106.1617	42.41817	5.479955	6.989127
#2	2.397426	Q4.879024	.0413230	106.4901	42.71745	5.825310	7.714131
#3	-3.92408	13.71496	.1430502	106.5025	42.26435	3.636931	7.922567
Errors	NOCHECK	QC Fail	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: ICSAI Operator: 00172
Run Time: 09/12/00 11:42:56
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	-.230315	476.1876	-12.2792	-9.13652	1.481213	-.242297	433.4190
SDev	.061259	1.8037	1.3996	.34793	.040882	.000065	1.7025
%RSD	26.59777	.3787731	11.39850	3.808161	2.760055	.0266654	.3927996
#1	-.291585	474.1959	-13.8321	-9.42700	1.449714	-.242222	431.4617
#2	-.230291	476.6561	-11.8906	-9.23165	1.466512	-.242329	434.2389
#3	-.169068	477.7108	-11.1149	-8.75092	1.527413	-.242339	434.5564
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value		500.0000					500.0000
Range		20.00000					20.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	3.595864	-2.90508	1.534698	-1.01575	176.5568	-.103244	481.4345
SDev	.463086	.05907	.171866	.19116	.6367	.014738	1.6925
%RSD	12.87830	2.033418	11.19866	18.81943	.3605957	14.27466	.3515582
#1	3.252169	-2.93606	1.668946	-1.18249	175.8357	-.120179	479.5076
#2	3.412952	-2.83696	1.341001	-1.05763	176.7937	-.093325	482.1151
#3	4.122471	-2.94222	1.594149	-.807122	177.0411	-.096228	482.6807
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value					200.0000		500.0000
Range					20.00000		20.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	-2.35240	-2.15122	.0221957	1.493795	6.610505	5.798874	7.440671
SDev	.12691	1.55603	.0010964	.498388	7.744588	3.009343	.986804
%RSD	5.394863	72.33269	4.939896	33.36388	117.1558	51.89531	13.26230
#1	-2.48738	-1.60245	.0209667	1.582316	.3588295	4.496353	8.484714
#2	-2.23550	-.943923	.0230735	1.941991	15.27404	9.240068	6.523349
#3	-2.33433	-3.90729	.0225468	.9570777	4.198647	3.660201	7.313949
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-7.64007	-6.95182	-1.93801	-3.65337	3.829365	17.99321	-.239827
SDev	4.15747	15.91540	.07294	.16766	.174477	3.46031	3.402823
%RSD	54.41658	228.9386	3.763777	4.589120	4.556288	19.33866	1422.423
#1	-10.7587	-21.7326	-1.90600	-3.74871	3.628624	19.19447	-2.84169
#2	-2.92005	9.896144	-2.02148	-3.75162	3.944552	20.51424	3.611435
#3	-9.24143	-9.01896	-1.88655	-3.45978	3.914919	13.97092	-1.48743
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: ICSABI Operator:
Run Time: 09/12/00 11:48:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	199.0953	471.9520	92.43543	-10.1649	474.7565	475.1811	426.3314
SDev	1.2190	2.5327	2.57392	.6622	2.3091	2.1308	1.9140
%RSD	.6122469	.5367575	2.784563	6.514909	.4863686	.4484155	.4489353
#1	197.7038	468.9676	93.97875	-10.1831	472.1126	472.7221	424.1282
#2	199.9742	472.8762	93.86347	-9.49369	475.7797	476.3397	427.2815
#3	199.6080	473.7122	89.46407	-10.8178	476.3772	476.4816	427.5843
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value	200.0000	500.0000	100.0000		500.0000	500.0000	500.0000
Range	20.00000	20.00000	20.00000		20.00000	20.00000	20.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	903.1461	449.0759	459.1443	494.3462	174.5516	-.168080	473.8654
SDev	4.5182	1.4252	2.9846	2.8749	.7999	.013124	2.1709
%RSD	.5002706	.3173726	.6500301	.5815526	.4582379	7.808421	.4581342
#1	898.0245	447.5479	455.7314	491.0550	173.6347	-.166629	471.3751
#2	904.8456	449.3105	460.4370	495.6164	174.9141	-.181870	474.8625
#3	906.5679	450.3693	461.2647	496.3672	175.1062	-.155742	475.3587
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	1000.000	500.0000	500.0000	500.0000	200.0000		500.0000
Range	20.00000	20.00000	20.00000	20.00000	20.00000		20.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	454.2917	-2.80974	.0177478	878.2174	588.9860	51.68086	48.01420
SDev	2.1261	2.98765	.0007096	1.9517	12.2368	2.11152	11.09308
%RSD	.4679956	106.3319	3.998044	.2222360	2.077599	4.085685	23.10375
#1	451.8522	-5.55360	.0169285	875.9783	576.7037	50.27821	53.56775
#2	455.2728	.3731279	.0181575	879.5586	589.0776	54.10931	55.23369
#3	455.7500	-3.24876	.0181575	879.1151	601.1768	50.65507	Q35.24118
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000			1000.000	600.0000	50.00000	50.00000
Range	20.00000			20.00000	20.00000	20.00000	20.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-4.60519	85.58686	-1.82360	471.2534	977.4358	65.94979	44.55710
SDev	2.28032	7.71871	.06407	3.7528	3.7379	9.43327	2.51517
%RSD	49.51639	9.018564	3.513503	.7963445	.3824187	14.30371	5.644820
#1	-6.96514	83.83480	-1.76352	467.1250	973.1266	64.93958	42.95853
#2	-2.41385	94.03099	-1.89103	472.1768	979.3781	75.84750	43.25650
#3	-4.43658	Q78.89479	-1.81626	474.4582	979.8027	57.06229	47.45626
Errors	NOCHECK	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: CCV1 Operator: 00174
Run Time: 09/12/00 11:54:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	50.25467	5.530631	517.1664	527.8594	503.3515	533.4337	26.67399
SDev	.21487	.035117	4.2008	3.7686	2.4569	3.7285	.22277
%RSD	.4275528	.6349599	.8122785	.7139364	.4881098	.6989531	.8351449
#1	50.23051	5.490702	512.7263	524.7272	500.5528	529.1931	26.41919
#2	50.48059	5.544476	521.0779	526.8092	504.3486	534.9105	26.77087
#3	50.05290	5.556716	517.6951	532.0416	505.1532	536.1976	26.83192
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	50.00000	5.500000	500.0000	500.0000	500.0000	500.0000	26.00000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	528.1441	520.1344	524.9768	495.9398	5.597201	Q33.29008	26.27527
SDev	3.7250	3.2604	3.9764	2.1925	.022150	.23322	.18454
%RSD	.7052942	.6268354	.7574447	.4420987	.3957385	.7005587	.7023243
#1	523.9663	516.3766	520.4940	493.5026	5.571769	Q33.03049	26.06774
#2	529.3470	521.8152	526.3579	496.5651	5.612271	Q33.35782	26.33718
#3	531.1190	522.2114	528.0785	497.7519	5.607564	Q33.48193	26.42090
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass
Value	500.0000	500.0000	500.0000	500.0000	5.500000	30.00000	26.00000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	518.5583	522.2545	26.62573	509.9314	519.3105	529.9237	515.2141
SDev	4.0506	3.7973	.36571	3.3747	5.1226	5.0388	4.0744
%RSD	.7811358	.7270880	1.373532	.6618015	.9864157	.9508446	.7908181
#1	513.9774	518.6326	26.21524	506.3786	517.3816	524.4687	512.9269
#2	520.0308	521.9252	26.74511	510.3212	515.4324	534.4037	519.9181
#3	521.6667	526.2056	26.91682	513.0942	525.1175	530.8987	512.7971
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000	500.0000	26.00000	500.0000	500.0000	500.0000	500.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	530.5924	549.3057	520.6051	532.8740	530.2392	532.1721	528.8012
SDev	4.5064	6.6808	3.2427	3.8975	2.6299	3.3653	5.8990
%RSD	.8493136	1.216219	.6228674	.7314095	.4959824	.6323653	1.115550
#1	527.3768	544.2557	516.9744	528.3934	527.2129	528.7750	522.3187
#2	528.6572	546.7805	521.6279	534.7556	531.5343	535.5046	533.8541
#3	535.7431	Q556.8810	523.2131	535.4748	531.9703	532.2367	530.2307
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: CCB1 Operator: 00175
Run Time: 09/12/00 12:01:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	Q.0784134	Q.0165896	Q-2.36623	2.734622	Q.0625618	Q.0595404	Q.0037575
SDev	.1620861	.0015730	3.35454	.373169	.0238361	.0274986	.0008473
%RSD	206.7071	9.491724	141.7673	13.64611	38.10005	46.18476	22.54950
#1	Q-.043931	Q.0174962	Q-.236171	2.949525	Q.0488126	Q.0912926	Q.0028078
#2	Q.0169242	Q.0147732	Q-.629461	2.950617	Q.0487874	Q.0438169	Q.0040289
#3	Q.2622468	Q.0174992	Q-6.23306	2.303724	Q.0900853	Q.0435118	Q.0044359
Errors	QC Fail	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000		.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000		10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	Q.1221882	Q.2065071	Q.1240543	Q-2.11962	Q-.004344	Q-.002119	Q.0016140
SDev	.1198476	.1496962	.0972910	.27230	.004794	.010298	.0044597
%RSD	98.08440	72.48960	78.42615	12.84662	110.3630	486.0253	276.3091
#1	Q.1063878	Q.1742520	Q.0179288	Q-2.30709	Q-.005394	Q-.011312	Q-.003460
#2	Q.2491523	Q.3697015	Q.1452018	Q-1.80728	Q.0008881	Q.0090097	Q.0049122
#3	Q.0110246	Q.0755679	Q.2090321	Q-2.24450	Q-.008526	Q-.004054	Q.0033900
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	Q.0102636	-.395152	Q.0085010	Q-.288204	Q8.317614	Q.2452338	Q1.764317
SDev	.0472261	.502957	.0009290	.357591	2.339897	1.316612	2.650987
%RSD	460.1304	127.2820	10.92851	124.0756	28.13184	536.8802	150.2557
#1	Q.0377298	-.285397	Q.0095545	Q-.645523	Q10.60615	Q.8475117	Q4.737190
#2	Q.0373290	.0438652	Q.0081499	Q.0696589	Q8.417153	Q-1.26479	Q.9097443
#3	Q-.044268	-.943923	Q.0077988	Q-.288749	Q5.929534	Q1.152984	Q-.353983
Errors	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000		.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000		10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.2055488	-1.61693	-.044678	Q-.223637	Q.6530384	-2.03697	1.384622
SDev	1.140001	5.10160	.094009	.379574	.0872726	1.38962	1.490980
%RSD	554.6134	315.5124	210.4133	169.7275	13.36408	68.21992	107.6813
#1	-.889863	1.327956	.0638739	Q-.000449	Q.6050909	-2.44641	2.492002
#2	1.385439	1.329014	-.098961	Q-.661907	Q.6002510	-3.17586	-.310691
#3	.1210703	-7.50775	-.098948	Q-.008556	Q.7537733	-.488630	1.972556
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: 1.0001.0001802B02 Operator: 00176
Run Time: 09/12/00 12:07:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.4463064	.0124925	-2.59613	13.54498	4.023379	.0118879	13.64137
SDev	.5013222	.0019668	1.98150	.33857	.066316	.0728446	.06051
%RSD	112.3269	15.74375	76.32546	2.499568	1.648275	612.7634	.4435980
#1	.0176393	.0113526	-4.07635	13.42591	3.947736	-.051767	13.60664
#2	.3237314	.0113614	-3.36700	13.28203	4.050886	.0913321	13.71124
#3	.9975485	.0147636	-.345032	13.92699	4.071517	-.003901	13.60623
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.1887611	.1115147	.6894127	-.911702	.0353992	.5540696	2.246647
SDev	.1402851	.3908320	.1471601	.095626	.0000348	.0328851	.008067
%RSD	74.31887	350.4756	21.34572	10.48871	.0982533	5.935186	.3590604
#1	.0291507	-.306623	.5194868	-.995199	.0354346	.5693110	2.238021
#2	.2446226	.1735455	.7743594	-.807380	.0353980	.5765688	2.254005
#3	.2925102	.4676218	.7743919	-.932527	.0353651	.5163292	2.247915
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	.9941270	1.360916	6.990176	-.318935	2.439306	-.282700	5.892779
SDev	.0472498	.987788	.070076	.185970	4.511400	1.104000	3.968477
%RSD	4.752889	72.58259	1.002495	58.30972	184.9461	390.5203	67.34473
#1	.9670372	2.348704	6.910759	-.110471	7.340788	.4888217	9.757904
#2	.9666580	.3731279	7.043315	-.378537	1.516418	-1.54731	6.091980
#3	1.048686	1.360916	7.016453	-.467798	-1.53929	.2103921	1.828453
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.6274051	-6.23892	.0614492	.0305593	4.296616	-3.82797	1.487229
SDev	4.069237	2.18566	.1306570	.0124960	.312698	2.64915	1.585811
%RSD	648.5821	35.03275	212.6262	40.89085	7.277779	69.20695	106.6286
#1	4.925813	-7.49997	-.087574	.0430799	4.195779	-.819575	1.142039
#2	.1218105	-7.50166	.1155818	.0180881	4.046777	-4.85178	.1024452
#3	-3.16541	-3.71513	.1563397	.0305100	4.647291	-5.81226	3.217203
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.0001802B13 Operator: 00177
Run Time: 09/12/00 12:13:03
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.0788543	.0209014	1.785205	17.05290	.1725362	.0277475	.0121695
SDev	.1617614	.0000059	3.166839	.61020	.0000110	.0276308	.0004070
%RSD	205.1398	.0284009	177.3936	3.578261	.0063626	99.57927	3.344683
#1	.1400313	.0209039	1.386529	17.29133	.1725426	.0434093	.0125766
#2	-.104573	.0208947	5.132504	17.50788	.1725235	-.004157	.0121695
#3	.2011048	.0209058	-1.16342	16.35948	.1725425	.0439102	.0117625
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.2800291	-.150363	.6764402	-1.57796	.0087961	-.173886	.0013603
SDev	.0840733	.242333	.0367362	.19101	.0027440	.026128	.0008789
%RSD	30.02307	161.1654	5.430812	12.10493	31.19555	15.02589	64.60633
#1	.2004562	.0752307	.6551610	-1.61953	.0072013	-.147759	.0018677
#2	.2716549	-.406532	.6553003	-1.74475	.0119645	-.173886	.0003455
#3	.3679761	-.119787	.7188595	-1.36958	.0072224	-.200015	.0018677
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	.2558113	-.395152	.0664398	.0380257	1.430277	-.932629	2.922809
SDev	.0945589	.950499	.0048688	.5748796	1.377113	1.563436	3.792286
%RSD	36.96433	240.5404	7.328081	1511.817	96.28296	167.6374	129.7480
#1	.3649986	-.943923	.0638062	-.199794	2.595139	-2.72736	1.601471
#2	.2012570	.7023906	.0720581	-.379784	-.089577	.1336882	-.032041
#3	.2011784	-.943923	.0634550	.6936551	1.785270	-.204219	7.198997
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.5435324	-6.66420	.1925591	.3305488	3.549274	-3.35807	.2782727
SDev	4.596161	5.10054	.1428549	.3432168	.231640	.91351	2.787540
%RSD	845.6094	76.53633	74.18757	103.8324	6.526393	27.20350	1001.730
#1	-3.16580	-1.19522	.0434013	.3237498	3.750635	-2.37262	-2.90446
#2	5.685347	L-11.2916	.2061339	.6771146	3.601063	-4.17664	2.285619
#3	-.888952	-7.50577	.3281421	-.009218	3.296123	-3.52495	1.453658
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT38 Sample Name: 1.0001.0001802B21 Operator: 00178
Run Time: 09/12/00 12:19:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	-.207032	.0254414	-3.74017	12.56685	.1311316	-.003978	.0053857
SDev	.196980	.0010432	3.68505	.39968	.0206079	.000363	.0008473
%RSD	95.14468	4.100515	98.52623	3.180417	15.71547	9.114535	15.73261
#1	.0177311	.0256657	-3.32045	12.13558	.1105205	-.004096	.0044359
#2	-.289210	.0263541	-.282956	12.92478	.1311379	-.003571	.0056570
#3	-.349618	.0243042	-7.61712	12.64020	.1517363	-.004266	.0060640
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.0837522	.3377343	.4639163	-1.07817	.0449266	-.279608	-.000669
SDev	.0558182	.3130028	.2921677	.13001	.0056980	.006585	.000879
%RSD	66.64689	92.67724	62.97855	12.05836	12.68298	2.355253	131.3085
#1	.1482026	.4681886	.5277188	-1.11987	.0401932	-.276947	-.001177
#2	.0520570	.5644094	.1451197	-.932429	.0433356	-.287108	-.001177
#3	.0509969	-.019395	.7189103	-1.18222	.0512511	-.274770	.0003455
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	.4736345	.3731279	.0357147	-.050554	.9582968	-.199303	3.481232
SDev	.0472512	.3292627	.0044103	.224943	2.081410	.377395	4.198757
%RSD	9.976299	88.24391	12.34876	444.9553	217.1989	189.3575	120.6112
#1	.4464608	.7023906	.0306231	.1582162	.6593608	-.189998	6.216549
#2	.4462473	.3731279	.0383483	-.288769	-.957482	-.581263	5.580284
#3	.5281953	.0438652	.0381727	-.021109	3.173012	.1733537	-1.35314
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.14255	-7.50250	.1180303	.1175037	2.494081	-1.91670	.6581083
SDev	2.62798	7.02802	.0423762	.6917475	.174223	1.17105	.5719422
%RSD	230.0102	93.67563	35.90284	588.7026	6.985456	61.09733	86.90700
#1	-4.17708	L-13.8142	.1044712	.3436531	2.393744	-3.06807	1.246881
#2	.3748566	.0709356	.1655267	-.659014	2.695257	-1.95511	.1046317
#3	.3745756	-8.76429	.0840931	.6678723	2.393244	-.726913	.6228120
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.0001802C08 Operator: 00179
Run Time: 09/12/00 12:25:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	-.309160	.0347490	-1.99940	12.74978	.3513679	.0755639	.0520587
SDev	.093670	.0014173	1.58197	.67878	.0237943	.0276037	.0007050
%RSD	30.30076	4.078793	79.12225	5.323848	6.771900	36.53032	1.354239
#1	-.288610	.0352001	-1.30739	11.98384	.3376397	.0914685	.0512446
#2	-.411407	.0331610	-.881346	13.27677	.3788431	.0915332	.0524657
#3	-.227463	.0358858	-3.80946	12.98874	.3376208	.0436899	.0524657
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	-.037900	-.696059	.2939349	-1.30751	-.000586	-.183806	.0008529
SDev	.168213	.350425	.1945667	.16541	.007181	.038269	.0008789
%RSD	443.8345	50.34415	66.19380	12.65105	1225.174	20.82064	103.0412
#1	.1544609	-.791888	.0816470	-1.43257	-.006870	-.223965	.0003455
#2	-.110767	-.307688	.4637701	-1.37001	.0072416	-.179693	.0003455
#3	-.157393	-.988600	.3363876	-1.11995	-.002130	-.147759	.0018677
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	.1740117	1.470670	.0472439	-.321051	-2.71979	-.591812	3.072908
SDev	.0945638	.502957	.0048698	.314627	4.19505	.891010	3.951003
%RSD	54.34333	34.19917	10.30781	97.99909	154.2418	150.5562	128.5753
#1	.1195496	2.019441	.0418597	-.649081	-3.46063	-.899167	1.155225
#2	.1192812	1.360916	.0485314	-.021804	1.796329	.4121880	.4467408
#3	.2832045	1.031653	.0513406	-.292269	-6.49506	-1.28846	7.616759
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.06954	-7.92502	.1790446	-.089372	7.002233	-1.23639	-.270006
SDev	2.12070	4.43220	.0822231	.193609	.230028	2.03487	.466829
%RSD	102.4720	55.92674	45.92328	216.6330	3.285071	164.5816	172.8960
#1	-3.16503	-3.71814	.2672085	.0285959	7.204825	-1.26107	-.718488
#2	.3748564	-7.50435	.1654749	-.312816	7.049702	.8107068	.2132274
#3	-3.41846	L-12.5526	.1044505	.0161044	6.752174	-3.25881	-.304756
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Analysis Report 09/12/00 12:37:00 PM page 1

Method: IEACT98 Sample Name: 1.0001.0001802C09 Operator: 00180
Run Time: 09/12/00 12:31:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	-.186649	.0296163	-.561964	9.041221	.2963523	.0913333	.0550436
SDev	.127617	.0027538	2.621889	.399576	.0357232	.0002142	.0006218
%RSD	68.37265	9.623053	466.5580	4.969098	12.05432	.2344967	1.129561
#1	-.227176	.0317961	.6770817	8.113712	.3376019	.0910915	.0557220
#2	-.289082	.0270311	1.210766	7.610362	.2757369	.0914989	.0545009
#3	-.043690	.0270218	-3.57374	8.399589	.2757180	.0914096	.0549079
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.0577939	-.047001	.1452631	-.516016	-.000125	-.091148	.0003455
SDev	.1679975	.299608	.4460772	.036262	.003274	.019529	.0013183
%RSD	290.6840	637.4452	307.0823	7.027290	2613.717	21.42531	381.5479
#1	-.110129	-.308231	.4639299	-.495002	.0025199	-.107115	.0018677
#2	.2258661	-.112816	-.364532	-.495159	-.003787	-.096954	-.000416
#3	.0576443	.2800427	.3363914	-.557888	.0008913	-.069374	-.000416
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	.2012934	1.799933	.0599436	-.290152	-3.17079	-.772812	3.539311
SDev	.0000142	1.058431	.0035070	.269148	5.10341	1.708340	3.845764
%RSD	.0070619	58.80394	5.850568	92.76110	160.9509	221.0549	108.6586
#1	.2013084	1.031653	.0559055	-.290870	-5.10032	-1.45893	-.817126
#2	.2012916	1.360916	.0616993	-.558940	-7.02811	1.171920	6.463180
#3	.2012801	3.007230	.0622260	-.020645	2.616061	-2.03143	4.971879
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.14292	-2.03562	.0095738	-.196059	4.151013	-1.36200	-.478620
SDev	.50589	8.95414	.0422931	.503892	.086904	1.52498	1.803429
%RSD	44.26260	439.8736	441.7580	257.0101	2.093560	111.9594	376.7975
#1	-1.14288	7.640567	.0230814	.3488323	4.050682	-2.10606	-1.13585
#2	-1.64884	L-10.0289	-.037823	-.645217	4.202803	.3920911	1.561249
#3	-.637060	-3.71852	.0434631	-.291793	4.199554	-2.37227	-1.86126
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.0001802D01 Operator: 00181
Run Time: 09/12/00 12:37:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.4257019	.0277142	-2.85415	11.52984	.3582466	.0913670	.0558576
SDev	.4953591	.0031252	1.66293	.77400	.0545618	.0001009	.0006218
%RSD	116.3629	11.27634	58.26344	6.713028	15.23024	.1104192	1.113102
#1	-.105498	.0311248	-4.67515	10.97883	.2963795	.0914308	.0553149
#2	.5075878	.0270302	-2.47120	11.19595	.3994921	.0914195	.0557220
#3	.8750157	.0249878	-1.41611	12.41474	.3788683	.0912507	.0565360
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.0818758	.3054000	.3576476	-.578269	-.001207	-.059697	.0018677
SDev	.1725508	.2021980	.1604595	.252545	.005068	.026975	.0045667
%RSD	210.7471	66.20741	44.86526	43.67256	419.7248	45.18562	244.5034
#1	.0347866	.4668746	.2088601	-.807406	-.006991	-.089696	-.002699
#2	-.062242	.3707073	.3364173	-.307492	.0024551	-.037440	.0018677
#3	.2730830	.0786205	.5276654	-.619910	.0009138	-.051956	.0064344
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	.2285649	.3731279	.0519258	-.289262	-1.17947	-.493635	1.969324
SDev	.0472598	.3292627	.0035522	.446709	1.03892	.141704	3.186777
%RSD	20.67674	88.24391	6.840835	154.4306	88.08379	28.70632	161.8209
#1	.2013906	.0438652	.0478292	-.736076	-2.37175	-.379298	2.880501
#2	.2831357	.7023906	.0537986	-.289053	-.468442	-.449436	-1.57380
#3	.2011686	.3731279	.0541497	.1573424	-.698208	-.652171	4.601269
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-4.59877	-2.03684	.0366514	-.214061	3.501128	-3.49958	1.007084
SDev	3.03766	4.43280	.1631044	.387700	.084595	2.93815	1.321751
%RSD	66.05266	217.6316	445.0155	181.1168	2.416227	83.95735	131.2454
#1	-4.43073	-6.24437	-.119207	-.661732	3.454265	-.108694	-.514396
#2	-7.71696	2.591248	.2061458	.0117688	3.450336	-5.09925	1.871984
#3	-1.64863	-2.45738	.0230152	.0077813	3.598784	-5.29080	1.663665
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

00182

Method: IEACT98 Sample Name: 1.0001.0001802C20 Operator:
Run Time: 09/12/00 12:43:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.2628055	.0238461	-2.18824	10.43136	.2206962	.0912924	.0547722
SDev	.2667578	.0014121	.64607	.52930	.0119126	.0000949	.0008473
%RSD	101.5039	5.921895	29.52445	5.074136	5.397720	.1039551	1.546959
#1	.0789614	.0249789	-1.44896	9.833124	.2138467	.0912959	.0540930
#2	.5687619	.0222640	-2.47127	10.62209	.2344516	.0913854	.0545009
#3	.1406931	.0242954	-2.64448	10.83886	.2137903	.0911958	.0557220
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.1771074	.3081863	.2091196	-.495076	.0029859	.0024777	.0044048
SDev	.1650209	.5327219	.1687346	.187544	.0070502	.0119478	.0008789
%RSD	93.17559	172.8571	80.68812	37.88181	236.1162	482.2143	19.95237
#1	.0822648	-.304645	.0815919	-.682728	-.003769	-.011312	.0049122
#2	.0814010	.6606548	.1453142	-.494862	.0024277	.0090097	.0033900
#3	.3676565	.5685494	.4004526	-.307640	.0102986	.0097355	.0049122
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	.2285184	1.470670	.0439080	-.795828	-1.40847	.0979892	2.868138
SDev	.0473219	1.246568	.0033512	.404070	3.54617	.5597278	1.333033
%RSD	20.70814	84.76193	7.632395	50.77352	251.7745	571.2138	46.47728
#1	.2831610	2.348704	.0401040	-1.18415	-.403095	.4069890	4.403325
#2	.2012167	.0438652	.0451956	-.377664	1.526462	.4351035	2.003716
#3	.2011774	2.019441	.0464246	-.825670	-5.34877	-.548125	2.197372
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1.049257	-6.24385	.1857862	.2433484	2.552870	-2.83238	1.560979
SDev	.957745	3.33821	.1132248	.3902376	.147449	.30431	.989897
%RSD	91.27840	53.46393	60.94358	160.4028	5.775828	10.74398	63.37673
#1	.3745756	-10.0290	.0940970	.0328077	2.405978	-2.94657	2.081256
#2	.6277301	-3.72045	.1654669	.0034841	2.700871	-3.06308	2.181574
#3	2.145464	-4.98207	.3077949	.6937535	2.551762	-2.48749	.4201059
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

00183

Method: IEACT98 Sample Name: 1.0001.000PBW090900C Operator:
Run Time: 09/12/00 12:49:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.2523598	.0238547	-2.61294	.4176496	.0831647	.0753575	-.003705
SDev	.2119803	.0003938	5.98276	.7594763	.0119106	.0276185	.000000
%RSD	80.79756	1.650761	225.1398	181.8453	14.32173	36.64994	.0000000
#1	.0175860	.0236262	-4.26557	.2982887	.0900413	.0434665	-.003705
#2	.3848389	.0243094	-7.49262	1.229739	.0694115	.0912547	-.003705
#3	.3846544	.0236285	3.919383	-.275079	.0900412	.0913513	-.003705
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.0973679	.4013695	.1241262	-1.95299	.0024497	.0143323	-.001938
SDev	.1443035	.4041983	.0973983	.15728	.0000398	.0098805	.000761
%RSD	148.2046	100.7048	78.46713	8.053201	1.626664	68.93896	39.27658
#1	-.038278	.2714921	.2091181	-1.80712	.0024601	.0032037	-.002699
#2	.2489979	.8545416	.1454166	-2.11962	.0024057	.0220739	-.001177
#3	.0813836	.0780747	.0178439	-1.93223	.0024834	.0177192	-.001938
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	-.071600	-.175643	.0085010	-.557685	-4.45699	-1.22426	1.698499
SDev	.094613	.190100	.0003041	.308989	2.54391	.71685	5.249618
%RSD	132.1405	108.2307	3.577192	55.40564	57.07680	58.55361	309.0739
#1	.0376493	-.285397	.0086766	-.736887	-5.92464	-.820526	-2.54251
#2	-.126206	-.285397	.0086766	-.735271	-1.51954	-2.05193	.0681552
#3	-.126243	.0438652	.0081499	-.200896	-5.92678	-.800337	7.569852
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.31153	-2.03790	.0028261	.0007915	-.146836	-4.30505	.3138227
SDev	.14606	6.95244	.0352191	.3307006	.149910	1.25971	.4522909
%RSD	11.13643	341.1577	1246.190	42316.37	102.0979	29.26116	144.1231
#1	-1.14288	-2.45858	.0231657	.3321766	.0039083	-3.71619	.6251355
#2	-1.39575	-8.77045	.0231531	-.000612	-.295910	-5.75135	-.204987
#3	-1.39596	5.115337	-.037841	-.329220	-.148506	-3.44762	.5213196
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000LCSW09090C Operator:

00184

Run Time: 09/12/00 12:55:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	319.5707	3.081292	1130.537	573.0596	318.7975	116.5809	16.18871
SDev	.3830	.007946	3.832	5.0764	.9185	.3596	.05276
%RSD	.1198407	.2578867	.3419531	.8858356	.2880985	.3084480	.3259052
#1	319.4471	3.072665	1116.154	567.2016	317.8624	116.1657	16.12820
#2	320.0002	3.088321	1122.200	576.1687	319.6983	116.7899	16.22507
#3	319.2647	3.082862	1123.255	575.8085	318.8319	116.7871	16.21206
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	330.8763	329.9373	330.6182	313.8426	13.60796	21.97253	7.946123
SDev	.4902	1.0329	.8218	1.3641	.01722	.06820	.020959
%RSD	.1481473	.3130610	.2485571	.4346335	.1265443	.3103688	.2637692
#1	330.9026	329.2910	329.7048	312.6345	13.59071	21.89414	7.922021
#2	331.3528	331.1285	330.8520	315.3219	13.62515	22.01825	7.960077
#3	330.3734	329.3922	331.2977	313.5715	13.60802	22.00518	7.956271
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	219.0092	324.2579	2.616212	330.2917	1102.580	1105.904	591.1054
SDev	.4115	1.9847	.022733	1.5518	7.212	4.055	5.4498
%RSD	.1879030	.6120734	.8689147	.4698396	.6540794	.3667076	.9219723
#1	218.5731	322.3921	2.592041	328.5913	1095.881	1101.251	596.5954
#2	219.3908	324.0384	2.637163	330.6524	1110.213	1107.774	591.0239
#3	219.0636	326.3432	2.619431	331.6314	1101.645	1108.687	585.6907
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.452778	1142.429	1079.613	327.7376	338.0624	1108.843	1104.437
SDev	1.522847	9.114	3.042	.7073	.8159	2.014	5.189
%RSD	336.3339	.7102222	.2810099	.2158178	.2413458	.1815877	.4697952
#1	-.463045	1136.539	1076.637	326.9396	337.1243	1106.865	1098.448
#2	1.075178	1151.684	1082.718	328.2872	338.4566	1108.774	1107.275
#3	-1.97047	1139.065	1079.484	327.9859	338.6064	1110.890	1107.587
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.0001635A01 Operator: 00185
Run Time: 09/12/00 13:01:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	515.7901	1.858005	1.831309	2040.667	17.93622	.1380200	44.00094
SDev	6.1291	.006857	2.944982	27.618	.20918	.0732075	.50118
%RSD	1.188291	.3690444	160.8129	1.353382	1.166269	53.04123	1.139018
#1	509.0727	1.850740	1.573392	2009.784	17.70949	.2019675	43.44453
#2	517.2194	1.858912	-.976231	2049.218	17.97744	.0581675	44.14137
#3	521.0783	1.864363	4.896767	2062.998	18.12172	.1539252	44.41653
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	-.073521	127.7343	36.37764	42.09926	4.865467	513.1276	16.65479
SDev	.126401	5.7793	.35052	.63224	.047030	4.2973	.18146
%RSD	171.9235	4.524461	.9635723	1.501794	.9666088	.8374696	1.089531
#1	-.034761	122.6495	36.20839	41.37010	4.814454	508.5578	16.45259
#2	.0289607	134.0195	36.14386	42.43250	4.874846	513.7377	16.70832
#3	-.214763	126.5338	36.78067	42.49517	4.907100	517.0872	16.80346
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	56.80935	36.70178	68.01411	135.4534	-1.35583	.7630710	6.392429
SDev	.56834	.38020	.53111	1.7630	2.66777	2.426975	1.570943
%RSD	1.000425	1.035920	.7808817	1.301556	196.7628	318.0536	24.57506
#1	56.15972	36.92129	67.41705	133.5675	1.510865	-1.33430	6.342084
#2	57.05362	36.92129	68.19132	135.7325	-3.76567	3.421408	4.847263
#3	57.21471	36.26276	68.43335	137.0602	-1.81268	.2021093	7.987940
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	L-129.205	-2.99683	17.44888	2.634558	42.55970	-1.46229	1.874081
SDev	2.843	1.46571	.39327	.504475	.13431	3.51144	1.921032
%RSD	2.200738	48.90873	2.196504	19.14841	.3155876	240.1335	102.5052
#1	L-126.760	-2.15143	17.64137	2.082838	42.42767	-4.85496	.4233844
#2	L-132.326	-4.68929	17.00752	2.748556	42.55550	2.156944	4.052692
#3	L-128.530	-2.14978	17.69774	3.072281	42.69620	-1.68884	1.146168
Errors	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: CCV2 Operator: 00186
Run Time: 09/12/00 13:07:05
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	50.93600	5.591621	534.4172	0550.5957	513.0267	542.2051	27.02146
SDev	.28896	.045270	10.9561	3.9632	3.4283	1.5708	.14786
%RSD	.5673017	.8096044	2.089194	.7196679	.6682524	.2897119	.5471885
#1	51.03812	5.641830	514.4839	0554.2042	516.0044	540.6354	26.85146
#2	50.60985	5.579115	522.5992	0551.4861	513.7968	543.7771	27.09283
#3	51.16004	5.553919	536.1686	546.3969	509.2788	542.2026	27.12010
Errors	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass	QC Pass
Value	50.00000	5.500000	500.0000	500.0000	500.0000	500.0000	26.00000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	539.2470	525.7446	532.8168	503.3340	5.689714	034.04198	26.73955
SDev	1.9056	1.9953	2.9495	5.1497	.029582	.47300	.07970
%RSD	.3533869	.3795148	.5535613	1.023112	.5199276	1.389459	.2980489
#1	537.2645	523.5595	529.4182	508.7506	5.656318	034.57640	26.65152
#2	541.0651	526.2046	534.7074	502.7503	5.700197	033.87239	26.80679
#3	539.4114	527.4697	534.3248	498.5010	5.712528	033.67716	26.76036
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass
Value	500.0000	500.0000	500.0000	500.0000	5.500000	30.00000	25.00000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	530.3929	535.5347	26.53291	520.3402	517.8386	537.3365	528.0110
SDev	1.1912	3.1639	.28368	1.2053	5.5692	4.1476	10.8043
%RSD	.2245910	.5907898	1.069148	.2316352	1.075463	.7718834	2.046220
#1	529.2763	532.1324	26.20576	519.3786	517.0710	535.3502	521.8733
#2	531.5467	538.3884	26.71070	519.3571	512.6929	542.1038	540.4861
#3	530.2555	536.0835	26.60226	521.6849	523.7517	534.5557	521.6735
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000	500.0000	26.00000	500.0000	500.0000	500.0000	500.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	535.6043	0552.2712	531.8390	540.4681	540.1681	540.5172	535.7485
SDev	7.3052	7.3944	2.3552	.5488	1.1289	8.5103	3.8090
%RSD	1.363919	1.338901	.4428448	.1015382	.2089890	1.574482	.7109677
#1	527.6883	546.8009	533.9692	539.8696	539.1195	542.6404	531.7105
#2	537.0386	549.3292	532.2379	540.9477	540.0219	547.7651	539.2773
#3	542.0859	0560.6839	529.3098	540.5870	541.3630	531.1464	536.2577
Errors	QC Pass	QC Fail	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK

Analysis Report QC Standard 09/12/00 01:19:06 PM page 1

Method: IEACT98 Sample Name: CCB2 Operator: 00187
Run Time: 09/12/00 13:13:08
Comment:
Mode: CONC Conv. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	0.3235405	0.0199935	0-3.21141	7.850160	0.0762920	0.0913867	0-.001263
SDev	.2208446	.0010428	4.50281	1.262216	.0315198	.0474407	.000705
%RSD	68.25745	5.215666	140.2130	16.07886	41.31472	51.91198	55.84030
#1	0.5684555	0.0209003	0-5.39988	9.187891	0.0694300	0.0438662	0-.001670
#2	0.2626307	0.0188541	01.967340	7.682340	0.1106776	0.1387471	0-.000448
#3	0.1395533	0.0202263	0-6.20167	6.680249	0.0487684	0.0915467	0-.001670
Errors	QC Fail	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000		.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000		10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	0.0336649	0.1426202	0-.045855	0-2.11968	0.0014287	0.0172352	0.0005998
SDev	.0636709	.3690128	.127411	.06255	.0039690	.0105008	.0019154
%RSD	189.1313	258.7382	277.8585	2.950935	277.7959	60.92643	319.6562
#1	0.1059389	0-.017657	0-.173321	0-2.18230	0-.002225	0.0104613	0.0003455
#2	0-.014148	0.5646709	0-.045744	0-2.05720	0.0008592	0.0293315	0-.001177
#3	0.0092041	0-.119153	0.0815010	0-2.11953	0.0056517	0.0119129	0.0026288
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	0.0375143	.0438658	0.0127148	0-.556943	04.814269	0-.101244	02.484167
SDev	.0001390	.8711472	.0010680	.558817	2.922031	.846937	1.993054
%RSD	.3706231	1985.982	8.399346	100.3365	60.69521	836.5289	80.23029
#1	0.0375396	.7023906	0.0132415	0-.109851	08.127708	0-.020079	03.449037
#2	0.0376389	.3731279	0.0134171	0-.377552	03.709006	0.7021878	03.812060
#3	0.0373643	-.943923	0.0114858	0-1.18343	02.606093	0-.985842	0.1924028
Errors	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000		.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000		10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.816790	-1.61025	.1112850	0-.107405	0-.196479	-1.34730	.5208429
SDev	.91295	7.17598	.0621088	.388065	.087960	1.95092	1.648350
%RSD	44.74368	443.9907	55.81060	361.3111	44.76798	144.8022	316.4731
#1	-.889653	-3.71927	.1249604	0-.320869	0-.298027	-3.59958	1.766989
#2	-2.40718	6.376280	.0435113	0.3405299	0-.147411	-.182238	1.143737
#3	-2.15388	-7.50574	.1654832	0-.341875	0-.143999	-.260083	-1.34818
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: 1.0005.0001815A10 Operator:
Run Time: 09/12/00 13:19:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	1.847445	28.56291	39.31858	194.4090	518.2455	1.993592	151.5714
SDev	.183069	.10083	4.53974	.4278	1.4783	.027028	.6197
%RSD	9.909299	.3810331	11.54606	.2200731	.2852553	1.469492	.4088524
#1	1.664465	28.46276	43.43510	194.2170	516.6172	1.975816	150.8558
#2	2.030603	28.67873	34.44963	194.8392	519.5033	1.879301	151.9300
#3	1.847267	28.54724	40.07100	194.1108	518.6162	1.925660	151.9284
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	-.299017	40.63883	27.42930	95.54259	90.08634	5.134459	28.67583
SDev	.229319	.53740	.06142	.23667	.30569	.026498	.08671
%RSD	76.69095	1.322383	.1641058	.2477075	.3393347	.5160893	.3023969
#1	-.515768	41.16112	27.36834	95.27170	89.73336	5.108331	28.57866
#2	-.322365	40.66787	27.49117	95.64681	90.26361	5.161312	28.74534
#3	-.058917	40.08749	27.42838	95.70926	90.26306	5.133733	28.70349
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	7913.444	3.775509	13.30017	70.49020	-.117100	31.43087	7.187775
SDev	22.418	.380200	.05539	.79429	.970238	1.24331	4.111401
%RSD	.2832904	10.07016	.4164966	1.126812	828.5530	3.955712	57.19991
#1	7887.795	3.336492	13.26102	70.75919	-1.03653	30.00320	11.93432
#2	7929.297	3.995017	13.36355	69.59634	-.211768	32.01376	4.894165
#3	7923.240	3.995017	13.27594	71.11507	.8970010	32.27565	4.734032
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-6.48295	4.462670	406.7575	46.25196	233.3816	29.03477	32.22773
SDev	1.02733	11.03946	1.9992	.32975	.6414	.33758	1.74594
%RSD	15.84662	247.3176	.4914908	.7129488	.2748286	.7963237	5.417499
#1	-7.58633	1.422340	404.5554	45.92341	232.7291	29.56047	30.22423
#2	-6.30849	-4.73631	408.4583	46.24956	234.0113	29.96815	33.03503
#3	-5.55401	16.70500	407.2588	46.58290	233.4043	29.97568	33.42391
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0005.0001815A14 Operator:
Run Time: 09/12/00 13:35:10
Comment:
Mode: CONC Conv. Factor: 1

00189

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.3632210	.0683556	2.462136	1796.212	80.21208	.0929284	35.72408
SDev	.3085450	.0015743	3.083614	15.801	.62946	.0003059	.21634
%RSD	84.94713	2.303086	125.2414	.8846236	.7847406	.3291646	.6055728
#1	.3227450	.0692663	1.401841	1769.148	79.51067	.0931851	35.48217
#2	.6900071	.0665387	5.936006	1789.151	80.39777	.0925899	35.79111
#3	.0769108	.0692648	.0485602	1800.337	80.72781	.0930100	35.89897
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.1025974	2.165891	2.318455	-.744772	1.287825	51.91864	15.98298
SDev	.0834103	.168369	.167522	.062573	.004873	.31500	.09310
%RSD	81.29871	7.773670	7.225592	8.401634	.3784062	.6067202	.5824668
#1	.1989101	2.360306	2.128635	-.744782	1.283546	51.60534	15.87947
#2	.0548663	2.068037	2.445611	-.682194	1.286001	51.91525	16.00962
#3	.0540157	2.069331	2.381120	-.807340	1.293129	52.23532	16.05985
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	1271.302	1.031653	67.21584	10.91712	-4.51793	.2629217	5.216865
SDev	8.783	.329263	.10309	.18632	1.65971	1.479751	2.154002
%RSD	.6908379	31.91602	.1545685	1.706713	36.73615	562.8106	41.28920
#1	1261.451	1.031653	67.11822	11.06666	-2.94327	-.265935	2.822078
#2	1274.140	.7023906	67.32504	10.70839	-4.35922	-.879738	5.832475
#3	1278.315	1.360916	67.20425	10.97632	-6.25130	1.934438	6.996043
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-3.84232	.6225506	2.224911	.9493927	7.569352	-.552326	.6699346
SDev	2.77437	1.463673	.154522	.3900996	.148987	2.023248	1.905068
%RSD	85.56724	235.1089	6.733239	40.12005	1.968292	366.2139	296.3070
#1	-1.64022	-.245628	2.458990	.7270279	7.569191	1.112397	-.954067
#2	-6.44588	2.312440	2.152176	1.389215	7.420456	-2.80421	.0810574
#3	-1.64086	-.199160	2.273559	.7319555	7.718430	.0348386	2.882814
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

00190

Method: IEACT98 Sample Name: 1.0001.0001794A01 Operator:
Run Time: 09/12/00 13:31:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.6759928	1.051706	13.81126	4140.214	349.6030	.1581558	140.5293
SDev	.1869902	.003791	5.93569	45.443	3.0617	.0007089	1.0030
%RSD	27.66157	.3604455	42.97717	1.097603	.8757681	.4482190	.7137647
#1	.5130110	1.047619	17.33609	4092.818	346.2698	.1584010	139.4834
#2	.8801337	1.052391	17.13942	4144.411	350.2491	.1587273	140.6214
#3	.6348336	1.055108	6.958255	4183.413	352.2901	.1573692	141.4831
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.1951990	5.175873	3.793560	2.964307	60.54479	59.91406	44.85179
SDev	.2205825	.259202	.532508	.200694	.46151	.76663	.31303
%RSD	113.0029	5.007891	14.03716	6.770359	.7622626	1.279549	.6979144
#1	.2444153	5.469085	3.179718	2.880972	60.05117	59.21078	44.53237
#2	-.045835	4.977249	4.069455	2.818706	60.61770	59.80011	44.86498
#3	.3870163	5.081286	4.131509	3.193243	60.96551	60.73128	45.15801
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	1200.626	1.360916	131.5946	34.34308	-.581805	.4197832	6.373670
SDev	9.248	.987788	.4329	.31342	3.980131	1.055570	3.228389
%RSD	.7703000	72.58259	.3289318	.9126108	684.1008	251.4560	50.65197
#1	1190.870	1.360916	132.0796	34.04550	-1.65888	1.378129	2.892712
#2	1201.744	.3731279	131.4565	34.31351	3.826020	.5928438	6.958857
#3	1209.265	2.348704	131.2476	34.67024	-3.91255	-.711623	9.269439
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-4.86132	-1.32288	21.66583	1.910813	47.12648	-2.83894	2.046704
SDev	1.34026	9.66653	.73301	.182974	.38540	1.30527	2.213329
%RSD	27.56985	730.7178	3.382490	9.575710	.8177943	45.97721	108.1303
#1	-3.84932	-9.80150	21.81245	1.699801	46.74604	-3.69334	3.910062
#2	-4.35332	9.203439	22.31648	2.007096	47.11674	-3.48703	2.629720
#3	-6.38131	-3.37058	20.86856	2.025541	47.51665	-1.33646	-.399672
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0005.0001734A01L Operator: 00191
Run Time: 09/12/00 13:37:11
Comment:
Mode: CONC Conc. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.4958585	.2395940	3.100714	838.9111	72.18916	.0644049	29.64153
SDev	.5843649	.0029682	.756876	4.5722	.21661	.0283000	.08663
%RSD	117.8491	1.238854	36.02946	.5469814	.3000647	43.94070	.2922658
#1	-.116672	.2382354	1.318606	840.0199	72.10233	.0972826	29.54845
#2	.5569964	.2375483	3.829542	836.7296	73.40910	.0481904	29.71981
#3	1.047251	.2429984	2.153995	830.9849	71.57603	.0479410	29.65632
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	-.064447	.9018135	.8730304	-1.24457	12.77154	9.261963	9.182934
SDev	.185863	.5162385	.5420286	.18750	.02460	.077993	.023855
%RSD	288.3960	57.24445	62.08580	15.06555	.1925972	.8420775	.2597734
#1	-.022457	.5093052	.5607667	-1.24441	12.75584	9.171967	9.157310
#2	-.267714	.7095382	.4692572	-1.43215	12.79989	9.309864	9.204498
#3	.0968287	1.486597	1.489067	-1.05715	12.75890	9.304057	9.186993
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	251.8550	1.141408	29.65504	6.743948	.0898904	.6259451	4.616159
SDev	.5800	.685415	.15795	.492184	3.429871	1.086087	1.539327
%RSD	.2303022	60.04998	.5326144	7.298166	3815.615	173.5115	33.35950
#1	251.3373	.3731279	29.51529	6.415842	2.847477	1.193114	6.377956
#2	252.4818	1.690179	29.82640	7.309878	1.172967	-.526311	3.943650
#3	251.7460	1.360916	29.62344	6.506124	-3.75077	1.311032	3.526869
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	220371	220372
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.46100	2.142219	5.540472	.5122305	9.275430	-.420914	1.148534
SDev	3.65608	1.924658	.806890	.1952788	.314438	2.233006	1.081797
%RSD	181.7991	89.80821	14.54485	38.12322	3.290652	530.5122	94.17694
#1	-1.37350	1.720416	4.472647	.3913117	9.909332	1.974285	.5931135
#2	-4.15975	.4651135	5.129669	.4078634	9.449095	-2.44530	.2818215
#3	1.150254	4.244128	5.028101	.7375164	9.308066	-.791725	2.360835
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.0001892A05 Operator: 0^19?
Run Time: 09/12/00 13:43:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.4052547	.0576808	-2.09632	61.51817	73.00324	.0906056	22.60096
SDev	.2207781	.0006821	.65231	3.56816	.29276	.0000179	.09118
%RSD	54.47883	1.182459	31.11674	5.800168	.4010214	.0197513	.4034459
#1	.5889022	.0583632	-2.37450	65.27240	72.68687	.0905881	22.59960
#2	.1603031	.0569990	-2.56343	61.11112	73.26457	.0906047	22.69281
#3	.4665589	.0576804	-1.35104	58.17100	73.05827	.0906239	22.51046
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.3786822	.2843960	1.494954	219.4159	.0792253	17.28400	2.756847
SDev	.0602324	.3367866	.160369	.7576	.0099713	.09659	.006822
%RSD	15.90578	118.4217	10.72738	.3452987	12.58605	.5588630	.2474469
#1	.3852083	.4785304	1.346293	218.5410	.0907392	17.17295	2.753295
#2	.3154526	-.104492	1.473664	219.8533	.0735010	17.34859	2.764712
#3	.4353858	.4791490	1.664905	219.8533	.0734358	17.33044	2.752534
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	2.155346	.9218991	22.95223	346.0955	1.074513	15.44609	4.648147
SDev	.047112	.1900999	.34150	2.2483	2.623658	1.38358	3.209370
%RSD	2.185799	20.62047	1.487861	.6496214	244.1719	8.957505	69.04623
#1	2.182551	.7023906	22.57844	344.9341	4.034047	16.40652	6.126904
#2	2.182542	1.031653	23.03036	348.6870	.1555011	16.07154	6.851559
#3	2.100947	1.031653	23.24790	344.6653	-.966010	13.86021	.9659779
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	176.0375	-3.69075	.0072271	1.357675	670.4765	11.40232	17.46494
SDev	2.5329	3.33948	.0203283	.002659	1.9785	.23428	2.13184
%RSD	1.438832	90.45530	281.2779	.1958752	.2801721	2.054667	12.20637
#1	178.6504	-4.95237	-.013051	1.354604	670.7313	11.51665	18.84779
#2	175.8689	-6.21457	.0071262	1.359246	672.2145	11.13283	18.53719
#3	173.5931	.0946885	.0276057	1.359174	668.4836	11.55749	15.00985
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.0001714A01 Operator: 00193
Run Time: 09/12/00 13:49:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.3235456	.0461056	-3.85420	27.34046	21.98604	.1065576	94.24309
SDev	.0356855	.0011791	2.75455	.66006	.04300	.0275328	.07118
%RSD	11.02951	2.557505	71.46889	2.414215	.1955569	25.83839	.0755267
#1	.3647516	.0454225	-3.86461	28.06052	21.93785	.0905180	94.16399
#2	.3028893	.0454272	-6.60352	27.19679	21.99980	.1383493	94.30197
#3	.3029958	.0474672	-1.09445	26.76407	22.02047	.0908056	94.26330
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	-.012216	3.695822	.3340223	.0882452	5.002728	2.778581	8.206932
SDev	.248656	.393464	.0634714	.0953646	.012651	.023529	.009933
%RSD	2035.418	10.64619	19.00214	108.0677	.2528830	.8467952	.1210372
#1	.1855395	3.274377	.2706824	.0049865	5.015870	2.799629	8.199067
#2	-.291369	3.759565	.3337600	.0674615	5.001681	2.782936	8.218095
#3	.0691805	4.053522	.3976243	.1922877	4.990633	2.753179	8.203633
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	1640.882	.8121449	1.658877	2.010957	-2.57024	-.467801	6.352795
SDev	1.447	.5029571	.003386	.051263	1.67723	2.005264	2.471821
%RSD	.0881865	61.92948	.2041326	2.549206	65.25601	428.6573	38.90919
#1	1639.217	.7023906	1.655014	2.040049	-2.19232	1.403681	6.620720
#2	1641.591	.3731279	1.660281	2.041057	-1.11420	-.222759	8.679730
#3	1641.837	1.360916	1.661335	1.951766	-4.40419	-2.58433	3.757925
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.32482	-1.46783	-.518292	.1494701	9.298349	-3.99056	1.290338
SDev	1.43613	3.78670	.065512	.3827853	.174748	1.57755	2.673620
%RSD	61.85959	257.9790	12.63991	256.0949	1.879345	39.53193	207.1067
#1	-1.14458	-1.47109	-.470725	.5914124	9.196566	-4.11957	4.161160
#2	-3.92662	2.320493	-.593015	-.077813	9.198355	-2.35247	.8405013
#3	-1.90327	-5.25290	-.491137	-.065189	9.500129	-5.49964	-1.12885
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0005.0001714A01L Operator:
Run Time: 09/12/00 13:55:11
Comment:
Mode: CONC Corr. Factor: 1

00194

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	-.061140	.0411114	-1.39001	9.288943	4.500729	.1546664	19.66843
SDev	.162020	.0010423	2.62948	.643290	.035678	.0274431	.31568
%RSD	265.0000	2.535380	189.1703	7.132730	.7927109	17.74338	1.605028
#1	-.122116	.0420206	-3.75116	9.685123	4.480124	.1386823	19.35027
#2	-.183824	.0413397	-1.86257	9.182908	4.480137	.1863545	19.67345
#3	.1225211	.0399738	1.443710	8.398799	4.541926	.1389625	19.98157
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.0164366	.5633199	.1048990	-2.20313	1.038537	.2468232	1.660589
SDev	.2266213	.2914611	.1272751	.21951	.013698	.0441256	.019852
%RSD	1378.764	51.73988	121.3310	9.963641	1.318942	17.87741	1.195497
#1	-.006686	.5625365	.1054179	-1.99475	1.032234	.1991637	1.643591
#2	-.197737	.2722513	-.022635	-2.43230	1.029126	.2550486	1.655769
#3	.2537326	.8551719	.2319138	-2.18232	1.054252	.2862573	1.682408
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	344.1615	.7023906	.2679378	-.109926	-.444695	-1.27849	6.265398
SDev	4.4220	.3292627	.0049108	.544364	3.167033	.96805	1.449977
%RSD	1.284870	46.87743	1.832810	495.2106	712.1813	75.71815	23.14261
#1	339.7949	.3731279	.2623780	.1579217	-2.90438	-2.21250	7.202822
#2	344.0525	.7023906	.2697520	-.736318	-1.55847	-.279665	6.998086
#3	348.6370	1.031653	.2716833	.2486194	3.128768	-1.34330	4.595287
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.56490	1.068258	-.140986	-.116980	1.858312	-.797337	-1.51870
SDev	2.15062	2.520458	.219773	.191899	.086171	.271336	1.41647
%RSD	137.4294	236.8769	155.8832	164.0451	4.637077	34.03032	93.26821
#1	.8793370	-1.46848	-.201780	-.010094	1.957691	-1.04029	-2.79773
#2	-3.16707	3.592389	-.323961	-.338521	1.812905	-.847191	.0036728
#3	-2.40697	1.080868	.1027849	-.002324	1.804339	-.504530	-1.76205
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.0001714A02 Operator:
Run Time: 09/12/00 14:01:11
Comment:
Mode: CONC Corr. Factor: 1

00195

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.1038754	.0442937	-.718499	21.57313	67.05323	.0744109	142.8635
SDev	.0936550	.0048348	1.990686	.32342	.29967	.0273936	1.0681
%RSD	90.16087	10.91530	277.0616	1.499181	.4469195	36.81398	.7476606
#1	.0017073	.0495188	.7452769	21.54980	66.76440	.0427795	141.7586
#2	.1856597	.0433837	-2.98527	21.90759	67.03260	.0902164	142.9411
#3	.1242592	.0399786	.0844901	21.26201	67.36269	.0902368	143.8907
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	-.064392	1.370371	.4099449	-1.14091	.5015217	5.823223	6.459160
SDev	.199316	.392897	.0634747	.13006	.0009085	.023361	.037504
%RSD	309.5356	28.67086	15.48373	11.40081	.1811443	.4011654	.5806286
#1	-.224075	.9166927	.3464175	-1.18248	.5020662	5.798546	6.419582
#2	.1589865	1.597776	.4100503	-.995025	.5020260	5.826126	6.463726
#3	-.128088	1.596643	.4733669	-1.24494	.5004730	5.844996	6.494171
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	305.7358	.4828822	2.087214	1.649584	.1026402	-1.43773	4.749884
SDev	1.6859	.1900999	.019951	.272507	.7245574	.96584	2.633996
%RSD	.5514280	39.36776	.9558504	16.51974	705.9194	67.17798	55.45390
#1	304.1536	.3731279	2.066730	1.946810	.6581250	-1.50053	1.814345
#2	305.5446	.7023906	2.088326	1.411513	-.716915	-2.37062	5.528527
#3	307.5092	.3731279	2.106585	1.590431	.3667105	-.442019	6.906780
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_3924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-3.25445	-7.49154	-1.22003	-.414273	6.622876	-3.98210	-.167446
SDev	1.24739	2.62944	.02064	.193545	.173634	2.19681	.373754
%RSD	38.32877	35.09873	1.690272	46.71933	2.621725	55.16717	223.2006
#1	-2.66434	L-10.4397	-1.19997	-.637748	6.521509	-4.38049	-.062715
#2	-2.41161	-5.38887	-1.24123	-.300546	6.523753	-5.95245	-.582394
#3	-4.68740	-6.64603	-1.22130	-.304525	6.823367	-1.61335	.1427701
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.0001714A03 Operator: 00196
Run Time: 09/12/00 14:07:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.2301489	.0429317	-2.10815	15.87583	66.35411	.1062370	147.4678
SDev	.3084578	.0017128	.52587	.30945	.31973	.0549724	.6074
%RSD	134.0253	3.989711	24.94456	1.949219	.4818571	51.74510	.4118853
#1	.5569154	.0427057	-2.71200	16.23125	66.12037	.0427604	146.8014
#2	.1895010	.0447463	-1.86158	15.73009	66.22349	.1379061	147.6118
#3	-.055970	.0413430	-1.75087	15.66616	66.71847	.1380446	147.9903
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	-.065523	4.577579	.2696916	-1.14084	6.797071	3.413880	7.671361
SDev	.108674	.459713	.1467839	.19093	.022618	.027275	.027927
%RSD	165.8552	10.04272	54.42659	16.73557	.3327554	.7989578	.3640417
#1	-.190981	4.221171	.1002005	-1.18250	6.780308	3.382429	7.641932
#2	-.000497	5.096468	.3547655	-1.30750	6.788107	3.431056	7.674659
#3	-.005092	4.415096	.3541087	-.932528	6.822796	3.428153	7.697493
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	1451.528	.4828822	1.082357	1.774409	-.678696	-3.02025	5.594417
SDev	4.115	.1900999	.006022	.154461	3.825638	1.35709	1.809083
%RSD	.2835072	39.36776	.5563552	8.704950	563.6749	44.93294	32.33729
#1	1447.681	.3731279	1.075451	1.684932	3.551893	-1.77683	3.749322
#2	1451.037	.7023906	1.086512	1.685531	-3.89497	-4.46786	5.668731
#3	1455.867	.3731279	1.085108	1.952766	-1.69300	-2.81607	7.365197
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.06307	-1.83771	-1.27738	-.679018	2.702732	-5.11048	-1.97671
SDev	.58393	7.56443	.02011	.194743	.225202	3.37468	1.81420
%RSD	54.92826	411.6236	1.574661	28.68012	8.332387	66.03458	91.77876
#1	-.388012	-1.84852	-1.29731	-.791046	2.505586	-1.44828	-1.94085
#2	-1.40017	5.732124	-1.25709	-.454148	2.654452	-5.78845	-3.80856
#3	-1.40024	-9.39672	-1.27773	-.791859	2.948159	-8.09471	-.180702
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.0001714A04 Operator: 00197
Run Time: 09/12/00 14:13:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.4509375	.0458865	-.759736	22.85383	25.60717	.1387794	62.40097
SDev	.0934969	.0014183	2.857328	.43025	.08993	.0001341	.26710
%RSD	20.73390	3.090974	376.0947	1.882635	.3511844	.0966465	.4280347
#1	.3692706	.0474763	-3.97607	23.28378	25.50401	.1389135	62.09352
#2	.4306188	.0454320	1.485402	22.42328	25.66907	.1386452	62.53352
#3	.5529229	.0447511	.2114560	22.85444	25.64842	.1387796	62.57585
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	-.113677	1.877305	.3085364	2.692192	.5730020	1.680236	10.83404
SDev	.157395	.393020	.3269289	.125025	.0032475	.020026	.04243
%RSD	138.4584	20.93534	105.9612	4.643986	.5667543	1.191851	.3916526
#1	-.089867	2.298567	.3937795	2.567184	.5739793	1.665237	10.78533
#2	.0304566	1.520495	-.052570	2.817234	.5693794	1.672494	10.85383
#3	-.281620	1.812852	.5844000	2.692159	.5756505	1.702977	10.86297
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	312.3462	-.065889	1.367544	.7861062	-2.09993	-.968552	3.510746
SDev	1.1638	.190100	.017975	.3579117	2.70948	.734403	.865879
%RSD	.3725993	288.5154	1.314383	45.52968	129.0274	75.82481	24.66366
#1	311.0100	.0438652	1.347763	.7872533	.9239304	-1.40907	2.562020
#2	313.1374	-.285397	1.371992	.4276223	-4.30720	-.120754	4.258395
#3	312.8914	.0438652	1.382878	1.143443	-2.91651	-1.37583	3.711822
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.99857	2.627906	-.349314	-.512597	10.56333	-3.39479	.8427299
SDev	1.39258	4.059692	.077555	.189923	.26161	.84767	.7479922
%RSD	46.44136	154.4830	22.20210	37.05111	2.476560	24.97006	308.1582
#1	-3.67259	-.321866	-.360549	-.622465	10.71323	-3.47171	-.379292
#2	-3.92589	7.258104	-.383436	-.293293	10.71550	-2.51123	1.072691

00198

Method: IEACT98 Sample Name: CCV3 Operator:
Run Time: 09/12/00 14:19:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	48.87515	5.363791	507.8120	523.6141	490.4854	519.7644	26.07240
SDev	.43097	.060130	4.7935	3.7056	6.7955	2.0138	.03652
%RSD	.8817854	1.121188	.9439566	.7076965	1.385468	.3874387	.1400571
#1	49.30769	5.426662	508.3600	527.8273	497.8296	521.9581	26.11188
#2	48.44575	5.357893	502.7680	522.1544	489.2064	519.3355	26.06548
#3	48.87202	5.306820	512.3020	520.8607	484.4203	517.9996	26.03984
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	50.00000	5.500000	500.0000	500.0000	500.0000	500.0000	26.00000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	524.8457	504.2150	515.0554	477.7322	5.561882	32.55196	25.87366
SDev	1.2080	1.1742	2.0116	7.2556	.034082	.34950	.17216
%RSD	.2301660	.2328806	.3905529	1.518761	.6127819	1.073675	.6653801
#1	526.2134	504.6333	517.3708	485.3771	5.598120	32.91074	26.06089
#2	524.3994	505.1228	514.0570	476.8780	5.557055	32.53260	25.83789
#3	523.9244	502.8889	513.7382	470.9415	5.530470	32.21254	25.72220
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000	500.0000	500.0000	500.0000	5.500000	30.00000	26.00000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	514.2534	521.2667	25.67407	500.7834	505.4544	522.1844	512.1061
SDev	2.9532	3.7972	.23887	2.1557	5.4665	2.2786	6.5995
%RSD	.5742814	.7284603	.9303794	.4304578	1.081495	.4363536	1.288706
#1	517.5790	525.2178	25.66658	502.2437	501.9070	524.3889	518.6765
#2	513.2443	520.9374	25.91659	501.7983	511.7496	522.3261	505.4778
#3	511.9370	517.6448	25.43904	498.3075	502.7065	519.8384	512.1640
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000	500.0000	26.00000	500.0000	500.0000	500.0000	500.0000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	514.3032	544.7123	515.0181	518.8869	526.4594	523.7720	521.3918
SDev	5.7303	9.1332	4.2985	3.2773	3.0705	7.4051	1.7669
%RSD	1.112060	1.676702	.8346344	.6316003	.5832635	1.413803	.3380743
#1	519.7995	549.3469	519.5782	522.4840	529.9398	532.2943	520.4421
#2	508.4025	534.1910	514.4356	518.1065	525.3058	520.1139	523.4305
#3	514.9655	0550.5991	511.0406	516.0702	524.1326	518.9078	520.3030
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: CCB3 Operator: 00199
Run Time: 09/12/00 14:29:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	0.1194253	0.0333898	0-.546201	5.508349	0.0625325	0.1231760	0-.002077
SDev	.0933872	.0007853	2.372135	.650870	.011914E	.0275862	.000407
%RSD	78.19715	2.351804	434.2974	11.81606	19.05350	22.39579	19.60096
#1	0.1400949	0.0338444	0.6135414	6.249797	0.0693925	0.1389198	0-.001670
#2	0.0174349	0.0338419	01.022945	5.031218	0.0487747	0.0913228	0-.002484
#3	0.2007461	0.0324830	0-3.27509	5.244031	0.0694302	0.1392853	0-.002077
Errors	QC Fail	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000		.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000		10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	0.0493939	0.2090348	0-.003362	0-2.39059	0.0029938	0-.025828	0-.001430
SDev	.0732246	.5344277	.194757	.14436	.0048172	.005761	.001163
%RSD	148.2461	255.6645	5792.560	6.038747	160.9033	22.30477	81.27816
#1	0-.014965	0.4663207	0-.045746	0-2.30710	0.0071608	0-.030182	0-.001177
#2	0.1290634	0-.405371	0.2090961	0-2.55728	0.0041013	0-.019295	0-.002699
#3	0.0340832	0.5661551	0-.173437	0-2.30737	0-.002281	0-.028005	0-.000416
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	0.0375393	.7023906	0.0073891	0-.139995	02.338050	0-1.51888	08.181365
SDev	.0818489	.5702997	.0004055	.728284	1.700393	1.45885	1.821050
%RSD	218.0349	81.19410	5.487369	520.2227	72.72700	96.04819	22.25852
#1	0.0375436	.0438652	0.0076232	0-.646005	02.876595	0.1251719	06.464683
#2	0-.044312	1.031653	0.0076232	0-.468678	03.703957	0-2.02297	010.09136
#3	0.1193860	1.031653	0.0069209	0.6946996	0.4335968	0-2.65884	07.988052
Errors	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000		.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000		10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.39531	1.329044	.1319855	0-.039102	0-.138439	-4.84109	.0398889
SDev	2.63998	1.261795	.0653824	.502784	.089581	1.09686	1.654412
%RSD	189.2042	94.94006	43.01886	507.0344	45.14269	23.63373	4147.551
#1	-3.16517	1.328131	.2265630	0.3361022	0-.146722	-3.37473	1.872501
#2	-2.65984	.0677058	.1045230	0.0159233	0-.146717	-5.25521	-.409268
#3	1.639085	2.591296	.1248704	0-.649510	0-.301878	-5.29332	-1.34357
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK

00200

Method: IEACT98 Sample Name: 1.0001.0001714A06 Operator:
Run Time: 09/12/00 14:36:00
Comment:
Mode: CONC Conv. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.1243165	.0392945	-1.54467	18.17121	76.00820	.1060850	147.4260
SDev	.2671424	.0011814	4.62143	1.37357	.37283	.0548613	.6864
%RSD	214.8889	3.006546	280.9945	7.559025	.4905166	51.71451	.4655706
#1	-.059138	.0379303	-6.97659	19.16117	75.61649	.0427367	146.6585
#2	.4308073	.0399735	1.210050	19.74939	76.04937	.1376577	147.6386
#3	.0012804	.0399796	.8325267	16.60307	76.35874	.1370605	147.9810
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	-.092754	4.312866	-.035967	-.994971	15.58746	4.413761	7.706880
SDev	.270714	.425682	.064015	.108378	.05804	.020694	.039198
%RSD	291.8631	9.870038	177.9837	10.89257	.3723629	.4688524	.5086063
#1	-.339381	4.606520	-.035201	-1.12012	15.52134	4.393439	7.664004
#2	-.135775	4.507405	.0276618	-.932466	15.61104	4.413035	7.715759
#3	.1968949	3.824674	-.100361	-.932332	15.63001	4.434808	7.740876
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	1534.779	.5926364	1.290117	2.041850	-2.63782	-2.29018	5.629947
SDev	6.816	.8286263	.011218	.237225	3.21691	1.10308	4.089611
%RSD	.4440909	139.8204	.8695244	11.61812	121.9530	48.16546	72.64031
#1	1527.302	1.360916	1.277183	2.132219	.8564488	-3.54754	10.34153
#2	1536.389	.7023906	1.297199	2.220608	-5.47630	-1.48529	3.549195
#3	1540.646	-.285397	1.295970	1.772722	-3.29362	-1.83771	2.999114
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.14827	-2.19993	-1.16256	-.124271	5.198388	-3.63295	-1.61930
SDev	1.33835	9.99814	.08513	.385161	.150034	.95516	1.56652
%RSD	116.6850	454.4760	7.322647	309.9363	2.891726	26.28418	96.74043
#1	-.640985	9.134432	-1.09420	-.335008	5.197143	-3.81814	-3.41245
#2	-.135380	-9.76764	-1.13556	.3202747	5.034168	-2.60012	-.928706
#3	-2.66454	-5.96658	-1.25791	-.358079	5.333853	-4.48360	-.516739
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000T1915A01 Operator:
Run Time: 09/12/00 14:42:00 0201
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.3971041	.1260448	3.629380	111.5654	26.32781	.1727057	29.67219
SDev	.1538566	.0020762	1.913603	.7677	.08991	.0274055	.13484
%RSD	38.74466	1.647270	52.72533	.6881231	.3414979	15.86833	.4544448
#1	.3763166	.1265054	2.485940	110.6800	26.22467	.1888150	29.52037
#2	.5602976	.1237769	5.838563	111.9715	26.36907	.1410623	29.71819
#3	.2546981	.1278521	2.563638	112.0448	26.38968	.1882399	29.77802
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.0480223	.7738948	3.546023	6.483397	.9196410	8.003221	5.921813
SDev	.2779053	.3382396	.127500	.252404	.0048455	.013071	.021148
%RSD	578.7007	43.70615	3.595574	3.893075	.5268868	.1633233	.3571126
#1	.3677666	1.127863	3.673600	6.254363	.9153985	7.990398	5.897458
#2	-.135387	.7398649	3.545869	6.441821	.9186033	8.002736	5.932469
#3	-.088312	.4539564	3.418600	6.754007	.9249213	8.016527	5.935513
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	187.3132	1.251162	43.29540	1.082245	-.961400	3.325839	1.621643
SDev	.6494	1.246568	.16908	.273590	2.401773	1.265229	.420731
%RSD	.3467145	99.63287	.3905226	25.27985	249.8204	38.04241	25.94476
#1	186.5768	.3731279	43.25888	1.142817	1.696619	1.868106	2.104984
#2	187.5586	.7023906	43.14756	1.320472	-1.60505	4.138772	1.428416
#3	187.8042	2.677967	43.47975	.7834447	-2.97577	3.970638	1.337530
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-5.85332	-.324859	2.304555	.1346848	32.36112	.3949200	4.789090
SDev	.38606	3.173878	.073411	.5237904	.22853	1.784989	1.314951
%RSD	6.593385	1549.239	3.185471	388.9008	.7061945	451.9800	27.45717
#1	-6.19241	3.158162	2.325200	-.320161	32.11156	-1.14078	3.370294
#2	-5.93940	-.624994	2.365432	.0168647	32.56018	2.353321	5.030159
#3	-5.43414	-3.14775	2.223032	.7073508	32.41163	-.027763	5.966841
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000F1915A01 Operator:
Run Time: 09/12/00 14:48:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	-.109118	.0442960	2.404205	115.5921	25.51301	.1388695	31.61808
SDev	.324163	.0003937	2.064199	1.3684	.13735	.0000956	.17228
%RSD	297.0760	.8887792	85.85789	1.183859	.5383599	.0688563	.5448727
#1	-.231697	.0440668	3.794644	114.0141	25.36172	.1389502	31.43179
#2	-.354117	.0440707	3.385567	116.3092	25.54739	.1387638	31.65077
#3	.2584598	.0447506	.0324028	116.4530	25.62990	.1388943	31.77166
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.0282084	.4194818	.6243052	1.484022	.0422004	8.575860	6.295326
SDev	.0477845	.1140787	.1275581	.295399	.0024387	.076721	.040640
%RSD	169.3983	27.19514	20.43201	19.90530	5.778933	.8946156	.6451413
#1	.0285530	.5512081	.7518818	1.254730	.0395379	8.487557	6.254420
#2	-.019748	.3533185	.6242682	1.379968	.0427376	8.613843	6.309982
#3	.0758196	.3539190	.4967656	1.817367	.0443258	8.626181	6.333576
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	79.69677	-.065889	45.82545	.7539496	-.182521	-1.96467	4.651690
SDev	.33994	.685415	.05913	.2067227	1.798126	.60987	.294649
%RSD	.4265449	1040.257	.1290249	27.41864	985.1600	31.04179	6.334236
#1	79.31571	.7023906	45.88315	.8736215	1.740865	-2.40202	4.593124
#2	79.80570	-.614660	45.82820	.8729803	-.456945	-1.26799	4.390723
#3	79.96890	-.285397	45.76500	.5152471	-1.82148	-2.22399	4.971225
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-5.77929	-3.00283	-.201805	-.410944	12.38829	-4.77859	-.559816
SDev	1.43815	3.85557	.073071	.183875	.25936	4.59191	2.433601
%RSD	24.88420	128.0657	36.20894	44.74451	2.110609	96.09351	434.7143
#1	-6.20092	.8819688	-.221568	-.623250	12.13828	-.759104	-3.22824
#2	-6.95968	-7.28991	-.262962	-.306866	12.58777	-3.79353	-.007089
#3	-4.17757	-2.24056	-.120885	-.302715	12.13882	-9.78307	1.549880
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000T1915A02 Operator: 00203
Run Time: 09/12/00 14:54:01
Comment:
Mode: CONC Conv. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.3249173	.0576913	21.14473	105.5169	26.99394	.0913534	45.51375
SDev	.1768805	.0018004	2.10456	.4781	.11728	.0000327	.12989
%RSD	54.43864	3.120739	9.953114	.4530680	.4344712	.0357391	.2853875
#1	.4270910	.0583722	19.10891	105.2765	26.86331	.0913909	45.37468
#2	.4269876	.0590520	21.01339	106.0674	27.09019	.0913315	45.63192
#3	.1206732	.0556498	23.31188	105.2067	27.02832	.0913377	45.53464
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	3.409453	1.422853	1.779754	11.85777	1.146232	8.278774	6.950586
SDev	.245600	.292907	.073793	.09537	.006362	.041058	.024419
%RSD	7.203503	20.58589	4.146223	.8043216	.5550299	.4959426	.3513227
#1	3.474167	1.423084	1.864963	11.87858	1.139401	8.249501	6.927245
#2	3.616217	1.715645	1.737131	11.94102	1.151987	8.325707	6.975956
#3	3.137976	1.129831	1.737169	11.75371	1.147308	8.261114	6.948556
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	407.6308	.2633737	45.02086	1.590285	1.636352	-.937563	7.277874
SDev	1.3670	.5029571	.15207	.773743	.948856	.925380	2.542235
%RSD	.3353631	190.9871	.3377747	48.65440	57.98609	98.70060	34.93101
#1	406.1576	.3731279	45.00178	2.037161	1.082302	.1244215	8.745936
#2	408.8584	.7023906	44.87923	.6968427	1.094781	-1.57088	8.745332
#3	407.8765	-.285397	45.18157	2.036850	2.731973	-1.36623	4.342354
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	L-15.2180	-2.54222	.1353124	.0113571	262.2283	-2.66018	-.077544
SDev	1.0588	1.26606	.0354862	.0062667	.7724	1.75315	.571809
%RSD	6.917514	49.79944	26.22539	53.24295	.2945521	65.90321	737.3985
#1	L-15.5558	-3.80893	.1762878	.0133764	261.5771	-.650514	.5113081
#2	L-14.0388	-1.27681	.1146452	.0174956	263.0817	-3.45420	-.630630
#3	L-16.0618	-2.54121	.1150041	.0050015	262.0262	-3.87583	-.113310
Errors	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

00204

Method: IEACT98 Sample Name: 1.0001.000F1915A02 Operator:
Run Time: 09/12/00 15:00:01
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.0784576	.0415693	3.019696	118.4446	27.88529	.1704161	49.13213
SDev	.1968792	.0010453	5.069054	.8971	.21864	.0275162	.39402
%RSD	250.9370	2.514570	167.8664	.7574384	.7840634	16.14646	.8019625
#1	-.064126	.0406570	3.481139	117.5356	27.65151	.1386432	48.71437
#2	.3030919	.0413412	7.842252	118.4690	27.91966	.1862791	49.18490
#3	-.003593	.0427099	-2.26430	119.3293	28.08471	.1863261	49.49710
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	3.070763	1.358606	1.308961	6.879131	.0848301	9.031165	7.492753
SDev	.099301	.312873	.287534	.108345	.0048092	.088239	.045863
%RSD	3.233743	23.02900	21.96655	1.574987	5.669175	.9770489	.6120980
#1	3.039522	1.231110	1.288288	6.816523	.0795665	8.941168	7.443280
#2	3.181927	1.715097	1.606274	6.816633	.0889945	9.034794	7.501125
#3	2.990840	1.129611	1.032322	7.004238	.0859293	9.117534	7.533853
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	421.2810	.2633737	47.72601	1.828770	3.396734	-1.25051	7.497173
SDev	3.3673	.8286263	.14666	.314515	4.904996	1.67142	3.602320
%RSD	.7992996	314.6200	.3072991	17.19817	144.4033	133.6591	48.04905
#1	417.6248	1.031653	47.55688	2.126640	4.417962	-2.42812	4.087988
#2	421.9631	.3731279	47.81795	1.859766	7.710724	-1.98593	11.26569
#3	424.2550	-.614660	47.80321	1.499905	-1.93849	.6625192	7.137937
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	L-16.9065	3.303526	-.420898	-.401770	242.0281	-3.57946	-.088275
SDev	1.3989	1.937210	.070900	.201591	1.4578	.65560	2.234689
%RSD	8.239049	58.64068	16.84495	50.17569	.6023071	18.32072	2531.478
#1	L-15.5577	1.190095	-.379570	-.281273	240.4274	-3.55372	-1.81623
#2	L-16.8221	3.725544	-.380359	-.289540	242.3774	-4.19319	-.883953
#3	L-18.3398	4.994938	-.502765	-.634498	243.2795	-2.88848	2.435359
Errors	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000T1915A03 Operator:
Run Time: 09/12/00 15:06:02
Comment:
Mode: CONC Corr. Factor: 1

00205

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.0995613	.0576898	20.99752	115.3441	27.31016	.1389770	46.00571
SDev	.2478217	.0018064	.84781	.4609	.03151	.0001400	.12214
%RSD	248.9137	3.131241	4.037673	.3995665	.1153957	.1007290	.2654797
#1	.2425657	.0590549	20.09992	115.5352	27.31705	.1389108	45.88510
#2	-.186599	.0583716	21.10791	115.6787	27.33766	.1391378	46.12931
#3	.2427166	.0556410	21.78472	114.8184	27.27577	.1388823	46.00273
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	3.445911	1.878467	1.566474	7.295666	1.172455	8.447880	7.027966
SDev	.248969	.481614	.294115	.252435	.002679	.062033	.015248
%RSD	7.225055	25.63868	18.77564	3.460070	.2284986	.7343047	.2169605
#1	3.589964	1.325136	1.226859	7.066717	1.169361	8.413526	7.026951
#2	3.158426	2.203310	1.736023	7.253903	1.174009	8.519490	7.043696
#3	3.589342	2.106956	1.736541	7.566379	1.173995	8.410624	7.013251
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	413.3057	1.031653	45.27094	1.233055	-2.11075	.9952102	3.695677
SDev	.9834	.871147	.14209	.179458	4.21323	.7697920	5.423848
%RSD	.2379444	84.44186	.3138723	14.55397	199.6082	77.34969	146.7619
#1	412.2960	.0438652	45.21317	1.053702	1.096648	1.014166	6.717636
#2	414.2605	1.360916	45.43281	1.412619	-.546523	.2161154	-2.56598
#3	413.3607	1.690179	45.16682	1.232843	-6.88237	1.755349	6.935377
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	L-13.0276	-9.25602	.0190652	-.200414	264.3810	-1.21747	2.[illegible]
SDev	1.1021	1.45976	.0425114	.380761	.2279	.67419	1.338317
%RSD	8.460007	15.76956	223.9783	189.9876	.0861983	55.37641	63.73270
#1	L-14.2919	L-10.1007	.0530110	.0090288	264.1326	-1.92181	2.479954
#2	L-12.2692	-7.57123	-.028616	-.639917	264.4293	-.578141	.6126483
#3	L-12.5218	L-10.0985	.0328004	.0296477	264.5804	-1.15245	3.207071
Errors	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000F1915A03 Operator: 00206
Run Time: 09/12/00 15:12:02
Comment:
Mode: CONC Conv. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.0983907	.0420253	5.151496	114.7851	27.82345	.1704944	49.43346
SDev	.0934893	.0029701	2.338452	1.1144	.09748	.0275278	.19626
%RSD	95.01843	7.067432	38.01439	.9708503	.3503627	16.14588	.3970199
#1	-.003602	.0454324	3.937305	114.4490	27.71344	.1863604	49.20688
#2	.1800199	.0406617	5.920166	116.0288	27.89909	.1864147	49.55042
#3	.1187540	.0399819	8.597017	113.8773	27.85783	.1387080	49.54310
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	3.199967	1.779497	.9687960	4.171123	.0732845	9.152612	7.538420
SDev	.245600	.311958	.2298631	.200914	.0027549	.026071	.029664
%RSD	7.675071	17.53068	23.72660	4.816784	3.759192	.2848487	.3934992
#1	3.136558	1.908877	1.032806	4.254464	.0701036	9.122613	7.504170
#2	2.992290	1.423666	.7137123	3.941950	.0749038	9.165434	7.555925
#3	3.471054	2.005949	1.159870	4.316955	.0748461	9.169789	7.555164
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	422.8904	.1536195	48.34678	1.740028	2.579445	-2.25774	2.135699
SDev	1.6559	.1900999	.07753	.258477	3.387339	1.93443	1.544564
%RSD	.3915674	123.7473	.1603725	14.85474	131.3205	85.67999	72.32126
#1	420.9807	.0438652	48.30675	1.590798	-1.10771	-1.11730	3.865633
#2	423.7633	.3731279	48.29744	1.590795	5.553395	-1.16466	.8950017
#3	423.9271	.0438652	48.43615	2.038491	3.292648	-4.49125	1.646461
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	L-16.0637	-7.63218	-.448581	.524483	243.0334	-4.52532	-1.12565
SDev	3.7423	7.08301	.042851	.002418	.8247	4.86423	1.56094
%RSD	23.29682	92.01845	9.418864	.5071800	.3393307	107.4894	138.6704
#1	L-17.8339	-.064854	-.451698	-.625952	242.2344	.4908397	-1.92016
#2	L-11.7647	-8.89108	-.401327	-.621693	242.9842	-4.84492	.6727135
#3	L-18.5926	L-13.9406	-.482718	-.625805	243.8816	-9.22187	-2.12949
Errors	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000T1915A04 Operator:
Run Time: 09/12/00 15:18:02
Comment:
Mode: CONC Corr. Factor: 1

00207

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.2400874	.1719213	23.50343	106.8997	31.52605	.1573468	43.44100
SDev	.1836248	.0021888	2.77160	.1889	.06300	.0273486	.12038
%RSD	76.48247	1.273167	11.79234	.1767348	.1998418	17.38111	.2771179
#1	.0564944	.1735076	24.87828	107.0419	31.45732	.1416103	43.30248
#2	.2400240	.1728321	20.31318	106.9720	31.53980	.1415040	43.50029
#3	.4237439	.1694241	25.31883	106.6854	31.58105	.1889262	43.52024
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	-.004698	1.252419	6.188605	13.02454	2.769546	8.093943	6.925976
SDev	.120327	.147806	.220886	.07214	.005954	.019166	.016698
%RSD	2560.996	11.80164	3.569233	.5538604	.2149791	.2367979	.2410948
#1	-.019812	1.124517	6.443662	13.06608	2.762730	8.073136	6.906695
#2	-.116755	1.218504	6.061066	13.06629	2.772178	8.097814	6.935617
#3	.1224718	1.414234	6.061087	12.94124	2.773731	8.110878	6.935617
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	487.5242	.2633737	45.78659	1.887556	-1.34922	2.283228	6.649531
SDev	1.1011	.6854150	.10556	.899575	.55827	1.461606	2.903414
%RSD	.2258635	260.2443	.2305385	47.65819	41.37754	64.01492	43.66343
#1	486.2966	1.031653	45.68265	2.840840	-1.16146	2.942758	3.972565
#2	487.8515	-.285397	45.89369	1.768220	-1.97716	3.298846	6.240101
#3	488.4246	.0438652	45.78343	1.053601	-.909026	.6080707	9.735928
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-11.7522	-5.15022	3.111479	.6344239	114.8476	.3978500	3.229496
SDev	2.2481	1.45448	.175500	.0086545	.3098	3.674010	.360446
%RSD	19.12792	28.23727	5.640673	1.364145	.2697580	947.2761	11.16107
#1	L-10.9939	-3.47144	3.257638	.6441109	114.9440	1.949234	3.438775
#2	-9.98269	-5.99138	3.145264	.6274542	115.0978	3.023283	3.436422
#3	L-14.2823	-5.98996	2.921534	.6317066	114.5011	-3.80897	2.813291
Errors	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000F1915A04 Operator:
Run Time: 09/12/00 15:24:02
Comment:
Mode: CONC Conv. Factor: 1

07208

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.3207228	.0458811	1.297865	108.5453	30.79422	.1546503	45.66014
SDev	.4679609	.0003958	1.349857	.2518	.26846	.0275241	.11850
%RSD	145.9082	.8627489	104.0059	.2319684	.8717809	17.79763	.2595309
#1	.4230762	.0454240	2.583189	108.2826	30.51916	.1386991	45.60669
#2	.7290352	.0461089	1.418793	108.7845	30.80796	.1864323	45.57778
#3	-.189943	.0461104	-.108387	108.5680	31.05554	.1388194	45.79596
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.2169602	1.195683	1.090890	5.275122	.0626777	8.609245	7.269239
SDev	.1661215	.296550	.110461	.072122	.0023628	.097399	.038165
%RSD	76.56776	24.80172	10.12574	1.367215	3.769788	1.131326	.5250179
#1	.1212618	.9375043	1.027452	5.316752	.0621609	8.520217	7.243868
#2	.1208380	1.519579	1.218438	5.316771	.0652561	8.594246	7.250718
#3	.4087806	1.129965	1.026779	5.191843	.0606161	8.713274	7.313130
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	477.5124	.7023906	48.02273	1.768832	2.980836	-1.33784	5.564213
SDev	2.3285	.3292627	.16516	.558397	5.000710	1.02530	2.910878
%RSD	.4876412	46.87743	.3439102	31.56815	167.7620	76.63847	52.31429
#1	475.9300	1.031653	47.83376	1.947842	8.309647	-2.44597	8.127861
#2	476.4210	.7023906	48.13943	2.215763	-1.60969	-.422854	6.164939
#3	480.1862	.3731279	48.09501	1.142891	2.242550	-1.14468	2.399839
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	L-11.7640	-4.93167	-.197439	-.175084	38.47738	-4.53319	.3223500
SDev	.4380	5.78317	.031219	.195635	.31538	.92049	1.919575
%RSD	3.723321	116.5509	16.05533	111.7566	.8195061	19.73941	595.4940
#1	L-11.5110	L-10.0143	-.153201	.0508350	38.37660	-4.11235	-1.61403
#2	L-11.5112	1.345960	-.214328	-.286129	38.22476	-5.72584	2.224664
#3	L-12.2697	-6.21670	-.194787	-.289869	38.83077	-4.15139	.3564174
Errors	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

00209

Method: IEACT98 Sample Name: 1.0001.000T1915A04D Operator:
Run Time: 09/12/00 15:30:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.3211231	.1669211	23.14673	106.9550	31.76659	.1572210	44.06349
SDev	.2552403	.0007857	1.07419	.9166	.07433	.0273036	.17727
%RSD	79.48364	.4707322	8.096952	.8569726	.2339971	17.36638	.4023008
#1	.2391942	.1673737	23.08261	105.8997	31.68414	.1416475	43.85989
#2	.6072677	.1660138	25.05214	107.4125	31.78716	.1887477	44.16050
#3	.1169072	.1673758	21.30543	107.5528	31.82847	.1412677	44.17108
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.1738110	1.611246	6.102734	9.087361	2.807834	8.166279	6.998536
SDev	.1379664	.353409	.314186	.180533	.015881	.041020	.037290
%RSD	79.37726	21.93389	5.148283	1.987734	.5656017	.5023055	.5328202
#1	.0962476	1.906063	5.741804	8.878785	2.791004	8.119587	6.957689
#2	.0920828	1.219481	6.251419	9.191771	2.822555	8.182730	7.007163
#3	.3331028	1.708195	6.314979	9.191529	2.809943	8.196519	7.030756
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	494.6730	1.141407	45.86706	1.352171	1.029953	2.858090	3.487316
SDev	1.5875	1.156233	.13982	.360915	5.045670	.275659	1.929086
%RSD	.3209252	101.3076	.3048287	26.69152	489.8931	9.644858	55.31721
#1	492.8454	2.348704	45.70705	1.143985	-.030766	2.606296	1.376101
#2	495.7099	.0438652	45.96567	1.143608	6.521658	2.815351	5.158108
#3	495.4638	1.031652	45.92845	1.768919	-3.40102	3.152621	3.927739
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	L-12.7649	-6.81201	2.981722	.6449810	115.8980	-.996851	4.782677
SDev	4.3872	.73047	.081516	.5507398	.1753	1.954222	1.091063
%RSD	34.36545	10.72327	2.733843	100.8928	.1512664	196.0395	22.81385
#1	-7.70739	-7.22808	3.982294	-.005143	116.0023	.5896412	3.643566
#2	L-15.0404	-7.22939	3.062951	1.296335	115.9978	-2.19961	5.818324
#3	L-15.5468	-5.96855	2.899923	.6437512	115.6964	-.319584	4.886121
Errors	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: CCV4 Operator: 00210
Run Time: 09/12/00 15:36:04
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	48.44031	5.313209	507.3173	516.6130	496.2839	512.2062	25.80607
SDev	.10402	.041729	1.7953	4.0603	6.2853	2.6045	.05178
%RSD	.2147339	.7853777	.3538840	.7859514	1.292518	.5084913	.2006690
#1	48.38205	5.361334	508.6673	521.2986	493.5387	515.1464	25.85138
#2	48.56040	5.291206	505.2799	514.4123	482.4811	510.1886	25.74962
#3	48.37848	5.287085	508.0047	514.1281	482.8318	511.2834	25.81719
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value	50.00000	5.500000	500.0000		500.0000	500.0000	26.00000
Range	10.00000	10.00000	10.00000		10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	521.0520	496.1472	510.1046	471.6078	5.527969	32.53309	25.65725
SDev	2.5534	2.3430	1.4069	6.0270	.019566	.24347	.15594
%RSD	.4900404	.4722390	.2757974	1.277962	.3539382	.7483640	.6077803
#1	523.8021	498.7924	511.4433	478.5657	5.548257	32.81421	25.83637
#2	519.7565	494.3326	508.6383	468.0042	5.509217	32.39035	25.55171
#3	520.5974	495.3167	510.2321	468.2536	5.526432	32.39471	25.58367
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000	500.0000	500.0000	500.0000	5.500000	30.00000	26.00000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	511.8287	516.3278	25.38607	498.2356	501.1981	516.7661	508.1934
SDev	2.8440	2.6134	.07964	2.6625	3.0198	1.9180	5.1114
%RSD	.5556534	.5061552	.3137015	.5343761	.6025077	.3711537	1.005794
#1	515.0453	517.3156	25.47275	501.0713	503.2180	517.4724	505.7394
#2	509.6475	513.3644	25.31613	495.7898	502.6497	518.2308	514.0690
#3	510.7932	518.3033	25.36933	497.8463	497.7267	514.5951	504.7717
Errors	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000		26.00000	500.0000	500.0000	500.0000	500.0000
Range	10.00000		10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	507.4631	544.3058	510.9197	511.8393	524.4041	516.9615	516.6685
SDev	2.7865	10.0195	3.9795	2.7097	3.2693	6.0062	3.1891
%RSD	.5490986	1.840784	.7788677	.5294155	.6233434	1.161835	.6017051
#1	507.6476	0555.6667	515.5139	514.7324	528.1602	523.8378	514.2948
#2	504.5890	536.7314	508.5416	509.3614	521.9023	514.3106	520.1879
#3	510.1528	540.5193	508.7037	511.4202	523.3896	512.7368	515.5228
Errors	NOCHECK	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK

00211

Method: IEACT98 Sample Name: CCB4 Operator:
Run Time: 09/12/00 15:48:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	0.2827933	0.0365673	0-2.21439	4.409105	0.0900411	0.1866321	0.0000942
SDev	.0933861	.0018049	1.53341	1.079462	.0412633	.0474681	.0002350
%RSD	33.02420	4.935757	69.24750	24.48256	45.82718	25.43406	249.3517
#1	0.2015875	0.0358766	0-2.31272	5.533083	0.0900348	0.2341286	0-.000041
#2	0.2619228	0.0352099	0-3.27432	4.313743	0.0487810	0.1391925	0-.000041
#3	0.3848324	0.0386155	0-.456111	3.380488	0.1313076	0.1865751	0.0003656
Errors	QC Fail	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000		.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000		10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	0.1452320	0.0159991	0.3152429	0-2.55731	0.0024904	0-.035505	0.0016140
SDev	.1461800	.5664254	.1326972	.16529	.0016237	.005350	.0019154
%RSD	100.6527	3540.355	42.09364	6.463407	65.19816	15.06764	118.6734
#1	0.2726825	0-.401153	0.2729291	0-2.43253	0.0041018	0-.029457	0.0018677
#2	0-.014336	0-.211688	0.2088627	0-2.74477	0.0025147	0-.039617	0-.000416
#3	0.1773497	0.6608285	0.4639369	0-2.49462	0.0008547	0-.037440	0.0033900
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	0.0374768	1.141408	0.0138267	0-.408482	02.546602	0-.721259	06.486535
SDev	.0819046	1.370830	.0011423	.441786	3.050380	1.187647	5.921607
%RSD	218.5474	120.1000	8.261835	108.1531	119.7927	164.6630	91.29076
#1	0.0375235	2.677967	0.0149972	0-.200289	04.578154	0-1.61897	01~~3.31468~~ 2nd Run
#2	0-.044451	.7023906	0.0137682	0-.915886	0-.961054	0.6254218	03.385106
#3	0.1193580	.0438652	0.0127148	0-.109170	04.022706	0-1.17023	02.759818
Errors	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000		.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000		10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	2.144716	-7.92651	.0988765	0-.093552	0.0521303	-3.42603	.6291009
SDev	1.975219	1.45603	.0714131	.518483	.0889146	5.93497	1.496350
%RSD	92.09099	18.36916	72.56531	554.2169	167.3425	170.3127	237.8552
#1	3.409342	-8.76700	.1654740	0.3595002	0.0019737	-5.29376	.2156692
#2	-.131382	-8.76724	.0231368	0-.653730	0.1559031	3.114128	-.617066
#3	3.156188	-6.24523	.0840787	0.0035726	0.0017232	-8.09847	2.288699
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: 1.0001.000T1915A04S Operator:
Run Time: 09/12/00 15:48:10
Comment:
Mode: CONC Conc. Factor: 1

00212

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	48.31312	2.068182	63.36105	1110.841	1908.253	49.62665	59.50127
SDev	.41797	.003415	.80667	4.699	1.611	.26270	.31857
%RSD	.8651219	.1651273	1.273129	.4230027	.0844143	.5293520	.5353975
#1	48.45760	2.068168	64.23324	1106.038	1908.170	49.88129	59.82716
#2	48.63968	2.064776	62.64180	1111.058	1906.685	49.64208	59.48608
#3	47.84208	2.071606	63.20810	1115.428	1909.903	49.35657	59.19057
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	5.129700	464.2856	193.9759	242.6046	3.567550	35.95320	25.36701
SDev	.205441	2.7043	.6145	.3246	.018811	.02531	.05380
%RSD	4.004930	.5824582	.3168145	.1338093	.5272903	.0703905	.2120798
#1	5.351098	467.1989	194.6769	242.4173	3.581969	35.93578	25.42460
#2	4.945224	463.8025	193.7210	242.4170	3.574408	35.94159	25.35838
#3	5.092777	461.8555	193.5298	242.9794	3.546271	35.98223	25.31805
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	950.4194	966.4299	64.07725	473.1792	500.4516	22.48555	16.11229
SDev	3.5248	.8712	.17670	2.6582	.7780	1.78450	.54755
%RSD	.3708728	.0901432	.2757558	.5617709	.1554649	7.936185	3.398312
#1	954.0483	967.0884	64.09277	475.4488	499.5532	23.40810	15.85909
#2	950.2011	966.7598	64.24569	473.8340	500.8997	20.42863	15.73716
#3	947.0087	965.4421	63.89332	470.2548	500.9019	23.61993	16.74061
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	947.0067	50.42320	964.8691	469.3777	609.9629	19.79617	23.83323
SDev	2.1557	2.91234	1.5644	2.1745	3.3946	4.23828	.89584
%RSD	.2276297	5.760220	.1621403	.4632652	.5565279	21.39989	3.758776
#1	949.4573	47.18642	966.8310	471.6035	613.8497	20.61425	24.80293
#2	945.4032	52.17343	964.3337	469.2711	608.4591	15.20511	23.03648
#3	946.1595	52.16804	963.6427	467.2585	607.5800	23.53915	23.66026
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000T1915A04A Operator: 00213
Run Time: 09/12/00 15:54:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	49.42747	2.083573	51.98012	1150.639	1954.980	50.07197	57.31849
SDev	.57154	.009143	3.22879	5.053	11.341	.36067	.26711
%RSD	1.156328	.4387880	5.209392	.4391539	.5800903	.7203133	.4660031
#1	48.77132	2.076213	65.68987	1145.228	1942.066	49.65540	57.01661
#2	49.81688	2.080932	59.80376	1151.678	1959.560	50.28010	57.52418
#3	49.69421	2.093872	60.44672	1155.198	1963.315	50.28004	57.41469
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	5.369076	467.9915	196.3792	250.1213	3.445051	36.14989	25.48879
SDev	.229751	3.3554	.7160	1.3201	.009547	.17302	.10834
%RSD	4.279153	.7169688	.3646215	.5277841	.2771272	.4786399	.4250338
#1	5.610052	464.2090	195.7635	248.7257	3.434347	35.97134	25.36371
#2	5.152497	470.6095	197.1650	250.2881	3.452688	36.16150	25.54942
#3	5.344679	469.1560	196.2092	251.3501	3.448118	36.31681	25.55323
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	933.7976	997.6001	62.91696	477.1212	517.1809	22.06897	15.67769
SDev	4.0460	3.7445	.25375	2.6770	9.1321	.48315	.75369
%RSD	.4332893	.3753529	.4033054	.5610712	1.765740	2.189254	4.807377
#1	929.1602	993.4294	62.69083	474.1039	509.0105	21.57717	16.54755
#2	936.6076	998.6976	63.19138	479.2114	515.4931	22.54297	15.26599
#3	935.6249	1000.673	62.86868	478.0482	527.0392	22.08678	15.21951
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	971.0201	55.89668	986.5216	477.1947	615.5520	17.05576	24.17242
SDev	9.6219	1.25898	4.6721	2.5611	3.0467	3.10267	1.99413
%RSD	.9908902	2.253229	.4735976	.5366920	.4949529	17.37630	8.249617
#1	960.1279	57.15500	981.1334	474.2606	612.2208	20.83078	21.94990
#2	978.3635	55.89787	989.4495	478.9818	616.2410	18.09697	24.76264
#3	974.5688	54.63716	988.9818	478.3416	618.1965	14.63952	25.80482
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0005.000T1915A04L Operator:
Run Time: 09/12/00 16:00:10
Comment:
Mode: CONC Conv. Factor: 1

00214

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.1968246	.0792478	2.713433	28.19135	6.455636	.2032358	8.564457
SDev	.2287272	.0023920	.940875	1.72064	.011902	.0277059	.134470
%RSD	112.1441	3.018378	34.67473	6.105597	.1843625	13.63241	1.570093
#1	.0132774	.0815162	1.642378	30.16439	6.441894	.2352276	8.423488
#2	.1354536	.0757489	3.091232	27.29590	6.462542	.1873516	8.578568
#3	.4417430	.0794782	3.406688	27.08375	6.462473	.1871282	8.691315
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.0162442	.3761148	1.234954	.0668516	.5565054	1.053405	1.363501
SDev	.2680044	.2898055	.241036	.1082779	.0089221	.046603	.014521
%RSD	1649.847	77.05241	19.51779	161.9675	1.603240	4.424004	1.064988
#1	.0804326	.3766941	.9590804	-.058177	.5538732	1.004778	1.348279
#2	-.278026	.0860200	1.340976	.1292422	.5491956	1.057760	1.365023
#3	.3462259	.6656302	1.404805	.1294896	.5664476	1.097678	1.377201
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	98.69261	4.543789	8.392000	-.408439	-2.08125	.3654509	4.636440
SDev	1.19274	.760400	.083850	.273860	2.01453	2.413216	2.769376
%RSD	1.208537	16.73492	.9991637	67.05051	96.79418	660.3393	59.73067
#1	97.43749	4.982806	8.297953	-.468106	-2.65695	-2.40626	7.474309
#2	98.82912	4.982806	8.419097	-.647547	-3.74527	1.502640	1.941056
#3	99.81122	3.665755	8.458951	-.109664	.1584576	1.999971	4.493955
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.1244236	-4.25362	.0933069	-.058321	22.27462	.4584741	.3190032
SDev	4.312943	4.43564	.2733367	.187294	.25728	1.800534	3.105514
%RSD	3464.390	104.2793	30.50832	321.1423	1.124733	392.7232	973.4875
#1	-3.41466	-8.46430	1.205399	.0579609	22.72539	-.731890	-3.24219
#2	-1.14027	-4.67365	.7780212	-.274379	22.72677	-.422555	2.463794
#3	4.928417	.3770999	.6964991	.0414551	23.17170	2.529867	1.735420
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000F1915A04D Operator: 00215
Run Time: 09/12/00 16:06:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.2757282	.0753995	3.547932	126.1333	30.78737	.2817065	44.92205
SDev	.2830966	.0018018	4.605761	1.0562	.29248	.0001004	.55356
%RSD	373.8326	2.389693	129.8154	.8374001	.9500155	.0356319	1.232274
#1	.2392677	.0733567	8.753229	124.9143	30.45730	.2817675	44.30868
#2	.2390804	.0767629	.0009841	126.7088	30.89049	.2817614	45.07306
#3	-.251164	.0760787	1.889582	126.7768	31.01434	.2815907	45.38444
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.1541101	1.067882	.9847403	2.546201	.0553253	8.581183	7.234736
SDev	.0833752	.246031	.0979237	.320585	.0079346	.128241	.080286
%RSD	54.10103	23.03917	9.944118	12.59072	14.34179	1.494447	1.109728
#1	.0744724	1.035326	1.091767	2.629535	.0542216	8.433124	7.144163
#2	.2407776	.8397494	.8996354	2.192179	.0637540	8.653035	7.262897
#3	.1470803	1.328570	.9628184	2.816890	.0480003	8.657389	7.297147
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	479.0146	1.470670	47.58708	1.470743	3.788249	-.702506	5.512558
SDev	5.0856	.502957	.17775	.273135	2.974700	.691931	1.332044
%RSD	1.061686	34.19917	.3735305	18.57121	78.52442	98.49474	24.16382
#1	473.3941	1.360916	47.39290	1.232758	7.219323	-.479053	6.064367
#2	480.3513	1.031653	47.74176	1.410500	1.932563	-.149912	6.480025
#3	483.2984	2.019441	47.62658	1.768970	2.212861	-1.47855	3.993282
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	L-11.4607	-2.85450	-.017484	.1673593	35.92259	-3.04692	.4679427
SDev	3.8878	4.44297	.119744	.1872884	.52590	.46169	.8860084
%RSD	26.88365	155.6476	684.9889	111.9079	1.350804	15.15022	189.3304
#1	-9.99311	-7.49750	.0311499	.0545868	38.38379	-2.58435	.5720190
#2	L-17.0734	1.356945	.0702919	.3835540	39.43213	-3.04874	1.297328
#3	L-16.3156	-2.42296	-.153893	.0639373	38.98184	-3.50770	-.465497
Errors	LC Low	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

00216

Method: IEACT98 Sample Name: 1.0001.000F1915A04S Operator:
Run Time: 09/12/00 16:12:10
Comment:
Mode: CONC Conv. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	53.92988	2.135163	46.24748	1242.982	2106.552	56.43847	65.44014
SDev	.41118	.010513	4.06243	12.224	11.311	.41177	.52526
%RSD	.7624429	.4922591	8.786270	.9834805	.5369545	.7295940	.8026594
#1	53.47617	2.124549	48.20308	1229.649	2094.593	56.00472	64.87437
#2	54.27791	2.135369	41.57601	1245.634	2107.982	56.48666	65.53375
#3	54.03555	2.145572	48.96323	1253.663	2117.080	56.82402	65.91230
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	5.646434	524.2469	212.1771	261.8636	1.076257	39.47081	28.18415
SDev	.174706	4.4481	2.3081	1.6642	.010801	.32726	.15963
%RSD	3.094098	.8484744	1.087823	.6355230	1.003581	.8291310	.5663719
#1	5.847644	519.3907	210.0320	260.0308	1.064589	39.13574	28.01087
#2	5.558404	525.2265	211.8797	262.2797	1.078275	39.48702	28.21637
#3	5.533253	528.1236	214.5194	263.2803	1.085907	39.78965	28.32521
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	1017.708	1099.452	67.31855	536.8510	565.7057	20.52238	13.73981
SDev	6.604	6.560	.47362	3.2329	6.1113	1.23995	3.36265
%RSD	.5488795	.5967041	.7035717	.6022053	1.080288	6.041951	24.47376
#1	1010.861	1091.879	66.77165	533.7432	563.6615	21.73058	10.64964
#2	1018.226	1103.403	67.59244	536.6138	560.8786	19.25294	17.32096
#3	1024.037	1103.074	67.59156	540.1960	572.5770	20.58364	13.24984
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti2349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1067.699	56.21984	1080.702	529.0604	605.2692	18.79267	21.38394
SDev	9.434	.72349	7.367	4.4367	4.0538	.43444	1.95449
%RSD	.8836205	1.286842	.6816868	.8373244	.6697500	2.311757	9.185894
#1	1064.378	57.05522	1072.908	525.1096	600.9885	18.36416	23.41126
#2	1060.360	55.79951	1081.671	530.5754	605.7694	18.78105	19.48853
#3	1078.334	55.80479	1087.547	533.8961	609.0496	19.23280	21.25804
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000F1915A04A Operator: 00217
Run Time: 09/12/00 16:19:11
Comment:
Mode: CONC Conv. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	52.31770	2.059241	49.30850	1211.876	2044.339	54.16348	63.37255
SDev	.62737	.019649	3.06785	10.151	15.411	.39526	.47094
%RSD	1.199144	.9546305	6.350531	.8376467	.7538580	.7297545	.7431261
#1	51.86388	2.036955	46.99645	1201.484	2027.443	53.72884	62.85142
#2	53.03368	2.062082	46.11486	1212.377	2047.949	54.25992	63.49860
#3	52.05579	2.075685	51.81418	1221.768	2057.625	54.50149	63.76764
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	5.398866	503.8881	207.1026	257.9501	1.026450	38.25900	27.37559
SDev	.316955	3.6307	1.5448	2.6879	.002467	.44650	.18843
%RSD	5.870777	.7205377	.7459019	1.042008	.2403332	1.167040	.6883292
#1	5.638878	499.7801	205.4462	255.2217	1.023602	37.79232	27.17060
#2	5.033577	505.2174	207.3574	258.0333	1.027910	38.30254	27.41491
#3	5.518144	506.6668	208.5041	260.5955	1.027838	38.68213	27.54126
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	982.3514	1055.550	65.96828	515.6565	546.3777	20.10783	18.12522
SDev	6.6887	7.156	.33285	4.2112	6.8108	.49051	3.40243
%RSD	.6808897	.6779352	.5045609	.8166629	1.246534	2.439417	18.77180
#1	975.0134	1047.428	65.58811	511.3574	538.5143	19.66115	14.70032
#2	983.9338	1058.294	66.20753	515.8381	550.2001	20.63277	21.50474
#3	988.1071	1060.928	66.10903	519.7739	550.4188	20.02958	18.17060
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	1030.099	55.32708	1032.815	512.0261	591.2355	18.48930	20.01598
SDev	7.099	4.42854	7.880	4.2431	3.7192	2.75091	.73405
%RSD	.6891564	8.004706	.7629190	.8286836	.6290505	14.87839	3.509571
#1	1022.902	55.74024	1024.136	507.2686	587.0100	15.45371	21.76171
#2	1037.187	59.53614	1034.821	513.3909	592.6841	20.81728	20.54065
#3	1030.122	50.70731	1039.497	515.4189	594.0124	19.19698	20.44529
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

00218

Method: IEACT98 Sample Name: 1.0001.000T1915A05 Operator:
Run Time: 09/12/00 16:24:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.2012499	.0551820	-4.03602	23.95979	2.428275	.2345066	14.79259
SDev	.5842314	.0017112	1.10162	2.68652	.023836	.0001826	.02764
%RSD	290.3015	3.100954	27.29478	11.21264	.9816860	.0778478	.1868344
#1	-.104833	.0569962	-2.86611	26.97144	2.441824	.2347114	14.77075
#2	-.166344	.0549527	-4.18849	23.09811	2.441849	.2344477	14.82366
#3	.8749267	.0535970	-5.05347	21.80984	2.400551	.2343609	14.78336
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.6943308	.4721839	.1597352	-1.74518	.0136235	.4125427	1.872179
SDev	.0834364	.2570445	.0368273	.18735	.0048148	.0195960	.000879
%RSD	12.01681	54.43738	23.05525	10.73536	35.34158	4.750060	.0469454
#1	.7021921	.1813415	.1385335	-1.55775	.0147004	.3929467	1.872686
#2	.6072419	.6688880	.1384124	-1.74534	.0083615	.4321387	1.871164
#3	.7735584	.5663222	.2022597	-1.93245	.0178087	.4125427	1.872686
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	2.913825	2.997475	2.287307	.1280229	-2.44729	-1.80308	3.729253
SDev	.047282	1.058431	.009643	.3723675	2.55872	2.56035	1.991771
%RSD	1.622690	36.52944	.4215659	290.8501	104.5534	141.9988	53.40938
#1	2.859220	3.336492	2.297958	-.289489	-1.22017	-4.75891	4.264982
#2	2.941186	3.665755	2.279172	.2477839	-.733256	-.273035	5.398370
#3	2.941060	1.690179	2.284791	.4257743	-5.28844	-.377299	1.524407
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.57463	.4903374	.3714939	-.062470	41.09542	-3.08145	-1.16406
SDev	4.05730	.7284411	.2426469	.183828	.00179	2.12469	3.49668
%RSD	157.5877	146.7633	65.31652	294.2645	.0043547	68.95097	300.1918
#1	1.640899	.0760357	.6494567	.0538163	41.10116	-4.13111	-5.07233
#2	-6.45261	.0755078	.2020169	-.274403	41.09954	-.636210	-.091719
#3	-2.91217	1.337469	.2630078	.0331748	41.09759	-4.47701	1.669486
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: 1.0001.000F1915A05 Operator:
Run Time: 09/12/00 16:30:12
Comment:
Mode: CONC Corr. Factor: 1

00219

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	.0372884	.0501926	-2.34559	14.59045	3.074506	.2501324	15.61954
SDev	.0936296	.0024559	2.36386	.40701	.011902	.0275270	.07887
%RSD	251.5002	4.892737	186.3584	2.789547	.3871100	11.00497	.5049733
#1	-.044557	.0522362	-4.23502	14.92470	3.081381	.2342682	15.53149
#2	.0168856	.0508732	-3.87212	14.70945	3.060763	.2819178	15.64342
#3	.1393570	.0474682	1.070351	14.13721	3.081375	.2342111	15.68372
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	.0008632	.4035029	.4129350	-1.74494	.0079378	.4737501	1.987615
SDev	.1631259	.3133031	.2237705	.10823	.0024031	.0159396	.011717
%RSD	18898.25	77.64580	54.18972	6.202245	30.27359	3.364559	.5895114
#1	.1284527	.7608362	.2005880	-1.68253	.0084199	.4553637	1.974676
#2	.0570585	.2737599	.6466038	-1.86991	.0053302	.4822177	1.990659
#3	-.182932	.1759127	.3916253	-1.68239	.0100633	.4836689	1.997509
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	13.09189	1.360916	2.607784	-.139875	.5812847	-.833603	6.784304
SDev	.08162	.329263	.019636	.287946	3.554424	.214923	2.538705
%RSD	.6235029	24.19420	.7529824	205.8595	611.4774	25.78239	37.42027
#1	13.01027	1.690179	2.586423	.0698535	4.529459	-1.08063	9.321793
#2	13.09188	1.360916	2.625049	-.021304	-2.36382	-.589484	4.244385
#3	13.17353	1.031653	2.611881	-.468174	-.421786	-.730694	6.786734
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0	100000.0
Low	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000	-10.0000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.49127	-5.76615	.0910803	-.000997	8.650439	3.34250	.4824375
SDev	.77341	9.11414	.0915822	.100569	.832346	.69737	.1030774
%RSD	31.00613	140.1954	99.55576	232.8323	2.661652	20.81079	24.39717
#1	-2.16013	-2.42259	-.002736	-.298715	8.399399	-4.09246	.4230244
#2	-3.16532	.1017431	.1800616	.0299724	8.700384	-2.70980	.3191577
#3	-1.64836	L-15.0435	.0986411	.0257764	8.851713	-3.24647	.5253106
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass

Method: IEACT98 Sample Name: CCVS Operator:
Run Time: 09/12/00 16:36:14
Comment:
Mode: CONC Corr. Factor: 1

00220

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	49.03314	5.312502	510.0553	526.1160	486.6480	512.7834	25.88123
SDev	.46057	.048130	6.1863	3.0384	5.4743	1.9665	.04364
%RSD	.9393123	.9059719	1.212874	.5775085	1.124905	.3834980	.1686151
#1	49.48476	5.364024	513.9756	528.4135	491.9499	514.3414	25.89249
#2	48.56410	5.304761	513.2665	527.2636	486.9782	513.4350	25.91814
#3	49.05056	5.268713	502.9237	522.6710	481.0161	510.5738	25.83307
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value	50.00000	5.500000	500.0000		500.0000	500.0000	26.00000
Range	10.00000	10.00000	10.00000		10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	528.0160	496.3114	513.0156	470.3158	5.604046	32.66760	25.76000
SDev	2.4564	2.4828	1.4940	5.4895	.029023	.30428	.14195
%RSD	.4652168	.5002414	.2912239	1.167201	.5178907	.9314356	.5510559
#1	529.2491	498.7048	514.1203	476.0651	5.631680	32.98840	25.90258
#2	529.6116	496.4824	513.6108	469.7527	5.606649	32.63131	25.75873
#3	525.1873	493.7475	511.3157	465.1295	5.573810	32.38309	25.61869
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000	500.0000	500.0000	500.0000	5.500000	30.00000	26.00000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	517.7207	521.9155	25.52226	501.0976	510.5474	523.4107	508.6831
SDev	2.6593	5.4127	.14687	1.7955	7.1007	1.5164	7.0799
%RSD	.5136533	1.037470	.5754490	.3583213	1.390795	.2897234	1.391812
#1	519.7916	523.9008	25.56176	503.1286	515.0274	524.1011	514.5366
#2	518.6487	525.8764	25.64533	500.4429	514.2545	524.4592	510.6988
#3	514.7217	515.6692	25.35960	499.7213	502.3604	521.6719	500.8139
Errors	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000		26.00000	500.0000	500.0000	500.0000	500.0000
Range	10.00000		10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	508.2269	542.2027	516.9862	511.5022	529.9113	520.6957	524.8012
SDev	4.2447	5.2563	3.7419	2.3910	3.1369	3.2876	2.0658
%RSD	.8350415	.9693274	.7237841	.4670899	.5913610	.6314710	.3936413
#1	506.1466	548.1145	520.2314	514.1453	532.9415	524.4039	523.9499
#2	513.2188	540.5429	517.8334	512.1748	530.1145	519.0561	527.1566
#3	505.6155	538.0126	512.8931	509.3866	526.6777	518.4170	523.2970
Errors	NOCHECK	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK

Analysis Report QC Standard 09/12/00 04:48:14 PM page 1

Method: IEACT90 Sample Name: CCB5 Operator: 00221
Run Time: 09/12/00 16:42:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	0.1602220	0.0465614	0-1.50617	6.916718	0.1244561	0.2977296	0.0045716
SDev	.2762486	.0010367	2.85349	1.078878	.0119162	.0274092	.0002350
%RSD	172.4162	2.226441	189.4528	15.59811	9.574628	9.20600[illegible]	5.140438
#1	0.4462192	0.0474667	0-4.80110	8.040633	0.1313264	0.2819845	0.0040430
#2	0-.105118	0.0467869	0.1414431	6.820152	0.1313455	0.3293790	0.0044359
#3	0.1395649	0.0454305	0.1411349	5.889370	0.1106965	0.2818254	0.0044359
Errors	QC Fail	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000		.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000		10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	0.0664901	0.1447913	0.3151980	0-2.74473	0-.005386	0.0167515	0.0028826
SDev	.0844211	.3409640	.2653357	.18746	.002752	.0117551	.0011626
%RSD	126.9680	235.4865	84.18065	6.829707	51.09288	70.17368	40.33297
#1	0.0583067	0-.210425	0.5276093	0-2.55733	0-.003779	0.0032037	0.0026280
#2	0.1547048	0.4694448	0.4002097	0-2.93224	0-.008564	0.0227997	0.0041511
#3	0-.013541	0.1753545	0.0177749	0-2.74464	0-.003816	0.0242510	0.0019677
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	0.1467400	.8121449	0.0196791	0-.676380	02.793280	01.103037	02.754854
SDev	.0472745	.6854150	.0009010	.422396	2.210343	1.930109	1.470363
%RSD	32.21653	84.39565	4.578254	62.44878	79.13074	174.9813	53.37355
#1	0.2013279	1.360916	0.0204299	0-.825707	05.092656	0-1.10825	02.854669
#2	0.1194835	1.031653	0.0199132	0-1.00384	0.6842853	01.967889	04.172767
#3	0.1194086	.0438652	0.0186842	0-.199613	02.602899	02.449470	01.237126
Errors	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000		.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000		10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-1.56486	-3.29924	.0434620	0-.097476	0.2056734	1.216734	1.046871
SDev	.95785	3.85614	.1897549	.220519	.1476843	2.524797	2.377164
%RSD	61.23307	116.8774	416.2745	225.7164	48.31440	214.3810	227.2032
#1	-.889232	.0673555	.2457949	0.0202239	0.3060554	-.229482	-1.54597
#2	-1.14302	-2.45880	-.017620	0.0163520	0.1577965	-.344081	3.122141
#3	-2.66054	-7.50629	-.098908	0-.339005	0.4531662	4.223767	1.563652
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK

Analysis Report QC Standard 09/12/00 04:54:17 PM page 1

Method: IEACT38 Sample Name: CRAF Operator: 00222
Run Time: 09/12/00 16:49:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	10.32347	.0458226	8.098934	4.978111	.1106772	5.386095	-.001941
SDev	.46385	.0018063	1.964840	.358327	.0206250	.027617	.000622
%RSD	4.493196	3.948387	24.26057	7.210113	18.63527	.5127519	32.03393
#1	9.792508	.0471867	9.754026	4.977075	.0900538	5.401325	-.002077
#2	10.52737	.0465072	5.890226	5.337555	.1313038	5.402156	-.001263
#3	10.65044	.0437738	9.652549	4.619703	.1106741	5.354206	-.002484
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	10.00000		10.00000			5.000000	
Range	50.00000		50.00000			50.00000	

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	5.585420	51.70298	11.01236	22.36162	-.000790	-.056794	-.002445
SDev	.085864	.43951	.42428	.19085	.004538	.012494	.001163
%RSD	1.537208	.8500639	3.852805	.8534699	574.2557	21.99840	47.54626
#1	5.514315	51.66987	10.54509	22.19503	-.006030	-.070826	-.002699
#2	5.561134	51.28096	11.11846	22.31998	.0018741	-.046875	-.003460
#3	5.680810	52.15811	11.37353	22.56985	.0017855	-.052682	-.001177
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	5.000000	50.00000	10.00000	25.00000			
Range	50.00000	50.00000	50.00000	50.00000			

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	16.31348	-.385397	.0086181	41.64554	64.09815	2.699425	08.241078
SDev	.12502	.570300	.0005364	.41049	2.34342	.445932	2.099338
%RSD	.7663532	199.8265	6.223879	.9856808	3.655990	16.51950	25.47406
#1	16.17709	-.614660	.0081499	41.28763	61.90361	2.868449	6.152200
#2	16.34070	-.614660	.0092033	41.55535	63.81424	2.193691	010.35072
#3	16.42265	.3731279	.0085010	42.09362	66.57059	3.036135	08.220313
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Fail
Value	15.00000			40.00000	60.00000	3.000000	5.000000
Range	50.00000			50.00000	50.00000	50.00000	50.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-.993074	2.050532	-.045714	51.50307	21.11659	1.193650	3.448160
SDev	1.847234	1.450967	.046920	.33099	.17306	3.142127	1.262256
%RSD	285.5095	70.77211	102.6554	.6571717	.8195537	261.9202	36.60635
#1	.8796895	3.740777	-.099901	51.57918	21.21921	4.616705	1.995632
#2	-1.39589	1.218342	-.018592	51.24607	20.91678	-1.56517	4.070305
#3	-1.14302	1.216478	-.018648	51.92401	21.21379	.5474194	4.278620
Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK

Analysis Report QC Standard 09/12/00 05:00:19 PM page 1

Method: IEACT98 Sample Name: CRIF Operator:

00223

Run Time: 09/12/00 16:54:22

Comment:

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	20.71304	.0490418	17.97638	13.48178	.0900385	10.71237	-.003569
SDev	.03535	.0017127	2.25618	.47867	.0618808	.09492	.000947
%RSD	.1706539	3.436196	12.55080	3.550463	68.72703	.8860848	23.74038
#1	20.73190	.0482590	16.58029	13.88978	.0900276	10.61749	-.004519
#2	20.73309	.0496064	16.76955	13.60069	.1519249	10.80734	-.002891
#3	20.67124	.0516599	20.57929	12.95487	.0281632	10.71228	-.003298
Errors	QC Pass	NOCHECK	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	20.00000		20.00000			10.00000	
Range	40.00000		40.00000			40.00000	

Elem	Co2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	10.91286	104.5281	21.70959	48.42602	.0031553	-.001151	-.003206
SDev	.20089	1.0296	.27788	.20089	.0033319	.002514	.002673
%RSD	1.840888	.9849514	1.279983	.4148337	105.5978	218.4307	83.36397
#1	11.01689	103.3511	21.39083	48.19687	.0058951	.0017581	-.005743
#2	10.68132	105.3077	21.83714	48.57177	.0041248	-.002602	-.000418
#3	11.04096	104.9156	21.90079	48.50943	-.000554	-.002603	-.003460
Errors	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	10.00000	100.0000	20.00000	50.00000			
Range	40.00000	40.00000	40.00000	40.00000			

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	33.05343	.1536194	.0156410	85.10199	125.3930	6.789555	13.30681
SDev	.21675	.7603996	.0007096	1.03193	1.9460	.567254	7.08950
%RSD	.6557594	494.9898	4.536599	1.212585	1.552040	8.354808	53.27725
#1	32.80765	-.285397	.0149972	84.11686	127.2412	6.483334	10.12068
#2	33.13327	1.031653	.0164018	85.01402	125.5479	7.444113	8.369430
#3	33.21727	-.285397	.0155239	86.17509	123.3597	6.441219	021.43039
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	30.00000			80.00000	120.0000	6.000000	12.00000
Range	40.00000			40.00000	40.00000	40.00000	40.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-2.107[illegible]	16.37109	-.012875	104.0594	42.97006	5.340081	7.513009
SDev	3.66408	5.25711	.065345	.9454	.08246	1.122595	1.325524
%RSD	110.[illegible]014	31.52428	507.5280	.8124185	.1919028	21.02206	17.64391
#1	.3741470	22.56379	-.039929	103.1663	42.97578	5.046562	7.200643
#2	-4.93584	12.46210	.0616521	104.3472	43.02094	4.393403	8.967180
#3	-2.66040	14.90737	-.060349	104.1648	43.01616	6.580277	6.371795
Errors	NOCHECK	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: ICSAF Operator:

00224

Run Time: 09/12/00 17:00:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	-.189210	450.4717	-9.38476	-6.24333	1.473019	-.067783	414.3345
SDev	.308219	1.7178	2.00964	.85385	.014582	.027506	1.7135
%RSD	162.8978	.3771384	21.45958	13.45642	.9899060	40.61565	.4135522
#1	-.475238	453.4928	-7.08842	-7.14712	1.489842	-.099404	412.4083
#2	.1372155	456.5771	-10.1126	-6.44132	1.465208	-.051882	414.9049
#3	-.229607	456.3454	-10.8932	-5.44754	1.464006	-.051852	415.6901
Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value		500.0000					500.0000
Range		20.00000					20.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	2.562923	-2.45642	1.606824	-1.61948	176.8853	-.213804	467.2480
SDev	.307837	.19190	.251522	.00013	.6814	.013597	1.7736
%RSD	12.01118	7.815393	15.65337	.0079970	.3851971	6.359733	.3795895
#1	2.209366	-2.45740	1.337885	-1.61944	176.1189	-.229046	465.2123
#2	2.771509	-2.26397	1.646336	-1.61938	177.1196	-.209449	468.0718
#3	2.707895	-2.64792	1.836252	-1.61963	177.4203	-.202918	468.4600
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value					200.0000		500.0000
Range					20.00000		20.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	-2.05115	-3.79753	.0183916	1.016638	-2.74113	6.338238	2.293289
SDev	.09071	1.05843	.0007917	.205517	9.36269	.665327	1.266339
%RSD	4.422397	27.87156	4.304634	20.21533	341.5631	10.49704	55.21932
#1	-2.15560	-4.23655	.0176308	1.135160	-7.83684	6.042670	2.415051
#2	-1.99216	-4.56591	.0183331	1.135426	-8.45071	7.100139	.9701253
#3	-2.00568	-2.59024	.0192109	.7793279	8.064161	5.871904	3.493890
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-4.94188	-6.92793	-1.69439	-2.97709	9.936678	22.17309	-1.56732
SDev	2.87168	7.17977	.18037	.20095	.468131	3.63127	2.55397
%RSD	58.10918	103.6206	10.70845	13.13213	15.94083	17.28210	163.5896
#1	-1.65492	-9.02067	-1.80006	-3.19511	8.541992	26.55943	-4.20033
#2	-6.20656	1.083560	-1.77653	-3.21041	3.453886	19.47594	.9215164
#3	-6.96415	-12.7767	-1.47655	-2.52574	2.814156	20.48389	-1.42313
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK

Method: IEACT98 Sample Name: ICSABF Operator:
Run Time: 09/12/00 17:06:26
Comment:
Mode: CONC Conv. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	196.8685	455.4176	99.21252	-6.08891	469.1926	459.2468	415.6544
SDev	1.2594	1.7650	5.86514	.17279	1.6836	1.7026	1.8333
%RSD	.6411888	.3877222	6.292227	2.837934	.3588301	.3707420	.4410632
#1	194.9971	453.3846	98.99066	-6.20898	467.2503	457.3441	413.5767
#2	197.5137	456.2999	98.78294	-5.16687	470.0922	459.7695	416.3417
#3	196.2886	456.5684	99.86298	-5.89087	470.2353	460.6267	417.0446
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value	200.0000	500.0000	100.0000		500.0000	500.0000	500.0000
Range	20.00000	20.00000	20.00000		20.00000	20.00000	20.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	912.9074	432.0112	452.5370	478.3258	178.1643	-.190821	467.9785
SDev	3.1996	1.6543	2.8502	.9469	.8344	.006744	2.0182
%RSD	.3504842	.3829284	.6299246	.1979682	.4683253	3.534002	.4312605
#1	909.7129	430.6544	449.2518	477.2420	177.2176	-.198563	465.6743
#2	912.8973	431.5254	454.3406	478.7427	178.4826	-.186225	468.8284
#3	916.1121	433.8542	454.0208	478.9929	178.7927	-.187676	469.4327
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value	1000.000	500.0000	500.0000	500.0000	200.0000		500.0000
Range	20.00000	20.00000	20.00000	20.00000	20.00000		20.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	460.7603	-2.15122	.0216104	872.8253	603.6633	51.83640	48.43802
SDev	2.0640	1.00591	.0008661	2.1980	.9159	.22849	3.96356
%RSD	.4479550	46.75018	4.007692	.2518300	.1517172	.4407978	8.182754
#1	458.3986	-1.27319	.0206155	870.9456	602.7911	51.99046	53.01152
#2	461.6640	-1.93171	.0220201	872.2882	604.6173	51.94486	46.30003
#3	462.2183	-3.24876	.0221957	875.2421	603.5815	51.57387	46.00250
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000			1000.000	600.0000	50.00000	50.00000
Range	20.00000			20.00000	20.00000	20.00000	20.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	-8.90304	96.87022	1.70514	457.0520	991.5331	69.11621	43.70864
SDev	4.66467	2.24581	.17057	4.5910	4.1841	4.10310	1.70596
%RSD	52.39059	2.318352	10.00324	1.004478	.4219842	6.023662	3.903027
#1	-7.72319	94.27772	-1.58649	451.7500	986.7740	70.94444	42.52768
#2	-14.0451	98.15696	-1.62832	459.7133	993.1915	69.99416	42.93374
#3	-4.94262	98.17810	-1.90061	459.6919	994.6339	63.41034	45.66451
Errors	NOCHECK	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK

00226

Method: IEACT98 Sample Name: CCV6 Operator:
Run Time: 09/12/00 17:12:28
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	48.89020	5.325000	510.4388	525.7663	493.0159	507.1494	25.59821
SDev	.44646	.039160	4.7189	4.6774	3.0864	3.7147	.21431
%RSD	.9131933	.7354069	.9244765	.8896346	.6260337	.7324703	.8372039
#1	48.37605	5.281678	510.6278	520.5993	489.7014	503.0510	25.35347
#2	49.11577	5.335439	505.6283	526.9873	493.5383	508.1024	25.66496
#3	49.17903	5.357882	515.0604	529.7121	495.8076	510.2947	25.77120
Errors	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value	50.00000	5.500000	500.0000		500.0000	500.0000	26.00000
Range	10.00000	10.00000	10.00000		10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	525.6033	492.3835	510.1692	475.7319	5.627394	033.07694	25.58444
SDev	4.5761	3.7968	4.0531	2.6524	.038399	.27302	.20320
%RSD	.8706371	.7710989	.7944668	.5575419	.6823614	.8254059	.7942823
#1	520.5183	488.1958	505.8351	472.8168	5.583639	32.76994	25.35991
#2	526.9019	493.3542	510.8068	476.3777	5.643056	033.16839	25.63771
#3	529.3898	495.6009	513.8657	478.0017	5.655486	033.29250	25.75569
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass
Value	500.0000	500.0000	500.0000	500.0000	5.500000	30.00000	26.00000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	517.8981	521.4862	25.62602	496.8307	518.2375	519.8190	511.4232
SDev	4.3821	7.2537	.19929	4.0500	7.2038	7.7504	7.9188
%RSD	.8461524	1.390975	.7776805	.8151690	1.390054	1.490990	1.548383
#1	513.0896	514.0230	25.40533	492.2948	523.8020	510.9936	503.0301
#2	518.8967	521.9252	25.67992	498.1126	510.1006	522.9455	512.4773
#3	521.6780	528.5105	25.79281	500.0846	520.8098	525.5178	518.7622
Errors	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.0000		26.00000	500.0000	500.0000	500.0000	500.0000
Range	10.00000		10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	522.6021	542.6552	519.2665	511.0078	529.5239	510.7047	520.3755
SDev	5.9579	5.6958	3.7155	3.5510	4.2438	8.8944	7.5356
%RSD	1.364481	1.049620	.7155286	.6949010	.8012003	1.714727	1.448113
#1	494.7498	536.7604	515.1749	507.0333	524.6053	509.6273	511.6759
#2	507.4109	543.0767	520.1945	512.1220	530.1147	519.0817	524.8745
#3	505.6484	548.1286	522.4300	513.8681	532.9515	527.4041	524.5761
Errors	NOCHECK	QC Pass	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK

00227

Method: IEACT99 Sample Name: CCB6 Operator:
Run Time: 09/12/00 17:10:30
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	As1890	B_2496	Ba4934	Be3130	Ca3179
Units	ppb	ppm	ppb	ppb	ppb	ppb	ppm
Avge	0.0174267	0.0511032	0-.199230	5.236185	0.0694092	0.0558274	0.0060640
SDev	.2671285	.0017115	2.302679	.641219	.0206048	.0274652	.0008141
%RSD	1532.971	3.349035	1216.869	12.80851	29.68599	10.33195	13.42444
#1	0-.288972	0.0495165	0.5122624	5.745482	0.0488065	0.0017462	0.0052500
#2	0.1398473	0.0508763	0-2.78568	4.571762	0.0694051	0.2341135	0.0060640
#3	0.2014051	0.0529168	01.605132	4.601313	0.0900161	0.2016226	0.0068721
Errors	QC Fail	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000		.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000		10.00000	10.00000	10.00000

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2714	K_7664	Mg2790
Units	ppb	ppb	ppb	ppb	ppm	ppm	ppm
Avge	0.1451691	0.5005955	0.2303384	0-2.84883	0.0029669	0.0109453	0.0031363
SDev	.1759211	.2011186	.4782124	.30822	.0063758	.0149154	.0028815
%RSD	121.1836	40.17586	207.6130	10.81912	214.8980	136.2723	91.87708
#1	0.0822164	0.6610847	0-.236961	0-3.05706	0-.003866	0-.026232	0.0011056
#2	0.0093852	0.5657164	0.7107631	0-2.99468	0.0040090	0.0184450	0.0018677
#3	0.3439056	0.2749856	0.2092135	0-2.49476	0.0087575	0.0206224	0.0064344
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Mn2576	Mo2020	Na5889	Ni2316	Sb2068	Pb2203	Se1960
Units	ppb	ppb	ppm	ppb	ppb	ppb	ppb
Avge	0.0374696	.5926364	0.0140023	0-.407186	05.839608	0-.756937	03.636957
SDev	.0001287	.5029571	.0008661	.258525	3.262098	.995552	.418136
%RSD	.3434632	84.86774	6.185259	63.49062	55.86159	131.5238	11.49683
#1	0.0376002	.0438652	0.0149972	0-.108668	07.883211	0.3903695	03.840252
#2	0.0374656	.7023906	0.0135926	0-.555829	07.550071	0-1.26822	03.914593
#3	0.0373429	1.031653	0.0134171	0-.557062	02.277542	0-1.39296	03.156057
Errors	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	QC Fail	QC Fail
Value	.0000000		.0000000	.0000000	.0000000	.0000000	.0000000
Range	10.00000		10.00000	10.00000	10.00000	10.00000	10.00000

Elem	Sn1899	Tl1908	Ti3349	V_2924	Zn2138	2203/1	2203/2
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avge	.3742717	-7.92772	.004021	0.1214337	0.0038563	-.974380	-.648379
SDev	3.664198	3.17706	.283450	.1989574	.1499597	.501036	1.475443
%RSD	711.0353	40.07535	701.7936	162.1111	24.05961	51.42111	227.5642
#1	2.900563	-11.2942	-.017517	0.0037416	0.4529472	-.922421	1.045703
#2	-2.40739	-7.50708	-.017622	0.0118627	0.6039682	-.500768	-1.65137
#3	.6272388	-4.98194	.0230470	0.3486967	0.7528841	-1.49997	-1.33953
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK

Manfold: WTEST Seq: 7 Batch:

Prmt: R/T fm Pmmn: fm

State: Idle User: G. Man A/S: fm

CALIBRATION: Line proto: bmnk

Calibration: Line proto: mypp

	NO			accepted
	Conc	Calc	Dev	->linear
S1	.000	.000	.000	Quadratic
S1	.000	-.003	-.003	quadratic
S2	.200	.064	-.136	Wtdlinear
S3	1.00	.995	-.005	C
S3	1.00	.993	.003	C
S4	2.00	2.00	.003	Accept
S4	2.00	2.00	.003	accept
S5	5.00	5.39	.393	n
S6	10.0	9.77	-.230	c
S6	10.0	9.77	.230	c
A	.0000000	F=	.000413	
B	1.99185e-5	C	-2.17175e-1	

	Mean		
	mean		
S1	6391	0.50	6391
S2	13846	0.2850	13846
S3	26500	0.2850	26500
S3	09303	0.2850	09303
S4	114211	0.2850	114211
S5	281422	0.2850	281422
S6	501103	0.2850	501103

Relative Absorbance
relative absorbance

Folder: #TEST **PUBLIC FOLDER ** Page 1
15:38:49 12 Sep 2000 Protocol:
POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 1 Rep: 1				Seq: 0		11:26:43 12 Sep 2000 HG		
Hg	.000	ppb	6319					
*** Standard: 1 Rep: 1				Seq: 1		11:30:29 12 Sep 2000 HG		
Hg	.000	ppb	6391					
*** Standard: 2 Rep: 1				Seq: 2		11:32:45 12 Sep 2000 HG		
Hg	.100	ppb	13846					
*** Standard: 3 Rep: 1				Seq: 3		11:34:56 12 Sep 2000 HG		
Hg	1.00	ppb	60589					
*** Standard: 4 Rep: 1				Seq: 4		11:37:07 12 Sep 2000 HG		
Hg	10.0	ppb	114211					
*** Standard: 5 Rep: 1				Seq: 5		11:39:15 12 Sep 2000 HG		
Hg	20.0	ppb	281422					

Hg 10.0 ppb 501163

*** Sample ID: ICV1 Seq: 7 11:47:45 12 Sep 2000 HG 00230

Hg 5.35 ppb .000 5.35

** Sample ID: ICB1 Seq: 8 11:50:00 12 Sep 2000 HG

Hg -.063 ppb .000 -.063

*** Sample ID: CCV1 Seq: 9 11:52:03 12 Sep 2000 HG

Hg 5.49 ppb .000 5.49

*** Sample ID: CCB1 Seq: 10 11:54:11 12 Sep 2000 HG

Hg -.166 ppb .000 -.166

*** Sample ID: pbw1 Seq: 11 11:56:14 12 Sep 2000 HG

Hg -.086 ppb .000 -.086

Folder: #TEST **PUBLIC FOLDER ** Page 2

15:38:49 12 Sep 2000 Protocol:

d **POST-RUN REPORT*****PUBLIC FOLDER ** Page

1

15:39:51 12 Sep 2000 Protocol:

POST-RUN REPORT

Line Conc. Units SD/RSD 1 2 3 4 5

*** Sample ID: lcsw1 Seq: 12 11:58:18 12 Sep 2000 HG

Hg 5.12 ppb .000 5.12

*** Sample ID: 001944a-01 Seq: 13 12:00:26 12 Sep 2000 HG

Hg -.139 ppb .000 -.139

*** Sample ID: 001946a-01 Seq: 14 12:02:32 12 Sep 2000 HG

Hg -.160 ppb .000 -.160

*** Sample ID: 001947a-01 Seq: 15 12:04:38 12 Sep 2000 HG

: -.159 ppb .000 -.159

*** Sample ID: 001948a-01 Seq: 16 12:06:42 12 Sep 2000 HG

Hg -.139 ppb .000 -.139

*** Sample ID: 001948a-01 Seq: 18 12:10:51 12 Sep 2000 HG

			spike	
Hg	1.03	ppb	.000	1.03

** Sample ID: 001948a-01 Seq: 19 12:12:55 12 Sep 2000 HG

			spike dup	
Hg	.949	ppb	.000	.949

*** Sample ID: 001948a-02 Seq: 20 12:15:07 12 Sep 2000 HG

Hg	-.230	ppb	.000	-.230

*** Sample ID: ccv2 Seq: 21 12:17:13 12 Sep 2000 HG

Hg	5.11	ppb	.000	5.11

*** Sample ID: ccb2 Seq: 22 12:19:33 12 Sep 2000 HG

Hg	-.224	ppb	.000	-.224

*** Sample ID: 001948a-03 Seq: 23 12:21:37 12 Sep 2000 HG

Hg	-.133	ppb	.000	-.133

Superfund Records Center
SITE:
BREAK:
OTHER:

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 001948a-04 Seq: 24 12:23:41 12 Sep 2000 HG

Hg	-.050	ppb	.000	-.050

*** Sample ID: 001949a-01 Seq: 25 12:25:46 12 Sep 2000 HG

Hg	-.084	ppb	.000	-.084

*** Sample ID: 001954a-01 Seq: 26 12:27:52 12 Sep 2000 HG

Hg	-.119	ppb	.000	-.119

*** Sample ID: 001777a-01 Seq: 27 12:29:56 12 Sep 2000 HG

Hg	-.146	ppb	.000	-.146

** Sample ID: 001777a-02 Seq: 28 12:32:01 12 Sep 2000 HG

Hg	-.128	ppb	.000	-.128

*** Sample ID: 001777a-03 Seq: 29 12:34:06 12 Sep 2000 HG

*** Sample ID: 001777a-04 Seq: 30 12:36:10 12 Sep 2000 HG

Hg -.156 ppb .000 -.156

*** Sample ID: 001777a-05 Seq: 31 12:38:15 12 Sep 2000 HG

Hg -.166 ppb .000 -.166

*** Sample ID: ccv2 Seq: 32 12:40:59 12 Sep 2000 HG

Hg 5.50 ppb .000 5.50

*** Sample ID: ccb2 Seq: 33 12:43:07 12 Sep 2000 HG

Hg -.124 ppb .000 -.124

*** Sample ID: ccb2 Seq: 34 12:45:10 12 Sep 2000 HG

Hg -.138 ppb .000 -.138

*** Sample ID: 001948a-03 Seq: 35 12:47:14 12 Sep 2000 HG

Hg -.081 ppb .000 -.081

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 001948a-04 Seq: 36 12:49:19 12 Sep 2000 HG

Hg -.101 ppb .000 -.101

*** Sample ID: 001949a-01 Seq: 37 12:51:26 12 Sep 2000 HG

Hg -.140 ppb .000 -.140

*** Sample ID: 001954a-01 Seq: 38 12:53:31 12 Sep 2000 HG

Hg -.118 ppb .000 -.118

*** Sample ID: 001777a-01 Seq: 39 12:55:35 12 Sep 2000 HG

Hg -.130 ppb .000 -.130

** Sample ID: 001777a-02 Seq: 40 12:57:40 12 Sep 2000 HG

Hg -.156 ppb .000 -.156

*** Sample ID: 001777a-03 Seq: 41 12:59:46 12 Sep 2000 HG

*** Sample ID: 001777a-04 Seq: 42 13:02:05 12 Sep 2000 HG

Hg -.133 ppb .000 -.133

*** Sample ID: 001777a-05 Seq: 43 13:04:09 12 Sep 2000 HG

Hg -.169 ppb .000 -.169

*** Sample ID: 001777a-06 Seq: 44 13:06:14 12 Sep 2000 HG

Hg -.178 ppb .000 -.178

*** Sample ID: ccv3 Seq: 45 13:08:22 12 Sep 2000 HG

Hg 4.79 ppb .000 4.79

*** Sample ID: ccb3 Seq: 46 13:10:33 12 Sep 2000 HG

Hg -.165 ppb .000 -.165

*** Sample ID: 001777a-07 Seq: 47 13:12:41 12 Sep 2000 HG

Hg -.126 ppb .000 -.126

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 001777a-08 Seq: 48 13:14:46 12 Sep 2000 HG

Hg -.108 ppb .000 -.108

*** Sample ID: 001777a-09 Seq: 49 13:16:52 12 Sep 2000 HG

Hg -.054 ppb .000 -.054

*** Sample ID: 001777a-10 Seq: 50 13:18:58 12 Sep 2000 HG

Hg -.131 ppb .000 -.131

*** Sample ID: 001777a-11 Seq: 51 13:21:04 12 Sep 2000 HG

Hg -.140 ppb .000 -.140

*** Sample ID: pbw2 Seq: 52 13:23:11 12 Sep 2000 HG

Hg -.104 ppb .000 -.104

*** Sample ID: lcsw2 Seq: 53 13:25:17 12 Sep 2000 HG

*** Sample ID: 001777a-12 Seq: 54 13:27:24 12 Sep 2000 HG

Hg -.077 ppb .000 -.077

*** Sample ID: 001777a-13 Seq: 55 13:29:30 12 Sep 2000 HG

Hg .075 ppb .000 .075

*** Sample ID: 001777a-14 Seq: 56 13:31:37 12 Sep 2000 HG

Hg -.102 ppb .000 -.102

*** Sample ID: ccv4 Seq: 57 13:33:44 12 Sep 2000 HG

Hg 5.04 ppb .000 5.04

*** Sample ID: ccb4 Seq: 58 13:35:56 12 Sep 2000 HG

Hg -.147 ppb .000 -.147

*** Sample ID: 001777a-14 Seq: 59 13:38:03 12 Sep 2000 HG

dup

Hg -.100 ppb .000 -.100

Folder: #TEST **PUBLIC FOLDER ** Page 5

15:39:52 12 Sep 2000 Protocol:

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 001777a-14 Seq: 60 13:40:10 12 Sep 2000 HG

spike

Hg .954 ppb .000 .954

*** Sample ID: 001777a-15 Seq: 61 13:42:17 12 Sep 2000 HG

Hg -.103 ppb .000 -.103

*** Sample ID: 001777a-18 Seq: 62 13:44:25 12 Sep 2000 HG

Hg -.158 ppb .000 -.158

*** Sample ID: 001777a-19 Seq: 63 13:46:38 12 Sep 2000 HG

Hg -.226 ppb .000 -.226

*** Sample ID: 001777a-20 Seq: 64 13:48:47 12 Sep 2000 HG

Hg -.204 ppb .000 -.204

*** Sample ID: 001914b-08 Seq: 65 13:50:58 12 Sep 2000 HG

*** Sample ID: 001777b-02 Seq: 66 13:53:08 12 Sep 2000 HG

Hg -.019 ppb .000 -.019

*** Sample ID: 001777b-03 Seq: 67 13:55:20 12 Sep 2000 HG

Hg .036 ppb .000 .036

*** Sample ID: 001777b-04 Seq: 68 13:57:28 12 Sep 2000 HG

Hg -.046 ppb .000 -.046

*** Sample ID: ccv5 Seq: 69 13:59:37 12 Sep 2000 HG

Hg 5.01 ppb .000 5.01

*** Sample ID: ccb5 Seq: 70 14:01:46 12 Sep 2000 HG

Hg -.091 ppb .000 -.091

*** Sample ID: 001777b-05 Seq: 71 14:03:55 12 Sep 2000 HG

Hg -.068 ppb .000 -.068

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 001777b-06 Seq: 72 14:06:04 12 Sep 2000 HG

Hg -.110 ppb .000 -.110

*** Sample ID: 001777b-07 Seq: 73 14:08:13 12 Sep 2000 HG

Hg -.129 ppb .000 -.129

*** Sample ID: 001777b-08 Seq: 74 14:10:23 12 Sep 2000 HG

Hg -.130 ppb .000 -.130

*** Sample ID: 001777b-09 Seq: 75 14:12:32 12 Sep 2000 HG

Hg -.115 ppb .000 -.115

*** Sample ID: 001777b-11 Seq: 76 14:14:43 12 Sep 2000 HG

Hg -.118 ppb .000 -.118

*** Sample ID: 001713a-05 Seq: 77 14:16:53 12 Sep 2000 HG

*** Sample ID: pbw3 Seq: 78 14:19:03 12 Sep 2000 HG

Hg -.118 ppb .000 -.118

*** Sample ID: lcsw3 Seq: 79 14:21:13 12 Sep 2000 HG

Hg -.105 ppb .000 -.105

*** Sample ID: lcsw3 Seq: 80 14:24:07 12 Sep 2000 HG

Hg 5.06 ppb .000 5.06

*** Sample ID: 001713a-05 Seq: 81 14:26:18 12 Sep 2000 HG

dup

Hg -.111 ppb .000 -.111

*** Sample ID: ccv6 Seq: 82 14:28:28 12 Sep 2000 HG

Hg 4.94 ppb .000 4.94

*** Sample ID: ccb6 Seq: 83 14:30:40 12 Sep 2000 HG

Hg -.121 ppb .000 -.121

Folder: #TEST **PUBLIC FOLDER ** Page 7

15:39:52 12 Sep 2000 Protocol:

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: 001713a-05 Seq: 84 14:32:50 12 Sep 2000 HG

spike

Hg 1.06 ppb .000 1.06

*** Sample ID: 001713a-06 Seq: 85 14:35:02 12 Sep 2000 HG

Hg -.099 ppb .000 -.099

*** Sample ID: 001713a-07 Seq: 86 14:37:13 12 Sep 2000 HG

Hg -.120 ppb .000 -.120

*** Sample ID: 001714a-01 Seq: 87 14:39:24 12 Sep 2000 HG

Hg -.156 ppb .000 -.156

*** Sample ID: 001714a-02 Seq: 88 14:41:35 12 Sep 2000 HG

Hg -.149 ppb .000 -.149

*** Sample ID: 001714a-03 Seq: 89 14:43:47 12 Sep 2000 HG

*** Sample ID: 0017148-04 Seq: 90 14:45:58 12 Sep 2000 HG

Hg -.135 ppb .000 -.135

*** Sample ID: 001802c-08 Seq: 91 14:48:10 12 Sep 2000 HG

Hg -.106 ppb .000 -.106

*** Sample ID: 001802d-01 Seq: 92 14:50:21 12 Sep 2000 HG

Hg -.112 ppb .000 -.11

```
id                                    Folder:   #TEST    **PUBLIC FOLDER **   Page
 1
15:45:33 12 Sep 2000                Protocol:
                                  ***POST-RUN REPORT***
Line   Conc.  Units     SD/RSD      1        2        3        4        5
-----------------------------------------------------------------------------

*** Sample ID: 001802d-01                Seq:  92     14:50:21 12 Sep 2000 HG

Hg   -.112    ppb        .000     -.112

*** Sample ID: 001802c-20                Seq:  93     14:52:33 12 Sep 2000 HG

Hg   -.114    ppb        .000     -.114

*** Sample ID: ccv7                      Seq:  94     14:54:44 12 Sep 2000 HG

Hg    5.45    ppb        .000      5.45

*** Sample ID: ccb7                      Seq:  95     14:57:02 12 Sep 2000 HG

Hg   -.118    ppb        .000     -.118

*** Sample ID: 001802b-21                Seq:  96     14:59:17 12 Sep 2000 HG

Hg   -.069    ppb        .000     -.069

*** Sample ID: 001714a-06                Seq:  97     15:01:30 12 Sep 2000 HG

Hg   -.046    ppb        .000     -.046

*** Sample ID: 001914c-07                Seq:  98     15:03:42 12 Sep 2000 HG
                                  tclp
Hg   -.045    ppb        .000     -.045

*** Sample ID: 001915a-01                Seq:  99     15:05:55 12 Sep 2000 HG

Hg   -.016    ppb        .000     -.016

*** Sample ID: 001915a-02                Seq:  100    15:08:08 12 Sep 2000 HG

Hg    .032    ppb        .000      .032

*** Sample ID: 001915a-03                Seq:  101    15:10:21 12 Sep 2000 HG

Hg   -.069    ppb        .000     -.069

** Sample ID: 001915a-04                 Seq:  102    15:12:34 12 Sep 2000 HG

Hg    .030    ppb        .000      .030

*** Sample ID: 001915a-04                Seq:  103    15:14:47 12 Sep 2000 HG
```

15:45:34 12 Sep 2000 Folder: #TEST **PUBLIC FOLDER ** Page 2
Protocol:
POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 001915a-04					Seq: 104	15:17:01 12 Sep 2000 HG		
			spike					
Hg	1.21	ppb	.000	1.21				
*** Sample ID: 001915a-05					Seq: 105	15:19:24 12 Sep 2000 HG		
Hg	-.083	ppb	.000	-.083				
*** Sample ID: ccv8					Seq: 106	15:21:37 12 Sep 2000 HG		
Hg	4.62	ppb	.000	4.62				
*** Sample ID: ccb8					Seq: 107	15:23:54 12 Sep 2000 HG		
	-.124	ppb	.000	-.124				
*** Sample ID: pbw4					Seq: 108	15:26:31 12 Sep 2000 HG		
Hg	-.126	ppb	.000	-.126				
*** Sample ID: lcsw4					Seq: 109	15:28:34 12 Sep 2000 HG		
Hg	4.60	ppb	.000	4.60				
*** Sample ID: 001802c-09					Seq: 110	15:30:48 12 Sep 2000 HG		
Hg	-.178	ppb	.000	-.178				
*** Sample ID: ccv9					Seq: 111	15:32:51 12 Sep 2000 HG		
Hg	5.29	ppb	.000	5.29				
*** Sample ID: ccb9					Seq: 112	15:35:02 12 Sep 2000 HG		
Hg	-.075	ppb	.000	-.075				

ICAP Meta gestion Log

PBW090900C		1	<2.	100	100		C	C	C1	C1	
LCSW090800C		1	<2.	100	100		C	C	C1	C1	
001714A-01		1	<2.	100	100		C	C	C1	C1	
02		1	<2.	100	100		C	C	C1	C1	
03		1	<2.	100	100		C	C	C1	C1	
04		1	<2.	100	100		C	C	C1	C1	
001915A-01		1	<2.	100	100		C	C	C1	C1	
01F		1	<2.	100	100		C	C	C1	C1	
02		1	<2.	100	100		C	C	C1	C1	
02F		1	<2.	100	100		C	C	C1	C1	
03		1	<2.	100	100		C	C	C1	C1	
03F		1	<2.	100	100		C	C	C1	C1	
04		1	<2.	100	100		C	C	C1	C1	
04F		1	<2	100	100		C	C	C1	C1	
04 Dup		1	<2	100	100		C	C	C1	C1	
04 SpK		1	<2	100	100		C	C	C1	C1	
04F Dup		1	<2	100	100		C	C	C1	C1	
04F SpK		1	<2.	100	100		C	C	C1	C1	
05		1	<2.	100	100		C	C	C1	C1	
05F		1	<2.	100	100		C	C	C1	C1	
001714A-06		1	<2.	100	100		C	C	C1	C1	
001802C-08		1	<2.	100	100		C	C	C1	C1	
09		1	<2.	100	100		C	C	C1	C1	
001802C-01		1	<2.	100	100		C	C	C1	C1	
001802C-20		1	<2.	100	100		C	C	C1	C1	

Batch #		Digestion Date	9.8.00	Matrix Spike #1 Lot #	MTL-S-647 0.1ml	QC Check Lot# LCSW	MTL-S-659 0.1ml
Method	3010A	HNO3 Lot #	2741	MS #1 Spike Volume	728 1.0ml		700 0.1ml
Dig. Analyst	Marilyn Colon	HCL Lot #	15	Matrix Spike #2 Lot #	729 1.0ml		701 0.1ml
Pipet calibration	0.1g: 0.1ml / 1.0g: 1.0ml	H2O2 Lot #	—	MS #2 Spike Volume	—		702 0.1ml

Secondary Review By:_____ Date:_____

STL Form# MEF00203.CT

STL Logbook# ME2.46

1777A+B 1802C+D +B
1714A. 1815A

00241

Mercury Preparation and Analysis Runlog
Instrument-PS 200

[redacted]	09/08/00	[redacted]	MTL-W-2281B	[redacted]	MTL-W-2288B
[redacted]	GB	[redacted]	MTL-W-2282B	[redacted]	09/12/00
[redacted]	95°C	[redacted]	5:00	[redacted]	CC
		[redacted]	7:00		

BOD Bottle #	Sample ID	Matrix	Initial	Dilution	Final Volume	Standard B	Comments
	Std. 0.00	Water	25		25	—	
	0.20		24.95		25	0.05	
	1.00		24.75		25	0.25	
	2.00		24.50		25	0.50	
	5.00		23.75		25	1.25	
	10.00		22.50		25	2.50	
1	ICV1		23.75		25	1.25	
2	ICB1		25		25	—	
3	CCV1		23.75		25	1.25	
4	CCB1		25		25	—	
5	PBW090800A		25		25	—	
6	LCSW090800A		23.75		25	1.25	
7	001944A-01		25		25	—	
8	001946A-01		25		25	—	
9	001947A-01		25		25	—	
10	001948A-01		25		25	—	
11	-01D		25		25	—	
12	-01S		25		25	0.25	
13	-01SD		25		25	0.25	
14	-02		25		25	—	
15	CCV2		23.75		25	1.25	
16	CCB2		25		25	—	
17	001948A-03		25		25	—	
18	-04		25		25	—	
19	001949A-01		25		25	—	
20	001954A-01		25		25	—	
21	001777A-01		25		25	—	
22	-02	↓	25		25	—	

Secondary Review By:_____ Date:_____

Mercury Preparation and Analysis Runlog
Instrument-PS 200

[redacted]	09/08/00	[redacted]	MTL-W-2281B	[redacted]	MTL-W-2283B
[redacted]	GB	[redacted]	MTL-W-2282B	[redacted]	
[redacted]	95°C	[redacted]	5:00	[redacted]	
		[redacted]	7:00		

BOD Bottle #	Sample ID	Matrix	Initial	Dilution	Final Volume	Standard B	Comments
23	001777A-03	Water	25		25	—	
24	-04	↓	25		↓	—	
25	-05		25			—	
26	-06		25			—	
27	CCV3		23.75			1.25	
28	CCB3		25			—	
29	001777A-07		25			—	
30	-08		25			—	
31	-09		25			—	
32	-10		25			—	
33	-11		25			—	
34	PBW090800B		25			—	
35	LCSW090800B		23.75			1.25	
36	001777A-12		25			—	
37	-13		25			—	
38	-14		25			—	
39	CCV4		23.75			1.25	
40	CCB4		25			—	
41	001777A-14D		25			—	
42	-14S		25			0.25	
43	-15		25			—	
44	-18		25			—	
45	-19		25			—	
46	-20	↓	25		↓	—	
47	001914B-08	leachate	2.5	10	25	—	
48	001777B-02	water	25		25	—	
49	-03	↓	25		↓	—	
50	-04	↓	25		↓	—	

Secondary Review By:_____ Date:_____

STL Form# MEF00106.CT

STL Logbook# ME16.8

Mercury Preparation and Analysis Runlog
Instrument-PS 200

[redacted]	08/08/00	[redacted]	MTLW-2281B	[redacted]	MTLW-2283B
[redacted]	GB	[redacted]	MTLW-2282B	[redacted]	
[redacted]	95°C	[redacted]	7:00 9:00	[redacted]	

BOD Bottle #	Sample ID	Matrix	Initial	Dilution	Final Volume	Standard B	Comments
51	CCV5	Water	23.75		25	1.25	
52	CCB5		25			—	
53	001777B-05		25			—	
54	-06		25			—	
55	-07		25			—	
56	-08		25			—	
57	-09		25			—	
58	-11		25			—	
59	001713A-05		25			—	
60	PBW090800C		25			—	
61	LCSW090800C		23.95			1.25	
62	001713A-05D		25			—	
63	CCV6 ~~-05S~~		23.75			1.25	
64	CCB6		25			—	
65	001713A-05S		25			0.25	
66	-06		25			—	
67	-09		25			—	
68	001714A-01		25			—	
69	-02		25			—	
70	-03		25			—	
71	-04		25			—	
72	001802C-08		25			—	
73	001802D-01		25			—	
74	C-20		25			—	
75	CCV7		23.75			1.25	
76	CCB7		25			—	
77	001802B-21		25			—	
78	001714A-06		25			—	

Secondary Review By:_____ Date:_____

STL Form# MEF00106.CT

STL Logbook# ME16.8

Mercury Preparation and Analysis Runlog
Instrument-PS 200

[redacted]	09/08/00	[redacted]	MTLW-2281B	[redacted]	MTLW-2281BB
[redacted]	GB	[redacted]	MTLW-2281B	[redacted]	
[redacted]	95°C	[redacted]	7:00	[redacted]	
		[redacted]	9:00		

BOD Bottle #	Sample ID	Matrix	Initial	Dilution	Final Volume	Standard B	Comments
79	001914C-07	Leachate	25	10	25	—	
80	001915A-01	Water	25			—	
81	-02		25			—	
82	-03		25			—	
83	-04		25			—	
84	-04		25			—	
85	-04		25			0.25	
86	-05		25			—	
87	CCV8		23.75			1.25	
88	CCB8		25			—	
89	PBW090800D		25			—	
90	LRSW090800D		23.75			1.25	
91 ~~100~~	CCV9		23.75			1.25	
92 ~~99~~	CCB9		25			—	
92	001802C-09	Water	25		25	—	

Secondary Review By:_____ Date:_____

CLASSICAL CHEMISTRY

Client:	ROUX ASSOCIATES
P.O.	INDUSTRIPLEX
CASE#:	06626M32
SDG #:	A1915
STL ID:	7000-1915A

COVER PAGE - WET CHEM ANALYSES DATA PACKAGE

Lab Name: STL Contract:

Lab Code: STL Case No.: 1915A SAS No.: SDG No.: A1915

SOW No.:

Sample No.	Lab Sample ID
SW-01	001915A-01
SW-04	001915A-02
SW-40	001915A-03
SW-09	001915A-04
FIELD BLANK	001915A-05

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: [illegible] Name: David W. Helfrich

Date: 9/12/00 Title: Group Leader

1
WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

SW-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: 001915A-01

% Solids: 0 Date Received: 08/31/00

CAS No.	Analyte	Concentration	C	Units	Q	M
	TSS	8.0		mg/L		G

Comments:

FORM I - WC

1
WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

SW-04

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: 001915A-02

% Solids: 0 Date Received: 08/31/00

CAS No.	Analyte	Concentration	C	Units	Q	M
	TSS	5.0	U	mg/L		G

Comments:

FORM I - WC

1
WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

SW-40

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: 001915A-03

% Solids: 0 Date Received: 08/31/00

CAS No.	Analyte	Concentration	C	Units	Q	M
	TSS	5.0	U	mg/L		G

Comments:

FORM I - WC

1
WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

SW-09

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: 001915A-04

% Solids: 0 Date Received: 08/31/00

CAS No.	Analyte	Concentration	C	Units	Q	M
	TSS	8.5		mg/L		G

Comments:

FORM I - WC

1
WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FIELD BLANK

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Matrix (soil/water): WATER Lab Sample ID: 001915A-05

% Solids: 0 Date Received: 08/31/00

CAS No.	Analyte	Concentration	C	Units	Q	M
	TSS	5.0	U	mg/L		G

Comments:

FORM I - WC

WET CHEM ANALYSIS

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Analyte	Initial Calib. Blank	C	Continuing Calibration Blank 1	C	2	C	3	C	Prepa-ration Blank	C	units	M
TSS									5.0	U	mg/L	G
TSS									5.0	U	mg/L	G

5
DUPLICATES

SAMPLE NO.

SW-09

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

% Solids for Sample: 0 % Solids for Duplicate: 0

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Units	M
TSS	20	8.5		8.5		0		mg/L	G

FORM V - WC

6
LABORATORY CONTROL SAMPLE

Lab Name: STL Contract:

Lab Code: STL Case No.: 1915A SAS No.: SDG No.: A1915

Analyte	True	LCS Found	%R	units	LCS Source
TSS	105.1	95	90.4	mg/L	

FORM VI - WC

6
LABORATORY CONTROL SAMPLE

Lab Name: STL Contract:

Lab Code: STL Case No.: 1915A SAS No.: SDG No.: A1915

Analyte	True	LCS Found	%R	units	LCS Source
TSS	250.3	221	88.3	mg/L	

FORM VI - WC

HOLD TIME REPORT

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1915A SAS No.: _____ SDG No.: A1915

Analyte : TSS

Client Sample ID	Date Received	Date Prepped	Date Analyzed
SW-01	08/31/00	08/31/00	08/31/00 00:00
SW-04	08/31/00	08/31/00	08/31/00 00:00
SW-40	08/31/00	08/31/00	08/31/00 00:00
SW-09	08/31/00	08/31/00	08/31/00 00:00
SW-09	08/31/00	08/31/00	08/31/00 00:00
FIELD BLANK	08/31/00	09/03/00	09/03/00 00:00

Date Issued : 09/07

!!!!! RUSH !!!!!

STL CT
Departmental Login Report
Job Number: 7000-1915A
Classical Chemistry

7 Samples

Client : ROUX ASSOCIATES-MA
Project Number : R58670-INDUST
Project Name : INDUSTRIALPLEX
SDG # :
Project Manager: Paul Hobart
Project Type :
Sales Person : Joe Vitorale (CT)
Report Type : CLP-LIKE

Copy TSS

SDG COMPLETED!

Sample: 001915A-01 **Client ID:** SW-01 **Priority:**
Received Date: 08/31 **Sample Date:** 08/29 **Due Date:** 09/13 **Verbal Due Date:** 09/13
Comments : BNA-MISC= PAHs, DIETHYLPHTHALATE, BIS-2-ETHYLHEXYLPHTHALATE, 4-METHYLPHENOL

TSS-160.2	WATER	CLP-LIKE	REV	09/05/00

Sample: 001915A-02 **Client ID:** SW-04 **Priority:**
Received Date: 08/31 **Sample Date:** 08/29 **Due Date:** 09/13 **Verbal Due Date:** 09/13

TSS-160.2	WATER	CLP-LIKE	REV	09/05/00

Sample: 001915A-03 **Client ID:** SW-40 **Priority:**
Received Date: 08/31 **Sample Date:** 08/29 **Due Date:** 09/13 **Verbal Due Date:** 09/13

TSS-160.2	WATER	CLP-LIKE	REV	09/05/00

ample: 001915A-04 **Client ID:** SW-09 **Priority:**
Received Date: 08/31 **Sample Date:** 08/29 **Due Date:** 09/13 **Verbal Due Date:** 09/13

TSS-160.2	WATER	CLP-LIKE	REV	09/05/00

Sample: 001915A-04D **Client ID:** SW-09 **Priority:**
Received Date: 08/31 **Sample Date:** 08/29 **Due Date:** 09/13 **Verbal Due Date:** 09/13

TSS-160.2	WATER	CLP-LIKE	REV	09/05/00

Sample: 001915A-04S **Client ID:** SW-09 **Priority:**
Received Date: 08/31 **Sample Date:** 08/29 **Due Date:** 09/13 **Verbal Due Date:** 09/13

TSS-160.2	WATER	CLP-LIKE	REV	09/05/00

Sample: 001915A-05 **Client ID:** FIELD BLANK **Priority:**
Received Date: 08/31 **Sample Date:** 08/29 **Due Date:** 09/13 **Verbal Due Date:** 09/13

TSS-160.2	WATER	CLP-LIKE	REV	09/05/00

Continued on next page

Resse - Clint with the cup pks

Total Suspended Solids (Method 160.2)

Sample ID	Sample Volume (mls)	Gooch ID	Tare Mass (grams)	Final Mass (grams)	TSS (mg/L)	Analyst	Date
PBW000831	500	1	0.2382	0.2367 0.2369	<5.0	Sd	8/31/2
LCS000831	100	2	0.2425	0.2520 0.2521	95.0		
1910A 01	100	3	0.2417	0.2449 0.2449	32.0		
Dr 01	100	4	0.2404	0.2433 0.2434	29.0		
02	100	5	0.2396	0.2411 0.2410			
03	200	6	0.2417	0.2421 0.2426			
04	200	7	0.2391	0.2401 0.2398			
05	200	8	0.2390	0.2559 0.2557			
06	200	9	0.2375	0.2457 0.2453			
07	200	10	0.2373	0.2373 0.2370			
08	300	11	0.2380	0.2392 0.2395			

Solids 0082360214

LCS True Value: 105.10 LCS % Recovery: 90.1 RPD %: 9.83

Initial Class S (20g) 0.20000g Constant Wt. Criteria: 0.0005g Oven Temp. criteria: 104 ± 1°C

Oven Temp. In (C) 105 Oven Temp. Out (C)____ Class S (20g)____
Oven Temp. In (C)____ Oven Temp. Out (C)____ Class S (20g)____
Oven Temp. In (C)____ Oven Temp. Out (C)____ Class S (20g)____

Reviewed by:____ Date:____
STL Form# CVF00803.CT

Total Suspended Solids (Method 160.2)

Sample ID	Sample Volume (mls)	Gooch ID	Tare Mass (grams)	Final Mass (grams)	TSS (mg/L)	Analyst	Date
09	300	12	0.2401	0.2409 0.2409		SJ	8/31/00
10	300	37	0.2386	0.2396			
11	300	38	0.2410	0.2415 0.2419			
1915A01	200	39	0.2380	0.2398 0.2396	8.0		
Dup 1915A04	200	40	0.2389	0.2409 0.2408	8.5		
02	200	41	0.2428	0.2437 0.2434	<5.0		
03	200	42	0.2410	0.2420 0.2418	<5.0		
04	200	43	0.2424	0.2445 0.2441	8.5		
1818A-08	300	44	0.2410	0.2498 0.2495			
1859A-01	200	45	0.2424	0.2604 0.2603	89.5		

LCS True Value: 105.10 LCS % Recovery: NA RPD %: 0.0

Initial Class S (20g) 0.2000 Constant Wt. Criteria: 0.0005g Oven Temp. criteria: 104 ± 1°C

Oven Temp. In (C) 105 Oven Temp. Out (C)____ Class S (20g)____
Oven Temp. In (C)____ Oven Temp. Out (C)____ Class S (20g)____
Oven Temp. In (C)____ Oven Temp. Out (C)____ Class S (20g)____

Reviewed by:____ Date:____
STL Form# CVF00803.CT

Total Suspended Solids (Method 160.2)

Sample ID	Sample Volume (mls)	Gooch ID	Tare Mass (grams)	Final Mass (grams)	TSS (mg/L)	Analyst	Date
PBW000903	500	1	0.2387	~~0.2386~~ 0.2383	<5.00 ~~<10.00~~ MSH 09/12	SW	9/3/12
LCS000903	100	2	0.2419	0.2650 0.2640 0.2644	221		
limit Blank 1922A 01	100	3	0.2437	0.2452 0.2442 0.2443	5		
Dw 01	100	4	0.2411	0.2431 0.2422 0.2422	11		
02	200	5	0.2406	0.2420 0.2411 0.2412			
03	200	6	0.2419	0.2446 0.2436 0.2438			
04	200	7	0.2445	0.2499 0.2490 0.2491			
05	100	8	0.2437	0.2888 0.2879 0.2880			
06	100	9	0.2407	0.2476 0.2467 0.2468			
07	100	10	0.2430	0.2500 0.2494 0.2495			
08	200	11	0.2391	0.2472 0.2461 0.2463			

Subtrk 00009026

LCS True Value: 250.30 LCS % Recovery: 88.22 RPD %: _____

Initial Class S (20g) 0.2000 Constant Wt. Criteria: 0.0005g Oven Temp. criteria: 104 ± 1°C

Oven Temp. In (C) 105 Oven Temp. Out (C) 105 Class S (20g) 0.2000
Oven Temp. In (C) _____ Oven Temp. Out (C) _____ Class S (20g) _____
Oven Temp. In (C) _____ Oven Temp. Out (C) _____ Class S (20g) _____

Reviewed by: _____ Date: _____

Total Suspended Solids (Method 160.2)

Sample ID	Sample Volume (mls)	Gooch ID	Tare Mass (grams)	Final Mass (grams)	TSS (mg/L)	Analyst	Date
1922A 10	200	12	0.2424	0.2491 0.2431 0.2436		SW	8/3/00
11	200	13	0.2399	0.2404 0.2401			
12	200	14	0.2392	0.2393 0.2393			
13	200	15	0.2407	0.3066 0.3067			
1915A-05	250	16	0.2405	0.2413 0.2406 0.2406	~~<10~~ <5.0	MSH 9/12/00	
Dup 05	250	17	0.2391	0.2392 0.2387 0.2390	~~<100~~ <5.0		

LCS True Value:_____ LCS % Recovery:_____ RPD %: NC

Initial Class S (20g)_____ Constant Wt. Criteria: 0.0005g Oven Temp. criteria: 104 ± 1°C

Oven Temp. In (C) 105 Oven Temp. Out (C) 105 Class S (20g) 0.2000g
Oven Temp. In (C) 105 Oven Temp. Out (C) 105 Class S (20g) 0.2000g
Oven Temp. In (C)_____ Oven Temp. Out (C)_____ Class S (20g)_____

Reviewed by:_____ Date:_____

STL Form# CVF00803.CT

STL Logbook#CV8.15

STL/CT PRESERVATIVE RECORD

Job Number: 7000-1915A
Client: ROUX
Client Project:

Lab Number	Preservative	pH	Adjustment	Chlorine Residual	Initials	Date
01-03	HNO3 x2	<2		passed	ML	8-31-00
04	HNO3 x6	<2				
05	HNO3 x2	<2				

ML 8-31-00

STL Form# SMF00202.CT